deCoda

Song Deconstruction & Practice

USER MANUAL

Version 1.3.2 / August 2023

zplane

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1 Introduction

deCoda is an easy-to-use app for music transcription, instrument learning, and practicing. *deCoda* helps you minimize the time needed to learning songs and playing your instrument.

With *deCoda,* this is as simple as loading your favourite song and letting *deCoda* help you figure it out. In a snap, *deCoda* tells you the key, tempo, chords, song structure, and more. You can slow things down or speed them up, transpose the key, and add a metronome. If you need to focus in on an instrument, Focus mode allows you to highlight and remove it from the song so you can practice that part with your instrument instead.

deCoda offers three sections accessible via the "burger menu" in the the top-left corner: Current Project, Project History and Settings; this manual is stuctured accordingly.

> *deCoda* LE is a special version with limited functionality. It depends on your serial number, if the software activates as either the full version or the *deCoda* LE version. This manual covers the *deCoda* full version, so some features, such as Piano Roll, Focus EQ or extended MIDI export are not available in *deCoda* LE. Below we have marked features not available in LE with an asterisk:

1.1 Key Features

- Find Key, tempo, and chords with the help of zplane's advanced algorithms
- Learn to play songs in sections with flexible looping options
- Automatic song structure detection helps you find intro, verse, chorus, etc.
- Change tempo without changing the pitch to ease practice
- Edit chords*
- Transpose parts or the entire track to a key that suits you better*
- Use the Focus EQ to isolate or mask a certain instrument*
- View the notes of the song on a Piano Roll display and transcribe*
- Export chords as MIDI or text and MIDI parts that you have edited from the audio by drawing it in*.

  ** = Feature not available in deCoda LE*

1.2 Naming Conventions

In this documentation, the names of on-screen buttons, sliders, and indicators will be written in bold font between brackets, such as **[FX]** and **[▶]**.

Selectable menu options will be written in bold font between quotes, such as **“Sect”** and **“4Bars”**.

References to pointers in images will be written in bold font between parenthesis, such as **(1)** and **(2)**.

1.3 Installation

In order to download the *deCoda* installer, you need to register your *deCoda* serial number with zplane. After the successful registration, the installers will be available in the download section of your personal account. Find below a step-by-step description of the installation procedure:

1.3.1 Windows

- Download the *deCoda* Windows Installer application (.exe)
- Double-click on the file to launch the Installer
- Click **[Next]** in the installer window
- Read the End User License Agreement and, if you agree, click **[Next]**, otherwise, click **[CANCEL]** to abort installation
- Follow the instructions of the installer to complete the installation—you can choose which variants of the plug-in you wish to install and which to omit during the installation process

1.3.2 macOS

- Download the *deCoda* macOS Installer disk image (.dmg)
- Double-click on the downloaded .dmg to mount it, then double-click the installer file (.pkg) contained within
- Click **[Continue]** in the installer window
- Read the End User License Agreement and, if you agree, click **[Continue]**, otherwise click **[CANCEL]** to abort installation
- Follow the instructions of the installer installation—you can choose which variants of the plug-in you wish to install and which to omit during the installation process
- When installation is complete, quit the installer by clicking on **[Close]**

1.4 Registration & Activation

deCoda is protected by both a *serial number* and a corresponding *unlock key*. The serial number will be sent to you by e-mail upon purchasing *deCoda*. You will receive your unlock key by registering *deCoda* at the zplane website.

1.4.1 Registering deCoda

In order to receive your unlock key, please log in to your account at the zplane website —please create a new account there if you don't have one already. After logging in:

1. Click the **[REGISTER]** button in the menu bar:

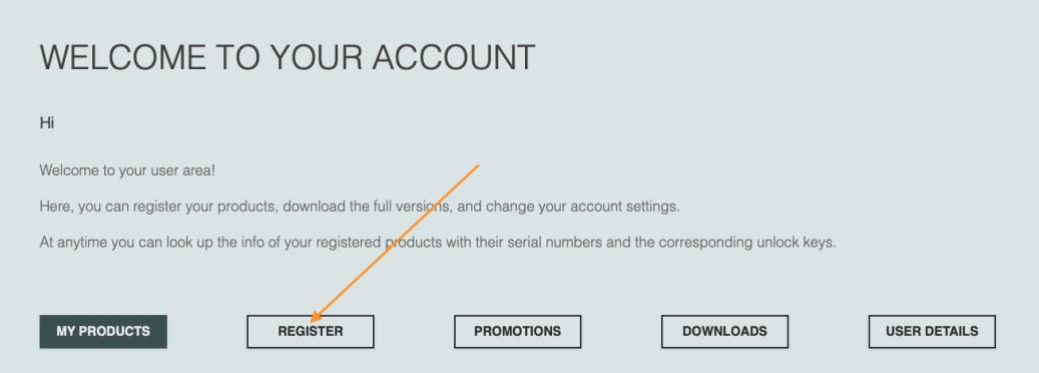


Figure 1: The Account page

2. In the area provided **(1)**, paste in your *deCoda* serial number and click the **[REGISTER]** button **(2)** to the right:

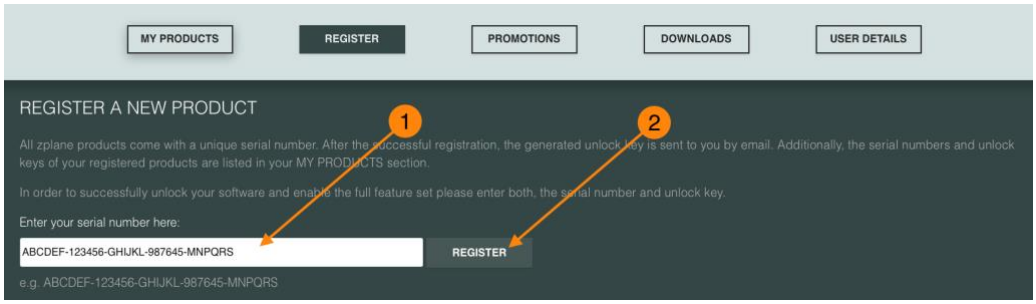


Figure 2: The Product Registration page

3. Your *deCoda* unlock key will then be shown.

> **NOTE:** You can recall any of your serial numbers and unlock keys anytime in the future by logging in to your account and clicking the **[MY PRODUCTS]** button in the menu. This will display the serial numbers and unlock keys for all the zplane products you have registered in your account.

1.4.2 Activating deCoda

Activation of *deCoda* is done within *deCoda* itself the first time it is run:

1. Launch *deCoda* and you will immediately see the Activation screen:

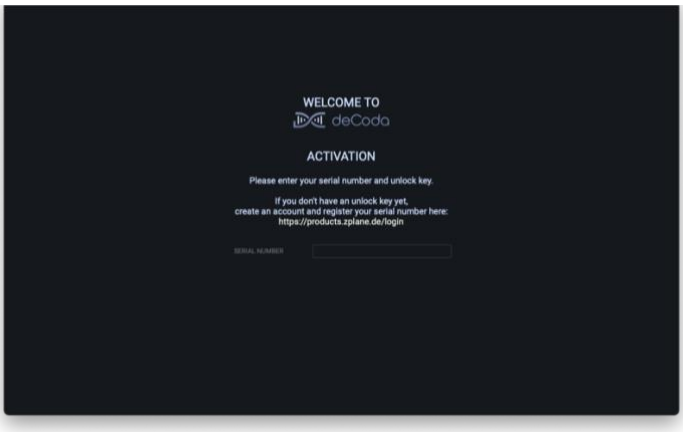


Figure 3: Activation screen

2. Paste your Serial Number and Unlock Key into the spaces provided **(1)** and *deCoda* will then be activated:

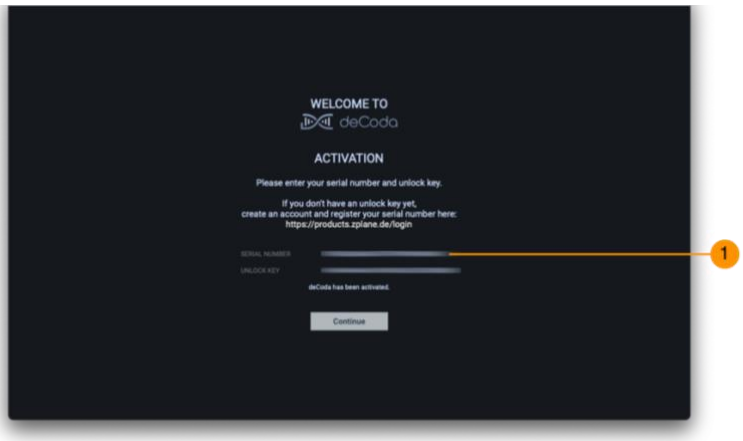


Figure 4: Serial Number and Unlock Key entry areas

3. After successful activation, you can click **[Continue]** to proceed loading *deCoda*.

2 The Main Menu

In the upper-left corner of the *deCoda* window is the Main Menu **(A)** which is represented by three horizontal lines **[☰]**.

