

User guide

Head Chef

Digital audio workstation

bitsnacks

BITSNACKS USER GUIDE

Head Chef 1 User Guide

Applies to Head Chef 1.0 and later 1.x releases · Reviewed 2026-11-09

Read online at https://bitsnacks.com/head-chef/guide/1

This guide explains how to make a record with Head Chef 1, from setting up your audio interface to rendering the finished mix. Each chapter covers one part of the app and walks through the tasks you do there, with the exact buttons, menus and keys.

If you are new to Head Chef, start with Getting started and then read The workspace. Every chapter stands on its own, so after that you can jump to the task you need. The glossary explains the recording and mixing terms the guide uses.

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CHAPTER 1

Getting started

This chapter takes you from a fresh start to your first saved session. You choose the audio device Head Chef plays through, create, open and save sessions, and then build a short song with an instrument part, a drum part and a quick mix.

Open Head Chef

Head Chef is a desktop app for macOS. Open Head Chef from your Applications folder like any other Mac app.

The menu bar sits at the top of the Head Chef window, with the File, Edit, Settings, Track, Add Instrument, View, Options, Window, Transport and Help menus. The workspace describes each one.

The welcome panel

When no session is open, the middle of the window shows a panel titled Make a start. From here you can:

- click Start a Jam in the green Jam Console card at the top to roll a backing band, play along and keep ideas without creating a Session. See Jam.
- click Open Session… to open a session you saved earlier;
- click New Session… to create an empty or ready-to-play session;
- click Import Audio… to start from audio files you already have;

Recent sessions keeps your last eight opened or saved sessions, newest first, even after you quit. Click a name to reopen it. Use Open Session… to locate a moved or unavailable file.

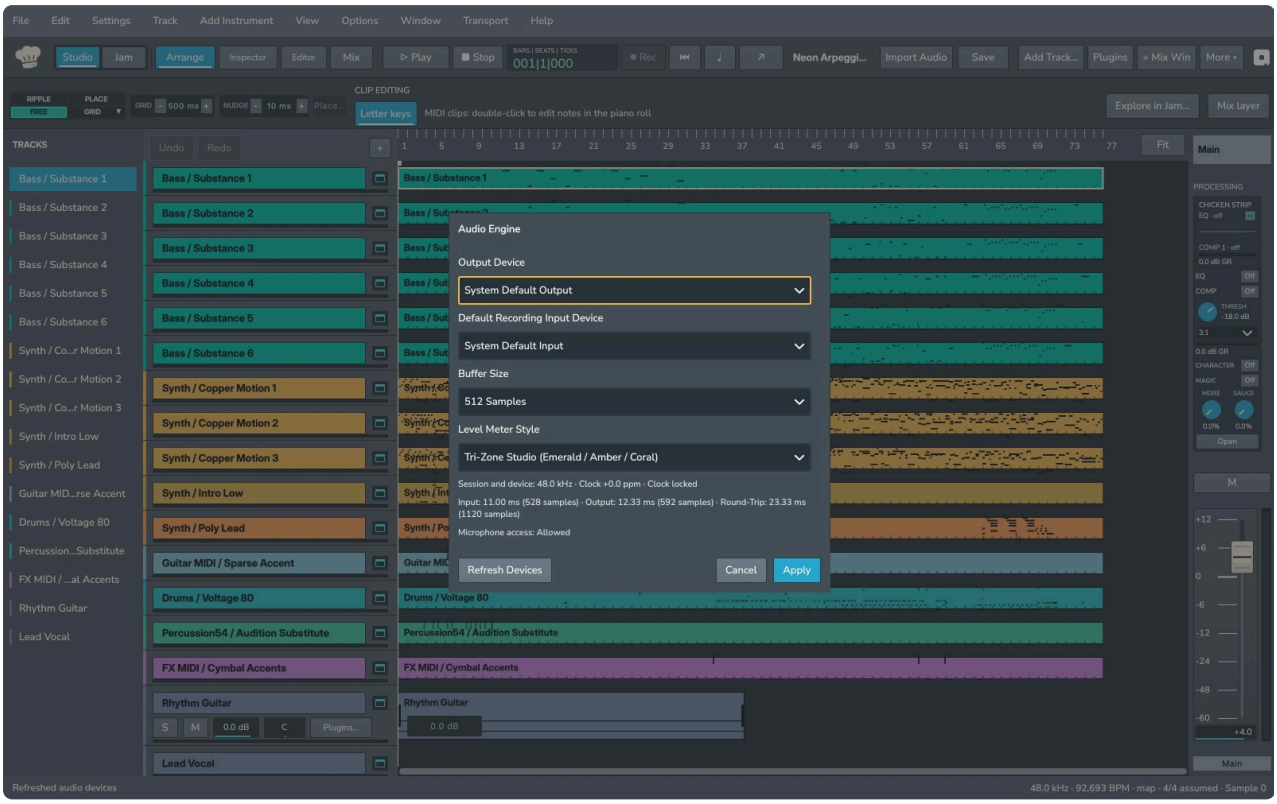
When a session is open but has no tracks, the panel reads This session has no tracks yet and offers Add Instrument Track…, Add Mono Audio Track and Import Audio….

Choose your audio device

Head Chef plays through one output device and records from one default input device. Set them before you start working.

1. Choose Settings > Audio Engine… or press `⌘,`.
2. In Output Device, choose the interface, headphones or speakers you listen on. System Default Output follows the output chosen in macOS. Each device shows its channel count, for example (2 ch).
3. In Default Recording Input Device, choose the input Head Chef uses when you record. System Default Input follows the input chosen in macOS.
4. In Buffer Size, choose a buffer size from 32 to 2048 samples.

5. In Level Meter Style, choose Tri-Zone Studio (Emerald / Amber / Coral) or Monochrome Cyan-Mint. The meters change as soon as you choose.
6. Click Apply. Cancel closes the dialog without changing the device or buffer.



The Audio Engine window with Output Device, Buffer Size and the latency readouts

If you plug in a device while the dialog is open, click Refresh Devices.

The lines under the menus tell you how the engine is running:

- the session and device sample rate, and whether the clock is locked;
- the input, output and round-trip latency, in milliseconds and samples;
- Microphone access, which tells you whether macOS allows Head Chef to use your inputs.

When the session and the device run at different rates, the dialog says so. Play switches the device to the session rate when the device supports it.

> Tip: Smaller buffers make playing and monitoring feel more immediate but ask more of your Mac. Head Chef warns that 32 and 64 sample buffers increase real-time CPU load. If playback crackles, choose a larger buffer.

> Note: Head Chef asks for microphone access the first time you enable an input. If Microphone access reads Blocked, allow Head Chef in System Settings > Privacy & Security > Microphone.

You cannot change the audio engine while a recording is in progress.

Create a session

1. Choose File > New Session... or press `⌘N`.
2. In Session name, type a name. The default is `New beat`.
3. In Sample rate, choose 44.1, 48, 88.2, 96, 176.4 or 192 kHz.
4. In Start with, choose No tracks, Mono audio track, or one of the built-in instruments: Mini Bar, Voltage 80, Voltage 78, Substance or Octet.
5. If you chose an instrument, pick its starting Sound.
6. Click Create.

A new session is eight bars long at 110 BPM in 4/4, as the dialog shows. You can change the tempo, time signature and sample rate later in Settings > Session Settings.... See Tempo and session settings.

To start every new session the same way, set the sample rate and starting track, then click Use as Default. Head Chef confirms with Saved for future sessions.

If the open session has unsaved changes, Head Chef first asks Save changes to this session? Click Save, Don't Save or Cancel.

> Tip: If no session is open and you choose an instrument from the Add Instrument menu, Head Chef opens New Session first and adds that instrument when you click Create.

Open a session

1. Choose File > Open Session... or press `⌘O`.
2. Choose a Head Chef session file, which ends in `.headchef`.
3. Click Open.

You can also drag a session file from Finder onto the Arrange timeline. The Open dialog also accepts other session and MIDI file types; see Importing.

Save your work

- Choose File > Save Session or press `⌘S`. The first time, Head Chef asks for a name and location and saves a `.headchef` file.
- Choose File > Save Session As... or press `^⌘S` to save a copy under a new name.
- Click Save in the toolbar. While a session has unsaved changes, the button reads Save • and a dot follows the session name.

When you close the window with unsaved changes, Head Chef asks whether to save them first.

> Important: Head Chef records only into a saved session. Save a new session before you record. See Recording audio.

Undo a change

Choose Edit > Undo or press `⌘Z` to step back one edit. Choose Edit > Redo or press `⇧⌘Z` to step forward again. The Undo and Redo buttons above the track headers do the same.

Make your first song in ten minutes

This walkthrough builds an eight-bar loop with keys and drums, then mixes and exports it.

Start the session

1. Press `⌘N`.
2. Type a name, leave Sample rate at 48 kHz, and choose Mini Bar in Start with.
3. Pick a Sound, then click Create.

The session opens in Arrange with one Mini Bar track holding an empty eight-bar midi clip.

Write a keys part

1. Double-click the Mini Bar clip. The piano roll opens.
2. Double-click on the grid to add a note. Drag a note to move it, drag its right edge to make it longer, and press `Delete` to remove it. Press `Q` to quantize.
3. Press `Space` to hear the part. Press `Space` again to pause.
4. Click Close to return to Arrange.

If you have a MIDI keyboard connected, select the track and play. Head Chef plays the selected instrument track from any connected keyboard. See MIDI and instruments.

Add drums

1. Choose Add Instrument > Voltage 80. Head Chef adds a track named Voltage 80 with its own empty clip and opens the instrument's window. Close the window when you are ready; the Open button on the track header brings it back.
2. Double-click the Voltage 80 clip and add drum hits in the Piano Roll.
3. Click the ♩ button in the toolbar to turn on the metronome click while you check the timing.
4. Press `Return` to go back to the start, then press `Space` to play both parts together.

Mix and export

1. Click Mix in the toolbar, or press `⌘=`, to see a channel strip for each track. Balance the faders until the drums and keys sit well together. See Mixing.
2. Press `⌘S` to save the session.
3. Choose File > Render Mix… or press `⌥⌘B` to write the song to an audio file. See Rendering.

> Tip: Every edit in this walkthrough can be undone with `⌘Z`, so try things freely.

CHAPTER 2

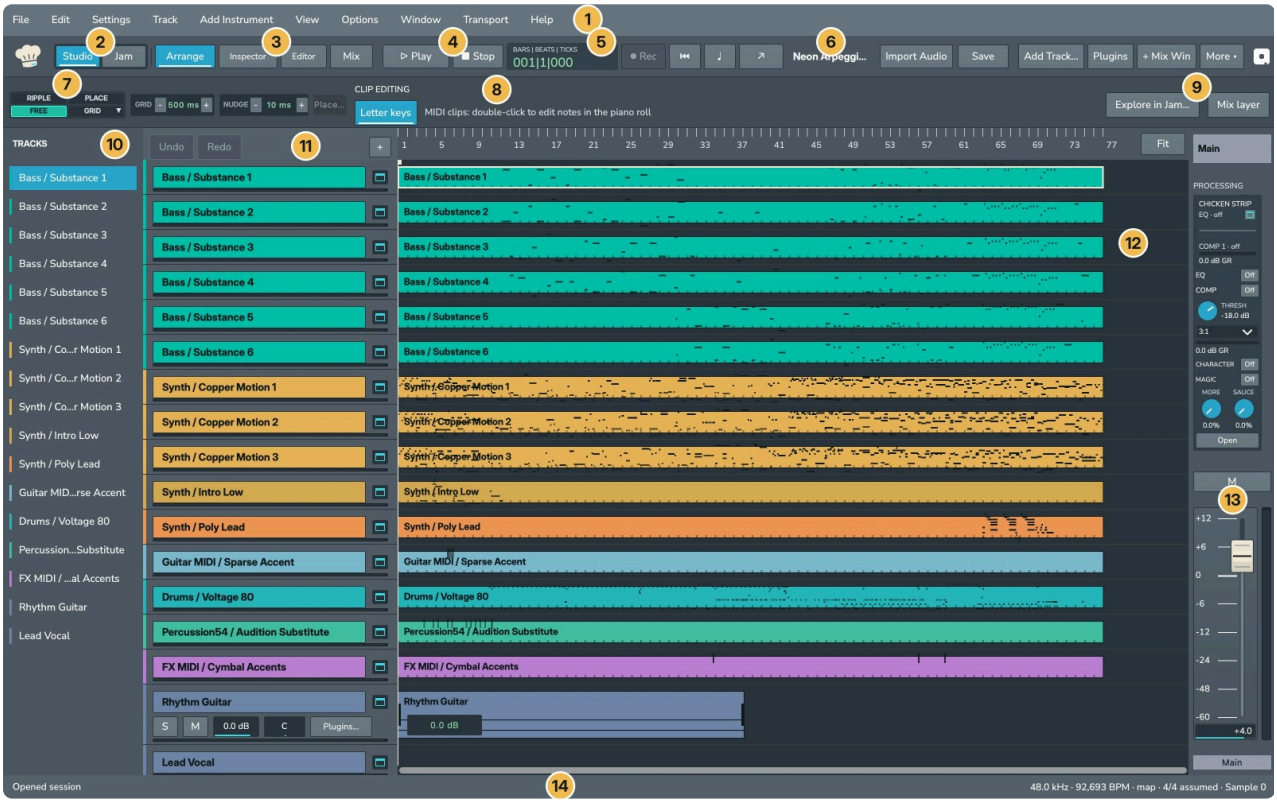
Interface overview

This chapter is a map of the Head Chef window. After reading it you can name every area of the screen, say what each one is for, and jump to the chapter that explains it in detail. It also explains the three ideas that tie the areas together: the selected track drives what you see, Arrange and Mix are two views of one session, and Studio and Jam are two separate places to work.

For how to rearrange the window itself, such as track heights, the More menu and separate windows, see The workspace.

The Arrange view

Arrange is where you build a song along a timeline. The picture shows a session with instrument and audio tracks, with the first track selected.



The Head Chef window in Arrange, with numbered markers on each area of the screen

#	Area	What it does	Learn more
1	Menu bar	Every command, grouped in the File, Edit, Settings, Track, Add Instrument, View, Options, Window, Transport and Help menus.	Menu reference
2	Studio and Jam	Studio identifies the session window. Jam ↗ opens the separate Jam window for ideas.	Jam

#	Area	What it does	Learn more
3	View buttons	Arrange and Mix switch the view. Inspector shows the selected channel's controls and Editor shows the selected clip. Narrow windows show ◧ and ▤ instead.	The workspace
4	Transport	▷ Play and ■ Stop. After the clock come ● Rec, ⏮ (Go to Start), ♩ (metronome) and ↗ (Floating Transport). Wider windows add rewind and forward.	Transport and navigation
5	Clock	Shows where the cursor is. The small heading names the format, here bars, beats and ticks. Click to change the format.	Transport and navigation
6	Session name and toolbar actions	The session name, followed by a dot while changes are unsaved. Then Import Audio, Save, Add Track..., Plugins, + Mix Win and More ▾, which holds the buttons that do not fit.	Sessions, The workspace
7	Edit modes, grid and nudge	RIPPLE, FREE, PLACE and GRID decide how clips move when you drag them. GRID and NUDGE set the step sizes with their minus and plus buttons.	Editing audio
8	Clip editing	Letter keys turns the Arrange letter shortcuts on or off. Beside it, a hint explains how to edit clips on the selected track.	Keyboard shortcuts
9	Explore in Jam and Mix layer	Explore in Jam... opens the transfer review, whose limits are explained in Jam. Mix layer shows mixing controls on the tracks in Arrange.	Jam, Mixing
10	Tracks list	TRACKS lists every track by name. Click a name to select that track.	The workspace
11	Track headers	Each track's name in its color. Taller headers add S, M, level, pan and Plugins.... Above them sit Undo, Redo and +, which adds a mono audio track.	Tracks
12	Ruler and timeline	The ruler counts bars and beats, or time. Below it, each track's clips sit in a row. Fit at the end of the ruler shows the whole session.	Transport and navigation, Editing audio
13	Main channel	The Main strip for the whole mix: its processing, M, fader and meter.	Mixing
14	Status bar	On the left, the last thing that happened, here Opened session, plus progress and messages. On the right, the sample rate, tempo, time signature and cursor position in samples.	The workspace

> Tip: Hover over a toolbar button to see a short description of what it does, and its shortcut where it has one.

The Mix view

Mix shows the same tracks as a row of channel strips, like a mixing desk. Click Mix in the toolbar, choose View > Mix, or press ⌘= to switch between Arrange and Mix.



The Head Chef window in Mix, with numbered markers on the parts of a channel strip

#	Area	What it does	Learn more
1	View buttons	Mix is lit while the Mix view is showing. Editor is dimmed because it belongs to Arrange.	The workspace
2	Strip top	The channel name in the track's color, Preset... for channel presets, and the instrument or input. On an instrument track, the ▾ button changes the instrument.	Mixing
3	Processing	PROCESSING shows Chicken Strip at a glance and the channel's effects. Open shows the full controls.	Mixing
4	Solo and Mute	S solos the channel and M mutes it.	Mixing
5	Pan	The pan knob, with its position below it: C for center, or a side and amount such as *L12* or *R8*.	Mixing
6	Fader and meter	The fader sets the channel level, shown in dB below it. The meter beside it shows the signal.	Mixing
7	Sends	Sends sits above the processing controls and shows the count in parentheses, for example *Sends (2)*. Click it to edit that channel's sends.	Mixing
8	Main channel	Main stays pinned at the right edge however far you scroll.	Mixing
9	Status bar	The same status bar as in Arrange.	The workspace

A light outline marks the selected channel, here the first strip. When there are more strips than fit, scroll sideways along the row.

How the areas work together

The selected track drives the screen

Head Chef has one selected track at a time. Click a name in the TRACKS list, a track header, a clip or the name at the top of a Mix strip to select it. Many areas then follow that selection:

- The Inspector shows the selected channel's sound, processing and sends.
- Editor shows the selected clip along the bottom of Arrange.
- The clip editing hint in area 8 changes to match the selected track, for example MIDI clips: double-click to edit notes in the piano roll.
- Track keys act on the selected track: `⇧S` solos it, `⇧M` mutes it, `⇧R` arms it for recording, and `⌘↑` and `⌘↓` make it taller or shorter.
- A connected MIDI keyboard plays the selected instrument track. See Connect your hardware.

The selection is shared by every view and window, so selecting a strip in the Mix Window selects the same track in Arrange.

> Note: In Arrange, the Inspector opens on the left of the window. When the Main channel is selected, it opens beside the Main strip on the right instead.

Arrange and Mix are two views of one session

Arrange and Mix are not separate documents. A fader you move in Mix moves in the Arrange mix layer, and a track you add in Arrange appears in Mix straight away. Undo works the same in both.

To see both at once, keep Arrange in the main window and open Mix in its own window:

1. Choose Window > Mix Window, click + Mix Win in the toolbar, or press `⇧⌘=`.
2. Move the Mix Window to another part of the screen or another display.

To mix without leaving Arrange, click Mix layer in the edit toolbar. Each track then shows its mixing controls next to its clips. See Mixing.

Studio and Jam are two places to work

Studio and Jam have separate windows and keep their musical material independently.

- Studio is your session: a song you arrange, edit, mix and render. It holds the Arrange and Mix views.
- Jam is a sketchpad in its own window. Click Jam ↗ to open it and save ideas in Your jams, separately from any session.

You can jam without creating a session or keeping the Studio window open. The Jam window has its own ▶ PLAY, Your jams, + New Jam, Save Jam and the Studio transfer button controls. Click Studio to bring Studio forward while leaving Jam open. Closing Studio leaves Jam available.

Material moves between the two only when you ask:

- the Studio transfer button in Jam prints a jam to tracks in your session.
- Explore in Jam… in Studio opens a review. It does not copy the selected notes or audio in Head Chef 1.0. Your session does not change.

See Jam for both.

When the window is smaller

Head Chef fits the window to the space it has. In a narrower window:

- the Inspector and Editor buttons show symbols, and Import Audio becomes Import;
- buttons that do not fit move into More ▾, shown as ⋯ in very narrow windows;
- the TRACKS list is hidden; select tracks by their headers instead.

Widen the window, or use full screen, to bring them back. For the details, see The workspace.

Find your way back

- Press ⌥⌘1 to show Arrange and put the keyboard on the timeline.
- Press ⌘= to switch between Arrange and Mix.
- Choose Help > Keyboard Shortcuts… to search every shortcut. See Keyboard shortcuts.
- Choose Help > Head Chef 1 User Guide to open this guide.

CHAPTER 3

How Head Chef works

This chapter explains the few ideas the rest of the guide builds on. You can start making music without it, but these ideas help you predict what Head Chef does: why trimming a clip never damages your audio, why a recording stays put when you change the tempo, why a letter key sometimes does nothing, and what Edit > Undo can and cannot reverse.

Sessions, tracks, clips and channels

A session is one song. It holds your tracks, your mix, the tempo and time signature, and one sample rate for all of its audio. You save it as a file ending in `.headchef`.

Inside a session, four kinds of things make sound or carry it:

Item	What it holds	Example
Audio track	One audio clip, once you record or import one	A vocal take
Instrument track	One instrument and one MIDI clip with its notes	Mini Bar playing chords
Effect Return	One shared effect, and no clip	A Voltage Spaces reverb fed by several tracks
Main	The sum of everything else, and no clip	The MASTER strip in Mix

A track is a lane in Arrange that can hold a clip. A channel is the part that mixes a sound: its processing, fader, pan, solo and mute. Every track has its own channel, which you see as a channel strip in Mix. An instrument track gets its sound from an instrument instead of a recording. Effect Returns and Main are channels without clips: they only receive sound from other channels. A session holds up to four Effect Returns and always has one Main.

In Head Chef 1 each audio track holds a single clip, and selecting the clip is the same as selecting its track. To keep a second take of a vocal, record it on a second audio track. Only an empty audio track can be armed for a new take.

Example: a new session that starts with Mini Bar has one instrument track holding an empty eight-bar MIDI clip. Double-click the clip to write notes; open Mix to see the track's channel strip next to MASTER.

To add and organize tracks, see Tracks. To work with channels, see Mixing.

Edits never change your audio files

Head Chef edits are non-destructive. A clip does not contain audio; it points at an audio file and says how to play it:

- Source in and Source out: the part of the file that plays, counted in samples;
- the timeline start: where on the timeline that part begins;

- Clip gain: how loud the clip plays, from -144 dB to +36 dB;
- Fades: how the clip's start and end ramp up and down while it plays. In Head Chef 1.0 fades are shown on the clip but are not heard; see Add fades.

Moving, trimming, placing, nudging, fading and changing clip gain only change these values. The audio file itself is never rewritten.

Example: you trim the start of a take to cut off a breath. Later you want the breath back, so you drag the clip's left edge out again. The audio is still there, because the trim only moved the clip's source-in point. Open the Editor panel to see the exact Source in / samples and Source out / samples values for the selected clip.

Because a clip keeps the sample rate of its source, a session's sample rate is fixed once it holds audio. Session Settings then explains Sample rate is fixed because audio clips keep their source sample rate.

Where your audio is kept

When you save, Head Chef writes the session file where you choose, a copy of the session's audio into a hidden `.headchef-media` folder next to it, and your takes into a hidden `.headchef-recordings` folder, which it fills while you record. The files you imported stay where they were, unchanged. Keep the session file and both folders together when you move or back up a session.

To shape clips, see Editing audio. To learn more about takes, see Recording audio.

Two kinds of time

Head Chef keeps time in two ways at once.

- *Samples* are the audio's own clock. At 48 kHz there are 48,000 samples in each second. Audio clips, the playhead position and the Arrange grid and nudge steps are measured this way, which is why the grid reads in milliseconds and samples rather than in note values.
- *Musical time* counts bars, beats and ticks. The time signature sets how many beats make a bar, and the tempo sets how long each beat lasts. In a new session, a quarter note is 960 ticks.

The session's tempo can be a single value or a tempo map, a list of tempo changes at their own positions. Head Chef uses the tempo map to translate between the two clocks, for example to show which bar and beat a sample position falls on.

What happens when you change the tempo depends on which clock an item follows:

Follows the tempo	Stays on its sample position
MIDI clips and notes	Audio clips
The metronome and count-in	The Arrange grid and nudge steps
The bar lines on the ruler	
Voltage Spaces echo with Echo Sync on	

Example: you record a vocal at 110 BPM, then raise the tempo to 120 BPM. Your MIDI drums play sooner and closer together. The vocal stays exactly where it was in time, at its original speed and pitch, and the bar lines move around it. So set the tempo before you record audio that has to line up with the bars.

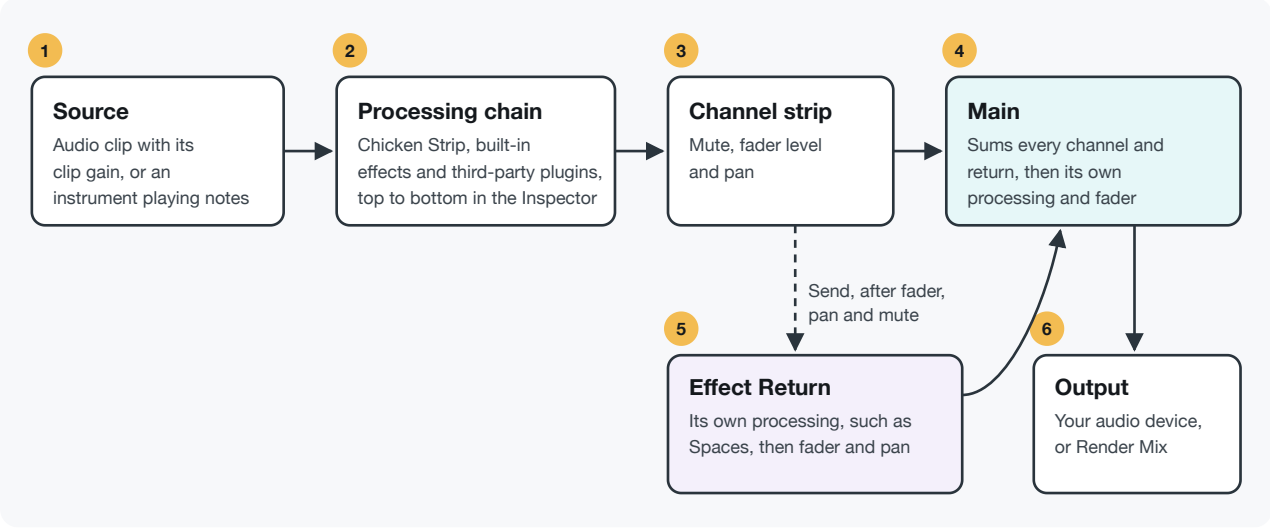
Clock formats

The clock in the toolbar can show the cursor position in three formats: BARS | BEATS | TICKS, MIN : SEC . MS and SAMPLES. Click the clock to step through them. Until you choose, Head Chef shows bars and beats when the session has instrument tracks, and minutes and seconds when it holds only audio. The status bar always shows the position in samples as well.

To change the tempo, see Tempo and session settings. For the clock and ruler, see Transport and navigation.

The signal path

Every sound you hear travels the same route through Head Chef, and Render Mix uses the same route to write your song to a file.



Head Chef channel signal flow: source, processing chain, channel strip, Main, Effect Return and output

1. *Source.* The sound starts as an audio clip, with its clip gain, or as an instrument playing the notes in its MIDI clip.
2. *Processing chain.* The channel's processing runs from top to bottom as listed in the Inspector's Chain tab: Chicken Strip first, then any built-in effects and third-party plugins you add.
3. *Channel strip.* Mute, the fader level and pan come next. Solo also acts here.
4. *Main.* Main adds together every channel and Effect Return, then applies its own processing and fader.
5. *Effect Return.* A send taps a channel after its fader, pan and mute, so turning the channel down also turns down what it sends. The Effect Return runs its own processing, such as Voltage Spaces, then its own fader and pan, and feeds Main like any other channel.
6. *Output.* Main plays through your audio device, or into the file when you choose File > Render Mix....

Example: to put a vocal and a keys part in the same reverb, add one Effect Return with Voltage Spaces and give both channels a send to it. Pull the vocal fader down and its reverb follows, because the send comes after the fader.

To build chains and sends, see Mixing. To write the file, see Rendering.

Selection and keyboard focus

Many controls act on what is selected. Click a track's name button or its clip to select it. The selected track then drives:

- the Inspector, which shows that channel's processing, sends and controls in Arrange and Mix;
- the Editor panel and the Region Editor Window, which show the selected clip;
- the commands that act on one track, such as `⇧S` for solo, `⇧M` for mute and `⇧R` to arm;
- the instrument a connected MIDI keyboard plays.

Keyboard focus is a separate idea: it decides which part of the window receives your key presses. Single-letter shortcuts, such as `A` to trim or `D` to fade in, act only while the Arrange timeline has keyboard focus and letter shortcuts are on. This keeps typing safe: when you type a track name or a value in a field, the letters go into the field and never edit your song.

Example: you type a tempo in Session Settings, close the window and press `A`, and nothing happens. Click the timeline, or press `⌥⌘1`, to give Arrange keyboard focus, then press `A` again. Turn letter shortcuts on or off with Options > Arrange Letter Shortcuts (A–Z).

See Editing audio and Keyboard shortcuts.

One history for the whole session

Head Chef keeps one edit history for the whole session. Adding a track, moving or trimming a clip, a finished clip gain change, a note edit, a fader move, a new send, a track height change and applying Session Settings are each one step. Edit > Undo (`⌘Z`) steps back and Edit > Redo (`⇧⌘Z`) steps forward, whichever view or window you made the change in.

- Head Chef keeps up to 512 steps within a fixed amount of memory, so very large edits can leave room for fewer. When the history is full, the oldest steps are dropped.
- Opening or creating a session starts a new history.
- Undo and Redo wait while you drag, type in a field, adjust a control or record.

Some changes are not steps in the history, so Undo does not reverse them: fades, sync points, clip mute and clip lock; where the cursor is; zoom and the clock format; the metronome and count-in; and settings that belong to your Mac rather than the session, such as Audio Engine and Control Surface. Change these directly.

Example: you import three files at once, then add a send and move a fader. Pressing `⌘Z` three times reverses the fader move, then the send, then the whole import in one step.

For the full list, see Editing audio.

Studio and Jam

Studio and Jam use separate windows in Head Chef: Studio is for arranging and mixing a session, and Jam is for sketching ideas. Click Jam ↗ in Studio to open Jam, or Studio in Jam to bring Studio forward. A jam is not part of a session: you can play and save a jam with no session open, and closing Studio does not close Jam.

Ideas move between them as copies:

- the Studio transfer button prints a jam to new, independent Studio tracks. Backing parts become editable instrument tracks with their sounds retained. Audio already stored in a jam becomes copied audio media. You choose Keep Jam timing or Fit Studio tempo. Printing into an open session is one step in the edit history.
- Explore in Jam… opens a transfer review. In Head Chef 1.0, this review does not copy the selected Studio notes or audio into Jam. Your session does not change.

Example: you roll a groove in Jam, hold the bass line you like and click Open editable tracks →. The backing parts land in your session at the playhead, where you edit and mix them like any other track. The jam and its window stay available.

See Jam.

Many hands on one session

Your mouse and keyboard, a control surface and an AI assistant connected through MCP all work on the same open session, not on copies.

- A change from any of them appears in Arrange and Mix straight away.
- All of them share the one edit history, so Edit > Undo reverses an assistant's edit or a fader move on your surface the same way it reverses your own.
- If you change the session after the assistant last read it, its next edit is refused rather than overwriting your work. The assistant reads the session again and retries.
- Motorized faders and lights on a surface follow the changes you make in the window.

Example: an assistant adds a send while you adjust the vocal fader on your control surface. Both changes show in Mix, and two presses of ⌘Z reverse them.

See Control surfaces and assistants.

Preparing playback

Some instrument parts, such as those played by Octet, are rendered ahead of time so they play back smoothly. When you press Play after such a part has changed, Head Chef first prepares it. The status bar shows Preparing playback… with a percentage, the Play button reads Cancel, and playback starts when preparation finishes.

What this means for you:

- The wait happens the first time you play such a part after opening the session, and again after something it depends on changes: its notes or sound, the tempo, the time signature or the sample

rate. Playing again without changes usually starts straight away.

- Click Cancel to stop waiting. Nothing in your session changes.

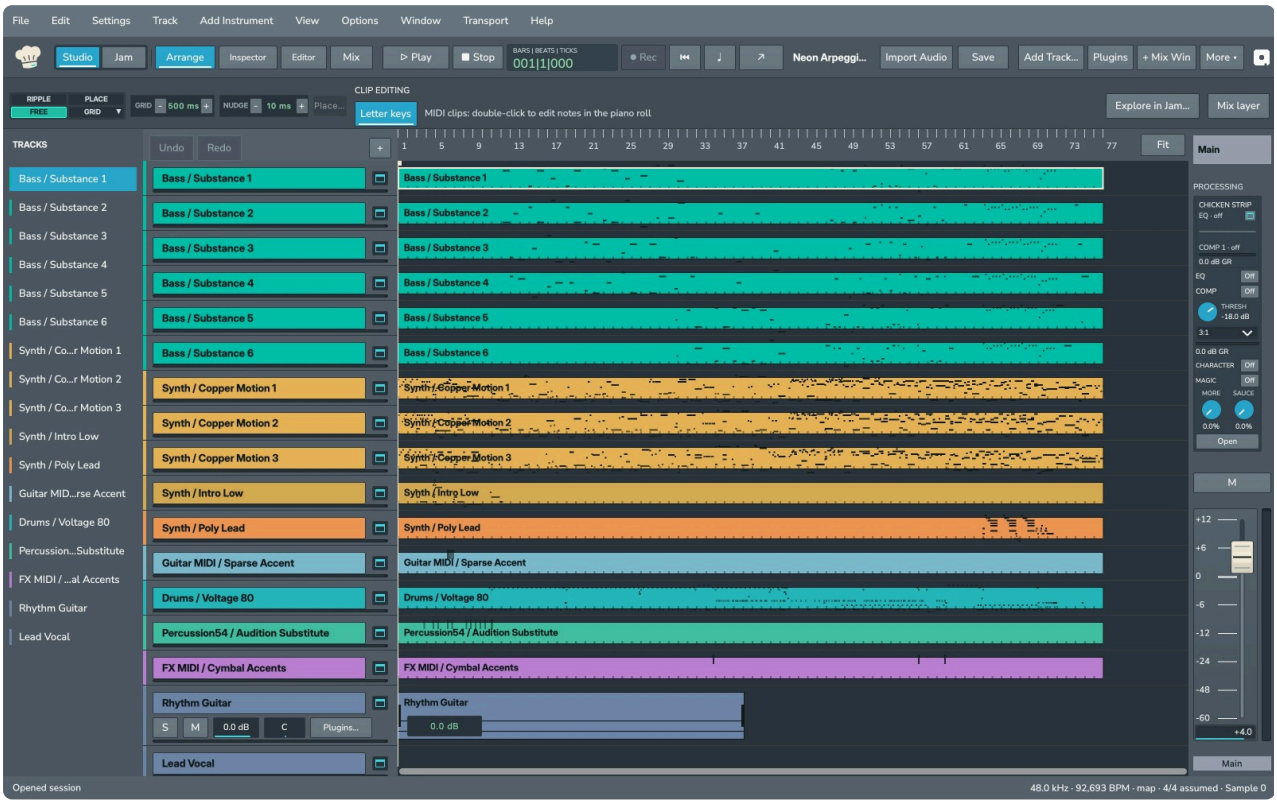
Example: you edit a few notes in an Octet pad and press `Space`. The status bar counts up to 100 percent, then the song plays. Press `Space` again later and it plays at once.

See Transport and navigation and MIDI and instruments.

CHAPTER 4

The workspace

This chapter shows you around the Head Chef window, so you know where each control lives and how to arrange the screen for the job in front of you. It covers Studio and Jam, the Arrange and Mix views, the toolbar and menus, the side lists, track and waveform sizes, separate windows and the status bar.



The Head Chef main window in Arrange, with the toolbar, track headers, timeline and Main output

Studio and Jam

Studio and Jam have separate windows. Click Jam ↗ at the left of the Studio toolbar to open Jam.

- Studio is where you arrange, edit and mix a session. It holds the Arrange and Mix views.
- Jam is a sketchpad for musical ideas. Its window has Studio, ▶ PLAY, Your jams, + New Jam, Save Jam and the Studio transfer button. You can jam without an open session or Studio window. See Jam.

Switch between Arrange and Mix

In Studio, click Arrange or Mix in the toolbar, choose View > Arrange or View > Mix, or press ⌘= to switch between them.

- Arrange shows your tracks from top to bottom with their clips along a timeline. Track headers on the left hold each track's name, S (Solo) and M (Mute) buttons and a Plugins... button. The Main output section sits on the right.
- Mix shows a channel strip for each track side by side, with Main on the right. See Mixing.



The Mix view with a channel strip for each track and Main on the right

To put the keyboard back on the Arrange timeline from anywhere, press ⌥⌘1.

Show the Inspector and Editor

- Click Inspector to show the selected track's channel details beside Arrange or Mix. Click it again, or click Close in the panel, to hide them.
- Click Editor to show the selected clip's details along the bottom of Arrange, including its clip gain. Editor is available in Arrange when a clip is selected.

In narrower windows these buttons show the symbols ◧ (Inspector) and ▤ (Editor).

The toolbar

The toolbar runs across the top of the window, below the menu bar.

Control	What it does
Chef's hat	Plays the Head Chef sound. See Transport and navigation.
Jam ↗	Opens the separate Jam window.
Arrange, Inspector, Editor, Mix	Switches view and shows or hides side panels.
▷ Play and ■ Stop	Start, pause and stop playback.
Clock	Shows the cursor position. Click to change its format.

Control	What it does
● Rec	Gets a recording ready. See Recording audio.
⏮, ⏪, ⏩	Go to Start, rewind and forward two seconds.
♩	Turns the metronome click on or off. Right-click for its settings.
Deck ↗	Opens or closes the Floating Transport.
Session name	Shows the session name, with a dot when there are unsaved changes.
Import Audio	Imports audio files. See Importing.
Save	Saves the session.
Add Track...	Adds a track. See Tracks.
Plugins	Shows or hides the plugin browser. See Plugins.
+ Mix Win	Opens the Mix Window.
MIDI	Shows MIDI keyboard input settings. See MIDI and instruments.
+ Region Ed	Opens the Region Editor Window.

Transport buttons are described in Transport and navigation.

Use the More menu

When the window is too narrow for every toolbar button, Head Chef shortens some labels and moves the extra buttons into a More ▾ menu (shown as ⋯ in very narrow windows). Depending on the width, the menu holds Add Track..., Plugins, Mixer Window, MIDI Keyboard... and Region Editor Window. A dot after an item means that window or panel is open. Jam ↗ stays at the left of the toolbar.

At narrower widths the rewind and forward buttons leave the toolbar. They stay available in the Floating Transport and on the keyboard.

The edit toolbar

In Arrange, a second bar sits below the toolbar. It holds:

- the edit mode buttons (RIPPLE, FREE, PLACE and GRID) with the grid and nudge sizes. See Editing audio;
- Letter keys, which turns the Arrange letter shortcuts on or off. See Keyboard shortcuts;
- Explore in Jam..., which opens a transfer review; see its current limits;
- Mix layer, which shows mixing controls on each track in Arrange.

The menus

Menu	What you find there
File	New Session..., Import Audio..., Open Session..., Save Session, Save Session As..., Render Mix... and Close.
Edit	Undo and Redo.
Settings	Session Settings..., Audio Engine... and Control Surface....
Track	Add Track (with Add Mono Audio Track and Add Instrument Track) and Add Effect Return.
Add Instrument	One item for each built-in instrument: Voltage 80, Voltage 78, Substance, Octet and Mini Bar.
View	Arrange and Mix, side panels and overlays, zoom and fit, track heights and waveform size.
Options	Tape Scrub Sound, Arrange Letter Shortcuts (A–Z), Count-In and Metronome Click.
Window	Mix Window, Region Editor Window, Floating Transport and Open Multi-Window Studio Workspace.
Transport	Play, Stop and Record. The first item's name changes with what it will do, such as Pause or Start Recording.
Help	Head Chef 1 User Guide and Keyboard Shortcuts....

The View menu also holds Arrange Mix Layer, Clips, Plugin Browser, Clip Gain Badges and Clip Gain Line. A check mark shows each one that is on.

You can also right-click in many places. Right-click a track header for Track Actions such as Toggle Solo, Toggle Mute, Reset Gain to 0.0 dB, Reset Pan to Center and Track Height. Right-click the empty area below the track headers, or empty space in Mix, to add a track.

The Tracks list and Clips list

When the window is wide enough, a TRACKS list runs down the left edge of Arrange. Click a name to select that track. You can drop a plugin from the plugin browser below the list to create a new track.

To show the CLIPS list on the right of the timeline, choose View > Clips. Each row names a track's clip and shows its length, its note count for an instrument track, or Empty. Click a row to select that clip. The Clips list needs a wide window; if you do not see it, widen the window.

Change track heights

Each Arrange track can be one of six heights: Micro, Tiny, Small, Medium, Large and Jumbo. Taller tracks show more of the waveform or notes and more controls in the header.

To set one track directly:

1. Right-click the track header.

2. Choose Track Height, then a size.

To step through the sizes:

- View > Taller Selected Track or `⌘↑` and View > Shorter Selected Track or `⌘↓` change the selected track.
- View > Taller All Tracks or `⌥⌘↑` and View > Shorter All Tracks or `⌥⌘↓` change every track together.

Track heights are part of the session, so Edit > Undo restores the previous height.

Magnify waveforms

Quiet recordings can be hard to see. Choose View > Taller Waveforms to magnify audio waveforms in Arrange, up to 16 times. Choose View > Shorter Waveforms to step back. The shortcuts are `⌥⌘]` and `⌥⌘[`.

Magnifying changes only the picture. What you hear does not change.

Open separate windows

Head Chef can spread your work across several windows, for example across two displays. Choose these from the Window menu:

- Mix Window opens the mixer in its own window, titled with your session name. It has its own Stop and Record buttons and clock. Click Dock to close it and show Mix in the main window. Shortcut: `⇧⌘=`.
- Region Editor Window opens the selected clip in its own window: the piano roll for a MIDI clip, or the audio clip editor for an audio clip. It follows your clip selection. Click Close to hide it.
- Floating Transport opens a small transport window that stays on top of other windows, with two clocks and the transport, Count-In and Click buttons. Shortcut: `⌘ Num 1` (the 1 key on the numeric keypad).
- Open Multi-Window Studio Workspace shows Arrange in the main window and opens the Mix Window and Floating Transport together.

Instrument and plugin windows also open separately. They stay linked to the track they belong to, so you can keep several open while you work. See Plugins.

Jam always uses its own window, opened with Jam ↗. It can stay open when Studio closes. In Jam, click Studio to bring Studio forward; both windows remain available.

To close the window you are working in, press `⌘W` or choose File > Close. In the main window, Head Chef asks first if you have unsaved changes.

The status bar

The bar along the bottom of the main window tells you what just happened and where you are.

- On the left, Head Chef shows the last action, such as Added instrument, or Ready. While a clip edit is in progress it shows how to apply or cancel it. Playback and recording progress, such as Preparing playback..., also appears here, with a Cancel button when you can stop it.

- Messages that need your attention appear in amber with a Dismiss button. An audio import shows its progress and a Cancel import button.
- The keyboard readout shows where computer keys currently go, such as *Keys: Arrange*, *Keys: Mix*, *Keys: Piano roll* or *Keys: Text entry*. It follows the active window and control, independently of the selected track. *Keys: Controls* means a button or another control has focus.
- With an audio track selected while stopped, the bar can show the next recording setup step beside the last action. Errors, imports, live edits, playback and recording progress take priority over this hint.
- On the right, Head Chef shows the session sample rate, tempo and time signature, and the cursor position in samples, for example Sample 96,000. In narrow windows only the sample rate and position fit. In very wide windows the rate, tempo and time signature move up into the toolbar.
- After you start a render, a Rendering… or Render Result button appears. See Rendering.

Language and number formats

Head Chef's menus, dialogs and messages are in English, whatever language your Mac uses. The macOS Open and Save panels follow the same choice.

Numbers follow your Mac's region where that helps reading. Tempo readouts and the cursor position in the status bar use your regional decimal separator and digit grouping, so in a German or Dutch region a tempo of 92.693 BPM reads 92,693 BPM. Level and frequency readouts, such as dB and kHz values, and the numbers you type into value fields always use a period as the decimal point.

CHAPTER 5

Sessions

This chapter is the full reference for Head Chef sessions. You will learn what a session holds, every choice in the New Session window, which files Head Chef can open, how saving and Save Session As work, what happens to unsaved changes, which files a session keeps next to it, and how to move or back up a session without losing audio. For the quick path, see Getting started.

What a session holds

A session is one song. When you save it, Head Chef stores:

- its name, sample rate, pan depth, tempo and time signature, including any tempo map;
- every track, its clips and their edits, its notes, its instrument and sound, and its recording input;
- the mix: faders, pan, solo, mute, Chicken Strip, effects, plugins and their settings, sends, Effect Returns and Main;
- folders, groups, VCA masters and track heights;
- the audio the session plays.

