

DAVP4

Table of Contents

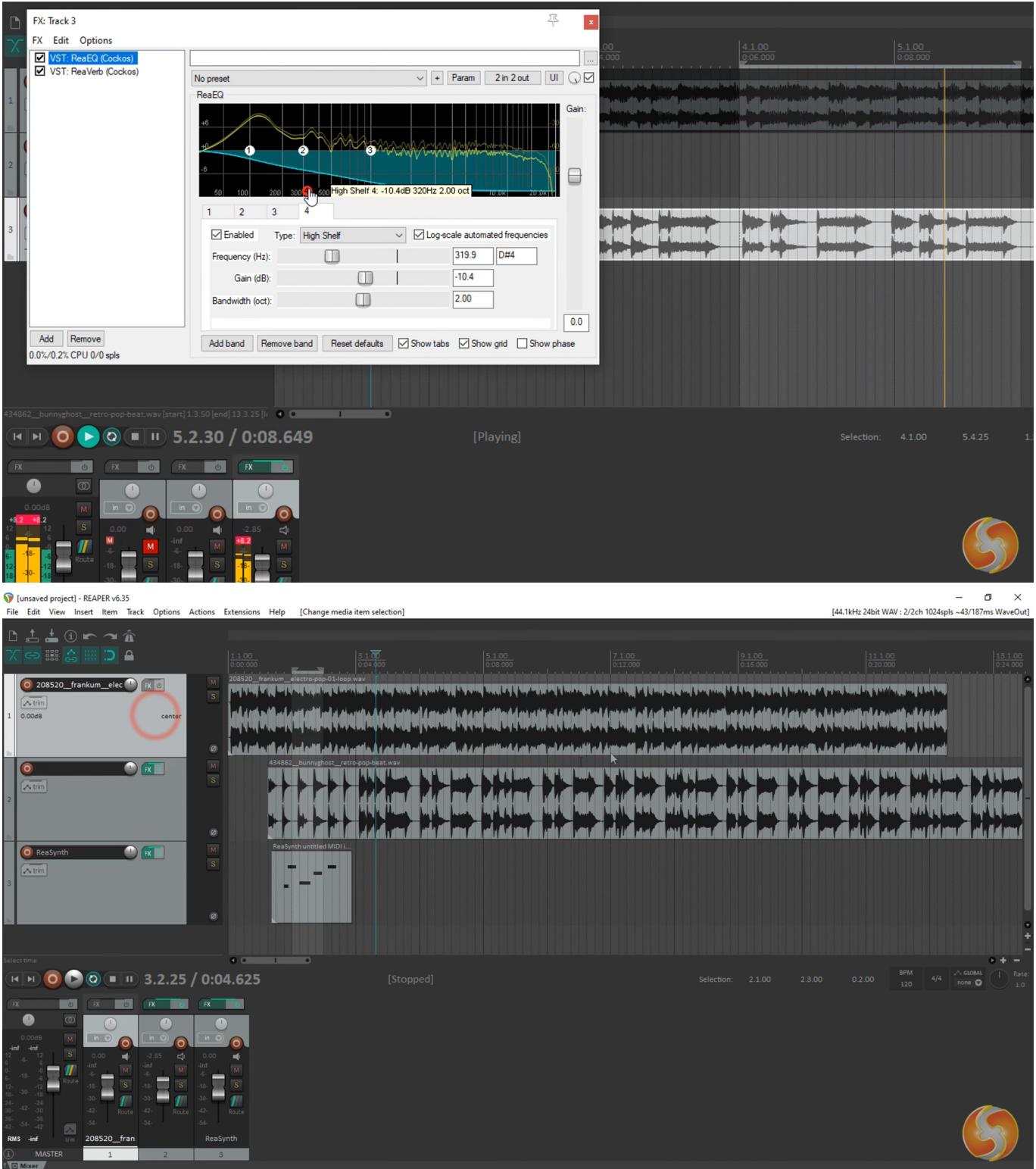
- DAVP4
 - Table of Contents
 - REAPER
 - What is Reaper
 - Interface Overview
 - Working with Audio Files
 - Recording Setup
 - Playback Controls
 - Project Settings
 - Editing Items
 - Track Management
 - Effects (FX)
 - MIDI Files
 - Saving and Exporting

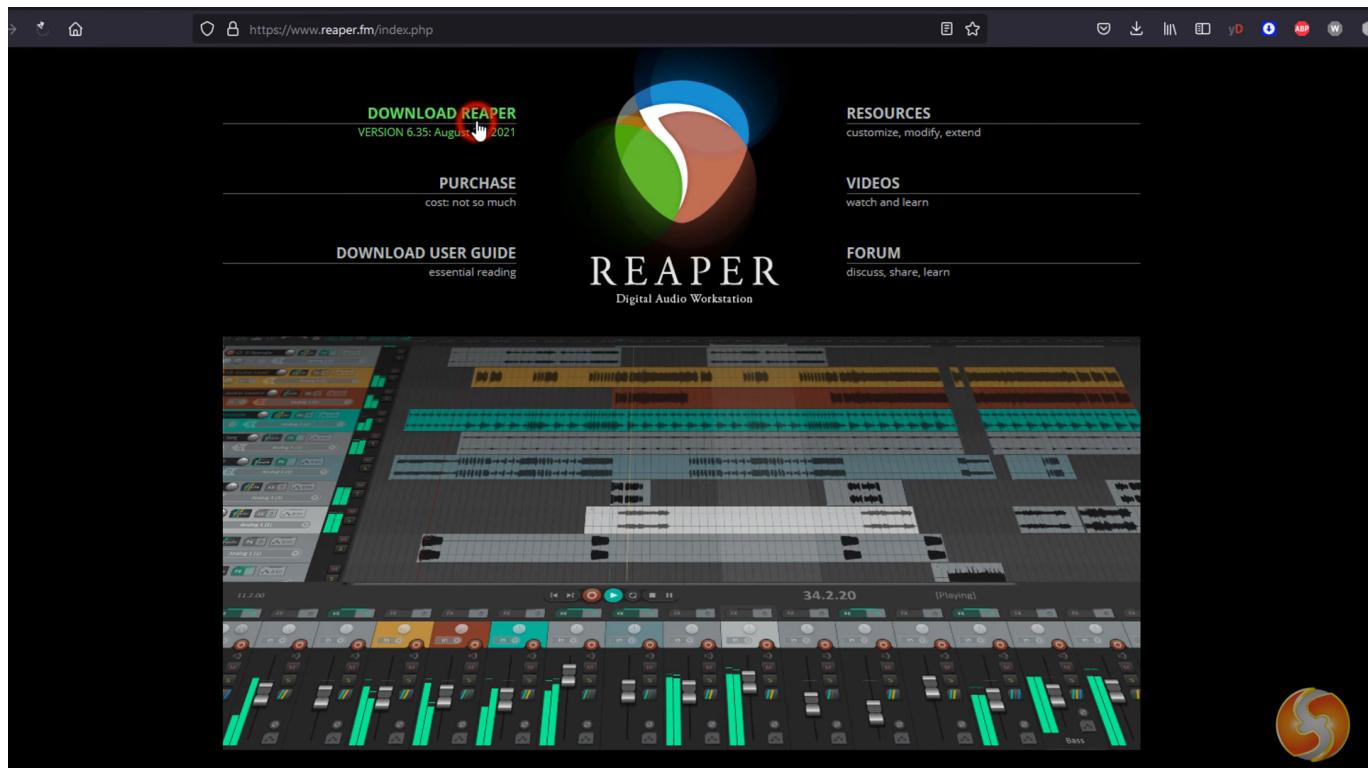
REAPER

- See REAPER Cheatsheet.pdf
- See REAPER Quick Start.pdf
- https://youtu.be/_shjd4GBILo?feature=shared

What is Reaper

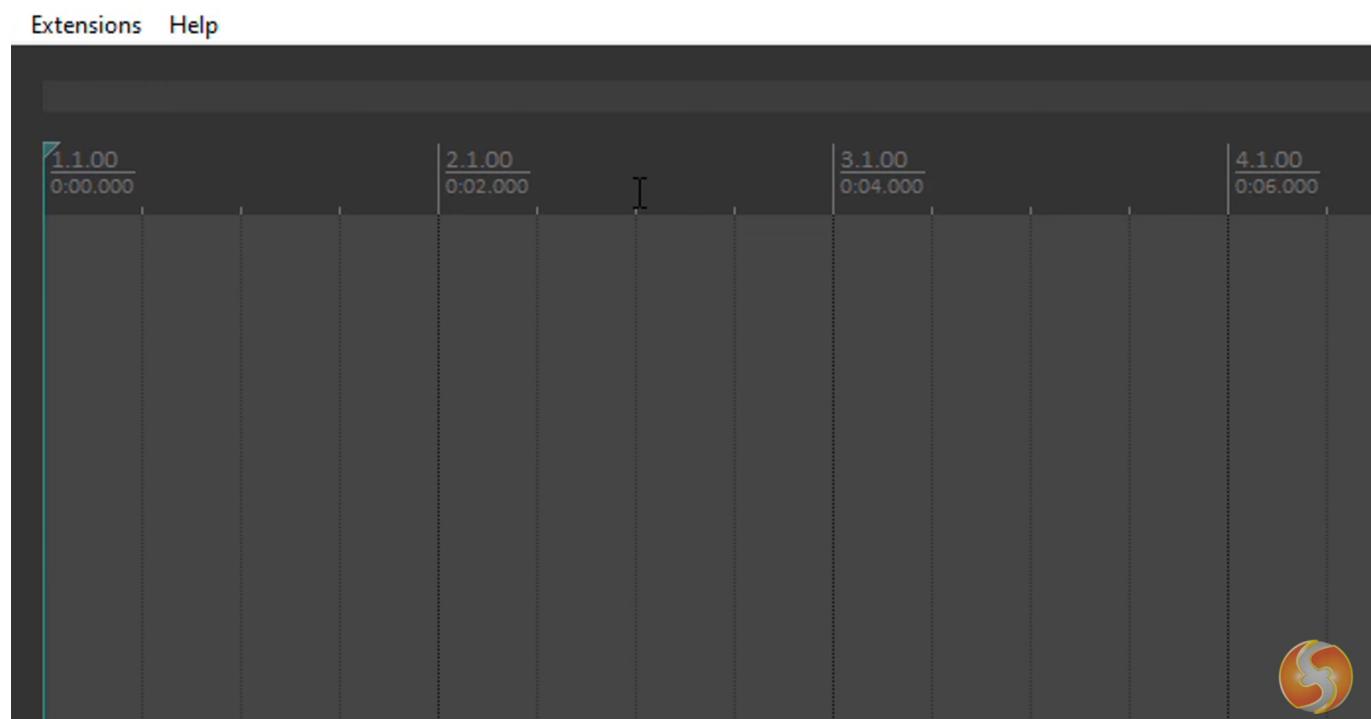
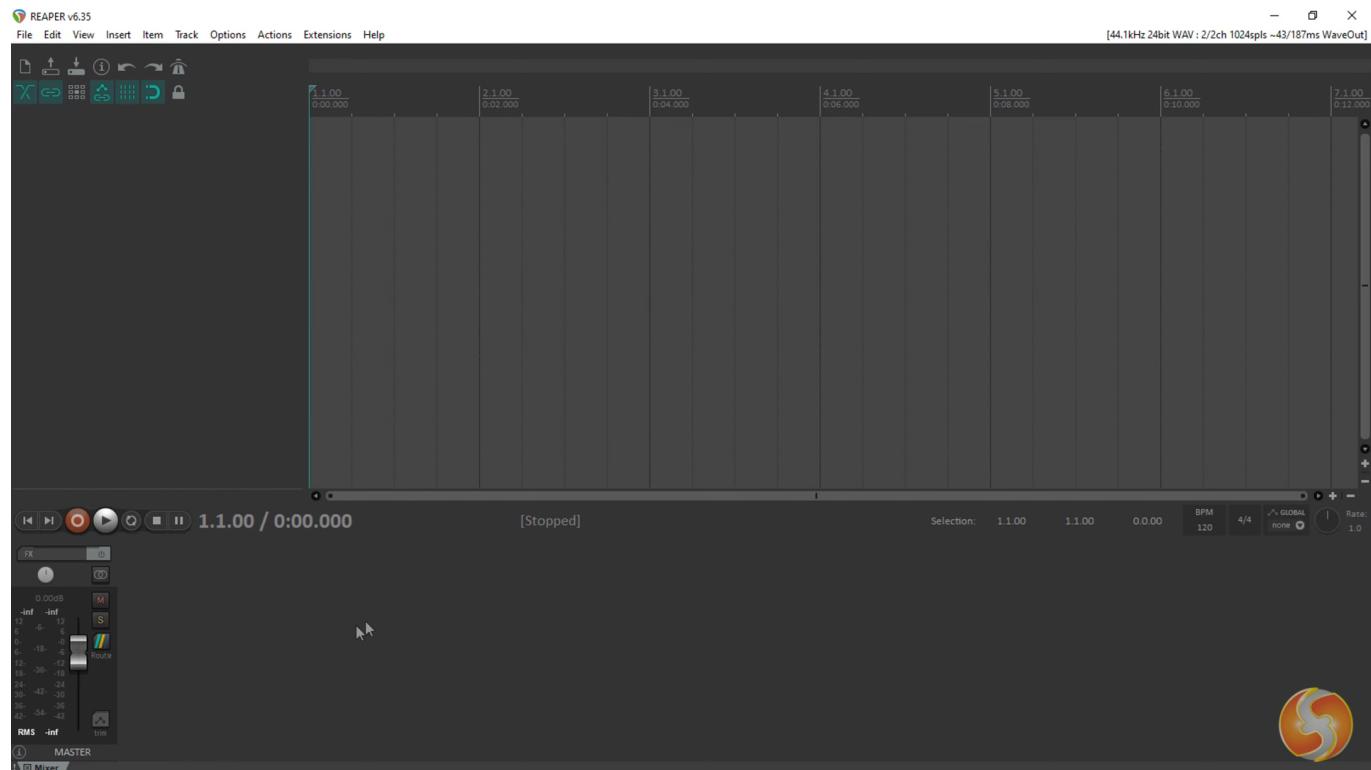
- Complete multi-track Digital Audio Workstation (DAW)
- Manages, edits, and combines samples, recordings, and MIDI compositions
- Available for Windows, MacOS, and Linux
- 60-day free trial before license required

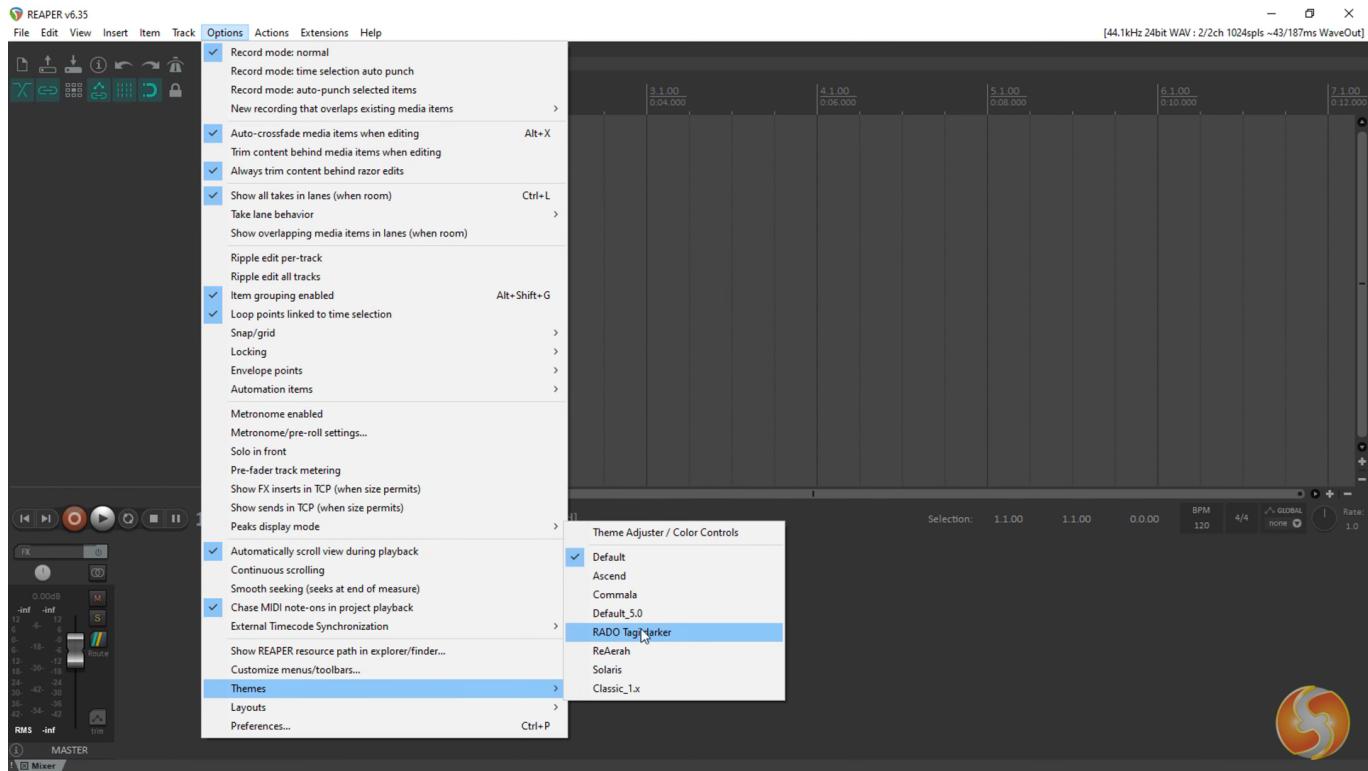




Interface Overview

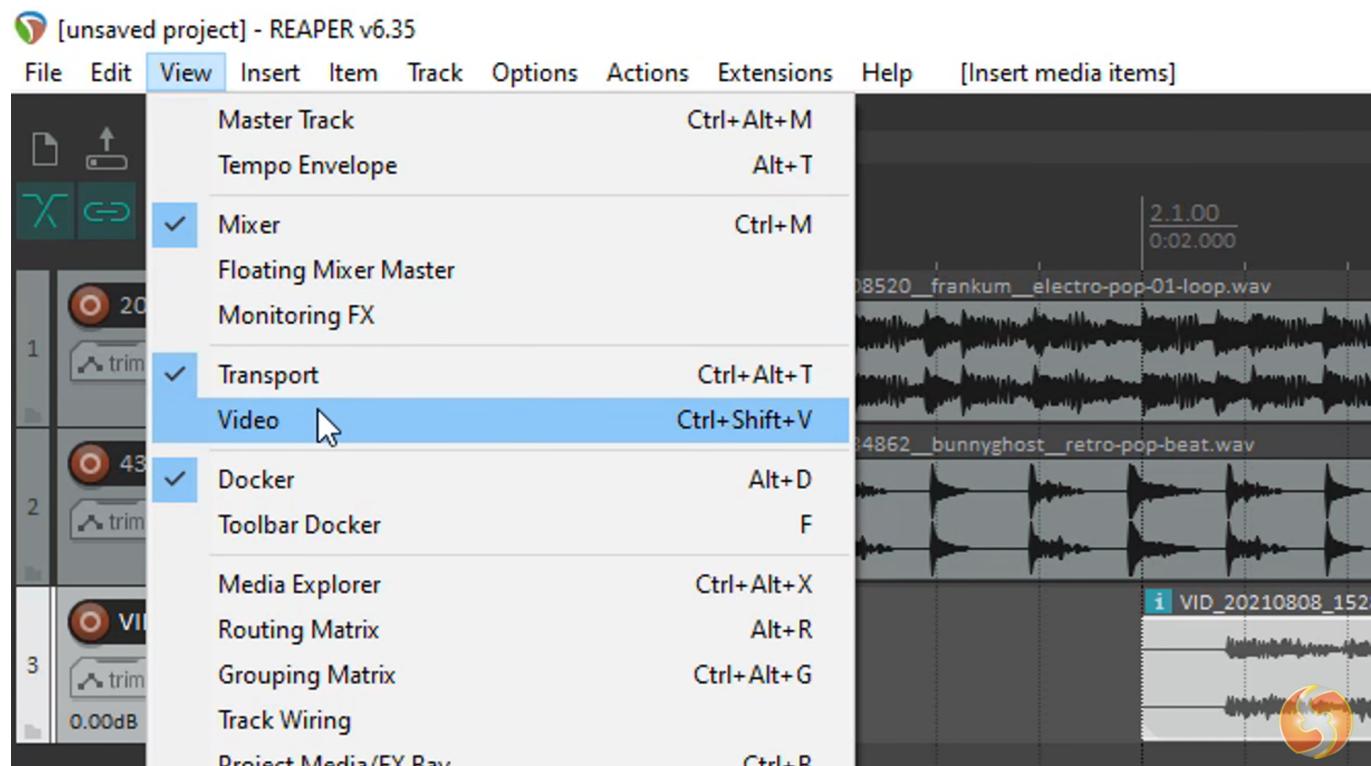
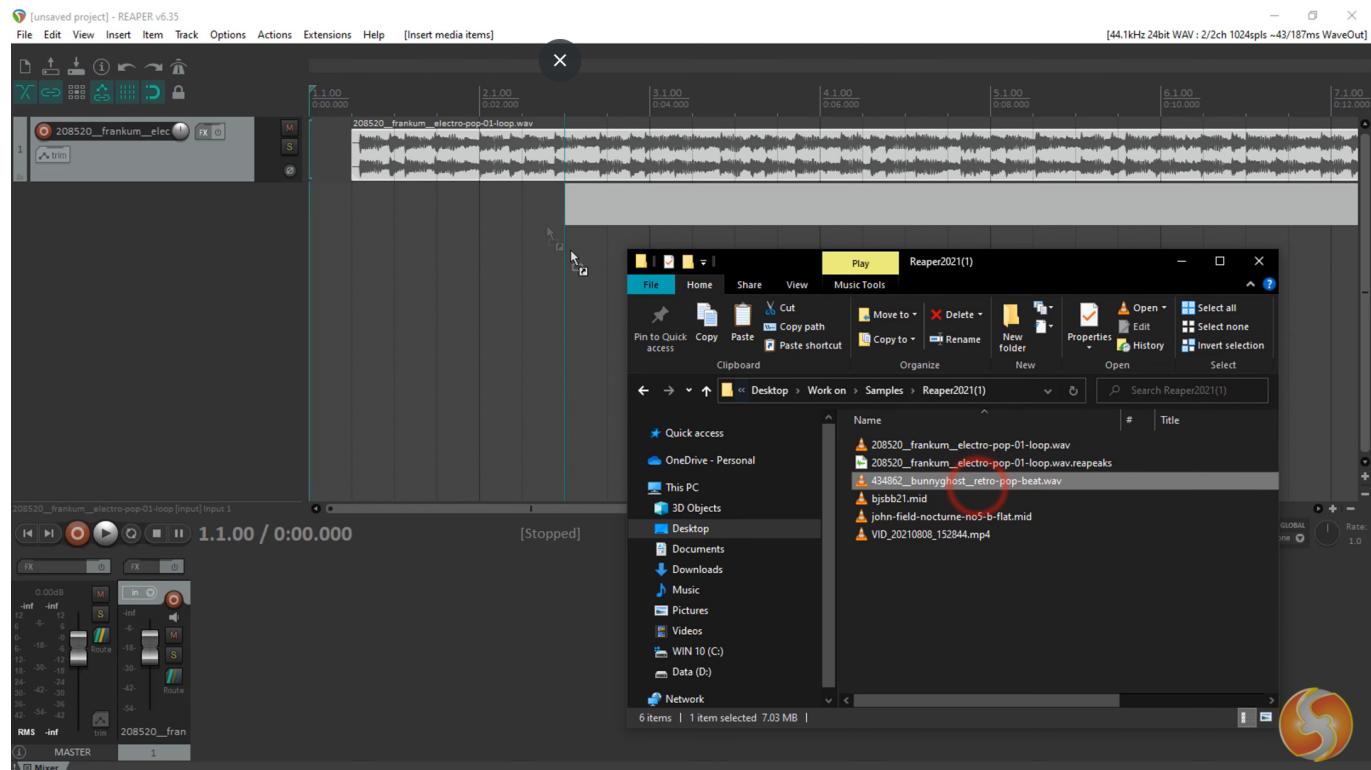
- Timeline/Arrangement window on top
- Mixer at bottom
- Timeline shows time in bars/beats (top) and seconds (bottom)
- Can change colors/style via Options > Themes