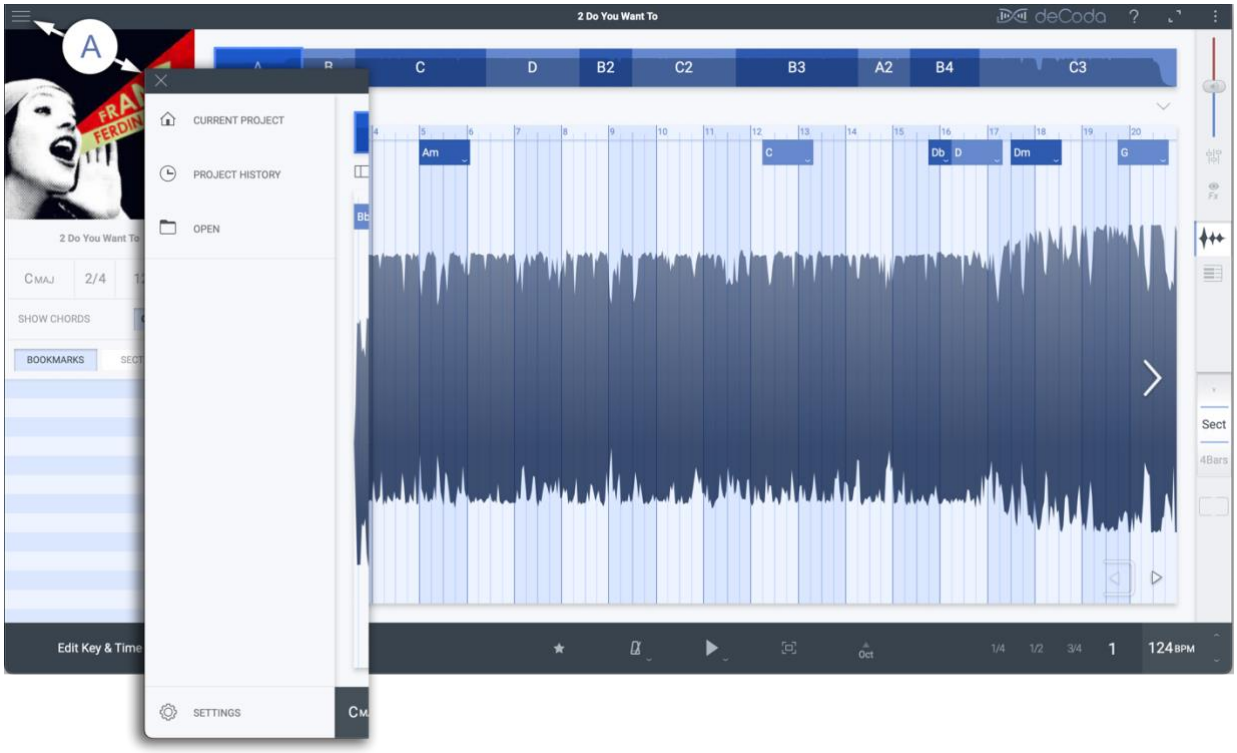


Figure 5: Accessing the Main Menu

Clicking **[☰]** will open the menu which contains the following options:

- **"Current Project"**,
- **"Project History"**,
- **"Open"**, and
- **"Settings"**.

These options open different screens, each of which will be detailed in the following chapters of this user manual.

2.1 Current Project

The Current Project screen is where you will spend most of your time while using *deCoda*; this is the view that shows the currently loaded song.

At the top is the Project Overview **(A)**, in the center is the Loop View which displays the currently selected loop as Waveform or as Piano Roll depending on the View Selector **(B)**. *Please note: The LE version only has the Waveform View.*

Continuing on there's the Step Size selector **(C)** and the Play Bar at the bottom **(D)**. On the left there's the Project Side Bar **(E)**.

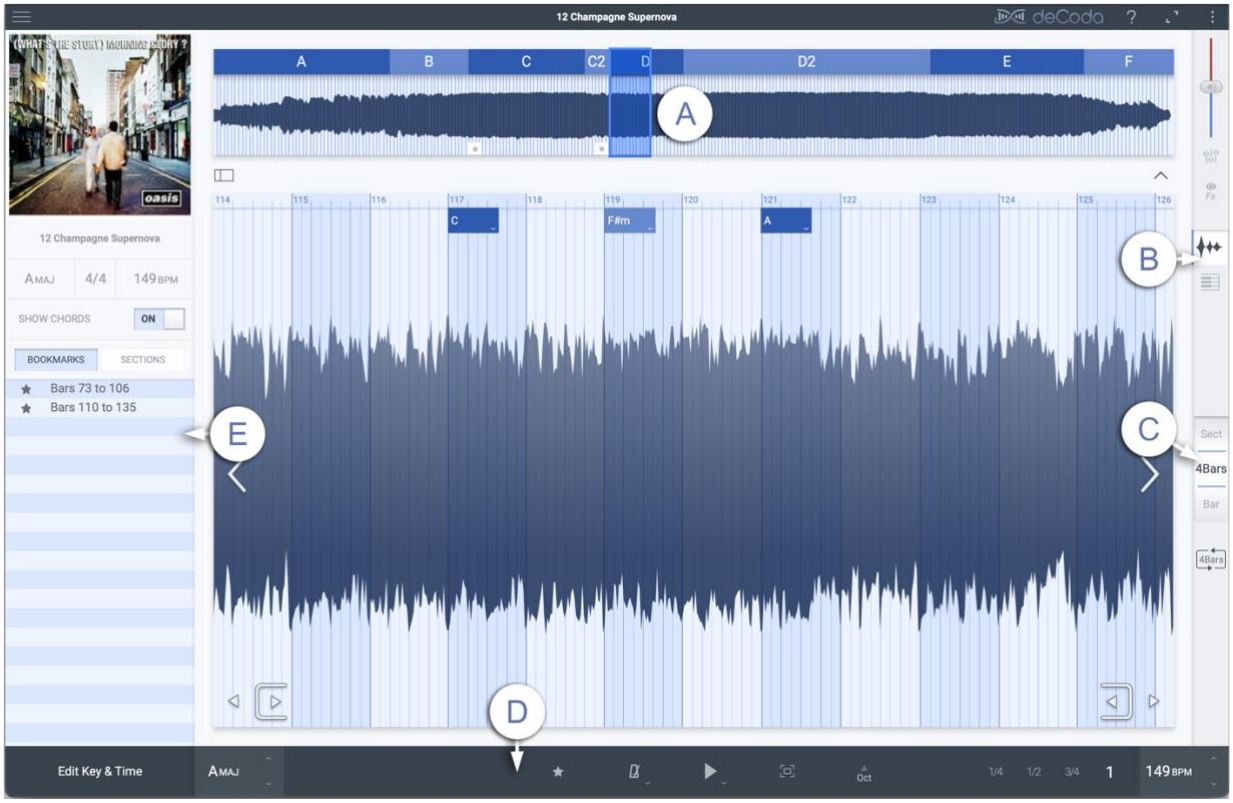


Figure 6: The Current Project screen showing the waveform

2.2 Project History

The Project History contains a catalog of all Projects you've opened before. The Projects are ordered and grouped by the time they were last opened.

At the top of the Project history screen there is a search field **(A)** that allows you to search for a specific Project. You can enter a song title, artist name, or album here.

A click on a Project selects it. You can pre-listen the selected Project by clicking on the **[▶]** button **(B)**. You can also remove the selected Project from the library by clicking on the **[⋮]** button **(C)** in the upper-right corner of the *deCoda* window and clicking **[Remove]** from the menu that appears.

A double-click on a Project opens it and switches to the Current Project view.

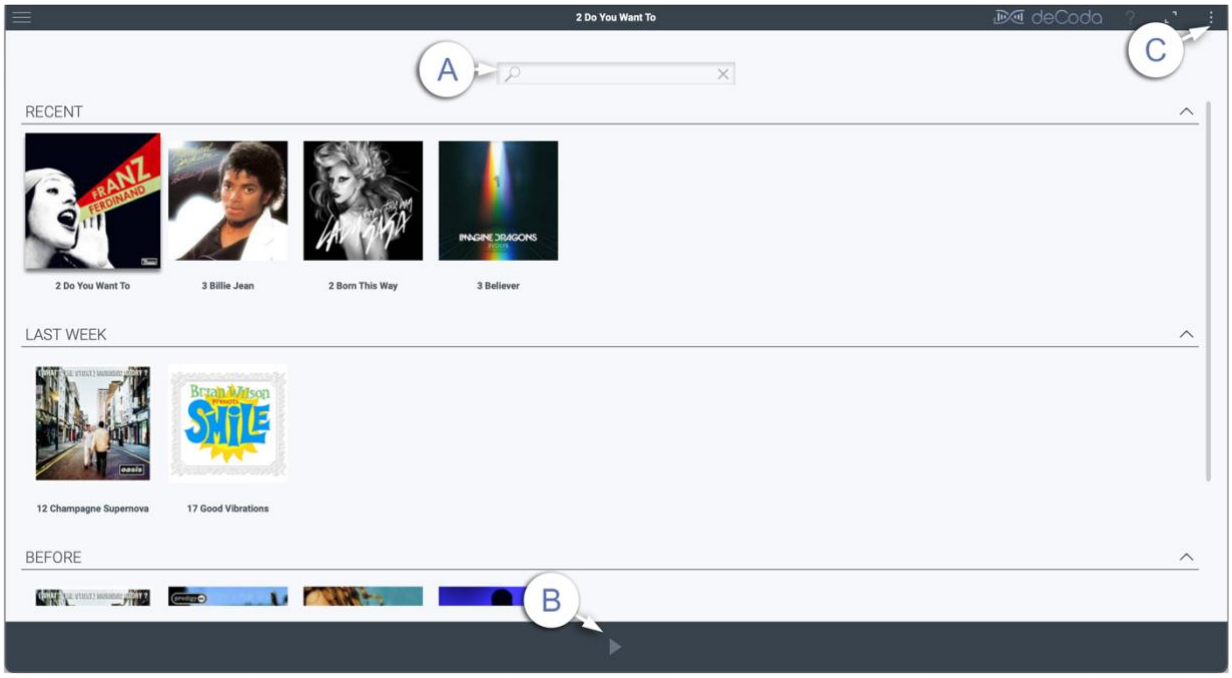


Figure 7: The Project History

2.3 Open Project

Clicking this option will allow you to load a new song into *deCoda* via a standard file open dialog box. The end result is the same as dragging a song into *deCoda* with the mouse. Once the song is loaded, the view will switch to the Current Project.

3 Project Navigation

3.1 Project Overview

The Project Overview shows the loaded song's waveform representation. The sections of the song are represented by alternating colored areas **(A)** and the section label. The currently selected loop is represented by a thick frame around the loop bounds **(B)**.

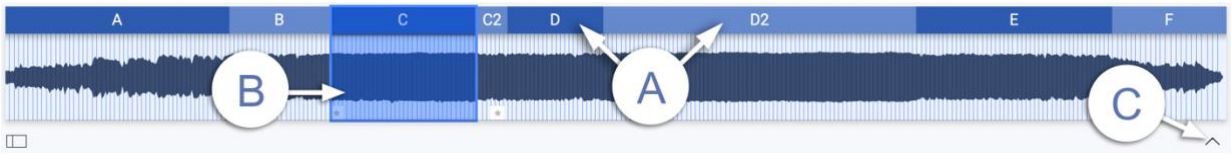


Figure 8: Project Overview with bar lines and Bookmarks

It is expandable/collapsible using the arrow button **(C)** in the right corner below the Overview. When expanded, it additionally shows bar lines and Bookmarks.

3.2 Step Size

Navigation in *deCoda* is done in a musically meaningful way: You navigate to bars and beats instead of a time position in minutes and seconds. *deCoda* tracks the tempo of the song automatically, even if it is not steady. This way, you can navigate songs with slight tempo variations musically.