Some settings belong to Head Chef on your Mac rather than to a session, so opening a session never changes them:

Setting	Where you set it
Audio devices, buffer size and meter style	Settings > Audio Engine…. See Connect your hardware.
MIDI keyboard input	The MIDI button in the toolbar.
Control surface ports	Settings > Control Surface…. See Control surfaces and assistants.
New session defaults	Use as Default in the New Session window.
Saved jams	Your jams in Jam. See Jam.

The edit history is not saved. When you open a session, Edit > Undo starts fresh from that point. See undo history.

Create a session

1. Choose File > New Session… or press `⌘N`. With no session open, you can also click New Session… on the start screen.
2. Fill in the fields described below.
3. Click Create, or Cancel to close the window without creating anything.

If the open session has unsaved changes, Head Chef first asks whether to save them. See Close a session.

The New Session window

Field	What it does
Session name	The name shown in the toolbar, the window title and the Render Mix window. It starts as `New beat`.
Sample rate	The session's sample rate: 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz or 192 kHz.
Start with	The first track. See the table below.
Sound	Shown when Start with is an instrument. The instrument's starting sound.
Use as Default	Saves the current Sample rate, Start with and Sound as the starting choices for every new session on this Mac. Head Chef confirms with Saved for future sessions.

The line at the bottom, Eight bars · 110 BPM · 4/4, describes every new session: eight bars long, at 110 BPM in 4/4. Change these afterwards in Settings > Session Settings....

Choose what a session starts with

Start with	What you get
No tracks	An empty session. The start screen offers Add Instrument Track..., Add Mono Audio Track and Import Audio....
Mono audio track	One empty mono audio track named *Audio 1*, ready to record.
Mini Bar, Voltage 80, Voltage 78, Substance or Octet	One instrument track named after the instrument, with the Sound you chose and an empty eight-bar MIDI clip.

Until you set your own default, the window suggests 48 kHz and Mini Bar.

If you chose an input in Default Recording Input Device in the Audio Engine window, a new mono audio track starts on that device's first input. See Connect your hardware.

> Tip: Pick the sample rate now. You can change it later in Session Settings only while the session has no audio clips. See Tempo and session settings.

Other ways to start

- *From an instrument:* with no session open, choose an instrument from the Add Instrument menu. The New Session window opens with only the name and sample rate. When you click Create, Head Chef adds that instrument and opens its window.
- *From audio files:* with no session open, click Import Audio... on the start screen. Head Chef creates a session at the files' sample rate, named after the first file. See Importing.
- *From a jam:* in Jam, click Create Studio session →, review the parts and click Open editable tracks →. With no session open, Head Chef creates one at the jam's tempo. See Jam.

A new session opens in Studio, in Arrange. Any jam you had open stays as it was.

Open a session

1. Choose File > Open Session… or press `⌘O`. With no session open, you can also click Open Session… on the start screen.
2. Select the file and click Open.

You can also drag a session file from Finder onto the Arrange timeline.

The Open Session window groups the files Head Chef can open:

Choice in the window	Files
All supported sessions	Everything below.
Head Chef sessions	`.headchef`
PTX / PTF / PTS sessions	`.ptx`, `.ptf`, `.pts`
DAW & MIDI sessions	Projects and interchange files from other music apps, and Standard MIDI Files.

A `.headchef` file opens exactly as you saved it. Any other file becomes a new, unsaved session built from what the file describes, and the original file is never changed. See Importing and File formats.

If opening stops because the session's saved track organization cannot be read, your current session, unsaved edits and Undo/Redo history stay available. Restore the session's files from a backup and try again.

When you open a saved session, Head Chef also checks its recordings folder for a take that was cut short. If it finds one, the status bar shows Earlier recording available. See Recover an interrupted take.

You cannot open or create a session while Head Chef is recording, or while a mix render is running: Wait for the mix render to finish, or cancel it before replacing this session.

Save a session

Save Session

Choose File > Save Session, press `⌘S`, or click Save in the toolbar.

- The first time, Head Chef asks where to save and what to call the file. It adds `.headchef` to the name.
- After that, Save Session writes to the same file without asking.

The status bar confirms with Saved session.

Save Session As

Choose File > Save Session As… or press `^⌘S` to save the session to a new file.

1. Choose a folder and type a file name.
2. Click Save.

Head Chef writes the new file and copies every audio file the session uses into that folder. From then on you are working in the new file; the old file stays as you last saved it.

The file name and the session name are separate. Save Session As sets the file name; the toolbar keeps showing the Session name you gave the session when you created it.

> Tip: Use Save Session As to keep versions of a song, for example before a big rearrangement. Each version is a complete session you can open on its own.

When you cannot save

- Save Session is unavailable while a recording is in progress.
- While you are still dragging a control, Head Chef asks you to Finish or cancel the current gesture before saving or rendering.

Head Chef saves only when you ask it to, so save often. Recording needs a saved session.

> Note: Head Chef writes each save to a temporary file and then puts it in place of the old one, so a save that is interrupted leaves your previous version intact.

Unsaved changes

While a session has changes you have not saved, a dot follows the session name in the toolbar and the window title, and the toolbar button reads Save •. If you undo back to exactly the saved state, the dots go away.

Close a session

Head Chef keeps one session open at a time. A session closes when you create or open another, or when you close the main window with File > Close or `⌘W`.

If the session has unsaved changes, Head Chef asks first:

Button in Save changes to this session?	What happens
Save	Saves the session, then continues. For a session that was never saved, Head Chef first asks where to save it.
Don't Save	Continues and discards the changes.
Cancel	Stops, and keeps the session open with its changes.

The window reminds you: Your changes are lost if you don't save them.

Recover an interrupted take

Head Chef writes a recording to disk while you play, so a take that stops early, or is cut short when Head Chef quits, is not lost. When you open the session again, click Recovery… in the status bar, then Keep take to add the audio to the session or Dismiss to leave it out. See Recording audio.

Where your files live

When you save a session called `My Song.headchef`, Head Chef keeps these items together in the folder you chose:

Item	What it holds
`My Song.headchef`	The session file.
`.headchef-media`	Every audio file the session plays, including takes you kept.
`.headchef-recordings`	Takes as they were recorded, used for recovery.
`.My Song.headchef.organization.json`	Folders, groups, VCA masters and track heights, including their saved default settings.

The names start with a dot, so Finder hides them. Press `⇧⌘.` in Finder to show or hide them.

Audio in `.headchef-media` is named by its content, not by its original file name. Head Chef checks each file when it opens the session. If a file was changed, it stops with The session audio has changed. Restore its original media file.

> Tip: Give each song its own folder. Backups and moves are then a matter of copying one folder.

Move, copy or back up a session

1. Quit Head Chef, or save and close the session.
2. In Finder, copy or move the whole folder that holds the session file. The hidden items move with it.
3. Open the session from its new place with File > Open Session….

Keep these points in mind:

- If you move only the `.headchef` file, Head Chef cannot find the audio and shows a message starting Cannot open audio:. Put `.headchef-media` back beside it.
- To rename a session file, open it and use File > Save Session As… rather than renaming it in Finder. The organization file is named after the session file, so a file renamed in Finder opens without its folders, groups and track heights.
- On another Mac, install the same plugins. The session stores each plugin's settings, not the plugin itself.

Session limits

Supported imported audio stays in the session's audio files, with no fixed allowance for its combined file size. Leave enough free disk space for imported audio, conversion work and saved copies.

Head Chef refuses a change that would pass one of these limits and tells you why.

Limit	Value
Source tracks	128
MIDI notes	16,384
Undo steps	512
Session file, not counting audio	4 MiB

A session file over the size limit opens with This session document is too large., or saves with This session document is too large to save. A file that is not a Head Chef session shows This is not a valid Head Chef session. For more messages, see Troubleshooting.

Change session settings

Tempo, time signature, sample rate and pan depth live in Settings > Session Settings…. See Tempo and session settings.

CHAPTER 6

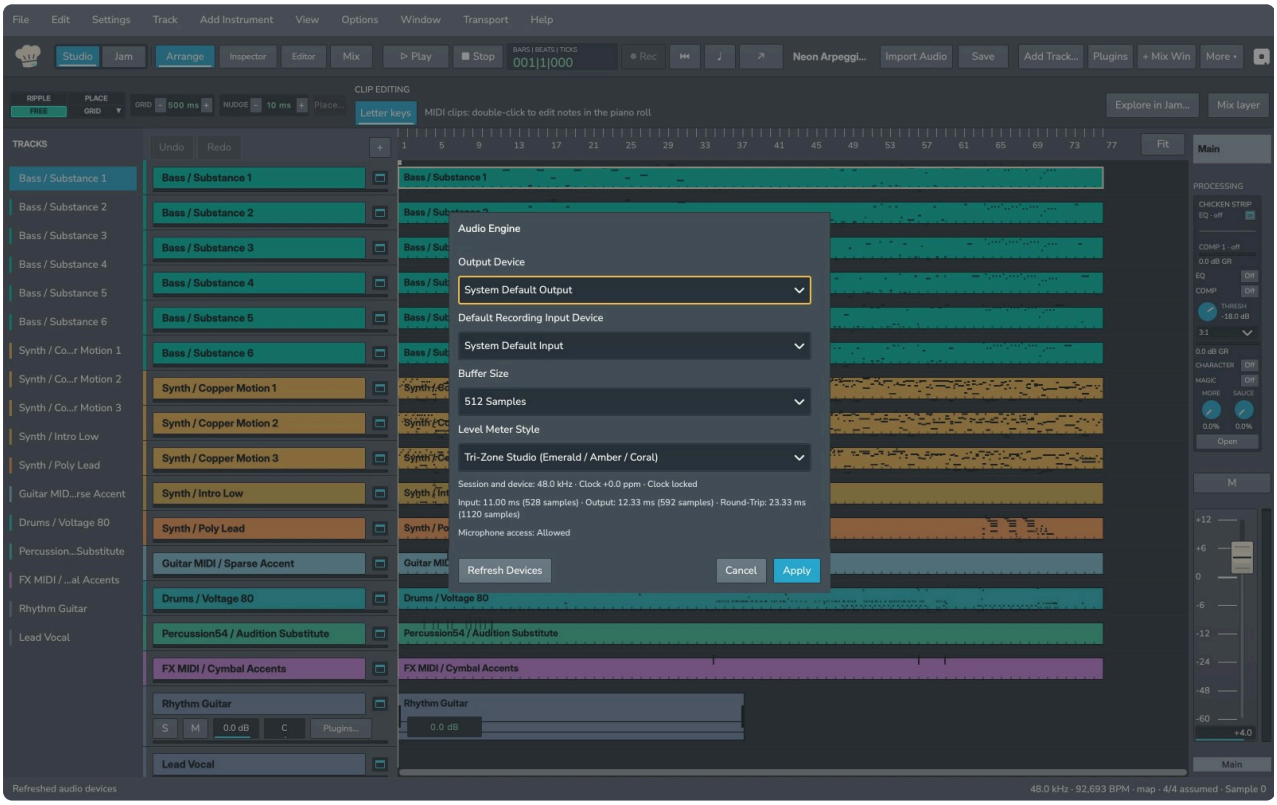
Connect your hardware

This chapter helps you connect the hardware you play and listen through. You will choose an audio interface or your Mac's own sound, pick a buffer size that suits what you are doing, read the sample rate, clock and latency lines, set up inputs and microphone access, and connect one or more MIDI keyboards. A checklist at the end helps when Head Chef does not see a device.

Head Chef works with the audio and MIDI devices that macOS lists. Connect your hardware and install any driver its maker supplies first. You can connect a device while Head Chef is open.

The Audio Engine window

Choose Settings > Audio Engine... or press `⌘,`. The window lists the devices macOS reports each time it opens.



The Audio Engine window with Output Device, Buffer Size and the latency readouts

Setting	What it does
Output Device	The device Head Chef plays through. System Default Output follows the output chosen in macOS. Each device shows its channel count, for example *(2 ch)*.
Default Recording Input Device	The input device new mono audio tracks start on. System Default Input leaves new tracks without an input until you choose one.

Setting	What it does
Buffer Size	How many samples Head Chef processes at a time. The list shows the sizes the chosen output device supports, between 32 and 2048 samples.
Level Meter Style	The colors of every level meter: Tri-Zone Studio (Emerald / Amber / Coral) or Monochrome Cyan-Mint.

Below the settings, three lines report the sample rate and clock, the latency, and Microphone access. Refresh Devices looks again for connected devices, Apply switches to the device and buffer you chose, and Cancel closes the window without changing them.

Level Meter Style changes the meters the moment you choose it, and Head Chef remembers it the next time it starts. Your device and buffer choices last until you quit. When Head Chef starts again, it uses System Default Output and System Default Input.

> Tip: If you always work with the same interface, make it the default output and input in System Settings > Sound. Head Chef then uses it from the moment it starts.

You cannot open or change the Audio Engine window while Head Chef is recording.

Choose a buffer size

The buffer is the slice of audio your Mac fills at a time before passing it to the interface. A smaller buffer means less delay between playing and hearing, but your Mac must fill each slice faster.

Buffer	One buffer at 48 kHz	Good for
32 or 64 samples	under 1.5 ms	Playing instruments live with the least delay, on a light session.
128 or 256 samples	about 2.7 to 5.3 ms	Recording and playing live in most sessions.
512 samples	about 10.7 ms	General work: editing, arranging and light mixing.
1024 or 2048 samples	about 21 to 43 ms	Mixing large sessions with many plugins.

When you choose 32 or 64, the window warns: 32 and 64 sample buffers minimize monitoring latency but increase real-time CPU load. If you hear crackles or dropouts after you click Apply, choose the next larger size.

> Tip: Use a small buffer while you record or play an instrument, and a large one while you mix. The buffer is not part of your session.

Read the latency line

The latency line shows three figures, each in milliseconds and samples:

- Input: the delay from the interface's input to Head Chef;

- Output: the delay from Head Chef to the interface's output;
- Round-Trip: the two together, which is what you hear when you play through Head Chef. It is never less than two buffers.

The figures combine the buffer you choose with the delay the device itself reports. They change when you pick another buffer, before you click Apply, so you can compare sizes.

Read the sample rate and clock line

When the session and the device run at the same sample rate, the line reads, for example:

Session and device: 48.0 kHz · Clock +0.0 ppm · Clock locked

- The ppm figure is the clock drift: how far the device's real speed differs from its stated rate, in parts per million. A figure close to zero is normal.
- Clock locked means the clock is steady. When the drift goes beyond 100 ppm, or the chosen output is unavailable, the line turns amber and reads Clock drift warning.

When the session and the device run at different rates, the line says so, for example *Session is 44.1 kHz and the device is set to 48.0 kHz*, and adds Play switches the device to the session rate when the device supports it.

> Note: To record, the input's sample rate must match the session's. If your interface does not support the session's rate, record into a session at a rate it supports. See Tempo and session settings.

If you see Clock drift warning, check the interface's cable and the clock source setting in its own control software.

Headphones and speakers

Head Chef plays its stereo mix on the first two outputs of the Output Device.

1. Connect your speakers to outputs 1 and 2 of the interface, or plug headphones into its headphone socket.
2. In Output Device, choose the interface. To use your Mac's own speakers or headphone socket, choose them or System Default Output.
3. Click Apply, then press `Space` to play.

Set the listening level on the interface or the Mac, and the mix level with the Main fader.

If a device you chose is disconnected, the list shows it as Unavailable Audio Output with its name. Reconnect it and click Refresh Devices, or choose another device.

> Tip: Wireless headphones add a delay of their own. Use wired headphones when you record or play an instrument.

Inputs and microphone access

Head Chef records one mono input per track. macOS asks your permission before any app uses an audio input, including an interface, and Head Chef asks the first time you enable an input on a track. The Microphone access line in the Audio Engine window shows the current state:

Shown	Meaning
Allowed	Head Chef can record.
Not requested yet. Head Chef asks the first time you enable an input.	Enable an input on an audio track to be asked.
Blocked. Allow Head Chef in System Settings > Privacy & Security > Microphone.	Turn Head Chef on in that macOS setting, then try again.
Restricted on this Mac by a device policy.	Ask the person who manages the Mac.
No input device is available.	Connect an interface or microphone, then click Refresh Devices.

To choose inputs:

- In the Audio Engine window, choose Default Recording Input Device. Each new mono audio track then starts on that device's first input.
- To choose a different input for one track, click the input button on its header, which reads Choose input… until you pick one. See Recording audio.

If a device you chose is disconnected, it appears as Unavailable Audio Input with its name.

Head Chef does not play your input back while you record. To hear yourself, use your interface's direct monitoring. See Recording audio.

MIDI keyboards

Head Chef connects MIDI keyboards automatically.

1. Connect the keyboard to your Mac, by USB or through a MIDI interface. You can do this while Head Chef is running.
2. Select an instrument track.
3. Play.

Head Chef notices a keyboard as you connect or disconnect it, and connects up to 16 at once. Playing sounds the instrument live; to write notes into a clip, use the piano roll. See MIDI and instruments.

Which track plays

Your keyboard plays the selected track when it is an instrument track. If the selected track is not an instrument track, the keyboard keeps playing the instrument track you played last, or the first instrument track in the session.

The MIDI button and its panel

The MIDI button in the toolbar shows what the keyboard is doing:

Button reads	Meaning
MIDI	Keyboard input is on and waiting.
MIDI · C4	You are holding a key; the button names the note. Middle C is C4.
MIDI · Sust	The sustain pedal is down.
MIDI Off	Keyboard input is off.

Click MIDI to open the MIDI KEYBOARD INPUT panel. In narrow windows, choose More ▾ > MIDI Keyboard....

Control	What it does
ON / OFF	Turns keyboard input on or off.
Target line	Plays Selected Track with the track's name, or Select an instrument track to play live.
Activity line	The last note, with its velocity and MIDI channel, for example *Last note: C4 (vel 100, Ch 1)*.
Keyboard Source	All Connected Keyboards (Auto), or one keyboard by name.
MIDI Channel	All Channels (Omni), or one midi channel from 1 to 16.
Refresh Ports	Looks again for connected keyboards.
All Notes Off	Silences any note that keeps sounding.

Use more than one keyboard

With All Connected Keyboards (Auto), every connected keyboard plays the selected track. To use only one, click its name under Keyboard Source. If that keyboard is disconnected, the panel shows Selected keyboard is offline: switch to All Connected Keyboards (Auto) or reconnect it.

To play only the notes sent on one channel, for example one half of a split keyboard, click that channel's number under MIDI Channel.

Sustain, pitch bend and other controls

- The sustain pedal works with every built-in instrument. While it is down, the panel shows Sustain Pedal Down, or adds *Sustain Down* after the last note.
- Head Chef uses the notes, their velocity and the sustain pedal. Pitch bend, the modulation wheel and other knobs and sliders on the keyboard do not change the sound.
- A keyboard's own all-notes-off message releases its notes, the same as All Notes Off.

Control surfaces

Head Chef works with a control surface set to Mackie Control mode. Choose Settings > Control Surface..., pick the surface under MIDI input and MIDI output, and click Enable. Its MIDI input is then reserved for the surface, so the MIDI keyboard panel lists it with (Control Surface) and you cannot choose it as a keyboard. For the full steps and what each control does, see Control surfaces and assistants.

If Head Chef does not see a device

Work through these steps in order:

1. Check the cable and power, and try another USB port.
2. For audio, check that macOS lists the device in System Settings > Sound.
3. Click Refresh Devices in the Audio Engine window, or Refresh Ports in the MIDI keyboard panel or the Control Surface window.
4. If you hear nothing, check that Output Device is the device your speakers or headphones are on, and that no track is muted or soloed by mistake.
5. If an input is missing or silent, check Microphone access.
6. If a keyboard plays nothing, check that the button does not read MIDI Off, that an instrument track is selected, and that Keyboard Source and MIDI Channel match your keyboard.

For more, see Troubleshooting.

PART

Make music

7. Transport and navigation
8. Tracks
9. Importing audio and projects
10. Recording audio
11. Editing audio
12. MIDI and instruments
13. Tempo and session settings
14. Jam Console

CHAPTER 7

Transport and navigation

This chapter helps you play your session and get around it quickly. You learn the transport buttons, how to read and change the clock, how to zoom and scroll with a trackpad or mouse, how to scrub along the ruler, and how to set up the metronome and count in.

Play, pause and stop

The transport buttons sit in the toolbar, to the right of Mix.

- Click ▷ Play or press `Space` to play from the playhead. While playing, the button reads **II** Pause; click it or press `Space` again to pause where you are.
- Click ■ Stop to stop and return to the start of the session.
- Click ⏮ (Go to Start), or press `Return` in Arrange, to stop and return to the start.
- Press `⌥Return` in Arrange to move the cursor to the end of the session.

The Transport menu has the same commands. The first item's name always says what it will do next, such as Play, Pause or Cancel Playback.

Sometimes Head Chef needs a moment to prepare a session before it plays. The status bar then shows Preparing playback… with a percentage, and the Play button reads Cancel. Click Cancel if you would rather not wait.

> Tip: If you have a numeric keypad, `Num 0` plays and pauses, `Num 1` rewinds and `Num 2` moves forward.

Repeat a section

Click ↻ Loop in the main or Floating Transport to repeat a saved range while you listen and adjust the mix. The button is highlighted while looping is on.

1. Click the arrow beside Loop to open Loop Playback.
2. Enter Start sample and End sample. The range includes the start sample and ends just before the end sample. Start must be earlier than end.
3. Select Loop playback and click Apply.

Loop ranges are entered in samples. Switch the clock to Samples when you want to read a boundary's exact position. Click Loop again to turn repeating off without clearing the range. Range changes are saved with the session and use the same Undo and Redo commands as other edits.

Loop playback changes the listening range. Recording and exports keep their normal ranges.

Control looping with MCP

Use `transport.setLoop` to change the range and `transport.inspectLoop` to read it. Exact sample positions can be supplied as decimal text.

For a healthy CLAP effect during playback, `plugin.setLiveParameters` returns a request ID. Read `plugin.liveParametersStatus` until that request reports `committed` before sending another parameter edit. Its committed token identifies that edit; use the current state token for the next command. For stopped playback or VST3 effects, use `plugin.setParameters` while paused.

Rewind and forward

Click ⏪ or ⏩ to move the cursor back or forward two seconds. With a numeric keypad, press **Num 1** or **Num 2**. In narrower windows these buttons leave the toolbar; use the keypad or the ⏪ Rew and ⏩ FF buttons in the Floating Transport (Window > Floating Transport).

With CLAP or VST3 effects, pause playback and click a position in the ruler, or use Rewind and Forward. Head Chef prepares the effects at that position; wait for preparation to finish, then press Play. A longer move can take a moment. Cancel or ■ Stop withdraws a pending move.

Finish any plugin edit and turn off software input monitoring before preparing a new position. If a native plugin window closes after the move, open it again from the channel. Clicking a position is available with hosted effects; dragging the ruler for audible scrubbing remains unavailable.

Record

Click ● Rec to get a recording ready on the armed track, then press **Space** or **F12** to start the take. ■ Stop or **Space** finishes it. Recording needs a saved session and an armed track with an input. See Recording audio for the full steps.

Read the clock

The clock in the toolbar shows where the cursor is. Its small heading tells you the format:

- BARS | BEATS | TICKS counts musical bars and beats;
- MIN : SEC . MS shows minutes, seconds and milliseconds;
- SAMPLES counts individual samples from the start.

Click the clock to step through the three formats. Until you choose one, Head Chef picks for you: bars and beats when the session has instrument tracks, and minutes and seconds when it holds only audio.

The ruler above the timeline shows bar numbers or times to match. The status bar also shows the cursor position in samples, for example Sample 96,000.

Set the time display

1. Right-click the clock (or the ♩ button) to open the metronome settings.
2. Under TIME DISPLAY & RULER, click Bars|Beats, Min:Sec or Samples.
3. Click Ruler Coupled to switch to Ruler Free if you want the ruler to keep its own format when you change the clock.

The Floating Transport shows a MAIN CLOCK and a SECOND CLOCK. Click the main clock to change its format as in the toolbar. Click the second clock to step its format separately, so you can watch bars and beats and real time together.

Zoom and fit

- Choose View > Zoom In or View > Zoom Out. Head Chef zooms around the cursor.
- With the Arrange timeline active, press `⌘[` to zoom out and `⌘]` to zoom in. With letter shortcuts on, `R` zooms out and `T` zooms in.
- Click Fit at the right end of the ruler, choose View > Fit Session, or press `⌥A` to see the whole session. In a session with only audio tracks the menu item reads Fit Audio.
- Select a clip and choose View > Fit Selected Clip, or press `⌥F`, to fill the window with that clip.
- With letter shortcuts on, press `Q` or `W` to center the view on the cursor.

The scroll bar under the timeline moves the view along the session.

Navigate with a trackpad or mouse

Gesture	Result
Scroll up or down with a mouse wheel or two fingers	Scrolls the tracks up and down.
Swipe sideways with two fingers	Moves along the timeline.
Hold Shift and scroll	Moves along the timeline.
Hold Option and scroll	Zooms in or out around the pointer.
Pinch on the trackpad	Zooms in or out around the pointer.
Hold Control and Shift and scroll over an audio clip	Raises or lowers that clip's clip gain.

Scrolling over the track headers scrolls the tracks but does not zoom. The same gestures work in the piano roll and in the audio clip editor, which keep their own zoom.

Scrub along the ruler

Scrubbing lets you find a moment in the music by ear, like moving a tape by hand.

1. Point at the ruler above the timeline.
2. Drag left or right. With Options > Tape Scrub Sound on, you hear the full mix forwards or backwards at the speed you drag.
3. Release where you want the cursor. Press `Esc` before you release to cancel.

A single click on the ruler moves the cursor straight to that point. You can also drag the small handle at the top of the playhead line to move it.

Tape Scrub Sound is on until you turn it off. With it off, dragging moves the cursor silently.

Move between clip boundaries

To jump to the start or end of the selected track's clip:

- press `Tab` to move to the next boundary and `⌥Tab` to move to the previous one;
- with letter shortcuts on, press `L` for the previous boundary and `'` (apostrophe) for the next.

To change which track is selected from the keyboard, press `P` (previous track) or `;` (next track) with letter shortcuts on.

Mark places in your song

Use named markers to remember places such as an intro or chorus. The marker strip sits below the ruler, above the tracks.

1. In Arrange, click + beside Markers.
2. Enter a Name, such as `Chorus`. Leave Sample unchanged to mark the current playhead, or enter a whole sample position from the start of the session.
3. Click Add marker. Its name appears in the strip.

Click a marker's name in the strip to edit it. You can also click Markers and choose a marker from the list. More shows the next page; First returns to the first page.

- To rename it, change Name and click Rename.
- To move it, change Sample and click Move.
- To jump to it, click Locate. This moves the playhead without adding an Undo step. If the position is unavailable, the message explains why and the cursor stays where it was.
- To remove it, click Delete.

Undo and Redo restore marker edits. Markers are saved with the session. Adding, renaming, moving or deleting them does not change the sound or interrupt playback.

If the session changes while the marker dialog is open, an edit can be refused. Copy any draft text you want to keep, then click Close and reopen the marker before trying again.

Turn on the metronome

The metronome clicks in time with the session so you can keep to the beat. Turn it on or off in any of these ways:

- click ♩ in the toolbar;
- choose Options > Metronome Click;
- press `Num 7` on a numeric keypad;
- click Click in the Floating Transport.

The click is for your ears only. It never appears in a Render Mix file, and turning it on or off does not add a step to Undo. It keeps playing when you solo tracks.

Adjust the click

Right-click ♩ or the clock to open the settings. Under METRONOME & COUNT-IN:

1. Click CLICK ON or CLICK OFF to turn the click on or off.
2. Under Sound Profile, choose Studio, Woodblock or Bip.
3. Under Click Mode, choose when it clicks: Play & Rec (while playing and recording), Rec Only (while recording and during the count-in) or Count-In (only during the count-in).
4. Drag Click Level to set its volume, from -36 dB to +6 dB.

Count in before recording

A count in plays one, two or four bars of click before a recording starts, so you can get ready to play. It applies only to recording; ordinary playback starts straight away.

1. Right-click ♩ or the clock.
2. Under Count-In Bars, choose 1 Bar, 2 Bars or 4 Bars.
3. Click OFF so it reads ACTIVE.

You can also turn the count-in on or off with Options > Count-In, which shows the current number of bars, with the Count-In button in the Floating Transport, or with `Num 8` on a numeric keypad. While it counts, the status bar shows Count-in and the time left.

Play the chef's hat sound

The chef's hat at the far left of the toolbar is a small instrument of its own.

- Click it for a short taste.
- Press and hold it for the full sound, a chord that swells for about seven seconds and then holds. Release to let it fade.
- Press `Esc` to stop it at once.

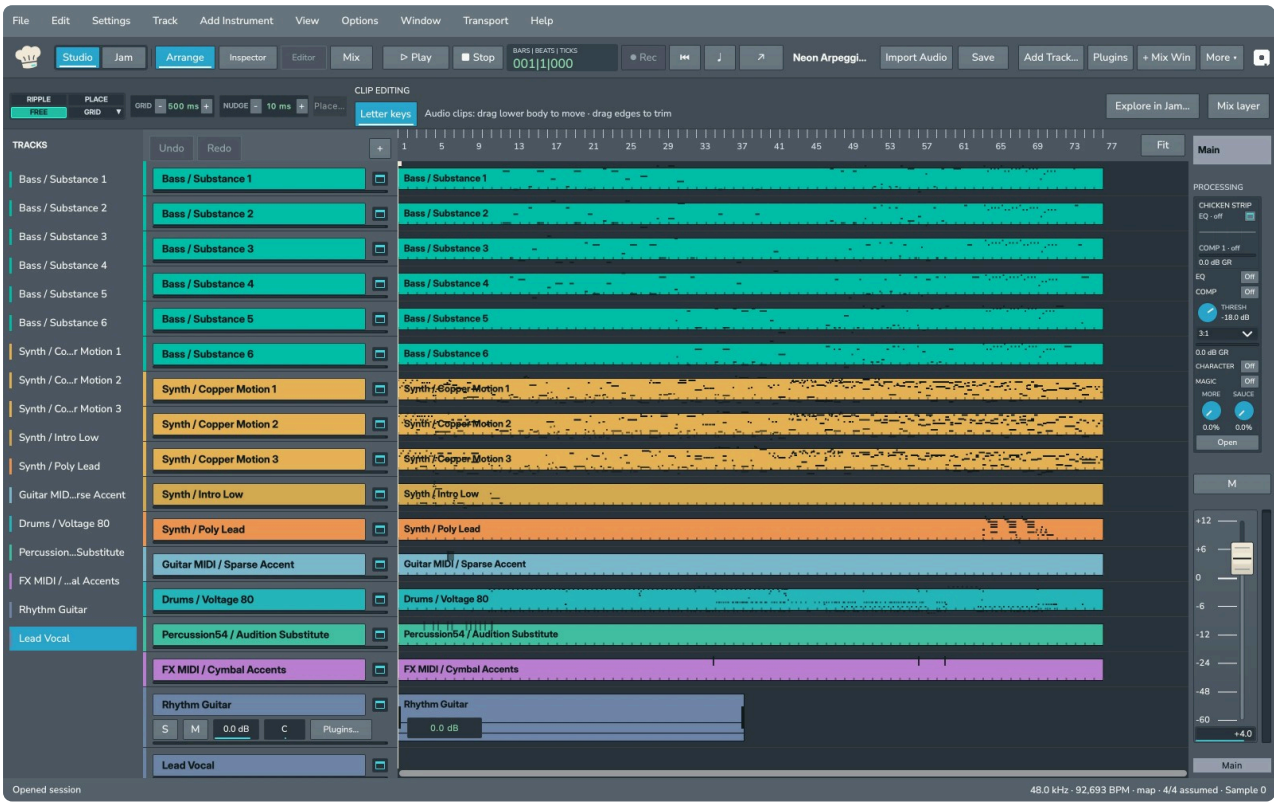
When the hat has keyboard focus, you can also hold `Space` or `Return` to play it.

The hat plays through your monitoring output only. It is never recorded, never appears in a render, and does not change your session or its Undo history. If it cannot play, its tooltip says why, for example Audio output unavailable or Sound previews are muted.

CHAPTER 8

Tracks

This chapter shows you how to add tracks to a session, find your way around a track header, and keep a growing session tidy. You will add mono audio tracks, instrument tracks and Effect Returns, select and resize tracks, use solo, mute and record arm, and work with the folders, groups and VCA masters a session can contain.



The Arrange window with track headers on the left and clips on the timeline

Add a track

Head Chef offers several routes to the same result. Use whichever is closest.

From the Add Track dialog

1. Click Add Track... in the toolbar. In a narrow window, open More ▾ and choose Add Track....
2. Optionally type a Track Name and click one of the Color swatches.
3. Under Track type, choose *Audio · Mono track*, an instrument, or an effect.
4. Click Create, or double-click the track type.

Choosing an effect in this dialog creates an Effect Return that uses that effect.

From the Track menu

1. Choose Track > Add Track > Add Mono Audio Track, or Track > Add Track > Add Instrument Track and then an instrument.
2. To add an Effect Return, choose Track > Add Effect Return and then the effect it should use.

The Add Instrument menu in the menu bar lists the same instruments and adds an instrument track in one step. When you add an instrument track, Head Chef opens the instrument's editor so you can start choosing a sound.

From a context menu or a button

1. Right-click an empty part of the timeline, or the empty area below the last track header.
2. Choose Add Mono Audio Track, or point to Add Instrument Track and choose an instrument.

The + button above the track headers adds a mono audio track straight away. A session with no tracks also shows Add Instrument Track... and Add Mono Audio Track buttons in the middle of the window. You can also drag a plugin or an instrument from the Plugin Browser onto the empty area below the track headers, which reads + Drop plugin or synth here to create track; see Plugins.

If no session is open when you choose a track, Head Chef first opens the New Session dialog and adds the track once the session exists. Adding a track is one step in the edit history, so Edit > Undo removes it.

> Note: Audio tracks in Head Chef 1 are mono. To bring in existing stereo or mono files, see Importing.

Read the track header

Each track has a header to the left of its lane. From left to right and top to bottom, a header at the default Large height shows these controls.

1. *Color stripe*: a thin bar in the track's color along the left edge.
2. *Name button*: shows the track's name on its color. Click it to select the track. Point at it to see the full name when it is too long to fit.
3. *Source row*: on an audio track, the input button and the Arm button; on an instrument track, Open for its sound editor, Edit notes for its Piano Roll, and the number of MIDI notes on the track. Edit notes also works when the track has no notes yet.
4. *Mix row*: S, M, the gain readout, the pan readout and the plugins button. Each is described below.
5. *Level meter*: a thin meter along the bottom of the header.

The input button reads Choose input... until you pick an input, then shows the device and channel, for example *Interface · Input 1*. It reads Input unavailable when that device is not connected. Click it to open the Mono recording input window; see Recording audio.

The Open button carries the instrument's name, for example *Open Octet*, and opens the instrument's editor. See MIDI and instruments.

Right-click anywhere on the header to select the track and open its menu; see Use the track header context menu.

Arm

Arm readies an empty audio track for recording. It turns red while the track is armed. It works only on an audio track with no clip, or on the track that is already armed; on any other track, its tip reads Choose an empty audio track for a new take. While a take is being prepared or recorded, it reads Finish recording before changing the armed track.

S and M

S solos the track and turns yellow; M mutes it and turns orange. Click again to turn them off. See Solo and mute.

Gain and pan readouts

The gain readout shows the track's fader level with one decimal, for example *0.0 dB*, *+1.5 dB* or *-12.0 dB*. The pan readout shows C for center, or *L 20* and *R 35* for left and right.

- Drag up to raise the value and down to lower it. Gain moves 0.25 dB and pan one step for each point you drag.
- Hold ⌘ while dragging for steps five times smaller.
- ⌥-click to reset gain to 0.0 dB or pan to center.
- Press Esc during a drag to cancel it.

Gain runs from -60 dB to +12 dB and pan from 100 left to 100 right, the same as the fader and pan knob in Mix. The readouts appear only when the window is at least 960 points wide; in a narrower window, set gain and pan in Mix.

Plugins

The plugins button reads Plugins… on a track with no plugins, and shows the count when it has some, for example *Plugins · 2*. Click it to open the track's insert slots. See Plugins.

Level meter

The meter shows the track's output level. While the track is armed and Head Chef is ready to record, counting in or recording, it shows the input level instead. Its top turns red when the signal goes over full scale and stays red until you click the meter.

What each height shows

Height	Size in points	The header shows
Jumbo	220	Everything, with extra room
Large	128	Everything; this is the default height
Medium	76	Name, mix row and meter; no source row
Small	44	Name and meter

Height	Size in points	The header shows
Tiny	28	A compact name button only
Micro	18	A compact name button only

On short tracks, use the track header context menu, the TRACKS list or the Inspector for the controls the header hides.

Select tracks

- Click a track's name button, or click its clip in the timeline.
- With the Arrange timeline focused and letter shortcuts on, press `P` for the previous track and `;` for the next.
- In a window at least 1600 points wide, a TRACKS list runs down the left edge. Click a name there to select that track. Each row shows the track's color and name, is indented when the track sits in a folder, and carries a small badge when the track belongs to a group.

Many commands act on the selected track, such as the solo, mute, arm and height shortcuts below.

Name and color tracks

Give a track its name and color when you create it in the Add Track dialog. Tracks created from the menus get a name and color from Head Chef, and imported tracks take their names from their files.

Head Chef 1 has no command in the app window to rename or recolor an existing track. A tool linked through the assistant connection can set a track's name and color; see Control and automation.

Solo and mute

1. Click S to solo a track or M to mute it. Click again to turn it off.
2. To use the keyboard, select the track and, in Arrange or Mix, press `⇧S` for solo or `⇧M` for mute.

You can also right-click a track header and choose Toggle Solo or Toggle Mute.

While Head Chef is preparing or recording a take, solo, mute and the reset commands are refused with Stop recording or cancel record readiness before changing the session. Finish or cancel the take first.

Arm a track for recording

Click Arm on an empty audio track, or select it and press `⇧R`. The Arm button stays lit while the track is armed. Only empty audio tracks can be armed for a new take. Recording audio covers the full recording steps.

Change track heights

- View > Taller Selected Track and View > Shorter Selected Track, or ⌘↑ and ⌘↓ with the Arrange timeline focused, step the selected track through Micro, Tiny, Small, Medium, Large and Jumbo.
- View > Taller All Tracks and View > Shorter All Tracks, or ⌥⌘↑ and ⌥⌘↓, step every track together.
- Right-click a track header and choose Track Height to pick a size directly.

The height steps stop at Micro and Jumbo. Height changes are steps in the edit history, so Undo restores the previous height. What each height shows lists the controls each size keeps. To make quiet audio easier to see without changing its sound, use View > Taller Waveforms and View > Shorter Waveforms.

Use the track header context menu

Right-click a track header to open its menu:

Command	What it does
Toggle Solo	Turns solo on or off.
Toggle Mute	Turns mute on or off.
Reset Gain to 0.0 dB	Returns the track's level to 0.0 dB.
Reset Pan to Center	Returns the track's pan to center.
Track Height	Sets the track to Micro, Tiny, Small, Medium, Large or Jumbo.
Plugins…	Opens the track's insert slots.
Open *plugin name*	Opens the editor of the track's first plugin. It appears only when the track has a plugin, and reads Open Plugin Editor when the plugin has no name.
Add Track	Adds a mono audio track or an instrument track.

Folders, groups and VCA masters

A session can hold folders, groups and VCA masters, for example when it comes from another session file or was organized through the assistant connection. In the app window you see and use them like this:

- *Folders*: tracks inside a folder are indented in the TRACKS list. A routing folder appears in Mix as a FOLDER BUS strip. It works like an Effect Return: each track in the folder sends to it at 0 dB, and the tracks also keep playing straight to Main. See The signal path of a channel. Click Spill Folder on that strip to focus the mixer on the folder's tracks; the button reads Spilling Folder while it is on.
- *Groups*: a track in a group shows the group's label in the TRACKS list. Depending on how a group is set up, edits, faders, mute and solo on one member apply to the others. To work on one track on its own, press ⇧⌘G in Arrange to suspend all groups, and press it again to resume them.

- *VCA masters*: a VCA master appears in Mix as a VCA MASTER strip labeled with its group. It scales the level of its group's tracks without carrying audio itself. Click Spill to focus the mixer on its members.
- *Hidden tracks*: a track hidden from Arrange appears dimmed in the TRACKS list.

Consolidate a VCA master

When a VCA master's level is where you want it, you can write it into its members:

1. In Mix, find the VCA MASTER strip.
2. Click Coalesce.

Head Chef moves the VCA master's level offset into each member track's fader and returns the VCA master to 0 dB when it can preserve the mix. Undo reverses the change.

If coalescing would change an active Read volume ride, Head Chef refuses the change and keeps the VCA. Deleting a VCA normally coalesces its level first, so that operation is also refused when the ride would change. Keep the VCA to preserve its adjustment. To remove the adjustment deliberately, ask the assistant to delete the VCA without coalescing; this changes the members' levels and can be undone. See Volume automation.

Creating, editing and deleting folders, groups and VCA masters, and showing or hiding tracks, is done through the assistant connection. See Control and automation.

> Tip: The TRACKS list appears only when the window is wide. Make the window wider, or use `P` and `;` to move between tracks.

CHAPTER 9

Importing audio and projects

This chapter shows you how to bring existing material into Head Chef: audio files, several files at once as separate tracks, MIDI files, and projects saved by other music apps. It also explains which formats Head Chef reads, how it handles a file whose sample rate differs from your session, and what carries over when you open a project from another app.

Import audio files

1. Choose File > Import Audio... or press `⇧⌘I`. You can also click Import Audio in the toolbar; in a narrower window the button reads Import.
2. Select one file, or several files at once.
3. Click Open.

Head Chef inspects the selection and opens Import Media Options. Each audio file normally becomes its own track, starting at the beginning of the session. The whole import is one step in Edit > Undo, so one undo removes every track it added.

If a file's sample rate differs from the session rate, the window is titled Sample Rate Conflict & Import Options. The default Resample imported audio to project rate keeps playback speed and pitch. Choose Best, Good or Fast resampling quality. Other choices are:

- Change project sample rate: use the incoming rate; existing audio is converted when needed.
- Keep samples at project rate: keep the original sample frames and play them at the project clock. Different sample rates change playback speed and pitch.

Under Placement, choose separate tracks at the start, separate tracks placed end to end, or the files' BWF timestamps. End-to-end placement still creates a separate track for each file. Channels can preserve the channel layout, split stereo to mono, or combine matching `.L` / `.R` files.

In a small window, scroll the options to reach the lower controls. Cancel and Import stay at the bottom of the window.

Click Import when the choices are ready. The footer shows import progress and offers Cancel import. Nothing is added until the complete selection is ready. Cancelling before that point leaves the session unchanged.

When no session is open, Import Audio... creates a session from the imported files.

Supported audio formats

The picker and Arrange drop target accept these audio file families. A file must contain a supported audio encoding; changing its extension does not convert its contents.

Format	File extensions
Wave, Broadcast Wave and RF64	`.wav`, `.bwf`, `.rf64`

Format	File extensions
AIFF and AIFF-C	`.aif`, `.aiff`, `.aifc`
FLAC	`.flac`
MP3	`.mp3`
AAC and MPEG-4 audio	`.m4a`, `.aac`, `.mp4`
Core Audio Format	`.caf`
Ogg audio	`.ogg`, `.oga`

WAV and AIFF support 16-bit, 24-bit and 32-bit integer or 32-bit float audio. Other supported encodings are decoded during import. If Head Chef cannot read the contents, export a WAV or AIFF from the app that created the file and try that copy.

Drag files into Arrange

Select files in Finder and drop them onto Arrange. Audio and mixed audio/MIDI selections use the same import options. You can also drop a folder; Head Chef selects supported audio and MIDI files inside it, skipping hidden files.

A single project or MIDI file can instead open as a session, as described below.

Open a MIDI file

1. Choose File > Open Session… or press `⌘O`.
2. Select a file ending in `.mid`, `.midi` or `.smf`, and click Open.

Each MIDI track becomes an instrument track with its notes. Tracks that mostly use the drum channel play through Voltage 80; the others play through Octet. The tempo and time signature come from the file; a file without them opens at 120 BPM in 4/4. You can change any track's instrument afterwards; see MIDI and instruments.

Open a project from another music app

Head Chef opens projects saved by other music apps. Choose File > Open Session… (`⌘O`), select the project and click Open, or drag the project file onto Arrange.

Head Chef accepts these file extensions:

Project files	Extensions
Session containers	`.ptx`, `.ptf`, `.pts`
Project files	`.rpp`, `.als`, `.cpr`, `.song`, `.ardour`
Project bundles	`.logicx`, `.band`

Project files	Extensions
Open exchange project	`.dawproject`
Interchange lists	`.adl`, `.omf`, `.aaf`
Standard MIDI files	`.mid`, `.midi`, `.smf`

The Open Session window shows all of these under All supported sessions.