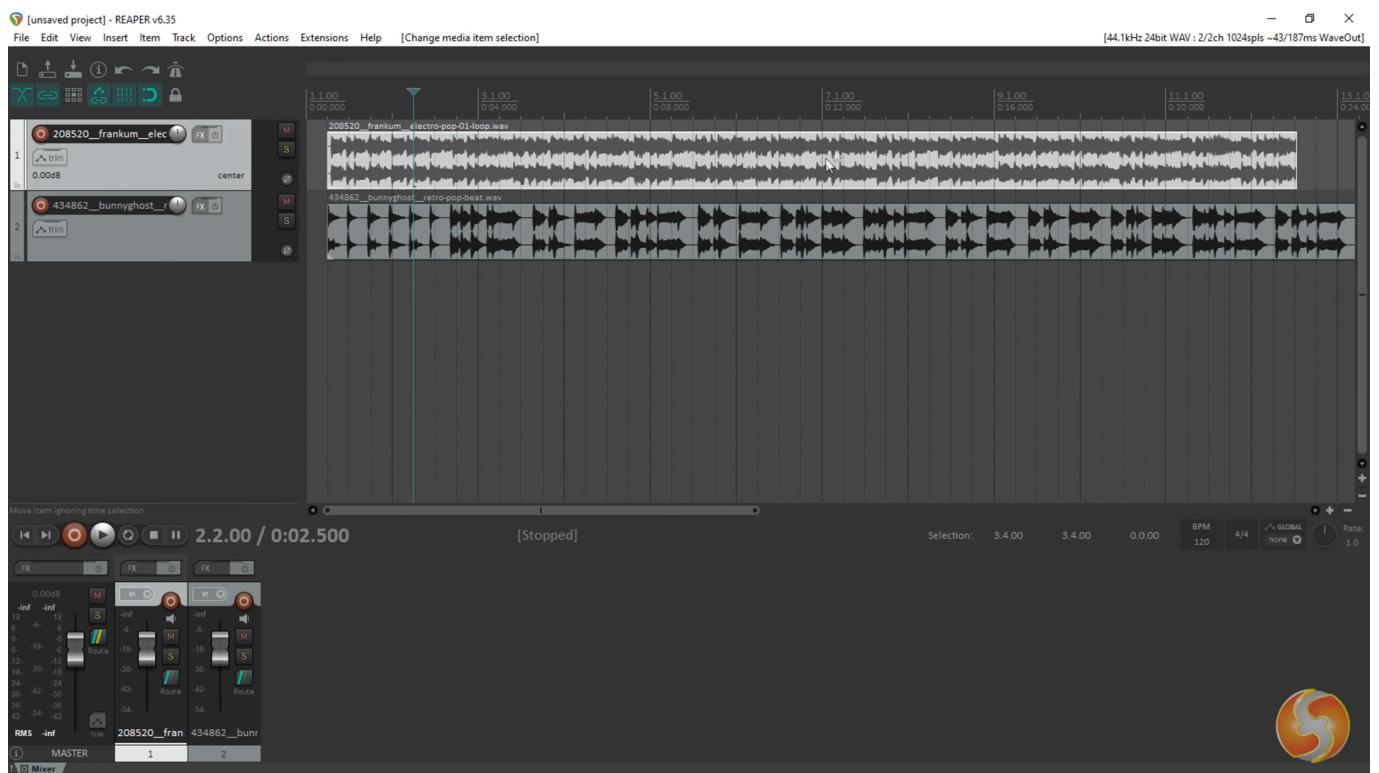
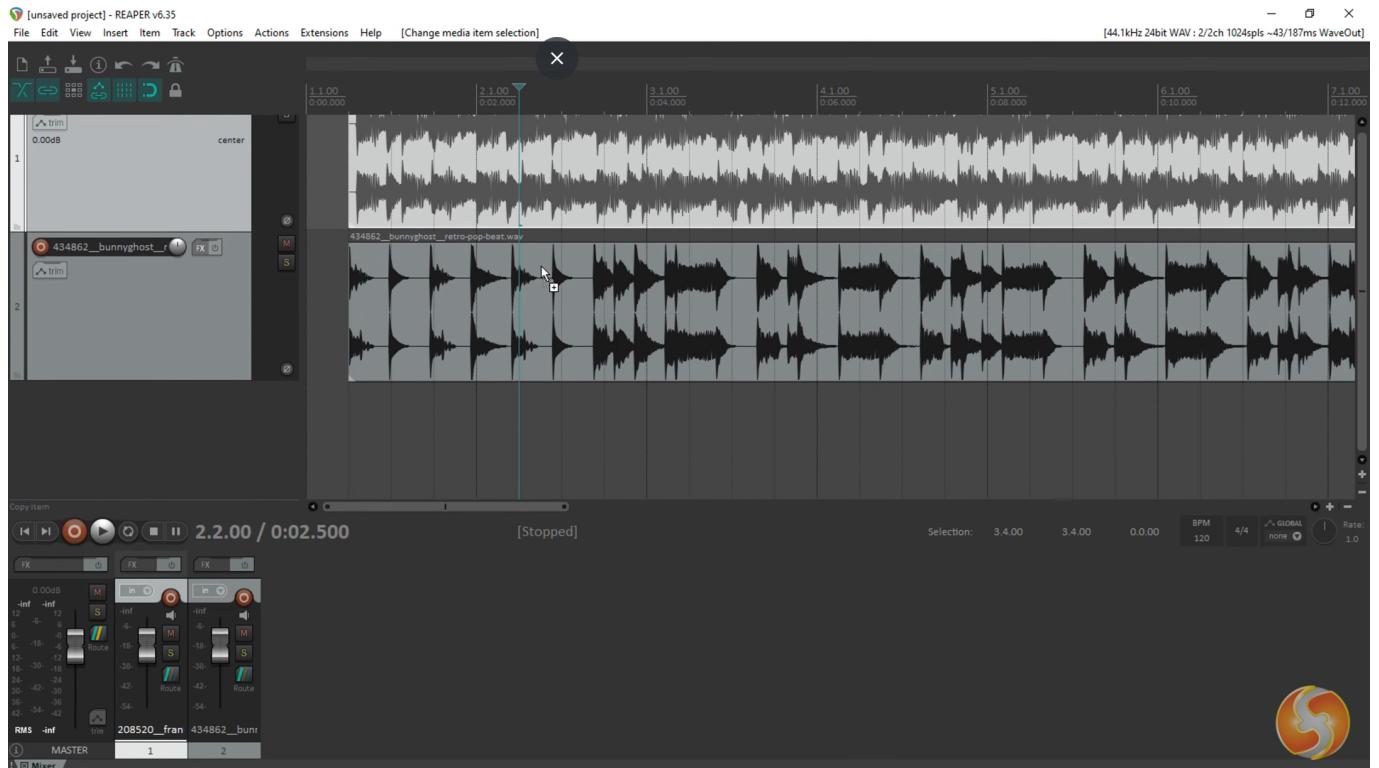


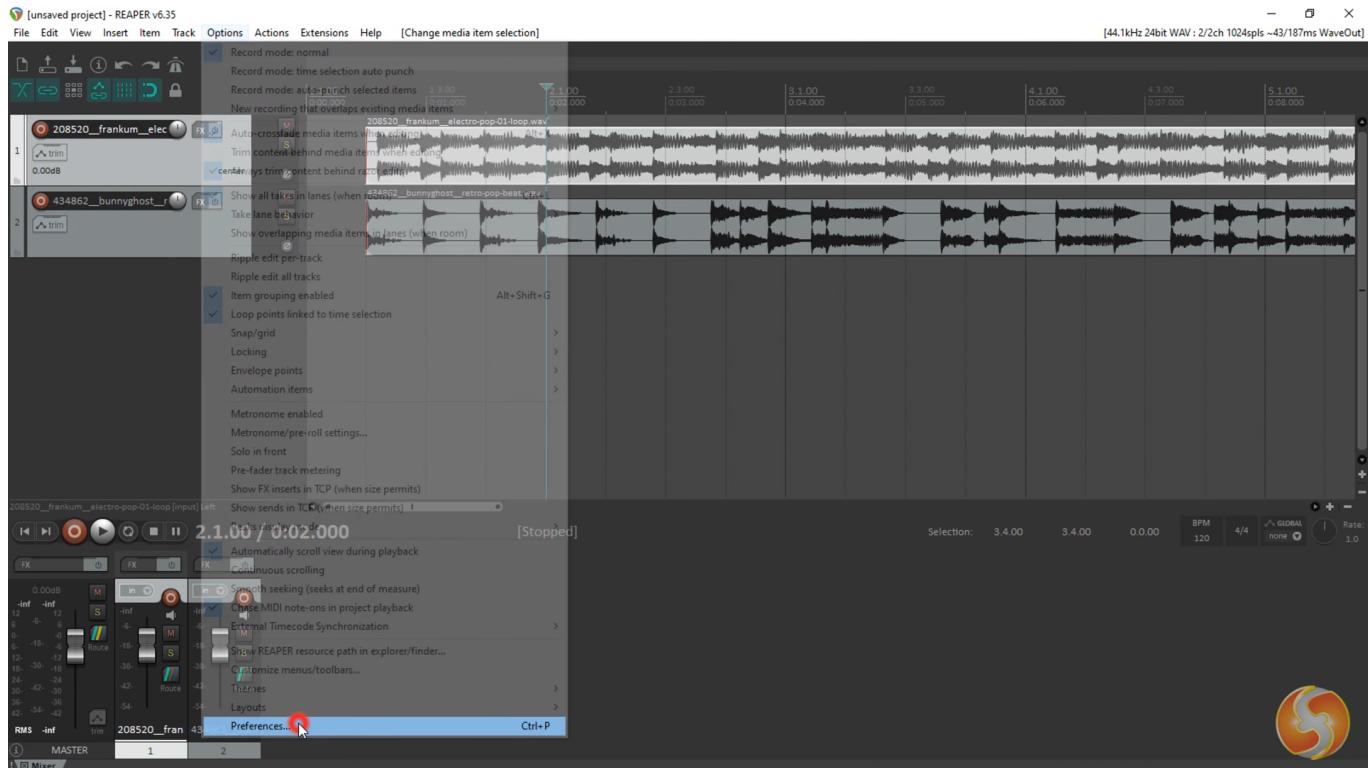


Working with Audio Files

- Import by drag and drop onto timeline
- Can import videos too (View > Video)
- Files appear as "Items" showing waveforms
- Items organized in "Tracks" (rows)
- Use mouse wheel + CTRL/CMD to extend tracks
- Zoom in/out with mouse wheel on green playhead
- Hold ALT/Option + mouse wheel to scroll through time

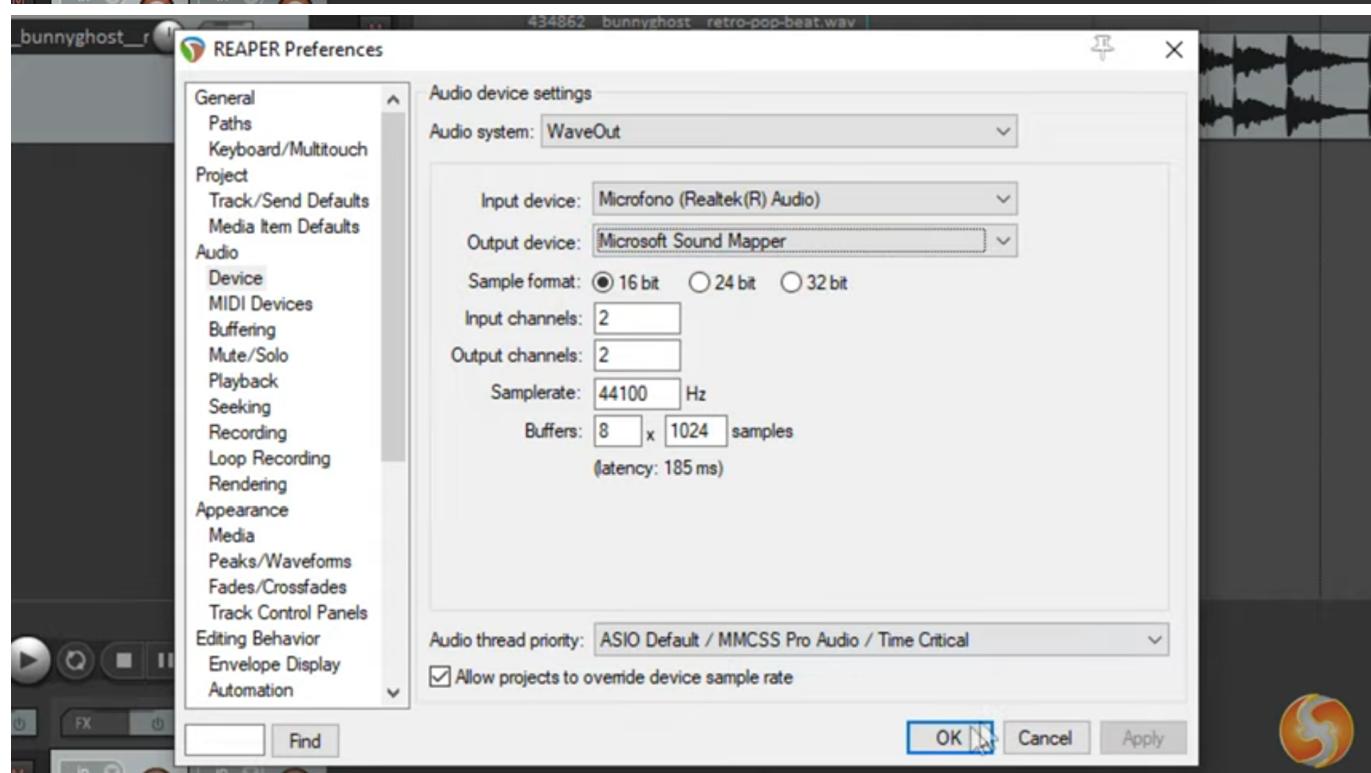
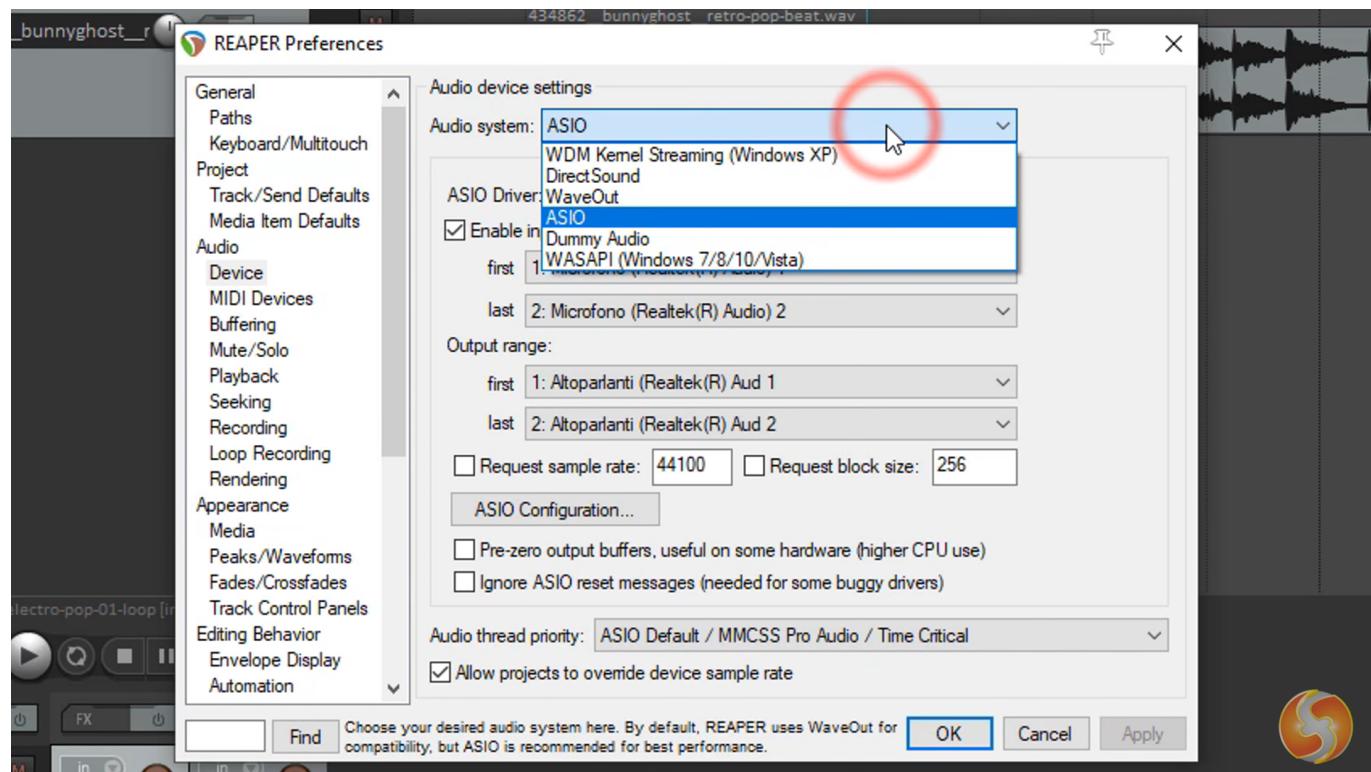


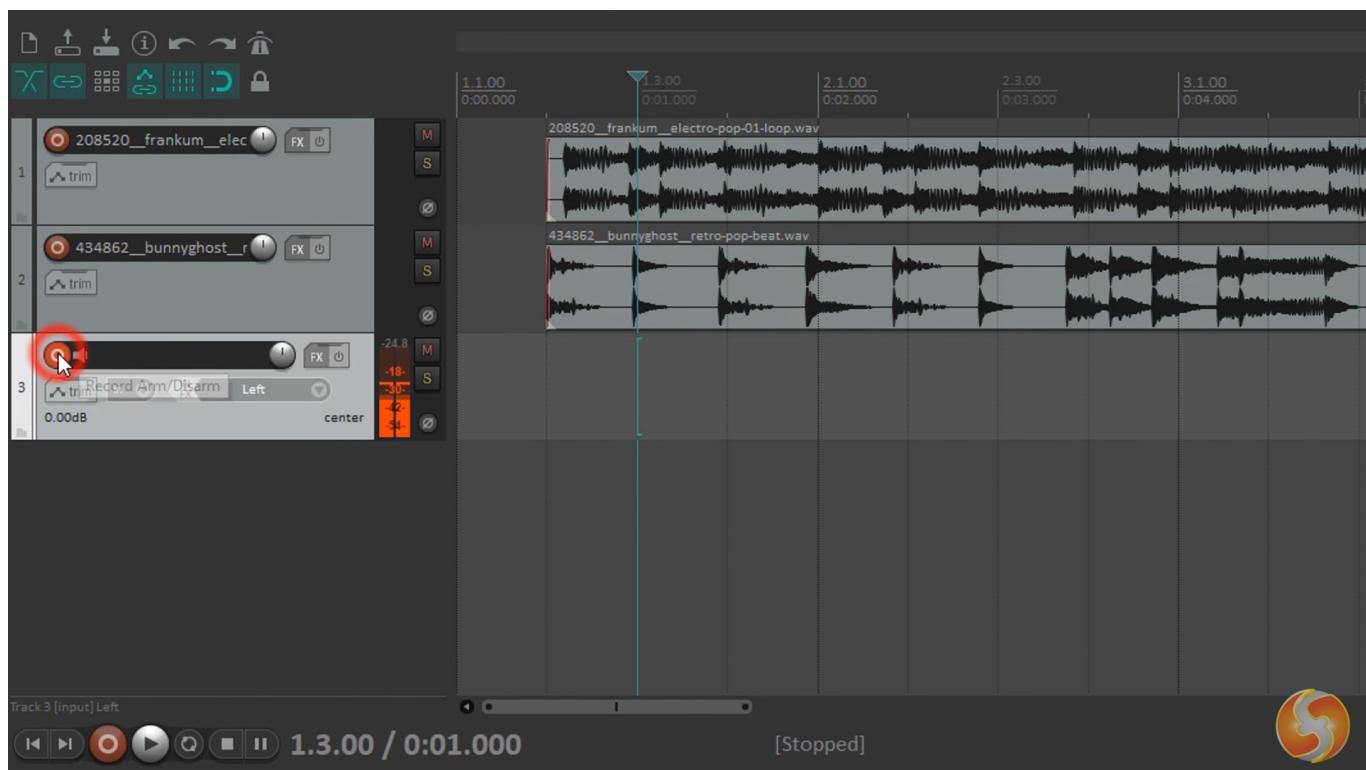
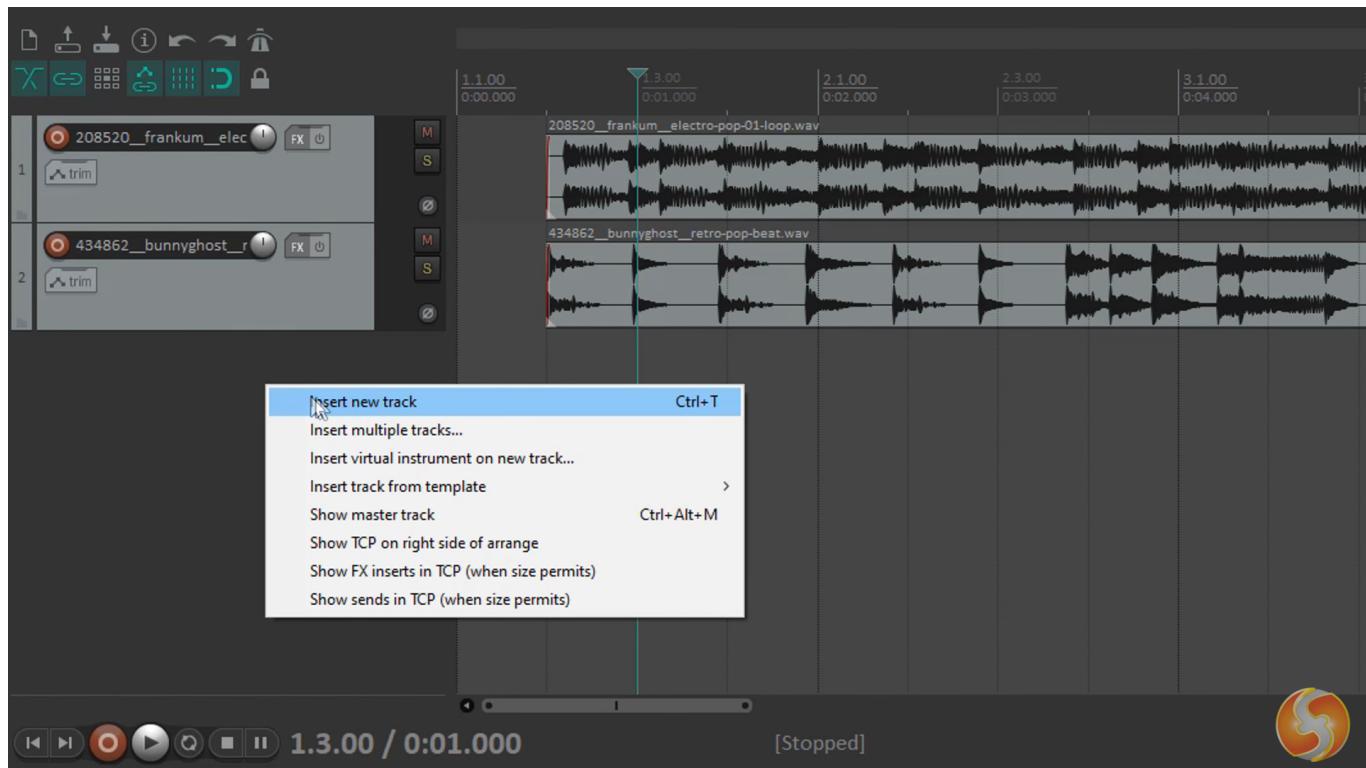


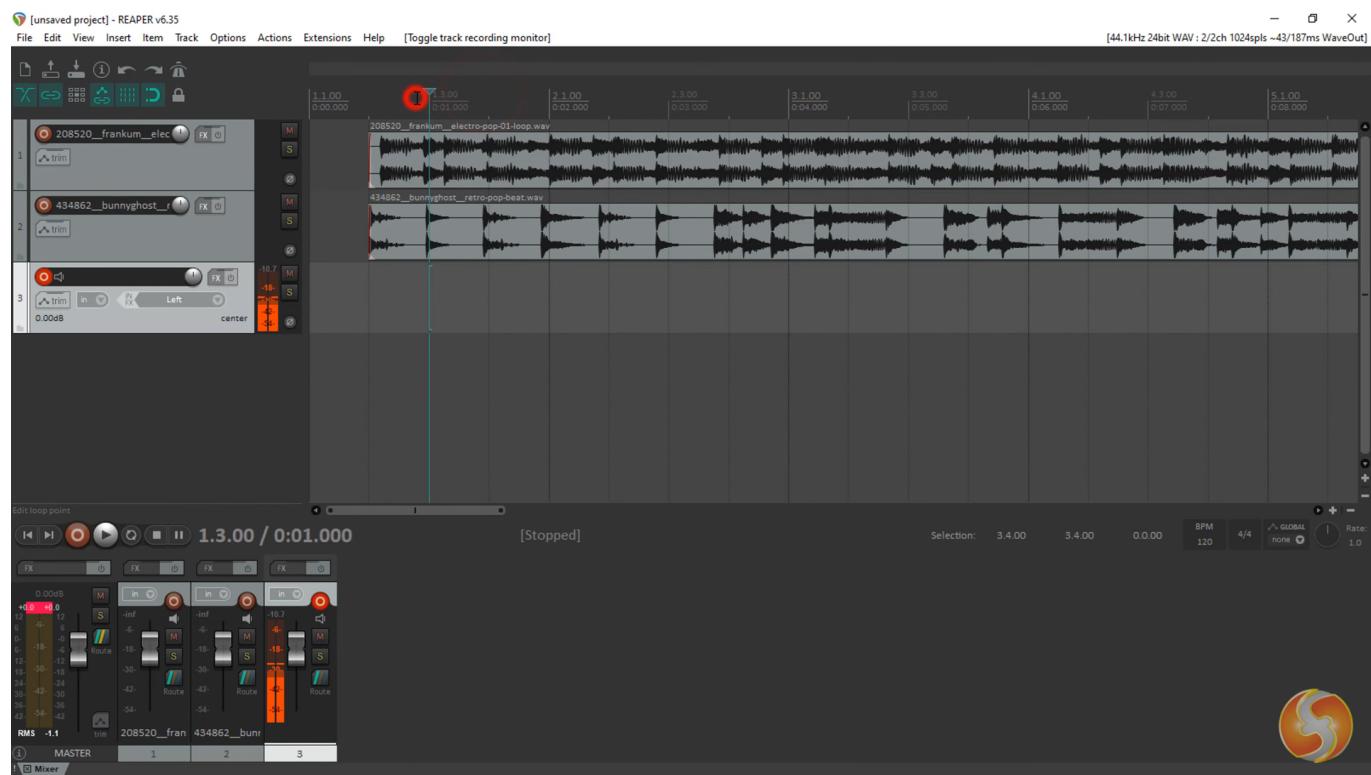
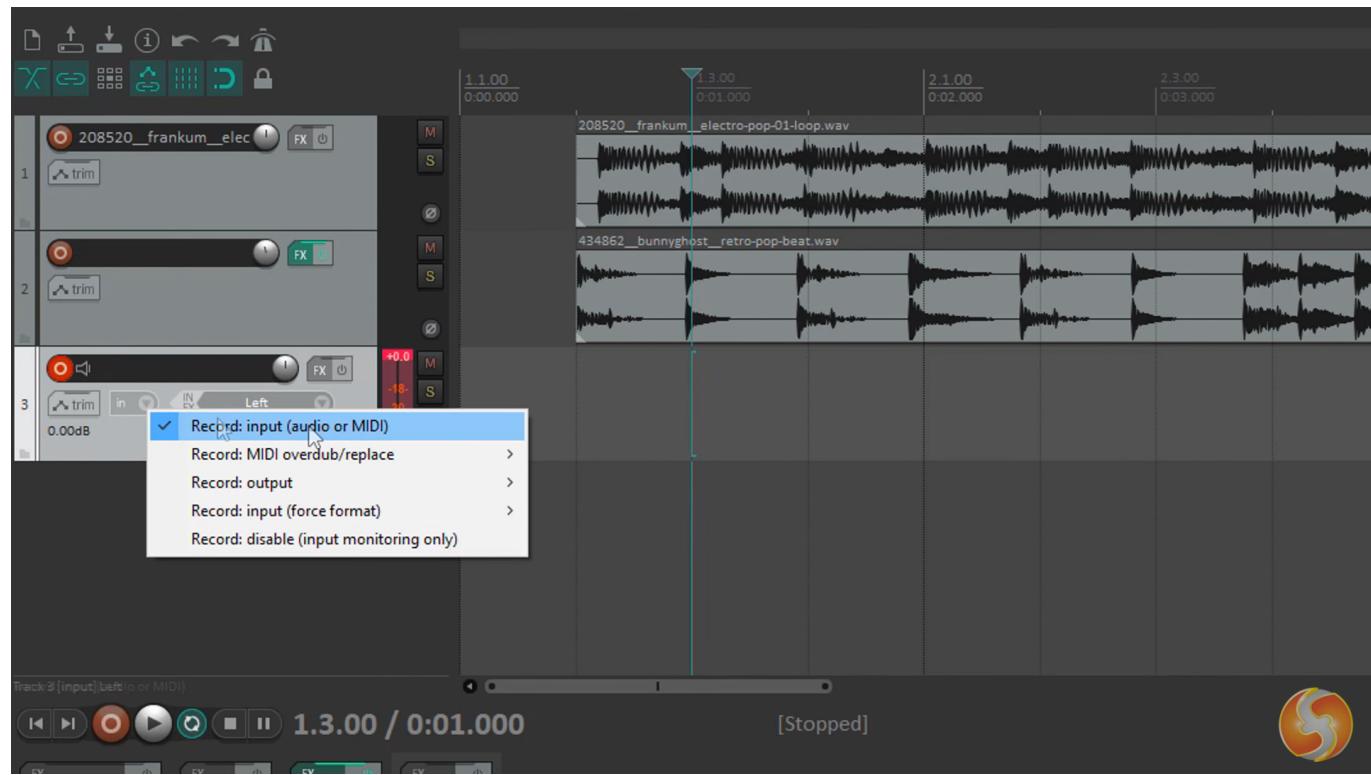