> **NOTE:** While *deCoda* does adapt to slight variations in tempo, it currently doesn't handle abrupt or significant tempo changes or changes in time signature.

All navigation operations manipulate the currently selected loop bounds (from here on referred to as "the loop").

Most navigation operations use a *Step Size*, which can be either **"Sect"** (Section), **"4Bars"**, **"Bar"** or **"Beat"**. The currently selected Step Size is displayed and changed with a wheel control in the middle of the right sidebar.

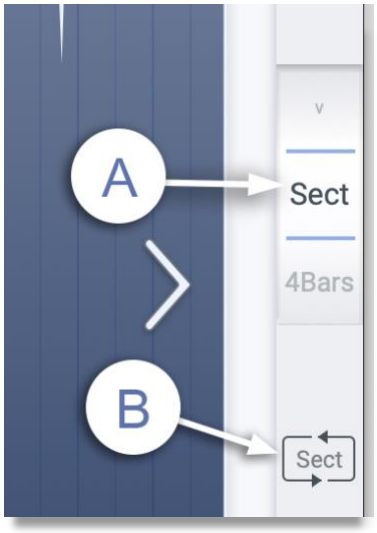


Figure 9: The Step Size control

You can change the Step Size by dragging or scrolling the Step Size Wheel **(A)**. Clicking the **[⟲⟳]** button **(B)** below the step size wheel applies the step size to the loop length.

3.3 Navigating with the Computer Keyboard

deCoda features extensive keyboard control, making it easier to learn a song while playing your instrument at the same time. Most features can be accessed or triggered by simple keypresses while you keep your instrument in your hands. While there are default keyboard assignments, you can also customize keyboard controls in the Settings page.

3.4 Navigating with the Mouse

However, you can also use your mouse to navigate through the song. In the Loop View, click on the big arrow icons **(A)** to move the loop or click on the small arrow icons **(B)** on the bottom to reduce or expand the loop. The loop can also be moved by dragging the Loop View to the left or right.

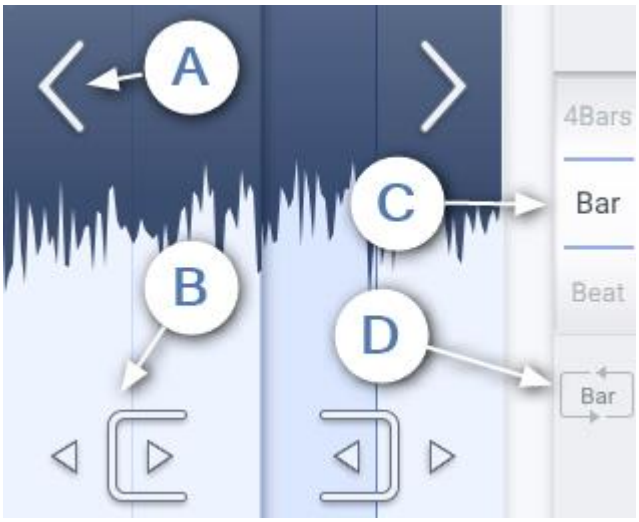


Figure 10: Navigation Controls

A. **Move left/right:** Shifts the loop start left or right according to the selected step size. The loop length is not modified. The only exception is when step size is set to **"Sect"** and exactly one section is selected—in this case, moving left or right selects the next section to the left or right.

B. **Reduce/expand loop left/right:** Reduces or expands the loop on the left or right according to the set step size.

C. **Increase/decrease step size:** Increases or decreases the currently selected step size.

D. **Apply step size to loop length:** Sets the end of the loop so that the loop length is exactly 1 step size unit.

3.5 Ways to Perform Navigation Operations

In Project Overview you can use the mouse to adjust the loop bounds or move the position of the currently selected loop. Adjustment step size for the mouse operation is usually **"1 Bar"** unless you've selected **"Beat"** in the step size selector. In that case the adjustment step size switches to beat resolution.

By double-clicking a section, the whole section is selected. If the step size is set to **"Sect"** and a complete section is selected, clicking on another section will select it in whole. Otherwise, the currently set Loop Size will be preserved.

While playing back, clicking on the Loop View or inside the current loop frame on the Project Overview sets the play cursor to the clicked position.

3.6 Navigating with Touch Gestures

If you are using *deCoda* on a device with a touch screen, most navigation interactions will be the same as the mouse interactions described above. But there are also additional touch gestures available on the Loop View:

- **Drag left or right:** Move the loop continuously.
- **Swipe left or right:** Move the loop according to set step size (the same as clicking the big left or right arrows).
- **Swipe left or right with 2 fingers:** Expand or reduce the loop on the right according to set step size.
- **Swipe up or down:** Change the step size and automatically apply the new step size to the loop length.
- **Horizontal pinch:** Change the step size and automatically apply the new step size to the loop length.
- **Drag up or down (Piano Roll View only)**: Vertically shift the range of visible notes.
- **Vertical pinch (Piano Roll View only)**: Vertically zoom the range of visible notes.

3.7 Quick Zoom

At any time you can quickly zoom to a specific bar by double-clicking in the loop view. The loop will be set to the bar you clicked on. If you don't change the length of the loop, another double-click in the loop view restores the loop boundaries to the previous setting.

3.8 Time Display

When hovering with the mouse over the bar number area **(A)**, the time position for the loop/temporary loop start and end will be displayed as well as the playback start position.

Figure 11: Time Display

4 Playback Controls

There are various controls in the Play Bar which affect the song playback.

Figure 12: The Play Bar

A. **Playback key:** *deCoda* automatically detects the song key. The *deCoda* full version lets you also transpose song playback to adjust for voice range, guitar tuning, etc. by dragging this control up and down or clicking the small **[Λ]** and **[V]** buttons. Clicking the **[↺]** button will revert the transposition back to the song's original key *(Note: LE doesn't offer key transpose)*.

B. **Play Loop / Play to End:** The default playback mode in *deCoda* is to always loop the selected loop area. This mode is indicated by the **[▶]** icon on the Play button.

   However, you can switch to *Play to End* mode and playback will start at the selected loop and then proceed to the end of the song. This can be set by right-clicking or long-pressing on the Play button and selecting the **[▶·]** button.

C. **Octave up:** On the full version of *deCoda*, this button lets you quickly transpose playback up by one octave. This is intended to help with identifying the pitch of low bass notes which might not be audible well on small speakers (the LE version doesn't have this button).

D. **Playback speed (bpm):** Use this control to slow down playback speed, allowing you to better hear and practice complex parts - until your speed develops. Drag the control up or down to adjust the tempo or click the small **[Λ]** and **[V]** buttons. The tempo shown here is the average tempo of the song, in case tempo varies over time.

   You can also use the **[1/4], [1/2],** and **[3/4]** tempo preset buttons to quickly divide the original tempo to one quarter, one half, and three-quarters the original speed, respectively. Clicking the **[1]** button returns playback to normal speed.

4.1 Temporary Loop and Playback Start Position

Normally, the loop you see is the loop you hear. But there may be times when you want to temporarily loop a small section of the loop you see. This can be done by

clicking and dragging in the bar number area **(A)** to create a span of temporary loop markers.

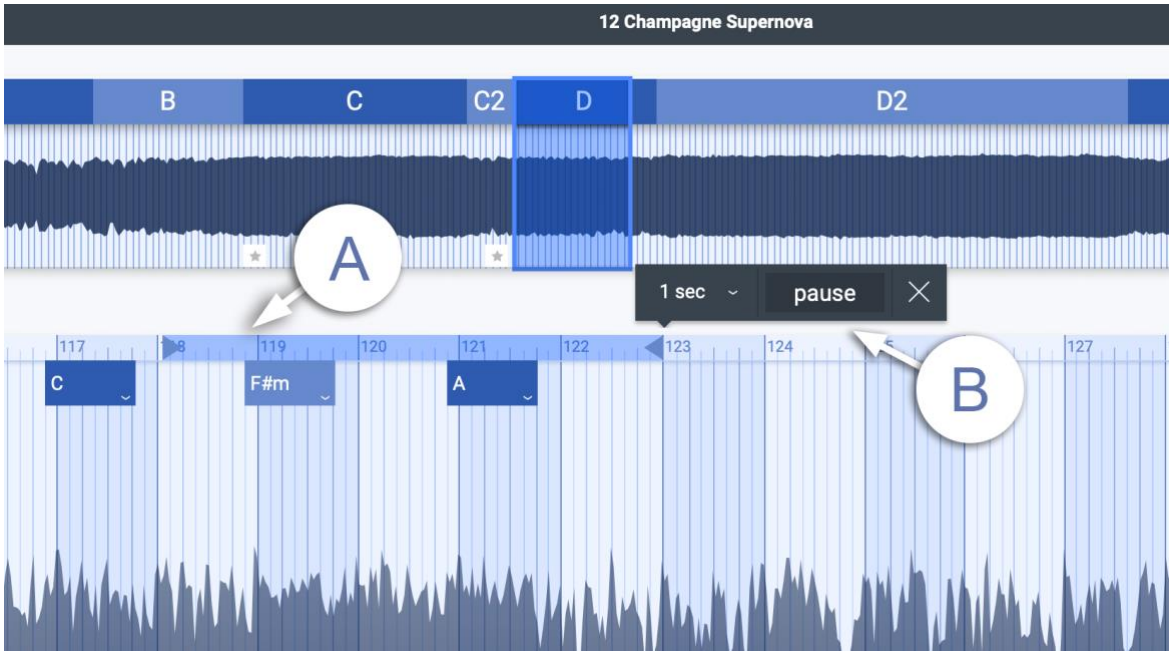


Figure 13: Temporary loop options

The temporary loop has a pause pop-up **(B)** at the end of the loop. By clicking the pause button, a time drop-down will become available and pausing will be activated. When activated the temporary loop will be played and then paused for the selected time. This will give you time to listen and then try to figure it out on your instrument. The temporary loop can be reset by clicking the **[x]** on the pause menu or somewhere on the bar number area again.

Instead of setting a temporary loop you can also set only the playback start position by clicking on the bar number area without dragging.

As soon as you change the visible loop (e.g. navigating to the next section, etc) the temporary loop or the temporary playback start position is reset automatically.

Note that the metronome count-in is disabled when a temporary loop or the playback start position is set (see section Metronome).

5 Metronome

deCoda automatically detects the position of bars & beats. This not only helps musically meaningful navigation, but also enables it to play metronome clicks.