What carries over

Head Chef reads what the project describes and builds a new Head Chef session from it, for example:

- track names and their order;
- audio clips at their positions, with the audio they play;
- volume, pan, mute and solo settings;
- tempo and time signature.

How much comes across depends on the file and the app that saved it. Plugins and their settings from the other app are not loaded; add Head Chef processing or your own plugins afterwards.

Head Chef finds the project's audio in the folders next to the project file. Open the project from its original folder, with its audio folders beside it.

Save the result

The opened project becomes a new, unsaved Head Chef session. The original file is never changed.

1. Choose File > Save Session As... or press `^⌘S`.
2. Choose a name and folder, and click Save. Head Chef saves a `.headchef` session and copies its audio into the same folder.

> Tip: If the current session has unsaved changes, Head Chef first asks Save changes to this session? Choose Save, Don't Save or Cancel.

Limits

Supported imported audio has no fixed file-size or combined session-audio allowance. Head Chef keeps its own copy on disk, so moving the originals does not change the song. Leave enough free disk space for the audio, conversion work and saved session copies.

Changing clip timing during playback can briefly pause playback, then resume at the current cursor. Stop playback before changing clip timing when external plugins are loaded.

Limit	Value
Source tracks in a session	128

If an import exceeds the source-track capacity, has unreadable audio or cannot complete safely, Head Chef adds nothing and explains the problem. File length alone is not a reason to reject supported audio.

Tips

- Select several files in one Import Audio window rather than importing them one at a time. They arrive together as one undo step.
- To combine files recorded at different sample rates, keep the default resampling choice. Before a session has audio, you can also choose its rate in Settings > Session Settings...; see Tempo and session settings.
- Importing is unavailable while Head Chef is recording.

CHAPTER 10

Recording audio

This chapter walks you through recording a mono take from a microphone or instrument plugged into your audio interface. You will give Head Chef access to your inputs, choose the input for a track, arm the track, record with or without a count-in, and finish or cancel the take. It also explains what Head Chef does with input monitoring and latency, and where your recordings are kept.

Before you record

Head Chef 1 records one mono take at a time from the stopped cursor. Check these points first, because Head Chef refuses to record until each one is true:

- The session is saved. If it is not, you see Save your session before recording.
- The armed destination is an empty mono audio track. Without Head Chef input monitoring, start in a new session with empty mono audio tracks. To record with an amp sound and existing backing, follow Monitoring.
- Exactly one empty audio track is armed, and it has an input chosen.
- Head Chef has microphone access.
- The input's sample rate matches the session's sample rate. Set the session rate in Session Settings before you add audio.
- Playback is stopped and the cursor is where the take should begin. Place the cursor before connecting Input or Auto monitoring.

To set up a recording session:

1. Choose File > New Session... and create the session.
2. Choose File > Save Session and save it in a folder you can write to.
3. Choose Track > Add Track > Add Mono Audio Track.

Give Head Chef microphone access

macOS asks your permission before any app can use an audio input, including an audio interface.

1. Click the input button on the audio track's header. It reads Choose input... until you pick one. The Mono recording input window opens.
2. Click Enable input. macOS asks whether Head Chef may use the microphone.
3. Allow access.

If you clicked Don't Allow earlier, the window shows Microphone access is off. Allow Head Chef microphone access before recording. Open System Settings, go to Privacy & Security > Microphone, turn on Head Chef, then click Refresh inputs in the Mono recording input window. The Audio Engine window (Settings > Audio Engine...) also shows the current Microphone access state.

Choose the recording input

1. Click the input button on the audio track's header. In Mix, click Input on the track's strip.
2. In the Mono recording input window, open the input menu and choose one input channel. Each entry shows the device, the channel and the device's sample rate, for example *Interface · Input 1 · 48 kHz*.
3. If you connected an interface after opening the window, click Refresh inputs.
4. Click Close.

The track header now shows the chosen device and channel. Head Chef saves the input with the track, so it is still chosen when you reopen the session. If the device is not connected, the header reads Input unavailable.

Arm the track

1. Click Arm on the track header, or select the track and press ⇧R.
2. The Arm button lights up. In the Mono recording input window, the status changes to Track armed.

Click Arm again to disarm. Only an empty audio track can be armed for a new take.

Monitoring

You can hear the input through Head Chef's Amp and Tuner, or use your interface's direct monitoring.

To hear the amp while recording a dry take:

1. Choose the input for an empty mono audio track and arm it.
2. Add Amp and Tuner from the track's built-in effects list and click Open.
3. In the amp's monitor menu, choose Input to hear the live input, or Auto to hear the armed input while stopped and recording, then hear the recorded clip during ordinary playback. Off disables Head Chef's input monitoring.
4. Adjust the amp sound. More contains Monitor Level and Mute monitor, which change what you hear without changing the recorded input.

The take stores the unprocessed input while you hear the amp. Existing backing and the click play through the normal mix. The count-in finishes before the dry take begins, and the take starts at the cursor position you chose. Head Chef refuses a channel setup it cannot record safely before capture starts.

In Jam, open Amp from JAM ALONG to choose your input sound and tune before recording. Jam saves the dry take and plays it through the current saved amp sound. See Shape your input with Amp and Tuner.

For direct monitoring, use the knob, switch or control software supplied with your interface. If you select Interface direct monitoring in the amp, Head Chef turns off its software monitoring. The interface's direct path must be adjusted or muted at the interface; the amp and Silent Tune cannot control it.

Watch the level meter in the Mono recording input window and on the track header. If you see Input clipped. Reduce the interface input gain., turn down the gain on your interface and try again. The amp's Input Drive cannot repair an overloaded interface input.

Use a count-in

A count-in plays the metronome for a number of bars before the take starts, so you can come in on time.

1. In the Options menu, choose the count-in item to turn the count-in on or off. Its name shows how many bars it counts, for example *Count-In (2 Bars)*. The Count-In button in the Floating Transport does the same. You can also press `Num 8` on the numeric keypad.
2. To change the number of bars, right-click the metronome button (♩) in the toolbar and choose 1 Bar, 2 Bars or 4 Bars under Count-In Bars.

The count-in follows the session tempo and time signature from the chosen cursor position. The cursor stays there while the count-in plays; the backing and dry take begin together after it. While it plays, the status line shows Count-in with the time left. The metronome settings also set whether the click plays during the take; see Transport and navigation.

Record a take

1. Click ● Rec in the toolbar, or choose Transport > Record. Head Chef prepares the input and shows Record ready · Press Space to record. The track's meter shows the input level.
2. Press `Space`, click the Play button (it now reads ● Record), or choose Transport > Start Recording to start the take. If the count-in is on, it plays first.
3. Perform. The status line shows Recording with the elapsed time.
4. To finish, press `Space`, click the Play button (it now reads ■ Finish), click ■ Stop, or choose Transport > Finish Recording.

To start recording directly without the ready step, press `F12` or `Num 3`.

Head Chef shows Finishing recording... while it completes the file, then Take recorded with its length. The take appears as a clip on the armed track at the position where you started recording. The cursor returns to that position when the take finishes. Adding the take is one step in the edit history, so Edit > Undo removes it and Edit > Redo puts it back.

Record another take over the song

Keep each new take on its own empty mono audio track:

1. Finish the current take and set its amp monitor menu to Off. Disarm that track.
2. Add or select another empty mono audio track and choose its recording input.
3. Stop playback and place the cursor where the new take should begin. Arm the new destination.
4. Open its Amp and Tuner and choose Input or Auto in the monitor menu so the existing song can play while you record.
5. Use ● Rec, then `Space`, and finish the take as above.

The earlier take and the backing stay in the song. Each finished take is one separate Undo step. Save the session to keep the copied audio and clip positions together.

Cancel a take

- *To leave record ready*, click ● Rec again, choose Transport > Record Ready, or click ■ Stop, before you start the take.
- *To cancel during preparation or the count-in*, choose Transport > Cancel Recording Start, or click the Play button, which reads Cancel at this stage.

While a take is preparing, counting in or recording, Head Chef locks other changes to the session. Finish or cancel the take first.

Recording states

A take moves through a fixed series of states. The status line at the bottom of the window, the Play button and the Transport menu show where you are.

State	Status line	Play button	First Transport menu item
Not ready	The reason recording is not possible yet, or Click Record to get ready. Space or F12 starts the take.	Plays as usual	Play
Preparing	Preparing to record… with a moving bar	Cancel	Cancel Recording Start
Record ready	Record ready · Press Space to record	● Record	Start Recording
Count-in	Count-in with the time left	Cancel	Cancel Recording Start
Recording	Recording with the elapsed time	■ Finish	Finish Recording
Finishing	Finishing recording…	Finishing, dimmed	Finish Recording, dimmed
Take recorded	Take recorded with its length	Plays as usual	Play
Stopped early	Recording stopped. with the reason, and Recovery… when audio can be kept	Plays as usual	Play

While the track is ready, counting in or recording, the Arrange lane shows *Recording* · and the track name, and the track's meter shows the input level. Pointing at ● Rec shows what to do next, for example Press Space to record. Press Record again to leave readiness. F12 starts recording directly. while ready, and Recording. Press Space or Stop to finish. while recording.

The Take recorded line stays until your next edit. Times in the status line read minutes, seconds and milliseconds.

How long a take can be

A take is a 32-bit float mono file. Head Chef writes it to disk as you record; there is no fixed take-length or encoded-byte allowance. Leave enough free space in the session's folder for the take and saved audio copies.

The status line shows elapsed time. The recording activity indicator does not count down to an invented maximum. Finish the take when your performance is complete. A device or disk problem can stop recording; see When a take stops on its own.

Messages before a take starts

When something stops Head Chef from getting ready, the Record command stays unavailable. Point at ● Rec to read the reason. With an audio track selected while stopped, the status bar also shows the next setup step beside the last action when no error, import, edit or playback needs that space. Head Chef checks these in order and shows the first that applies.

Message	What to do
Create or open a session, then add a mono audio track.	Create a session with File > New Session....
Save your session before recording.	Choose File > Save Session. Takes are stored next to the session file.
Keep or dismiss the recovered take before recording again.	Click Recovery... and choose Keep take or Dismiss.
Wait for earlier recordings to be checked before recording a new take.	Wait a moment while Head Chef checks the recording folder.
Stop playback and finish the current edit or render before recording.	Stop playback, let go of any control you are dragging, and wait for Render Mix to finish.
Arm one empty mono audio track to record a take.	Arm exactly one empty audio track.
Record a mono take in an empty session. Create a new session and add an empty audio track.	For existing backing, connect Input or Auto monitoring on the armed empty destination; see Monitoring. Without Head Chef input monitoring, use an empty session.
Choose a recording input for the armed track.	Click the track's input button and choose an input.
Enable input access, then try Record again.	Click Enable input in the Mono recording input window.
Wait for microphone access to finish, then press Record again.	Answer the macOS request.
Allow Head Chef to use the microphone in System Settings, refresh inputs, then press Record again.	Turn on Head Chef under Privacy & Security > Microphone in System Settings; see Give Head Chef microphone access.
The selected input is unavailable. Reconnect it or choose another input.	Reconnect the interface, click Refresh inputs, or choose another input.

Message	What to do
Match the session and input sample rates before recording.	Set the interface to the session rate, or create the session at the interface's rate.

While Head Chef is preparing, counting in or recording, other changes to the session show Stop recording or cancel record readiness before changing the session. Finish or cancel the take first.

When a take stops on its own

If something goes wrong during a take, Head Chef stops it, keeps the audio it has captured, and shows Recording stopped. followed by the reason on the status line:

Reason shown	What to do
Recording stopped because the input disconnected. Reconnect it, then try again.	Check the cable or power of your interface.
Recording stopped because the interface could not deliver audio. Reconnect it, then try again.	Reconnect the interface and check it in Audio MIDI Setup.
Recording stopped because the input rate changed. Match the input and session rates, then try again.	Set the interface back to the session rate.
Recording stopped because the input clock changed or skipped. Check the interface, then try again.	Check the interface's clock source and digital connections.
Recording stopped because the input contained invalid samples. Check the interface, then try again.	Restart the interface, then record again.
Recording stopped because input arrived faster than it could be saved. Keep the recovered audio, then try again with less disk activity.	Keep the take, close apps that use the disk heavily, and save sessions to a fast drive.
Recording stopped because the click output failed or stopped delivering audio. Check the output, then prepare recording again.	Check the output device in Settings > Audio Engine....
Recording could not be saved. Check the session folder and available disk space, then try again.	Free disk space, or save the session to a folder you can write to.

When the stopped take holds audio, the status line also shows Recovery.... See Where takes are stored.

Where takes are stored

Head Chef writes each take, as it records, into a folder named `.headchef-recordings` next to your session file. The name starts with a dot, so Finder hides it unless you show hidden files. When the take finishes, Head Chef adds it to the session.

Because the audio reaches the disk while you play, a take survives an unexpected stop. If recording stops early, or Head Chef quits during a take, the status line shows Recording stopped. with the reason and a Recovery... button. When you open that session again after Head Chef quit during a take, the

status line reads An earlier recording is ready to recover. Keep it in this session or dismiss it. Click Recovery… to open the Recording stopped window, and choose:

- Keep take to add the recovered audio to the session as a take.
- Dismiss to leave it out of the session. The audio stays in the recording folder.
- Keep open to decide later.

You must keep or dismiss a recovered take before you can record again.

Latency

Latency is the delay between a sound reaching your interface and Head Chef receiving it, and between Head Chef sending audio and you hearing it. Choose Settings > Audio Engine… (`⌘,`) to see it. Near the bottom, the window lists Input, Output and Round-Trip latency in milliseconds and samples for the buffer you choose.

A smaller hardware buffer lowers latency but asks more of your Mac. The window notes this when you pick a very small buffer: 32 and 64 sample buffers minimize monitoring latency but increase real-time CPU load.

> Tip: If Head Chef shows Match the session and input sample rates before recording., change the session rate in Settings > Session Settings… while the session has no audio clips, or set your interface to the session rate.

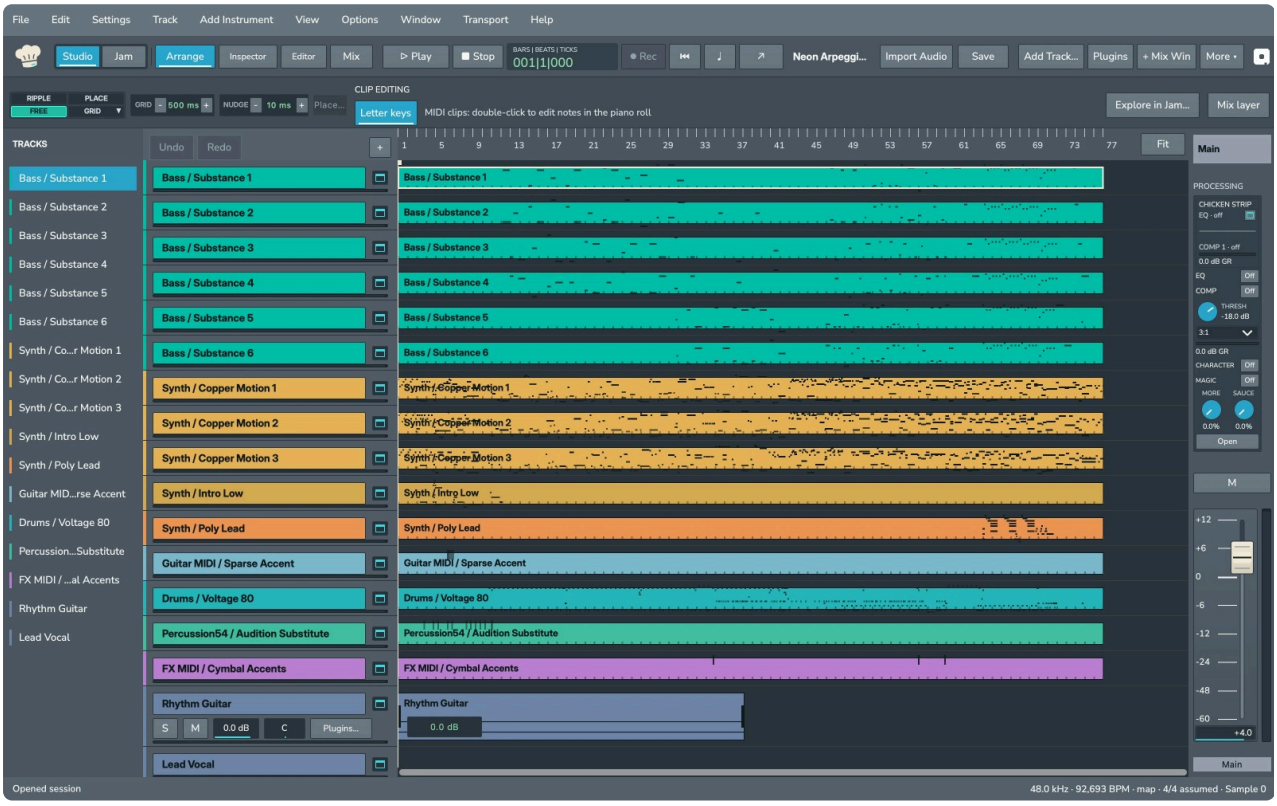
> Note: For other messages that stop a recording, such as an input that disconnects, see Troubleshooting.

CHAPTER 11

Editing audio

This chapter shows you how to shape audio clips in the Arrange window. You will select a clip and place the cursor, choose an edit mode, move and trim clips, place a clip at an exact sample, nudge it, mark fades, set clip gain, lock a clip, and undo any change. None of these edits change your audio files. Head Chef only changes which part of the file plays, where it plays and how loud.

Each audio track holds one clip. Selecting a clip and selecting its track are the same thing: click the clip, or click the track's name button.



The Arrange window with the edit mode, GRID and NUDGE controls above the timeline

Make selections and use the cursor

Every clip edit in Head Chef acts on two things: the selected clip and the cursor. Head Chef 1 has no time-range selection and no multiple selection, so there is nothing to drag out or ⇧-click; you choose one track, and the cursor marks the time.

Select a track and its clip

- Click the track's name button in its header, or its name in the TRACKS list.
- Click anywhere in the track's lane in the timeline. Clicking also gives the timeline keyboard focus, which the single-letter keys need.
- With letter shortcuts on, press **P** for the track above and **;** for the track below. The selection stops at the first and last track; it does not wrap around.

One track is selected at a time. On an audio track, selecting the track selects its clip. On an instrument track, clicking a note in the lane also selects that note, and `←` and `→` step through the notes.

The cursor

Head Chef has one cursor, the playhead. Playback starts from it, and the edits below that mention the cursor or the playhead use the same position. The status bar shows it in samples, for example *Sample 96,000*.

To move the cursor:

- Click an empty part of an audio lane, or the upper half of a clip. The pointer shows a text beam where a click moves the cursor. The lower half of a clip is for moving it.
- Press `Return` to stop and go to the start, or `⌥Return` to go to the session end.
- Press `Tab` to jump to the next edge of the selected clip, and `⌥Tab` to jump back to the previous edge. With letter shortcuts on, `'` and `L` do the same.
- Click ⏪ or ⏩, or press `Num 1` or `Num 2`, to move two seconds back or forward.
- Drag in the ruler to scrub; see Transport and navigation.

Clicking an instrument lane selects the track but leaves the cursor where it is.

With third-party plugins, pause playback, finish any plugin edit and turn off software input monitoring before choosing another playback position. Wait for Preparing cursor… to finish, then press Play. Cancel or ■ Stop withdraws a pending move. See Play from another point.

Keep the cursor in view

With letter shortcuts on:

- `Q` or `W` centers the timeline on the cursor.
- `E` zooms the timeline to the selected clip. Press it again to return to the previous view.
- `R` and `T` zoom out and in around the cursor.

`⌥F` (View > Fit Selected Clip) fills the window with the selected clip at any time.

What each edit acts on

Edit	Acts on	Uses the cursor
Drag to move or trim	The clip you drag, which becomes selected	No
`A` and `S`	The selected clip	Yes, as the new start or end
Place…	The selected clip	Only through Use Playhead
Nudge and content nudge	The selected clip	No
`H`, `U` and `K`	The selected clip	Yes, as the target position
`D`, `G` and `F`	The selected clip	Yes, as the fade edge

Edit	Acts on	Uses the cursor
Clip gain keys	The selected clip	No
`⌘L` and `⌘M`	The selected clip	No

If no audio clip is selected, these keys do nothing.

Choose an edit mode

The edit mode decides what happens when you drag a clip. Head Chef has four: Ripple, Free, Place and Grid. Their buttons sit at the left of the row below the toolbar.

Hover over a mode button, or reach it with `Tab`, to see what it does. Press `Space` or `Return` on the focused button to choose that mode; the keyboard then returns to Arrange.

Mode	Button	Key	What dragging a clip does
Ripple	RIPPLE	`F1`	Keeps the clip against the session start, so no gap opens before it.
Free	FREE	`F2`	Moves the clip anywhere, to the sample.
Place	PLACE	`F3`	Opens the Place dialog so you can confirm an exact position.
Grid	GRID	`F4`	Snaps the clip start and trimmed edges to the grid.

You can also press `⌥1` to `⌥4`, or, with letter shortcuts on, press the grave accent key to cycle through the modes. Free is the default mode. The edit mode, grid and nudge values are settings of the app window; they are not saved in the session.

Ripple Lock

To keep from switching into Ripple by accident, `⌘`-click RIPPLE. The button reads RIPPLE LOCK, Ripple can no longer be chosen, and the grave accent key skips it when cycling. If you try to choose it, Head Chef shows Ripple mode is locked. Command-click Ripple to unlock. `⌘`-click it again to unlock.

Grid options

Click the small arrow on the GRID button to choose:

- Absolute Grid: clip starts snap to grid lines counted from the session start.
- Relative Grid: the clip moves in whole grid steps from where it started, keeping its offset from the grid lines. The button reads REL GRID.
- Snap to Grid: On or Snap to Grid: Off: with snap on, moves and trims also snap to the grid in Free and Place mode, always in the absolute way. You can also `⇧`-click GRID or press `⇧F4`.

Pressing `F4` while already in Grid mode switches between Absolute and Relative Grid.

Set the grid and nudge values

The GRID and NUDGE readouts next to the mode buttons show the current grid step and nudge step. Click - or + to step through the available sizes; the steps stop at the smallest and largest value.

Both steps are fixed numbers of samples. At a 48 kHz session rate they read:

Readout	Steps at 48 kHz	Default
GRID	1 ms, 5 ms, 10 ms, 25 ms, 50 ms, 100 ms, 250 ms, 500 ms, 1 s, 2 s	500 ms
NUDGE	1 sample, 1 ms, 5 ms, 10 ms, 25 ms, 50 ms, 100 ms, 250 ms, 500 ms, 1 s	10 ms

At other sample rates the same sample counts last a different time. At 96 kHz the default grid step lasts 250 ms, and at 44.1 kHz most steps show as a number of samples (`smp`). The grid is not measured in bars and beats.

Move a clip

1. Point at the lower half of the clip. The pointer becomes an open hand.
2. Drag left or right and release. The drag starts after the pointer has moved a few pixels, so a click alone does not move the clip.

While you drag, hold `⌘` or `^` to ignore the grid for that drag. Press `Esc` before you release to cancel.

- *Free*: the clip lands at the exact sample you release it on.
- *Grid*: the start snaps to the nearest grid line, or moves in whole grid steps in Relative Grid.
- *Ripple*: the clip returns to the session start whatever you drag.
- *Place*: releasing the clip opens the Place dialog with the drop position filled in; the clip moves only when you click OK.

A clip cannot start before the session start. If you drag past it, the clip stops at sample 0. The clip's fades, sync point and clip gain line move with it.

Trim a clip

Trimming changes which part of the audio file the clip plays. You can shorten a clip, or lengthen it again as far as the audio file reaches.

Drag an edge

1. Point at the clip's left or right edge. The pointer becomes a resize arrow.
2. Drag the edge and release.

In Free, Place and Grid mode the rest of the audio stays where it is in time; only the edge moves. In Ripple mode the clip keeps starting at the session start, so trimming the start pulls the remaining audio earlier.

The edge stops at the first and last sample of the audio file, and a clip is always at least one sample long. In Free and Place mode, if lengthening the start would place audio before the session start, Head Chef refuses the trim with Cannot trim before the timeline begins. and the clip returns to its previous length.

In Grid mode, or with Snap to Grid on, a trimmed edge snaps in whole grid steps counted from the first sample of the audio file. The edge lands on a timeline grid line when the file's first sample sits on one, as it does for a clip recorded or imported at the session start.

Trim to the cursor

1. Click the timeline where you want the edge, or move the cursor there.
2. With the clip selected, press `A` to trim the start to the cursor or `S` to trim the end.

The cursor can also sit outside the clip. With the cursor before the clip, `A` lengthens the start back to the cursor; with the cursor after it, `S` lengthens the end. The cursor must be over the clip's audio file: if the file has no audio at the cursor's position, the key does nothing. If the new start would come at or after the clip end, or the new end at or before the clip start, Head Chef shows Choose a non-empty clip range inside the source audio.

These keys do not snap to the grid.

Type the source range

Click Editor in the toolbar (▤ in a narrower window) to open the panel below the timeline. Type a sample number in Source in / samples or Source out / samples and press `Return`. The numbers count samples from the start of the audio file. A range outside the file, or a start at or after the end, is refused with Choose a non-empty clip range inside the source audio.

Place a clip at an exact time

1. Select the clip and click Place..., or drag the clip in Place mode.
2. In the Place Audio Clip dialog, choose an Anchor: Start, Sync Point or End. The number in the field changes to show where that anchor is now.
3. Type the sample position in Target Sample:, or click Use Playhead to fill in the cursor position. The dialog also shows the matching bar and beat position.
4. Click OK or press `Return`.

With Sync Point or End, Head Chef moves the clip so that point lands on the target. If that would put the clip start before the session start, the clip starts at sample 0 instead. Place does not snap to the grid.

Original Time Stamp (0) places the clip start at sample 0 straight away, whatever the anchor. Cancel or `Esc` closes the dialog without moving the clip.

In Ripple mode, Place accepts only positions that leave the clip at the session start; other positions show Ripple mode keeps single-clip tracks anchored at the session start.

Nudge a clip

With the clip selected and letter shortcuts on, press `⌥.` to move it later or `⌥,` to move it earlier by the nudge value. `Num +` and `Num –` on the numeric keypad do the same. Nudging does not snap to the grid. A nudge that would pass the session start stops at sample 0.

Nudging a clip is not available in Ripple mode; Head Chef shows Clips cannot be nudged while Ripple mode is on.

Nudge the audio inside the clip

To move the audio inside the clip without moving the clip's edges, press `⌘ Num +` or `⌘ Num –`. The clip keeps its position and length, and a different part of the file plays through it. This also moves by the nudge value and works in every edit mode, including Ripple.

At the first or last sample of the audio file the content stops moving, and the key does nothing more. The clip gain line moves with the audio. Fades and the sync point stay where they are on the clip.

Snap a clip to the playhead

With letter shortcuts on, move the playhead where you want the clip, then press:

- `H` to put the clip start at the playhead,
- `U` to put the clip's sync point at the playhead,
- `K` to put the clip end at the playhead.

In Grid mode, or with Snap to Grid on, the result also snaps to the grid, so the clip may land on the nearest grid line rather than exactly on the playhead. If the clip start would come before the session start, it starts at sample 0. Use these keys in Free, Place or Grid mode.

Add fades

1. Put the playhead inside the clip, where the fade should end or begin.
2. Press `D` to fade in from the clip start to the cursor, or `G` to fade out from the cursor to the clip end.
3. Press `F` to do both at once. Each fade stops at the middle of the clip at most.

Fades appear as shaded areas over the clip. To change a fade, move the playhead and press the key again. If the playhead is outside the clip, or exactly on its edge, Head Chef shows Place the playhead inside the clip bounds to fade to cursor.

Fades are measured from the clip's edges. They move with the clip, and when you trim a clip shorter than its fades, the fades shorten to fit. A fade-in always keeps its length first; a fade-out shortens to make room for it.

Fades are linear and change the sound in playback and Render Mix before the track's plugins and fader. Each fade change is one Undo step and is saved with the session. Bypass Clip Gain leaves fades active.

Because each track holds one clip, clips never overlap and there is nothing to crossfade between them. The keyboard reference lists `F` as Fade In / Fade Out / Crossfade Clip because it shapes both ends of the one clip together.

Set clip gain

Clip gain changes the level of one clip before the track's plugins and fader. It ranges from -144 dB to +36 dB in 0.1 dB steps, and the audio file stays unchanged.

Use the badge

1. Each audio clip shows a clip gain badge. If the badges are hidden, turn on View > Clip Gain Badges (^⇧=).
2. Drag the badge up or down. Hold ⌘ for fine steps, or ⌥-click to reset to 0 dB. With the badge focused, ↑ and ↓ change the gain by 0.5 dB, or by 0.1 dB with ⌘.
3. Click the badge without dragging, or right-click it, to open the Clip Gain panel. There you can drag the slider, type a value in Gain / dB, or click Bypass Clip Gain, Reset Clip Gain to 0 dB or Show Clip Gain Line.

The badge shows Byp when clip gain is bypassed, and a dot when the clip has gain line points. The Clip Gain control in the Editor panel works the same way.

Use the keyboard

- ^⇧↑ and ^⇧↓ raise and lower the selected clip by 0.5 dB.
- ^⇧B restores 0 dB, turns bypass off and removes all of the clip's gain line points.
- Hold ^⇧ and scroll over a clip to adjust its gain.

Draw a gain line

1. Choose View > Clip Gain Line (^⇧–) to show the selected clip's gain line.
2. Click the line to add a point, and drag points to change their level or time. Hold ⌘ for fine steps.
3. Select a point and press Delete to remove it, ↑ and ↓ to change its level by 0.5 dB (0.1 dB with ⌘), or ← and → to move it by one sample. Press Esc to cancel a drag.

A clip holds up to 1024 points. The badge's overall gain and each point add together, and the result must stay between -144 dB and +36 dB, so the badge's range narrows when points are already high or low.

Gain line points belong to the audio, not to the clip's edges. When you move the clip, or nudge the audio inside it, the points move with the audio. When you trim a clip, points in the trimmed-away part stay hidden and come back if you lengthen the clip again. Before the first point and after the last, the gain holds that point's level, so a hidden point still sets the level at the clip edge next to it.

Each finished clip gain change is one step in the edit history, and clip gain is saved with the session.

What happens at the clip boundaries

Edit	At the session start	At the ends of the audio file	Length
Drag to move	Stops at sample 0	Not affected	Unchanged
Drag an edge	Refused in Free, Place and Grid if audio would start before sample 0	Stops at the first and last sample	At least one sample

Edit	At the session start	At the ends of the audio file	Length
`A` and `S`	Not affected	Nothing happens if the cursor is beyond the file	Refused if the clip would have no length
Typed source range	Refused if audio would start before sample 0	Refused outside the file	Refused if the clip would have no length
Place..., `H`, `U`, `K`	Clip starts at sample 0 instead	Not affected	Unchanged
Nudge	Stops at sample 0	Not affected	Unchanged
Nudge the audio inside	Not affected	Stops at the first and last sample	Unchanged
Fades	Not affected	Not affected	A fade never exceeds the clip

There is no fixed session end: the session ends where its last clip ends.

Sync points

A sync point is a marked position inside a clip, such as a downbeat or a hit, shown as an orange line. When a clip has no sync point of its own, it is the clip start, and `U` then works like `H`. Use it with the Sync Point anchor in the Place dialog and with `U`.

The sync point is measured from the clip start, so trimming the start moves it to a different part of the audio. Head Chef 1 sets a clip's sync point through the assistant connection; see Control and automation.

Lock or mute a clip

- Press `⌘L` to lock the selected clip. A locked clip refuses moves, trims, placement, nudges, content nudges, snapping to the playhead, fades, gain changes and mute changes, and Head Chef shows Clip is locked. Unlock the clip first. Press `⌘L` again to unlock it. You can still drag a locked clip on screen, but it returns to its place when you release. Edit > Undo can still change a locked clip.
- Press `⌘M` to mute the selected clip. A muted clip appears darker and plays silence while you play the session. Press `⌘M` again to hear it.

Clip mute, clip lock and sync points are saved with the session and restored by Undo and Redo. A muted clip is silent in playback and Render Mix. Muting a clip leaves its audio file unchanged.

Letter shortcuts

Single-letter keys work when the Arrange timeline has keyboard focus and letter shortcuts are on. Turn them on or off with the Letter keys button under CLIP EDITING, or with Options > Arrange Letter Shortcuts (A–Z). They are on when Head Chef starts. Click the timeline, or press `⌥⌘1`, to give it focus.

Key	Action
A / S	Trim the clip start or end to the cursor
D / G / F	Fade in, fade out, or both
H / U / K	Snap the clip start, sync point or end to the playhead
P / ;	Select the previous or next track
L / '	Move the cursor to the previous or next clip edge
Q / W	Center the timeline on the cursor
E	Zoom to the selected clip, and back
R / T	Zoom out or in
Grave accent	Cycle edit modes
Z / ⇧Z	Undo and Redo

For the full list, see Keyboard shortcuts.

Undo, redo and the edit history

Every change to the song is one step in the edit history: adding a track, moving, trimming, placing or nudging a clip, a finished clip gain change, a track height change, Session Settings, and more.

- Choose Edit > Undo (⌘Z) or Edit > Redo (⇧⌘Z), or click Undo and Redo above the track headers.
- Point at either button, or reach it with Tab, to read which edit comes next. The description follows the edit history through Undo and Redo. Saving or selecting a track leaves the next undoable edit unchanged.
- Head Chef keeps up to 512 steps, within a memory budget of 64 MiB. When the history is full, the oldest steps are dropped.
- Opening or creating a session starts a new history.
- Undo and Redo wait while you are dragging, typing in a field, adjusting a control or recording.

Fades, sync points, clip mute and clip lock use the same edit history. A combined change to clip gain and these properties is one Undo step. When clips are linked for editing, one Undo restores every affected clip.

> Tip: The Region Editor Window (Window > Region Editor Window) shows the selected clip on its own, where you can trim and move it the same way.

CHAPTER 12

MIDI and instruments

This chapter helps you make music with Head Chef's built-in instruments. You add an instrument track, choose an instrument and a sound, write and edit notes in the piano roll, and play the instrument live from a midi keyboard or your Mac keyboard.

The built-in instruments

Head Chef includes five instruments. They run inside Head Chef, so there is nothing extra to install.

Instrument	What it is
Voltage 80	A drum machine with a bank of analog-style drum voices and an accent.
Voltage 78	A percussion machine with its own set of analog-style rhythm voices and an accent.
Substance	A monophonic synthesizer with two oscillators, a sub oscillator, noise, a filter, envelopes and modulation. It is at home on bass.
Octet	A polyphonic two-oscillator synthesizer with a multimode filter, envelopes and modulation, for pads, strings and keys.
Mini Bar	A collection of 25 playable sounds in seven families: Piano, Keys, Winds, FM, Organ, Pluck and Strings.

Add an instrument track

1. Choose Add Instrument, then the instrument you want, for example Add Instrument > Mini Bar.
2. Head Chef adds a track named after the instrument, selects it and opens the instrument's editor.

You can also choose Track > Add Track > Add Instrument Track and pick the instrument there. Each new instrument track holds one empty MIDI clip, ready for notes. To add tracks in other ways, see Tracks.

Choose a sound

Every instrument comes with factory sounds.

1. Select the instrument track.
2. Click Inspector in the toolbar. On narrower windows the button shows ◧.
3. Under SOUND, choose a sound from the list.

When you change any sound control, the list shows Custom. Choosing a factory sound again restores it exactly.

The instrument panel in the Inspector

For an instrument track, the top of the Inspector under CHANNEL CONTROLS shows, from top to bottom:

1. Channel preset..., with the name of the preset in use below it. See Mixing.
2. INSTRUMENT: a button with the instrument's name, which opens its editor, and Change..., which swaps the instrument; see Change the instrument on a track.
3. SOUND: the list of the instrument's factory sounds, or Custom after you change a control.

Below them, the Controls tab lists the instrument's controls. Click Quick for the main ones or All for every control. Each control shows its name and unit, for example *Kick level / %*: on and off controls are a button that reads On or Off, choices are a list, and numbers are a field. Type a number and press `Return` to apply it, or `Esc` to cancel.

Instrument	Factory sounds	Quick controls
Voltage 80	8, starting with Reference Circuit	Kick level, kick decay, kick tuning, snare level, snare snappy and closed hi-hat level
Voltage 78	8, starting with Reference Circuit	Master level, balance, accent, snare snappy, noise level and an added guiro
Substance	10, starting with Burgs	Filter cutoff, resonance and envelope amount, envelope attack and release, and output level
Octet	10, starting with Copper Keys	Filter cutoff and resonance, amplifier envelope attack and release, stereo spread and output level
Mini Bar	25, with Glass Keys as the default	Depends on the sound's family, for example Tone, Touch, Decay and Character for a piano

> Note: The Controls tab reminds you that Sound changes stop playback and return to the start. In the Mini Bar panel, control changes apply while you play, without cutting off notes you are holding.

Change the instrument on a track

You can swap the instrument on a track and keep everything else.

1. Select the track and open the Inspector.
2. Under INSTRUMENT, click Change.... In a Mix strip, click ▾ next to the instrument name.
3. In the Change instrument dialog, choose an instrument and click Change instrument.

The track keeps its notes, its Chicken Strip settings, its effects, its sends and its fader. The new instrument starts with its default sound. Edit > Undo brings the previous instrument back.

Open an instrument's editor

Click the button with the instrument's name under INSTRUMENT in the Inspector, or in a Mix strip. Voltage 80, Substance and Octet open their original bitsnacks panels. Mini Bar opens its own panel. For more about these panels, see Plugins.

Browse and shape Mini Bar sounds

Mini Bar is Head Chef's keyboard instrument, with pianos, electric keys, FM sounds, organs, winds, plucked strings and string sections.

1. Open the Mini Bar panel from the instrument button.
2. Step through sounds with the previous and next arrows, or type in Find a sound to search.
3. Click EDIT to shape the current sound, and All controls to see every control.
4. Click DONE to return to the main panel.

When Tine and Reed use matching voice limits, MIDI channels and sustain settings, switching between them blends the notes you are holding into the new sound. The software keyboard stays on while you browse. For other sounds, release the keys before changing sound, then play a fresh note.

OUT sets the instrument's output level before the channel's processing and fader.

The Mini Bar panel at a glance

The Mini Bar panel opens in its own window. `⌘W` or Close closes it.

1. *Sound list*, on the left: Find a sound searches by name, family or texture, and × clears the search. The list is grouped by family under SOUNDS; click a family's arrow to open or close it. When nothing matches, the list shows No sounds found. and a Clear search button.
2. *Sound display*: the family and number, the sound's name and a one-line description, with the previous and next arrows. A small amber dot shows that you have changed the sound.
3. *Knobs*: up to four main controls for the sound's family, with their values below them.
4. *Effects*: TREMOLO, CHORUS and ROOM, each with a lamp that turns it on or off and a knob for its amount. Click an effect's name for its settings. An effect the sound's family does not use is dimmed.
5. *Output*: the OUT knob and a level meter. The meter shows the instrument's level before the channel's processing and fader.
6. *Keyboard*: the on-screen keyboard and Play keyboard; see Play from your Mac keyboard.
7. MIDI: chooses a MIDI keyboard for this panel, with Disconnect input and Refresh MIDI inputs.

The sounds, by family:

Family	Sounds
Piano	Rounded Grand, Studio Grand
Keys	Tine, Reed, Clavinet, Electric Grand
Winds	Trumpet, Saxophone, Flute, Pan Pipes, Harmonica

Family	Sounds
FM	Glass Keys, Soft Bell, Mallet, Rubber Bass, Digital Brass, Air Pad, Arcade Kit, Digital Kit
Organ	Drawbar, Gospel, Combo
Pluck	Nylon Guitar, Steel Guitar
Strings	Small Section, Broad Section, Low Strings

Arcade Kit and Digital Kit are drum kits. Each key plays its own drum instead of a pitch, in the usual drum layout: kick on C2, snare on D2, hi-hats on F♯2, G♯2 and A♯2, toms from F2 to D3, crash on C♯3 and ride on D♯3. A closed or pedal hi-hat cuts a ringing open hi-hat, and a drum rings out however briefly you press its key. Arcade Kit repeats its drums two octaves higher, so its kick is also on C4 and the on-screen keys play the whole kit. Digital Kit adds tuned percussion you play as notes: timpani from C1, log drum from C4 and steel drum from C5. With Play keyboard on, press `Z` twice to move your Mac keyboard down to the drums on C2. The four main knobs shape the whole kit from the next hit, and EDIT shows how strongly velocity brightens a hit.

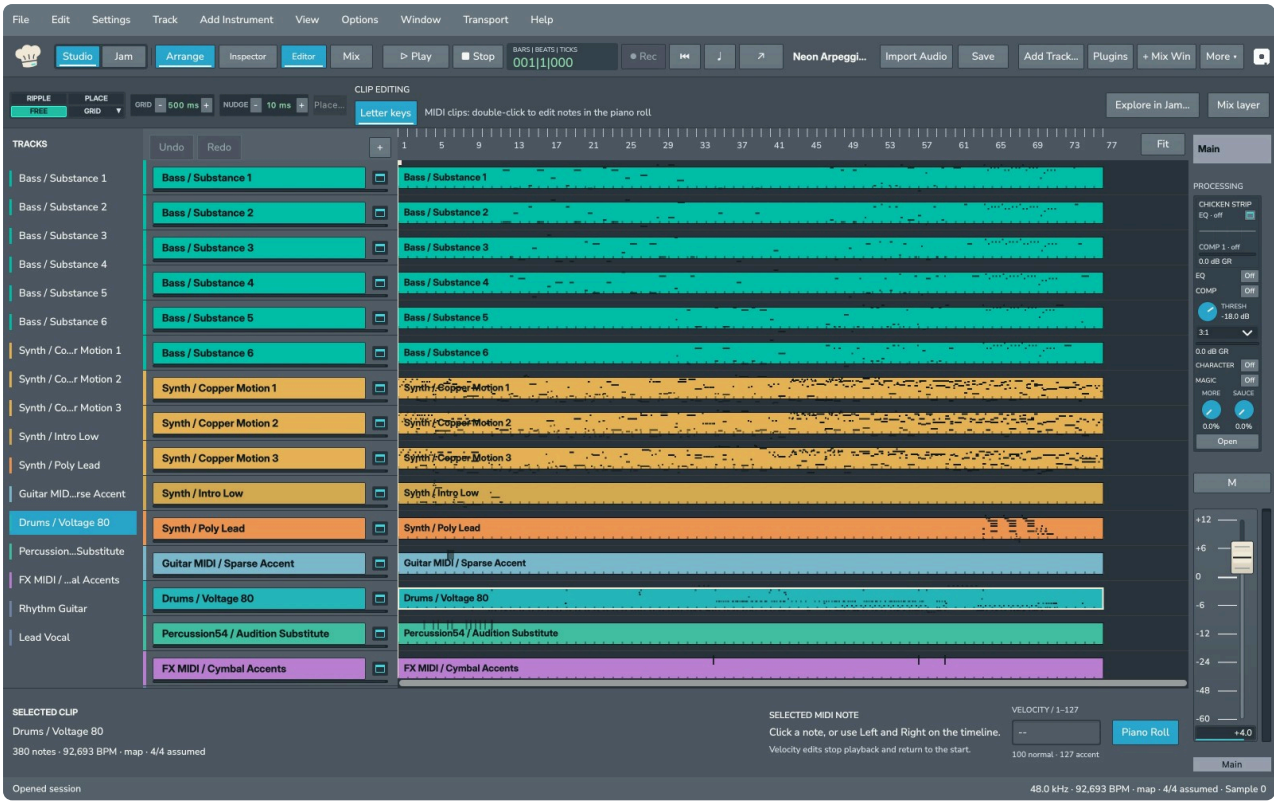
EDIT opens the sound's controls in groups, such as the hammers, strings and body of a piano or the drawbars, percussion and rotary speaker of an organ. All controls lists every control, and Back to Edit returns. Type a value and press `Return` to apply it, or `Esc` to cancel. FM sounds add an envelope page for each operator. Wind sounds play in Mono, Poly8 or Poly16, and Legato joins notes in Mono.

Edit notes in the piano roll

Open the piano roll in any of these ways:

- Click Edit notes in the instrument track's header, including when it has no notes yet.
- Double-click an instrument track's lane in Arrange.
- Click Editor in the toolbar to show the region editor, then click Piano Roll.
- Choose Window > Region Editor Window, or click + Region Ed in the toolbar, with an instrument track selected. The window follows the track you select.

In the main window, the piano roll opens along the bottom of the window. Click Close to close it.



The piano roll open below Arrange, showing drum notes

The piano roll at a glance

From top to bottom, the piano roll shows:

1. The header: PIANO ROLL, the clip name, the number of notes in a wide window, and Close.
2. The toolbar: the Select, Draw and Erase tools, Length, the Snap list, Zoom and Fit.
3. The ruler, with bar numbers counted from the start of the session. The corner above the keys reads KEY.
4. The keys and the note grid. All 128 MIDI keys are listed, from C-1 at the bottom to G9 at the top, each with its name; C4 is middle C (key 60). Black-key rows are darker, and a brighter line marks each C.
5. The note fields for the selected note, and Delete note.
6. A help line: Double-click to add · Drag to move · Drag right edge to resize · Delete to remove · Q to quantize. While you drag it reads Escape cancels · Release to keep the edit, and when Head Chef refuses an edit it shows the reason in amber.