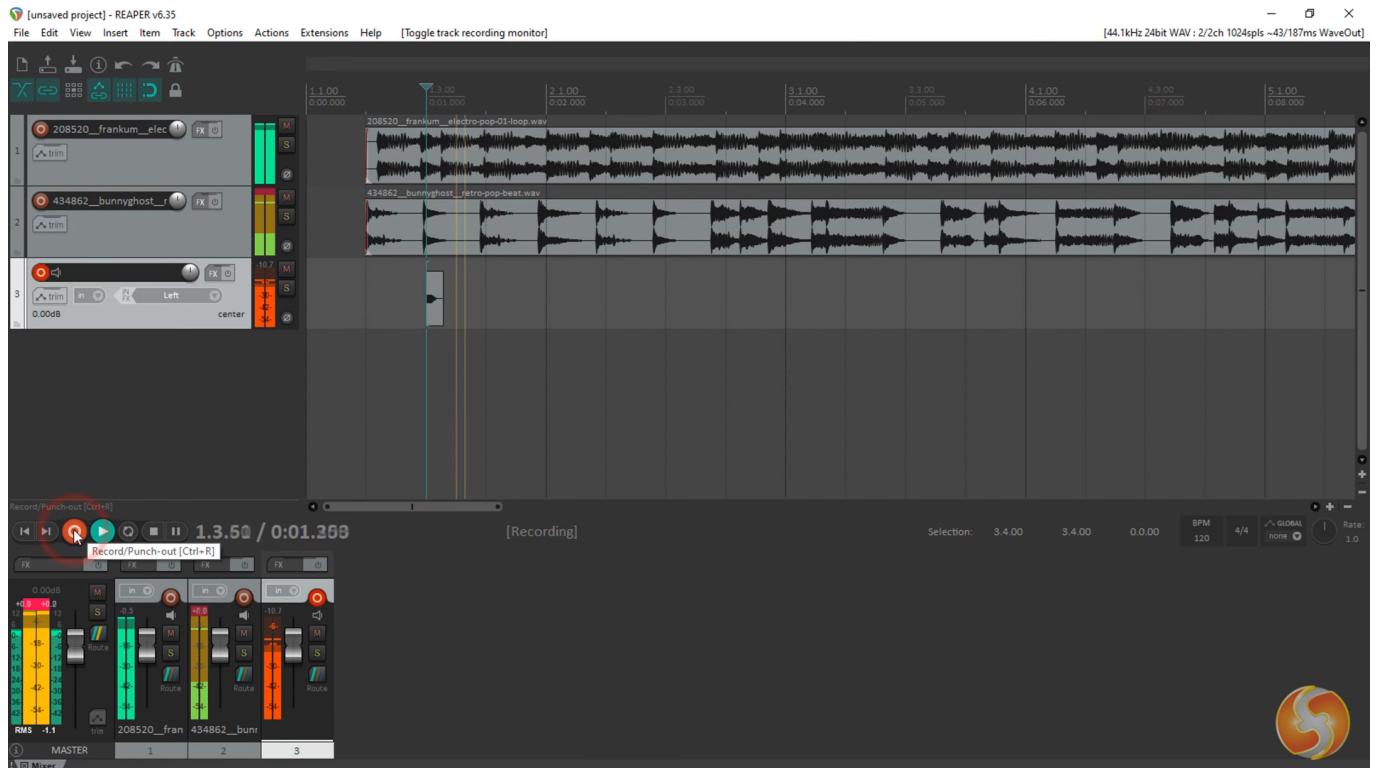
Recording Setup

- Go to Options > Preferences > Device
- Set Audio system (WaveOut for default, ASIO for professional low-latency)
- Select Input device (microphone/external instrument)
- Select Output device (speakers)
- Right-click left panel to insert new track
- Click Record Arm to enable track for recording
- Keep Record Monitoring ON to hear input (watch for feedback)
 - Keep Input and Output Devices Distant/Far or you will Hear Resonance
- Click timeline to set start point, use Record button to start/stop



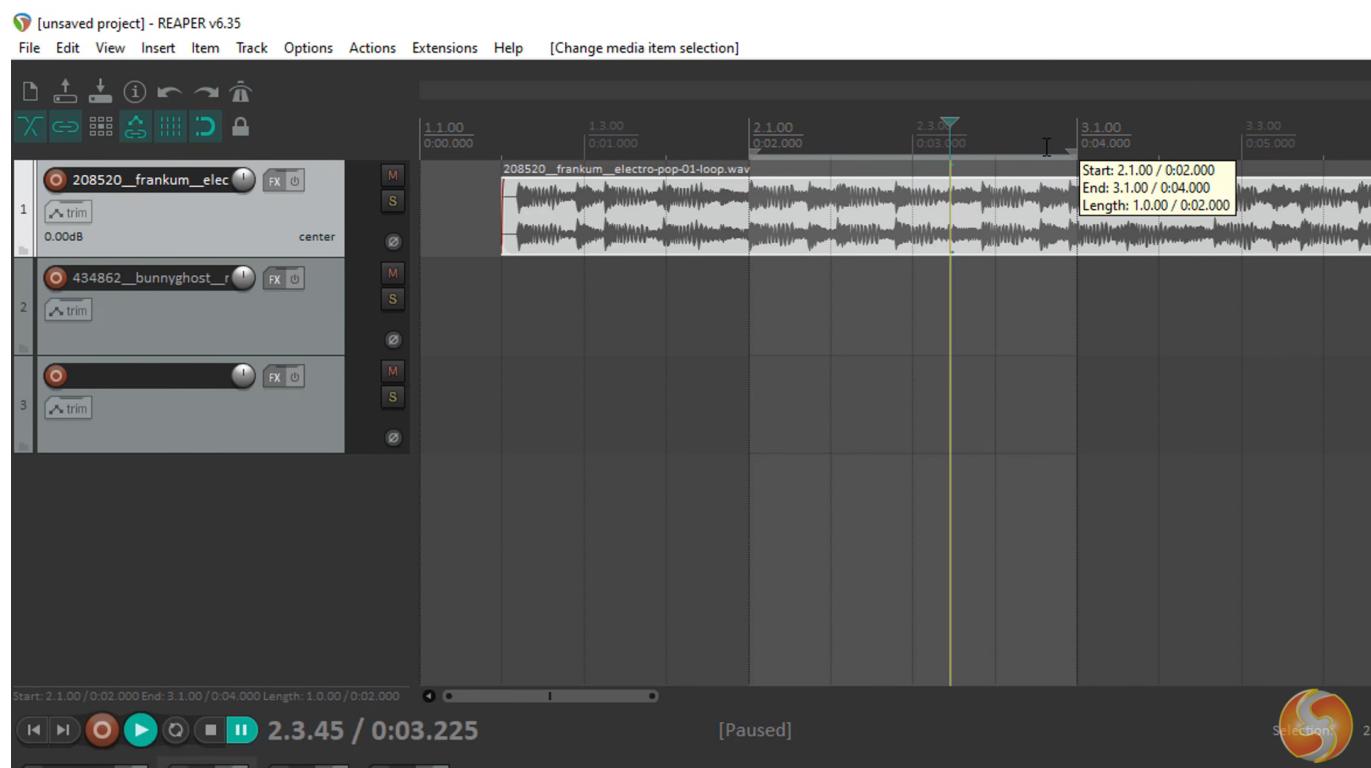
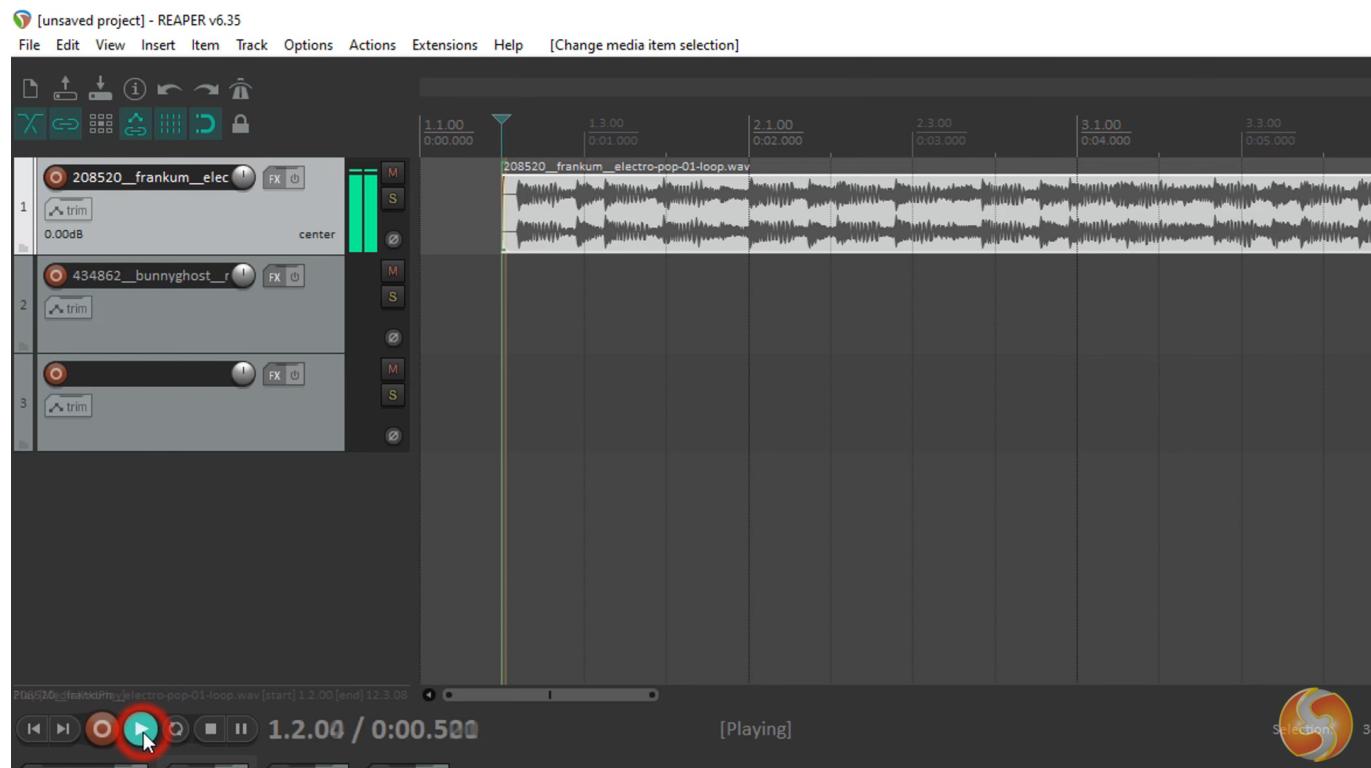


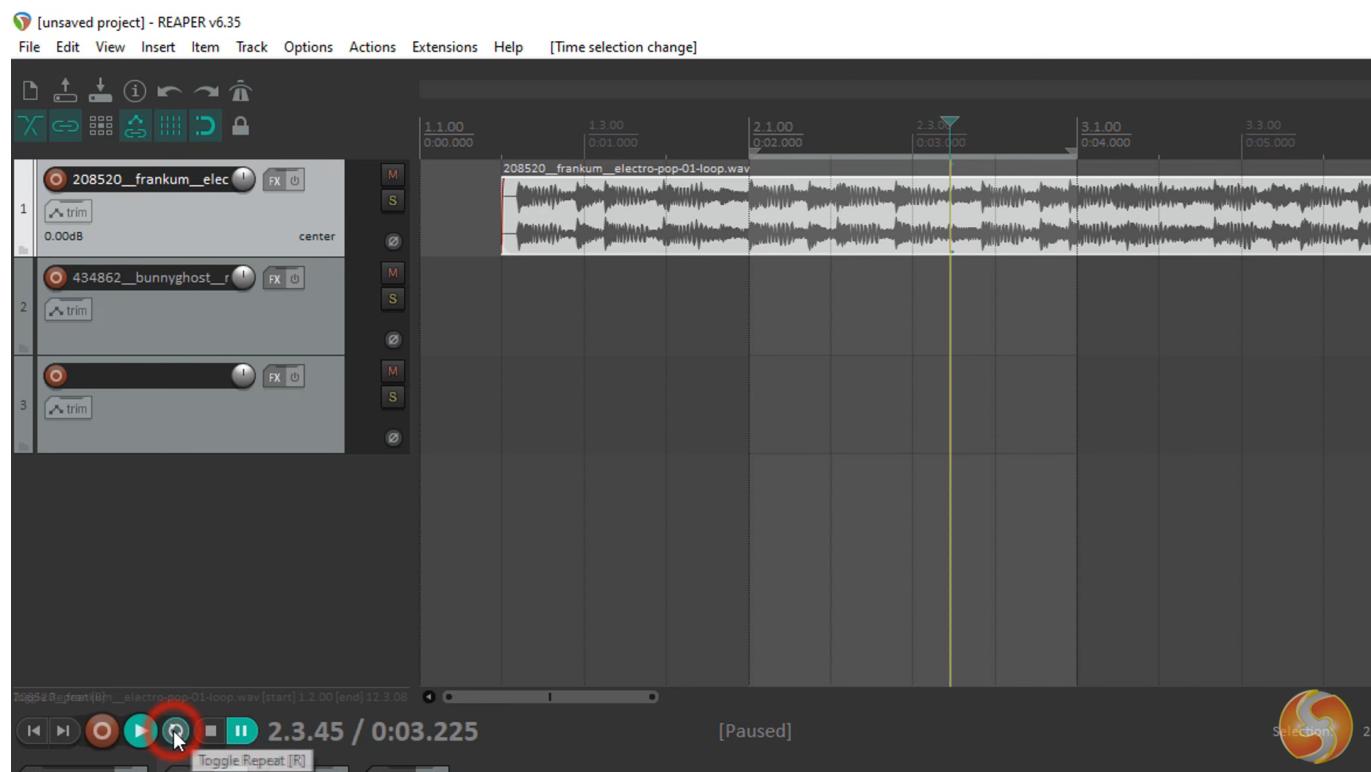




Playback Controls

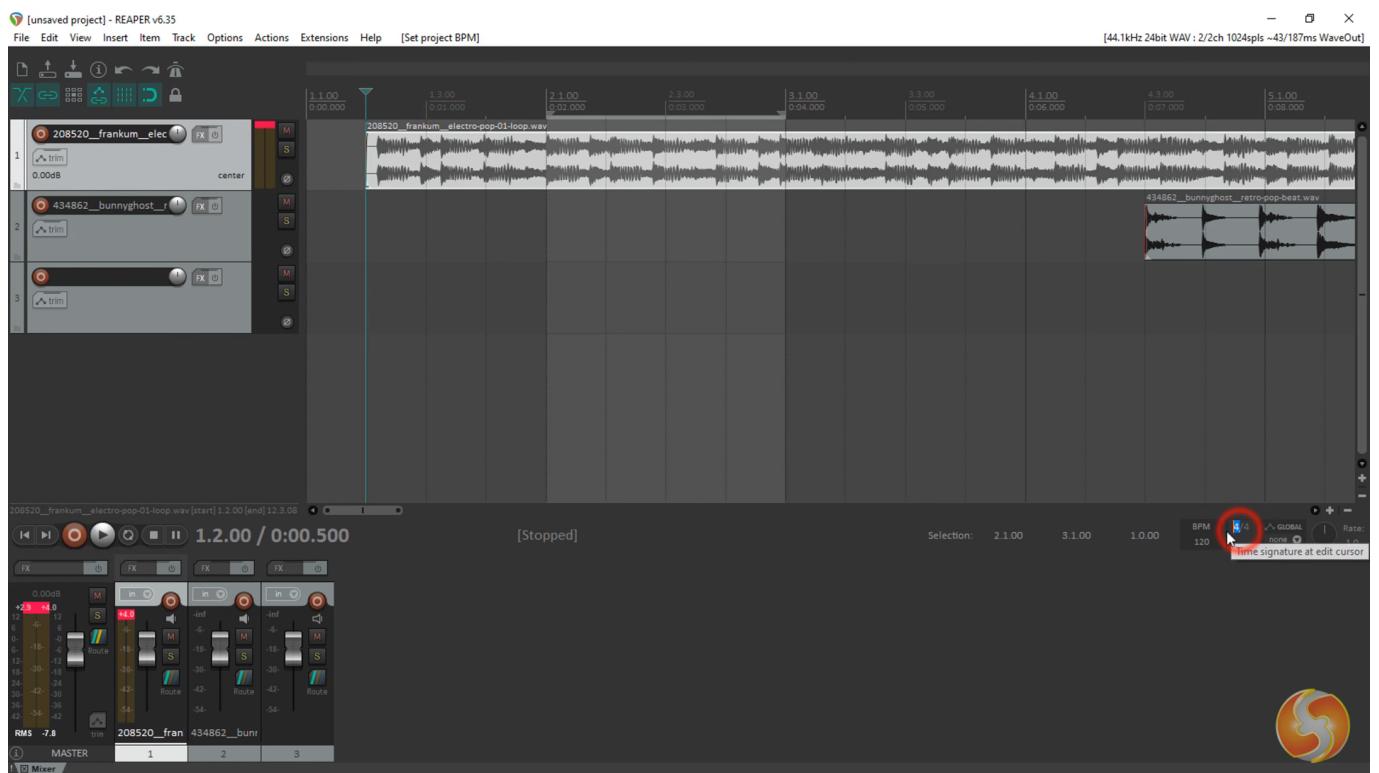
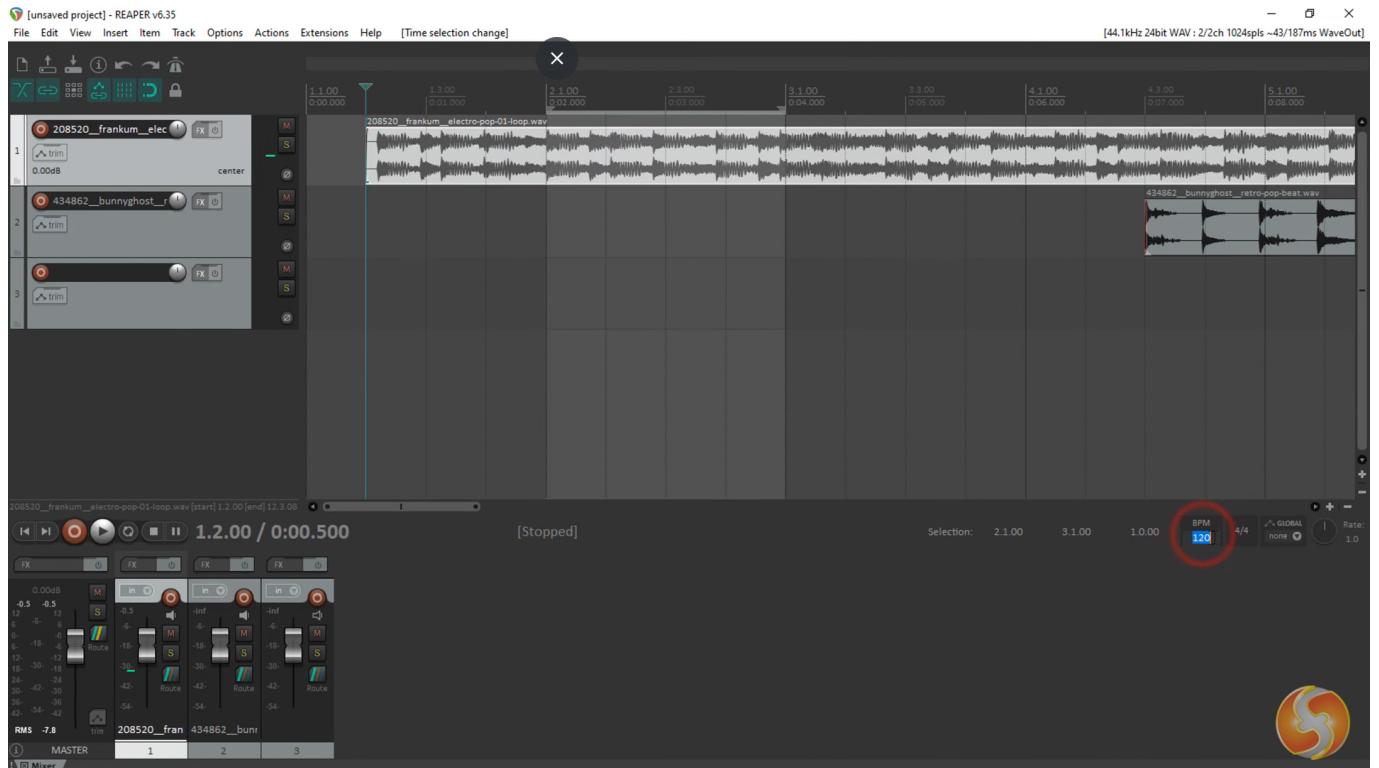
- Use player controls on left
- Spacebar to play/stop
- Enter key to play/pause
- Click and drag above timeline to create loop region
- Enable Toggle Repeat for loop playback

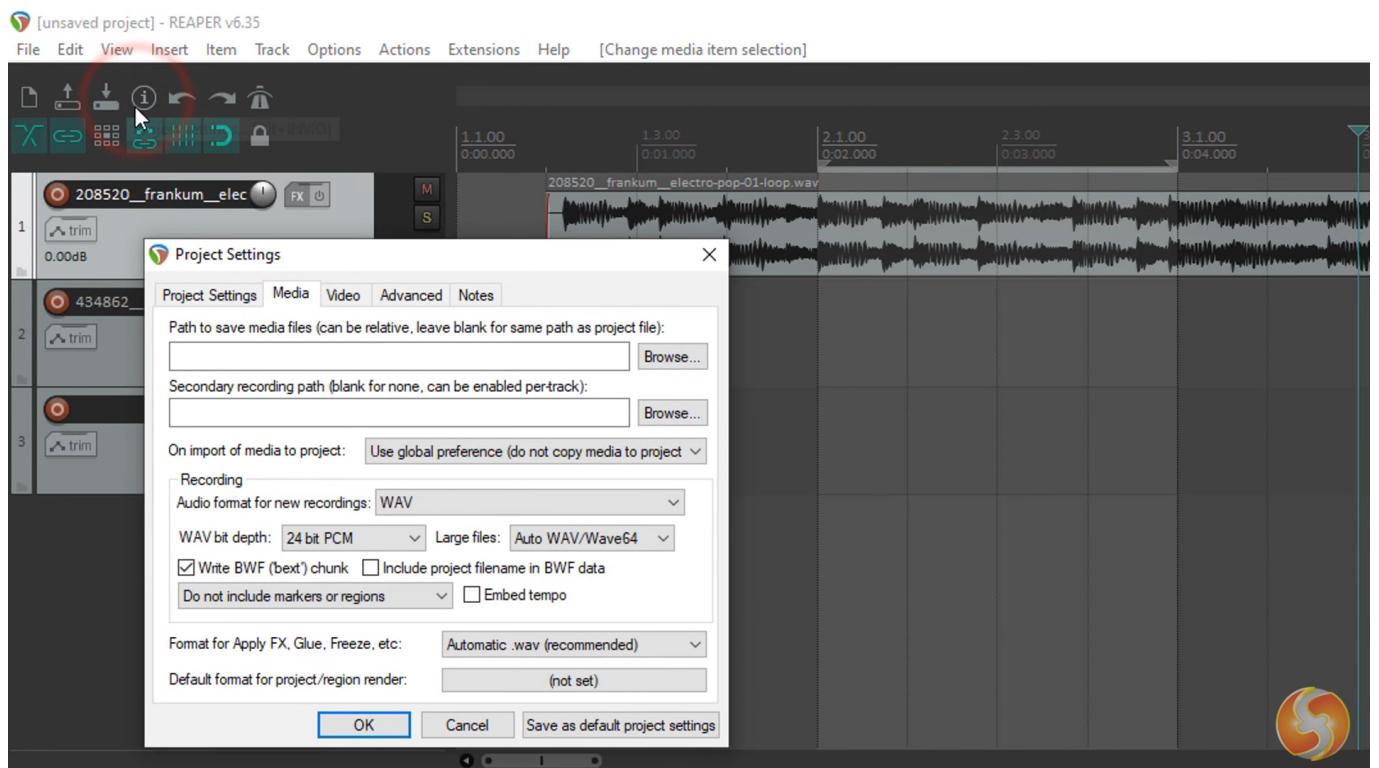
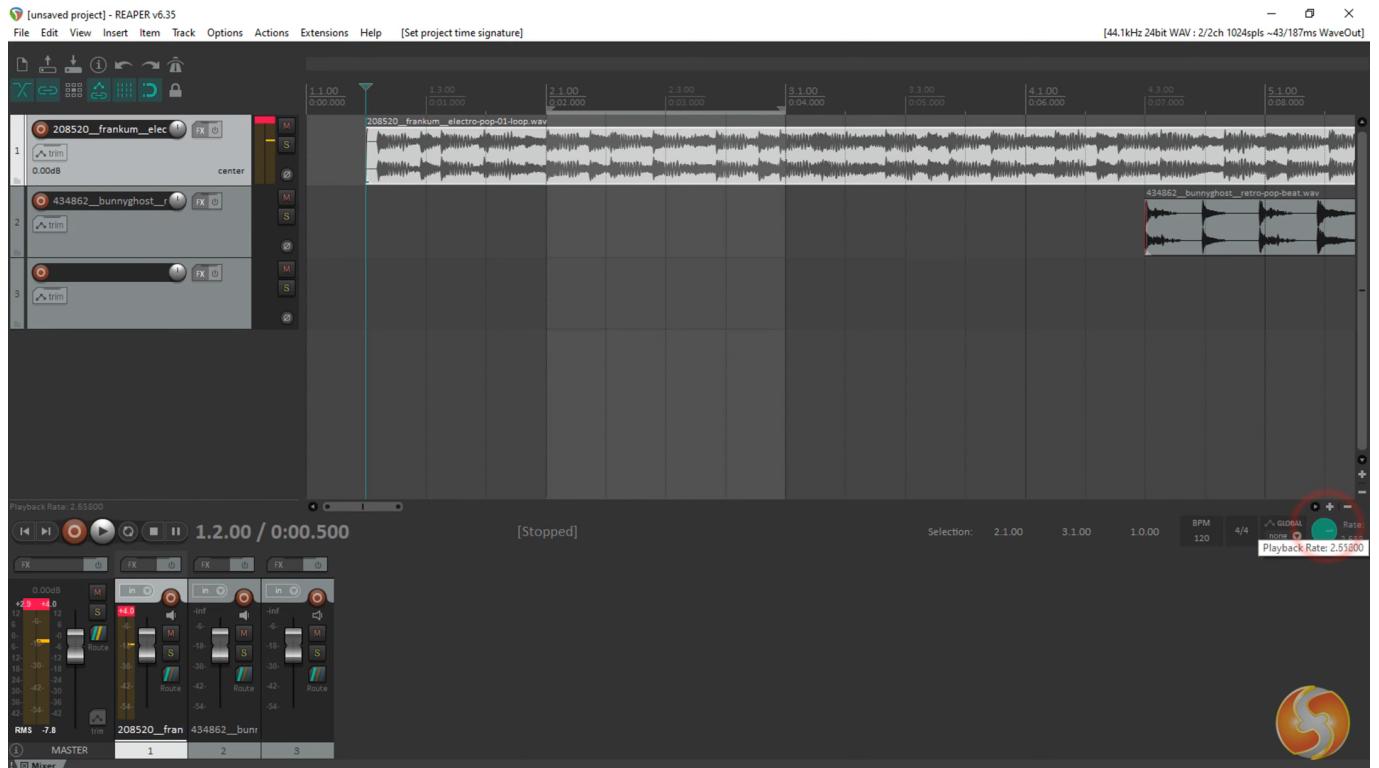