> **NOTE:** This can be especially helpful if you slow down the playback e.g. to better hear single notes of a fast passage. Hearing the metronome can give you the context of the musical time grid that might be otherwise lost with really slow playback speeds.

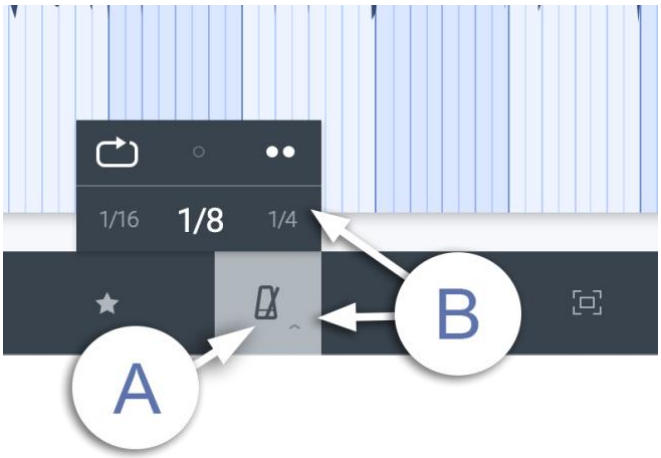


Figure 14: Metronome Settings

The metronome is activated by toggling the metronome button **(A)**. Additional settings can be accessed by right-clicking or long-pressing on the metronome button or clicking on the little **[^]** icon.

- **Metronome grid:** The metronome grid can be set to **[1/4]** for quarter notes, **[1/8]** for eighth notes, or **[1/16]** for sixteenth notes.
- **Count-In:** To give you some time to get your hands on your instrument after pressing Play, you can set a Count-In of one **[•]** or two **[••]** bars. The Count-In will be played only once when starting the playback. However, if you want the Count-In to be repeated with every iteration of the loop, enable the **[⟲]** button.

> **NOTE:** The Count-In is disabled when a temporary loop or the playback start position is set (see this section).

6 Mixer

The Mixer opens by clicking on the Mixer symbol (F) below the fader on the right sidebar. Mixer controls in the full version of *deCoda*:

(A) Level and mute state of **song playback**

(B) Toggle **audio in** and **input FX plugin** on or off.

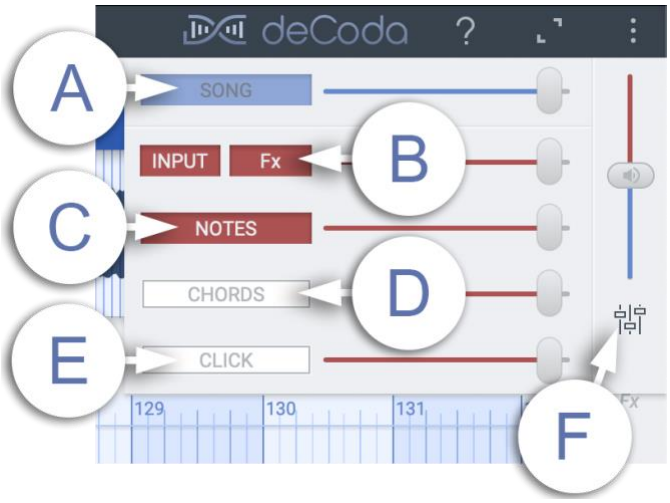


Figure 15: Mixer controls in deCoda

(C) Notes and (D) Chords synthesizer.
The Notes synthesizer channel, controls the playback volume of the notes that you draw in the Piano Roll as well as synthesizer notes being played when scrubbing in Piano Roll.
The Chords synthesizer channels controls the playback volume of the chord synthesizer. The chord editing dialog's chord preview is always audible, even if Chords are muted in the mixer.

(E) Metronome click on/off and level.

(Vertical Fader) Controls the balance between playback and click & synth sounds. This fader is always visible.

The Mixer in *deCoda* LE offers a few controls less, as the LE version doesn't have the Piano Roll View and Notes synthesizer (C) features. The operation is otherwise identical.

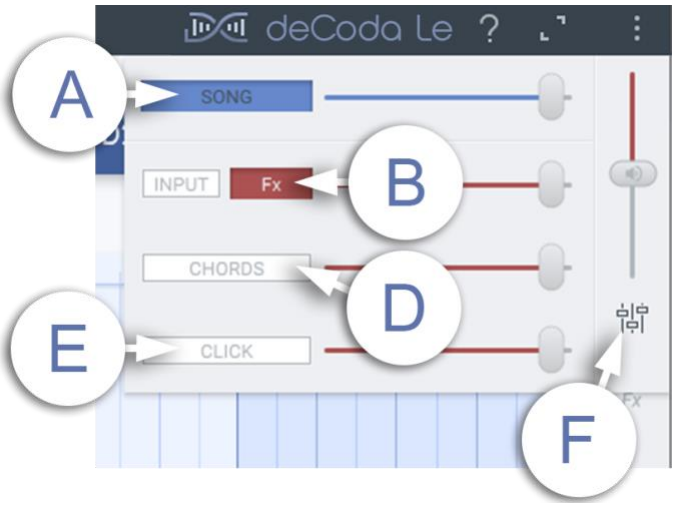


Figure 16: Mixer controls in deCoda LE

7 Input Audio FX

deCoda lets you add one insert effect (VST, VST3 or AU) to your input audio channel. In case you have installed AmpliTube, *deCoda* automatically chooses AmpliTube to be the default plug-in. *deCoda* customers get a **free special version of AmpliTube**, featuring extra amp models exclusively selected by us.

> For more information about AmpliTube, look here:
> https://www.ikmultimedia.com/products/amplitube5/

The **[FX]** button sits below the Mixer button on the right sidebar. Clicking the **[FX]** button opens the Plug-in View. At the top of that window you'll find additional controls:

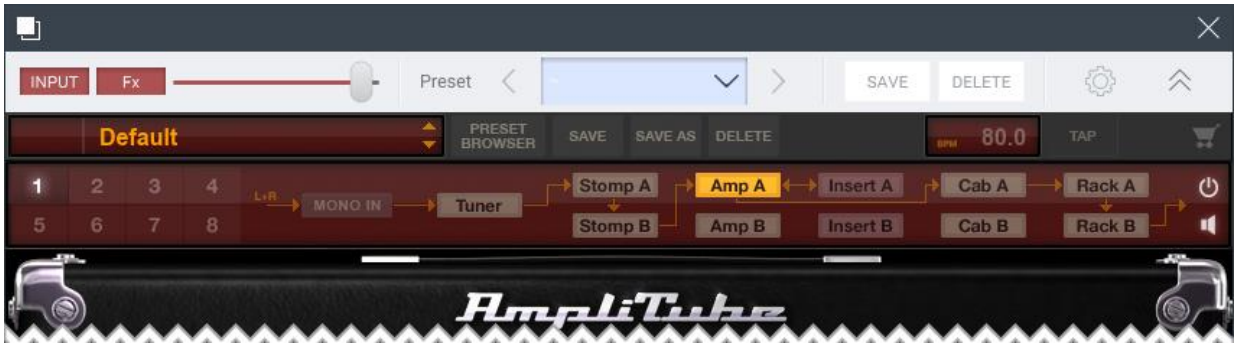


Figure 17: AmpliTube loaded as the Input Audio FX

If you want to choose a different default plug-in, you can do so in the Settings. In case you want to change the plug-in for the specific Project you're working on, you can click the cog wheel button and choose a different plug-in.

7.1 Input Audio FX Preset Management

The preset drop-down menu allows you to choose an effect preset directly by clicking on it. Double-clicking lets you rename the preset. The arrow buttons on the left and right of the drop-down menu cycle through all saved presets for the plug-in.

You may save the plug-in settings in your own presets by clicking **[SAVE]**. The new preset is called **"New Preset"** and may be renamed to your liking. **[DELETE]** removes the preset currently chosen. The delete operation is not undoable, so double-check your selection before clicking it.

8 Project Sidebar

Click on the **[▭]** button to open the Project Sidebar. The Project Sidebar gives you general information about the current song, let's you toggle the display of chords, and lets you edit Bookmarks and Sections.

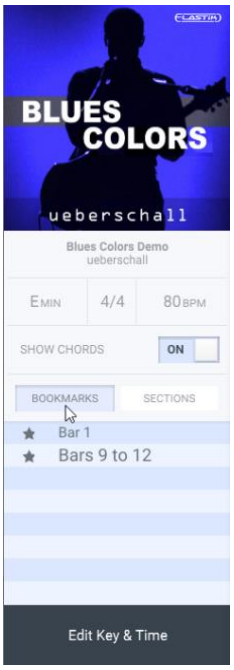


Figure 18: Project Sidebar

Sometimes the automatic detection of song sections, beat grid, and chords doesn't produce the desired result. If this occurs, you can correct them manually. This can be done in the Project Sidebar. Click on the **[▭]** button to open the Project Sidebar.

8.1 Editing Sections

Sections can be edited in the Project Sidebar by selecting the **[Sections]** tab.

8.1.1 Renaming a Section

To rename a section, double-click on a section in the list and enter the new name.

8.1.2 Creating a Section

A new section can be created by setting the loop bounds to represent the new section and then clicking **[Create new Section]**. Everything within the loop bounds will become a new section, and any left-over parts will become individual sections, too.

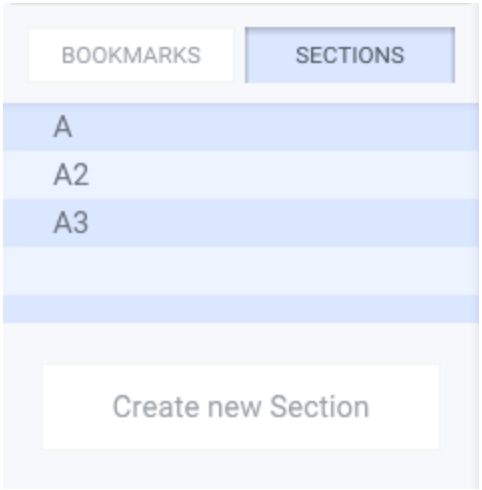


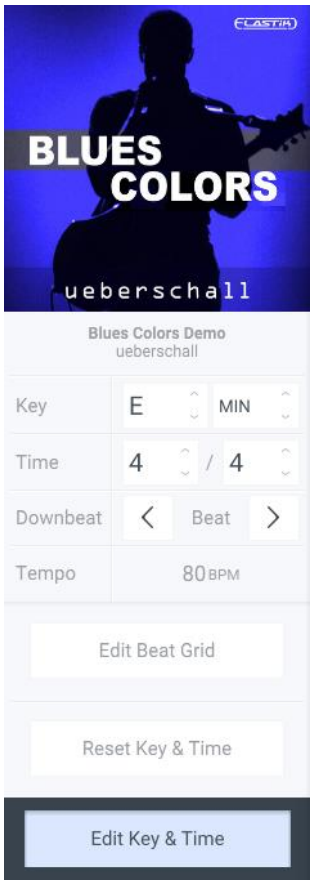
Figure 19: Sections

8.1.3 Removing (Merging) Sections

Because all sections in *deCoda* are contiguous, individual sections can't be explicitly deleted (for this would leave a “sectionless” area in the song). If you wish to remove a section, you must actually “merge” it with a neighboring section. You can do this by selecting the section to be removed and the section before or after it, then clicking **[Create new section]**. This creates a new section that replaces the two previously selected sections, effectively removing one of the sections.