Each note is a colored bar. Its color follows its velocity: loud notes are red and orange, softer notes shift toward green, and a light strip along the bottom of the note grows with the velocity. The selected note has a light outline. While the session plays, a line shows the playhead.

Tools and snap

Tool	Click on an empty place	Click on a note
Select	Clears the selection	Selects the note
Draw	Adds a note; drag straight away to set its length	Selects the note

Tool	Click on an empty place	Click on a note
Erase	Nothing	Deletes the note

Select is the tool when the piano roll opens. In every tool except Erase, double-clicking an empty place adds a note.

The Snap list sets the grid that new notes, moves, resizes and quantize use: 1/4, 1/8, 1/16 (the starting value), 1/32 or Off. Head Chef counts 960 ticks per quarter note, so the steps are 960, 480, 240 and 120 ticks; with Off, notes move by single ticks. The grid lines in the note area follow the snap value and thin out when you zoom out. Snap returns to 1/16 each time the piano roll opens.

Zoom opens Zoom In and Zoom Out; `⌘]` and `⌘[` do the same while the note grid has focus. Fit shows the notes you have written, at least eight beats, and centers them vertically. You can also scroll to move through the keys, hold `⇧` and scroll to move through time, hold `⌥` and scroll to zoom, or pinch on a trackpad.

Add, move, resize and delete notes

1. To add a note, double-click an empty place, or click with Draw. The note starts on the snap grid, lasts one snap step and has velocity 100. It goes on MIDI channel 1, or channel 10 on Voltage 80 and Voltage 78.
2. To move a note, drag it. It moves in time by whole snap steps from where it was, and up and down by semitones.
3. To change its length, drag its right edge. The pointer changes to a resize arrow near the edge, and the end snaps to the grid.
4. To delete it, select it and press `Delete`, click Delete note, or click it with Erase.

You work on one note at a time: Head Chef 1 has no multiple note selection and no resizing from the left edge.

With a note selected, you can also use the keyboard. `Q` is the key to quantize a note, which lines it up with the snap grid.

Key	Action
`↑` and `↓`	Move the note up or down by a semitone.
`←` and `→`	Move the note earlier or later by one snap step.
`⇧←` and `⇧→`	Make the note shorter or longer by one snap step.
`Q`	Quantize the note's start to the snap setting. Its length stays the same, and with Snap Off the key does nothing.
`Delete`	Delete the note.
`Esc`	Cancel a drag in progress.

Type note values

The fields below the grid show the selected note. Type a new value and press **Return** to apply it; press **Esc** or click elsewhere to discard it. With no note selected, they show `--`.

Field	What it sets	Values
PITCH / MIDI KEY	The key, as a MIDI note number	0 to 127; 60 is C4
VELOCITY	How hard the note is played	1 to 127
POSITION / TICKS	Where the note starts, counted from the start of the clip	0 and up
LENGTH / TICKS	How long the note lasts	1 and up
MIDI CHANNEL	The midi channel	1 to 16

Use Zoom and Fit to change the view. Click Close when you are done.

Change the clip length

A new instrument track starts with an eight-bar clip. You can lengthen a clip after writing notes, for example to make a 64-bar part.

1. In the piano roll toolbar, click Length.
2. In MIDI clip length, enter a whole number of Bars, using the song's current meter.
3. Click Apply, or press **Return**. Head Chef shows the complete clip so you can write beyond its old edge.

The clip keeps its notes and sound settings. Extending beyond the song's end also extends the song range. Shortening a clip keeps the song range and refuses a length that would cut off a note; move or shorten that note first. Cancel or **Esc** leaves the clip unchanged. Edit > Undo restores the previous clip and song lengths together.

A clip imported with a partial bar shows its exact current length. Enter a whole-bar length to change it. Length edits stop playback and return to the start, just like note edits.

Notes and the clip edges

An instrument track holds one MIDI clip, and notes must start and end inside it. The clip does not grow automatically when you add notes near its end; use Length to extend it first. When you drag, a note stops at the clip's edges. A key or a typed value that would put a note outside the clip, or give it no length, is refused, and the help line shows MIDI notes need a key from 0 to 127, velocity from 1 to 127, channel from 0 to 15, and a positive duration inside their clip. A click at or after the clip end adds no note.

A clip holds up to 2048 notes, and a session up to 16,384. Every note edit is one step in Edit > Undo, and editing notes stops playback and returns to the start.

Set velocity

Velocity is how hard a note is played, from 1 to 127. New notes start at 100. Change it in the VELOCITY field of the piano roll, or select a note in Arrange and type in VELOCITY / 1–127 in the region editor. In Arrange, with an instrument track selected, ← and → step through its notes.

> Tip: On Voltage 80, velocity 100 plays a normal hit and 127 plays an accent.

Play from a MIDI keyboard

Head Chef connects MIDI keyboards automatically. You can plug one in while Head Chef is running.

1. Connect your keyboard to your Mac.
2. Select an instrument track.
3. Play. While you hold keys, the MIDI button in the toolbar shows the note you are playing.

Live playing sounds the instrument. To add notes to the track, use the piano roll.

Click MIDI in the toolbar to open the keyboard settings. On narrow windows, it is under More ▾ > MIDI Keyboard....

- ON and OFF turn keyboard input on or off.
- The panel shows Plays Selected Track with the track that receives your notes.
- Keyboard Source chooses All Connected Keyboards (Auto) or one keyboard.
- MIDI Channel chooses All Channels (Omni) or one midi channel from 1 to 16.
- Refresh Ports looks for newly connected keyboards.
- All Notes Off silences any stuck notes.

Your sustain pedal works with every built-in instrument.

Play from your Mac keyboard

The Mini Bar panel has an on-screen keyboard of three octaves, from C3 to B5. Click a key to play it, or keep the mouse button down and glide across white and black keys. Moving outside the keys releases the mouse note; moving back while still holding the button plays the key under the pointer. Release the mouse button to stop.

To play from your Mac keyboard:

1. Open the Mini Bar panel.
2. Click Play keyboard. The button reads KEYBOARD ON while the keyboard is playing.
3. Press the keys A W S E D F T G Y H U J K to play thirteen chromatic notes, initially from C4 up to C5. Use these keys without ⌘, ⇧ or other modifiers. Notes play at a fixed velocity of 104.
4. Press Z or X to shift down or up an octave, or use the controls beside the range readout. Ranges run from C-1 to C0 through C8 to C9.
5. Press Esc to release the keyboard.

Changing octaves keeps any note you are already holding at its original pitch until you release it. Your next press uses the new octave. The octave setting applies to the Mac keyboard; the on-screen keys keep their C3 to B5 range. It does not edit your song or add an Undo step. Search boxes and other text fields keep normal typing.

The Substance panel also has an on-screen keyboard you can click to hear the sound.

Preparing playback

Some synthesizer parts need a moment of preparation before they can play. When you press Play, the status line at the bottom of the window may show Preparing playback… with a percentage, and playback starts when it finishes. Click Cancel to stop waiting.

Open a MIDI file

To bring in a Standard MIDI File, choose File > Open Session… and pick a `.mid` file, or drag it onto Arrange. Head Chef opens it as a session. For more, see Importing.

Tips

- New drum notes on Voltage 80 and Voltage 78 go on MIDI channel 10, the usual drum channel.
- Every note edit is one step in Edit > Undo.
- Use Mixing to add Chicken Strip settings, effects and sends to your instrument tracks.

CHAPTER 13

Tempo and session settings

This chapter explains the settings that apply to a whole session: its tempo, time signature, sample rate and pan depth. You will learn how to change each one in the Session Settings window, how to move a tempo change in a song that has a tempo map, and what a tempo change does to your MIDI and audio.

Open Session Settings

1. Open a session.
2. Choose Settings > Session Settings..., or press `⌘ Num 2` (2 on the numeric keypad).

The window has two parts: Tempo and Time Signature, and Session Audio. Make your changes, then click Apply. Cancel closes the window without changing anything. Session Settings is unavailable while you record.

Applying is one step in the edit history, so Edit > Undo puts the previous settings back.

The status line at the bottom right of the window shows the current settings, for example *48.0 kHz · 120 BPM · 4/4*.

Set the tempo

1. In Tempo / BPM, type the tempo in beats per minute, for example `120` or `92.5`.
2. Click Apply, or press `Return`.

Head Chef keeps the original tempo until you change this field. It stores the tempo exactly as you type it, so a value with a very long decimal can be refused with This tempo cannot be saved exactly. Shorten the decimal or choose another BPM value.

Decimal separators

The BPM field and the tempo in the status line use the decimal separator of your Mac's region settings. If your region uses a comma, the field shows `92,5` for ninety-two and a half. You can type either your region's separator or a period, so `92,5` and `92.5` give the same tempo. Other number fields in Head Chef use a period.

What a tempo change does

Changing the tempo changes the musical timing of the session:

- MIDI clips and notes are placed in bars and beats, so they follow the new tempo. A faster tempo makes them play sooner and closer together.
- Audio clips are placed at fixed sample positions, so they stay exactly where they are in time and keep their speed and pitch. The bar lines move around them.
- The metronome and count in follow the tempo and time signature.

Set the time signature

1. Under Time Signature, type the number of beats per bar (from 1 to 32) in the first field.
2. Choose the beat unit in the menu after the /, for example 4 or 8.
3. Click Apply.

The menu lists the beat units that fit the song's musical grid. If a song uses a beat unit that the menu does not list, Head Chef keeps it and shows The current beat unit is kept. Choose another beat unit before changing the Time Signature numerator.

An assumed time signature

Some imported songs do not store a time signature. Head Chef then counts bars in an assumed time signature, and the window shows a note such as This song did not store a Time Signature, so 4/4 is assumed. The status line adds assumed, for example *4/4 assumed*.

- If the assumed time signature is right, click Keep 4/4 (the button names the assumed time signature) and then Apply. Head Chef stores it with the song and stops calling it assumed.
- If it is wrong, enter the correct time signature and click Apply.

Songs with a tempo map

A song that carries tempo changes, such as some imported songs, has a tempo map: a list of tempos, each starting at its own position. For these songs:

- The field reads Initial Tempo / BPM and shows the first tempo. It is read only.
- The status line shows the tempo at the cursor and adds map, for example *92.693 BPM · map · 4/4*.
- Each tempo value is kept exactly when you move a change or edit the time signature.

Move a tempo change

1. In Session Settings, apply any other changes first. Move Tempo Change… is unavailable while other settings are waiting to be applied.
2. Click Move Tempo Change….
3. In Tempo change, choose the change to move. Each entry shows its position as bar, beat and tick, and its tempo. The initial tempo is not in the list.
4. Enter the new position in Bar, Beat and Tick. The window shows where the song's musical range ends.
5. Click Apply.

Head Chef moves the change using the song's current time signature. Its tempo value and every other change stay exactly as they were. The new position must come after the initial tempo, lie within the song's musical range, and not land on another tempo change.

> Note: The Tick field accepts a fraction with up to five decimal places, for when a beat boundary falls between musical ticks.

Choose the sample rate

1. Under Session Audio, open Sample Rate.
2. Choose 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz or 192 kHz.
3. Click Apply.

You can change the sample rate only while the session has no audio clips. Once it has audio, the menu is unavailable and the window explains: Sample rate is fixed because audio clips keep their source sample rate. Choose the rate before you record or import audio.

When the session rate and your audio device's rate differ, Head Chef switches the device to the session rate when you play, if the device supports it. The Audio Engine window (Settings > Audio Engine...) shows both rates. To record, the input's rate must match the session rate; see Recording audio.

Choose the pan depth

Pan depth sets how much quieter a mono track is when it is panned to the center than when it is panned fully to one side.

Setting	Level at center
-2.5 dB	2.5 dB lower
-3.0 dB (Default)	3 dB lower
-4.5 dB	4.5 dB lower
-6.0 dB (Linear)	6 dB lower

1. Under Session Audio, open Pan Depth and choose a setting.
2. Click Apply.

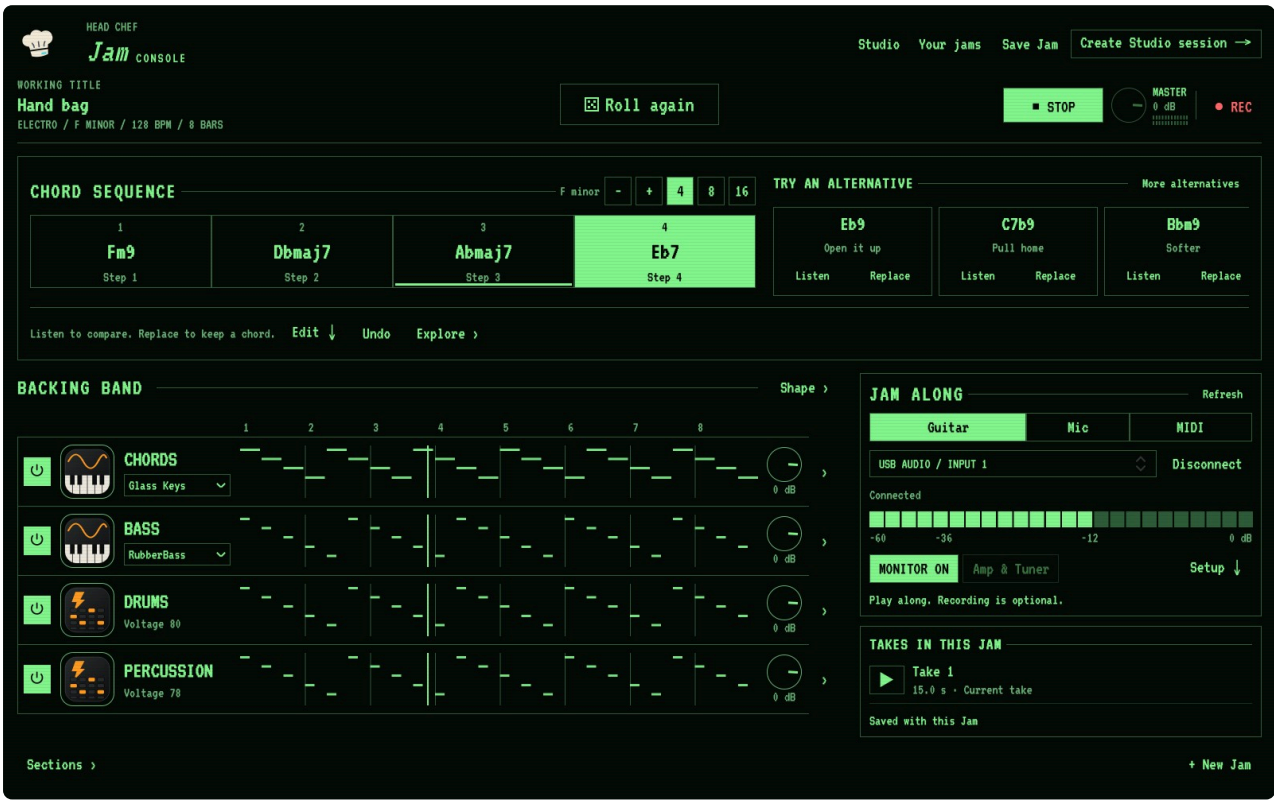
Pan depth applies to mono tracks. Stereo channels use balance, which turns down one side as you pan toward the other. You can change pan depth whenever you are not recording, even after the session has audio.

> Tip: If the song changes while Session Settings is open, Head Chef asks you to close the window and reopen it so you review the current song before applying anything.

CHAPTER 14

Jam Console

Jam Console is an independent window for trying musical ideas. Roll an eight-bar backing band, connect your guitar or microphone and play along. Recording is optional. You can audition different chords, keep takes with the jam and send the result to Studio as ordinary tracks.



Jam Console with its transport, chord sequence, four backing parts and Jam Along input.

Open Jam

Jam opens in its own window. You do not need a Studio session to generate, play or save a jam. The chord sequence sits directly below the transport, with the backing band and Jam Along input underneath.

1. Click Jam ↗ in the Studio toolbar. If no jam is open, Head Chef starts a new one.
2. Click Your jams to see saved jams, then Back to Jam to return to the open jam.
3. Click Studio to bring Studio forward. Jam stays open, and an existing session keeps its edits and playhead position. Opening Studio stops Jam playback. In Studio, its Play button or `Space` plays the Studio session, even if you were most recently working in Jam.

When no session is open, the start screen also offers Start a jam. The Studio window hides while you jam. Closing a Studio window does not close Jam.

> Note: You cannot open Studio while Jam is recording. Stop the recording first.

Find your way around the Console

Area	What you do there
Jam name and transport	Check the musical context, play or stop the backing, roll another idea, record and save.
CHORD SEQUENCE	Select a chord, try an alternative or open the detailed harmony controls.
BACKING BAND	Follow each part's notes, choose chord, bass and drum sounds, and adjust the playing mix.
JAM ALONG	Choose and connect your audio input, watch its level, turn monitoring on and set the count-in.
TAKES IN THIS JAM	Listen to recordings, return to an earlier backing and check whether your takes are saved.

Jam Along

JAM ALONG puts your instrument beside the backing band. The audio input meter and monitoring work before you record.

1. Choose Guitar or Mic. Jam checks for audio inputs automatically; wait for Checking audio inputs to finish, then choose your device and physical input channel. Checking the list does not connect or monitor your input.
2. If you connect another device or see No audio inputs found, click the visible Refresh button beside the input controls. If checking fails, follow the message and try Refresh again.
3. Click Connect and allow microphone access if prompted. Wait for Input ready.
4. Play or speak and watch the input meter. If CLIPPING appears, lower the input gain on your microphone or interface.
5. Click MONITOR OFF to hear your input through Head Chef. The control changes to MONITOR ON. Click it again to turn monitoring off.
6. If a backing idea is open, click ▶ PLAY and play along. Stopping Jam playback leaves input monitoring available while the input is connected.

Shape your input with Amp and Tuner

Click Amp in JAM ALONG to open the input's amp. Choose a supplied sound in Library, import a NAM model or cabinet, or adjust Input Drive, Bass, Mid, Treble, the noise gate and Output. Bypass lets you hear the input without the amp sound. These controls affect your instrument; the backing band and click keep their own sound.

Turn input monitoring on to hear the amp. Tuner listens to the connected input. Silent Tune mutes Head Chef's instrument monitoring while you tune; it leaves the backing and dry recording running. An interface's own direct monitor must be controlled at the interface.

Choose your sound before starting a recording. Amp sound controls are unavailable during recording and while a take finishes. Tuning remains available. Jam does not record amp automation; use a Studio amp insert for musical automation.

Jam keeps the original dry input. When you play a retained take, it uses the current saved amp sound, so changing the sound also changes how earlier takes play. Save Jam keeps the sound and its model/cabinet assets with the jam. Open editable tracks → copies each dry input take into Studio with a matching amp insert, where you can continue editing its sound.

Record an optional take

The small recording control sits beside ▶ PLAY. Connect your input first; you can record with a backing idea or in free time.

1. With a backing idea open, use Setup ↓ to choose a Count-in: No count-in, 1 bar, 2 bars or 4 bars. It starts at 1 bar and also controls the cue before Roll again.
2. Click ● REC. Head Chef prepares the current backing if needed, then starts the count-in and recording. Finish any in-loop chord preview, volume-dial drag or Roll count-in before recording.
3. Click ■ STOP REC when you finish. Wait for Finishing take to complete. The count-in is excluded from the saved audio.
4. The take appears under TAKES IN THIS JAM, with its duration and Current take status. Click its play icon to listen.
5. Record again to keep another take. Earlier takes remain available as Retained.
6. Click Save Jam to keep the recordings with the jam. The take panel shows Save Jam to keep these takes, Saved with this Jam or Unsaved changes, so you can see whether your current work is saved.

The recording uses the current idea's loop as its backing. It does not play the stored section arrangement. The take remembers the backing that played, so you can return to it after changing the idea.

For free-time recording, connect your input before rolling an idea and use the same recording control. You do not need a tempo or bar grid. Afterwards, keep the take as it is or roll an idea to add a backing band. Keep recording for as long as you need, then Stop when you have finished. Leave enough free disk space for recordings and saved copies. Stopping before any audio is captured leaves the previous takes unchanged.



Jam Along input controls with Setup open to show the count-in setting. The input is disconnected.

Play a MIDI instrument

Choose MIDI in Jam Along to open the MIDI information, then click Open Studio →. Open a Studio session and select an instrument track to play your keyboard. To take the backing band with you, use the Jam's Studio transfer control described in Use a jam in Studio. Jam's recording controls capture audio; MIDI input and recording use Studio. See MIDI and instruments.

Start a new jam

Each roll chooses chord and bass sounds to suit the groove. Short offbeat chords favour Mallet with Rubber Bass; other patterns explore suitable keys, pads and bass sounds. Opening a saved jam keeps its stored sounds. Each new roll receives a fresh working title shaped by its style and vibe. It fits the header and avoids names already in Your jams or the recent rolls. Previous roll restores that idea's title with its music. You can keep or change the current title when saving.

1. Click + New Jam below the Console, or in Your jams.
2. Under MAKE A START, click ▶ ROLL AN IDEA for an eight-bar backing band. A one-bar metronome cue counts in and the band starts playing by itself, the same cue Roll again uses. You can also connect your input and play or record in free time before rolling an idea; a roll made during a free-time take leaves the take running.
3. Choose a chord sound from the visible selector on the Chords row. Choices include Glass Keys, Tine, Reed, Clavinet, Electric Grand, Studio Grand, Rounded Grand, Drawbar, Nylon Guitar, Steel Guitar, Small Section, Broad Section, Soft Bell, Mallet, Digital Brass, Air Pad and Octet. Madre is unavailable in Jam. On the Bass row, choose Substance or Mini Bar's Rubber Bass. On the Drums row, choose Voltage 80 or Mini Bar's Arcade Kit or Digital Kit.

> Important: Save the open jam before you start a new jam or open another one. Unsaved changes in the open jam are not kept.

Roll a backing band

BACKING BAND contains four parts: Chords through your selected Mini Bar or Octet sound, Bass through Substance or Mini Bar Rubber Bass, Drums through Voltage 80 or a Mini Bar drum kit, and Percussion through Voltage 78. A roll chooses style, tempo and vibe together. The readout below the jam's name shows its style, tempo, meter, key, vibe and length.

From the first roll, Head Chef explores different keys and harmonic paths suited to the chosen style. Chord voicings and bass octaves move smoothly between chords. A shuffle feel applies the same offbeat timing to chords, bass, drums and percussion, while keeping their accents and held performances. The bass follows the progression and the kick groove, including rests and short answers. You can change the harmony without writing each part's notes yourself.

1. Click ▶ PLAY. Head Chef starts the instruments and plays the backing live. Preparing instruments… may appear briefly while the sounds load; click Cancel to withdraw the start. Click ■ STOP to stop.
2. Click the large Roll again control near the centre of the header for a new idea. It starts playback even if the jam was stopped. The old backing stops while the new sounds get ready, then a one-bar metronome cue leads into bar one of the new idea at its own tempo and meter. The dice animates while the new backing gets ready. During the cue, the button shows the beat number, such as 1, 2, 3, 4 in 4/4, then returns to Roll again when the band starts. Choose No count-in, 1 bar, 2 bars or 4 bars under Setup ↓ to change the cue; this is the same count-in choice used for recording. Roll again does not require an input connection, and connected monitoring stays available.
3. Open Shape › and click Previous roll to go back. Head Chef keeps your recent rolls, up to 20, and any changes you made to a roll stay with it.

When the active take spans several loops, playback includes its full length and finishes on a complete backing loop. Evolving changes wait for the end of that longer playback cycle. Roll again instead starts the new idea from bar one after its selected cue. Clicking it again replaces the pending roll and cue; ■ STOP or Cancel withdraws the start. Ordinary ▶ PLAY keeps its normal behavior and does not repeat a canceled Roll cue.

The instruments keep playing across loop boundaries, so notes and effects continue naturally. You can change the music, sounds and mix while the jam plays. During a Roll count-in, wait for the band or press Stop before changing harmony, choosing another sound or recording. Volume, mute and solo remain available. Monitoring stays available when it uses the current playback rate. If turning monitoring on would change that rate, wait for the count-in to finish or press Stop first; the input panel shows the reason.

Each part row shows its actual notes on a shared bar grid. The vertical playhead crosses every part on the same time axis. A part with no notes shows No notes in this part. In a shorter window, scroll down to reach the remaining controls.

If a sound cannot play, Jam shows an error below the header. Choose an available sound and play again. If a replacement sound fails during playback, the previous backing keeps playing.

Set overall volume

Use Master, beside Play, to set the overall Jam volume while keeping the balance between parts. It controls the band, retained takes, monitored input, chord auditions and count-in. The two meter rows show the left and right output after this control.

Drag up to lower the volume or down to raise it. Hold Shift for fine adjustment. The readout shows the level in dB; 0 dB keeps the original level. The setting is saved with the Jam, and releasing a drag makes one undoable change. Press Escape while dragging to restore the previous setting. Finish any in-loop chord preview with Keep or Revert before adjusting Master.

Master also adjusts what you hear while recording. Recorded input stays dry, and undoing a take keeps the Master setting you chose. Canceling recording preparation or its count-in also keeps that setting. Studio has its own Main level.

Hold what you like

Open Shape › to reveal Hold style, Hold tempo and Hold vibe. Each keeps that setting on the next roll.

To keep one backing part, open its right-hand chevron and click Hold. The control changes to Held. Click it again to release the part. A held part keeps its sound as well as its notes when you roll again.

Change one part

Each part has a volume dial. Drag up to lower the level or down to raise it; horizontal movement does not change the level. Hold Shift for finer adjustment. The dial starts from its current level without jumping when pressed. Release to keep one undoable change, or press Escape to cancel the drag. Chords, Bass and Drums have sound selectors. Bass offers Substance and Rubber Bass. Drums offers Voltage 80, Arcade Kit and Digital Kit. Your choice stays when you vary the part. Hold Chords or Bass to keep its sound through the next roll; unlocked parts receive sounds suited to the new idea. Short, clipped electronic chords favour Rounded Grand; predominantly offbeat comping favours Mallet. Drum sounds stay when you roll.

Open a part's right-hand chevron for the remaining controls:

- Vary changes that part's notes, rhythm or articulation. Varying Drums also adjusts an unheld bass line to follow the new kick groove. A held bass line stays as it is.
- Mute and Solo change the playing mix without restarting the loop. The power control on the closed row also mutes or enables that part.
- Choose a sound on the visible Chords, Bass or Drums selector. The other parts continue while the new sound is prepared, then it replaces that part at the current playback position. A saved sound keeps its complete settings until you deliberately select a factory sound again. Madre is disabled in Jam.

Vary, chord edits and Undo keep the playback position when the musical clock stays the same. The instruments adopt those changes without waiting for the next loop. If a hold conflicts with an edit, Jam explains the problem and keeps the previous music; release the hold or choose compatible harmony. If a change needs a fresh start while notes are held, the current backing keeps playing. Click ■ STOP, then ▶ PLAY, to hear the changed idea.

Same or evolving passes

Open Shape › and choose Same each pass to repeat the same notes on every pass, or Evolve to let Head Chef vary it a little on each pass. Evolve pauses while you record.

Jam remembers up to 64 bars of complete recent passes. Let an unchanged pass finish playing, then use Keep this pass in Shape to keep it. A pass changed partway through by a live edit is excluded from this memory.

Try chords and explore harmony

CHORD SEQUENCE shows every chord card in the current pattern. Use the 4, 8 or 16 choices beside its title to change the number of chords. The phrase keeps its length, and the slots share that time evenly. Extra slots repeat your existing chord order so you can edit them; reducing the count keeps the beginning of that order. Undo reverses the resize.

Select a chord card to hear the existing chord and choose its slot, including a step late in an eight- or sixteen-chord pattern.

Each card under TRY AN ALTERNATIVE has two separate actions:

- Listen sounds that alternative once using the current chord sound. The existing chord, backing sequence and saved Jam stay unchanged. Listen again or compare another alternative while the backing is stopped or playing.
- Replace changes only the selected chord slot and rebuilds its compatible backing as one undoable edit. Undo restores the previous music.

Click More alternatives for another set of choices for the same chord. Browsing and listening do not create a pending edit or block Roll again. Replacing a chord also leaves Roll again available.

Click ▶ PLAY to hear the full sequence. Selecting or listening to a chord does not move the playback position. The line under a sounding card shows playback separately from your selected card.



Chord alternatives with separate Listen and Replace actions and More alternatives.

Edit a chord or the whole progression

1. Select a chord card, then click Edit ↓.
2. Choose Root, the chord quality in Colour and an optional Bass note. Root bass lets the bass follow the chord root. A different bass note makes a slash chord, such as `Fm9/C`.
3. You can instead type a complete symbol next to Selected chord.
4. Click Apply, or press Return in the symbol field, to apply the change. Head Chef rebuilds the chord voicing and bass for the new harmony while keeping held notes. Cancel discards the unapplied draft.
5. Click Done to close the editor. Undo reverses an applied edit.

In the same drawer, type symbols separated by `|` next to Progression, for example `Cm9 | F13 | Abmaj7 | G7alt`, then click that row's Apply. You can use one to 32 chords. Keeping the same number of chords preserves their existing lengths; changing the number shares the phrase equally between them. The whole progression is one undoable change.

Move the whole progression

Use – or + beside the key to move the complete progression down or up one semitone. Chords and Bass move together while keeping their rhythm, timing, note lengths, feel, held patterns and selected sounds. Drums, percussion and the mix stay as they are. Undo reverses the move.

If a note would fall outside the MIDI note range, Head Chef leaves the whole progression unchanged and explains why. Recorded audio and its original backing are kept as earlier takes; they are not shifted into the new key.

Explore harmony

Click Explore › to reveal the additional tools:

- List shows the progression's bars, bass and voiced notes.
- Movement offers functional, color and unexpected suggestions for the selected chord. Explore selected chord sets the selected card as the starting point. Click a suggestion to apply it in that position.
- Fifths lists related major and minor chords in fifths order. Chords used in the progression are highlighted. Click a pair to apply its minor chord to the selected position.
- Find paths offers voice-led bridges between chords. Click a bridge to apply its chord in the selected position.

Click Detect chords to analyze the notes played by the Chords part. The button then shows Detected chords, with the detected symbols below. Detection names the harmony without changing the played notes.

Build a song from sections

A section is an eight-bar block of the jam. Open Sections › below the chord area to work with section ordering.

1. Click + Section to add a contrasting section with the next letter.
2. Click a section to select it. The backing rows then show that section's parts.
3. Click Repeat to add another copy of the selected section, or Variation to replace it with a variation.
4. Loop section and Play song store the selected playback scope with the jam. They do not change the audible backing in Head Chef 1.0.
5. Click Build song to store the section arrangement, including fills between sections and a two-bar ending.

Turn on Follow chords to make the parts that follow the chords play from the chord progression.

> Note: In Head Chef 1.0, Jam playback repeats the current eight-bar idea. Section ordering does not change the audible backing.

Takes from an earlier idea

If you roll a new idea after recording, your take stays in TAKES IN THIS JAM with a message about its earlier backing. Click Listen with backing to hear the take with the backing you recorded it over, or Return to that idea to bring that backing back.

Save and manage jams

1. Finish any active chord preview, then click Save Jam. The save window starts with the current working title. Keep it or type a new name, then click Save Jam to keep the jam and its takes in Your jams. Cancel returns to the jam without changing its name.
2. If the jam changes while the save window is open, cancel and reopen Save to review the latest version. Typing spaces in the title does not start playback.
3. Open Your jams to see saved jams, newest first. Click a jam's name to open it.
4. Click Listen to hear a saved jam, Duplicate to make a copy or Delete to remove it. Back to Jam returns to the open jam.

> Tip: Delete removes the jam at once. Duplicate a jam first if you might want it later.

Use a jam in Studio

The Studio transfer makes independent, editable tracks. The jam itself stays unchanged.

1. Finish any chord preview, then click Create Studio session → if no Studio session is open, or Add to Studio session → if one is open.
2. Review the destination named in CONTINUE IN STUDIO before continuing. Check the backing parts and active recordings; click each row to include or skip it. A check mark identifies an included row. Muted parts and takes recorded with an earlier idea start skipped.
3. Next to Timing, choose Keep Jam timing to keep the material at the speed you played it, or Fit Studio tempo to place the parts on the session's tempo. Fitting the tempo works for the backing parts and recorded MIDI, not for recorded audio.
4. Click Open editable tracks →, or Cancel to go back.



The Studio transfer review with the destination, included parts and timing choice, before opening editable tracks.

Head Chef brings Studio forward and leaves the Jam window open. If a session is open, the new tracks start at the playhead. If no session is open, Head Chef creates one at the jam's tempo; an audio-only free-time jam gets 120 BPM in 4/4.

Backing parts become editable instrument tracks with the matching sounds, including your selected chord sound, your Substance or Rubber Bass voice and your drum sound. An instrument already stored in the jam keeps its complete sound settings and MIDI notes when transferred. Audio stored in the jam becomes copied audio media that remains in the session if the jam is later removed. Empty takes have no recorded sound to transfer; skip them to open the backing parts. Audio with a different sample rate from the session is refused before tracks are added.

Explore Studio material in Jam

> Important: In Head Chef 1.0, this review does not copy the selected Studio notes or audio into Jam. Your Studio session is not changed. Use ▶ ROLL AN IDEA to create playable Jam material.

1. In Studio, click Explore in Jam... in the edit toolbar above Arrange.
2. Next to Destination:, choose New Jam or Current Jam (separate idea) as the review's destination.
3. Click Bring into Jam.

Use the Jam Window

Jam always uses its own window, so you can work side by side with Studio or keep Studio closed while you jam.

1. Click Jam ↗ in Studio to open or bring forward the Jam window.
2. Use Studio to bring Studio forward while leaving Jam open.
3. With Jam active, press `Space` to play or stop, `⌘S` to save the jam, or `⌘W` to close its window. Closing stops Jam playback and keeps the open jam available when you reopen the window. Opening editable tracks brings Studio forward with your new tracks.

PART

Mix and finish

15. Mixing
16. Plugins
17. Rendering your mix
18. Volume automation, control surfaces and assistants

CHAPTER 15

Mixing

This chapter helps you turn a set of tracks into a finished mix. You set levels and positions in the Mix view, shape each channel with Chicken Strip and effects, save and reuse channel presets, send channels to shared echo and reverb, and keep the Main channel in good shape.

Open the Mix view and the Mix Window

- Click Mix in the toolbar, or choose View > Mix. ⌘= switches between Arrange and Mix.
- To mix in a separate window, choose Window > Mix Window, click + Mix Win in the toolbar, or press ⇧⌘=. You can keep Arrange in the main window and place the Mix Window on another display.

Each channel has a channel strip. The Main channel is pinned at the right edge.



The Mix view with a row of channel strips and the Main strip on the right

Read a channel strip

From top to bottom, a strip shows:

Part	What it does
Name	Click to select the channel.

Part	What it does
Type	INSTRUMENT, AUDIO, AUX RETURN or MASTER.
Preset... and source	Channel presets, and the instrument or recording input.
Sends	Opens the channel's sends beside its source and processing controls. The count appears in parentheses, for example *Sends (2)*.
PROCESSING	Chicken Strip at a glance, plus the channel's effects.
S and M	Solo and Mute.
Pan knob	Places the channel from left to right.
Fader and meter	Sets the level and shows the signal.

The Chicken Strip summary shows EQ and Compressor 1 status, its response curve and measured gain reduction. Click the summary to open the channel controls, or its small window button to open the full Chicken Strip editor. Main keeps the same summary beside its pinned fader and meter.

Set level, pan, solo and mute

1. Drag a fader to set the channel level, from -60 dB to +12 dB.
2. Drag the pan knob to place the channel, from 100 left to 100 right.
3. Click S to solo a channel and hear only soloed channels, or M to mute a channel.

To fine-tune, hold ⌘ while you drag. To reset, ⌥-click: a fader returns to 0 dB and pan to center. With a fader focused, press **Return** to type a value. ⇧S and ⇧M solo and mute the selected track.

The meter turns red at the top when a channel goes over full scale. Click the meter to clear it.

The signal path of a channel

Sound passes through each channel in a fixed order. Knowing the order tells you, for example, why a send follows the fader and why clip gain changes how hard Chicken Strip's compressor works.

Audio and instrument tracks

1. *Source*. An audio track plays its clip. An instrument track plays its instrument from the track's notes; on Mini Bar, OUT sets the instrument's level here.
2. *Clip gain*. On an audio track, the clip's gain and gain line set its level before any processing. See Editing audio.
3. *Processing chain*. Chicken Strip and the effects in PROCESSING, from top to bottom, in the order you set. Chicken Strip comes first on a new channel, and you can move it with Up and Down like any effect. An effect that is Off passes the sound through unchanged.
4. *Fader, pan and mute*. The fader sets the level from -60 dB to +12 dB, pan places the sound, and M silences the channel. The bottom of the fader is -60 dB, not silence; use M to silence a channel.
5. *Meter*. The channel's meter shows the level after the fader and pan.

6. *Solo*. When any channel is soloed, the channels that are not soloed stop playing to Main.
7. *Sends*. Each send takes the sound after the processing, fader, pan and mute, and feeds it to an Effect Return at the send's level.
8. *Main*. The channel plays into the Main channel.

Audio tracks and the Substance instrument are mono; the other instruments are stereo. A mono channel is placed between the speakers with the session's pan depth (see Tempo and session settings). A stereo channel, including a stereo clip from an imported file, uses pan as a balance control: at center both sides play at full level, and turning toward one side lowers the other. A mono channel becomes stereo at its first effect or plugin, so a chorus or reverb on a mono track adds stereo width before the fader. Pan on that channel still follows the pan depth, which lowers both sides by the pan depth at center.

Effect Returns

1. *Input*. The sum of every send that feeds the return.
2. *Processing chain*. Chicken Strip, then the return's effect, then any effects you add. The return's effect plays only its processed sound, except Char Press, whose own Mix control sets how much of the dry sound passes. Turning the return's effect Off passes the dry sound of the sends.
3. *Fader, pan and mute*. Pan works as a balance control.
4. *Meter*, after the fader.
5. *Main*. The return plays into the Main channel.

An Effect Return cannot send to another return, and a session holds up to four.

Main

1. *Input*. The sum of every track and Effect Return.
2. *Processing chain*. Main's Chicken Strip and any effects you add.
3. *Fader and mute*. Main has no pan and no solo.
4. *Metronome*. The click joins after the Main fader, so the fader does not change its level and Render Mix leaves it out.
5. *Meter*, after the fader.
6. *Output*. Main plays on the first two outputs of the device chosen in Settings > Audio Engine.... See The Main channel and headroom.

Render Mix renders this same path, from every source through Main, without the click. See Rendering your mix.

Inside Chicken Strip

Chicken Strip has its own fixed order: input gain and polarity, gate, the two compressors and the graphic EQ, character and analog magic, secret sauce, output trim, and a limiter that is off until you turn it on. Its compressors can sit before the EQ (the starting setting), either side of it, or after it; choose this in the full Chicken Strip panel. A new Chicken Strip has every section off, so it passes the sound unchanged until you turn something on.

Solo and the Effect Returns

Solo in Head Chef works in place and keeps the effects you hear on a soloed track. When you solo a track, the Effect Returns it sends to stay audible and play only that track's sends. When you solo an Effect Return, you hear only the tracks that feed it, through the return. Meters on channels silenced by solo still move, because they read the level before the solo stage.

Delay compensation

Some effects delay the sound they process. Head Chef measures the delay of every effect and Chicken Strip on every channel and lines the channels up automatically with delay compensation, so tracks, returns and Main stay in time. There is nothing to set. Turning an effect Off keeps its delay, so the timing does not jump when you switch it.

Work in the Inspector

The Inspector shows every control for the selected channel. Click Inspector in the toolbar, a strip's processing area, or Sends above its processing controls. In Mix it opens on the left. Click Close in its header to hide it.

The Inspector has these tabs:

- Chain: the ordered list of processing on the channel.
- Controls for an instrument, or Effect for an Effect Return.
- Sends: the channel's sends.
- Character: Chicken Strip's coloring controls.
- Strip: Chicken Strip's EQ and compressor.

Shape the sound with Chicken Strip

Every channel, including Effect Returns and Main, starts with Chicken Strip, the bitsnacks channel strip. On each Mix strip you see its main controls: EQ and COMP on and off, the THRESH dial, the ratio list, the GR gain reduction readout, CHARACTER and MAGIC on and off, and the MORE and SAUCE dials. Open shows Chicken Strip in the Inspector, and double-clicking the summary at the top opens the full Chicken Strip panel.

For more room, open the Inspector's Strip tab:

1. Click Quick for the essentials. Bypass strip turns the whole strip off while keeping its settings.
2. Under GRAPHIC EQ, turn the EQ on, choose a BAND and set its GAIN / dB.
3. Under COMPRESSOR 1, turn the compressor on, choose a RATIO and set the THRESHOLD / dBFS. Peak gain reduction shows how much it is working.
4. Click All to see every Chicken Strip control.

The Character tab holds CHARACTER, ANALOG MAGIC with its MORE amount, and SECRET SAUCE, which adds low-end weight that follows the bass in the channel. Open full strip opens the full panel. Sections you turn off keep their settings, and you can adjust Chicken Strip while the session plays.



The Mix view with the Inspector's Strip tab showing the Graphic EQ and Compressor 1

Build the processing chain

Sound flows through the PROCESSING list from top to bottom. Open the Inspector's Chain tab to change it.

1. Click + Built-in Effect to add MADRE Chorus, Voltage Spaces or Char Press at the end of the chain.
2. Click + Third-party Plugin to add one of your plugins. See Plugins.
3. Click + Insert above on any item to add an effect before it.
4. Use Up and Down to reorder, On and Off to bypass an item, Open to show its controls, and Remove to take it out.

Chicken Strip can move and be bypassed but not removed. On a Mix strip, the same actions are under + Effect, + Plugin and the ... menu of each item. Each insert processes the whole channel signal.

Use channel presets

A channel preset stores Chicken Strip, the processing chain with each effect's settings and bypass state, and for instrument channels the instrument and its sound.

1. Click Channel preset... in the Inspector, or Preset... on a strip.
2. Choose a preset and click Use preset.

Head Chef includes these factory presets:

Preset	Description
Late Night Tine	Tine keys with gentle compression, light colour and a short dark room.
Glass Echoes	Glass Keys with restrained brightness and dotted eighth-note echoes.
Concrete 80	Tight Current drums with punch-focused compression and mostly dry Char Press colour.
Room 78	Warm Room drums with gentle compression and a compact Natural room.
Focused Bass	Substance bass with controlled low mids and restrained Char Press weight.
Velvet Strings	Octet Night Choir strings with light compression and a soft Lush space.
Slow Glass Pad	Octet Glass Current pad with a broad, slowly moving Lush space.
Warm Audio	Gentle tone shaping, soft compression, light colour and a short room for audio.

The list shows instrument presets on instrument channels and audio presets on audio channels. To keep your own, click Save channel preset.... Head Chef saves a `.headchefchannel` file, which you can bring back with Load preset file.... To start a new track from a preset, use From preset... in the Add Track dialog.

Send to an Effect Return

An effect return is a channel that holds one shared effect. Several channels can feed it through a send.

1. Choose Track > Add Effect Return, then Voltage Spaces, MADRE Chorus or Char Press. A session holds up to four Effect Returns.
2. Select a channel you want to send, and open the Inspector's Sends tab.
3. Choose the return from Choose return and click Add send.
4. Turn the send's level dial, from -60 dB to +12 dB. Mute send silences it.

Sends are post-fader and post-pan, so they follow the channel's fader. In the Plugin Browser, + Return on an effect card creates a return and Send adds a send from the selected channel.

To edit the return's effect, click the effect name on its strip, or select it and open the Effect tab. An effect on a return plays only its processed sound, so you balance the effect with the return's fader.



The Inspector's Sends tab with a return chosen

Echo that follows tempo

Voltage Spaces adds reverb and an echo that can lock to your session tempo.

1. Select a Voltage Spaces return and open the Effect tab, then click All.
2. Turn on Echo On and Echo Sync.
3. Choose an Echo Division, such as 1/8 or 1/16, including triplet (T) and dotted (D) values.
4. Set the Echo amount.

With Echo Sync on, echoes follow the session tempo, including tempo changes. The Inspector shows Echo timing: session tempo map. or Echo timing: session tempo. Turn Echo Sync off to set Echo Time in milliseconds instead. To set the tempo, see Tempo and session settings.



The Voltage Spaces panel with its echo controls

The Main channel and headroom

Every channel and Effect Return feeds the Main channel, the main bus. Its strip, labeled MASTER, has a fader, a mute button, a meter and its own Chicken Strip.

Inside Head Chef, channels and Main carry levels above full scale without clipping, so a hot channel does not distort inside the mix. Your audio interface clips, though, and fixed-point WAV formats cannot hold levels above full scale. Keep the Main meter out of the red to leave headroom: lower the Main fader or the loudest channels. Head Chef renders with the same mix engine you hear. See Rendering.