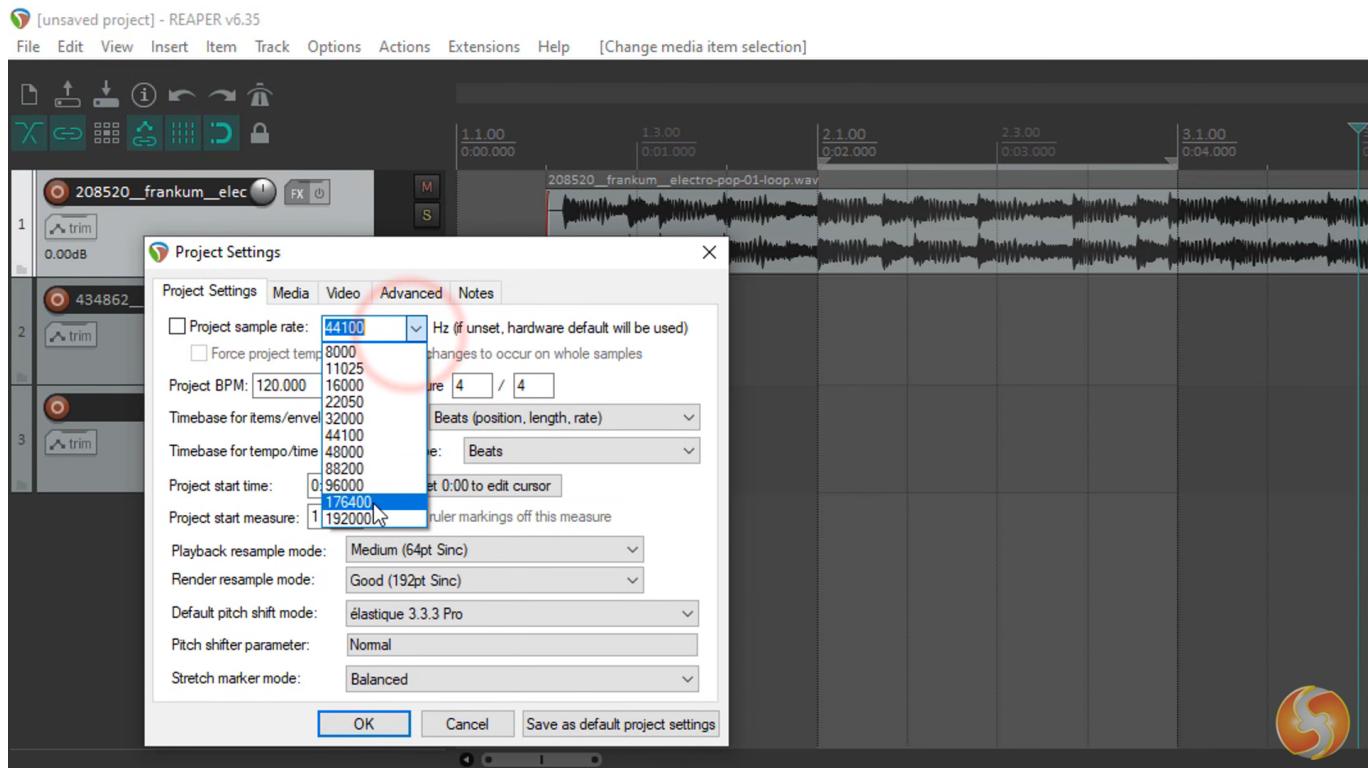


Project Settings

- Set tempo in BPM (beats per minute)
- Define time signature (beats per bar)
- Use Rate knob for different playback rate
- Click "i" button for advanced settings (sample rate, recording options)

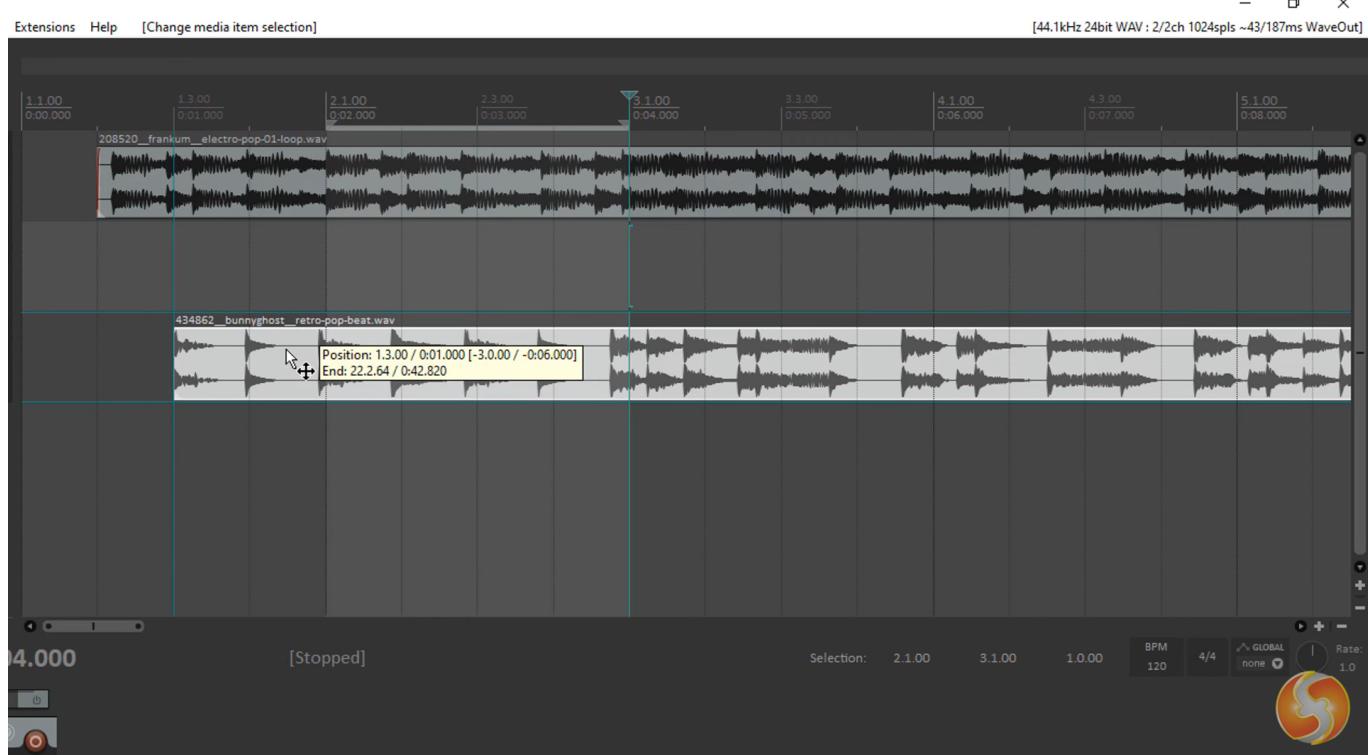
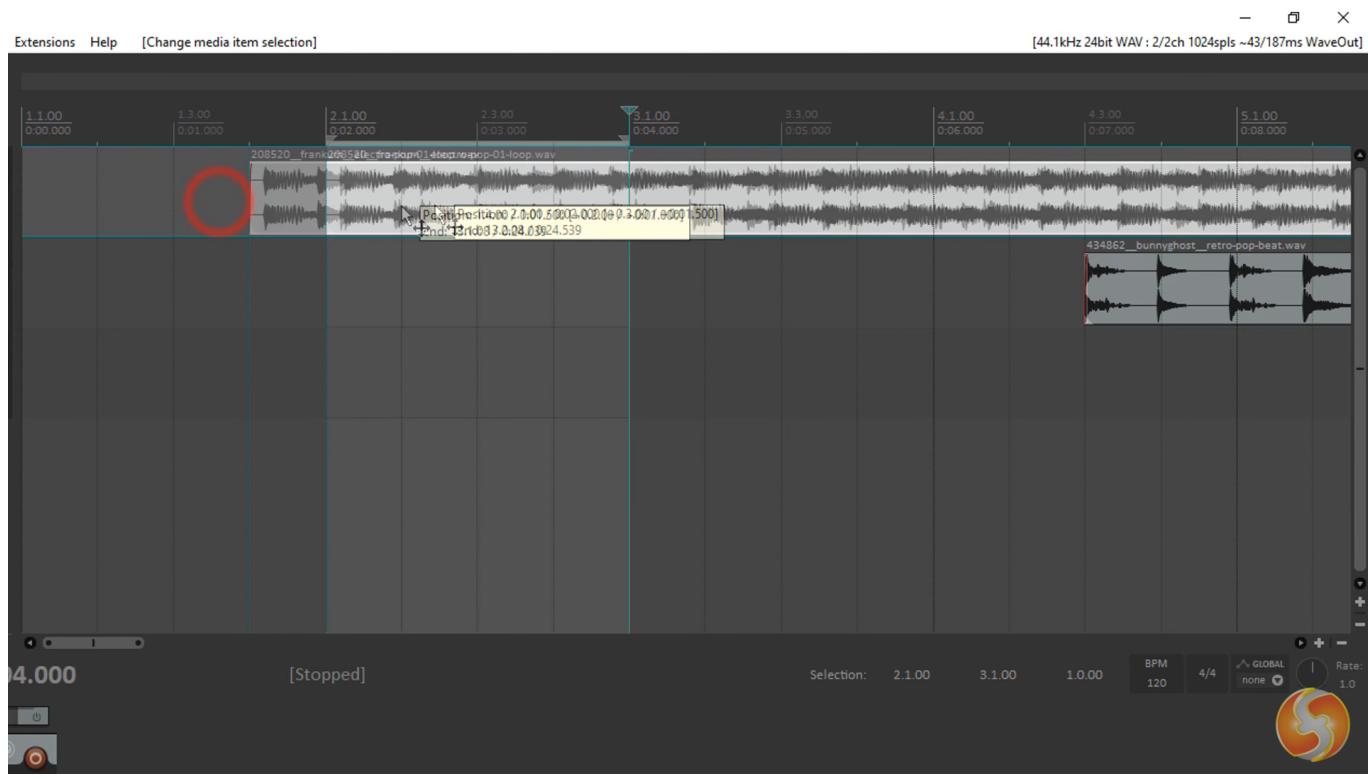


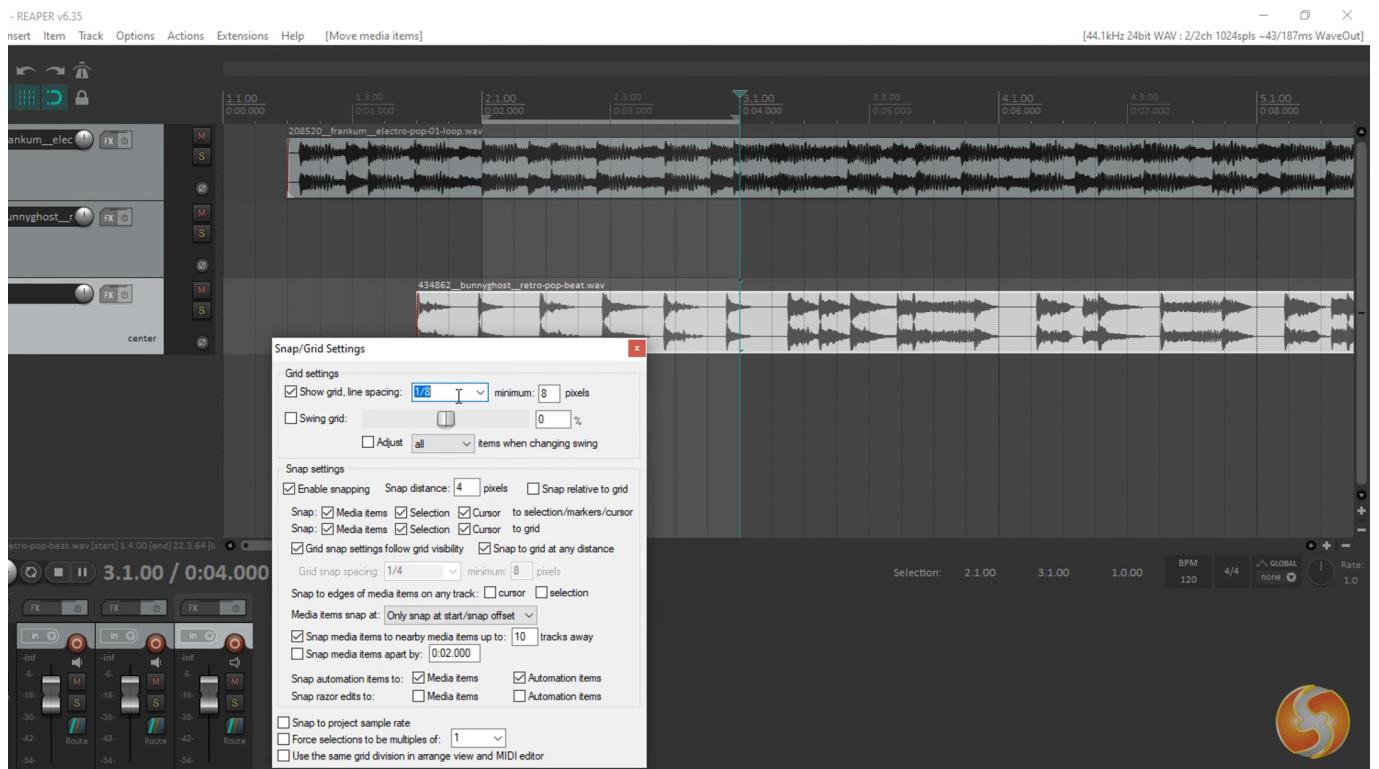
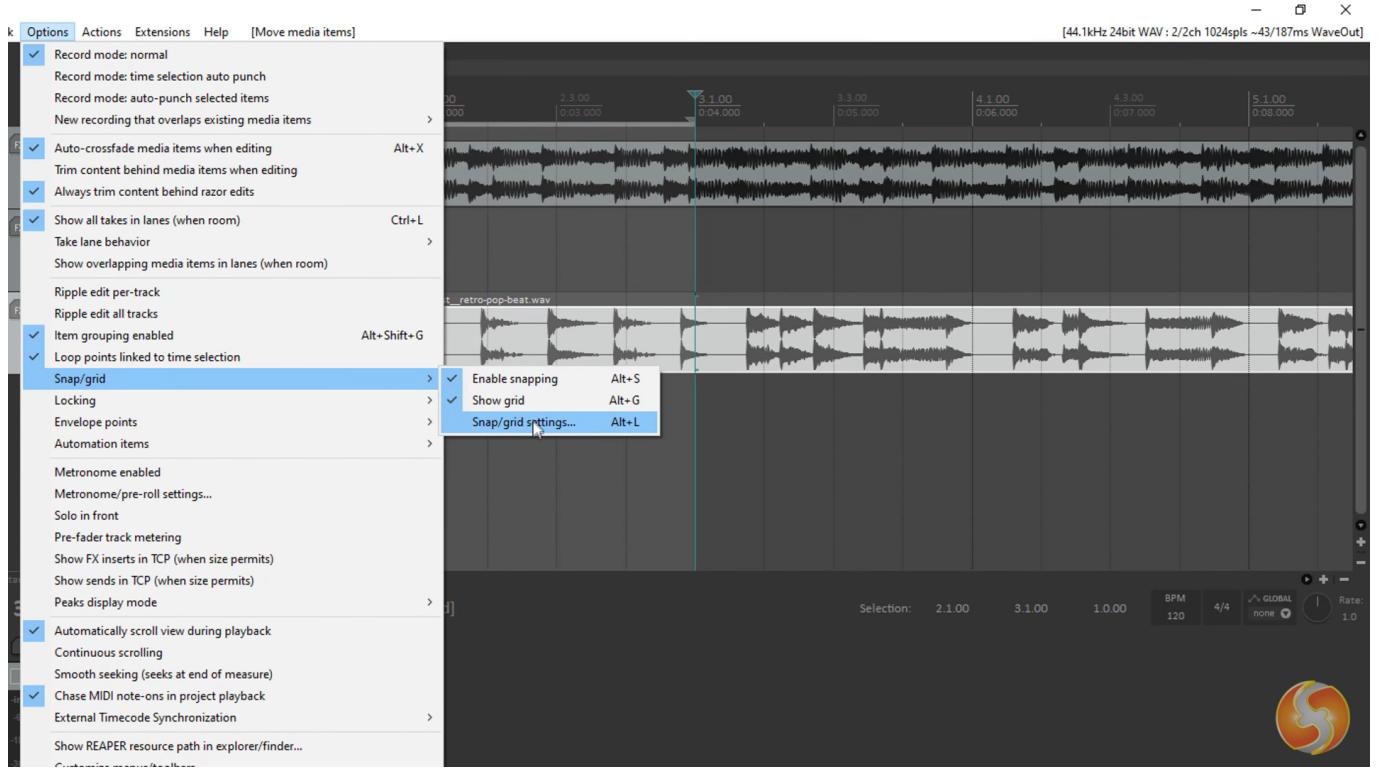


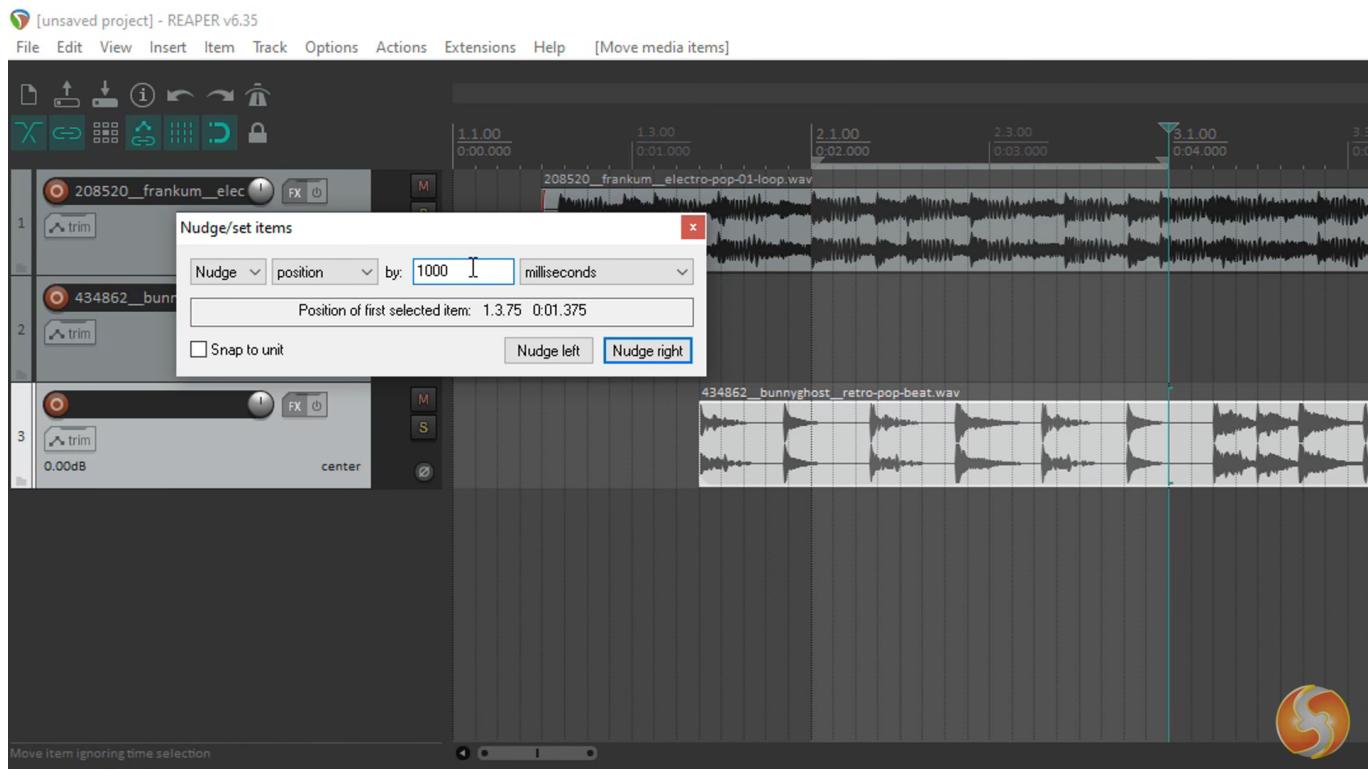
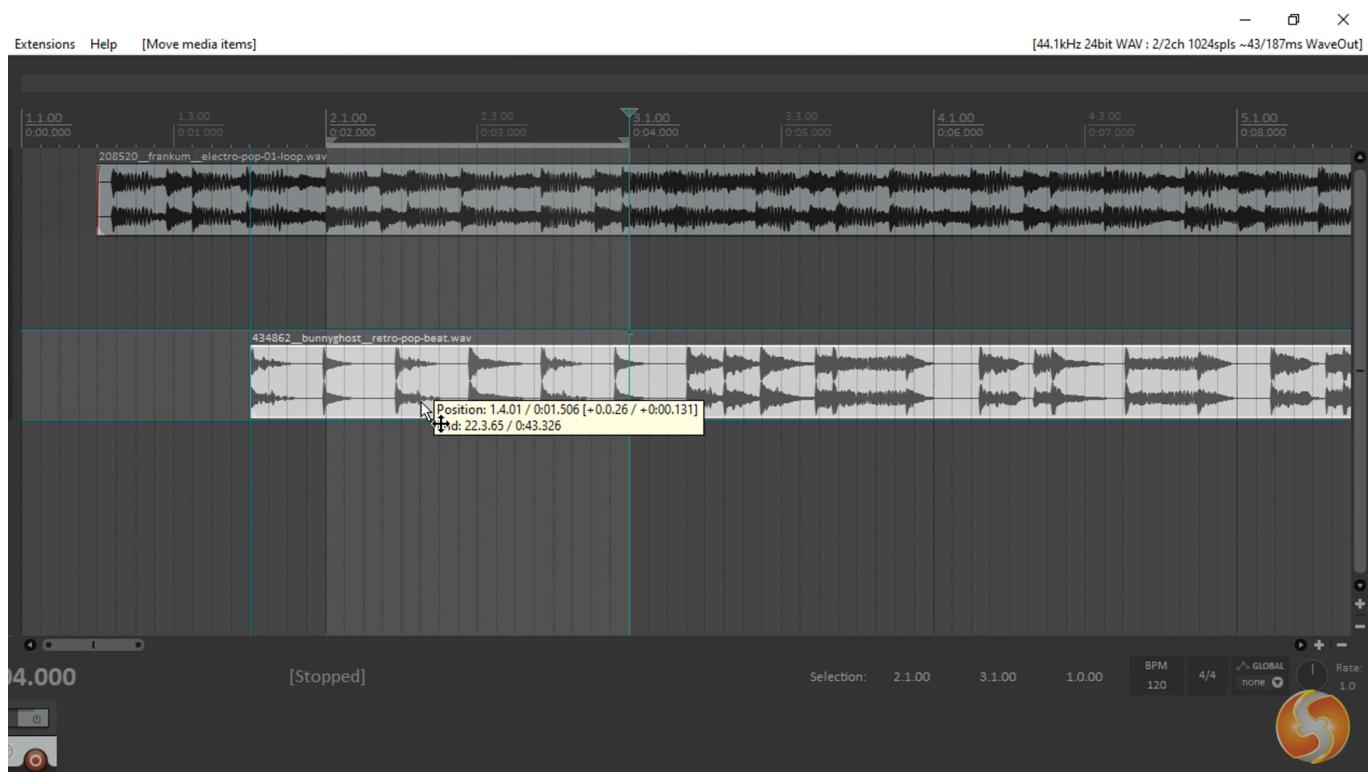