> **NOTE:** Automatically detected sections are named A, B, C, etc. If a section is named A2, this means it is similar to section A—it is the second occurrence of a similar song section.

8.2 Editing the Song Key and Beat Grid



In the Project Sidebar click on **[Edit Key & Time]**. This switches the Sidebar to the edit page that lets you correct the detected song key and the beat grid.

- **Key:** Set the song key by selecting the root pitch and the key type (major or minor).
- **Time:** Set the time signature numerator and denominator.
- **Downbeat:** Sometimes the time signature and the tempo are detected correctly, but the downbeat (the start of a bar) is off by a few beats. You can shift the downbeat by clicking on the left and right arrows in the edit page of the Project sidebar.
- **Tempo:** The tempo can't be set directly. See below.

Figure 20: Key & Time settings

NOTE: The beat grid is defined by the time signature, the position of the downbeats, and the tempo.

8.2.1 Correcting the Detected Tempo

Sometimes the song's tempo isn't detected correctly. You can correct it by performing the following steps:

1. Make sure that the time signature is set correctly.
2. Set the loop so it contains a full bar with some space before and after it.
3. Click on **[Edit Beat Grid]** to enter the edit mode.
4. Click and drag inside the Loop View to select exactly one bar.
5. Press play to hear the bar looped to make sure you set the bar boundaries correctly.
6. Click and drag again until the selected loop contains exactly one bar.
7. Click on the checkmark icon above the selected loop to confirm.

The beat grid will now be recalculated based on the bar you just selected. You can always cancel the editing process by clicking on **[Edit Beat Grid]** again.

You can also reset the key and the beat grid to their initial state. To do this, click on **[Reset Key & Time]** in the edit page of the Project Sidebar.

8.3 Editing Chords

The automatically detected chords are shown in the *Chord Bar* at the top portion of the Loop View. For **chord editing**, you require the full version: *deCoda* LE only displays the analyzed chords and lets you move and delete them – the chord editing dialogue will be greyed out.

> **NOTE:** The chords shown in *deCoda* are purely informational, they don't change how the song is played back. If they are not relevant to you, you can hide them by setting the **"Show chords"** setting in the Project sidebar to **"Off"**.

- **Move a chord:** Long-press a chord and drag it left or right to the desired position.

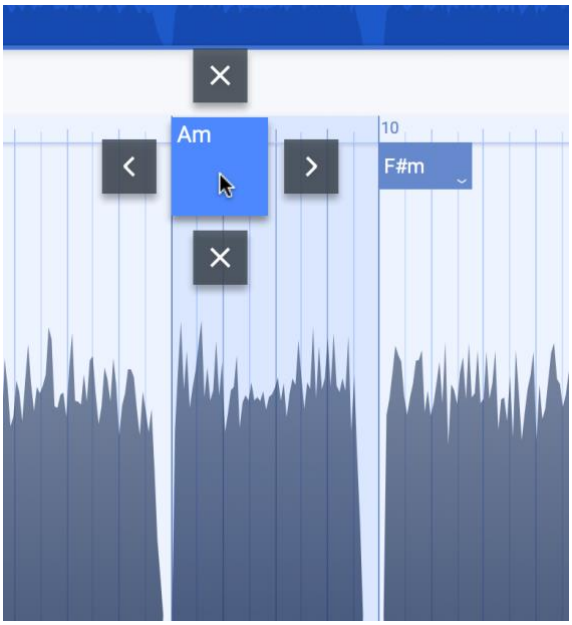


Figure 21: Controls for moving chords

- **Remove a chord:** Long-press a chord and drag it up or down until a red cross is shown.

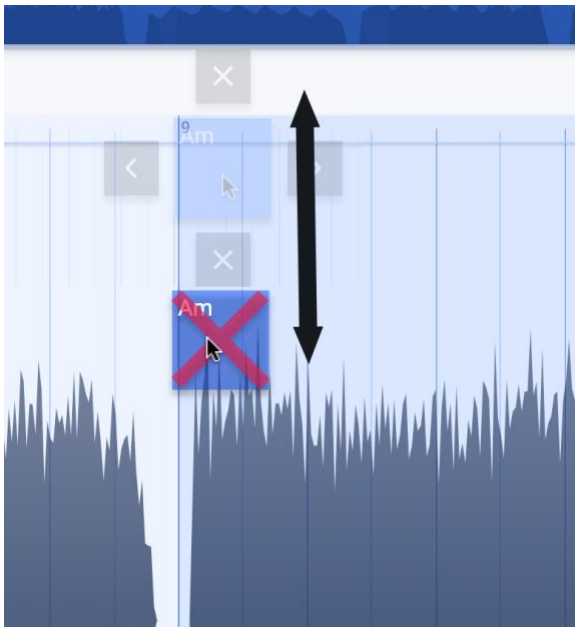


Figure 22: Removing a chord

- **Add a chord (full version of deCoda only)**: Long-press or right-click on the Chord Bar where no other chord is shown. Select the root pitch and the chord type in the resulting pop-up menu and click [Create].
- **Edit a chord (full version of deCoda only)**: Tap or right-click a chord. Click the chord drop-down menu and choose a new chord. Most probable options are marked blue. When choosing a new root in the first column, the current chord type will be reset and you have to choose a chord type again from the second or third columns. In case you want to keep the current chord type when changing the root, hold SHIFT while choosing the new root.

  After altering a chord a revert **[⮌]** sign will show up beside the chord drop-down menu. Clicking it reverts any changes since opening the chord editing dialog.

  When hovering or clicking in the chord drop-down you will hear a preview of the selected chord. This can be disabled in the Settings).

  - When you click the loudspeaker symbol or press SPACE on your keyboard, the song will be played back in a loop around the selected chord with the synthesizer chord preview added. You can now try different chords to find the best match.
  - You can leave the chord dialog by either clicking the **[x]** or clicking somewhere outside the chord dialog.

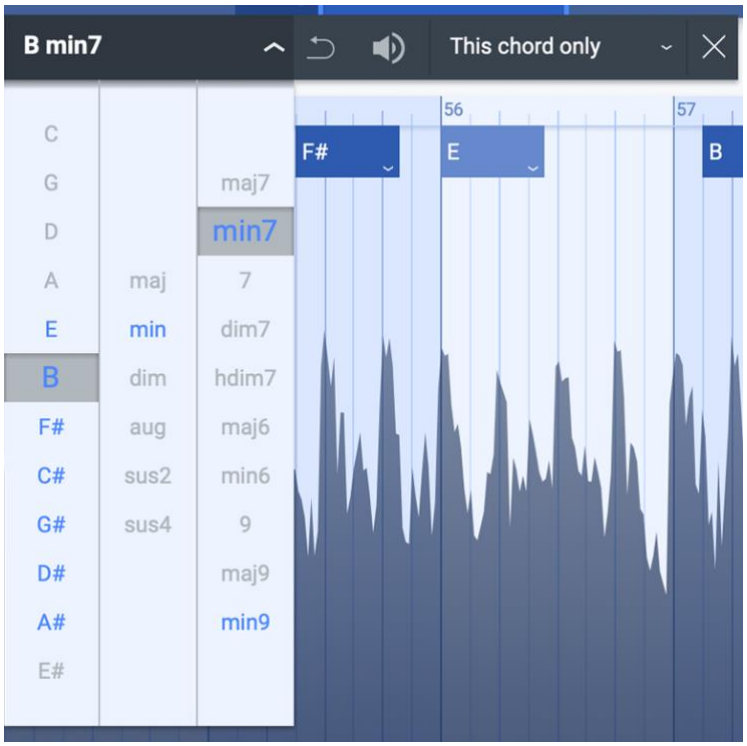


Figure 23: Chords dialog

8.3.1 Edit Multiple Chords at Once

You can apply a change to other similar chords i.e. chords with the same root pitch and chord type.

> **NOTE:** Editing multiple chords at once comes in handy if *deCoda* wrongly detects "A major" in multiple places across a song where you'd actually expect "A minor".

To do this, begin with the same steps as editing a single chord. Now you can select from the combo box on the right:

- **This chord only:** Don't change other chords.
- **All in loop:** Change all similar chords that are visible in the loop.
- **All in section:** Change all similar chords in the section the selected chord belongs to.
- **All in same sections:** Change all similar chords in the section the selected chord belongs to and all similar sections.
- **Everywhere:** Change all similar chords in whole song.

8.4 Bookmarks

Bookmarks are useful to mark a section you want to quickly find sometime later.

They can be created for the currently selected loop area by simply clicking the button in the bottom bar.

All bookmarks are displayed as icons in the expanded Project Overview. You can recall a bookmark by clicking on the icon.

If there is more than one bookmark starting at the same time position, all bookmarks at this time position are represented by a single icon. You can recall those bookmarks by clicking on the icon multiple times.

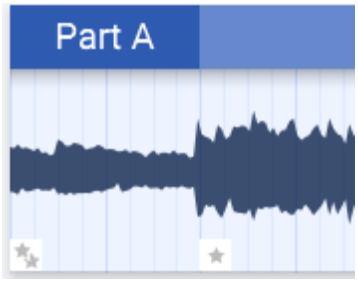


Figure 24: Bookmarks

9 Waveform View

The Waveform View shows a graphic representation of the audio file's amplitude over time: This type of display makes it easy to spot the position of sounds with clear transients such as kick or snare drum hits. This can be helpful to identify the beat positions while editing the beat grid to give you a clue of where exactly a bar might begin.