Mix in Arrange

The Arrange Mix Layer puts Chicken Strip controls on each track in Arrange.

1. Choose View > Arrange Mix Layer, or click Mix layer in the clip editing bar.
2. Each track shows IN / dB, the EQ switch and band controls, the COMP 1 switch with threshold and ratio, the gain reduction readout and OUT / dB.

On short tracks, click Chicken Strip... to reach the controls. Choose the menu item or click Mix layer again to hide the layer.

Tips

- Every mix change is one step in Edit > Undo.
- The Inspector follows the selected channel in Arrange and Mix.

CHAPTER 16

Plugins

This chapter helps you use plugins in Head Chef: your own effects, Head Chef's built-in bitsnacks products and audio editors that work on your recordings. You find plugins in the Plugin Browser, add them to channels, keep your plugin folders up to date and recover if a plugin stops.

Plugin formats Head Chef uses

Head Chef works with these plugin formats:

Format	File extension	What Head Chef uses it for
CLAP	`.clap`	Effects on a channel.
VST3	`.vst3`	Effects on a channel, and ARA 2 editors for audio.

Third-party effects go in a channel's processing chain on audio tracks, instrument tracks, Effect Returns and Main. Head Chef's own instruments and effects are built in, so they need no installation.

Open the Plugin Browser

Click Plugins in the toolbar, or choose View > Plugin Browser. The PLUGIN BROWSER panel opens on the right and shows the channel it works on, for example Selected channel · Lead Vocal.

1. Type in the search field to find a plugin by name.
2. Narrow the list with All, Synths, Inserts, FX, Strip or Tracks.

Each card shows a badge: INST for a built-in instrument, FX BUS for a built-in effect that runs on an Effect Return, CLAP or VST3 for your plugins, STRIP for Chicken Strip and AUDIO for a new audio track. The buttons on a card act on the selected channel:

Button	What it does
Load	Loads a built-in instrument onto the selected instrument track.
Insert	Adds an effect plugin to the selected channel.
Send	Adds a send from the selected channel to an existing Effect Return.
Open	Opens the plugin's window.
+ Track	Creates a new track with this instrument or effect.
+ Return	Creates a new Effect Return with this effect.

Double-click a card to open its window.

Drag plugins onto tracks

You can also drag a card where you want it:

- Onto a track in Arrange, or a strip in Mix, to add it to that channel.
- Onto the Inspector, to add it to the channel the Inspector shows.
- Onto an empty area below the tracks or strips, onto the drop zone at the top of the browser, or onto Add Track... in the toolbar, to create a new track or Effect Return.

The CHANNEL INSERTS area at the bottom of the browser lists the plugins on the selected channel. Click Open to show one, or × to remove it.

Add a plugin from a channel

1. Select the channel and open the Inspector's Chain tab.
2. Click + Third-party Plugin. On a Mix strip, click + Plugin.
3. In the dialog, filter the list with Filter discovered plugins....
4. Click a plugin's row to insert it, or select it and click Add Plugin.

The dialog also lists the channel's current plugins under Active channel insert slots, with Open and Remove for each. To reorder or bypass a plugin, use the Chain tab. See Mixing.

Plugin folders and rescanning

Head Chef searches the standard plugin folders on your Mac automatically:

- `~/Library/Audio/Plug-Ins/CLAP` and `/Library/Audio/Plug-Ins/CLAP`
- `~/Library/Audio/Plug-Ins/VST3` and `/Library/Audio/Plug-Ins/VST3`
- `/Network/Library/Audio/Plug-Ins/VST3`

To add a folder for plugins installed somewhere else:

1. Click + Third-party Plugin in the Inspector's Chain tab, or Folders... in the Plugin Browser.
2. Click Edit Folders....
3. Type the folder's path in Additional plugin folder, or click Browse... to choose it.
4. Click Add Folder.

Head Chef also searches folders inside the ones you add. Click Remove next to a folder to stop searching it. Clear Search standard folders to use only your own folders. Click Rescan after you install or remove plugins. While it works, the dialog shows Checking plugins with a count.

If a plugin fails to load during a scan, the dialog shows how many could not load. Click Details to see which ones and why. After you update a plugin, click Retry blocked plugins to try it again. Your folder list is a setting on your Mac, and scanning never changes your session.

Open plugin windows

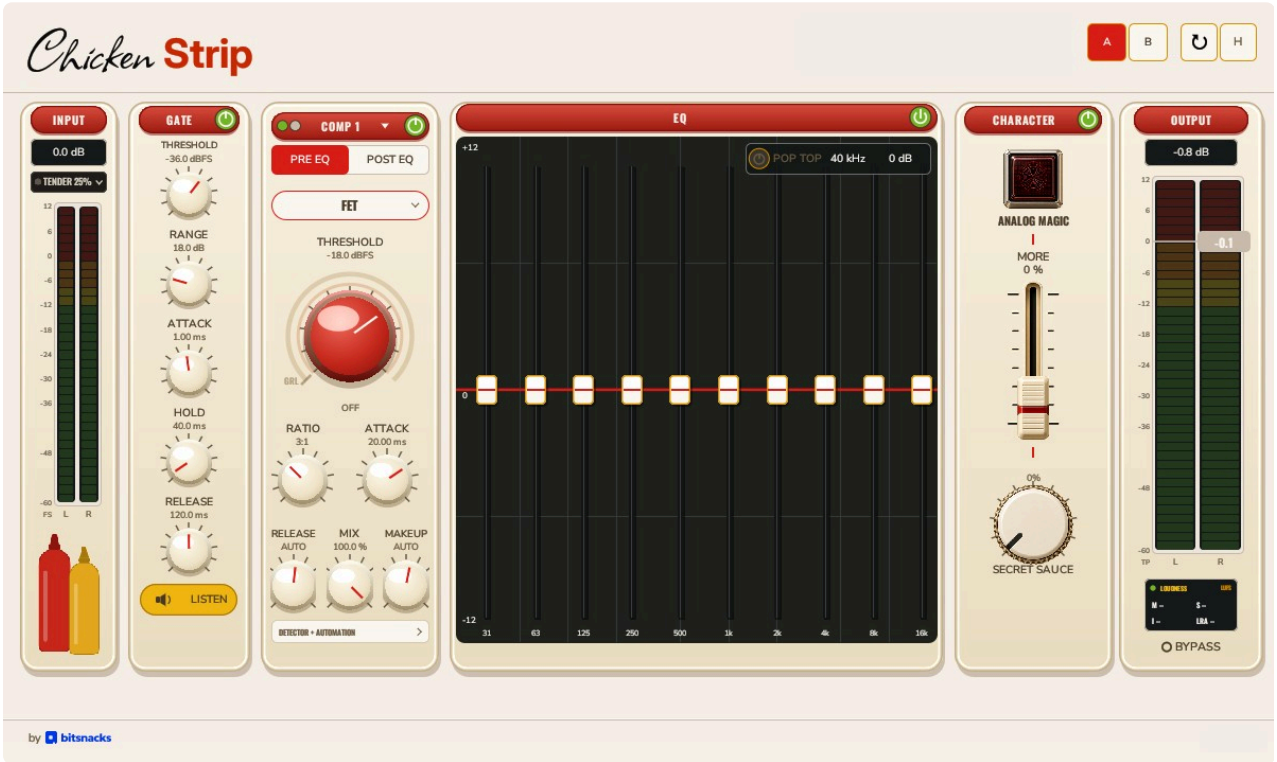
Click Open next to a plugin in the Chain tab. Head Chef shows a window with the plugin's Sound controls, 32 at a time, with Previous and Next to page through them. For a CLAP plugin, click Open Plugin Window to show the plugin's own interface. Changes you make in either place go into Edit > Undo like any other edit.

bitsnacks product panels

Chicken Strip, Voltage Spaces, Voltage 80, Substance and Octet open in their original bitsnacks panels, the same artwork and controls as the standalone products. They run inside Head Chef, so there is only one copy of the sound and edits from the panel are part of your session.

- Chicken Strip: click Open in the Inspector's Strip tab or next to Chicken Strip in the Chain tab, or double-click the Chicken Strip summary on a Mix strip.
- Voltage Spaces: click Open next to it in the Chain tab, or click the small window icon next to the effect name on its return strip.
- Voltage 80, Substance and Octet: click the instrument's name under INSTRUMENT in the Inspector.

Mini Bar has its own panel inside Head Chef. See MIDI and instruments.



The Chicken Strip panel with input, gate, compressor, EQ, character and output sections



The Substance panel with oscillators, filter, envelope and an on-screen keyboard

Play and record with Amp and Tuner

Amp and Tuner is a built-in insert for guitar and bass. Adding it loads Clean, one of the supplied original sounds. You can also load unchanged `.nam` captures and mono or stereo WAV cabinet impulses.

1. Select a track and open the Inspector's Chain tab.
2. Add Amp and Tuner from the built-in effects list, then click Open beside it.
3. Open Library to choose Clean, Edge of Breakup, Crunch, High Gain or Bass. Search by name or available capture details, mark favorites, and read the selected sound's source and license. Browse in the model row imports your own `.nam` file.
4. Adjust Input Drive to change the level entering the capture, and Output to set the resulting level. Set the interface's physical input gain separately; Input Drive cannot repair an overloaded interface input.
5. Choose a supplied cabinet in Library, or click Browse in the cabinet row to import a WAV impulse. More opens Tone EQ, gate timing and channel settings.

The insert starts before Chicken Strip. Its channel setting chooses the left input, right input or independent processing of both channels. A capture that already contains a cabinet usually needs no additional cabinet impulse. If its scope is unknown, Cabinet Auto keeps the separate cabinet off until you choose.

Model, cabinet and quality selections prepare while the previous sound continues, then fade into the selected sound. A failed selection keeps the previous tone. Undo and Redo restore the sound through the same transition. Your original recording stays unchanged.

Hear an input and record a dry take

Choose an empty mono audio track, select its interface input, and arm it. In the amp's monitor control, Input hears that input; Auto hears the armed input at Stop and Record and plays the recorded clip during ordinary playback. Off disables Head Chef's input monitoring. Set the monitor level or independent monitor mute in More.

Record captures the unprocessed input while you hear it through the amp. The monitoring input remains open between takes. Backing tracks and the click use the normal mix, and the count-in precedes the dry take. Changing the amp's drive or output during a take changes what you hear while preserving the dry recording.

If your interface supplies direct monitoring, control that at the interface. Selecting hardware direct monitoring in Head Chef turns off its software monitoring; it cannot process or mute the interface's direct path.

Tune, compare and save sounds

Open Tuner and choose Live Input to analyze the selected physical input, or Device Input to analyze the signal entering this insert. Choose L or R, a guitar or bass tuning, and your A4 reference. Click a target string to compare against it; click it again to return to automatic nearest-note tuning. The detected octave remains visible when a target is locked.

Silent Tune fades out the monitored guitar contribution while backing tracks and dry recording continue. Its indicator confirms when monitoring is actually muted. Hardware direct monitoring must be muted at the interface. Pin keeps the visible tuner focused when you use another control; hiding or closing its editor releases capture and its owned mute.

Library's A and B choices retain two complete amp configurations, including model, cabinet, quality and controls. Preset save and load keep those configurations together. Saving the song or a complete channel preset copies the referenced amp assets too. A missing or changed required imported asset leaves the amp silent; import the original asset again, or deliberately bypass the insert. Mix rendering refuses unresolved amp assets.

Open Automation to select a control and add musical tick positions, values in the displayed units, and Hold or Linear transitions. You can update or remove a point, clear a lane, and Undo or Redo an edit. Automation follows the song's tempo map during playback and rendering. Finish a recording before editing its automation.

If a plugin stops

Third-party plugins run outside the main Head Chef program. If one crashes or stops responding, Head Chef keeps running, your session and your edit history stay intact, and the plugin goes silent. Head Chef shows a message such as A plugin stopped responding. Save your session, then press Play to restore its saved sound, or remove it.

1. Save your session.
2. Press Play. Head Chef restarts the plugin with its saved sound.
3. If the plugin keeps stopping, remove it from the channel's Chain tab.

> Tip: A plugin that stops during a scan is set aside so it cannot stop the scan again. Update the plugin, then click Retry blocked plugins.

Edit audio with an ARA 2 editor

An ARA 2 editor works directly on the audio of a clip, for example to correct pitch or timing. Your original audio always stays available.

1. Select an audio track with a clip and open the Inspector.
2. Click Edit with ARA....
3. Choose your editor under Select ARA 2 editor and click Open Editor. Head Chef shows Analysing audio... and then opens the editor's window.
4. Make your changes in the editor. Click Editor to bring its window back.
5. Click Apply to render your changes into the clip, or Cancel to discard them.

After you apply, the button reads Edit with followed by the editor's name, so you can edit again. Restore Original Audio returns the clip to its recording. The applied audio plays even on a Mac without the editor installed. If your editor is missing from the list, click Rescan.

Play from another point

Pause playback, finish any plugin edit and turn off software input monitoring. Click a position in the timeline ruler, wait for preparation to finish, then press Play. The session plays from that position with its saved effect sound ready. Cancel or ■ Stop withdraws a pending move. Open a native plugin window again if it closed during the move.

The same workflow is available through the playback tools: request `transport.seek`, read `session.inspect` for the actual position and `playbackRequest`, then use `transport.set`. `transport.cancelPending` cancels the identified request; read its current `requestId` before cancelling. See Transport and navigation.

Tips

- Every plugin you add, remove, move or change is one step in Edit > Undo.
- If a plugin does not appear, check its format and folder, then click Rescan. See Troubleshooting.

CHAPTER 17

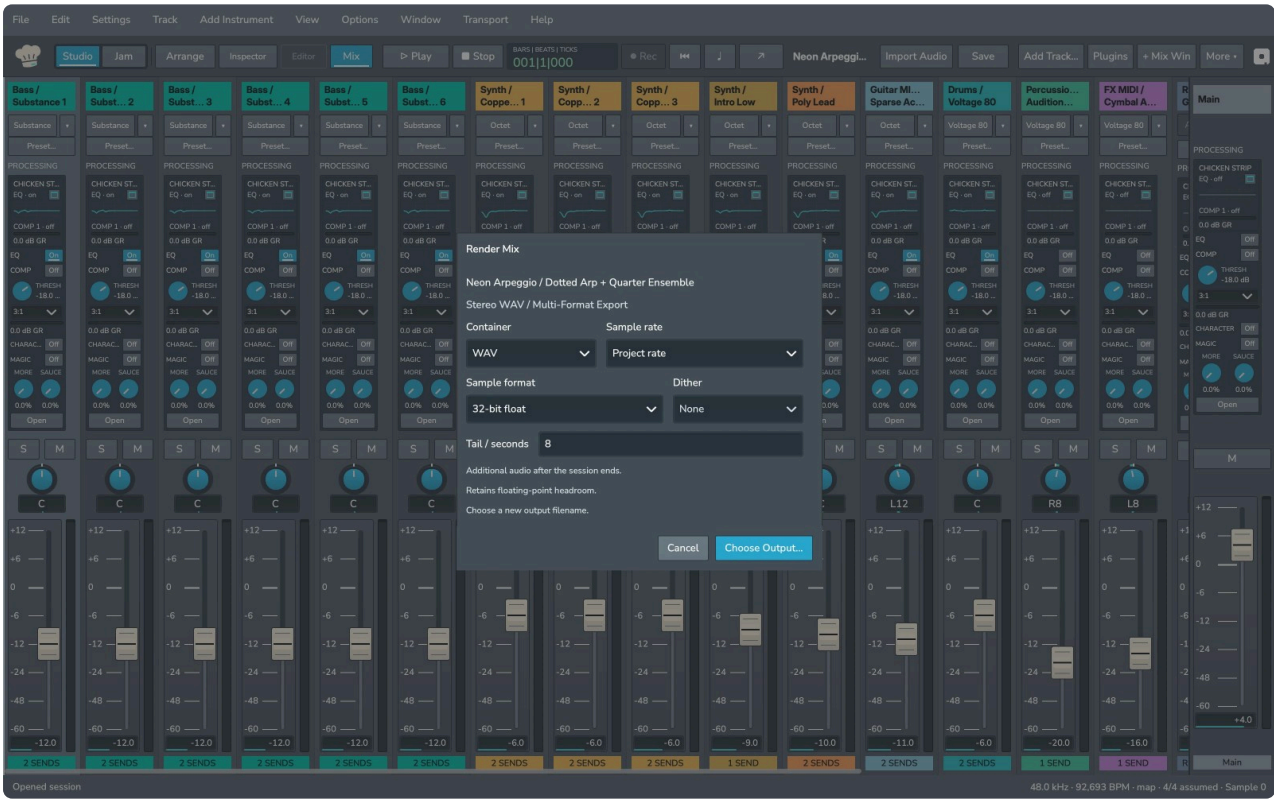
Rendering your mix

When your mix is ready, Render Mix writes the whole song to one stereo audio file that you can share, master or upload. You can also write separate audio or MIDI files for chosen tracks. This chapter explains rendering, file format, sample rate, bit depth, dither, tails, progress and file results.

Render your mix

1. Choose File > Render Mix… or press ⌥⌘B.
2. In the Render Mix window, keep Source set to Whole mix, then choose the File type, Sample rate, Sample format, Dither and Tail / seconds described below. The window shows your session's name at the top.
3. Click Choose Output….
4. Type a new file name, choose a folder and click Save.

The progress window opens and shows the render's status. When it reads Mix rendered, the file is complete, and the window shows where it was saved.



Render Mix audio export settings

Render Mix is available when the session has at least one track and Head Chef is not recording.

> Note: Render Mix always writes a new file. If the name you choose already exists, Head Chef asks you to choose a different name.

What the render includes

Render Mix records the session's main output in stereo, exactly as the mix is when you start the render:

- every track and instrument, with its channel processing and plugins;
- sends and Effect Returns;
- the processing and level on the main channel;
- mute and solo settings as they are when you start.

The render runs from the start of the session to its end, followed by the tail.

Choose a file format

The File type list sets the kind of file Render Mix writes.

File type	File
WAV	`.wav`
Broadcast Wave (BWF)	`.bwf`
AIFF	`.aiff` or `.aif`
FLAC (Lossless)	`.flac`
M4A / AAC	`.m4a` or `.aac`
Core Audio (CAF)	`.caf`
Standard MIDI (.mid)	`.mid` or `.midi`

For a file you deliver, master or upload, choose WAV, AIFF or FLAC (Lossless): they keep every sample of your mix. M4A / AAC makes a smaller file for previews.

Standard MIDI (.mid) writes a format 1 MIDI file containing the tempo, time signature and a named track for each instrument track, including its note timing, MIDI channels and velocities. It renders no audio, effects or instrument sounds. This export currently omits controller, pressure and program events. Audio sample rate, sample format, dither and tail controls are hidden in this mode. They retain your choices when you switch back to an audio file type.

Choose Standard MIDI (.mid), click Choose Output..., and save to a new filename in an existing folder. Export does not move the playhead or change your song, selection or Undo history. An existing file is preserved; choose another name to export again.

A connected assistant or script can perform the same operation with midi.export after reading the current session. The result identifies the complete output file and its track/note counts. A warning about cleanup or syncing means the complete MIDI file was saved, but that follow-up step needs attention.

Export individual MIDI tracks

To hand off separate MIDI parts, write one file for each chosen track:

1. Right-click a track header and choose Export MIDI Tracks.... That track is already checked when it has a MIDI part. You can also choose File > Render Mix..., then MIDI tracks... under Source.
2. Check the tracks you want, or use Select All and Clear. Audio-only tracks are not listed. The name below each track is the filename Head Chef will use.
3. Click Choose Folder..., or enter an existing folder in Output folder.
4. Click Export MIDI. The status line confirms how many tracks were exported.

Each file contains the song's tempo and time signature plus only that track's stored notes, including their channels, velocities and durations. Files keep their positions from the song start and preserve empty bars through the end of its musical range. A long part whose last note is early keeps its trailing rests. Instrument sounds, effects and audio are not rendered; mute, solo and track visibility do not filter the notes.

The previewed names include track order and track name. Characters that cannot be used in filenames are replaced. Every destination is checked before writing: if a filename already exists, choose a different folder. Existing files are never replaced.

Cancel closes the window without creating files. Once you click Export MIDI, wait for the result. If only some files could be saved, the status line gives the count; check the output folder before trying again. Changing the selected track while this window is open does not change the captured export. If an export is refused, the window shows the reason and stops another attempt until you click Refresh Tracks. Refresh loads the current song and clears the checkboxes, keeping your output folder; check the tracks again before exporting.

Export leaves the song, playhead and Undo history unchanged. It writes the notes currently stored in Head Chef; sustain and other controller messages, pitch bend, pressure, program changes, SysEx and release velocities are not included. It does not recreate event types that were not retained when importing the original MIDI file.

Connected assistants and scripts use midi.exportSources to read eligible tracks and their filenames, then midi.exportTracks with the captured session token, explicit track IDs and output folder. The result lists the complete files, their hashes and any warning, and identifies a failure after partial completion.

Export individual tracks as audio

1. Right-click a track header and choose Export Tracks as Audio.... You can also choose File > Render Mix..., then Audio tracks... under Source.
2. Check the audio and instrument tracks you want, or use Select All and Clear. Each name is followed by its output filename. A track opened from its header is already checked when it contains audio or notes.

3. Click Browse..., or enter an existing Output folder. Choose the Track output, Channels, sample rate, sample format, dither and tail.
4. Click Export Audio. The progress window shows the job and each file's result. Tracks exported means the files are complete.

Changing the selected track in the main window does not retarget this export. If the song changes or an export is refused, read the reason in the export window. Refresh Tracks keeps the folder and settings, clears the choices and loads the current song; check the tracks again before retrying.

Choose the sound to include with Track output:

- Edited dry includes placement, trimming, clip gain, fades, clip mute and instrument sound, before track effects, volume and pan. Track mute, solo and VCA levels do not change this tap.
- Processed track includes track effects, volume automation, effective fader/VCA level and mute, and pan. Read follows the saved volume curve plus its governing VCA levels; Suspend uses the stored fader plus those VCA levels while keeping the curve for later. The file stops before shared returns and Bus/Main processing. Solo does not exclude a track you explicitly checked for export.

Native keeps mono or stereo for edited dry; processed tracks are stereo after pan. Mono combines left and right equally. Stereo duplicates a mono dry source. Choose WAV sample rate, sample format, dither and tail as needed. 32-bit float uses no dither and retains headroom above 0 dBFS. With a PCM format, an out-of-range sample stops the export before files are published; lower the track level or choose 32-bit float. Noise-shaped dither is available at 44.1, 48, 88.2, 96, 176.4 and 192 kHz.

Every file starts at the beginning of the song and keeps the same full song length and declared tail, including silence around shorter tracks. Place the files together at zero in another session to retain their alignment. Very large files automatically use RF64 when ordinary WAV sizes cannot hold the audio. Actual disk, filesystem and format limits can still stop a file from being saved.

Export leaves your song, live mix, selection, transport and Undo unchanged. It uses the sound captured when you clicked Export Audio; later edits are not included. One audio render runs at a time. Cancel during preparation, rendering or writing to discard pending files. Once publication starts, wait for the result.

Every destination is checked before writing, and existing files are never replaced. If a later file fails to publish, earlier files may already have been saved. The final progress view lists Saved, Saved with warning or Not saved for each filename. Read those results before retrying in a new folder.

Connected assistants and scripts use audio.exportSources to read eligible tracks, stable IDs, filenames and the captured session token. audio.exportTracks starts the same operation with that token, explicit track IDs and all export settings. Poll mix.renderStatus with the returned job ID; it returns the job directly. mix.cancelRender requests cancellation before publication and returns a session snapshot with the job under renderJob. Continue polling until the job finishes. Frame counters use the captured session rate, sourceRate; sampleRate is the output rate, and trackExport.outputFrames gives each converted file's frame count. File results include metadata and hashes.

Choose the sample rate

Sample rate sets the rate of the finished file. Project rate keeps the session's own rate. Choose 44.1 kHz, 48.0 kHz, 88.2 kHz, 96.0 kHz, 176.4 kHz or 192.0 kHz to convert the finished mix to that rate before it is written.

Choose the sample format

Sample format sets the bit depth of the file:

- 32-bit float is the default. It keeps floating-point headroom, so peaks above 0 dBFS are kept rather than clipped, and it needs no dither.
- 16-bit PCM, 24-bit PCM and 32-bit PCM write fixed-point audio. Choose 16-bit for CD-style delivery and 24-bit when someone asks for a fixed-point file with more detail.

> Important: With a PCM format, a peak above 0 dBFS stops the render and no file is saved. Lower the level, for example on the main channel, or choose 32-bit float.

Choose dither

Dither adds a very quiet noise that masks the small errors made when audio is reduced to a fixed number of bits. The Dither list is available for the PCM formats:

- TPDF is the default. It adds a quiet, even noise floor.
- None writes the audio without dither.
- Noise shaped moves more of the dither noise toward high frequencies, where it is harder to hear, and raises the total noise level. It is offered for WAV files at 44.1, 48, 88.2, 96, 176.4 and 192 kHz.

With 32-bit float, Dither is set to None and cannot be changed.

Set the tail

Tail / seconds adds audio after the session ends, so reverb and echo can fade out instead of stopping abruptly. The default is 8 seconds; you can enter any value from 0 to 120.

Keep working while it renders

Head Chef renders in the background. The progress window does not block the app, so you can keep playing and editing.

- The render uses the mix as it was when you started. If you change the session afterwards, the window says Changes after rendering started are not included.
- Click Close to hide the progress window. While the render runs, the footer shows Rendering…; afterwards it shows Render Result. Click either to open the progress window again. Choosing File > Render Mix… during a render also opens it.
- Click Cancel Render to stop. The window then shows Render cancelled and no file is saved.

The status line moves through Preparing mix..., Rendering mix..., Writing audio... and Finishing... to Mix rendered. The line below it shows the sample rate, Stereo, the sample format and the dither.

One render runs at a time. To open another session, wait for the render to finish or cancel it first.

Read loudness and peaks

When a WAV render finishes, the progress window lists Rendered audio, measured from the completed file including its tail:

Readout	What it tells you
Integrated loudness	The average loudness of the whole file, in LUFS.
Loudness range	How much the loudness varies through the song, in LU.
True peak estimate (4×)	The highest true peak level, in dBTP, including peaks between samples.
Sample peak	The highest sample value in the file, in dBFS.

Some readouts need enough audio. Integrated loudness needs at least 0.4 seconds and loudness range at least 3 seconds; shorter files show Less than 0.4 s or Less than 3 s. Very quiet audio shows Below loudness gate. For audio under 60 seconds, Head Chef notes that Loudness range is provisional for audio under 60 seconds.

> Tip: Compare the integrated loudness and true peak with the delivery target of the place you are sending the song. If the true peak is too high, lower the main level and render again.

If a render does not start

- Finish or cancel the current gesture before rendering the mix. Let go of the fader, knob or clip you are dragging, then try again.
- A mix render is already running. Wait for it, or cancel it first.
- If the progress window shows Render failed, read the message below the status line. For a fixed-point format, a peak above 0 dBFS is the most common cause.

CHAPTER 18

Volume automation, control surfaces and assistants

Draw a saved volume ride for a source channel, connect a hardware control surface to mix with real faders, or ask an AI assistant to read and edit the session while you watch.

Draw a channel-volume ride

1. Select a source channel in Arrange or Mix and open its channel controls.
2. Choose Automation, then Read.
3. Click in the volume plot to add a point. Drag a point to change its position and level.
4. Release the pointer to save the move. Press Escape before releasing to discard the proposed move.
5. To enter an exact value, select the point, type its Sample position and Level (dB), then click Apply point.

In a small window, scroll the channel controls to move between the plot and the point fields.

The plot shows the saved channel-fader level after the channel's processing. Use Linear for a straight change in dB to the next point, or Hold to keep the level until the next point. The first point also supplies the level before it; the last point holds its level afterwards. Select a point and click Delete to remove it.

Sample positions are counted from the start of the session. Changing the tempo leaves these positions in place. The saved ride follows playback and cursor moves and is included when you render the mix.

Read uses the saved points. Suspend keeps the points and uses the channel's ordinary fader level. With no points, the channel uses its ordinary fader level. Moving a fader changes that ordinary level; the saved Read curve continues to supply the automated level until you choose Suspend.

A VCA continues to adjust its member tracks while they read a volume ride. Head Chef adds the active VCA levels after calculating the level between your points, then keeps the resulting channel level between -60 dB and +12 dB. For example, a -6 dB Read point with a VCA at -3 dB plays at -9 dB. Suspend uses your ordinary fader with those same VCA adjustments.

Coalesce is refused if writing a VCA level into its member faders would change an active Read ride. See Consolidate a VCA master for keeping the ride or deliberately removing its VCA adjustment.

Each released point move, typed change, mode change or deletion is one step in Edit > Undo. The assistant shares those same points and history, so you can undo its edits in the same way.

Connect a control surface

Head Chef supports control surfaces that use the Mackie Control protocol. Mackie and Mackie Control are trademarks of LOUD Audio, LLC; Head Chef is not affiliated with LOUD Audio.

1. Set your surface to Mackie Control mode. Your surface's manual explains how.
2. Connect the surface to your Mac.
3. Choose Settings > Control Surface....
4. Choose your surface under MIDI input and under MIDI output.
5. Click Enable. The status changes from Disabled to Connected.
6. Click Done.

If your surface is missing from the lists, connect it and click Refresh Ports. To stop using it, open the dialog again and click Disable. Your port choice is a setting on this Mac and is not saved in your session.

What the surface controls

The surface works on your tracks and Effect Returns, eight at a time, plus Main.

Surface control	What it does in Head Chef
Channel faders 1 to 8	Set the level of eight channels.
Main fader	Sets the level of the Main channel.
Rotary knobs	Pan the eight channels.
Solo and Mute buttons	Solo or mute a channel.
Select buttons	Select a channel, the same as clicking its name.
Bank buttons	Move the eight strips to the previous or next eight channels.
Channel buttons	Move the eight strips by one channel.
Play and Stop	Start and stop playback.

Motorized faders, pan lights and button lights follow changes you make in Head Chef, so the surface always shows your mix.

> Note: Touch a fader before you move it. Head Chef records the move as one step in Edit > Undo when you let go. While you hold a fader, finish the move before you press Solo or Mute.

The surface's MIDI input is reserved for the surface. In the toolbar's MIDI keyboard settings it appears with (Control Surface) and cannot be chosen as a keyboard. To play instruments from a keyboard, see MIDI and instruments.

Connect an AI assistant

Head Chef has a local assistant connection. It uses MCP (Model Context Protocol), an open standard that lets AI assistant apps use tools inside other apps. Any assistant app that supports this standard can connect to Head Chef.

Through the connection, an assistant can:

- Read your session: tracks, clips, notes, instruments, mix settings, effects and plugins.
- Create, open and save sessions.
- Add audio and instrument tracks, choose instruments and sounds, and write or edit MIDI notes.
- Set faders, pan, solo, mute, sends, Chicken Strip, effects and channel presets.
- Add, change and remove built-in effects and plugins, and scan plugin folders.
- Move, trim and fade clips, and adjust clip gain.
- Read saved channel-volume curves and insert, move or remove individual points.
- Play, stop and move the cursor, and render the mix.

To connect:

1. Open Head Chef. The assistant can only connect while Head Chef is running.
2. In your assistant app, add a local server that runs a command. Assistant apps also call this a tool server or connector. If Head Chef is in your Applications folder, the command is `/Applications/Head Chef.app/Contents/MacOS/head-chef` with the argument `--mcp`.
3. Start a conversation and ask the assistant to look at your session.

If Head Chef is not open, the assistant app reports that you need to open Head Chef first. The connection runs on your Mac. Head Chef shares your session only with the assistant app you connect, and that app's own policies cover what it does with it.

One shared session

The assistant works on the same session you see in the window, not a copy.

- Each change appears in Arrange and Mix as it happens.
- Changes from the assistant and from you share one edit history. Choose Edit > Undo or press `⌘Z` to reverse any of them, one step at a time.
- If you change the session after the assistant last looked at it, its next edit is refused rather than overwriting your work. The assistant reads the session again and retries.
- The assistant cannot open another session over unsaved changes unless its request explicitly says to discard them.
- Recording through the assistant still needs your permission to use the microphone, which macOS asks you for.

Stay in control

- Save your session before you ask for large changes, so you have a copy to return to.
- Read what your assistant app plans to do before you approve it, especially requests that open sessions or discard changes.
- Use Edit > Undo to step back through anything you do not want.
- To end the connection, remove Head Chef from your assistant app or quit Head Chef.

Tips

- Keep Head Chef's window visible while an assistant works, so you can follow each change.
- If the assistant reports that it cannot connect, check that Head Chef is open and that the command path matches where Head Chef is installed. See Troubleshooting.

PART

Workflows

19. Workflows

20. Coming from another music app

CHAPTER 19

Workflows

This chapter strings the other chapters together into complete jobs, from an empty screen to a finished file. Each recipe says who it suits, what you need, the steps, what you should hear or see along the way, and the most common snags. The links lead to the full explanation of each step.

Recipe	Good when you want to
Sketch in Jam, finish in Studio	Find a song idea fast and turn it into tracks you can arrange and mix.
Build a beat and a bass line	Write drums and bass note by note with the built-in instruments.
Record a take to the click	Capture a vocal or guitar part and build the song around it.
Mix a song from stems	Balance, shape and render audio files exported from elsewhere.
Prepare a mix for release	Check headroom, loudness and peaks and write the delivery files.
Finish a project from another music app	Open a project by its file extension and complete it in Head Chef.
Mix with a control surface or an assistant	Work on a session with real faders, or by asking an AI assistant.

Sketch in Jam, finish in Studio

Who it is for: songwriters and producers who like to react to a backing before they decide on an arrangement.

What you need: Head Chef and headphones or speakers. You do not need a session, an audio input or a MIDI keyboard.

1. Click Jam ↗ in the Studio toolbar to open the separate Jam window. On the start screen you can also click Start a jam. See Open Jam.
2. Click + New Jam, then ▶ ROLL AN IDEA under MAKE A START. Choose a sound, such as Tine, from the visible selector on the Chords row.
3. Click ▶ PLAY. Head Chef shows Preparing instruments… and a Cancel button until the sounds are ready. *Checkpoint:* you then hear an eight-bar loop with four parts, and the four backing rows each show a horizontal preview of their notes. The readout below the jam's name shows its style, tempo, key and length.
4. Click Roll again until an idea grabs you. The old backing stops while the new sounds get ready, then the cue selected under Setup ↓ > Count-in leads into bar one of the new idea at its own tempo and meter. Choose No count-in to start without a cue. Roll again also starts playback when the jam was stopped. Open Shape › and click Previous roll to go back. See Roll a backing band.
5. Keep what works. Open Shape › to hold tempo, style or vibe. Open a part's chevron for Hold and Vary. *Checkpoint:* a held part shows HELD, and the selected hold controls stay highlighted.
6. Under CHORD SEQUENCE, choose 4, 8 or 16 chords and select a card. Click an alternative under TRY AN ALTERNATIVE, then ▶ PLAY to hear the whole sequence with that change. Choose [Keep

change] or [Revert]. Use Edit ↓ for detailed fields and Explore › for the additional views. See Edit chords and explore harmony.

7. Click Save Jam. *Checkpoint:* your jam appears in Your jams.
8. To store variations, open Sections ›, then use + Section, Variation, Repeat and Build song. Jam playback still repeats the current idea; stored section ordering does not change what you hear. Select the idea you want to take into Studio. See Build a song from sections.
9. Click Save Jam again.
10. Click Create Studio session → if no session is open, or Add to Studio session → if one is open. Check the named destination and the selected part rows. Leave Keep Jam timing for a new session. Click Open editable tracks →. See Use a jam in Studio.
11. *Checkpoint:* Head Chef brings Studio forward and creates a session at the jam's tempo, with one editable instrument track for each included part and its sound retained. The chords play through Mini Bar or Octet, the bass through Substance and the drums through Voltage 80 and Voltage 78, unless you chose other sounds in the jam. The Jam window stays open.
12. Press `⌘S` and save the new session.
13. The parts are now ordinary instrument tracks. Edit notes in the Piano Roll, choose sounds under SOUND in the Inspector, and mix as in Mix a song from stems from step 4.

Common snags:

- Starting a new jam or opening another one does not keep unsaved changes. Click Save Jam first.
- Parts that are muted in the jam start unselected in the transfer review. Click a part row to include it.
- When a session is already open, printed tracks start at the playhead. Press `Return` first if you want them at the start, and choose Fit Studio tempo if the session has a different tempo from the jam.

Build a beat and a bass line

Who it is for: anyone who wants to program drums and bass by hand, with or without a MIDI keyboard.

What you need: Head Chef. A MIDI keyboard is optional; you can enter every note with the mouse.

1. Press `⌘N`. In Start with, choose Voltage 80, pick a Sound and click Create. The dialog notes Eight bars · 110 BPM · 4/4. *Checkpoint:* Arrange shows one Voltage 80 track holding an empty eight-bar clip.
2. If the song needs another tempo, choose Settings > Session Settings..., type the tempo in Tempo / BPM and click Apply. MIDI parts follow tempo changes, so you can also do this later. See Set the tempo.
3. Double-click the Voltage 80 clip to open the piano roll. In Snap, choose 1/16.
4. Double-click the grid to add notes, or choose Draw and click. Each MIDI key plays a different drum voice; see the table after these steps. To change a selected note's voice, type its key in PITCH / MIDI KEY and press `Return`.
5. Set the VELOCITY of a few hits to 127 for an accent, and leave the rest at 100. Press `Q` on a selected note to quantize it. See Set velocity.
6. Press `Space`. *Checkpoint:* you hear the beat, and the playhead moves through the clip. Press `Space` to pause and `Return` to go back to the start.

7. Click Close to leave the Piano Roll, then choose Add Instrument > Substance. Head Chef adds a Substance track with an empty clip and opens its panel. Close the panel when you have heard a few sounds.
8. Double-click the Substance clip and write a bass line. Substance plays one note at a time, so write the line as single notes. Use `↑` and `↓` to move a selected note by a semitone, and `⇧→` to make it longer by one snap step.
9. *Checkpoint:* with `Return` then `Space`, you hear drums and bass together.
10. Click Mix. On the Voltage 80 strip, click Preset..., choose Concrete 80 and click Use preset. Do the same with Focused Bass on the Substance strip. See Use channel presets.
11. Set the two faders so the kick and bass sit together, and press `⌘S` to save.

While Kick play mode is Drum map, Voltage 80 plays these voices:

MIDI key	Voice
36	Kick
37	Rimshot
38	Snare
39	Handclap
42	Closed hi-hat
46	Open hi-hat
49	Cymbal
56	Cowbell

Common snags:

- Playing a MIDI keyboard sounds the selected instrument but does not write notes. Write the notes in the Piano Roll. See Play from a MIDI keyboard.
- Notes must sit inside their clip, and each instrument track holds one clip, eight bars long in a new session. For a longer arrangement, build sections in Jam and print them, as in Sketch in Jam, finish in Studio.
- Changing a sound in the Inspector stops playback and returns to the start. Choose the sound first, then play.
- Head Chef hosts its own five instruments only. Third-party instrument plugins are not hosted.

Record a take to the click

Who it is for: singers and players who want to capture a part and then build the song around it.

What you need: an audio interface or microphone, headphones, and a few minutes to set up. Decide the tempo before you start.

Head Chef 1 records one mono take into a new session whose only track is an empty mono audio track. You hear the metronome while you record, not a backing track, so this recipe records your part first and builds the rest afterwards. Read Before you record for the full list of conditions.

1. Press `⌘N`. Choose a Sample rate your interface runs at, choose Mono audio track in Start with and click Create.
2. Choose Settings > Session Settings..., set Tempo / BPM and the Time Signature, and click Apply.
3. Press `⌘S` and save the session in a folder you can write to.
4. Click Choose input... on the track header. In the Mono recording input window, click Enable input and allow microphone access, then choose your input channel and click Close. *Checkpoint:* the track header shows the device and channel. See Choose the recording input.
5. Click Arm on the track header, or press `⇧R`. *Checkpoint:* Arm lights up.
6. Click ♩ to turn the click on. Right-click ♩, choose Play & Rec or Rec Only under Click Mode, choose 2 Bars under Count-In Bars, and turn the count-in on. See Count in before recording.
7. For this first-take workflow, turn on your interface's direct monitoring so you hear yourself and leave Head Chef input monitoring Off. See Monitoring.
8. Click ● Rec. *Checkpoint:* the status line shows Record ready · Press Space to record, and the track meter moves when you sing or play. If you see Input clipped. Reduce the interface input gain., turn the gain down on the interface.
9. Press `Space`. The count-in plays, then the take starts. Perform, then press `Space` to finish. *Checkpoint:* the status line shows Take recorded with its length, and the take appears as a clip at the start of the track.
10. Press `Return`, then `Space`, to listen back. If you want another try, press `⌘Z`. The take is removed and the track is empty again. Press `Return` and record again from step 5.
11. When you keep the take, shape it: trim the silence before you start singing with `A`, add a short fade in with `D`, and set its level with clip gain. See Editing audio.
12. Build the song around it. Add drums with Add Instrument > Voltage 80 and write a part as in Build a beat and a bass line, or import a backing with File > Import Audio.... Then mix as in Mix a song from stems.
13. Press `⌘S`.

Common snags:

- Save your session before recording. appears: save the session, then click ● Rec again.
- Match the session and input sample rates before recording. appears: create the session at the interface's rate. The rate cannot change once the session holds audio.
- With Head Chef input monitoring Off, use a saved empty session for this workflow. To record over existing backing, choose Input or Auto monitoring on the armed empty destination; see Record another take over the song.
- Each new take needs an empty mono destination. Keep an earlier take on its track and use another empty mono track for the next one; see Recording audio.
- If Head Chef stops during a take, click Recovery... and choose Keep take. See Where takes are stored.

Mix a song from stems

Who it is for: anyone with a set of audio files exported from another app, a collaborator or a session player, who wants to balance them and print a mix.

What you need: the stems as audio files that all start at the same moment, ideally WAV or AIFF at one sample rate.

1. With no session open, click Import Audio... on the start screen, select every stem in one go and click Open. Head Chef creates a session at the files' sample rate, named after the first file. With a session already open, use File > Import Audio... (`⇧⌘I`) instead. See Import audio files.
2. *Checkpoint:* the footer shows Importing audio with a count, then each file appears as its own track with its clip at the start of the session. One `⌘Z` removes the whole import.
3. Press `⌘S` to save the session.
4. Click Mix, or press `⌘=`. Pull every fader down a little, then build the balance up from the most important part, usually the drums or the vocal. Use S and M to solo and mute while you listen. See Set level, pan, solo and mute.
5. Turn the pan knobs to give each part its own place from left to right.
6. Shape individual channels with Chicken Strip. Select a channel, click Inspector, open the Strip tab and click Quick. Turn on the EQ under GRAPHIC EQ and the compressor under COMPRESSOR 1, and set THRESHOLD / dBFS until Peak gain reduction shows a few dB on the loudest notes. *Checkpoint:* the GR readout on the strip moves with the music. See Shape the sound with Chicken Strip.
7. Add a shared space. Choose Track > Add Effect Return > Voltage Spaces. *Checkpoint:* a new strip of type AUX RETURN appears in Mix.
8. Select a channel that should sit in that space, open the Inspector's Sends tab, choose the return from Choose return and click Add send. Turn the send level up until you hear the space, then repeat for the other channels. See Send to an Effect Return.
9. To make the echo follow the song, select the return, open the Effect tab, click All, and turn on Echo On and Echo Sync. See Echo that follows tempo.
10. Play the loudest part of the song and watch the MASTER strip. Lower the Main fader, or the loudest channels, until the meter stays out of the red. See The Main channel and headroom.
11. Press `⌘S`, then follow Prepare a mix for release to render.

Common snags:

- If stems use different sample rates, keep the default resampling choice in the import options to preserve their speed and pitch. See Importing audio.
- Stems that do not line up were exported from different start points. Export them again from the same start point, or line them up with the Place dialog.
- Supported imported stems have no fixed combined file-size allowance. Head Chef keeps their audio on disk; allow enough free space for imported audio, conversion work and saved copies. See Performance and memory.
- A session holds up to four Effect Returns. Share one Voltage Spaces return between many channels rather than adding one per channel.
- With third-party plugins in the session, moving the cursor anywhere except the start may be unavailable. Play from the start, or remove plugins you do not need.

Prepare a mix for release

Who it is for: anyone sending a finished mix to a mastering engineer, a distributor or a streaming service.

What you need: a finished, saved mix and the delivery requirements of the place you are sending it, such as file format, sample rate and a loudness or peak target.

Head Chef measures loudness and peaks in the finished file. It does not raise the loudness to a target for you, so you check the numbers and adjust the mix.