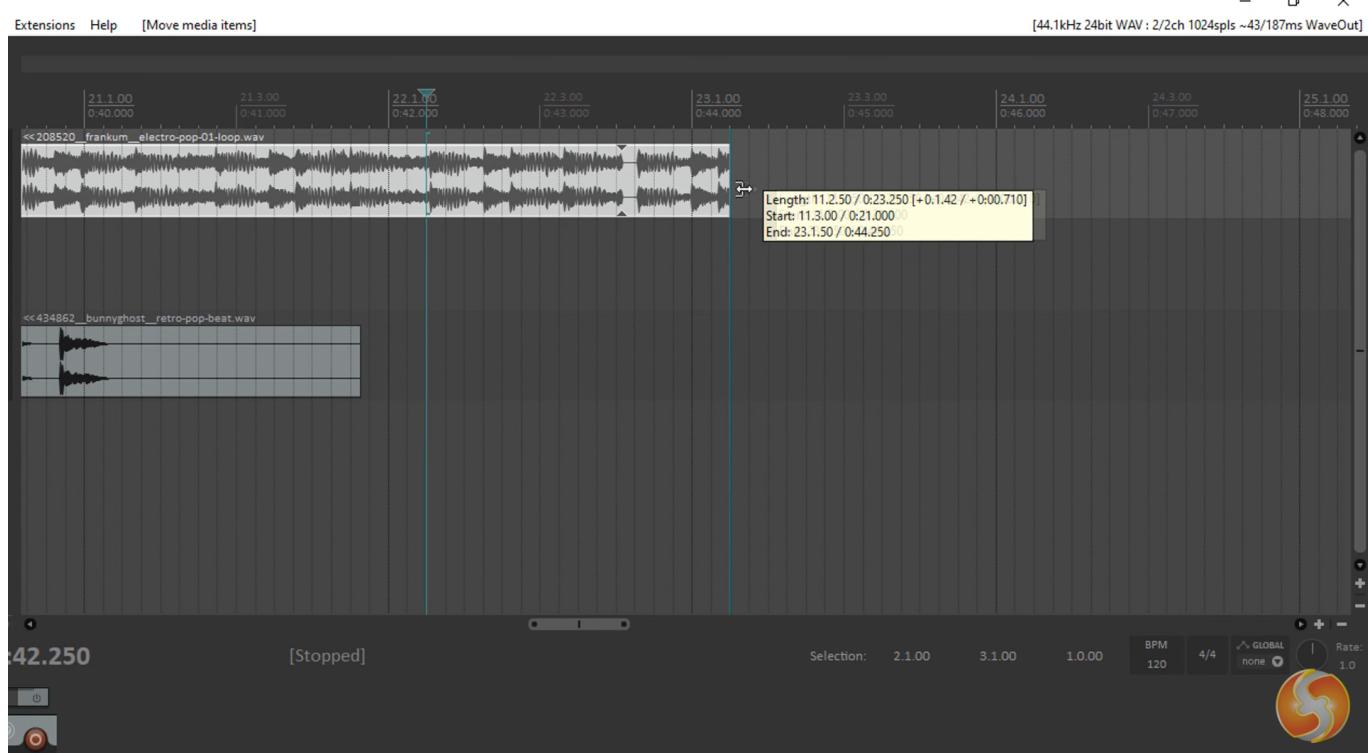
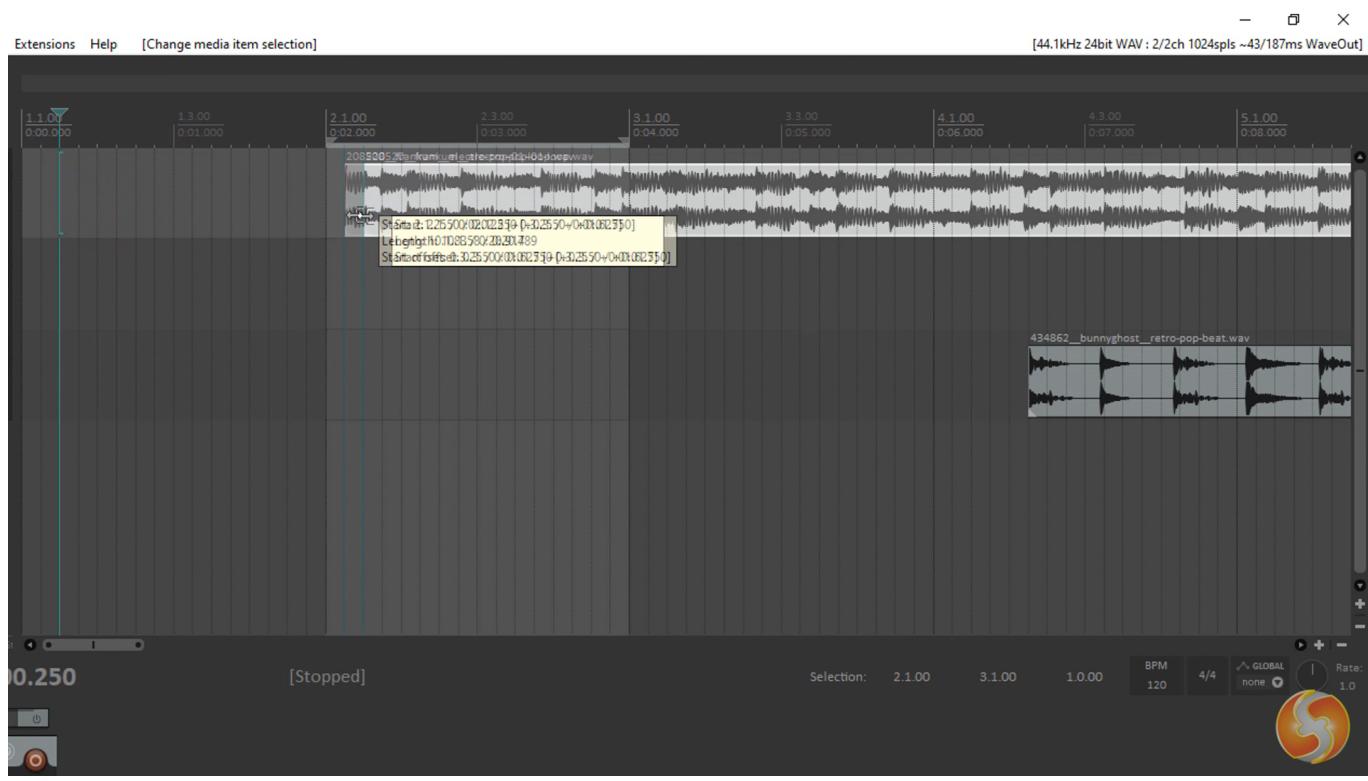
Editing Items

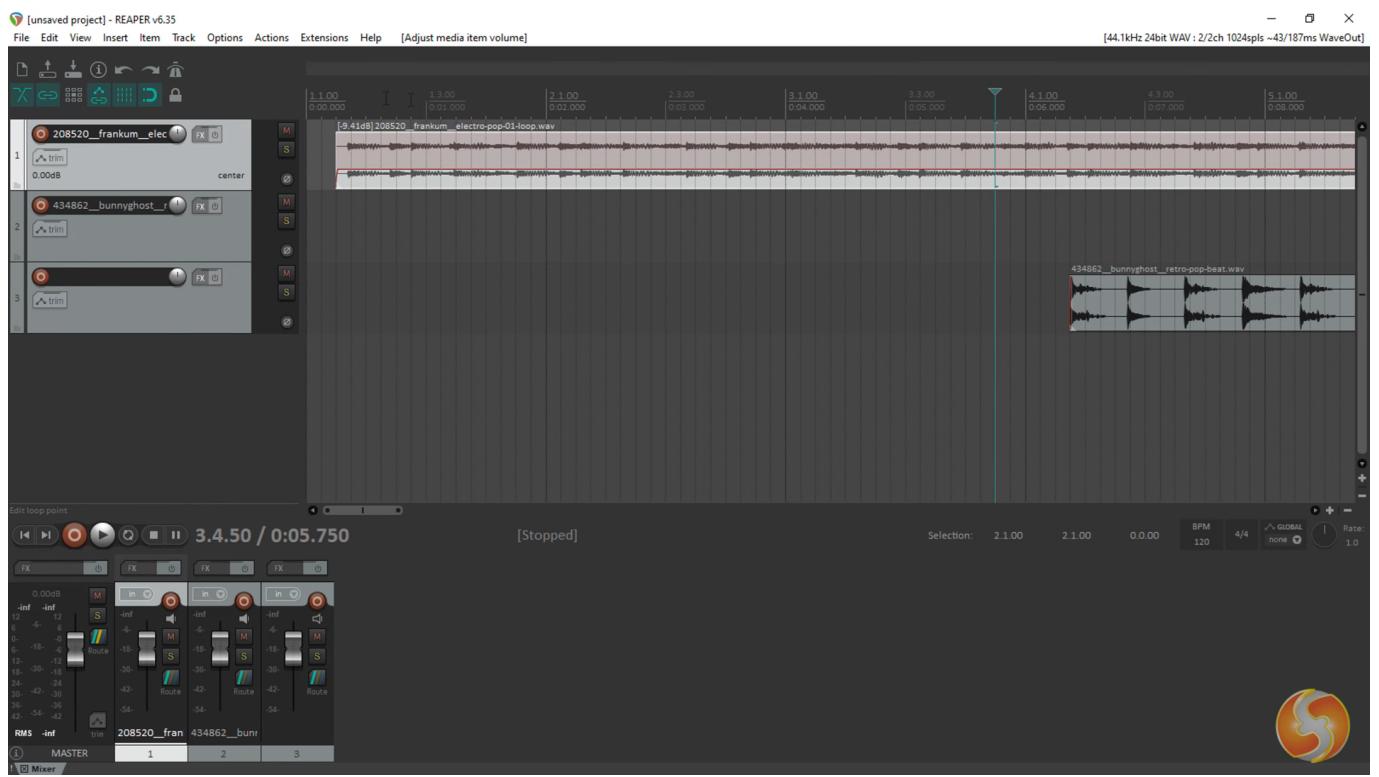
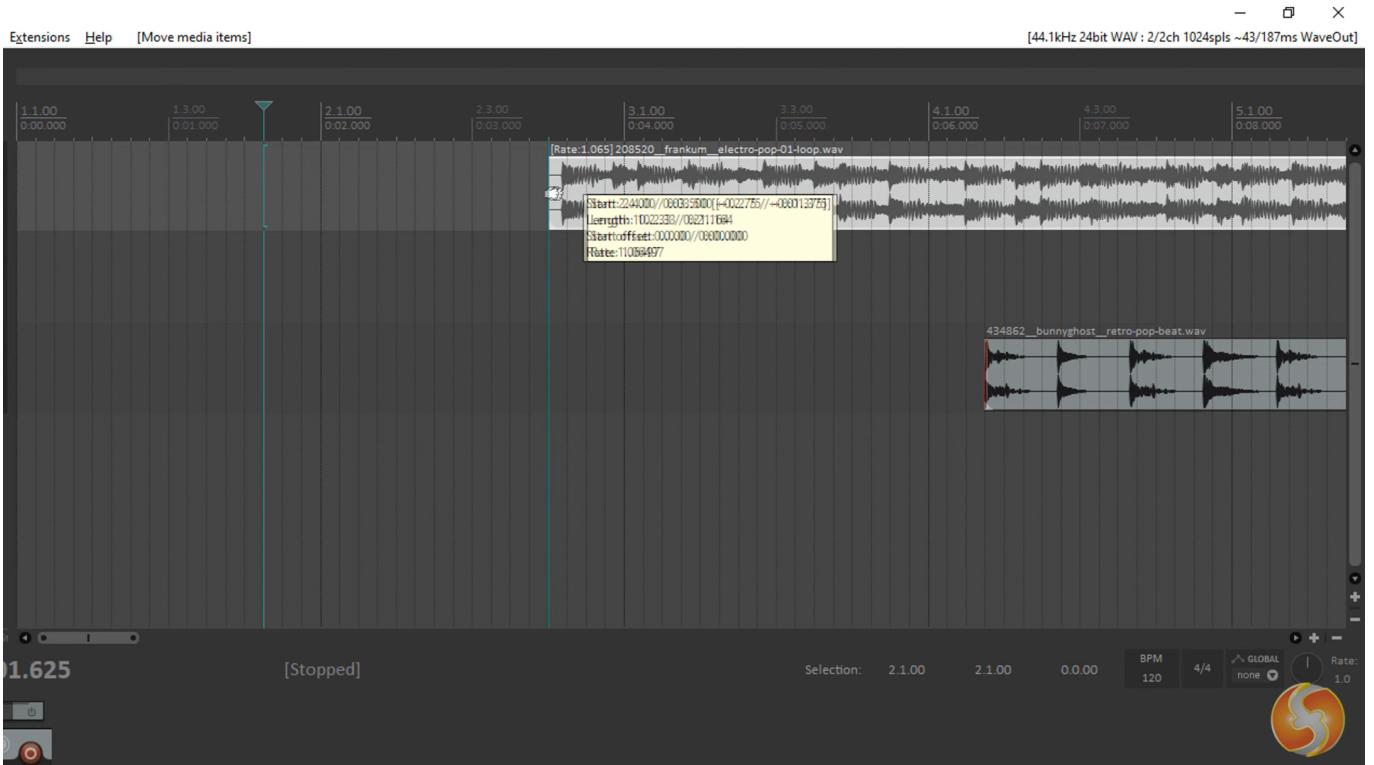
- Click and drag to move items in time or between tracks
- Snaps to grid (Options > Snap/Grid) unless holding Shift
- Press N for precise nudge dialog
- Drag edges to adjust length (cuts content when shortened, loops when extended)
- Hold ALT/Option while dragging edges to change speed instead of length
- Pull down top line to adjust volume
- Drag corners to add fade transitions
- Select item and use CTRL/CMD + X/C/V to cut/copy/paste
- Hold CTRL/CMD while moving to duplicate
- CTRL/CMD + Z to undo
- Place playhead and press S to split selected item
- Double-click item to see properties
- Hold CTRL/CMD while clicking to select multiple items

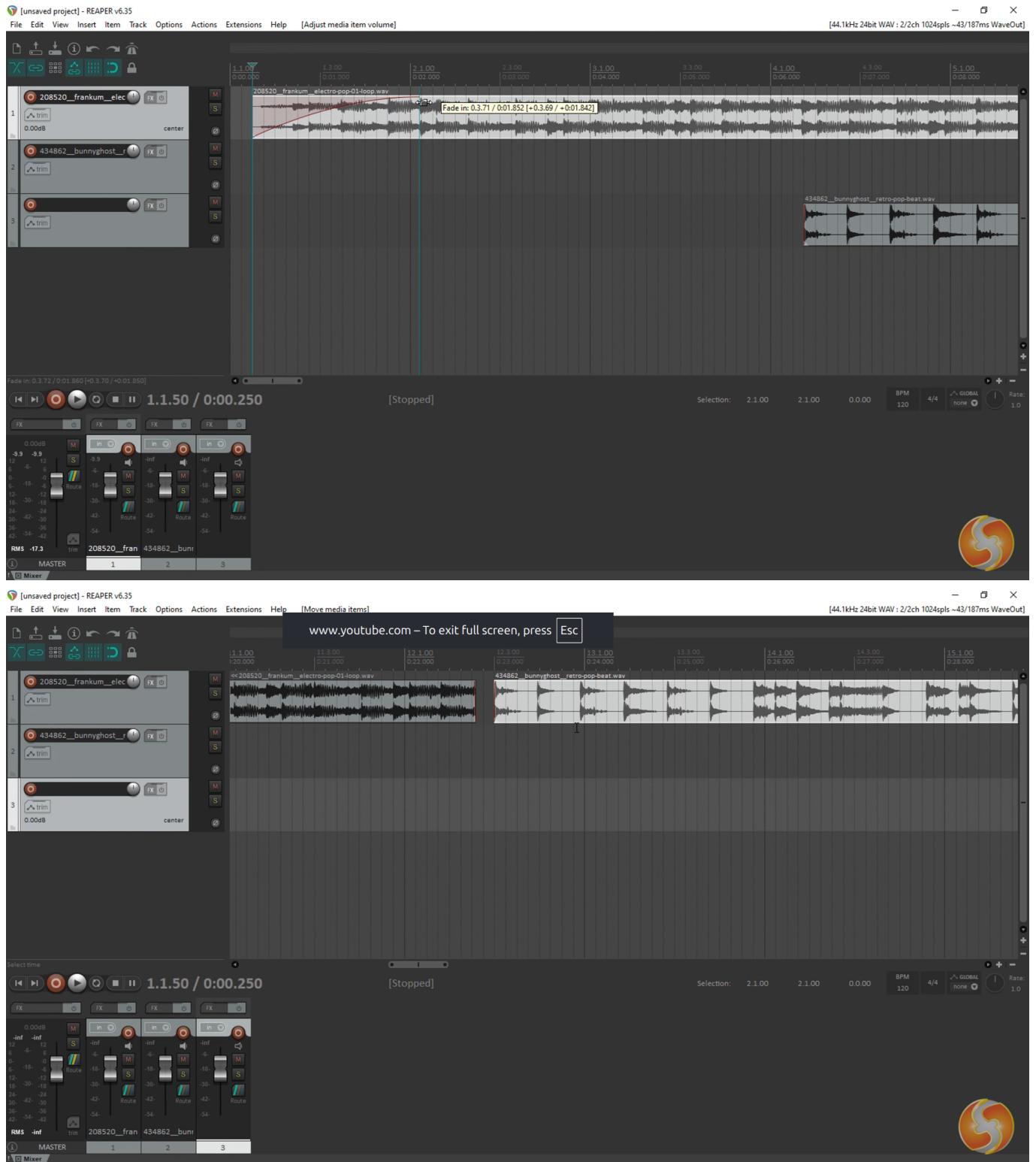


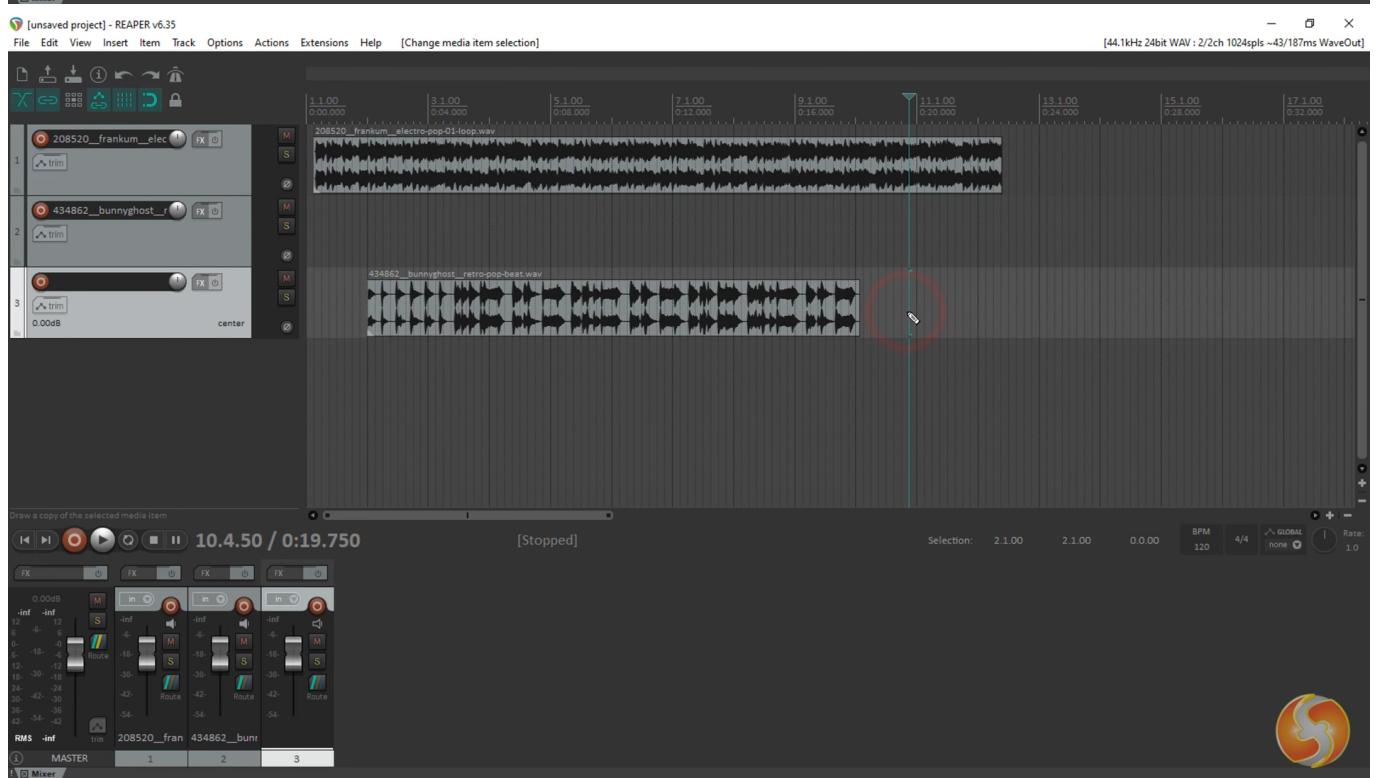
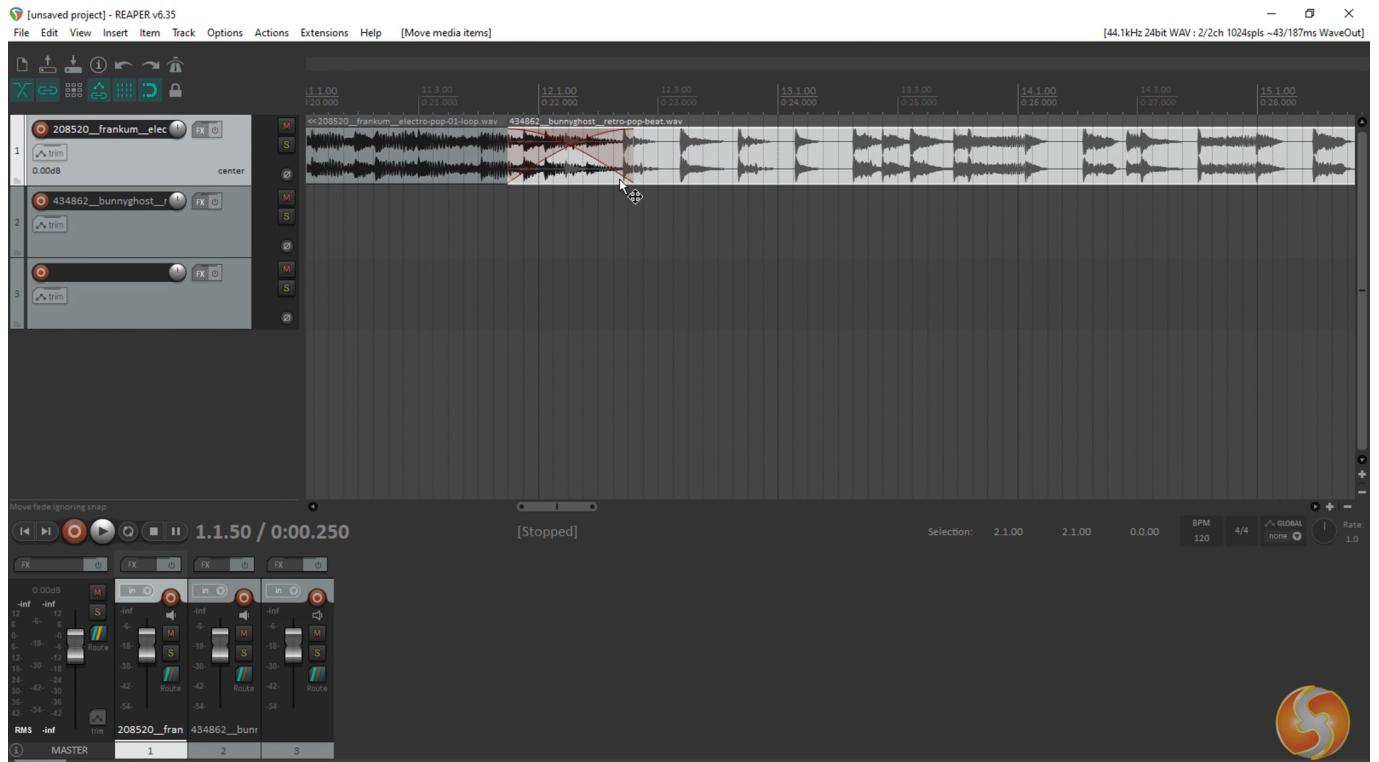


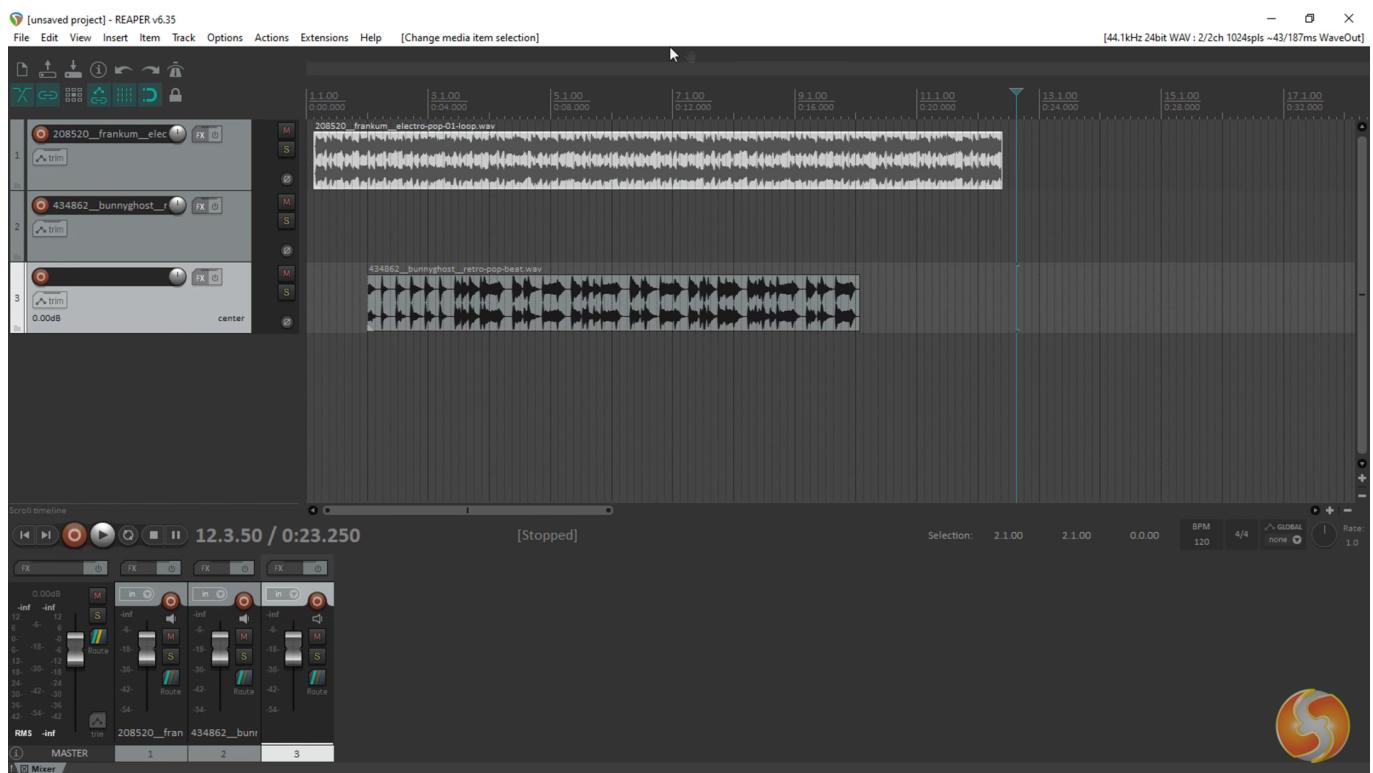
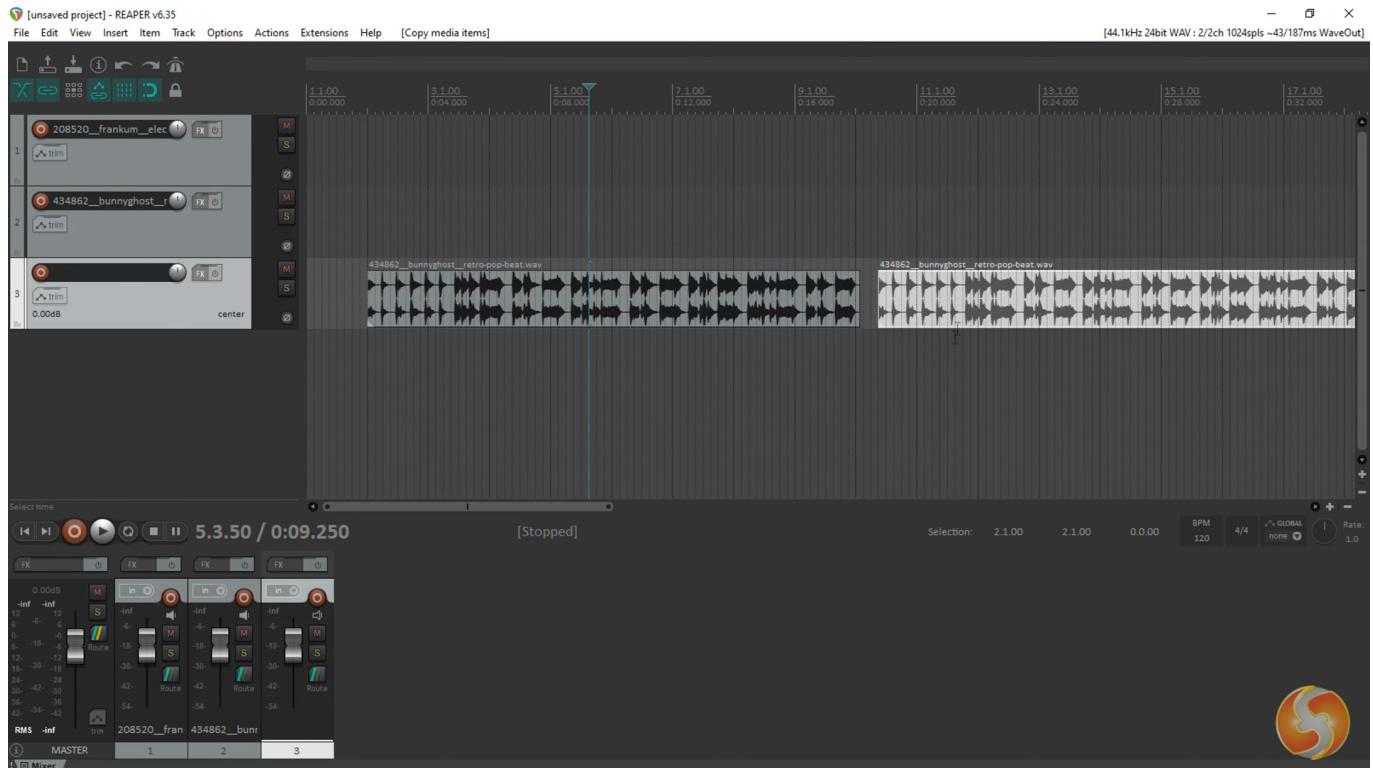