The Waveform View can be enabled by clicking on the **[⋯]** button **(A)** in the right sidebar (As *deCoda* LE only has this view, there is no button on the UI).

You can **scrub** through the audio by long-pressing and dragging in the loop view.

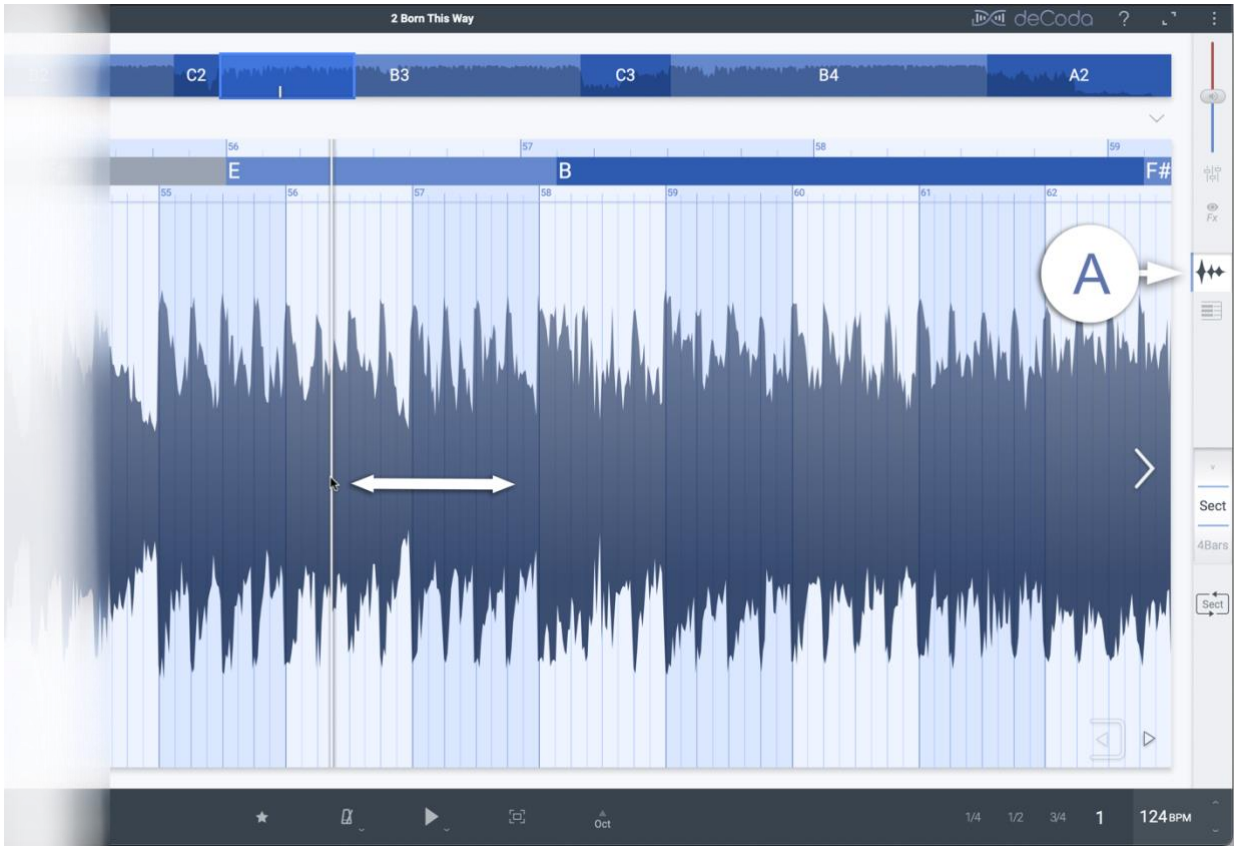


Figure 25: Waveform View and scrubbing

10 Piano Roll View

Piano Roll View (not available in *deCoda* LE) visualizes the pitch content of the audio file drawn on a Piano Roll-like display. On the left of the view is a vertical piano keyboard, each horizontal row represents a piano key (a semitone pitch).

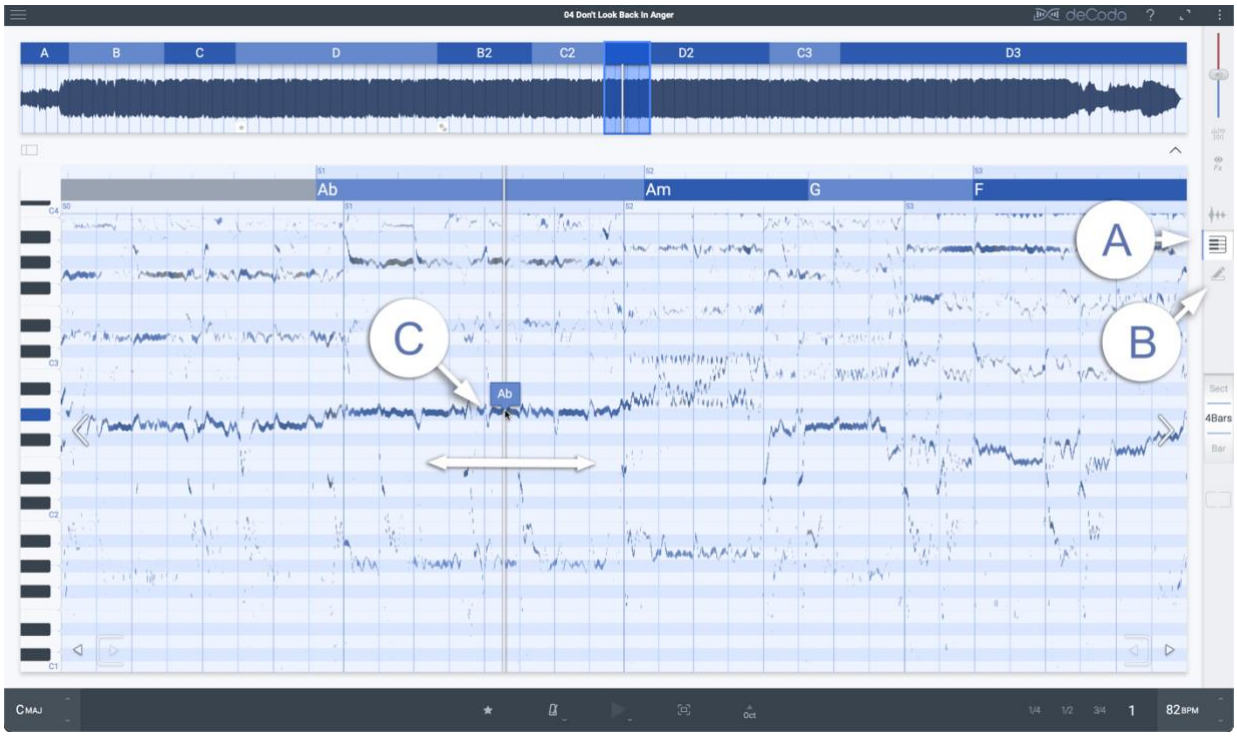


Figure 26: Piano Roll View

Enable the Piano Roll View by clicking on the right sidebar's **[ ]** button **(A)**. Right below is a button **(B)** that allows you to add MIDI notes (see Section 10.2).

Scrub through the audio (C) by long-pressing and dragging in the loop view.

Shift displayed note range: Click + Drag Loop View or piano keyboard up/down.

Zoom displayed note range: Click on the piano keyboard and drag it left/right for zooming out/in. You can also do this by dragging the loop view while pressing the (*Ctrl/Cmd*) key.

10.1 Interpreting the Display

Technically, this view is a spectrogram indicating each frequency's volume level over time. Each note played on an instrument consists of a mix of multiple frequencies audible at the same time. In Piano Roll View, each frequency is represented by a continuous horizontal line. The lowest line corresponds to the

fundamental frequency: It defines the note's pitch, all other lines correspond to harmonic frequencies, also referred to as overtones.

> **NOTE:** A vocal will not result in straight horizontal lines most of the times, as a vocalist has a great deal of pitch variability, e.g. when singing a vibrato or slides into the next note. Unlike a vocal, a piano signal will result in straight lines because its physical construction provides a fixed pitch for each key.

If you set the loop to 8 bars or less, *deCoda* will try to figure out each signal's fundamental frequency and display those lines in blue. This can make it easier to identify the instrument you're looking for.

10.2 Note Editing

While *deCoda* isn't able to automatically generate sheet music from a loaded song, it provides you with tools to easily figure out which notes are played. In Piano Roll View, you can place MIDI notes much like in most other music software apps. These notes can later be exported as a MIDI file.

Enable Note Editing by selecting the Piano Roll View **(A)** and clicking on the right sidebar's **[**✎**]**icon **(B).**