1. Unmute and unsolo every channel you want in the mix. Render Mix uses mute and solo exactly as they are when it starts. See What the render includes.
2. Play the whole song and watch the MASTER meter. Click the meter to clear it, and play the loudest passage again. If it turns red, lower the Main fader until it stays clear. That leaves headroom for the file.
3. Choose File > Render Mix... (⌥⌘B). For a check render, set Container to WAV, Sample rate to Project rate and Sample format to 32-bit float. Set Tail / seconds long enough for the last reverb or echo to die away. See Render your mix.
4. Click Choose Output..., name the file, for example `check.wav`, and click Save.
5. *Checkpoint:* the progress window moves through Rendering mix... to Mix rendered and lists Rendered audio with Integrated loudness, Loudness range, True peak estimate (4×) and Sample peak. See Read loudness and peaks.
6. Compare the readouts with your target. If the true peak estimate is above the target, lower the Main fader by at least the difference and render the check again. If the mix is quieter than the target and has peaks to spare, raise the Main fader or use Chicken Strip's compressor on Main, and check again.
7. Render the delivery file. For a 24-bit master, choose WAV, Project rate, 24-bit PCM and TPDF dither. For CD-style delivery, choose 44.1 kHz and 16-bit PCM. See Choose the sample format and Choose dither.
8. Render other formats you need, such as FLAC (Lossless) or AIFF, the same way. Read loudness and peaks from the WAV render.
9. Press ⌘S so the session matches the files you sent.

Common snags:

- A PCM render stops with Render failed when a peak goes above 0 dBFS, and no file is saved. Lower the level, or check with 32-bit float first as in step 3.
- Changes you make after starting a render are not in that file. The window says Changes after rendering started are not included. Render again after you change the mix.
- Render Mix always writes the whole session from the start, plus the tail. It never overwrites a file; choose a new name for each version.
- The metronome click is never in a render, so you do not need to turn it off first.
- One render runs at a time. Wait for it, or click Cancel Render.

Finish a project from another music app

Who it is for: people moving a song they started in another music app into Head Chef to mix or finish it.

What you need: the project file and its audio folders, together as the other app saved them. Head Chef recognizes the project by its file extension, such as `.rpp`, `.als`, `.ptx`, `.logicx`, `.dawproject`, `.aaf` or `.mid`. The full list is in Open a project from another music app and File formats.

1. Make sure the project's audio is next to the project file, as the other app saved it. Head Chef looks for the audio there.
2. Choose File > Open Session... (`⌘O`). The file type list shows All supported sessions. Select the project and click Open. You can also drag the project file onto Arrange.
3. *Checkpoint:* a new, unsaved session opens with the project's tracks in order, its audio clips at their positions, and its volume, pan, mute, solo, tempo and time signature. Play it from the start and compare it with the original.
4. Choose File > Save Session As... (`^⌘S`) and save it in a new folder. Head Chef writes a `.headchef` session and copies the audio next to it. The original project is never changed. See Save the result.
5. Choose Settings > Session Settings... and check the tempo and time signature. If Head Chef shows a note that 4/4 is assumed, click the Keep button or enter the right time signature, and click Apply. See An assumed time signature.
6. Plugins and their settings from the other app do not come across. Rebuild the processing on each channel with Chicken Strip, a channel preset, built-in effects or your own effects through + Third-party Plugin. See Add a plugin from a channel.
7. For a Standard MIDI File, each MIDI track arrives as an instrument track playing Voltage 80 (for drum-channel parts) or Octet. Swap instruments with Change... under INSTRUMENT in the Inspector. See Change the instrument on a track.
8. Finish the mix as in Mix a song from stems from step 4, then prepare it for release.

Common snags:

- A message starting Cannot open audio: means the audio folder is missing or moved. Put the project back in its original folder with its audio beside it, and open it again.
- How much comes across depends on the file and the app that saved it. Instrument parts that the other app plays through its own instruments may need to be exported as audio files or as a Standard MIDI File first. Export them in the other app, then add them with Importing.
- The session can hold up to 128 source tracks. Leave enough free disk space for the audio and saved copies; there is no fixed allowance for their combined file size.
- If the current session has unsaved changes, Head Chef first asks Save changes to this session?

Mix with a control surface or an assistant

Who it is for: people who prefer real faders to a mouse, and people who want an AI assistant to do the setup work, such as naming tracks or building groups, while they listen.

What you need: for a surface, a hardware control surface that supports the protocol named in Connect a control surface. For an assistant, an assistant app that supports MCP. You can use either one, or both on the same session.

Use a control surface

1. Set the surface to the right mode, connect it, and choose Settings > Control Surface....

2. Choose the surface under MIDI input and MIDI output and click Enable. *Checkpoint:* the status reads Connected. Click Done.
3. Open a session. *Checkpoint:* motorized faders move to the levels of the first eight channels.
4. Touch a fader, move it and let go. *Checkpoint:* the strip in Head Chef follows, and ⌘Z undoes the whole move in one step.
5. Use the bank buttons to move to the next eight channels and the channel buttons to move by one. The Main fader controls the Main channel.
6. Use the surface's Play and Stop buttons to listen back without reaching for the keyboard. See What the surface controls.

Use an AI assistant

1. Open Head Chef and the session you want to work on, and save it.
2. Connect your assistant app as described in Connect an AI assistant.
3. Ask the assistant to describe the session. *Checkpoint:* it lists your tracks, instruments and mix settings.
4. Ask for setup work the app window leaves to the connection, for example: rename and color the tracks, put the drum tracks in a folder, or create a group with a VCA master for the backing vocals. See Folders, groups and VCA masters.
5. *Checkpoint:* each change appears in Arrange and Mix as it happens. A VCA master appears as a VCA MASTER strip and a summing folder as a FOLDER BUS strip.
6. Ask for mix moves in plain words, such as "lower the guitars by 2 dB" or "send the vocal to the Voltage Spaces return". Listen after each one, and press ⌘Z to step back from anything you do not like.
7. When you are happy, press ⌘S.

Common snags:

- The surface's MIDI input is reserved for the surface. It appears with (Control Surface) in the MIDI keyboard settings and cannot play instruments.
- Finish a fader move before you press Solo or Mute on the surface.
- If you change the session while the assistant is working, its next edit is refused rather than overwriting your work. Let it read the session again. See One shared session.
- The assistant connects only while Head Chef is running. If it cannot connect, open Head Chef and check the command path in the assistant app.

CHAPTER 20

Coming from another music app

If you have made music in another app, most of what you know carries over to Head Chef. This chapter translates the ideas you already use into Head Chef's terms, points out the keys that will feel familiar, and is plain about where Head Chef 1 works differently or leaves a feature out. It ends with how to bring your existing projects across.

Concept map

The first column uses the general terms common across music apps. Where Head Chef 1 does not have a concept, the middle column says what Head Chef does instead.

If you know...	In Head Chef	Where to learn more
Project, song or session file	A session: a `.headchef` file, with hidden `.headchef-media` and `.headchef-recordings` folders beside it. Move or back up the whole folder.	Sessions, Where Head Chef keeps your work
Project template	Use as Default in the New Session dialog remembers the sample rate and the starting track. Channel presets keep a channel's sound.	Create a session, Use channel presets
Region, clip, event or item	A clip. Each track holds one clip.	Editing audio
Playlists, take lanes or comping	Not in Head Chef 1. A take is the one clip on its track. Undo removes a take you do not want, so you can record again. Keep alternative versions with File > Save Session As....	Record a take
Cycle or loop playback	Not in Studio, where playback runs from the playhead to the end of the session. Jam loops its ideas and sections.	Build a song from sections
Punch-in recording	Not in Head Chef 1. Every take starts at the beginning of the session on an empty mono audio track.	Before you record
Software input monitoring	Not in Head Chef 1. Use your interface's direct monitoring to hear yourself.	Monitoring
Inserts or insert slots	The channel's processing chain, shown as PROCESSING on each strip and in the Inspector's Chain tab. Sound flows from top to bottom.	Build the processing chain
Console channel strip	Chicken Strip, on every channel, Effect Return and Main. You can bypass and move it but not remove it.	Shape the sound with Chicken Strip
Sends, returns and aux tracks	Sends to Effect Returns. Sends are post-fader. A session holds up to four returns, each built around Voltage Spaces, MADRE Chorus or Char Press.	Send to an Effect Return

If you know...	In Head Chef	Where to learn more
Bus or submix	Every channel feeds Main. Folders group tracks in Arrange, and their tracks still feed Main directly; a folder's FOLDER BUS strip in Mix is an Effect Return that its tracks reach through sends. Folders are created through the assistant connection.	Folders, groups and VCA masters
Master bus or stereo out	The Main channel, whose strip is labeled MASTER.	The Main channel and headroom
Group or linked tracks	Groups that link edits, faders, mute and solo. They are created through the assistant connection; `⇧⌘G` suspends them.	Folders, groups and VCA masters
VCA fader	A VCA master, shown as a VCA MASTER strip. Coalesce writes its level into its members.	Consolidate a VCA master
Automation	No automation lanes. Fader, pan, send and effect settings hold for the whole song. For level changes inside an audio clip, draw the clip gain line.	Set clip gain
Bounce, export or mixdown	File > Render Mix... (`⌥⌘B`) writes the session from start to end, plus a tail, to one stereo file. Mute and solo apply, so solo a part to print it on its own.	Rendering your mix
Edit modes: move freely, snap to a grid, close gaps, type a position	FREE, GRID, RIPPLE and PLACE, on `F2`, `F4`, `F1` and `F3`.	Choose an edit mode
Snap value	The Arrange GRID is set in time, such as 500 ms, not in bars. The Piano Roll Snap uses note values from 1/4 to 1/32.	Set the grid and nudge values
Nudge	Nudge by the NUDGE value with `⌥,` and `⌥.`, or `Num −` and `Num +`.	Nudge a clip
Markers or locators	Not in Head Chef 1. Jump between clip boundaries with `Tab`, type exact positions in the Place dialog, or use a clip's sync point.	Move between clip boundaries
Tempo map or tempo track	A session you create has one tempo and one time signature. A tempo map from an imported song is kept, and you can move its tempo changes.	Songs with a tempo map
MIDI editor or key editor	The piano roll.	Edit notes in the piano roll
MIDI recording	A MIDI keyboard plays the selected instrument live but does not write notes in Studio. Write notes in the Piano Roll.	Play from a MIDI keyboard
Instrument track	An instrument track playing one of five built-in instruments. Third-party instrument plugins are not hosted.	The built-in instruments
Folder track	A folder, shown indented in the TRACKS list. Folders are created through the assistant connection.	Folders, groups and VCA masters

If you know...	In Head Chef	Where to learn more
Renaming, reordering and deleting tracks	Name and color a track when you create it in the Add Track dialog. The assistant connection can rename, recolor, reorder and hide tracks. Head Chef 1 has no command to delete a track; Undo removes a track you have just added.	Name and color tracks
Mixer window	The Mix view (`⌘=`) or the separate Mix Window (`⇧⌘=`).	Open the Mix view and the Mix Window
Crossfades between clips	Clips on a track never overlap, so there is nothing to crossfade. Shape the start and end of a clip with the clip gain line.	Add fades
Key commands	A fixed set of shortcuts, listed and searchable in Help > Keyboard Shortcuts... (`^⇧K`).	Keyboard shortcuts

Keyboard habits that carry over

Head Chef's shortcuts follow common music-app conventions where they can. The complete, searchable list is in the app under Help > Keyboard Shortcuts..., and the same list is in Keyboard shortcuts.

Function keys for edit modes

`F1` to `F4` choose Ripple, Free, Place and Grid, and the grave accent key steps through them. `⌥1` to `⌥4` do the same without function keys. Pressing `F4` again while in Grid switches between Absolute and Relative Grid. See Choose an edit mode.

Numeric keypad transport

Key	Action
`Num 0`	Play and pause
`Num 1` / `Num 2`	Rewind and forward two seconds
`Num 3`	Record
`Num 7`	Metronome click on or off
`Num 8`	Count-in on or off
`Num –` / `Num +`	Nudge the selected clip earlier or later
`⌘ Num 1`	Floating Transport
`⌘ Num 2`	Session Settings

Command chords

The standard Mac chords work as you expect: `⌘N`, `⌘O` and `⌘S` for sessions, `⌘Z` and `⇧⌘Z` for Undo and Redo, `⌘,` for the audio settings and `⌘W` to close a window. Music-specific chords include `⇧⌘I` to import audio, `⌥⌘B` to render the mix, `⌘=` to switch between Arrange and Mix, `⌘L` to lock a clip and `⌘M` to mute it.

Single keys in Arrange

With the Arrange timeline focused, single letters work without a modifier: `A` and `S` trim to the cursor, `D`, `G` and `F` fade, `R` and `T` zoom, `P` and `;` change track, and `Z` undoes. Turn them off with Options > Arrange Letter Shortcuts (A–Z) if they get in your way. See Turn the Arrange letter shortcuts on or off.

Keys that may surprise you

- `Space` plays and pauses, and `Return` stops and returns to the start of the session.
- `⌘Space` records, but macOS may use it for its own search. Use `F12` or `Num 3` instead.
- `⇧S`, `⇧M` and `⇧R` solo, mute and arm the selected track.
- Letter keys and keys marked "from Arrange" need the timeline to have keyboard focus. Press `⌥⌘1` to give it focus.

What is different by design

A few things in Head Chef 1 work differently from other music apps on purpose. Knowing them early saves time.

- *One clip per audio track.* Each audio track holds one clip, so clips never overlap and edits never hide audio under other audio. Ripple mode keeps that clip against the session start. To layer or sequence material, put it on separate tracks. See Editing audio.
- *A full channel strip on every channel.* Every track, Effect Return and Main starts with Chicken Strip, with EQ, compression and character controls ready to use, so you add effects only for what the strip does not do. See Mixing.
- *Two contexts: Studio and Jam.* Studio is for arranging, editing and mixing a session. Jam is a sketchpad that rolls a backing band, builds sections and explores chords, and it does not need a session. the Studio transfer button prints a jam to ordinary tracks, and Explore in Jam... opens a review of Studio material. See Jam.
- *Recording starts clean.* Head Chef 1 records one mono take into a saved session whose only track is an empty mono audio track, from the start of the session. Record your main part first and build the song around it. See Record a take to the click.
- *One edit history for everything.* Edits you make in the window, from a control surface and through an AI assistant share one Undo history of up to 512 steps. See Control surfaces and assistants.
- *Third-party plugins run outside the app.* If one of your plugins stops, Head Chef keeps running and your session stays intact. See If a plugin stops.
- *Rendering runs in the background.* You keep working while Render Mix writes the file, and it renders the mix as it was when you started. See Keep working while it renders.

Moving your projects in

Head Chef opens many projects from other music apps directly. It recognizes each one by its file extension, such as `.rpp`, `.als`, `.cpr`, `.song`, `.ptx`, `.logicx`, `.dawproject`, `.aaf`, `.omf` or a Standard MIDI File. Choose File > Open Session..., or drag the project onto Arrange. Head Chef builds a new session from it and never changes the original. See Open a project from another music app, and File formats for the complete list.

What comes across is the structure of the song: tracks in order, audio clips at their positions, volume, pan, mute and solo, tempo and time signature. Plugins, their settings and the other app's instruments do not. Before you move a song:

1. Keep the project's audio folders next to the project file, as the other app saved them.
2. For parts played by the other app's instruments, export them as audio files, or as a Standard MIDI File to play through Head Chef's instruments.
3. Note any processing you want to rebuild, so you can recreate it with Chicken Strip, the built-in effects or your own CLAP and VST3 effects.

If a project does not open cleanly, export the song from the other app as stems that all start at the same point and import them with File > Import Audio.... The recipes Finish a project from another music app and Mix a song from stems walk through both routes from start to finish.

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CHAPTER 21

Keyboard shortcuts

This chapter helps you work faster from the keyboard. It shows how to open Head Chef's own searchable shortcut reference, how the single-letter keys in Arrange work, and lists every shortcut in the same categories the app uses.

Read the key symbols

Head Chef shows shortcuts with the standard Mac key symbols.

Symbol	Key
⌘	Command
⌥	Option
⇧	Shift
^	Control
Num	A key on the numeric keypad, such as Num 7

Keys marked Num are separate from the number keys above the letters. On a Mac keyboard without a numeric keypad, use the other shortcut listed for the same action, or the toolbar and menus.

> Tip: If the F keys on your Mac control brightness and volume, hold `fn` while you press F1 to F4 or F12.

Open the Keyboard Shortcuts reference

1. Choose Help > Keyboard Shortcuts... or press `^⇧K`.
2. Type in Search by key, action or category... to filter the list. You can search for a key such as `F4`, an action such as `Mute`, or a category such as `Clip Gain`. The count beside the field shows how many shortcuts match.
3. Press `Esc` or click Close when you are done.

The reference groups shortcuts under category headings. Each row shows the keys, the action and a short note on what it does. Because the reference reads the shortcuts the app actually uses, it always matches your copy of Head Chef.

You can also browse the shortcuts on the web with the searchable shortcut explorer. Help > Head Chef 1 User Guide opens this guide.

Turn the Arrange letter shortcuts on or off

In Arrange, single letter keys can trim, fade, zoom and move around without a modifier. They are on when you first open Head Chef.

- Choose Options > Arrange Letter Shortcuts (A–Z), or
- click Letter keys under CLIP EDITING in the edit toolbar.

The letter keys work only while the Arrange timeline has keyboard focus. Click an empty part of the timeline, or press `⌥⌘1`, to give it focus. Typing in a text field is never affected.

Check the keyboard readout in the status bar to see the current recipient. *Keys: Arrange* means the timeline has focus; *Keys: Text entry* means you are typing in a field. The readout follows the active window and control, so it can differ from the track you selected. Letter keys enables the shortcuts; the readout shows which area currently receives your keys.

With letter shortcuts off, the track height, waveform size and nudge keys in Arrange are off too.

Sessions

Keys	Action	What it does
`⌘N`	New Session	Opens the New Session dialog.
`⌘O`	Open Session	Opens a saved session.
`⌘S`	Save Session	Saves the current session.
`^⌘S`	Save Session As	Saves the session under a new name.
`⌥⌘B`	Render Mix	Opens the Render Mix dialog.
`⌘ Num 2`	Tempo, Time Signature & Session Setup	Opens Session Settings for tempo, time signature, sample rate and pan depth.

File

Keys	Action	What it does
`⇧⌘I`	Import Audio	Imports the audio files you choose, each on its own track, as one Undo step.

Edit

Keys	Action	What it does
`⌘Z`	Undo	Undoes one session edit.
`⇧⌘Z`	Redo	Redoes one session edit.

Edit Modes

Keys	Action	What it does
F1 or ⌥1	Ripple Mode	Moving a clip closes the gap it leaves.
F2 or ⌥2	Free Mode	Clips move anywhere.
F3 or ⌥3	Place Mode	Moves a clip to a time you type.
F4 or ⌥4	Grid Mode	Clips snap to the grid. Press F4 again in Grid to switch between Absolute and Relative Grid.
`	Cycle Edit Modes	Steps through Ripple, Free, Place and Grid, skipping Ripple while Ripple Lock is on.

See Editing audio for how each edit mode behaves.

Clip Editing

Keys	Action	What it does
⌘L	Toggle Clip Edit Lock	Locks or unlocks the selected audio clip against timeline edits.

Clip Gain

Keys	Action	What it does
^⇧↑ / ^⇧↓	Raise / Lower Clip Gain	Changes the selected audio clip's clip gain by 0.5 dB.
^⇧B	Clear Clip Gain	Restores unity gain and removes the selected clip's gain points.
^⇧=	Show / Hide Clip Gain Badges	Shows or hides the clip gain controls on audio clips in Arrange.
^⇧–	Show / Hide Clip Gain Line	Shows the selected audio clip's editable gain line in Arrange and in the Region Editor.

Arrange Letter Shortcuts (A–Z)

These keys need Options > Arrange Letter Shortcuts (A–Z) on and the Arrange timeline focused.

Keys	Action	What it does
A / S	Trim Start / End to Cursor	Trims the selected audio clip's start (A) or end (S) to the cursor.
R / T	Zoom Out / Zoom In	Zooms the timeline around the cursor.
Q / W	Center Cursor	Centers the view on the cursor.
P / ;	Previous / Next Track	Selects the track above or below.
L / '	Previous / Next Clip Boundary	Moves the cursor to a start or end of the selected track's clip.
Z / ⇧Z	Undo / Redo	Undoes or redoes one session edit.
D / G / F	Fade In / Fade Out / Crossfade Clip	Adds a fade in up to the cursor (D), a fade out from the cursor (G), or matching fades at both ends (F).
H / U / K	Snap Clip Start / Sync / End to Playhead	Moves the selected audio clip so its start (H), sync point (U) or end (K) lines up with the playhead.

Transport & Navigation

Keys	Action	What it does
⌘[/ ⌘]	Zoom Out / Zoom In	Zooms the Arrange timeline when it has focus.
⌥A	Fit Session	Shows the whole session in the Arrange timeline.
⌘↑ / ⌘↓	Taller / Shorter Selected Track	Steps the selected track through Micro, Tiny, Small, Medium, Large and Jumbo. Undo restores the previous height.
⌥⌘] / ⌥⌘[	Taller / Shorter Waveforms	Magnifies quiet audio waveforms up to 16 times. Playback level does not change.
⌥⌘↑ / ⌥⌘↓	Taller / Shorter All Tracks	Steps every track height together.
Space / Num 0	Play / Pause / Finish Recording	Starts playback or a ready recording. Pauses playback or finishes an active recording.
Num 1 / Num 2	Rewind / Forward Two Seconds	Moves the cursor back or forward two seconds.
F12 / ⌘Space / Num 3	Record	Starts recording on the armed track when its input is ready.
Num 7 / Num 8	Toggle Metronome Click / Count-In	Turns the click or the count-in on or off. Neither adds an Undo step.
Return	Go to Start	Stops and returns the cursor to the session start, from Arrange.

Keys	Action	What it does
`⌥Return`	Seek to Session End	Moves the cursor to the session end, from Arrange.
`Tab` / `⌥Tab`	Next / Previous Clip Boundary	Moves the cursor between the selected track's clip boundaries.

> Note: macOS may use `⌘Space` for its own search. If it does, use `F12` or `Num 3` to record.

Mix

Keys	Action	What it does
`⇧R`	Record Arm Selected Track	Arms an empty audio track, or disarms the selected armed track.
`⇧S` / `⇧M`	Solo / Mute Selected Track	Turns solo or mute on or off for the selected track.

Workspaces & Windows

Keys	Action	What it does
`⌘W`	Close Active Window	Closes the active separate window, or asks to close the main window.
`⌥⌘1`	Focus Arrange Canvas	Shows Arrange and gives the timeline keyboard focus.
`⌘=`	Toggle Arrange and Mix	Switches the main window between Arrange and Mix.
`⇧⌘=`	Mix Window	Opens or closes the separate Mix Window.
`⌘ Num 1`	Floating Transport	Opens or closes the Floating Transport.

Settings

Keys	Action	What it does
`⌘,`	Audio Engine	Opens audio device, buffer, latency and meter settings.

Help

Keys	Action	What it does
`^⇧K`	Keyboard Shortcuts	Opens the searchable shortcut reference.

More keys in Arrange

These Arrange keys work alongside the ones above.

Keys	Action	What it does
`⌥F`	Fit Selected Clip	Fills the timeline with the selected clip, like View > Fit Selected Clip.
`⇧F4`	Snap to Grid	Turns snapping to the grid on or off.
`Num −` or `⌥,`	Nudge Earlier	Moves the selected audio clip earlier by the nudge size. Needs letter shortcuts on.
`Num +` or `⌥.`	Nudge Later	Moves the selected audio clip later by the nudge size. Needs letter shortcuts on.
`⌘M`	Mute Clip	Mutes or unmutes the selected audio clip.

When a shortcut does nothing

Shortcuts step aside so they never get in your way:

- while you type in a text field, keys type text;
- while a dialog is open, or while you drag a control or clip, most shortcuts wait until you finish;
- during a recording, editing shortcuts are paused;
- shortcuts marked "from Arrange" need the Arrange timeline to have focus. Press `⌥⌘1` to give it focus.

CHAPTER 22

Mouse and trackpad

This chapter lists what every pointer gesture does in Head Chef: clicks, double-clicks, drags, scrolling, pinching and drag and drop, with the modifier keys that change them. The tables are grouped by the part of the window you point at.

Modifier keys use the Mac symbols ⌘ (Command), ⌥ (Option), ⇧ (Shift) and ⌃ (Control). "⌘-drag" means hold Command while you drag. Right-click means a secondary click, such as a two-finger click on a trackpad.

Three habits work almost everywhere:

- *⌘ for fine adjustment.* Hold ⌘ while you drag a fader, knob or level to move it in smaller steps.
- *⌥-click to reset.* ⌥-click a fader, knob or level readout to return it to its default.
- *Esc to cancel.* Press **Esc** during a drag to put things back as they were.

While a recording is in progress, most editing gestures wait until the take is finished.

Scroll and pinch

These gestures work over the Arrange timeline, the track headers, the piano roll and the audio clip editor.

Gesture	Result
Scroll up or down (mouse wheel or two fingers)	Scrolls the tracks up and down. In the piano roll it scrolls through the pitches.
Swipe sideways with two fingers	Moves along the timeline.
⇧-scroll	Moves along the timeline, using either scroll direction.
⌥-scroll	Zooms in or out around the pointer.
Pinch on the trackpad	Zooms in or out around the pinch.
⌃⇧-scroll	Raises or lowers the clip gain of the audio clip under the pointer, or of the selected audio clip, by 0.5 dB per wheel step. Head Chef records it as one edit when you pause.
⌘-scroll or other combinations	Nothing happens, so you never scroll by accident while using a shortcut.

A trackpad swipe that is mostly up and down scrolls only up and down, and one that is mostly sideways scrolls only sideways. Over the track headers and the piano roll's bar numbers, scrolling never zooms. Scrolling pauses while you drag a clip or a note.

Arrange timeline

Click

Gesture	Result
Click an empty part of a track's lane	Selects the track and moves the cursor to that point.
Click the upper half of an audio clip	Selects the track and moves the cursor to that point.
Click an instrument track	Selects the track and the note under the pointer. The cursor does not move.
Double-click an instrument track	Opens its notes in the piano roll.
Right-click an empty part of a lane, or below the last track	Opens the Add Track menu. Right-clicking a clip does nothing.

When the session hosts external plugins, moving the cursor anywhere except the start may be unavailable. Clicking then only selects. While recording, a click only selects the track.

Move and trim audio clips

An audio clip has three zones. The pointer changes shape to show which one you are over.

Zone	Pointer	Drag result
Within 10 points of the clip's start or end	Left and right arrows	Trims that edge (trim), revealing or hiding audio. The audio itself stays in place.
Lower half of the clip	Open hand	Moves the clip along its track. A movement shorter than 3 points is ignored.
Upper half of the clip	Text cursor	Moves the cursor; no drag.

Modifier	Effect while you move or trim
None	Follows the current edit mode: Ripple closes gaps, Free moves anywhere, Grid snaps to the grid.
Hold ⌘ or ^	Ignores the grid for this drag, in Grid mode or with snap on.
`Esc` before you release	Cancels the move or trim.

In Place mode, releasing a moved clip opens Place Audio Clip with the new position filled in, so you can confirm or type an exact time. See Editing audio.

Instrument clips are edited in the piano roll. Dragging them in Arrange does nothing.

Fades are drawn on the clip but have no drag handles. Set them with the `D`, `G` and `F` letter keys, described in Keyboard shortcuts.

Ruler and playhead

Gesture	Result
Click the ruler	Moves the cursor to that point.
Click a bar number on the ruler	Moves the cursor to the start of that bar.
Drag along the ruler	Scrubs (scrub): the cursor follows the pointer, and with Options > Tape Scrub Sound on you hear the mix forwards or backwards at the speed you drag.
Drag the small handle at the top of the playhead line	Moves the playhead without jumping to where you grabbed it.
Esc during a ruler drag	Cancels the scrub.

A scrub also stops if you zoom, scroll the view or switch to another app. Clicking and dragging on the ruler are unavailable when the session hosts external plugins, because the cursor can then only return to the start.

Track headers

Gesture	Result
Click the track name	Selects the track.
Click S or M	Turns solo or mute on or off. A click with any modifier key held does nothing.
Drag the gain readout up or down	Changes the track's level by 0.25 dB per point, from -60 to +12 dB.
Drag the pan readout up or down	Changes the pan by 1 per point, from L 100 to R 100.
⌘-drag either readout	Moves it at one fifth of the speed.
⌥-click either readout	Resets gain to 0.0 dB or pan to the center (C).
Esc during a readout drag	Cancels the change.
Click Plugins...	Opens the plugin browser for the track.
Click the input button on an audio track	Chooses the track's recording input.
Click *Open* and the instrument's name	Opens the instrument's window.
Right-click the header	Opens Track Actions. See Menu reference.

The gain and pan readouts appear when the track header column is wide enough.

Tracks list and Clips list

Gesture	Result
Click a name in the TRACKS list	Selects that track.
Click a row in the CLIPS list	Selects that clip.
Drop a plugin below the last name in the TRACKS list	Creates a new track with that plugin.

Clip gain

Clip gain badge

Each audio clip shows a clip gain badge when View > Clip Gain Badges is on.

Gesture	Result
Drag the badge up or down	Changes the clip gain by 0.5 dB per point.
⌘-drag the badge	Changes it by 0.1 dB per point.
⌥-click the badge	Resets the clip gain to 0 dB, turns off its bypass and removes all its gain points.
Click without dragging, or right-click	Opens the Clip Gain panel.

In the Clip Gain panel, drag the slider (⌘-drag for fine steps, or click the slider away from its cap to jump there), type a value in Gain / dB, or click Bypass Clip Gain, Reset Clip Gain to 0 dB or Show Clip Gain Line. Clip gain ranges from -144 dB to +36 dB; with gain points the range narrows so no point passes those limits.

Clip gain line

Turn the line on with View > Clip Gain Line. It runs across the selected audio clip and carries its gain points.

Gesture	Result
Click on the line where there is no point	Adds a gain point and lets you drag it.
Drag a gain point	Moves it in time (left and right) and in level (up and down). A point cannot pass its neighbors.
⌘-drag a gain point	Changes its level at one tenth of the speed.
Click a gain point	Selects it.

With a gain point selected, press **Delete** to remove it, ↑ or ↓ to change its level by 0.5 dB (0.1 dB with ⌘), ← or → to move it by one sample, and **Esc** to deselect it. The line does not respond within 10 points of the clip's edges, so trimming still works there.

Faders and knobs

Gesture	Fader	Knob
Drag	Up and down, in 0.1 dB steps.	Up or right to raise, down or left to lower. The full range takes about 200 points. Some knobs move only up and down.
⌘-drag	One tenth of the speed, in 0.01 dB steps.	More slowly, in finer steps. A pan knob moves at one tenth of the speed, in steps of 0.1.
⌥-click	Resets to 0.0 dB.	Resets to its default, for example the center for pan.
Click away from the cap	Jumps the cap to that point, then follows your drag.	Not used.
Hold ⇧, ⌥ or ^ during a drag	Cancels the drag.	Cancels the drag.
Esc during a drag	Cancels the drag.	Cancels the drag.

Channel faders range from -60 dB to +12 dB. Pan knobs range from 100 left to 100 right.

After you click a fader or knob, you can use the keyboard: ↑ or → raises it by one step and ↓ or ← lowers it, with ⌘ for fine steps. Press **Return** to type a value in its box, then **Return** again to apply it or **Esc** to cancel. The box under a fader accepts -60 to +12.

Mix channel strips

Gesture	Result
Click the name at the top of a strip	Selects the channel.
Click S, M or Arm	Turns solo, mute or record arm on or off.
Click Input	Chooses the recording input of an audio track.
Click the instrument or effect name	Opens its controls in the channel panel.
Click the small window icon beside it	Opens its plugin window.
Click the Chicken Strip overview	Opens the channel's controls.
Double-click the Chicken Strip overview, or click its window icon	Opens the Chicken Strip window.
Click Sends above a track's processing controls	Shows that channel's sends in the Inspector. Effect Returns have their effect button above processing; Main has its Chicken Strip controls there.

Gesture	Result
Click a meter	Clears its held clip indicator.
Right-click the empty space after the last strip	Opens the Add Track menu.

Mix channel strips have no right-click menu of their own.

Edit toolbar

Gesture	Result
Click RIPPLE, FREE, PLACE or GRID	Chooses that edit mode.
⌘-click RIPPLE	Turns Ripple Lock on or off.
Click GRID while in Grid mode	Switches between Absolute and Relative Grid.
⇧-click GRID	Turns snap to grid on or off.
Click the arrow on GRID	Opens Absolute Grid, Relative Grid and Snap to Grid: On or Snap to Grid: Off.
Click - or + beside GRID or NUDGE	Steps the grid or nudge size down or up.
Click *Place…* at the right of the bar	Opens Place Audio Clip for the selected audio clip.

Piano roll

Choose a tool in the piano roll's toolbar: Select, Draw or Erase. The pointer shows the tool: an arrow for Select, a crosshair for Draw and a pointing hand for Erase.

Gesture	Result
Click a note	Selects it. With Erase, deletes it.
Drag a note	Moves it in time and pitch. Positions follow the Snap setting.
Drag a note's right edge	Changes its length. The pointer shows arrows over the edge.
Double-click an empty place	Adds a note one snap step long, with any tool.
Click an empty place with Draw	Adds a note one snap step long. Drag before you release to set its length.
Click an empty place with Select	Clears the note selection.
Esc during a drag	Cancels the drag.
⌥-scroll or pinch over the notes	Zooms in or out.

New notes have velocity 100. On Voltage 80 and Voltage 78 they use MIDI channel 10, and on other instruments channel 1. A note cannot start or end beyond the end of its clip. A movement shorter than 3 points is ignored. See MIDI and instruments for the keys.

Audio clip editor

The audio clip editor, shown by Editor or Window > Region Editor Window, shows the selected audio clip on its own. It takes the same move, trim, click and scroll gestures as the Arrange timeline, except right-click. ^⇧-scroll changes its clip gain, and Zoom and Fit change its view.

Toolbar and Floating Transport

Gesture	Result
Click the clock	Steps through bars and beats, minutes and seconds, and samples.
Right-click the clock	Opens the metronome and time display settings.
Click ♩	Turns the metronome click on or off.
Right-click ♩	Opens the metronome and time display settings.
Click, or press and hold, the chef's hat	Plays a short or a full sound. See Transport and navigation.
Click the Floating Transport's MAIN CLOCK	Steps its format, like the toolbar clock.
Click the Floating Transport's SECOND CLOCK	Steps the second clock's format on its own.

Drag and drop

Files from Finder

Drop files onto the Arrange timeline.

What you drop	Result
Audio files	Each file becomes a new track starting at the beginning of the session, as one Undo step. See File formats.
A folder	Imports the audio and MIDI files inside it, including folders inside it, skipping hidden files.
MIDI files together with audio files	Adds instrument tracks for the MIDI files and audio tracks for the audio files to the current session.
A Head Chef session, a project from another music app, or a MIDI file on its own	Opens it as a session, in place of the current one. Head Chef asks first if you have unsaved changes.

When you drop several files, the first one decides: if it is a session, project or MIDI file, Head Chef opens that file and ignores the rest. Put audio files first to import them all.

Plugins from the Plugin Browser

Drag a card from the Plugin Browser. The pointer shows a hand while you drag, and the place you are over lights up.

Card	Drop on a track or channel strip	Drop on empty space
A CLAP or VST3 effect	Adds it to the end of that channel's processing.	Creates an audio track named after the plugin, with the plugin on it.
A built-in instrument (INST)	On an instrument track, swaps in that instrument, or chooses its sound if the track already plays it. Refused on an audio track.	Creates an instrument track and opens its window.
A built-in effect (FX BUS)	On a track, adds a send at -6 dB to that effect's Effect Return (effect return), creating the Return if there is none.	Creates an Effect Return and opens its window.
AUDIO	Creates a new audio track.	Creates a new audio track.
Chicken Strip (STRIP)	Opens that channel's Chicken Strip window.	Nothing happens.

A track or channel can be a track's lane in Arrange, a Mix strip or the open channel panel. Empty space can be the area below the last track, the area below the TRACKS list, the space after the last Mix strip, the drop area at the top of the Plugin Browser, or the Add Track... button.

If a session has more than one Effect Return for the same built-in effect, dropping that effect on a track is refused; add the send in the track's sends instead. An effect card dropped on an Effect Return or on Main is refused, because sends start from tracks.

Double-click a card to open the plugin's window. See Plugins.

CHAPTER 23

Menu reference

This chapter lists every command in Head Chef's menus, in the order the menu bar shows them, followed by the menus you open with a right-click or from a button. Use it to look up what a command does, its shortcut, and why it might be dimmed.

A dimmed command is unavailable at that moment. The most common reasons are:

- *No session is open.* Commands that change a session need one. Open or create a session first.
- *A recording is in progress.* From the moment a take is ready or counting in until it is finished and saved, Head Chef holds the session steady, so most editing, file and setup commands wait. See Recording audio.
- *You are in the middle of a gesture.* While you drag a fader, a clip or a control, or type in a text field, Undo and Redo wait until you finish.

Shortcuts use the Mac key symbols ⌘ (Command), ⌥ (Option), ⇧ (Shift) and ^ (Control). Keys marked Num are on the numeric keypad. Some shortcuts in the tables are not printed in the menu itself but do the same thing. See Keyboard shortcuts for every key.

File

Command	Shortcut	What it does
New Session...	⌘N	Opens the New Session dialog to start a new session. If the current session has unsaved changes, Head Chef first asks Save changes to this session? Unavailable while recording.
Import Audio...	⇧⌘I	Opens the Import Audio window. Each file you choose becomes its own track, as one Undo step. Unavailable while recording and while an earlier import is still being read. See Importing.
Open Session...	⌘O	Opens a Head Chef session, a MIDI file or a project saved by another music app. Unavailable while recording. See File formats.
Save Session	⌘S	Saves the session. A session that has never been saved asks for a name and folder first. Unavailable with no session open and while a take is being recorded.
Save Session As...	^⌘S	Saves the session under a new name, as a new file. Available whenever Save Session is.
Render Mix...	⌥⌘B	Opens the Render Mix dialog, or the render progress window while a render is running. Needs a session with at least one track. Unavailable while recording. See Rendering.
Close	⌘W	Closes the separate window you are working in, such as the Mix Window or a plugin window. In the main window it closes that window, asking first if you have unsaved changes.

Edit

Command	Shortcut	What it does
Undo	⌘Z	Undoes the last session edit. Unavailable when there is nothing to undo, while recording, while you drag or type, and while the Keyboard Shortcuts window is open.
Redo	⇧⌘Z	Redoes the edit you last undid. Unavailable for the same reasons as Undo.

With Options > Arrange Letter Shortcuts (A–Z) on and the Arrange timeline focused, Z and ⇧Z also undo and redo.

Settings

Command	Shortcut	What it does
Session Settings...	⌘ Num 2	Opens Session Settings for tempo, time signature, sample rate and pan depth. Needs an open session. Unavailable while recording. See Settings reference.
Audio Engine...	⌘,	Opens Audio Engine for the output device, recording input device, buffer size and meter style. Unavailable while recording.
Control Surface...	None	Opens Control Surface to choose the MIDI ports of a hardware control surface. Always available. See Control surfaces and assistants.

Track

Command	Shortcut	What it does
Add Track > Add Mono Audio Track	None	Adds an empty mono audio track. With no session open, Head Chef first opens New Session and adds the track to the new session. Unavailable while recording.
Add Track > Add Instrument Track > Voltage 80	None	Adds an instrument track playing Voltage 80 with its default sound, and opens its window.
Add Track > Add Instrument Track > Voltage 78	None	Adds an instrument track playing Voltage 78.
Add Track > Add Instrument Track > Substance	None	Adds an instrument track playing Substance.
Add Track > Add Instrument Track > Octet	None	Adds an instrument track playing Octet.
Add Track > Add Instrument Track > Mini Bar	None	Adds an instrument track playing Mini Bar.

Command	Shortcut	What it does
Add Effect Return > MADRE Chorus	None	Adds an Effect Return channel (effect return) running MADRE Chorus. Needs an open session. Unavailable while recording.
Add Effect Return > Voltage Spaces	None	Adds an Effect Return running the Voltage Spaces reverb.
Add Effect Return > Char Press	None	Adds an Effect Return running Char Press.

Every Add Instrument Track item, like the Add Instrument menu below, is unavailable while recording. Adding a track is one Undo step. See Tracks and MIDI and instruments.

Add Instrument

This menu is a shortcut to the same instruments as Track > Add Track > Add Instrument Track.

Command	Shortcut	What it does
Voltage 80	None	Adds a Voltage 80 instrument track with its default sound and opens its window. With no session open, Head Chef first opens New Session.
Voltage 78	None	Adds a Voltage 78 instrument track.
Substance	None	Adds a Substance instrument track.
Octet	None	Adds an Octet instrument track.
Mini Bar	None	Adds a Mini Bar instrument track.

The whole menu is unavailable while recording.

View

A check mark shows which items are on.

Command	Shortcut	What it does
Arrange	⌘= toggles	Shows the Arrange view in the main window.
Mix	⌘= toggles	Shows the Mix view in the main window.
Arrange Mix Layer	None	Shows Chicken Strip controls on each track in Arrange. Turning it on hides the clip gain line. Needs an open session. Unavailable while you drag a clip and while recording.
Clips	None	Shows or hides the CLIPS list at the right of Arrange. The list appears only when the window is at least 1280 points wide.
Plugin Browser	None	Shows or hides the plugin browser. See Plugins.

Command	Shortcut	What it does
Clip Gain Badges	^⇧=	Shows or hides the clip gain readout on each audio clip in Arrange. On when Head Chef starts.
Clip Gain Line	^⇧–	Shows or hides the selected audio clip's editable gain line in Arrange. Turning it on turns off Arrange Mix Layer.
Zoom In	⌘] , or T with letter keys	Zooms the timeline in around the cursor.
Zoom Out	⌘[, or R with letter keys	Zooms the timeline out around the cursor.
Fit Selected Clip	⌥F	Fills the timeline with the selected clip. Needs a selected clip.
Fit Session	⌥A	Shows the whole session. In a session with only audio tracks it reads Fit Audio. Needs an open session.
Taller Selected Track	⌘↑	Makes the selected track one height taller: Micro, Tiny, Small, Medium, Large, Jumbo. Needs a selected track. Undo restores the previous height.
Shorter Selected Track	⌘↓	Makes the selected track one height shorter. Needs a selected track.
Taller All Tracks	⌥⌘↑	Makes every track one height taller. Needs an open session.
Shorter All Tracks	⌥⌘↓	Makes every track one height shorter. Needs an open session.
Taller Waveforms	⌥⌘]	Doubles the drawn size of audio waveforms (waveform), up to 16 times. Unavailable at 16 times. What you hear does not change.
Shorter Waveforms	⌥⌘[	Halves the drawn size of waveforms, back to normal size. Unavailable at normal size.

The zoom, fit, track height and waveform shortcuts work when the Arrange timeline has keyboard focus. Press ⌥⌘1 to give it focus. The track height and waveform keys also need Arrange Letter Shortcuts (A–Z) on.

Options

Command	Shortcut	What it does
Tape Scrub Sound	None	When on, dragging along the ruler plays the session forwards or backwards at the speed you drag. When off, dragging moves the cursor silently. On until you turn it off; Head Chef remembers your choice.
Arrange Letter Shortcuts (A–Z)	None	Turns the single-letter Arrange keys on or off. In Arrange it also gives the timeline keyboard focus. On when Head Chef starts.
Count-In	Num 8	Turns the count in before recording on or off. The item shows the current length, for example *Count-In (2 Bars)*. Choose the length in the metronome settings.

Command	Shortcut	What it does
Metronome Click	Num 7	Turns the metronome click on or off.

Neither the count-in nor the click adds a step to Undo. See Transport and navigation.

Window

Command	Shortcut	What it does
Mix Window	⇧⌘= toggles	Opens the mixer in its own window. A check mark shows when it is open. Choosing the menu item again leaves it open; press ⇧⌘=, click Dock or press ⌘W in that window to close it.
Region Editor Window	None	Opens or closes the selected clip's editor in its own window.
Floating Transport	⌘ Num 1	Opens or closes the small transport window that stays on top.
Open Multi-Window Studio Workspace	None	Shows Arrange in the main window and opens the Mix Window and Floating Transport together.

Transport

Command	Shortcut	What it does
Play	Space or Num 0	Starts playback from the cursor. The item's name changes to say what it will do next: Pause while playing, Cancel Playback while Head Chef prepares playback, Start Recording when a take is ready, Cancel Recording Start during preparation or the count-in, and Finish Recording while recording. Needs a session with at least one track.
Stop	Return in Arrange	Stops playback or recording and returns the cursor to the start. Needs an open session.
Record	F12, ⌘Space or Num 3	Gets the armed track ready to record. When ready the item reads Record Ready and shows a check mark. Unavailable while playing, without a saved session, and until a track is armed with an input. The keys start the take straight away when the input is ready. See Recording audio.

Help

Command	Shortcut	What it does
Head Chef 1 User Guide	None	Opens this guide in your web browser.
Keyboard Shortcuts...	^⇧K	Opens the searchable list of every shortcut.

Right-click menus

Track header

Right-click a track's header in Arrange to open Track Actions for that track. Head Chef also selects the track.