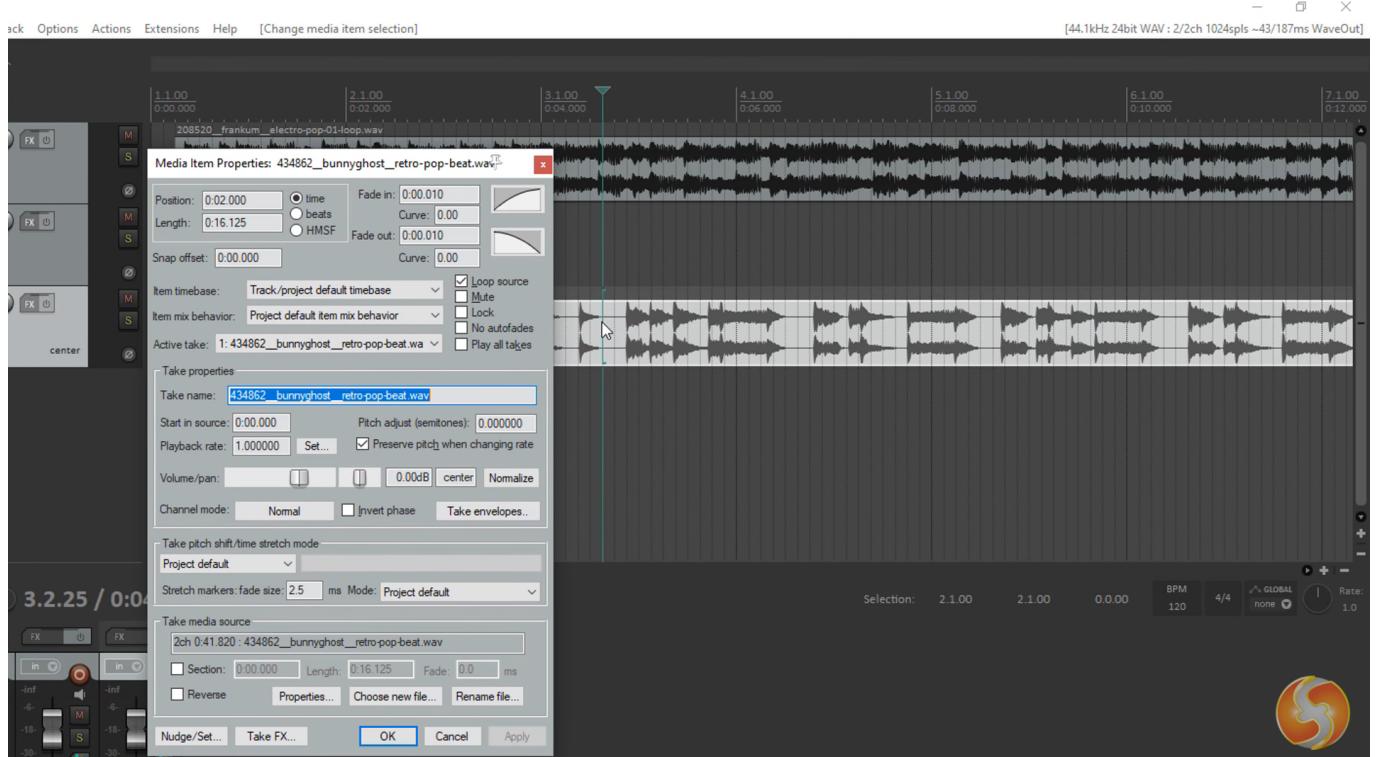
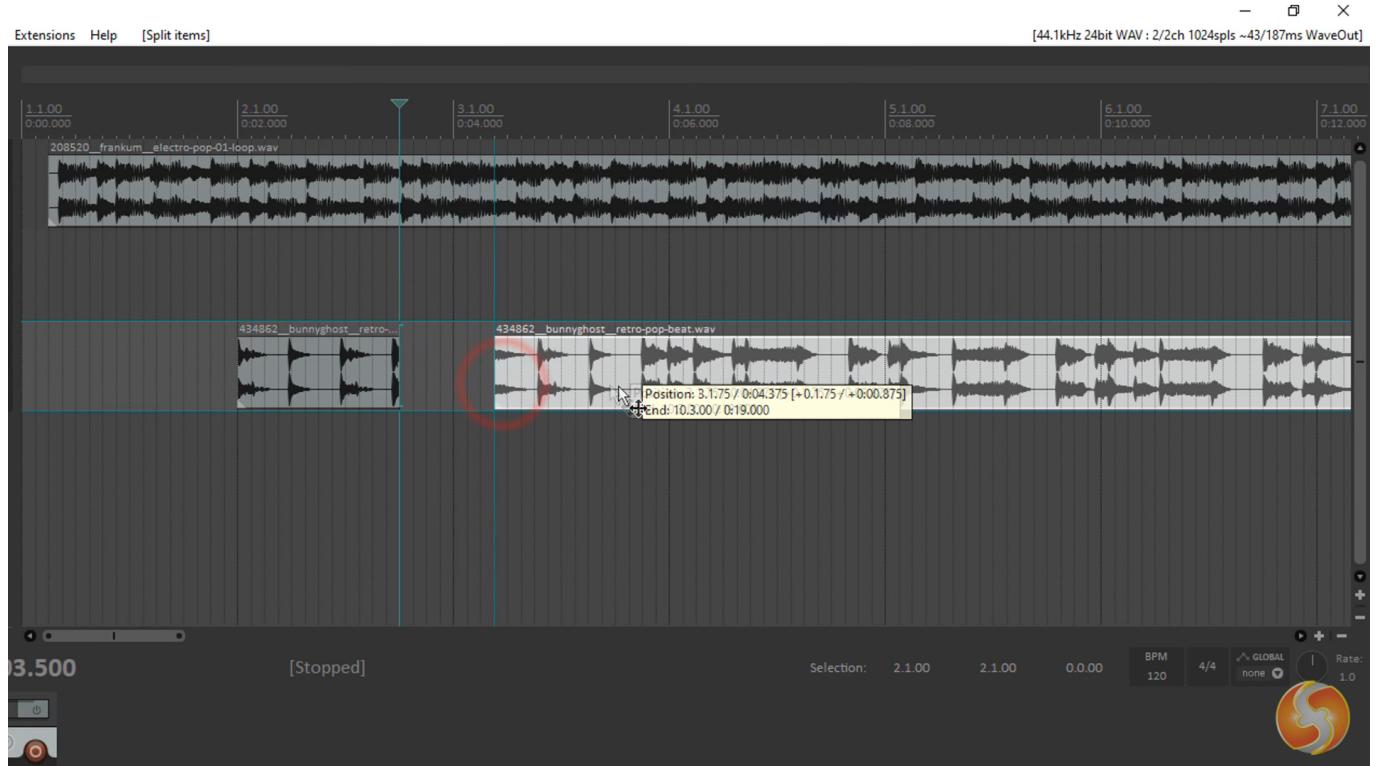


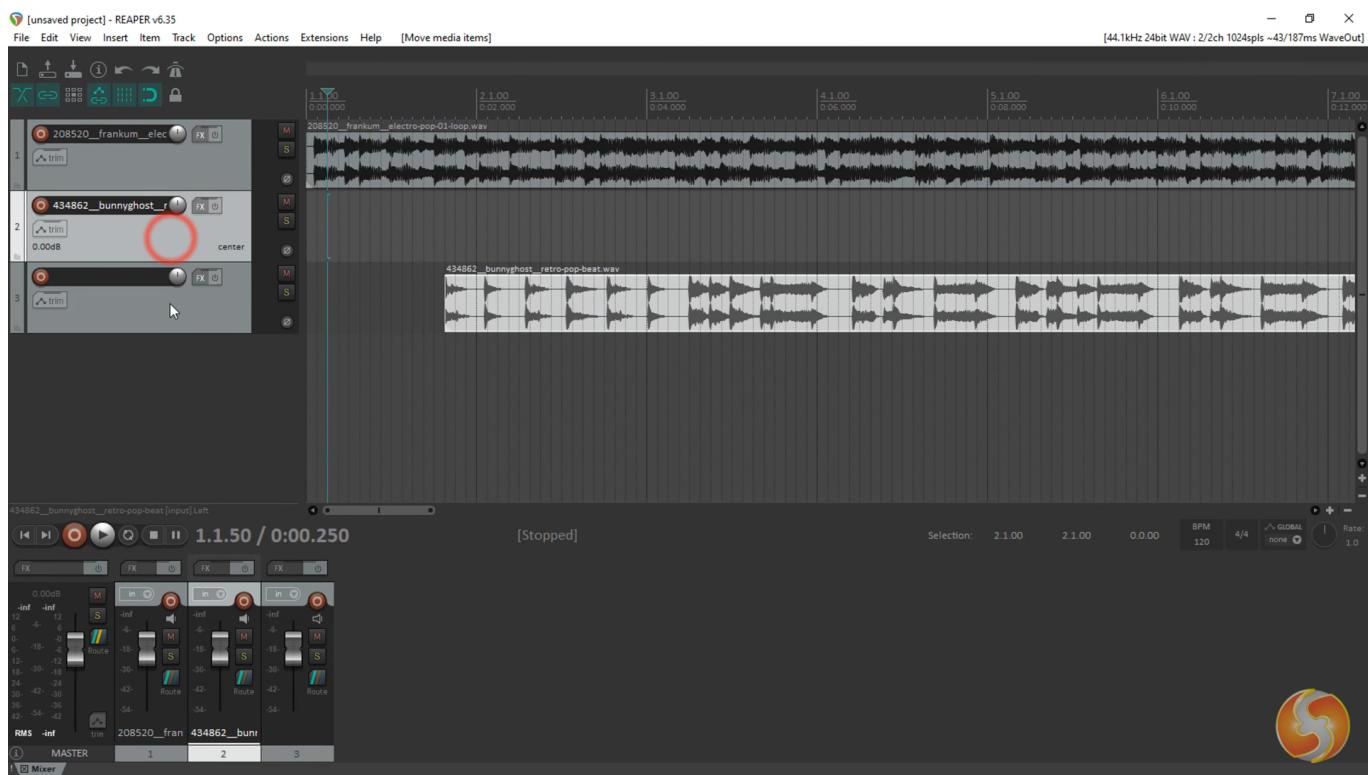
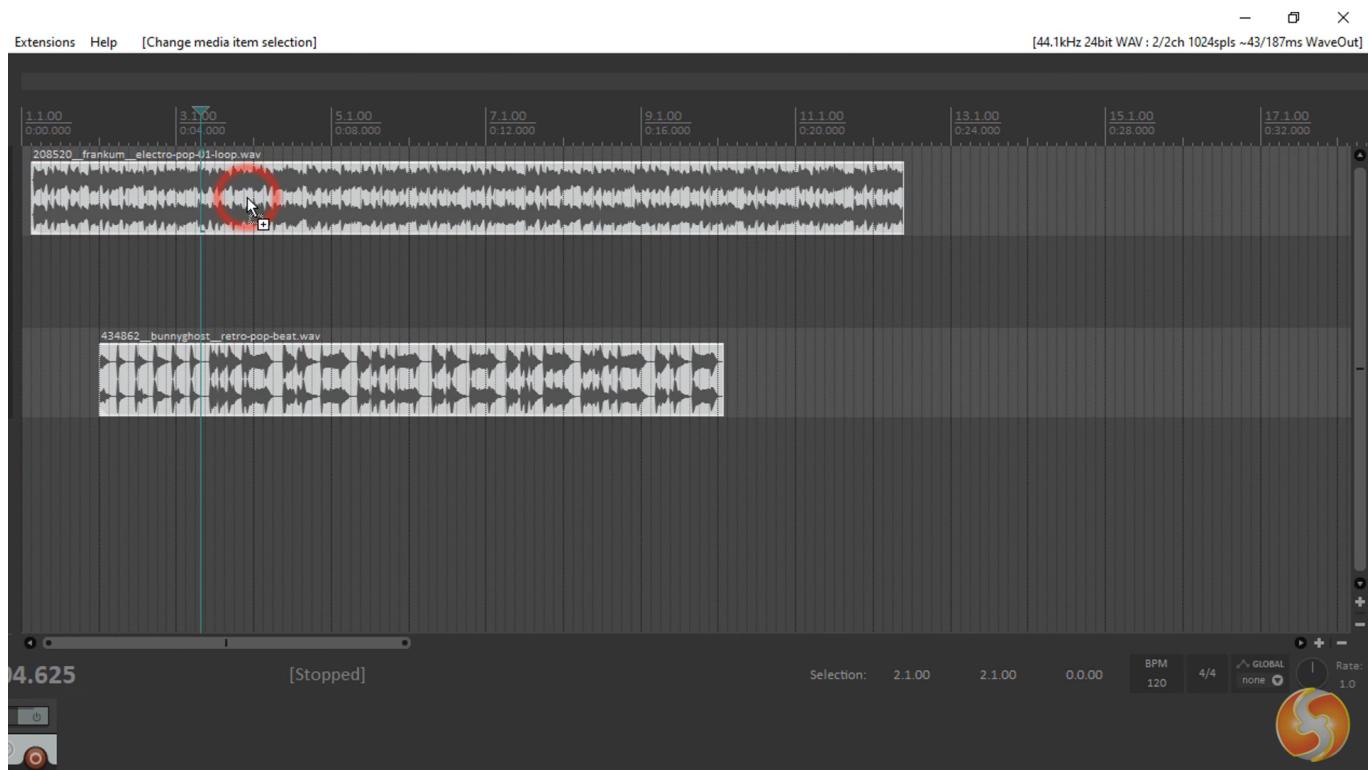


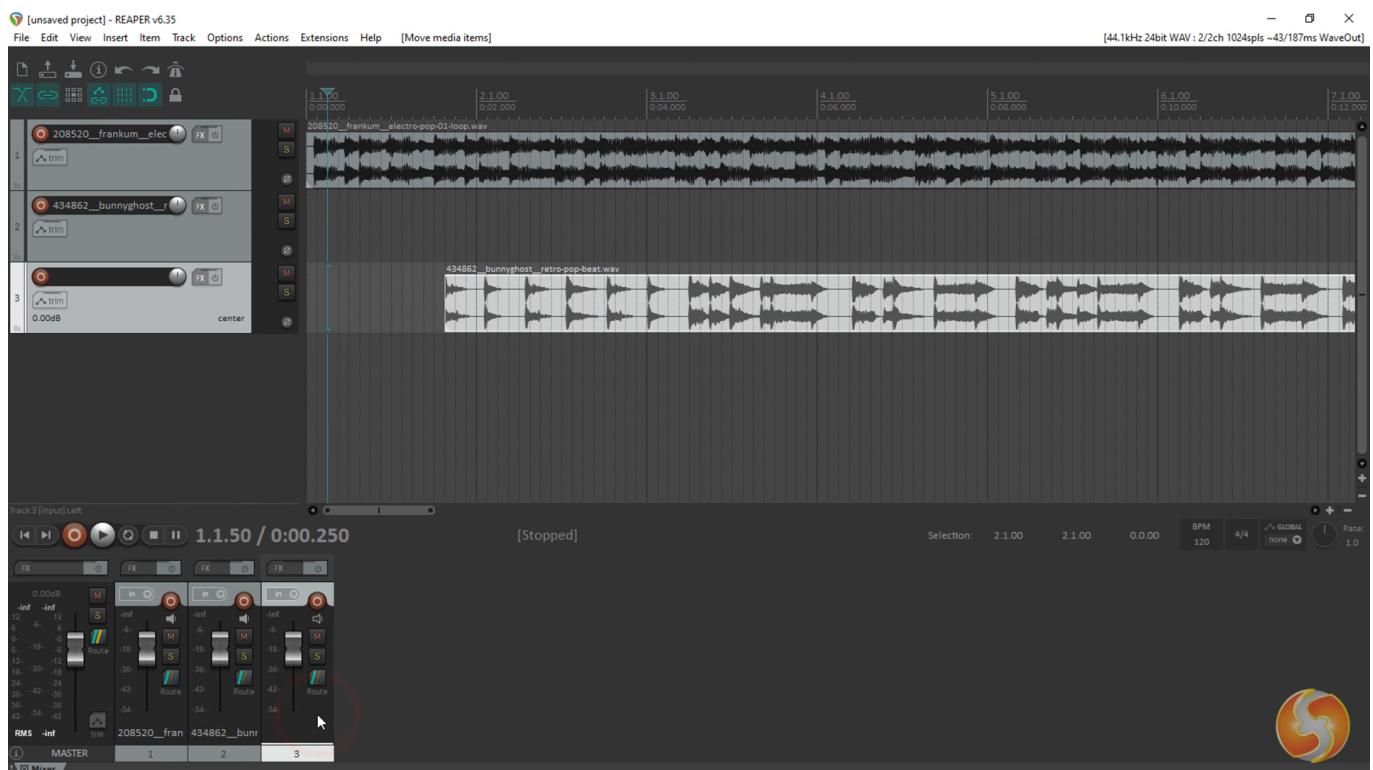
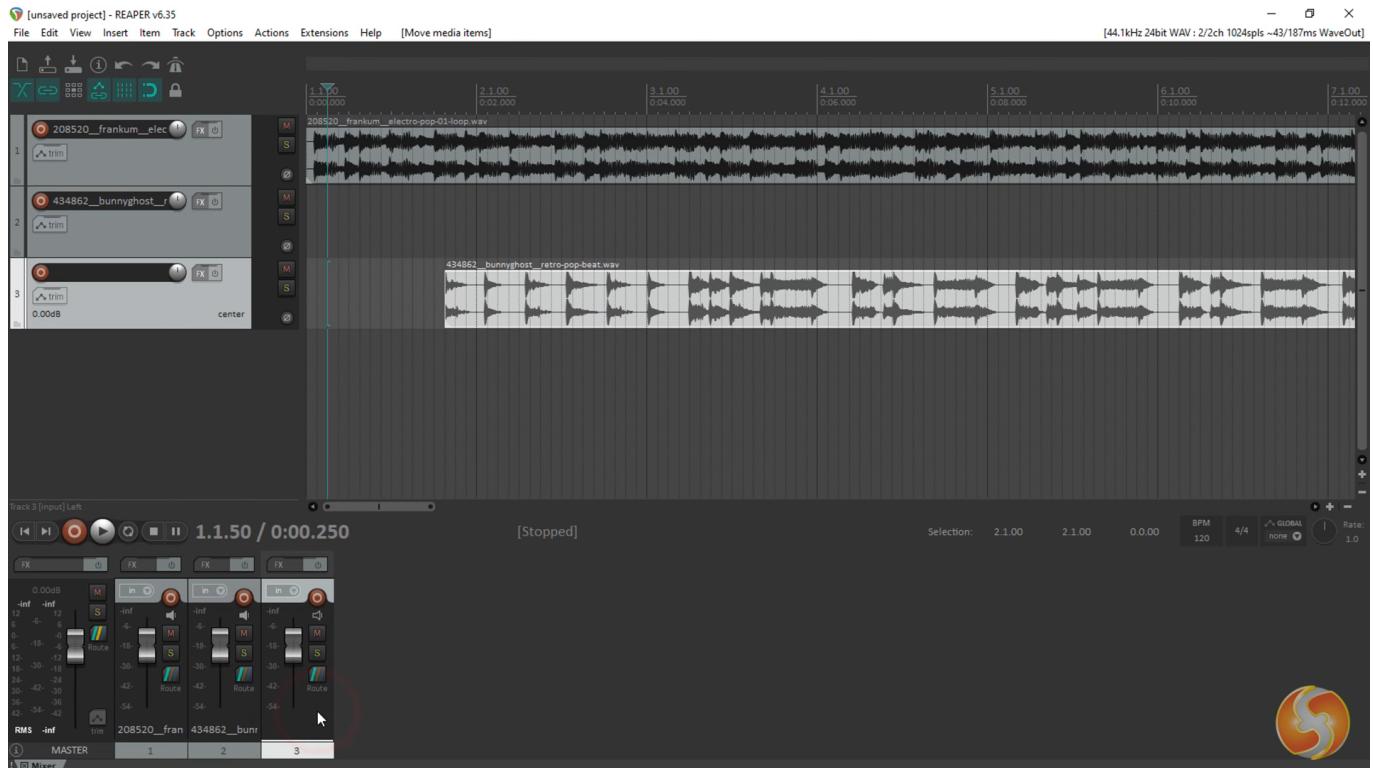