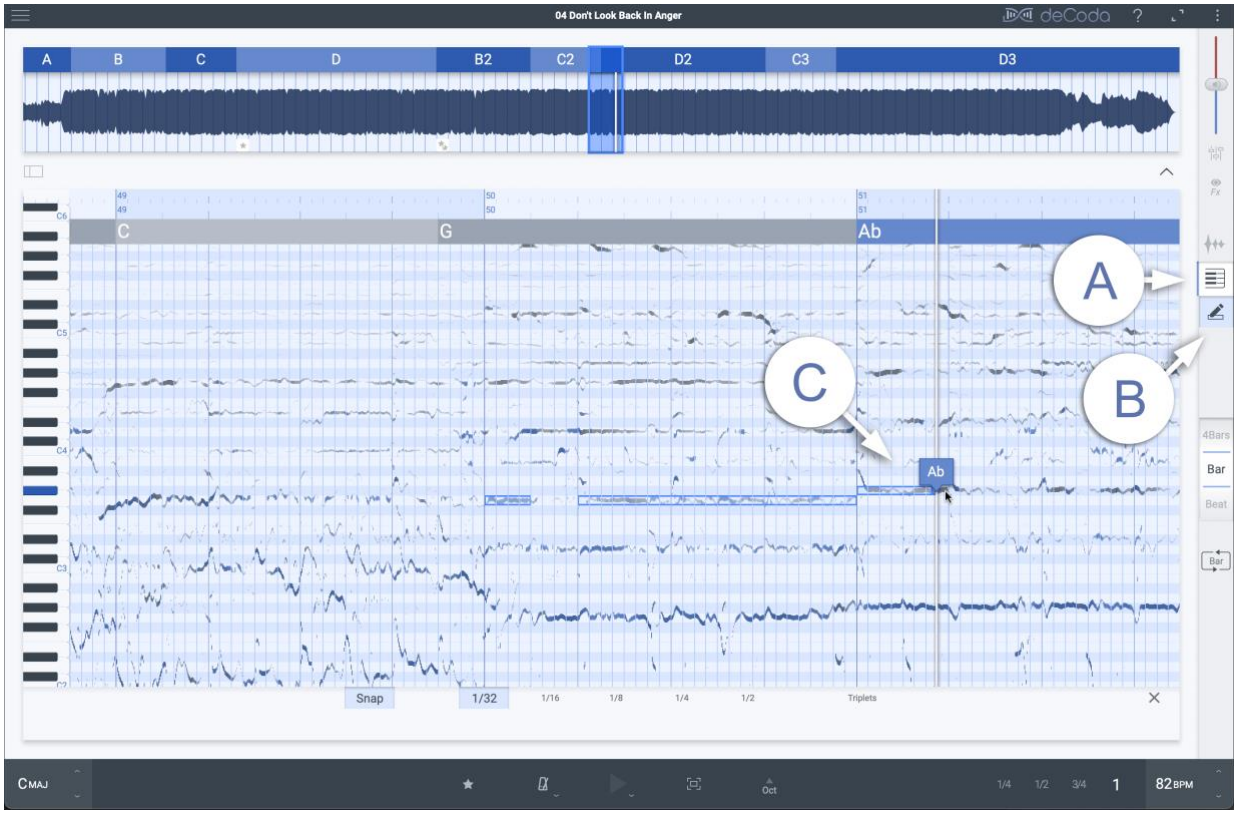


Figure 27: Piano Roll View and Note Editing

- **Add a note:** Click anywhere in the Piano Roll View's grid. This adds a note according to the currently set quantization length. Long-press on the Loop View at the position where you want to start the note. Then drag to the right to the position where you want to end it.
- **Move a note:** Simply drag it to the desired position.
- **Change note length:** Drag the start or end of the note to the desired position.
- **Remove a note:** Simply click on it.

While you edit notes, you will hear a "frozen" version of the song audio at the current mouse position. You will also hear the note you're currently editing. This gives you some feedback whether the note is matching what is really going on in the song at that moment.

If Snap is enabled the start and end positions of a note will always snap to a grid. The spacing of this grid can be set on the toolbar at the bottom of the Loop View. You can set it to note lengths between 1/2 and 1/32. Additionally, the grid can be set to triplets. Snapping can be toggled with the Snap button. For toggling the snapping on the fly you can also use the ALT key.

11 Focus

Focus (not available in *deCoda* LE) is a powerful feature for learning and transcribing parts so you can practice them on your instrument. Figuring out what notes are played by a particular instrument can be difficult, when other instruments are playing at the same time. Focus allows you to mask out all but a very specific portion of the music, kind of like a spotlight shining on a darkened stage.

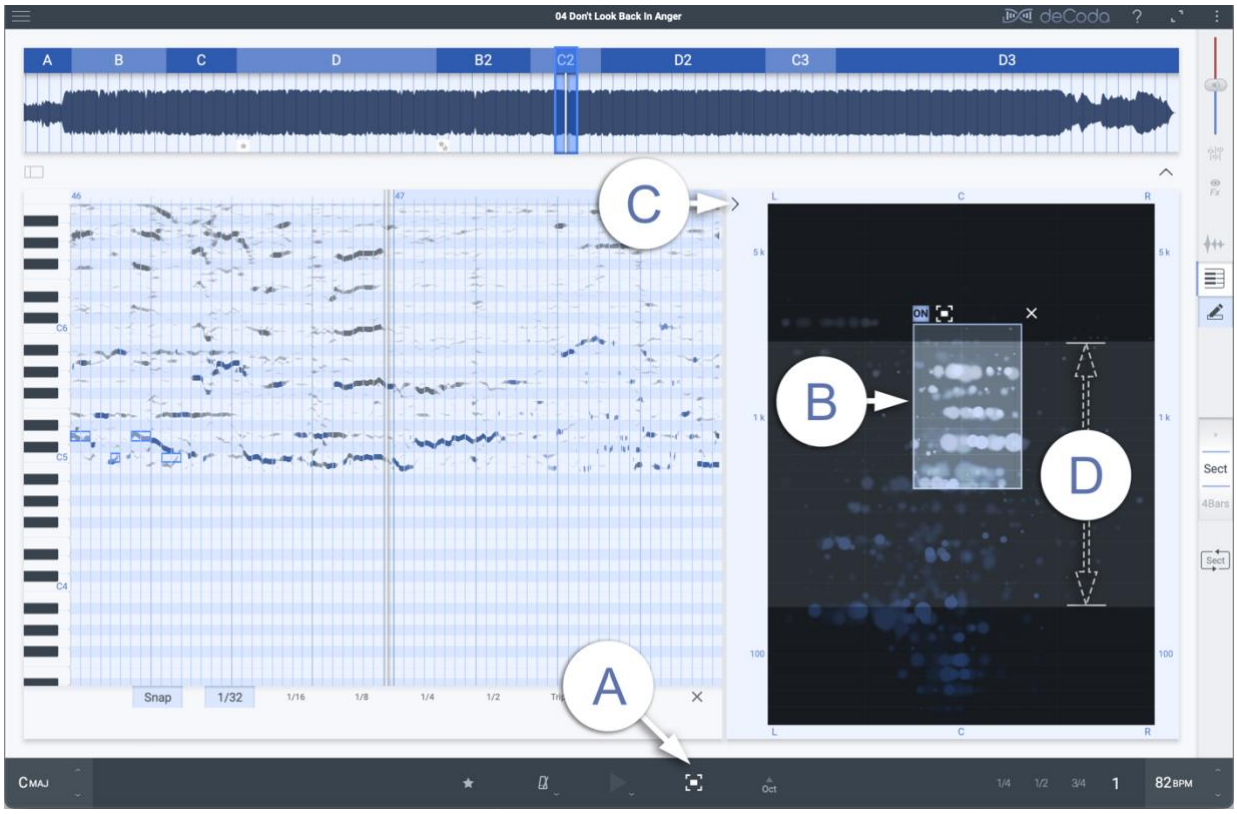


Figure 28: Focus View

Focus has a unique way to visualize what you're hearing while playing the song: Glowing circles on an X/Y plane represent audible components in the music. The vertical positions of the circles correspond to the components' frequencies; bass frequencies are visualized at the bottom and higher frequencies are at the top. The horizontal positions of the circles correspond to the sounds' locations in the stereo field.

Enable Focus mode: Click on the Play Bar's Focus [▭] icon **(A)**, then simply select an area in the plane by dragging a rectangle over it **(B)**. Now everything outside the selected Focus area will be filtered and sound quieter.

Invert Focus: If you click on the [▭] icon again, the audio inside the selected area is attenuated and the audio outside the selection is audible instead.

Clicking the [▭] icon a third time disables Focus and restores full audio playback.

While Focus mode is active—normally or inverted—you can collapse the Focus pane by clicking on the **[>]** icon **(C)** in the top-left corner. You can also resize the rectangle by dragging on the edges or corners or move the rectangle around by clicking inside the rectangle and dragging it to a new location.

There is an important interplay between Focus and the Piano Roll view: If you set the loop to 4 bars or less, some pitch lines in the Piano Roll will be displayed in blue as described in Section 10.1. In this case, the Focus selection will be applied to what is displayed in the Piano Roll view. The blue lines that are representing the potential pitches will be more accurate now, as there's less "crosstalk" from other sounds which have been filtered out using Focus. To help you make the connection between what is visible in Piano Roll View and what is selected with Focus, you'll see a light gray box **(D)** in the Focus window. Its width represents the frequency range of notes visible in the Piano Roll view. If you shift or zoom the Piano Roll, it'll move and size accordingly.

12 Export

You access the Project export options by clicking the **[⋮]** icon in the top right corner of the *deCoda* window *(* = Feature not available in deCoda LE)* :

- **Project:** Saves the whole Project into a single file including the audio (if enabled in Settings) and all edits like sections, chords, beat grid and notes. Exported Projects can be imported in the same way as loading an audio file.
- **Audio Loop*:** Saves the currently selected loop as WAV file. It is exported exactly as you hear it playing back: including tempo & key changes and Focus selection.
- **MIDI Notes*:** Saves MIDI notes you added in Piano Roll View as MIDI file. You can export the whole song or the currently selected loop. The exported MIDI file also contains the song tempo and all included sections as markers.
- **MIDI Chords*:** Saves the chords as MIDI file. You can choose to export the whole song or the currently selected loop. The MIDI file also contains the song tempo as well as all included sections as markers.
- **Lead Sheet*:** Saves the chord progression as lead sheet in plain text or ChordPro compatible text file format. In case you have ChordPro installed, you can choose to directly call ChordPro to generate a PDF.

> **NOTE:** For more information about ChordPro, look here: https://chordpro.org/

13 Help

deCoda features a help system that can provide information about most user interface elements. You access help by clicking on the **[?]** in the header **(A)**.