Command	Shortcut	What it does
Toggle Solo	⇧S for the selected track	Turns solo on or off for the track.
Toggle Mute	⇧M for the selected track	Turns mute on or off for the track.
Reset Gain to 0.0 dB	None	Sets the track's fader to 0.0 dB.
Reset Pan to Center	None	Sets the track's pan to the center.
Track Height > Micro to Jumbo	None	Sets the track to one of six heights: Micro, Tiny, Small, Medium, Large or Jumbo. Unavailable while recording.
Plugins…	None	Opens the plugin browser for this track. Unavailable while recording.
Open and the plugin's name	None	Appears only when the track has a plugin. Opens the window of the track's first plugin.
Add Track > Add Mono Audio Track	None	Adds an empty mono audio track.
Add Track > Add Instrument Track	None	Adds an instrument track playing the instrument you choose.

The menu closes by itself if the session changes while it is open, for example when playback moves a control.

Empty space in Arrange and Mix

Right-click any of these places to open the Add Track menu with Add Mono Audio Track and Add Instrument Track:

- the empty area below the last track header in Arrange;
- an empty part of a track's lane in the Arrange timeline, away from its clip, or the empty area below the last track;
- the empty space to the right of the last channel strip in Mix, or in the Mix Window.

Right-clicking a clip does nothing, and right-click menus do not open while recording. Mix channel strips have no right-click menu; use their buttons, described in Mixing.

Menus you open from a button

Where	Button	Commands
Toolbar, narrow windows	More ▾ or ⋯	Add Track..., Plugins, Mixer Window, MIDI Keyboard... and Region Editor Window, for the buttons that do not fit. A dot shows an open window or panel. Jam ↗ opens Jam directly from the toolbar.
Edit toolbar	The arrow on GRID	Absolute Grid, Relative Grid and Snap to Grid: On or Snap to Grid: Off. See Editing audio.
Channel processing	+ Built-in Effect or + Insert above	MADRE Chorus, Voltage Spaces and Char Press, added at the end of the chain or above that stage. In narrow panels the first button reads + Effect.
Channel processing	... on a stage	Open, Move up, Move down and Remove. Move up and Move down are unavailable at the ends of the chain, and Remove appears only for stages you can remove.
Piano roll and audio clip editor	Zoom	Zoom In and Zoom Out for that editor.

The menus in the MIDI keyboard settings and the Mini Bar panel list your connected devices and sounds. See MIDI and instruments.

CHAPTER 24

Settings reference

This chapter lists every setting you can change in Head Chef, grouped by the window, menu or panel where it lives. Each table gives the choices, the setting's starting value and where Head Chef keeps it.

The *Saved with* column uses three answers:

- *Session* means the setting is stored in the session file and comes back when you open the session. Changing it marks the session as having unsaved changes.
- *Preferences* means Head Chef stores the setting on your Mac and uses it every time you start the app, whichever session you open.
- *Not stored* means the setting lasts until you quit Head Chef. It stays the same when you open another session, and returns to its default the next time you start the app.

Audio Engine

Choose Settings > Audio Engine... or press `⌘,`. Changes to the devices and buffer size take effect when you click Apply; Cancel leaves them as they were. The window cannot be opened while recording. See Connect your hardware.

Setting	Choices or range	Default	Saved with
Output Device	System Default Output, or any output device on your Mac, shown with its channel count	System Default Output	Not stored
Default Recording Input Device	System Default Input, or any input device on your Mac	System Default Input	Not stored
Buffer Size	32, 64, 128, 256, 512, 1024 or 2048 samples, limited to the sizes the chosen device supports	512 samples	Not stored
Level Meter Style	Tri-Zone Studio (Emerald / Amber / Coral) or Monochrome Cyan-Mint	Tri-Zone Studio (Emerald / Amber / Coral)	Preferences

- A buffer size of 32 or 64 samples gives the lowest latency but works the Mac harder. The window warns you when you choose one.
- Level Meter Style changes the meters the moment you choose it, without Apply.
- The default recording input is the input a new session's starting audio track uses. Each audio track keeps its own input; see Recording audio.
- The window also shows readouts you cannot change: the session and device sample rates and their clock, the input, output and round-trip latency, and whether Head Chef may use the microphone. Click Refresh Devices after you connect or disconnect an interface.

If a device you chose is no longer connected, the list shows it as unavailable. Choose another device or System Default Output.

Session Settings

Choose Settings > Session Settings... or press `⌘ Num 2`. Changes take effect when you click Apply. The window needs an open session and cannot be used while recording. See Tempo and session settings.

Setting	Choices or range	Default	Saved with
Tempo / BPM	Any positive number of beats per minute, with up to the decimals that can be stored exactly	110 BPM in a new session; 120 BPM when a session starts from imported files	Session
Time Signature (beats per bar)	1 to 32	4	Session
Time Signature (beat unit)	1, 2, 4, 8, 16 or 32, limited to the units that fit the session's musical grid	4	Session
Sample Rate	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz or 192 kHz	The rate chosen in New Session	Session
Pan Depth	-2.5 dB, -3.0 dB (Default), -4.5 dB or -6.0 dB (Linear)	-3.0 dB (Default)	Session

- You can change Sample Rate only while the session has no audio clips. After that, the session keeps its rate. See sample rate.
- Pan Depth sets how much a mono track drops in level at the center of the pan range compared with the sides.
- A session opened from a file with a tempo map shows Initial Tempo / BPM instead, which you cannot type in. Click Move Tempo Change... to move one tempo change to a new Bar, Beat and Tick. Each tempo value stays exactly as it was.
- When a song did not store a time signature, Head Chef assumes one and offers a *Keep* button, for example *Keep 4/4*, to store it with the song.
- Set the musical length to cover your song. There is no fixed duration limit.

New Session dialog

Choose File > New Session... or press `⌘N`.

Setting	Choices or range	Default	Saved with
Session name	Any name	*New beat*	Session
Sample rate	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz or 192 kHz	48 kHz, or your saved default	Session; the default is in Preferences
Start with	No tracks, Mono audio track, Mini Bar, Voltage 80, Voltage 78, Substance or Octet	Mini Bar, or your saved default	Default in Preferences

Setting	Choices or range	Default	Saved with
Sound	The sounds of the instrument chosen in Start with	The instrument's own default sound, or your saved default	Default in Preferences

Click Use as Default to keep the current Sample rate, Start with and Sound for every new session. Head Chef confirms with Saved for future sessions. Every new session starts eight bars long at 110 BPM in 4/4.

When you add a track with no session open, New Session opens without Start with and Sound, and adds the track you chose instead.

Options menu

Setting	Choices or range	Default	Saved with
Tape Scrub Sound	On or off	On	Preferences
Arrange Letter Shortcuts (A–Z)	On or off	On	Not stored
Count-In	On or off	Off	Not stored
Metronome Click	On or off	Off	Not stored

Metronome and time display

Right-click the ♩ button or the clock in the toolbar to open these settings. None of them adds a step to Undo.

Setting	Choices or range	Default	Saved with
Click on or off (CLICK ON or CLICK OFF)	On or off	Off	Not stored
Sound Profile	Studio, Woodblock or Bip	Studio	Not stored
Click Mode	Play & Rec, Rec Only or Count-In	Play & Rec	Not stored
Count-In Bars	1 Bar, 2 Bars or 4 Bars	2 Bars	Not stored
Count-in on or off (ACTIVE or OFF)	On or off	Off	Not stored
Click Level	-36.0 dB to +6.0 dB in 0.5 dB steps	-6.0 dB	Not stored
Clock format, under TIME DISPLAY & RULER	Bars and Beats, Min:Sec or Samples	Chosen for you	Not stored
Ruler Coupled or Ruler Free	Coupled or free	Ruler Coupled	Not stored

- The clock format buttons read Bars|Beats, Min:Sec and Samples. Until you choose one, Head Chef shows bars and beats when the session has instrument tracks and minutes and seconds when it has only audio. Clicking the clock also steps through the formats.

- With Ruler Coupled, the ruler follows the clock's format. With Ruler Free, the ruler keeps its own format.
- The Floating Transport's SECOND CLOCK has its own format; click it to change it.

Control Surface

Choose Settings > Control Surface.... See Control surfaces and assistants.

Setting	Choices or range	Default	Saved with
MIDI input	The MIDI inputs on your Mac	None chosen	Not stored
MIDI output	The MIDI outputs on your Mac	None chosen	Not stored
Connection (Enable or Disable)	Connected or disabled	Disabled	Not stored

Enable is available once you have chosen a MIDI input and a MIDI output that are both listed. Click Refresh Ports after you plug in a surface, and Done to close the window.

Render Mix dialog

Choose File > Render Mix... or press ⌥⌘B. See Rendering and File formats.

Setting	Choices or range	Default	Saved with
Container	WAV, Broadcast Wave (BWF), AIFF, FLAC (Lossless), MP3, M4A / AAC, Core Audio (CAF), Ogg Vorbis or Standard MIDI (.mid)	WAV	Not stored
Sample rate	Project rate, 44.1 kHz, 48.0 kHz, 88.2 kHz, 96.0 kHz, 176.4 kHz or 192.0 kHz	Project rate	Not stored
Sample format	16-bit PCM, 24-bit PCM, 32-bit PCM or 32-bit float	32-bit float	Not stored
Dither	TPDF, None or Noise shaped	None with 32-bit float; TPDF with a PCM format	Not stored
Tail / seconds	0 to 120 seconds, up to three decimals	8	Not stored

- Sample rate is unavailable for Standard MIDI (.mid).
- Dither is fixed at None for 32-bit float. Noise shaped is offered only for WAV.
- The dialog keeps your last choices while Head Chef is running.

View menu and the window layout

Setting	Choices or range	Default	Saved with
Arrange or Mix	Either view	Arrange	Not stored
Arrange Mix Layer	On or off	Off	Not stored
Clips	On or off	Off	Not stored
Plugin Browser	Shown or hidden	Hidden	Not stored
Clip Gain Badges	On or off	On	Not stored
Clip Gain Line	On or off	Off	Not stored
Waveform size (Taller Waveforms and Shorter Waveforms)	Normal, then 2, 4, 8 or 16 times	Normal	Not stored
Track height (Track Height)	Micro, Tiny, Small, Medium, Large or Jumbo	Large	Session

Track heights are saved in a small hidden file next to the session file, so keep the two together when you move a session. Arrange Mix Layer and Clip Gain Line cannot both be on; turning one on turns the other off.

Edit toolbar

These controls sit in the bar below the toolbar in Arrange. See Editing audio.

Setting	Choices or range	Default	Saved with
edit mode	RIPPLE, FREE, PLACE or GRID	FREE	Not stored
Grid type	Absolute Grid or Relative Grid	Absolute Grid	Not stored
Snap to grid	Snap to Grid: On or Snap to Grid: Off	Off	Not stored
Ripple Lock	On or off	Off	Not stored
Grid size (GRID - and +)	48, 240, 480, 1,200, 2,400, 4,800, 12,000, 24,000, 48,000 or 96,000 samples	24,000 samples (500 ms at 48 kHz)	Not stored

Setting	Choices or range	Default	Saved with
nudge size (NUDGE - and +)	1, 48, 240, 480, 1,200, 2,400, 4,800, 12,000, 24,000 or 48,000 samples	480 samples (10 ms at 48 kHz)	Not stored
Letter keys	On or off	On	Not stored

The grid and nudge readouts show each size in seconds, milliseconds or samples for the session's sample rate. Ripple Lock keeps Ripple mode from being chosen; ⌘-click RIPPLE to turn it on or off.

MIDI keyboard settings

Click MIDI in the toolbar. See MIDI and instruments.

Setting	Choices or range	Default	Saved with
Keyboard input (ON or OFF)	On or off	On	Not stored
Keyboard Source	All Connected Keyboards (Auto) or one connected keyboard	All Connected Keyboards (Auto)	Not stored
MIDI Channel	All Channels (Omni) or channel 1 to 16	All Channels (Omni)	Not stored

Plugin folders

Click Folders... in the Plugin Browser, then Edit Folders.... See Plugins.

Setting	Choices or range	Default	Saved with
Search standard folders	On or off	On	Preferences
Additional plugin folder	Any folders you add	None	Preferences

Piano roll

Setting	Choices or range	Default	Saved with
Note tool	Select, Draw or Erase	Select	Not stored
Snap	1/4, 1/8, 1/16, 1/32 or Off	1/16	Not stored

Settings that belong to tracks and clips

These track and clip settings are part of the session and are saved with it: track names and colors, fader level, pan, mute, solo, channel processing, sends, plugins and their settings, recording inputs, and clip gain with its gain points. They are described in Tracks, Editing audio and Mixing.

CHAPTER 25

File formats

This chapter lists every kind of file Head Chef opens, imports, records and writes, by file extension, with the limits that apply and what Head Chef changes along the way. For step-by-step tasks, see Importing audio and projects and Rendering.

Head Chef sessions

File	What it holds
`.headchef`	The session: tracks, clips, mix, processing, plugins, tempo and settings. Up to 4 MiB.
`.headchef-media` folder	The session's audio, stored as `.wav` files in a hidden folder next to the session file.
A hidden file ending in `.organization.json`	Track heights and other track layout, stored next to the session file.

Save and move the session file together with its hidden folder and files. File > Save Session As… writes a new session file and copies the audio it needs into the new location. See Sessions.

Import audio

The Import Audio window and Arrange drops use the same import options. Each file normally becomes its own new track at the start, as one Undo step. You can change placement and channel handling before importing; see Importing audio and projects.

Import Audio window

Choose File > Import Audio… (`⇧⌘I`) and select supported audio files. Head Chef inspects the selection and opens Import Media Options. When rates differ, Sample Rate Conflict & Import Options offers conversion choices before anything is added.

The default Resample imported audio to project rate keeps playback speed and pitch. Keep samples at project rate keeps the sample frames and plays them at the project clock, so a different rate changes speed and pitch.

Drag and drop: every supported format

The picker and Arrange drop target accept the audio formats below. Mixed audio/MIDI selections use the same options. A single MIDI file or project can instead open as a session.

Format	File extensions
WAV, Broadcast Wave and RF64	`.wav`, `.bwf`, `.rf64`

Format	File extensions
AIFF and AIFF-C	`.aif`, `.aiff`, `.aifc`
FLAC	`.flac`
MP3	`.mp3`
AAC and MPEG-4 audio	`.m4a`, `.aac`, `.mp4`
Core Audio Format	`.caf`
Ogg audio	`.ogg`, `.oga`

Property	Accepted
Sample format of WAV and AIFF	8-bit, 16-bit, 24-bit or 32-bit integer, or 32-bit or 64-bit float
Compressed audio	Decoded by Head Chef or by macOS, including lossless audio in `.m4a` and `.caf` files
Channels	1 to 64
Sample rate	8 kHz to 192 kHz
Folders	Searched up to 8 levels deep, for up to 256 files. Hidden files are skipped.

What Head Chef does with each file:

- *Sample rate.* The default converts a different rate to the session rate with sinc sample rate conversion. You can choose Best, Good or Fast quality, change the project rate, or keep samples at the project rate. With no session open, the first file sets its rate and name; the session starts at 120 BPM in 4/4.
- *Channels.* By default, mono stays mono and stereo stays stereo. More than two channels become separate mono tracks. The options can also split stereo to mono or combine matching `.L` and `.R` files.
- *Storage.* The decoded audio is stored in the session as a `.wav` file. Audio that was 16-bit or 24-bit stays at that depth; other audio, and any audio with peaks above 0 dBFS, is stored as 32-bit float so nothing is clipped.
- *Your files.* The original files are never changed.

Supported imported audio has no fixed file-size or combined session-audio allowance. Leave enough free disk space for the imported audio, conversion work and saved copies. The original files are never changed.

Session limits

Limit	Value
Tracks in a session	128

MIDI files

Property	Accepted
File extensions	`.mid`, `.midi`, `.smf`
Kinds	Standard MIDI files of format 0, 1 and 2
Size	Up to 16 MiB
Contents	At least one note
Tracks	Up to 128

Open a MIDI file with File > Open Session..., or drop it on its own onto Arrange, to start a new session from it. Each MIDI track becomes an instrument track. Tracks that mostly use the drum channel play through Voltage 80 and the others through Octet. The tempo, including tempo changes, and the time signature come from the file; a file without them opens at 120 BPM in 4/4. A MIDI file dropped after audio files, in the same drop, is added to the current session instead. See MIDI and instruments.

Projects from other music apps

File > Open Session... (`⌘O`) and dropping onto Arrange both open these files. The Open Session window lists them under All supported sessions.

Kind of file	Extensions
Session containers	`.ptx`, `.ptf`, `.pts`
Project files	`.rpp`, `.als`, `.cpr`, `.song`, `.ardour`
Project bundles	`.logicx`, `.band`
Open exchange project	`.dawproject`
Interchange lists	`.adl`, `.omf`, `.aaf`

Head Chef builds a new, unsaved session from the project and never changes the original. How much carries over depends on the file; see Importing audio and projects and Switching to Head Chef.

Recording

Property	Value
File	`.wav`
Sample format	32-bit float
Channels	Mono

Property	Value
Sample rate	The session's rate. The input device must run at the same rate.
Take length	No fixed duration or file-size limit for Studio recording

Long recordings use RF64 WAV when needed. Leave enough free disk space for the take and saved session copies.

Each finished take is stored in the session's audio. See Recording audio.

Render Mix output

The audio file types in File > Render Mix... (⌥⌘B) write a new stereo file. Head Chef writes the format that matches the extension of the file name you save, and the name must not already exist.

Container	Extensions	Bit depth	What Head Chef writes
WAV	`.wav`	16, 24 or 32-bit PCM, or 32-bit float	The mix at the chosen sample format, with the chosen dither.
Broadcast Wave (BWF)	`.bwf`	As WAV	A WAV file whose broadcast description holds the session name.
AIFF	`.aiff`, `.aif`	As WAV	The mix at the chosen sample format. 32-bit float is written as AIFF-C.
FLAC (Lossless)	`.flac`	16 or 24-bit	16-bit when you choose 16-bit PCM, otherwise 24-bit. Lossless compression (lossless audio).
M4A / AAC	`.m4a`, `.aac`	Not applicable	AAC audio encoded by macOS. Sample format and Dither do not apply.
Core Audio (CAF)	`.caf`	Not applicable	Lossless audio encoded by macOS. Sample format and Dither do not apply.
Standard MIDI (.mid)	`.mid`, `.midi`	Not applicable	A format 1 MIDI file with the tempo map, time signature and one named track for each instrument track, retaining note timing, MIDI channels and velocities. No audio or plug-in sounds are rendered. The destination must be a new file in an existing folder.

MIDI stores tempo as whole microseconds per quarter note. Head Chef rounds in-range constant tempos to the nearest whole microsecond, and stops before creating a file if the tempo or a gap between events cannot fit the MIDI format.

Setting	Range
Sample rate	Project rate, or 44.1, 48, 88.2, 96, 176.4 or 192 kHz. A different rate is converted from the session's rate with high-quality sinc conversion.
Sample format	16-bit PCM, 24-bit PCM, 32-bit PCM or 32-bit float

Setting	Range
Dither	TPDF or None for PCM formats; Noise shaped for WAV only
Tail / seconds	0 to 120
File name	Up to 1024 bytes for the whole path

For long audio renders, choose WAV. Head Chef uses RF64 automatically when the file exceeds the standard WAV size range. Other output formats can need more memory while encoding.

With a PCM sample format, a peak above 0 dBFS stops the render; lower the level or choose 32-bit float. See Rendering.

Individual MIDI track output

Export MIDI Tracks... on a track header, or Export MIDI Tracks... in Render Mix, writes one new `.mid` file per chosen MIDI track into an existing folder. Each file is Standard MIDI format 1, with a conductor track and one named part. Audio-only tracks are not MIDI export sources.

The files retain the session's PPQ, tempo map, time signature, note channels, pitches, velocities, durations and part positions. They all start at the song origin and extend through the same musical range, retaining leading gaps and trailing empty bars. They contain no instrument sound, audio, controller messages (including sustain), pitch bend, pressure, program changes, SysEx or release velocities. This exports the current stored part, not a byte-for-byte copy of an originally imported MIDI file.

The track chooser previews each actual filename. Existing filenames refuse without replacement, and export does not change the song or its Undo history. See Export individual MIDI tracks.

Plugins

Format	File extension	What Head Chef uses it for
CLAP	`.clap`	Effects on a channel
VST3	`.vst3`	Effects on a channel, and audio editors that work on your recordings

Head Chef lists only plugins in these two formats. Its own instruments and effects are built in and need no plugin files. See Plugins for the folders Head Chef searches.

Settings files

Head Chef keeps your preferences, such as Tape Scrub Sound, your New Session defaults and your plugin folders, in its own files on your Mac. You never need to open them. See Settings reference.

CHAPTER 26

Troubleshooting

This chapter helps you find and fix problems by what you see or hear. Each section starts with a table: find your symptom or the exact message Head Chef shows, read the likely cause, and follow what to do. Messages in bold are quoted exactly as Head Chef shows them, on the status line, in the footer at the bottom of the window, or in the window you are using.

Most messages appear in the footer with a Dismiss button. When a message is too long for the footer, point at it to read all of it.

Most audio settings live in the Audio Engine window. Open it with Settings > Audio Engine... or `⌘,`.

Sound and devices

Symptom	Likely cause	What to do
You hear nothing, or the sound comes from the wrong speakers	Head Chef plays through a different device	In Settings > Audio Engine..., choose your interface in Output Device, or System Default Output to follow macOS, and click Apply.
Your interface is not in the Output Device list	It was connected after Head Chef started	Click Refresh Devices, choose it, and click Apply.
The list shows Unavailable Audio Output	The device chosen earlier is disconnected	Reconnect it, or choose another device.
Connect an audio output device, then press Play again.	No output device is available	Connect an interface or headphones, then press Play.
You still hear nothing	A track is muted, another is soloed, or Main is low	Check M and S on your tracks and the Main fader in Mix. A fader at its bottom is -60 dB, not silent, so a channel can be very quiet without being muted.
The Audio Engine window says the session and the device run at different rates	The device is set to another sample rate	Head Chef switches the device to the session rate when you press Play, if the device supports it.
This output device does not support a rate, or Set your output device to a rate in Audio MIDI Setup, then press Play again.	The device cannot switch to the session rate	Set the rate in Audio MIDI Setup, choose another device, or use a session at a rate the device supports.
The output device has not switched to a rate	The device took too long to change rate	Check the device in Audio MIDI Setup and press Play again.
The clock line shows Clock drift warning, or The audio device clock differs too much from the session rate. Check Audio MIDI Setup or choose another output, then press Play again.	The device's clock runs too far from the session rate	Check the interface's clock source and connections. When it is steady, the line reads Clock locked.

Symptom	Likely cause	What to do
The output device changed. Stop, then press Play again. or The output device or its sample rate changed. Stop, then press Play again.	The device was unplugged, replaced or changed rate during playback	Stop, reconnect or check the device, and press Play.
The audio device stopped. Reconnect it and press Play again.	The interface stopped delivering audio	Reconnect the interface, then press Play.
The output buffer size changed. Stop, then press Play again.	Another app changed the device's buffer	Stop and press Play.
Crackles, clicks or dropouts	The Mac cannot fill each audio buffer in time; see buffer size	Choose a larger Buffer Size, for example *512 Samples* or *1024 Samples*, and click Apply. Turn off or remove heavy plugins.
A delay between playing and hearing	A large buffer adds latency	Choose a smaller Buffer Size, such as *128 Samples*, while you record. The window shows Input, Output and round-trip latency for the buffer you choose.
32 and 64 sample buffers minimize monitoring latency but increase real-time CPU load.	You chose a very small buffer	Use it only if your Mac plays without crackles.
Could not refresh audio devices. or The audio engine configuration could not be applied.	macOS did not answer the request	Try again. If it keeps failing, reconnect the device or restart Head Chef.
A level above full scale distorts in your speakers	Head Chef's mix carries overs, but the output to the interface stops at full scale	Lower the Main fader until the Main meter stays out of the red. See Mixing.

Head Chef does not show a dropout counter or a processor meter. If you hear crackles, raise the buffer size first.

> Note: You cannot change the Audio Engine settings while Head Chef is recording. Stop the recording first.

Recording

Symptom	Likely cause	What to do
Save your session before recording.	The session has never been saved	Choose File > Save Session. Takes are stored next to the session file.
Arm one empty mono audio track to record a take.	No track, or more than one, is armed	Arm exactly one empty audio track.

Symptom	Likely cause	What to do
Record a mono take in an empty session. Create a new session and add an empty audio track.	Existing backing has no matching Head Chef input monitor on the armed destination	Choose Input or Auto monitoring on that empty mono destination to record over the song. Without Head Chef input monitoring, use a saved empty session. See Monitoring.
Choose a recording input for the armed track.	The track has no input	Click the track's input button and choose an input.
The selected input is unavailable. Reconnect it or choose another input. or the header reads Input unavailable	The interface for the saved input is disconnected	Reconnect it and click Refresh inputs, or choose another input.
Match the session and input sample rates before recording.	The interface runs at another rate	Set the interface to the session rate in Audio MIDI Setup, or record into a session at the interface's rate.
Microphone access is off. Allow Head Chef microphone access before recording.	macOS blocks Head Chef from inputs	See Microphone access below.
Keep or dismiss the recovered take before recording again.	A stopped take is waiting	Click Recovery... and choose Keep take or Dismiss.
Input clipped. Reduce the interface input gain.	The input is too loud	Turn down the gain on your interface and record again.
You cannot hear yourself while recording	Head Chef does not monitor inputs	Use your interface's direct monitoring. See Monitoring.
The status line shows Recording stopped. with a reason	The input, the interface, the disk or the click output failed during the take	Follow the reason shown, then keep or dismiss the take. When a take stops on its own lists each reason.
Stop recording or cancel record readiness before changing the session.	You tried to edit while Head Chef records or waits to record	Finish or cancel the take first.

Microphone access

macOS asks you to allow microphone access the first time Head Chef uses an input. The Audio Engine window shows the current state after Microphone access:

Shown	What to do
Allowed	Nothing; Head Chef can record.
Not requested yet. Head Chef asks the first time you enable an input.	Click Enable input in the Mono recording input window.
Blocked. Allow Head Chef in System Settings > Privacy & Security > Microphone.	Turn on Head Chef under Privacy & Security > Microphone in System Settings, then click Refresh inputs.
Restricted on this Mac by a device policy.	Ask the person who manages the Mac.

Shown	What to do
No input device is available.	Connect an interface or microphone, then click Refresh Devices.

Playback and performance

Symptom	Likely cause	What to do
The status line shows Preparing playback... with a percentage	Instruments render their parts before playback	Wait, or click Cancel. Playback starts when preparation finishes.
Playback could not start. followed by a reason	Preparing the audio failed	Follow the reason; most ask you to press Play again.
Playback audio could not be read. Check disk access, then press Play or try moving the cursor again.	A session audio file could not be read	Check that the drive holding the session is connected, then press Play.
This session needs more prepared audio than can be kept at once. Shorten the session or use fewer instruments, then press Play again.	The session's instruments need more memory than Head Chef keeps for playback	Shorten the song or remove instrument tracks you do not need.
Instruments are being prepared. Wait for preparation to finish or cancel it before playing.	A preparation is still running	Wait for it, or cancel it.
Stop input monitoring before preparing this playback position.	Software input monitoring is active while a third-party plugin needs preparation at the new position	Turn off software input monitoring, choose the position again and wait for preparation. See Play from another point.
Head Chef feels slow	Too much processing for the buffer size	Raise Buffer Size, and turn off or remove plugins you are not using.
This session can hold up to 128 source channels.	The session reached its source-track limit	See the limits below. Remove tracks you no longer need.

Performance and memory

Supported imported audio stays on disk with no fixed combined file-size allowance. Leave enough free space for imported audio, conversion work and saved copies. Playback and editing still need available memory and disk bandwidth.

Each session has fixed limits so playback stays reliable:

Limit	Value
Source tracks	128
Effect Returns	4
MIDI notes	2,048 per clip and 16,384 per session

Limit	Value
Clip gain points	1,024 per clip
Undo steps	512, within 64 MiB

When a session gets close to a limit, Head Chef refuses the change and tells you, for example A session can hold up to 16384 MIDI notes. or This session can hold up to four aux channels.

Plugins

Symptom	Likely cause	What to do
A plugin stopped responding. Save your session, then press Play to restore its saved sound, or remove it.	A third-party plugin crashed or hung	Save, then press Play. If the plugin keeps failing, remove it from the channel.
A plugin stopped. Press Play to restore its saved sound, or remove it.	The same, reported from its window	Press Play, or remove the plugin.
A plugin you installed is not in the Plugin Browser	Head Chef has not scanned it, or it is in a folder Head Chef does not search	Click Rescan, or add its folder; see Scan for plugins again.
The browser says a number of plugins could not load	They failed the scan	Click Details to see each plugin and its reason, then retry them with Retry blocked plugins.
The plugin could not be scanned. Try again.	A scan failed	Click Rescan.
Plugin search could not start. Try Rescan again.	The scan could not begin	Click Rescan.
The plugin folder could not be saved. Check the path and try again.	The folder path is not valid	Choose the folder with Browse… instead of typing it.
Cannot read plugin folder followed by its path	Head Chef cannot open the folder	Check the folder's permissions in Finder.
Plugin folders contain too many files. Choose a more specific folder.	A folder you added holds too much	Add the folder that contains your plugins, not a whole drive.
Use up to eight plugins on each channel.	The channel is full	Move effects to another channel or an Effect Return.
The Plugin window could not open window appears	The plugin's window could not open, or a sound could not be loaded	Read the message in the window, then open the plugin again from its channel.
Close a plugin window before opening another.	Too many plugin windows are open	Close a plugin window you are not using.
This plugin has changed. Scan it again before using this sound.	The plugin was updated since its last scan	Click Rescan.

Symptom	Likely cause	What to do
An ARA 2 editor shows The ARA plugin is still analysing this clip. Wait for it to finish, then Apply.	The editor has not finished reading the clip	Wait, then click Apply.
Apply or cancel the open ARA edit before continuing.	An ARA edit is open	Apply or cancel it first. See Plugins.

Scan for plugins again

Head Chef scans the standard plugin folders. Rescan after you install, update or remove a plugin.

1. Click Plugins in the toolbar, or choose View > Plugin Browser.
2. Click Rescan. The button shows Scanning… until the scan finishes.

To add a folder or retry plugins that failed earlier:

1. Select a channel, then click Folders… in the Plugin Browser.
2. Click Edit Folders…. Keep Search standard folders on, and add a folder with Browse… or by typing its path and clicking Add Folder.
3. To try plugins that failed in an earlier scan, turn on Retry blocked plugins.
4. Click Rescan.

Sessions and files

A session does not open

Symptom	Likely cause	What to do
This is not a valid Head Chef session.	The file is not a Head Chef session, or it is damaged	Open a backup copy if you have one.
A message starting Cannot open audio:	The session's hidden audio folder is missing or was moved	Put the folder back next to the session file; see Where Head Chef keeps your work.
The session audio has changed. Restore its original media file.	An audio file in the session folder was edited or replaced	Restore the original file from a backup.
This session document is too large.	The file is larger than Head Chef can open	Open a backup, or split the material across sessions.
Wait for the mix render to finish, or cancel it before replacing this session.	Render Mix is running	Wait for it, or click Cancel Render.
A project from another music app does not open	The file is damaged or its audio is missing	Open it from its original folder, with its audio folders beside it. See Importing.

Saving and importing

Symptom	Likely cause	What to do
That file already exists. Choose a different name.	A file with that name is in the folder	Choose another name.
A message starting Cannot save session: or Cannot save audio:	The folder is read-only or the disk is full	Save to a folder you can write to, and free disk space.
Save changes to this session?	The session has unsaved changes	Choose Save, Don't Save or Cancel.
Choose audio at the session rate of a rate Hz or use the import sample-rate options.	The import did not choose a sample-rate conversion	Choose File > Import Audio..., then Resample imported audio to project rate. See Importing.
Unsupported or corrupted audio file. Choose a WAV, BWF, AIFF, FLAC, MP3, M4A/AAC, CAF or Ogg file.	The file is damaged or in another format	Convert the file in another app first.
Audio import failed. Try the files again.	Reading a file failed	Import the files again.
Wait for the current audio import to finish, or cancel it.	An import is running	Wait, or click Cancel import in the footer.
Choose files within the session's 128 source-channel limit.	The import would pass 128 tracks	Import fewer files.

MIDI devices

Symptom	Likely cause	What to do
Playing a keyboard makes no sound	No instrument track is selected, or input is off	Select an instrument track. Click MIDI in the toolbar and check that input is ON. The panel shows Select an instrument track to play live when no instrument track is selected.
Your keyboard is not listed	It was connected while the list was open	Click Refresh Ports in the MIDI panel.
Selected keyboard is offline: switch to All Connected Keyboards (Auto) or reconnect it.	The keyboard you chose is disconnected	Reconnect it, or choose All Connected Keyboards (Auto) under Keyboard Source.
A keyboard plays nothing on one channel	The MIDI Channel filter is set to another channel	Choose All Channels (Omni).
A note keeps sounding	A note-off was lost	Click All Notes Off.
MIDI keyboard input buffer overflowed; held notes were released.	The keyboard sent more data than Head Chef could take	Release the keys and play again.

Symptom	Likely cause	What to do
Your control surface is not offered as a keyboard	Its MIDI input is reserved for the surface	Use a separate keyboard. See Control surfaces and assistants.
In the Mini Bar panel, No MIDI inputs are available. Connect a device and refresh.	No MIDI device is connected	Connect a keyboard, then choose Refresh MIDI inputs under MIDI.
In the Mini Bar panel, MIDI input stopped. Refresh and reconnect it. or The selected MIDI input disconnected. Reconnect it and try again.	The keyboard was unplugged	Reconnect it, then choose it again under MIDI.
Disconnect MIDI input before playing the software keyboard.	The Mini Bar panel has a MIDI input connected	Choose Disconnect input under MIDI, or play from the MIDI keyboard.

Rendering

Symptom	Likely cause	What to do
The mix exceeds the range for integer WAV. Reduce the level or choose 32-bit float. No output file was published.	A peak passed 0 dBFS in a PCM format	Lower the Main fader or the loudest channels, or choose 32-bit float. See Rendering your mix.
A mix render is already running. Wait for it or cancel it first.	One render runs at a time	Wait, or click Cancel Render.
That file already exists. Choose a different name.	A file with that name is in the folder	Choose another name.
A message starting Could not write the mix. Choose a writable folder:	The folder is read-only or the disk is full	Choose another folder, or free disk space.
Choose None for dither when rendering 32-bit float WAV.	Dither does not apply to float files	Set Dither to None, or choose a PCM format.
The mix is too long for a WAV file.	The song is longer than a WAV file can hold	Shorten the song, or split it across sessions and render each part.
The status line shows Render failed	Rendering stopped with an error	Read the message below it, fix the cause and render again.
Changes after rendering started are not included.	You edited during the render	Render again to include the changes.
A clip you muted with ⌘M is in the rendered file	Render Mix plays muted clips	Mute the track instead before you render. See Editing audio.
A loudness value reads Below loudness gate or Less than a time	The file is too quiet or too short to measure	Nothing is wrong with the file. See Rendering your mix.

Jam

Symptom	Likely cause	What to do
Choose an input to record.	No input is chosen for your part	Choose and connect an input under JAM ALONG before you click ● REC.
Roll an idea before holding a backing part. or Roll an idea first.	The jam has no idea yet	Roll an idea first. See Jam.
These holds do not fit a new starting point. followed by the conflicting parts	The parts you hold cannot be combined with a new roll	Release one of the named holds and roll again.
No previous roll is available. or Already at the earliest retained roll.	There is nothing earlier to return to	Roll forward instead.
Add or record musical material before saving this Jam.	The jam is empty	Roll an idea or record a part, then click Save Jam.
Jam could not be saved. Your changes are still here.	Saving failed	Try Save Jam again.
Current Jam has unsaved changes. Choose Save, Discard changes, or Cancel.	You started or opened another jam	Choose what to do with the current jam.
Add or record musical material before using this Jam in Studio.	The jam is empty	Add material first, then click the Studio transfer button.
Select at least one part or recording to print to tracks.	Nothing is selected in the Studio transfer button	Select the parts and recordings to send.
Transfer could not be completed. Destination Session is unchanged.	Sending to Studio failed	Try again. Your Studio session has not changed.

Control surfaces and assistants

Symptom	Likely cause	What to do
The surface does not move or respond	It is not enabled, or not in the right mode	Choose Settings > Control Surface..., set the surface to its DAW control mode, choose its ports, and click Enable. The status reads Connected when it works.
Your surface is missing from the port lists	It was connected after the window opened	Click Refresh Ports.
Select both a MIDI input and a MIDI output.	Only one port is chosen	Choose the surface under both MIDI input and MIDI output.
The MIDI ports could not be opened. Refresh the port list and select available ports.	The ports are in use or gone	Click Refresh Ports and choose the ports again.

Symptom	Likely cause	What to do
The MIDI input disconnected. Reconnect it and enable the control surface again. or The MIDI output disconnected. Reconnect it and enable the control surface again.	The surface was unplugged	Reconnect it and click Enable.
Touch this fader before moving it.	The surface reports moves without a touch	Touch the fader, then move it.
Finish the touched fader before changing mute or solo.	You pressed Mute or Solo while holding a fader	Let go of the fader first.
Your assistant app says it cannot reach Head Chef	Head Chef is not running, or the connection is set up wrong	Open Head Chef first, then check the command in your assistant app. See Connect an AI assistant.
The session changed. Read its current state and try again.	The session changed between reading it and editing it	Try the action again.

Where Head Chef keeps your work

When you save a session, Head Chef writes:

- the session file, ending in `.headchef`, where you choose;
- a hidden `.headchef-media` folder next to it, holding the session's audio;
- a hidden `.headchef-recordings` folder next to it, holding what you record.

Keep these together. To move or back up a session, move or copy the whole folder that contains them. Finder hides folders whose names start with a dot; press `⇧⌘.` in Finder to show them.

Clip fades, clip mute, clip lock and sync points are kept only while Head Chef is open; they are not saved in the session file. See Editing audio.

Get help

- Help > Head Chef 1 User Guide opens this guide online.
- Help > Keyboard Shortcuts... lists every shortcut and lets you search them; see Keyboard shortcuts.
- For anything else, contact bitsnacks support at bitsnacks.com/support. Include the exact message Head Chef showed, what you were doing, your macOS version and the audio interface you use.

CHAPTER 27

What's new in Head Chef 1

This page lists what each Head Chef 1 release adds or changes, newest first. Each item links to the chapter that explains it.

Head Chef 1.0

Head Chef 1.0 is the first release of Head Chef, a music production app for macOS. It covers the path from an idea to a rendered mix: sketching, recording, editing, playing instruments, mixing and delivering a stereo file.

Workspace

- Head Chef has two contexts. Studio holds the Arrange and Mix views for building a song; Jam is a sketchpad for quick ideas. `⌘=` switches between Arrange and Mix. See The workspace.
- The Inspector shows every control of the selected channel, and the Editor panel shows the selected clip under the timeline.
- The mixer, the region editor and a floating transport can each open in their own window, so you can spread a session across several displays.
- A searchable Keyboard Shortcuts reference lists every shortcut by category, and single-letter editing keys in Arrange can be turned on or off. See Keyboard shortcuts.

Sessions and setup

- Sessions save as a `.headchef` file with their audio kept in a folder beside it. Every change to the song, from adding a track to moving a clip, is one step in an edit history of up to 512 steps. See Getting started.
- The Audio Engine window chooses the output device, the default recording input, the sample rate and the buffer size, and shows input, output and round-trip latency. See Troubleshooting.
- Session Settings set the tempo, the time signature, the sample rate and the pan depth. Songs that carry a tempo map keep their tempo changes, and you can move a tempo change. See Tempo and session settings.

Transport and navigation

- The clock shows bars and beats, minutes and seconds, or samples. A second clock in the Floating Transport can show a different format at the same time.
- Trackpad and mouse gestures zoom and scroll the timeline, and dragging in the ruler scrubs the audio like tape.
- The metronome offers three click sounds, three click modes and its own level, and a count-in of one, two or four bars can play before recording. See Transport and navigation.

Recording

- Head Chef records a mono take from one input of your audio interface onto an armed audio track, with an optional count-in.
- Each take is written to disk while you play, so a take survives an unexpected stop and can be kept or dismissed afterwards. See Recording audio.

Editing

- Four edit modes decide how a dragged clip moves: Ripple, Free, Place and Grid, with absolute and relative grid, Snap to Grid and Ripple Lock.
- Clips can be trimmed by dragging or to the cursor, placed at an exact sample by their start, sync point or end, and nudged, or their audio nudged inside them.
- Clip gain sets the level of one clip from -144 dB to +36 dB, with a badge on each clip and a gain line for changes over time. See Editing audio.

Instruments and MIDI

- Five built-in instruments: the Voltage 80 drum machine, the Voltage 78 percussion machine, the Substance bass synthesizer, the Octet polyphonic synthesizer and Mini Bar, a collection of 27 playable keyboard sounds.
- The piano roll writes and edits notes with Select, Draw and Erase tools, snap values from 1/4 to 1/32, quantize and per-note velocity.
- MIDI keyboards connect automatically, and Mini Bar can be played from the Mac keyboard. See MIDI and instruments.

Jam

- Jam Console opens in its own window, with a chord sequence above a four-part backing band and JAM ALONG input controls. Roll an eight-bar idea, choose sounds, hold the parts you like and vary the rest. Roll again starts a new idea from bar one after your selected count-in. See Roll a backing band.
- Try an alternative chord in the playing sequence before choosing [Keep change] or [Revert]. Edit individual chords or a whole progression, change the chord count and move the progression up or down a semitone. See Try chords and explore harmony.
- Connect a guitar or microphone, watch the input meter and monitor your playing beside the backing band. Recording is optional; Save Jam keeps your takes with the jam. See Jam Along.
- Open your backing parts and recordings as editable Studio tracks while keeping the jam available in its own window. Review the destination, included parts and timing before clicking Open editable tracks →. See Use a jam in Studio.

Mixing

- Every channel, Effect Return and the Main channel starts with Chicken Strip, the bitsnacks channel strip, with EQ, compressor, character and low-end controls. In Arrange, the Mix Layer puts its main controls on each track.
- Three built-in effects: MADRE Chorus, Voltage Spaces and Char Press. Voltage Spaces has an echo that follows the session tempo, including tempo changes.
- Up to four Effect Returns take post-fader sends from any track.

- Channel presets store Chicken Strip, the effect chain and, for instruments, the instrument and its sound. Eight factory presets are included. See Mixing.
- Inside the mix, channels and Main carry levels above full scale without distortion.

Plugins

- Head Chef hosts CLAP and VST3 effects on any channel, scans the standard plugin folders and any folders you add, and recovers when a plugin stops responding.
- An ARA 2 editor can work on an audio clip. See Plugins.

Importing

- Import Audio adds WAV and AIFF files as new tracks, one track per file. Dragged files in other formats and at other sample rates are converted to the session rate.
- Standard MIDI files and projects saved by other music apps open as new Head Chef sessions, with track names, clip positions, levels, tempo and time signature. See Importing audio and projects.

Rendering

- Render Mix writes the song to one stereo file, with 32-bit float or 16, 24 or 32-bit PCM, dither choices and an adjustable tail.
- Rendering runs in the background, so you can keep working. A finished render reports integrated loudness, loudness range, true peak and sample peak. See Rendering your mix.

Control

- Control surfaces that use the common hardware control protocol for DAWs drive faders, pan, mute, solo and the transport.
- An AI assistant app can connect to Head Chef on your Mac and read and edit the open session through the same commands you use. See Control surfaces and assistants.

Glossary

ARA 2

A standard that lets an audio editor plugin work directly on the audio of a clip in a host app, rather than on sound passing through a channel. Head Chef uses ARA 2 editors to change clip audio and keeps the original audio available.

See also: plugin format

Audio interface

A box that connects microphones, instruments, headphones and speakers to your Mac, usually over USB or Thunderbolt. It turns sound into digital audio for recording and back into sound for listening. Choose it as the output and recording input in Settings > Audio Engine....

See also: buffer size, latency, sample rate

Bit depth

The number of bits used to store each sample of audio. More bits record finer steps of level, so quiet detail survives and the noise floor is lower. Common choices are 16-bit, 24-bit and 32-bit float.

32-bit float can also hold levels above 0 dBFS without clipping, which makes it a safe choice for files that will be processed further.

See also: dither, sample rate, render

Buffer size

The number of samples your Mac processes in one go before handing audio to your interface. Head Chef offers buffer sizes from 32 to 2048 samples in Settings > Audio Engine....

A small buffer makes playing and monitoring feel more immediate but asks more of your Mac. A large buffer is easier on your Mac but adds delay. If playback crackles, choose a larger buffer.

See also: latency, sample rate

Bypass

Turning an effect off temporarily while keeping its settings, so you can compare the sound with and without it.

See also: insert

Channel

The part of Head Chef that mixes one sound: its processing chain, fader, pan, solo and mute. Every track has a channel, and Effect Returns and Main are channels without clips. In Mix, each channel appears as a channel strip.