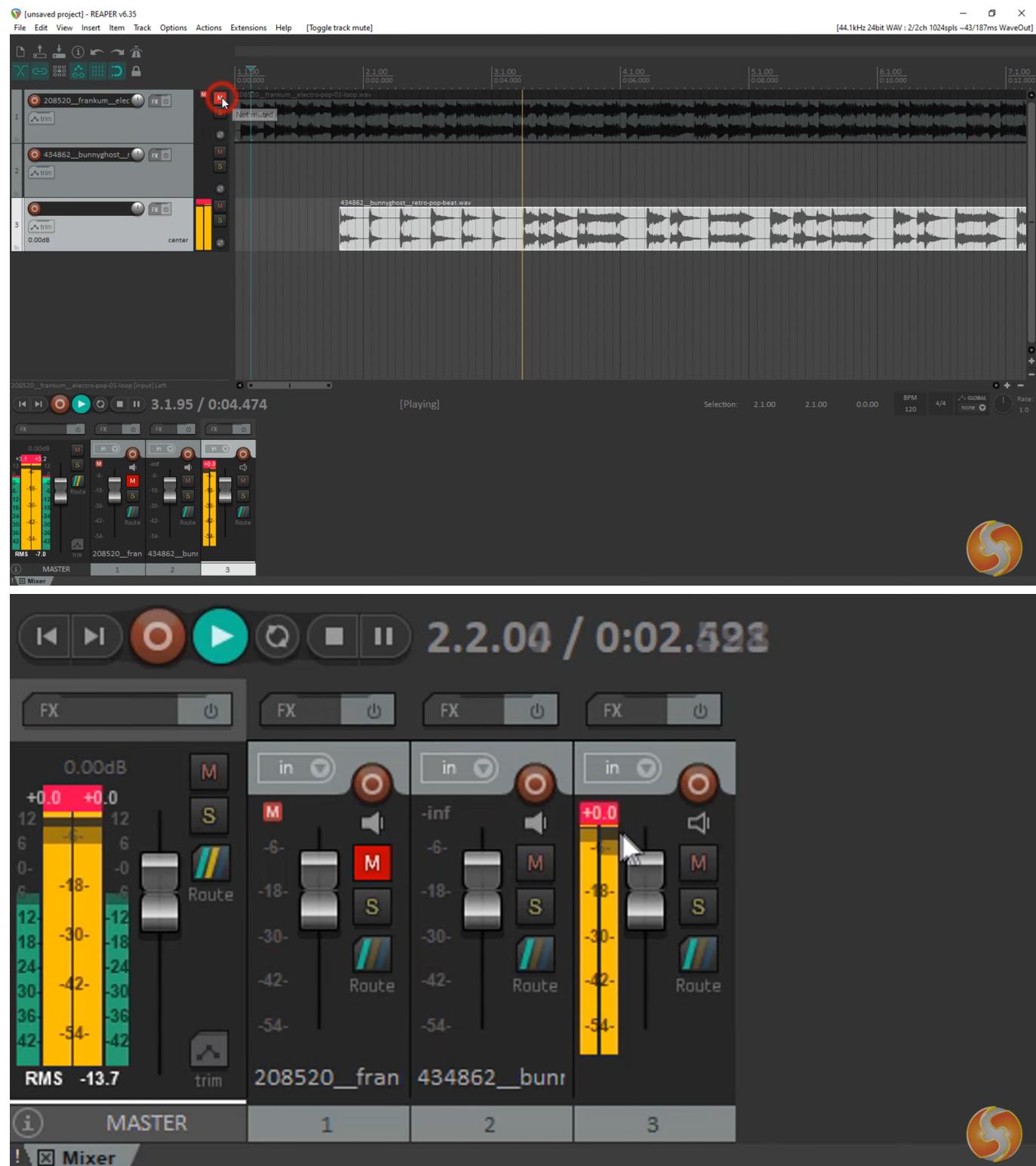


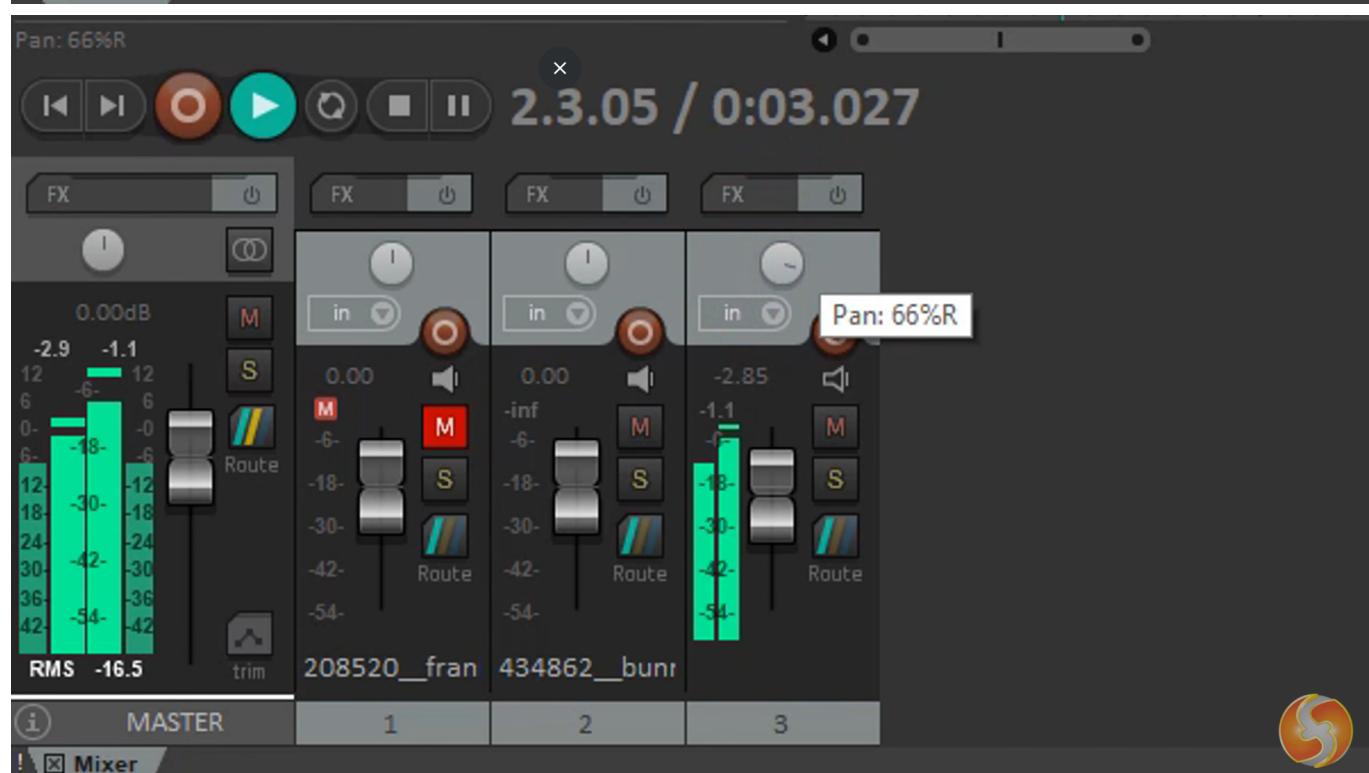
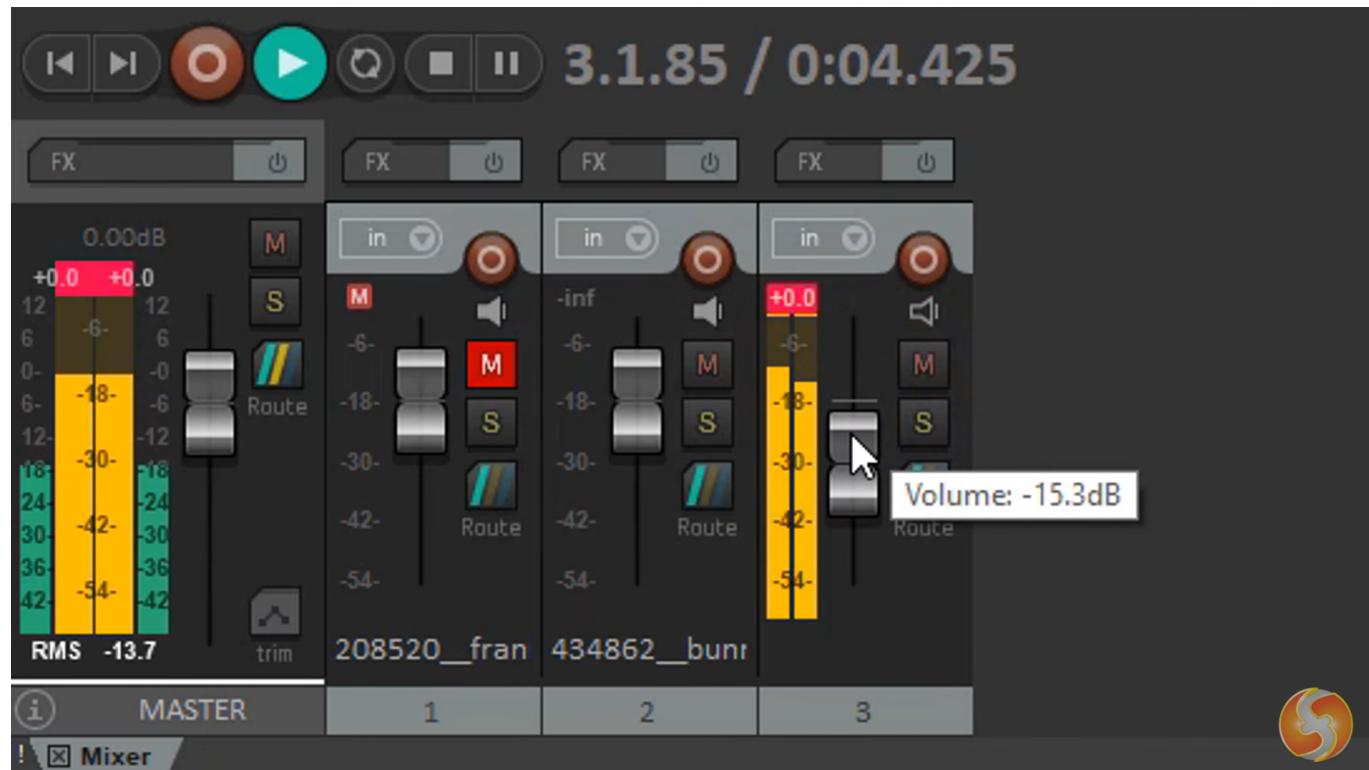


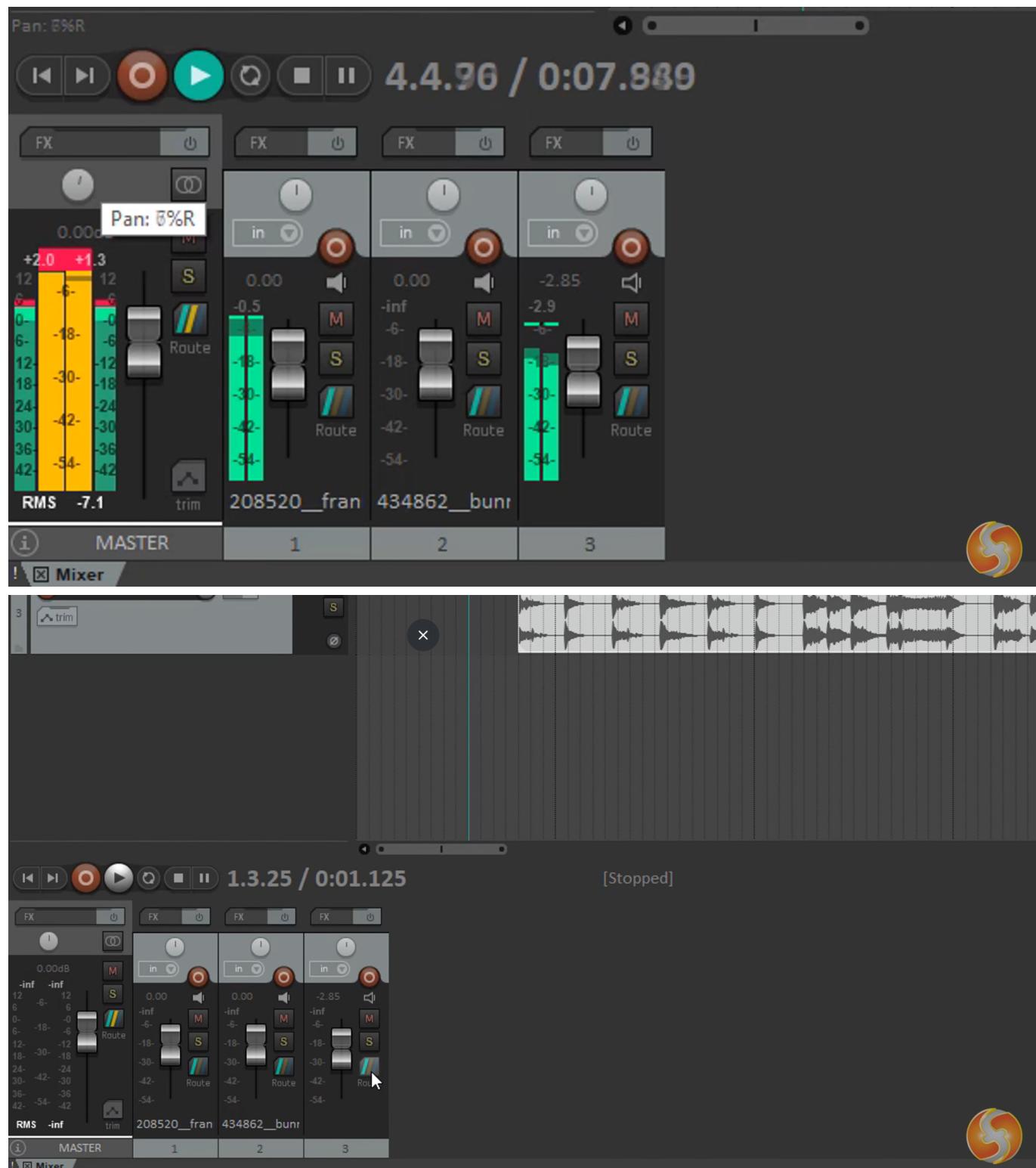


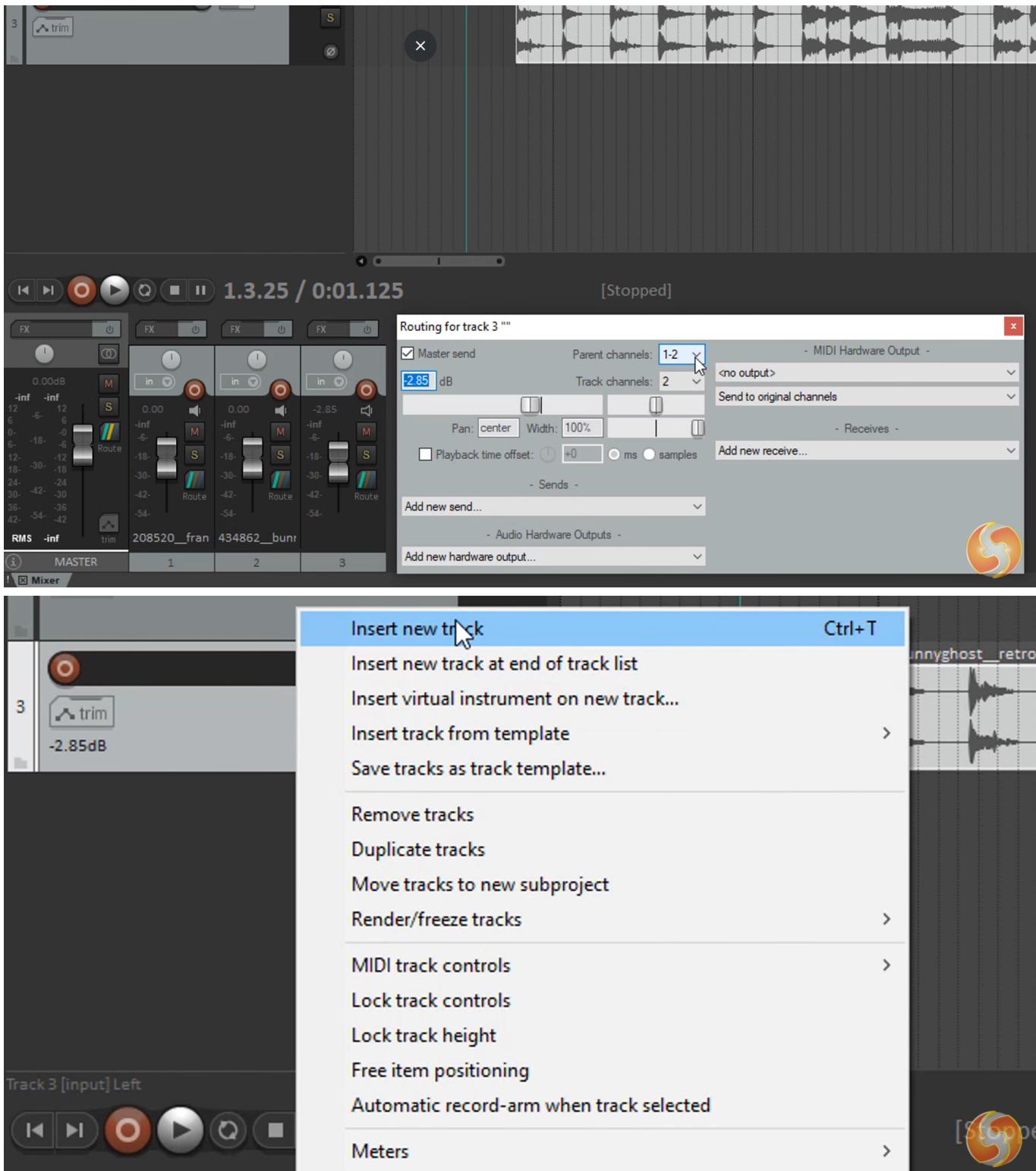
Track Management

- M button to mute track
- S button to solo track (mutes all others)
- Check volume levels with decibel meter (avoid red saturation)
- Main bar adjusts track volume
- Panning knob balances left/right stereo channels
- Master track affects entire audio output
- Right-click track to add/remove/duplicate





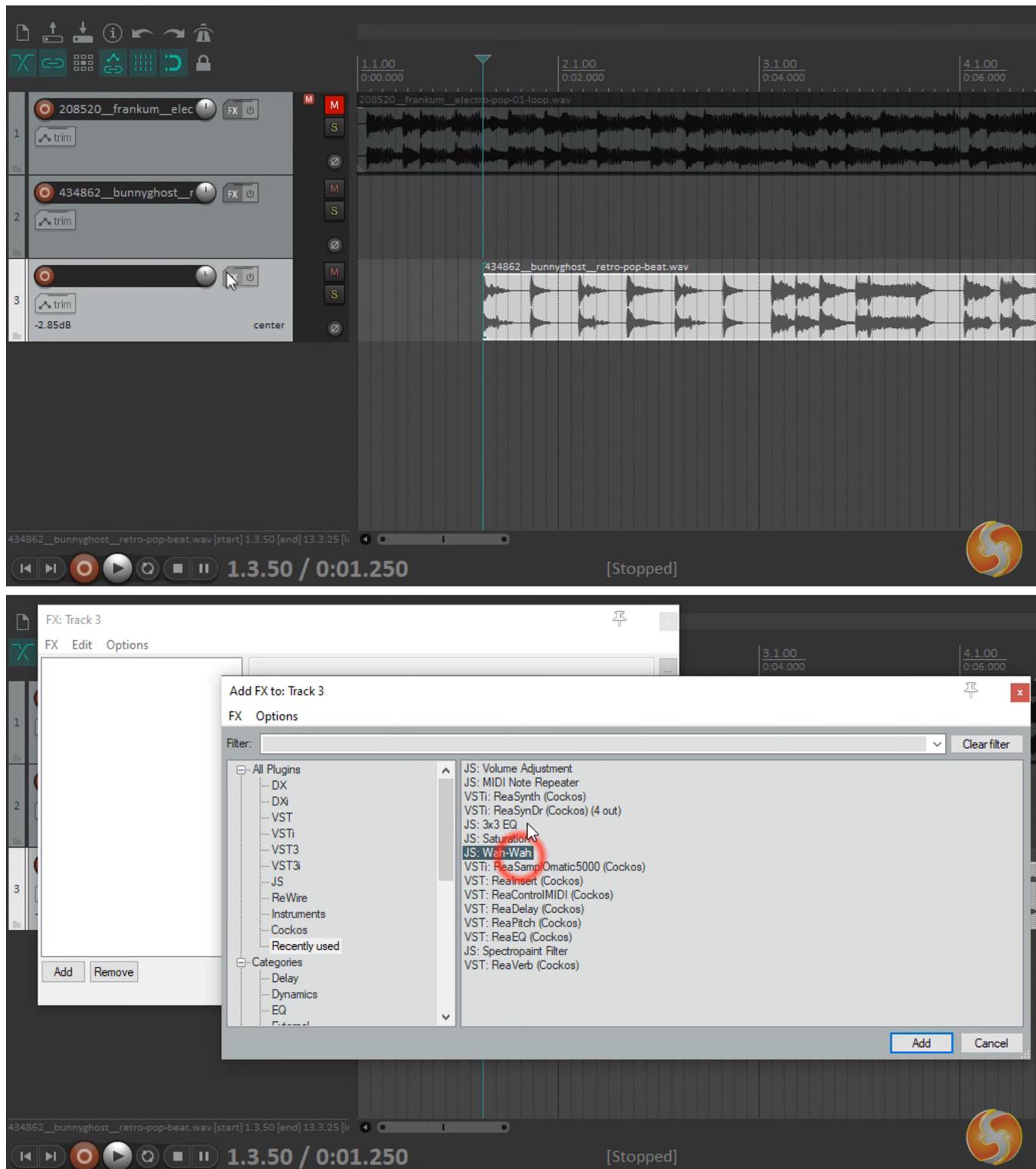




Effects (FX)

- Click FX button to add effects
- Includes VST and JS (Jesusonic) plugins
- Available effects: Reverb, Saturation, Pitch, Delays, EQ filters
- Click checkmark to enable/disable effects
- Drag to reorder effects
- Remove button deletes selected effect
- I/O button next to FX disables all track effects
- Trim button enables envelopes to change properties over time

- Edit envelope points by pulling up/down
- Hold CTRL/CMD while brushing to edit envelope shape
- ALT/Option + click to remove envelope points
- Bypass button hides envelopes



JS Development Environment

```
C:\Users\SKILLS\AppData\Roaming\REAPER\Effects\guitar\wah
// This effect Copyright (C) 2004 and later Cockos Incorporated
// License: LGPL - http://www.gnu.org/licenses/lgpl.html

desc: Wah-Wah
//tags: guitar modulation filter gain
//author: Cockos

slider1:0<0,1>Position
slider2:0.7<0,1>Resonance (Top) (0..1)
slider3:0.1<0,1>Resonance (Bottom) (0..1)
slider4:0.05<0,0.1>Filter Distortion

in_pin:input
out_pin:output

@slider

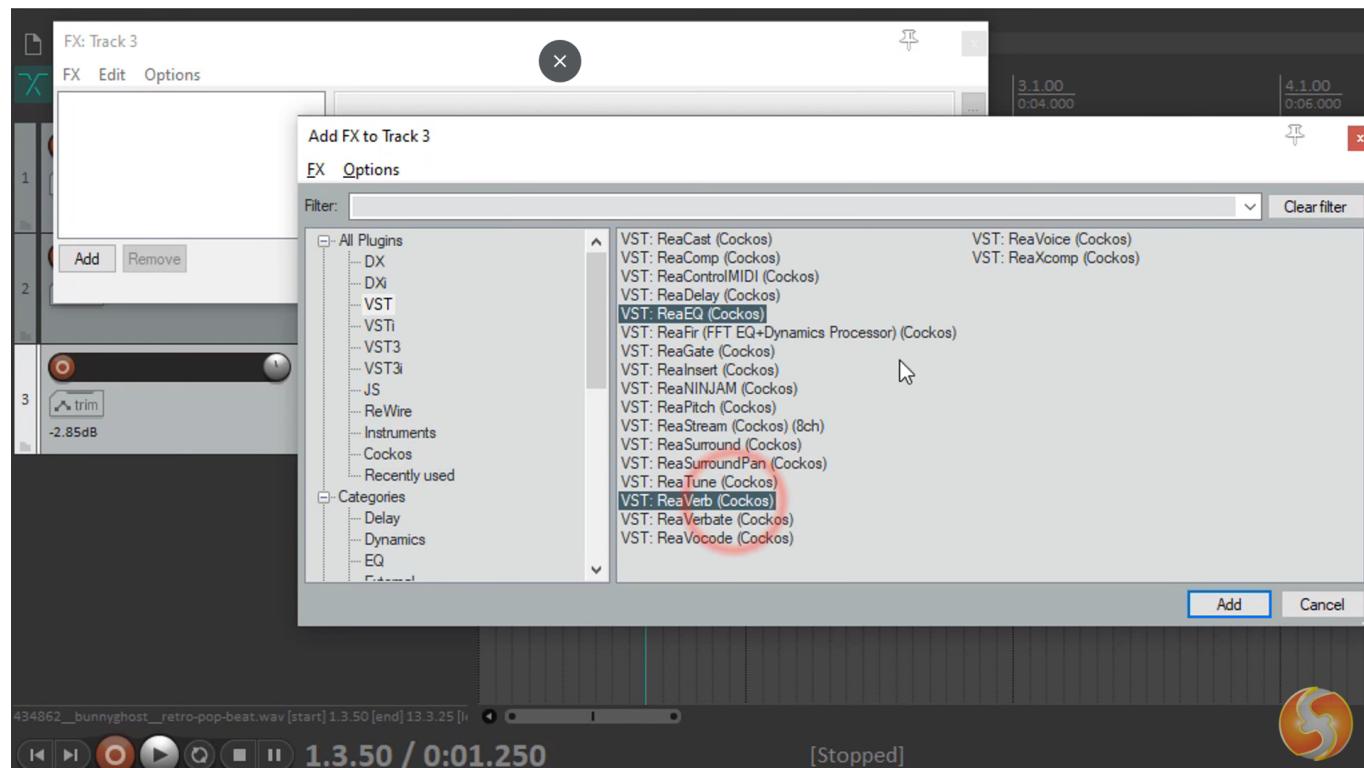
maxfreq=2000;
minfreq=200;
pos=slider1/.819;
pos=1-pos;
fh=minfreq+(pos)*(maxfreq-minfreq);
Ctrl+(Pane Find/Replace maTch Save Line 1/54 [1-23] Col 0 [INS]
```

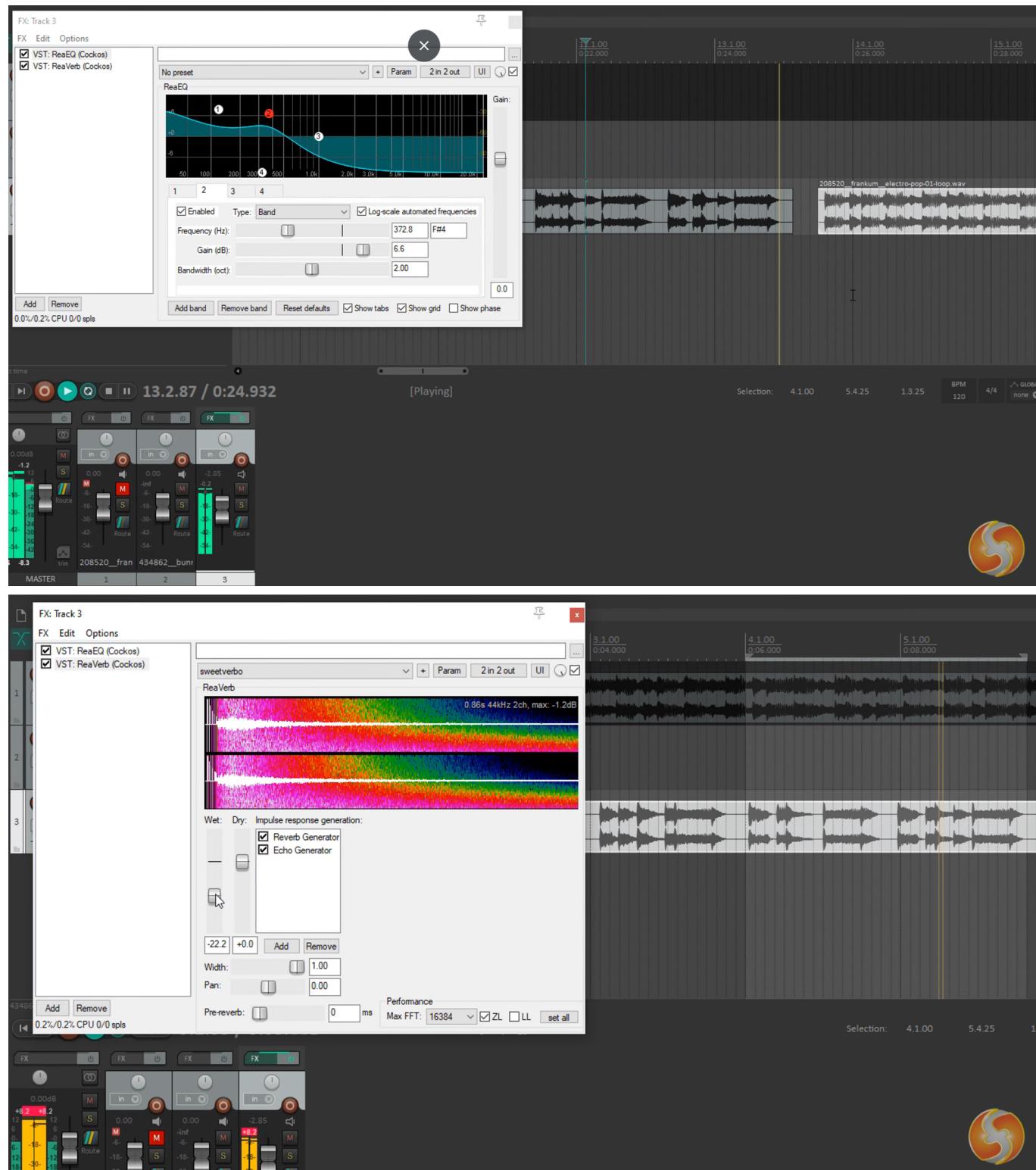
Full recompile/reset Open in external editor

Name	Value	Refs
band	-0	17
damp	0.32667994...	3
drive	0.05	3
fh	2000	6
freq	0.14235538...	7
high	-0	4
in	0	3
low	0	6
maxfreq	2000	4
minfreq	200	5
notch	0	4
out	-0	2
pos	1	6
res	0.49	6