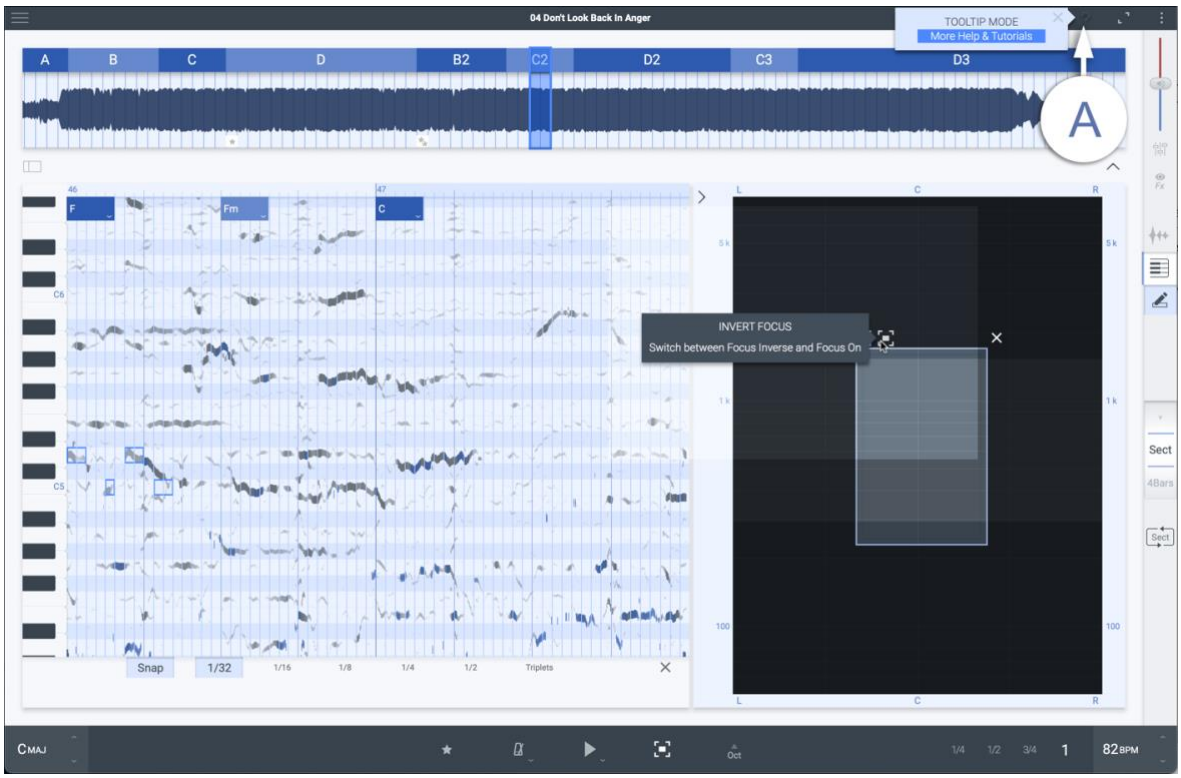


Figure 29: Help and Tooltips

13.1 Tooltip Help

If you click on the header's **[?] (A)**, and then hover over interface elements as shown above, you'll get Tooltips with parameter descriptions. When you now click on „**More Help & Tutorials"** in the Tooltip Mode dialogue, you'll be able to access an overlay with more detailed UI parameter information.

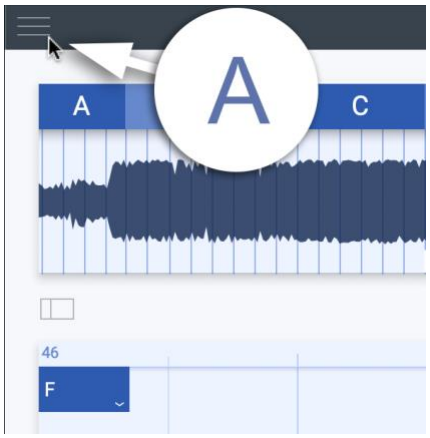
13.2 Tutorials

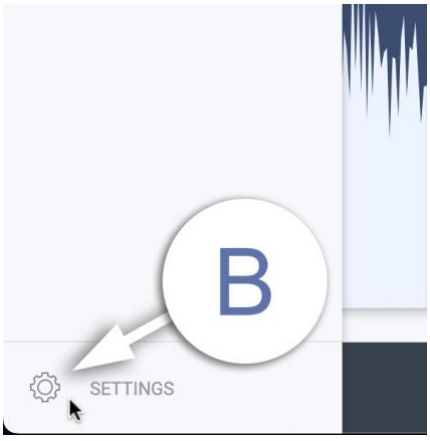
Tutorials can be accessed via the help mode as described above. In help mode, click on **[Show Tutorials]** in the top center of the screen. This opens the welcome screen with a list of tutorial videos.
Below the video list there is a **[First steps]** button. Clicking on it starts an interactive tutorial that guides you through the basic usage of *deCoda*.

14 Settings

The **Settings** screen is accessed by first clicking on the top left Burger menu in the UI **(A)** and then clicking on the cog wheel **(B)** at the bottom of the menu that opens up. Settings are grouped in collapsible sections.

1. **2.**





Let's run through the settings from top-to-bottom in the following sections:

(Please note that the LE version does not have all settings.)

14.1 General

14.1.1 Show tutorial screen on startup

If you previously disabled the startup screen, enable this to bring it back.

14.1.2 Follow play cursor on zoom step size change

If disabled, applying the step size to the loop length only modifies the loop end. If enabled and playing back, the loop will be shifted after applying the step size to ensure it contains the play cursor.

14.1.3 Restart playback on loop start change

Set the play cursor to the loop start if the loop start changes.

14.1.4 Restore all parameters upon reloading a bookmark

If disabled, only restores the loop bounds. If enabled, restores all settings listed under „*Update all parameters of selected bookmark*“.

14.1.5 Update all parameters of selected Bookmark

When the current loop matches a bookmark, the following setting changes are saved in the bookmark:

- Tempo and key
- Focus settings
- Metronome settings
- Step size
- Waveform or Piano Roll view
- Visibility of chords

14.1.6 Auto-Prelisten while editing chords

When enabled a synthesizer plays the selected chord shortly when hovering over or clicking in the chord drop-down menu. *(not available in LE)*

14.1.7 Colour theme

Choose between a light and dark user interface theme. *deCoda* must be restarted after changing this.

14.1.8 Chord Bar

Changes the appearance of the chords during playback.

- **[S]:** No change. Display as marker labels.
- **[M]:** Display chords in a scrolling banner-like style better suited for playing along.
- **[L]:** Same as M, but bigger.

14.1.9 Playback tuning frequency

deCoda automatically detects an opened song’s tuning and adjusts its pitch to match the tuning frequency set here. This prevents an out-of-tune sound while playing along if e.g. your guitar is tuned just a tad differently than the song.

14.1.10 Note level when scrubbing

Attenuate the note synthesizer when scrubbing (long-press on the Loop View to freeze playback at that position). This might help to better hear the original notes in relation to the synthesized ones while editing notes. *(not available in LE)*

14.2 Plug-in Settings

14.2.1 Plug-in search path

By default, the standard plug-in search paths for VST/VST3 and AU (Mac only) plug-ins are set. New paths can be added by clicking on **[Add]** and choosing a directory from the dialog window. Remove a path by selecting it and then clicking **[Del]**. Use the **[Scan]** button to scan the paths for newly-installed plug-ins.

14.2.2 Default input plug-in

The default plug-in for the audio input. This is the initial plug-in that is selected when you load a new song into *deCoda*. If installed AmpliTube is chosen by default.

14.2.3 Pin plug-in window on top

Select if the plug-in windows should be floating on top the *deCoda* UI or not. You can also set this at the top left of the plug-in window.

14.3 MIDI Export Settings *(not available in LE)*

The following settings are toggle-switches, that allow you to fine-tune what data is included in exported MIDI files - and are pretty much self-explanatory. If activated, the corresponding type is included in the file:

14.3.1 Export MIDI Markers

14.3.2 Export MIDI Tempo

14.3.3 Export MIDI Time Signature

14.3.4 Export MIDI Track Name

14.4 Default Apps *(not available in LE)*

14.4.1 Default App to open MIDI files

Set the app to open MIDI files. This is used when you export a MIDI file by selecting "MIDI - Loop & Open" from the Export menu.

14.4.2 Path to ChordPro

Path to the ChordPro executable. If ChordPro is installed in the default path, this is filled automatically.

14.5 Project Library Settings

14.5.1 Project library location

Change the location on disk where *deCoda* stores your Projects. If you change it, you have two options:

- **Change:** Just point *deCoda* to the new folder. If it is empty, create a new empty library there. If it contains an already existing library, use it.
- **Change & move:** Move the current library to the new folder.

14.5.2 Store original audio files in Project library

Copy the original audio file into the library when you initially load a new song into *deCoda*.

14.5.3 Embed original audio file in exported Projects

When exporting a Project, include the original audio file in the resulting Project file. **It is your own responsibility** to make sure you don't infringe a copyright!

14.6 Audio

Select which audio device and output channel *deCoda* should use. Click on **[Test]** to play a test tone to verify if your setup works correctly.

If **“Use system default audio devices”** is enabled, *deCoda* uses your operating system’s default input and output settings. It will automatically follow changes to the system device, like pluging in headphones. If you experience crackling noise or audio drop-outs during playback, try increasing the **“Buffer size”** value.

14.7 Keyboard Shortcuts

In this section you'll find all commands that can be triggered using a keyboard shortcut. Some Shortcuts are pre-assigned by default already, but of course you can also assign your own:

14.7.1 Add a shortcut

Click **[Add]** to the right of the command to which you want to add a keyboard shortcut, then press the desired key or key combination and click **[OK].**

14.7.2 Change a shortcut

Click on the shortcut you want to change and select **[Change]** in the resulting pop-up menu. Then press the desired key or key combination and click **[OK].**

14.7.3 Remove a shortcut

Click on the shortcut you want to remove and select **[Remove]** in the resulting pop-up menu.

> **NOTE:** You'll find a list of the pre-assigned shortcuts in the **deCoda and deCoda LE Quick Reference Guides**.

15 Demo Restrictions

The demo version of *deCoda* enables you to try out almost all the features. There are just two restrictions:

- *deCoda* closes after 5 minutes of audio playback.
- Export options are disabled.

16 Technical Specifications

Operating Systems	• macOS 10.15 and higher • Windows 10 & 11
CPU Architecture	• Windows: Intel 32- and 64-bit • macOS: Intel & M1 64-bit
Supported Audio File Formats	• WAV • AIFF • MP3 • M4A (macOS only)
Supported Plug-in Formats	• VST2 • VST3 • AU (macOS only)

17 Feedback & Support

Our website products.zplane.de always provides the latest information and news about our products. Any issues you encounter may either be addressed in the FAQ section of the appropriate product or reported directly to us via post or email. Before contacting us directly, please ensure you are using the latest version of the product. Please also make sure that your issue is not covered in the manual, the forum, the FAQ or elsewhere on our website.

If you cannot find answers using the methods above and need to contact us directly, please provide the following details to enable us to help you as fast as possible:

- Your registration information (such as the name of your User Account or your login e-mail)
- Your system specifications (computer hardware, operating system, audio interface,)
- The exact version number of the software (see the “About” box by clicking on Help [?] button located at the upper-right of the *deCoda* interface)
- Include a detailed description of your problem with a step-by-step description of what led up to it so we can try to reproduce the issue
- If you are having problems using a specific plug-in in *deCoda*, please also detail the plug-in name and version

Please use the following contact methods:

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Grunewaldstr. 83
D-10823 Berlin
Germany

∅ : products.zplane.de/support

@ : support@zplane.de