See also: channel strip, track, effect return, main bus

Channel strip

The column of controls that shapes one track's sound in the Mix view: its processing, Solo and Mute buttons, pan and fader. Every track has one, and the Main output has its own.

See also: track, solo, mute

Chord

Several notes that sound together, such as C major or A minor 7. In Jam Console, the Chords part plays a progression, and CHORD SEQUENCE names each chord. Select a chord to try alternatives in the playing loop.

See also: jam, section

Clip

A piece of audio or MIDI placed on a track's timeline. You move, trim and fade clips to build your arrangement. An audio clip shows a waveform; a MIDI clip shows notes.

See also: track, waveform, midi

Clip gain

A volume setting that belongs to one audio clip rather than to the whole track. Head Chef applies clip gain before the track's processing and fader, so you can even out a loud or quiet clip without touching the rest of the track.

See also: clip, channel strip

Clipping

Distortion that happens when a signal goes above the highest level a device or file format can hold, so the tops of the waveform are cut off.

See also: headroom

Clock drift

How far an audio device's real speed differs from the sample rate it is set to, measured in parts per million (ppm). A small figure near zero is normal. Head Chef shows it in Settings > Audio Engine… and warns when it passes 100 ppm, which can point to a loose connection or a clock setting on the interface.

See also: sample rate, audio interface

Compressor

A tool that turns down the loudest moments of a sound so its level is more even. The threshold sets where it starts working, and the ratio sets how strongly it turns the sound down. Gain reduction shows how much it is turning down right now.

See also: eq

Control surface

A hardware controller with faders, knobs and buttons that operate an app's mixer. Head Chef works with surfaces set to Mackie Control mode.

See also: fader

Count-in

A cue of metronome clicks that helps you get ready to play in time. In Studio, one, two or four bars can play before recording; ordinary Studio playback starts straight away. In Jam Console, Count-in under Setup ↓ chooses no cue, one, two or four bars before recording or starting a new idea with Roll again. Ordinary ▶ PLAY does not add the Roll cue.

See also: metronome

Crossfade

A crossfade blends the end of one clip into the start of the next, fading one out while the other fades in. In Head Chef 1 each audio track holds one clip, so there are no overlapping clips to crossfade; the fade-in and fade-out of a single clip shape its ends instead.

See also: fade

Delay compensation

Some effects and plugins hold sound back for a short time while they process it. Delay compensation measures that delay on every channel and holds the other channels back by the same amount, so everything stays in time. Head Chef does this automatically, including for effects that are turned off.

See also: insert, plugin

Direct monitoring

Hearing an input through your audio interface's own headphone or speaker output, before the signal reaches the computer, so there is no delay. Head Chef 1 does not play an input back through the app while it records, so you use your interface's direct monitoring to hear yourself.

See also: input monitoring, latency

Dither

A very quiet noise added when audio is reduced to a fixed number of bits, for example from 32-bit float to 16-bit. It turns the small rounding errors of that step into a smooth, even noise instead of distortion that follows the music.

TPDF dither spreads the noise evenly. Noise-shaped dither moves more of it toward high frequencies, where it is harder to hear.

See also: bit depth, render

Edit history

The edit history is the list of changes you have made to a session, which Undo steps back through and Redo steps forward through. Head Chef keeps up to 512 steps, and opening a session starts a new history.

Edit mode

A setting that decides how clips behave when you move them. Head Chef has four: Ripple closes the gap a moved clip leaves, Free lets clips move anywhere, Place moves a clip to a time you type, and Grid snaps clips to the grid.

See also: grid, nudge

Effect Return

An Effect Return is a channel that holds a shared effect, such as a reverb or an echo. Tracks send part of their signal to it, and its output joins the mix, so several tracks can share one effect.

See also: track

EQ

Short for equalizer: a tool that turns particular frequency ranges up or down, for example to add brightness or reduce boominess. Chicken Strip includes a Graphic EQ with fixed bands.

See also: compressor

Fade

A gradual change in volume at the start or end of a clip. A fade in rises from silence, a fade out falls to silence. Short fades also remove clicks where a clip starts or stops abruptly.

See also: clip

Fader

A sliding level control. Moving a channel's fader up makes it louder in the mix and moving it down makes it quieter. In Head Chef faders range from -60 dB to +12 dB, with 0 dB meaning no change.

See also: channel strip, headroom

Folder

A folder holds a set of tracks together so a large session stays tidy. Some folders also add up their tracks' sound into one folder bus, so you can process and set the level of the whole set at once.

See also: group, vca

Free mode

Free is the edit mode in which you can drag a clip to any position, down to a single sample. It is Head Chef's default edit mode.

See also: edit mode

Gain point

A point on an audio clip's clip gain line that sets the clip's level at one moment. Head Chef draws straight lines between gain points, so you can raise or lower part of a clip without changing the rest. Gain points never change the audio file itself.

See also: clip gain, clip

Grid

Evenly spaced lines across the timeline, set to a time or musical step. With snapping on, clips you move land on the nearest grid line.

See also: edit mode, nudge

Grid mode

Grid is the edit mode in which moved clips and trimmed edges snap to the grid. Absolute Grid snaps to grid lines counted from the session start; Relative Grid moves a clip in whole grid steps while keeping its offset from the grid lines.

See also: grid, edit mode

Group

A group links several tracks so that a change on one applies to the others. Depending on how it is set up, a group can share clip edits, fader moves, mute, solo and other settings between its members.

See also: vca, folder track

Headroom

The space between the loudest peaks in your mix and full scale, the highest level your audio interface and fixed-point files can hold. Leaving headroom keeps your mix from clipping.

See also: clipping, main bus

Input monitoring

Hearing your live input through speakers or headphones as you play. In Jam Console, connect Guitar or Mic, then click MONITOR OFF to hear the input through Head Chef. The control changes to MONITOR ON. Your audio interface may also offer direct monitoring.

See also: latency, take

Insert

An effect placed directly in a channel's signal path, so the whole channel passes through it. In Head Chef, inserts appear in the channel's processing chain, in order from top to bottom.

See also: send, bypass

Inspector

The panel that shows every control for the selected channel: its sound, processing chain, sends and Chicken Strip settings. Click Inspector in the toolbar to show or hide it. It follows whichever track you select.

See also: channel strip

Instrument track

A track that plays a built-in instrument from MIDI notes instead of playing recorded audio. In Head Chef each instrument track holds one instrument, its sound and a clip of notes that you edit in the piano roll.

See also: midi, piano roll

Jam

Head Chef's sketchpad for musical ideas. A jam holds an eight-bar idea with a four-part backing, its sections, your recordings and the passes you kept. You can save jams in Your jams and open the material as editable Studio tracks.

See also: jam console, section, pass, take

Jam Console

The separate Jam window that brings together the chord sequence, backing band, your live input and takes. You can try chord changes, play along, save your work and open the material as editable Studio tracks.

See also: jam, chord, input monitoring, take

Keyboard focus

The part of the window that receives your key presses. Single-letter shortcuts act only while the Arrange timeline has keyboard focus, so typing in a field never edits your song. Click the timeline, or press `⌥⌘1`, to give it focus.

Latency

The delay between a sound going into or out of your computer and it reaching your ears. Head Chef shows input, output and round-trip latency in Settings > Audio Engine.... A smaller buffer size gives lower latency.

See also: buffer size

Lossless audio

Audio stored so that every sample comes back exactly as it went in. Lossless compression, such as in a `.flac` file, makes the file smaller without changing the sound. Lossy formats, such as `.mp3` and `.m4a` files, make files much smaller by leaving out detail that is hard to hear, so the decoded audio differs slightly from the original.

See also: bit depth, render

Loudness

How loud audio sounds to a listener over time, rather than how high its peaks reach. Integrated loudness is measured in LUFS across a whole file, and loudness range, in LU, describes how much the loudness changes through the song.

Streaming services and broadcasters often ask for a particular integrated loudness.

See also: true peak, render

Main bus

The channel where every track and Effect Return is added together into the final stereo mix. In Head Chef it is called Main and sits at the right edge of the Mix view.

See also: headroom

MCP

Short for Model Context Protocol, an open standard that lets AI assistant apps use tools inside other apps. Head Chef's local assistant connection uses it so an assistant can read and edit the session you have open.

Metronome

A click that plays in time with the session's tempo, so you can keep to the beat while you play, record or edit. In Head Chef the click is for your ears only and never appears in a rendered mix.

See also: count in, tempo

MIDI

A way of recording music as notes rather than sound: which key, when, how long and how hard. An instrument track turns MIDI notes into sound, so you can change the notes or the instrument at any time.

See also: piano roll, clip

MIDI channel

One of 16 numbered lanes that a MIDI connection can carry, so several parts can share one cable. Drum parts traditionally use channel 10. In Head Chef's MIDI keyboard settings you can listen to all channels or to one.

See also: midi

Mute

Silencing a track without removing it. Muted tracks stay in the session and come back when you turn mute off.

See also: solo

Non-destructive editing

Editing that never changes your audio files. A clip only records which part of a file plays, where it plays and how loud, so you can always undo a trim or move and get the original audio back.

See also: clip, trim

Nudge

Moving a clip earlier or later by a small, fixed amount, the nudge size. Nudging is handy for fine timing changes that would be hard to make by dragging.

See also: grid, edit mode

Pan

Where a channel sits between the left and right speakers. Head Chef shows pan from 100 left through center to 100 right.

See also: channel strip

Pan depth

Pan depth sets how much quieter a mono track is when panned to the center than when panned fully to one side. The usual setting, -3 dB, keeps a sound at about the same loudness as you pan it across the stereo field.

See also: sample rate

Pass

One complete play-through of a looping idea in Jam. Jam remembers recent passes, up to 64 bars, and you can keep a pass you like with Keep this pass.

See also: jam, take

Piano Roll

An editor that shows MIDI notes as bars on a grid, with pitch running up the side like a piano keyboard and time running across. You add, move, lengthen and delete notes here.

See also: midi

Place mode

Place is the edit mode for putting a clip at an exact position. Dragging a clip in Place mode opens a dialog where you confirm or type the target sample, and you can line up the clip's start, end or sync point with that position.

See also: sync point, edit mode

Playhead

The vertical line that marks the current position in the session. Playback starts from the playhead, and it moves along as the session plays.

See also: scrub

Plugin

A piece of software from another developer that adds an effect to a host app such as Head Chef. You install plugins on your Mac, and Head Chef finds them in your plugin folders.

See also: plugin format

Plugin format

The standard a plugin is built to, which decides which apps can load it. Head Chef loads CLAP plugins, with the `.clap` extension, and VST3 plugins, with the `.vst3` extension.

See also: plugin, ara

Preset

A saved set of settings you can apply in one step. Head Chef's channel presets store Chicken Strip, the processing chain and, for instrument channels, the instrument and its sound.

Quantize

Moving a note so it starts exactly on the nearest step of the grid. In Head Chef's piano roll, the step comes from the Snap setting.

See also: piano roll

Record arm

Arming a track gets it ready to record. When you start recording, the input goes to the armed track.

See also: take

Render

To play a session through its whole mix and write the result to an audio file, rather than to your speakers. In Head Chef, Render Mix renders the main output in stereo, in the background, while you keep working.

See also: tail, bit depth, dither

Reverb

An effect that adds the sense of a room or hall around a sound, by imitating the many reflections a real space produces.

See also: effect return

Ripple mode

Ripple is the edit mode that keeps clips butted together with no gaps. In Head Chef 1, where each track holds one clip, Ripple keeps that clip against the session start, so trimming its start pulls the remaining audio earlier. Ripple Lock stops you from switching into Ripple by accident.

See also: edit mode, trim

Sample rate

How many times per second audio is measured, shown in kilohertz (kHz). 44.1 kHz and 48 kHz are common choices; higher rates such as 96 kHz capture more detail and use more storage and processing.

See also: buffer size

Sample-rate conversion

Changing audio from one sample rate to another, for example from 44.1 kHz to 48 kHz, so it plays at the correct speed and pitch in a session. Head Chef converts with sinc resampling, a high-quality method that keeps the sound clean.

See also: sample rate

Scrub

Moving through the audio by dragging, so you hear it at the speed and direction you drag. Scrubbing helps you find an exact moment by ear, like rocking a tape back and forth by hand.

See also: playhead

Section

A block of music in a jam, such as a verse or a chorus, shown by a letter such as A or B. You can add, repeat and vary sections, then build them into a song.

See also: jam

Send

A copy of a channel's signal sent to an Effect Return, with its own level. Several channels can send to the same return, so they share one effect.

See also: effect return, insert

Session

Your song project: its tracks, clips, mix settings, tempo and the audio it uses. Head Chef saves a session as a file ending in `.headchef`.

See also: track

Signal path

The order in which a channel processes sound, from its source through clip gain, the processing chain, the fader and pan, and the sends, into the Main channel. The order decides what each control affects: a send, for example, follows the fader because it comes after it.

See also: channel strip, send, main bus

Solo

Listening to one track, or a few, on their own. Soloing a track silences the tracks that are not soloed, without changing their settings.

See also: mute

Solo in place

A way of soloing in which a soloed track keeps its effects. In Head Chef, the Effect Returns a soloed track sends to stay audible and play only that track's sends, so you hear the track with its echo and reverb.

See also: solo, effect return

Stem

An audio file that holds one part or one group of parts of a song, such as the drums, the bass or the lead vocal, exported so that it starts at the same moment as the other stems. Played together at equal settings, a song's stems add up to the whole song. In Head Chef you import stems as separate tracks and mix them.

See also: track, clip, render

Sustain pedal

A foot pedal plugged into a MIDI keyboard that holds notes on after you lift your fingers, like the right pedal on a piano. Head Chef's built-in instruments respond to it when you play them from a MIDI keyboard.

See also: midi, velocity

Sync point

A position inside an audio clip that you want to line up with a moment in the music, such as the hit of a drum or the start of a word. Snapping the sync point to the playhead moves the clip so that moment lands exactly there.

See also: clip, playhead

Tail

Extra time added after the end of a session when you render, so reverb and echo can fade out naturally instead of being cut off.

See also: render

Take

One recorded performance. Recording in Studio creates a clip on the armed track. Jam Console keeps takes with the jam, where you can listen to them and include them when opening editable Studio tracks.

See also: record arm, count in

Tempo

The speed of the music, measured in beats per minute (BPM). The tempo sets where bars and beats fall on the timeline and how fast the metronome clicks.

See also: time signature, metronome

Tempo map

A tempo map is a list of tempos that change at set positions in a song, for example a song that speeds up for its chorus. Head Chef shows the tempo at the cursor and lets you move tempo changes to new positions.

See also: tempo

Tick

The smallest step of musical time, a fraction of a beat. The clock shows positions as bars, beats and ticks. In a new Head Chef session, a quarter note is 960 ticks.

See also: tempo, time signature

Time signature

How beats are grouped into bars, written as two numbers such as 4/4 or 6/8. The top number is the count of beats in a bar; the bottom number is the kind of note that gets one beat.

See also: tempo

Track

One lane in your session that holds clips and has its own channel strip. An audio track plays recorded or imported audio; an instrument track plays MIDI notes through a built-in instrument.

See also: clip, channel strip

Trim

Trimming moves the start or end edge of a clip to hide part of its audio. The hidden audio stays in the file, so you can trim the edge back out later.

See also: clip

True peak

An estimate of the highest level the audio reaches after it is converted back to a continuous signal, including peaks that fall between samples. It is measured in dBTP. True peak can be higher than the highest sample value, which is why delivery specifications often set a true-peak limit.

See also: loudness

VCA master

A VCA master is a fader that controls the level of every track in its group at once, without carrying any audio itself. Moving it raises or lowers all members while keeping their balance. Coalesce writes its level into the member faders and returns it to 0 dB.

See also: group, folder track

Velocity

How hard a note is played, as a number from 1 to 127. Higher velocities usually sound louder or brighter. On Voltage 80, velocity 127 plays an accent.

See also: midi

Waveform

The picture of an audio clip's sound, drawn as a line that grows taller where the audio is louder. Waveforms help you see where sounds start and stop.

See also: clip

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MIDI keyboard input buffer overflowed; held notes were released.
Troubleshooting · MIDI devices

MIDI Keyboard...
The workspace · Use the More menu
Connect your hardware · The MIDI button and its panel
MIDI and instruments · Play from a MIDI keyboard
Menu reference · Menus you open from a button

MIDI notes need a key from 0 to 127, velocity from 1 to 127, channel from 0 to 15, and a positive duration inside their clip.
MIDI and instruments · Notes and the clip edges

MIDI Off
Connect your hardware · The MIDI button and its panel
Connect your hardware · If Head Chef does not see a device

MIDI output
Connect your hardware · Control surfaces
Volume automation, control surfaces and assistants · Connect a control surface
Workflows · Use a control surface
Settings reference · Control Surface
Troubleshooting · Control surfaces and assistants

MIDI tracks...
Rendering your mix · Export individual MIDI tracks

MIDI · Sust
Connect your hardware · The MIDI button and its panel

midi.export
Rendering your mix · Choose a file format

midi.exportSources
Rendering your mix · Export individual MIDI tracks

midi.exportTracks
Rendering your mix · Export individual MIDI tracks

MIN : SEC . MS
How Head Chef works · Clock formats
Transport and navigation · Read the clock

Min:Sec
Transport and navigation · Set the time display
Settings reference · Metronome and time display

Mini Bar
Getting started · Create a session
Getting started · Start the session
The workspace · The menus
Sessions · Choose what a session starts with
MIDI and instruments · Add an instrument track
Menu reference · Track
Menu reference · Add Instrument
Settings reference · New Session dialog

Mix
Getting started · Mix and export
Interface overview · The Arrange view
Interface overview · The Mix view
The workspace · Switch between Arrange and Mix
The workspace · The toolbar
The workspace · The menus
Transport and navigation · Play, pause and stop
Mixing · Open the Mix view and the Mix Window
Mixing · Effect Returns
Volume automation, control surfaces and assistants · Draw a channel-volume ride
Workflows · Build a beat and a bass line
Workflows · Mix a song from stems
Menu reference · View
Settings reference · View menu and the window layout

Mix layer
Interface overview · The Arrange view
Interface overview · Arrange and Mix are two views of one session
The workspace · The edit toolbar
Mixing · Mix in Arrange

Mix rendered
Rendering your mix · Render your mix
Rendering your mix · Keep working while it renders
Workflows · Prepare a mix for release

Mix Window
Interface overview · Arrange and Mix are two views of one session
The workspace · The menus
The workspace · Open separate windows
Mixing · Open the Mix view and the Mix Window
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mix.cancelRender
Rendering your mix · Export individual tracks as audio

mix.renderStatus
Rendering your mix · Export individual tracks as audio

Mixer Window
The workspace · Use the More menu
Menu reference · Menus you open from a button

Monitor Level
Recording audio · Monitoring

MONITOR OFF
Jam Console · Jam Along

MONITOR ON
Jam Console · Jam Along

Mono
MIDI and instruments · The Mini Bar panel at a glance
Rendering your mix · Export individual tracks as audio

Mono audio track
Getting started · Create a session
Sessions · Choose what a session starts with
Workflows · Record a take to the click
Settings reference · New Session dialog

Mono recording input
Tracks · Read the track header
Recording audio · Give Head Chef microphone access
Recording audio · Choose the recording input
Workflows · Record a take to the click

Monochrome Cyan-Mint
Getting started · Choose your audio device
Connect your hardware · The Audio Engine window
Settings reference · Audio Engine

More
Transport and navigation · Mark places in your song
Recording audio · Monitoring
Mixing · Shape the sound with Chicken Strip
Plugins · Play and record with Amp and Tuner
Plugins · Hear an input and record a dry take

More alternatives
Jam Console · Try chords and explore harmony

More ▾
Interface overview · The Arrange view
Interface overview · When the window is smaller
The workspace · Use the More menu
Connect your hardware · The MIDI button and its panel
Tracks · From the Add Track dialog
MIDI and instruments · Play from a MIDI keyboard
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Move
Transport and navigation · Mark places in your song

Move down
Menu reference · Menus you open from a button

Move Tempo Change...
Tempo and session settings · Move a tempo change
Settings reference · Session Settings

Move up
Menu reference · Menus you open from a button

Movement
Jam Console · Explore harmony

MP3
Settings reference · Render Mix dialog

Mute
Jam Console · Change one part
Glossary

Mute monitor
Recording audio · Monitoring

Mute send
Mixing · Send to an Effect Return

N

Name
Transport and navigation · Mark places in your song

Native
Rendering your mix · Export individual tracks as audio

New Jam
Jam Console · Explore Studio material in Jam

New Session
Getting started · Create a session
Menu reference · File
Menu reference · Track
Menu reference · Add Instrument
Settings reference · Session Settings
Settings reference · New Session dialog
File formats · Settings files

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Getting started · Create a session
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Recording audio · Before you record
Recording audio · Messages before a take starts
Menu reference · File
Settings reference · New Session dialog

Next
Plugins · Open plugin windows

No audio inputs found
Jam Console · Jam Along

No count-in
Jam Console · Record an optional take
Jam Console · Roll a backing band
Workflows · Sketch in Jam, finish in Studio

No input device is available.
Connect your hardware · Inputs and microphone access
Troubleshooting · Microphone access

No MIDI inputs are available. Connect a device and refresh.
Troubleshooting · MIDI devices

No notes in this part
Jam Console · Roll a backing band

No previous roll is available.
Troubleshooting · Jam

No sounds found.
MIDI and instruments · The Mini Bar panel at a glance

No tracks
Getting started · Create a session
Sessions · Choose what a session starts with
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Noise shaped
Rendering your mix · Choose dither
Settings reference · Render Mix dialog
File formats · Render Mix output

Non-destructive editing
Glossary

None
Rendering your mix · Choose dither
Settings reference · Render Mix dialog
File formats · Render Mix output
Troubleshooting · Rendering

Not requested yet. Head Chef asks the first time you enable an input.
Connect your hardware · Inputs and microphone access
Troubleshooting · Microphone access

Not saved
Rendering your mix · Export individual tracks as audio

NUDGE
Interface overview · The Arrange view
Editing audio · Set the grid and nudge values
Coming from another music app · Concept map
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Nylon Guitar
Jam Console · Start a new jam

O

Octet
Getting started · Create a session
The workspace · The menus
Sessions · Choose what a session starts with
Jam Console · Start a new jam

Plugins · bitsnacks product panels
Menu reference · Track
Menu reference · Add Instrument
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Connect your hardware · The MIDI button and its panel
Transport and navigation · Count in before recording
Recording audio · Monitoring
Recording audio · Record another take over the song
MIDI and instruments · The instrument panel in the Inspector
MIDI and instruments · Tools and snap
MIDI and instruments · Add, move, resize and delete notes
MIDI and instruments · Play from a MIDI keyboard
Mixing · Audio and instrument tracks
Mixing · Effect Returns
Mixing · Delay compensation
Mixing · Build the processing chain
Plugins · Hear an input and record a dry take
Workflows · Record a take to the click
Settings reference · Metronome and time display
Settings reference · MIDI keyboard settings
Settings reference · Piano roll

Ogg Vorbis
Settings reference · Render Mix dialog

OK
Editing audio · Move a clip
Editing audio · Place a clip at an exact time

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Connect your hardware · The MIDI button and its panel
MIDI and instruments · The instrument panel in the Inspector
MIDI and instruments · Play from a MIDI keyboard
Mixing · Build the processing chain
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Getting started · Add drums
Interface overview · The Mix view
Sessions · Open a session
Tracks · Read the track header
Tracks · Use the track header context menu
Importing audio and projects · Import audio files
Importing audio and projects · Open a MIDI file
Importing audio and projects · Open a project from another music app
Recording audio · Monitoring
Mixing · Shape the sound with Chicken Strip
Mixing · Build the processing chain
Plugins · Open the Plugin Browser
Plugins · Drag plugins onto tracks
Plugins · Add a plugin from a channel
Plugins · Open plugin windows
Plugins · bitsnacks product panels
Plugins · Play and record with Amp and Tuner
Workflows · Mix a song from stems
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Menu reference · Menus you open from a button

Open editable tracks →
How Head Chef works · Studio and Jam
Sessions · Other ways to start
Jam Console · Shape your input with Amp and Tuner
Jam Console · Use a jam in Studio
Workflows · Sketch in Jam, finish in Studio
What's new in Head Chef 1 · Jam

Open Editor
Plugins · Edit audio with an ARA 2 editor

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Open Multi-Window Studio Workspace
The workspace · The menus
The workspace · Open separate windows
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Open Plugin Editor
Tracks · Use the track header context menu

Open Plugin Window
Plugins · Open plugin windows

Open Session
Importing audio and projects · Open a project from another music app
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Open Session...
Getting started · The welcome panel
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Open Studio →
Jam Console · Play a MIDI instrument

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Getting started · Open Head Chef
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Transport and navigation · Scrub along the ruler
Transport and navigation · Turn on the metronome

Transport and navigation · Count in before recording
Recording audio · Use a count-in
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Coming from another music app · Single keys in Arrange
Keyboard shortcuts · Turn the Arrange letter shortcuts on or off
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Original Time Stamp (0)
Editing audio · Place a clip at an exact time

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MIDI and instruments · Browse and shape Mini Bar sounds
MIDI and instruments · The Mini Bar panel at a glance
Mixing · Audio and instrument tracks

OUT / dB
Mixing · Mix in Arrange

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Connect your hardware · Read the latency line
Recording audio · Latency
Jam Console · Shape your input with Amp and Tuner
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Getting started · Choose your audio device
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Settings reference · Audio Engine
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Output folder
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Pan
Glossary

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Tempo and session settings · Choose the pan depth
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Glossary

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The workspace · The menus
Transport and navigation · Play, pause and stop
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Piano Roll
MIDI and instruments · Edit notes in the piano roll
MIDI and instruments · The piano roll at a glance
Glossary

PITCH / MIDI KEY
MIDI and instruments · Type note values
Workflows · Build a beat and a bass line

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Interface overview · The Arrange view
The workspace · The edit toolbar
Editing audio · Choose an edit mode
Coming from another music app · Concept map
Mouse and trackpad · Edit toolbar
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Place Audio Clip
Editing audio · Place a clip at an exact time
Mouse and trackpad · Move and trim audio clips
Mouse and trackpad · Edit toolbar

Place mode
Glossary

Place the playhead inside the clip bounds to fade to cursor.
Editing audio · Add fades

Placement
Importing audio and projects · Import audio files

Place…
Editing audio · What each edit acts on
Editing audio · Place a clip at an exact time
Editing audio · What happens at the clip boundaries

Play
The workspace · The menus
Transport and navigation · Play, pause and stop
Transport and navigation · Rewind and forward
Recording audio · Recording states
Editing audio · The cursor
Jam Console · Open Jam
Jam Console · Set overall volume
Plugins · Play from another point
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Play & Rec
Transport and navigation · Adjust the click
Workflows · Record a take to the click
Settings reference · Metronome and time display

Play keyboard
MIDI and instruments · The Mini Bar panel at a glance
MIDI and instruments · Play from your Mac keyboard

Play song
Jam Console · Build a song from sections

Play switches the device to the session rate when the device supports it.
Connect your hardware · Read the sample rate and clock line

Playback audio could not be read. Check disk access, then press Play or try moving the cursor again.
Troubleshooting · Playback and performance

Playback could not start.
Troubleshooting · Playback and performance

Playhead
Glossary

Plays Selected Track
Connect your hardware · The MIDI button and its panel
MIDI and instruments · Play from a MIDI keyboard

Plugin
Glossary

Plugin Browser
The workspace · The menus
Plugins · Open the Plugin Browser
Menu reference · View
Settings reference · View menu and the window layout
Troubleshooting · Scan for plugins again

Plugin folders contain too many files. Choose a more specific folder.
Troubleshooting · Plugins

Plugin format
Glossary

Plugin search could not start. Try Rescan again.
Troubleshooting · Plugins

Plugin window could not open
Troubleshooting · Plugins

Plugins
Interface overview · The Arrange view
The workspace · The toolbar
The workspace · Use the More menu
Plugins · Open the Plugin Browser
Menu reference · Menus you open from a button
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Interface overview · The Arrange view
The workspace · Switch between Arrange and Mix
Tracks · Plugins
Tracks · Use the track header context menu
Mouse and trackpad · Track headers
Menu reference · Track header

Poly16
MIDI and instruments · The Mini Bar panel at a glance

Poly8
MIDI and instruments · The Mini Bar panel at a glance

POSITION / TICKS
MIDI and instruments · Type note values

Preparing cursor…
Editing audio · The cursor

Preparing instruments…
Jam Console · Roll a backing band
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Preparing mix…
Rendering your mix · Keep working while it renders

Preparing playback…
How Head Chef works · Preparing playback
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Transport and navigation · Play, pause and stop
MIDI and instruments · Preparing playback
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Preparing to record…
Recording audio · Recording states

Preset
Glossary

Preset…
Interface overview · The Mix view
Mixing · Read a channel strip
Mixing · Use channel presets
Workflows · Build a beat and a bass line

Press Space to record. Press Record again to leave readiness. F12 starts recording directly.
Recording audio · Recording states

Previous
Plugins · Open plugin windows

Previous roll
Jam Console · Roll a backing band
Workflows · Sketch in Jam, finish in Studio

Privacy & Security
Getting started · Choose your audio device
Connect your hardware · Inputs and microphone access
Troubleshooting · Microphone access

Processed track
Rendering your mix · Export individual tracks as audio

PROCESSING
Interface overview · The Mix view
Mixing · Read a channel strip
Mixing · Audio and instrument tracks
Mixing · Build the processing chain
Coming from another music app · Concept map

Progression
Jam Console · Edit a chord or the whole progression

Project rate
Rendering your mix · Choose the sample rate
Workflows · Prepare a mix for release
Settings reference · Render Mix dialog
File formats · Render Mix output

PTX / PTF / PTS sessions
Sessions · Open a session

Q

Quantize
Glossary

Quick
MIDI and instruments · The instrument panel in the Inspector
Mixing · Shape the sound with Chicken Strip
Workflows · Mix a song from stems

R

RATIO
Mixing · Shape the sound with Chicken Strip

Read
Tracks · Consolidate a VCA master
Rendering your mix · Export individual tracks as audio
Volume automation, control surfaces and assistants · Draw a channel-volume ride

Ready
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Rec Only
Transport and navigation · Adjust the click
Workflows · Record a take to the click
Settings reference · Metronome and time display

Recent sessions
Getting started · The welcome panel

Record
The workspace · The menus
The workspace · Open separate windows
Recording audio · Record a take
Recording audio · Messages before a take starts
Menu reference · Transport

Record a mono take in an empty session. Create a new session and add an empty audio track.
Recording audio · Messages before a take starts
Troubleshooting · Recording

Record arm
Glossary

Record Ready
Recording audio · Cancel a take
Menu reference · Transport

Record ready · Press Space to record
Recording audio · Record a take
Recording audio · Recording states
Workflows · Record a take to the click

Recording
Recording audio · Record a take
Recording audio · Recording states

Recording could not be saved. Check the session folder and available disk space, then try again.
Recording audio · When a take stops on its own

Recording stopped
Recording audio · Where takes are stored

Recording stopped because input arrived faster than it could be saved. Keep the recovered audio, then try again with less disk activity.
Recording audio · When a take stops on its own

Recording stopped because the click output failed or stopped delivering audio. Check the output, then prepare recording again.
Recording audio · When a take stops on its own

Recording stopped because the input clock changed or skipped. Check the interface, then try again.
Recording audio · When a take stops on its own

Recording stopped because the input contained invalid samples. Check the interface, then try again.
Recording audio · When a take stops on its own

Recording stopped because the input disconnected. Reconnect it, then try again.
Recording audio · When a take stops on its own

Recording stopped because the input rate changed. Match the input and session rates, then try again.
Recording audio · When a take stops on its own

Recording stopped because the interface could not deliver audio. Reconnect it, then try again.
Recording audio · When a take stops on its own

Recording stopped.
Recording audio · Recording states
Recording audio · When a take stops on its own
Recording audio · Where takes are stored
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Recording. Press Space or Stop to finish.
Recording audio · Recording states

Recovery…
Sessions · Recover an interrupted take
Recording audio · Recording states
Recording audio · Messages before a take starts
Recording audio · When a take stops on its own
Recording audio · Where takes are stored
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Redo
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The workspace · The menus
Transport and navigation · Mark places in your song
Recording audio · Record a take
Editing audio · Undo, redo and the edit history
Menu reference · Edit

Reed
Jam Console · Start a new jam

Refresh
Jam Console · Jam Along

Refresh Devices
Getting started · Choose your audio device
Connect your hardware · The Audio Engine window
Connect your hardware · Headphones and speakers
Connect your hardware · Inputs and microphone access
Connect your hardware · If Head Chef does not see a device
Settings reference · Audio Engine
Troubleshooting · Sound and devices
Troubleshooting · Microphone access

Refresh inputs
Recording audio · Give Head Chef microphone access
Recording audio · Choose the recording input
Recording audio · Messages before a take starts
Troubleshooting · Recording
Troubleshooting · Microphone access

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MIDI and instruments · The Mini Bar panel at a glance
Troubleshooting · MIDI devices

Refresh Ports
Connect your hardware · The MIDI button and its panel
Connect your hardware · If Head Chef does not see a device
MIDI and instruments · Play from a MIDI keyboard
Volume automation, control surfaces and assistants · Connect a control surface
Settings reference · Control Surface
Troubleshooting · MIDI devices
Troubleshooting · Control surfaces and assistants

Refresh Tracks
Rendering your mix · Export individual MIDI tracks
Rendering your mix · Export individual tracks as audio

Region Editor Window
How Head Chef works · Selection and keyboard focus
The workspace · Use the More menu
The workspace · The menus
The workspace · Open separate windows
Editing audio · Undo, redo and the edit history
MIDI and instruments · Edit notes in the piano roll
Mouse and trackpad · Audio clip editor
Menu reference · Window
Menu reference · Menus you open from a button

REL GRID
Editing audio · Grid options

Relative Grid
Editing audio · Grid options
Mouse and trackpad · Edit toolbar
Menu reference · Menus you open from a button
Settings reference · Edit toolbar

Remove
Mixing · Build the processing chain
Plugins · Add a plugin from a channel
Plugins · Plugin folders and rescanning
Menu reference · Menus you open from a button

Rename
Transport and navigation · Mark places in your song

Render
Glossary

Render cancelled
Rendering your mix · Keep working while it renders

Render failed
Rendering your mix · If a render does not start
Workflows · Prepare a mix for release
Troubleshooting · Rendering

Render Mix
Transport and navigation · Turn on the metronome
Rendering your mix · Render your mix
Menu reference · File

Render Mix...
Getting started · Mix and export
How Head Chef works · The signal path
The workspace · The menus
Rendering your mix · Render your mix
Rendering your mix · Export individual MIDI tracks
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Rendering your mix · Keep working while it renders
Workflows · Prepare a mix for release
Coming from another music app · Concept map
Menu reference · File
Settings reference · Render Mix dialog
File formats · Render Mix output

Render Result
The workspace · The status bar
Rendering your mix · Keep working while it renders

Rendered audio
Rendering your mix · Read loudness and peaks
Workflows · Prepare a mix for release

Rendering mix...
Rendering your mix · Keep working while it renders
Workflows · Prepare a mix for release

Rendering...
The workspace · The status bar
Rendering your mix · Keep working while it renders

renderJob
Rendering your mix · Export individual tracks as audio

Repeat
Jam Console · Build a song from sections
Workflows · Sketch in Jam, finish in Studio

Replace
Jam Console · Try chords and explore harmony

Resample imported audio to project rate
Importing audio and projects · Import audio files
File formats · Import Audio window

Troubleshooting · Saving and importing

Rescan
Plugins · Plugin folders and rescanning
Plugins · Edit audio with an ARA 2 editor
Plugins · Tips
Troubleshooting · Plugins
Troubleshooting · Scan for plugins again

Reset Clip Gain to 0 dB
Editing audio · Use the badge
Mouse and trackpad · Clip gain badge

Reset Gain to 0.0 dB
The workspace · The menus
Tracks · Use the track header context menu
Menu reference · Track header

Reset Pan to Center
The workspace · The menus
Tracks · Use the track header context menu
Menu reference · Track header

Restore Original Audio
Plugins · Edit audio with an ARA 2 editor

Restricted on this Mac by a device policy.
Connect your hardware · Inputs and microphone access
Troubleshooting · Microphone access

Retained
Jam Console · Record an optional take

Retry blocked plugins
Plugins · Plugin folders and rescanning
Plugins · If a plugin stops
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Return to that idea
Jam Console · Takes from an earlier idea

Reverb
Glossary

Revert
Jam Console · Set overall volume

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Interface overview · The Arrange view
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Editing audio · Choose an edit mode
Editing audio · Ripple Lock
Coming from another music app · Concept map
Mouse and trackpad · Edit toolbar
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RIPPLE LOCK
Editing audio · Ripple Lock

Ripple mode
Glossary

Ripple mode is locked. Command-click Ripple to unlock.
Editing audio · Ripple Lock

Ripple mode keeps single-clip tracks anchored at the session start.
Editing audio · Place a clip at an exact time

Roll again
Jam Console · Record an optional take
Jam Console · Start a new jam
Jam Console · Roll a backing band
Jam Console · Try chords and explore harmony
Workflows · Sketch in Jam, finish in Studio
What's new in Head Chef 1 · Jam

Roll an idea before holding a backing part.
Troubleshooting · Jam

Roll an idea first.
Troubleshooting · Jam

ROOM
MIDI and instruments · The Mini Bar panel at a glance

Root
Jam Console · Edit a chord or the whole progression

Root bass
Jam Console · Edit a chord or the whole progression

Round-Trip
Connect your hardware · Read the latency line
Recording audio · Latency

Rounded Grand
Jam Console · Start a new jam

Rubber Bass
Jam Console · Start a new jam
Jam Console · Change one part

Ruler Coupled
Transport and navigation · Set the time display
Settings reference · Metronome and time display

Ruler Free
Transport and navigation · Set the time display
Settings reference · Metronome and time display

S

Same each pass
Jam Console · Same or evolving passes

Sample
Transport and navigation · Mark places in your song

Sample 96,000
The workspace · The status bar
Transport and navigation · Read the clock

Sample format
Rendering your mix · Render your mix
Rendering your mix · Choose the sample format
Workflows · Prepare a mix for release
Settings reference · Render Mix dialog
File formats · Render Mix output

Sample peak
Rendering your mix · Read loudness and peaks
Workflows · Prepare a mix for release

Sample position
Volume automation, control surfaces and assistants · Draw a channel-volume ride

Sample rate
Getting started · Create a session
Getting started · Start the session
Sessions · The New Session window
Tempo and session settings · Choose the sample rate
Rendering your mix · Render your mix
Rendering your mix · Choose the sample rate
Workflows · Record a take to the click
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Settings reference · Session Settings
Settings reference · New Session dialog
Settings reference · Render Mix dialog
File formats · Render Mix output
Glossary

Sample Rate Conflict & Import Options
Importing audio and projects · Import audio files
File formats · Import Audio window

Sample rate is fixed because audio clips keep their source sample rate.
How Head Chef works · Edits never change your audio files
Tempo and session settings · Choose the sample rate

Sample-rate conversion
Glossary

sampleRate
Rendering your mix · Export individual tracks as audio

SAMPLES
How Head Chef works · Clock formats
Transport and navigation · Repeat a section
Transport and navigation · Read the clock
Transport and navigation · Set the time display
Settings reference · Metronome and time display

SAUCE
Mixing · Shape the sound with Chicken Strip

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Getting started · Create a session
Getting started · Save your work
Interface overview · The Arrange view
The workspace · The toolbar
Sessions · Save Session
Sessions · Save Session As
Sessions · Close a session
Importing audio and projects · Save the result
Rendering your mix · Render your mix
Workflows · Prepare a mix for release
Troubleshooting · Saving and importing

Save changes to this session?
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Sessions · Close a session
Importing audio and projects · Save the result
Workflows · Finish a project from another music app
Menu reference · File
Troubleshooting · Saving and importing

Save channel preset...
Mixing · Use channel presets

Save Jam
Interface overview · Studio and Jam are two places to work
The workspace · Studio and Jam
Jam Console · Shape your input with Amp and Tuner
Jam Console · Record an optional take
Jam Console · Save and manage jams
Workflows · Sketch in Jam, finish in Studio
Troubleshooting · Jam
What's new in Head Chef 1 · Jam

Save Jam to keep these takes
Jam Console · Record an optional take

Save Session
Getting started · Save your work
The workspace · The menus
Sessions · Save Session
Sessions · When you cannot save
Recording audio · Before you record
Recording audio · Messages before a take starts
Menu reference · File
Troubleshooting · Recording

Save Session As...
Getting started · Save your work
The workspace · The menus
Sessions · Save Session As
Sessions · Move, copy or back up a session
Importing audio and projects · Save the result
Workflows · Finish a project from another music app
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Save your session before recording.
Recording audio · Before you record
Recording audio · Messages before a take starts
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Save •
Getting started · Save your work
Sessions · Unsaved changes

Saved
Rendering your mix · Export individual tracks as audio

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Select All
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Rendering your mix · Export individual tracks as audio

Select an instrument track to play live
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Select ARA 2 editor
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Select at least one part or recording to print to tracks.
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Select both a MIDI input and a MIDI output.
Troubleshooting · Control surfaces and assistants

Selected channel · Lead Vocal
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Selected chord
Jam Console · Edit a chord or the whole progression

Selected keyboard is offline: switch to All Connected Keyboards (Auto) or reconnect it.
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Silent Tune
Jam Console · Shape your input with Amp and Tuner
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MIDI and instruments · The instrument panel in the Inspector

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How Head Chef works · Edits never change your audio files
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How Head Chef works · Edits never change your audio files

Source out / samples
How Head Chef works · Edits never change your audio files
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Spill Folder
Tracks · Folders, groups and VCA masters

Spilling Folder
Tracks · Folders, groups and VCA masters

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Stop input monitoring before preparing this playback position.
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Stop playback and finish the current edit or render before recording.
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Stop recording or cancel record readiness before changing the session.
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Tempo and Time Signature
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Tempo change
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That file already exists. Choose a different name.
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The ARA plugin is still analysing this clip. Wait for it to finish, then Apply.
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The audio device clock differs too much from the session rate. Check Audio MIDI Setup or choose another output, then press Play again.
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The audio device stopped. Reconnect it and press Play again.
Troubleshooting · Sound and devices

The audio engine configuration could not be applied.
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The current beat unit is kept. Choose another beat unit before changing the Time Signature numerator.
Tempo and session settings · Set the time signature

The MIDI input disconnected. Reconnect it and enable the control surface again.
Troubleshooting · Control surfaces and assistants

The MIDI output disconnected. Reconnect it and enable the control surface again.
Troubleshooting · Control surfaces and assistants

The MIDI ports could not be opened. Refresh the port list and select available ports.
Troubleshooting · Control surfaces and assistants

The mix exceeds the range for integer WAV. Reduce the level or choose 32-bit float. No output file was published.
Troubleshooting · Rendering

The mix is too long for a WAV file.
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The output buffer size changed. Stop, then press Play again.
Troubleshooting · Sound and devices

The output device changed. Stop, then press Play again.
Troubleshooting · Sound and devices

The output device has not switched to
Troubleshooting · Sound and devices

The output device or its sample rate changed. Stop, then press Play again.
Troubleshooting · Sound and devices

The plugin could not be scanned. Try again.
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The plugin folder could not be saved. Check the path and try again.
Troubleshooting · Plugins

The selected input is unavailable. Reconnect it or choose another input.
Recording audio · Messages before a take starts
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The selected MIDI input disconnected. Reconnect it and try again.
Troubleshooting · MIDI devices

The session audio has changed. Restore its original media file.
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The session changed. Read its current state and try again.
Troubleshooting · Control surfaces and assistants

These holds do not fit a new starting point.
Troubleshooting · Jam

This is not a valid Head Chef session.
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Troubleshooting · A session does not open

This output device does not support
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This plugin has changed. Scan it again before using this sound.
Troubleshooting · Plugins

This session can hold up to 128 source channels.
Troubleshooting · Playback and performance

This session can hold up to four aux channels.
Troubleshooting · Performance and memory

This session document is too large to save.
Sessions · Session limits

This session document is too large.
Sessions · Session limits
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This session has no tracks yet
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This session needs more prepared audio than can be kept at once. Shorten the session or use fewer instruments, then press Play again.
Troubleshooting · Playback and performance

This song did not store a Time Signature, so 4/4 is assumed.
Tempo and session settings · An assumed time signature

This tempo cannot be saved exactly. Shorten the decimal or choose another BPM value.
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Toggle Solo
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Touch this fader before moving it.
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Transfer could not be completed. Destination Session is unchanged.
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True peak estimate (4×)
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Unsaved changes
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Unsupported or corrupted audio file. Choose a WAV, BWF, AIFF, FLAC, MP3, M4A/AAC, CAF or Ogg file.
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Use up to eight plugins on each channel.
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Wait for earlier recordings to be checked before recording a new take.
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Wait for microphone access to finish, then press Record again.
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Wait for the current audio import to finish, or cancel it.
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Wait for the mix render to finish, or cancel it before replacing this session.
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Head Chef

by

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bitsnacks.com/head-chef

https://bitsnacks.com/head-chef/guide/1