System variables:
beat position 2.5 0

Refresh now Auto-refresh 





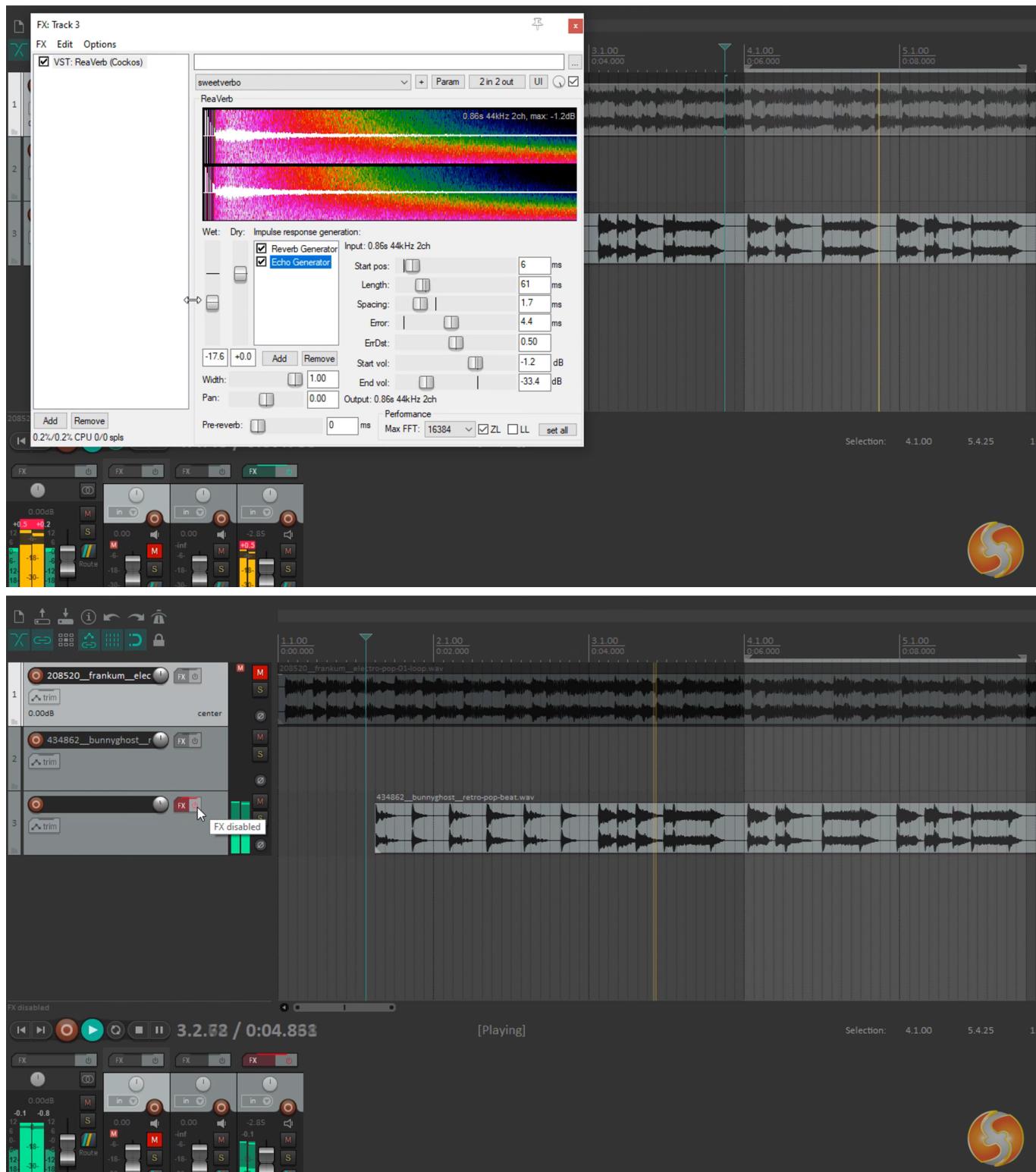
The screenshot shows the FX: Track 3 window with the VST ReaEQ (Cockos) effect applied to track 1. The equalizer curve is displayed with several frequency bands selected. The parameters are set as follows:

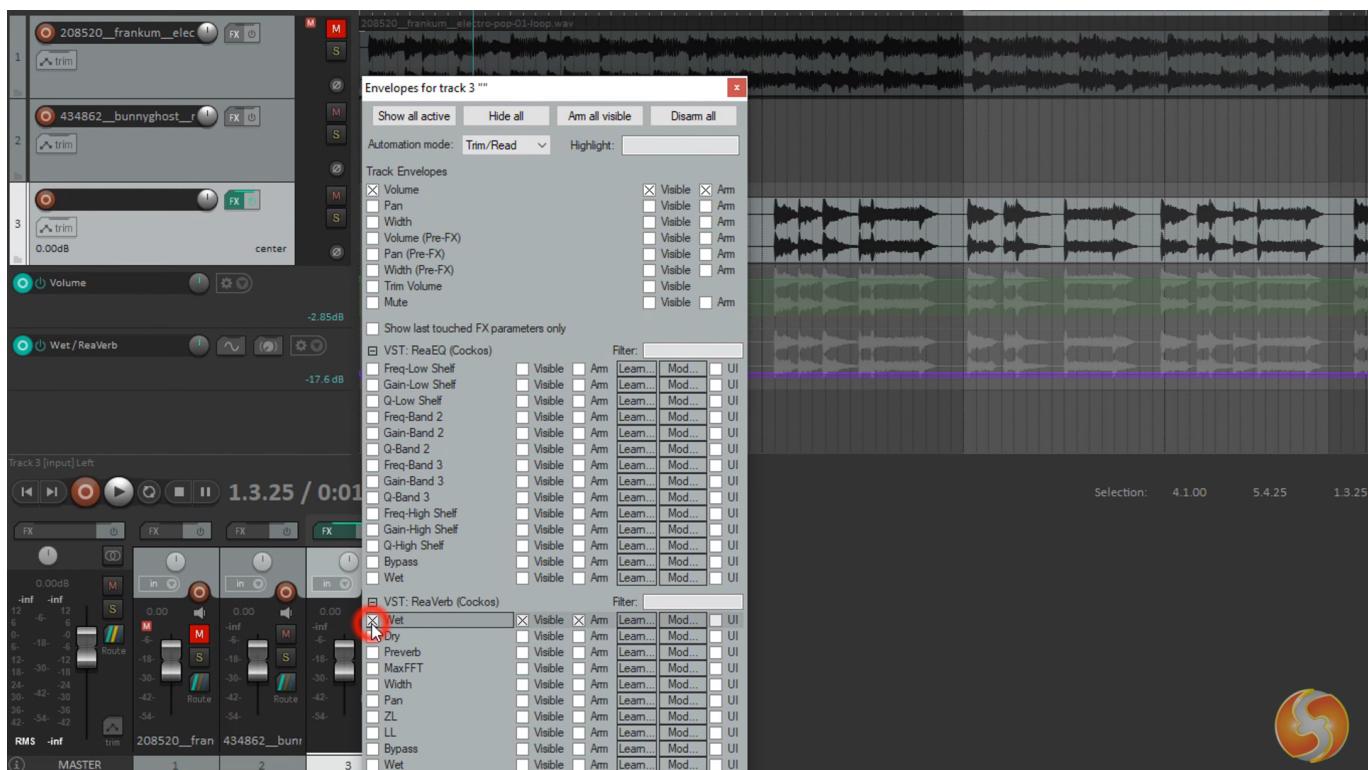
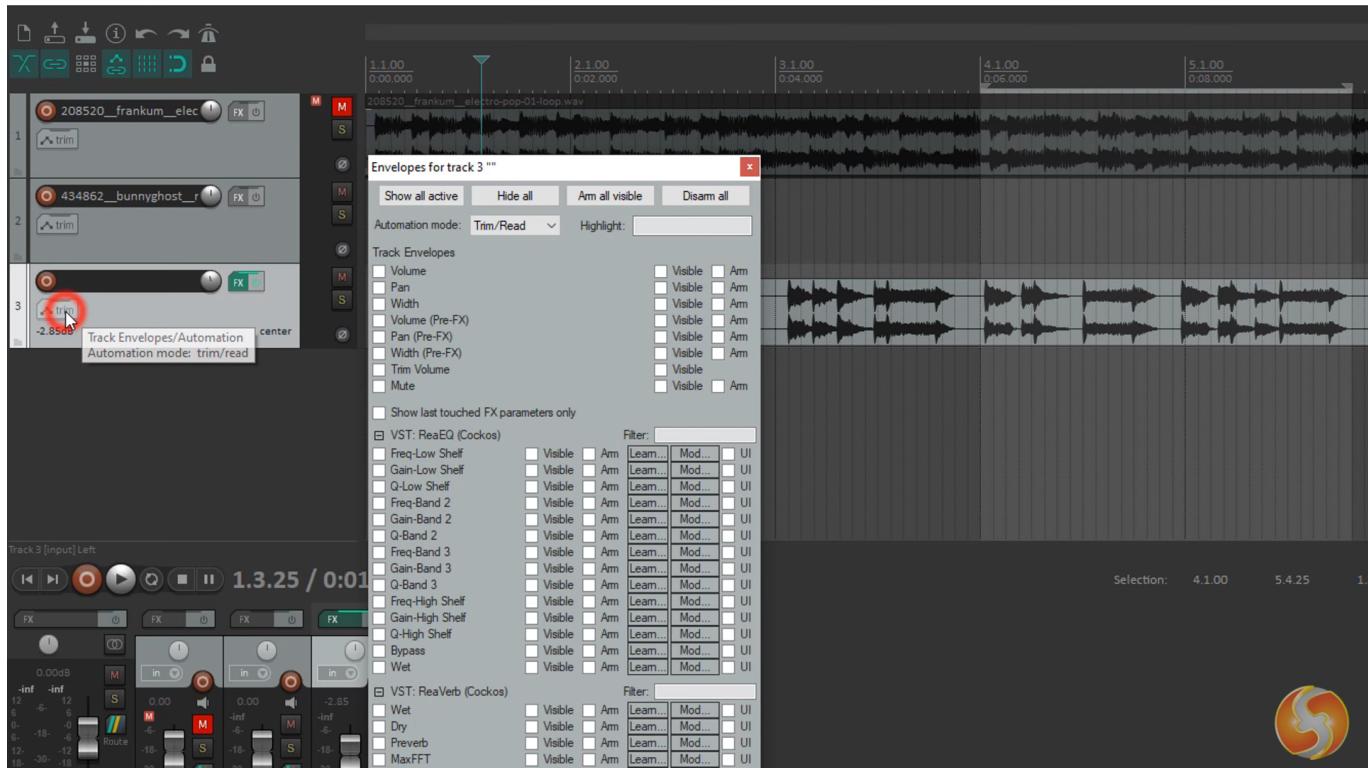
- Type: Band
- Frequency (Hz): 372.8 (F#4)
- Gain (dB): 6.6
- Bandwidth (oct): 2.00

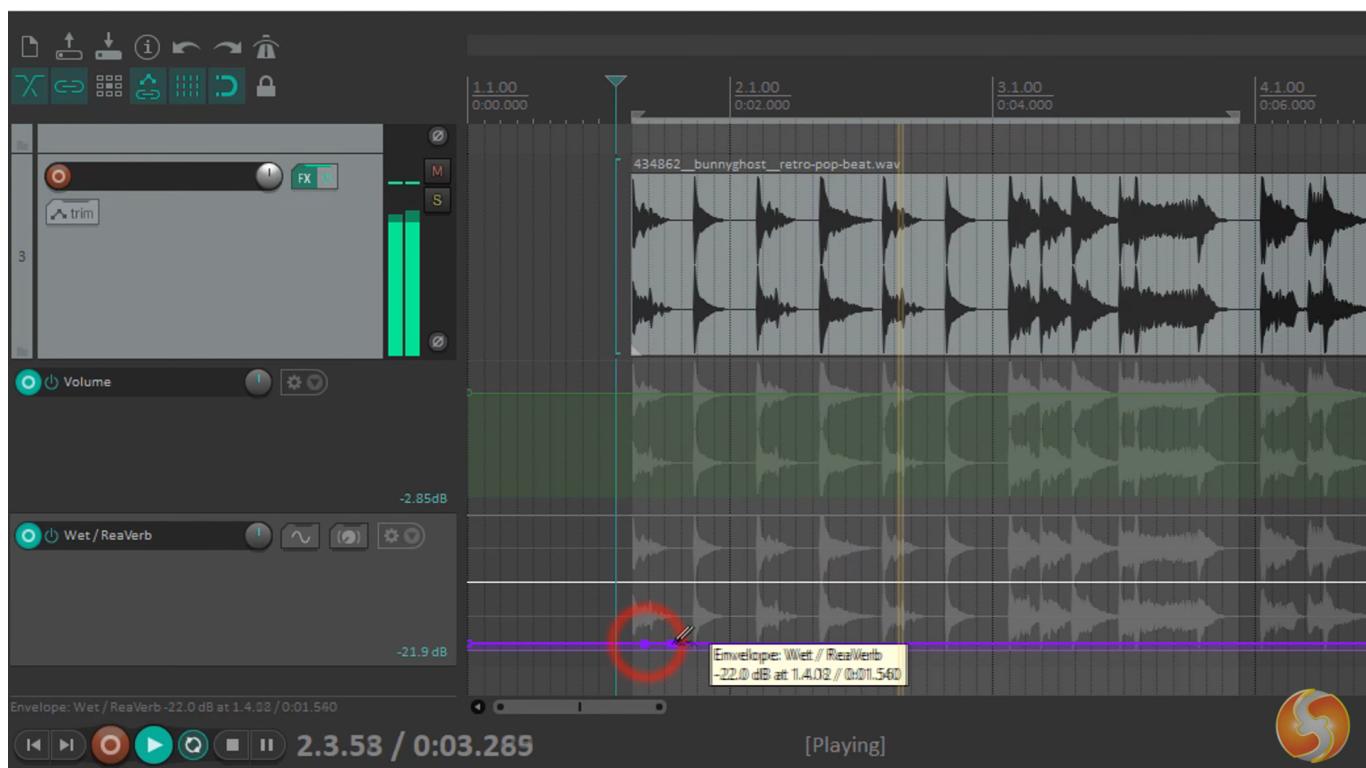
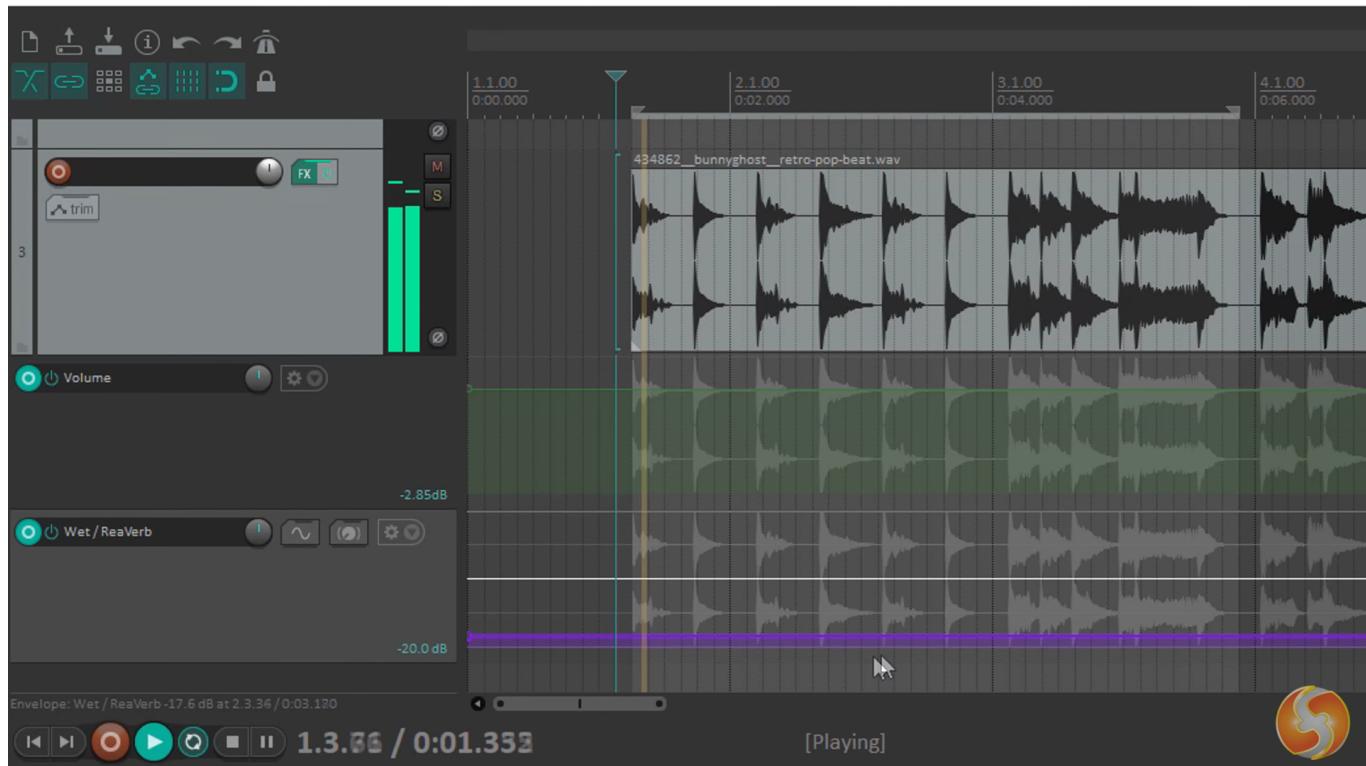
The main interface includes tabs for Add, Remove, and other options like Show tabs, Show grid, and Show phase.

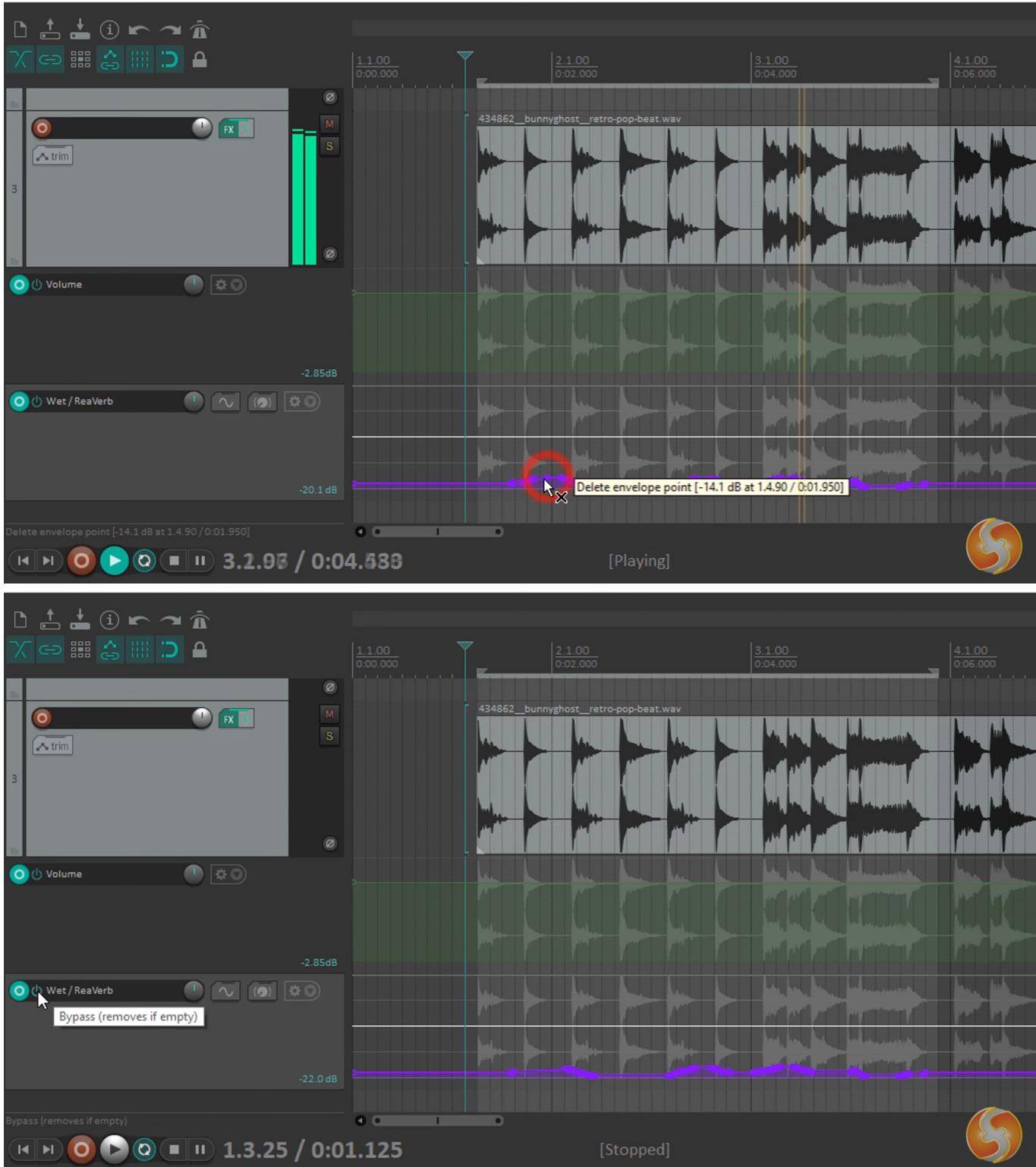
A screenshot of a digital audio workstation (DAW) interface. At the top left, the file path is shown as '434862_bunnyghost_retro-pop-beat.wav [start] 1.3.50 [end] 13.3.25 [i]'. The main title '3.3.30 / 0:05.149' is centered above a row of buttons: play/pause (orange), stop (red), record (green), and a double arrow (blue). Below these are four FX buttons labeled 'FX' with small icons. The central part of the screen features three sets of volume faders and meters. The first set has levels of -1.7 and -0.8 dB. The second set has levels of 0.00 and 0.00 dB. The third set has levels of -inf and -2.85 dB. Each set includes a red M button, a green S button, and a blue R button. On the far left, there's a color-coded vertical bar with values from -18 to 0. The right side of the interface shows the text '[Playing]' in a yellow box, followed by 'Selection: 4.1.00' and '5.4.25'. A large orange and yellow circular logo is in the bottom right corner.

The screenshot shows the FX: Track 3 interface. On the left, a sidebar lists tracks 1, 2, and 3. The main window displays a ReaEQ plugin with four tabs (1, 2, 3, 4) and a frequency response graph. The graph shows a bandpass filter centered around 372.8 Hz with a gain of 6.6 dB and a bandwidth of 2.00 octaves. The interface includes checkboxes for 'Enabled' and 'Type: Band', and options for 'Log-scale automated frequencies'. Below the graph, there are buttons for 'Add band', 'Remove band', 'Reset defaults', and checkboxes for 'Show tab', 'Show grid', and 'Show phase'. The right side of the screen shows a waveform analysis view with two tracks, each with a 4-second clip. The top track has a peak value of 4.100 at 0:06.000, and the bottom track has a peak value of 5.100 at 0:08.000.





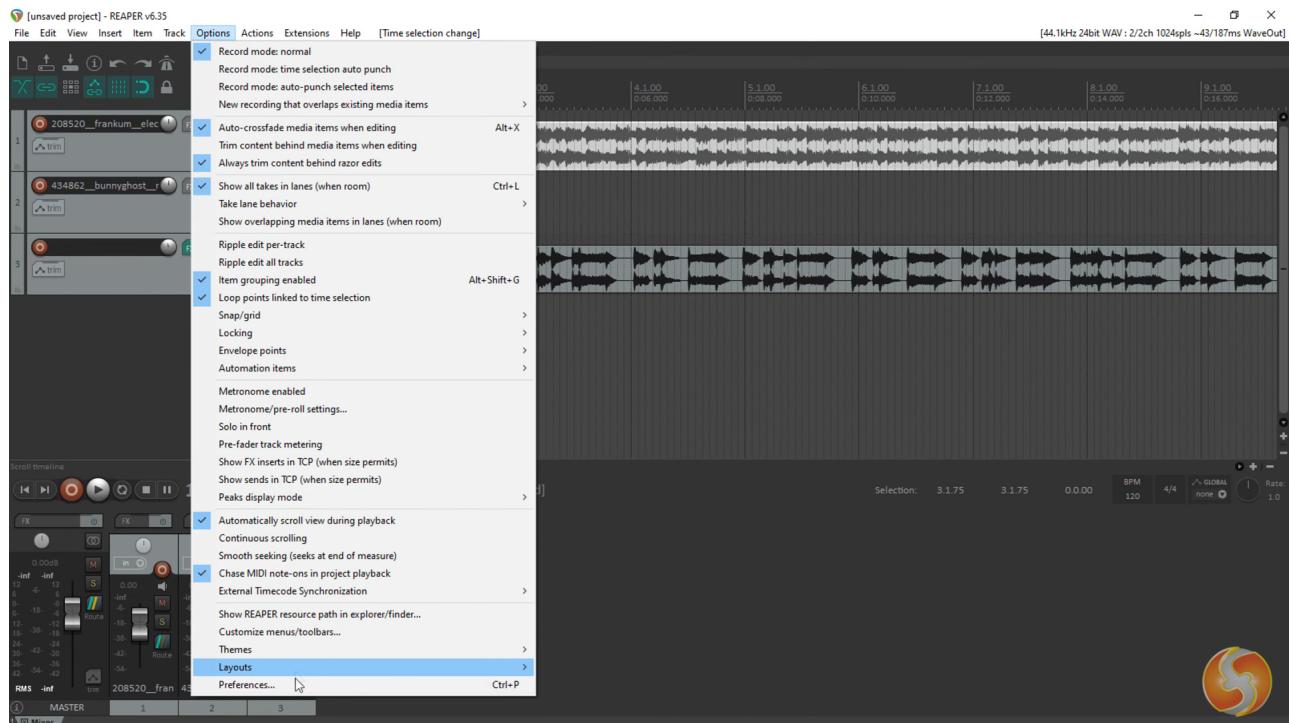
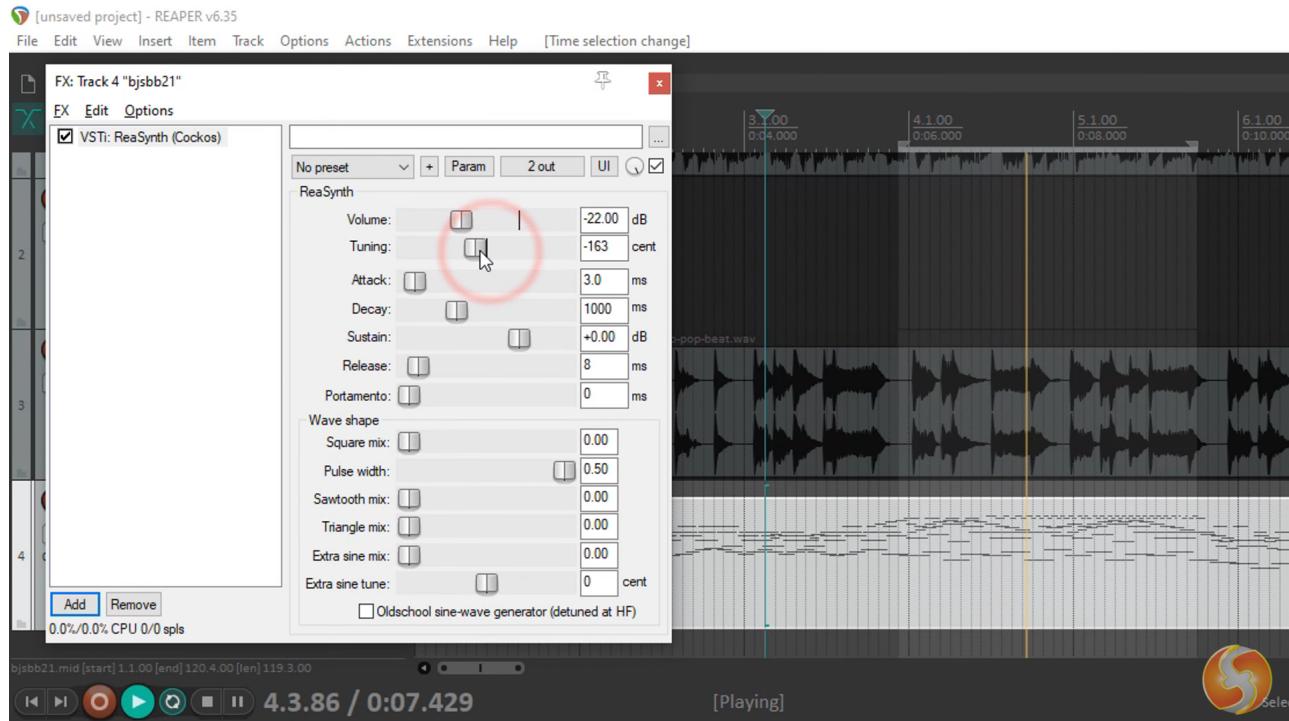


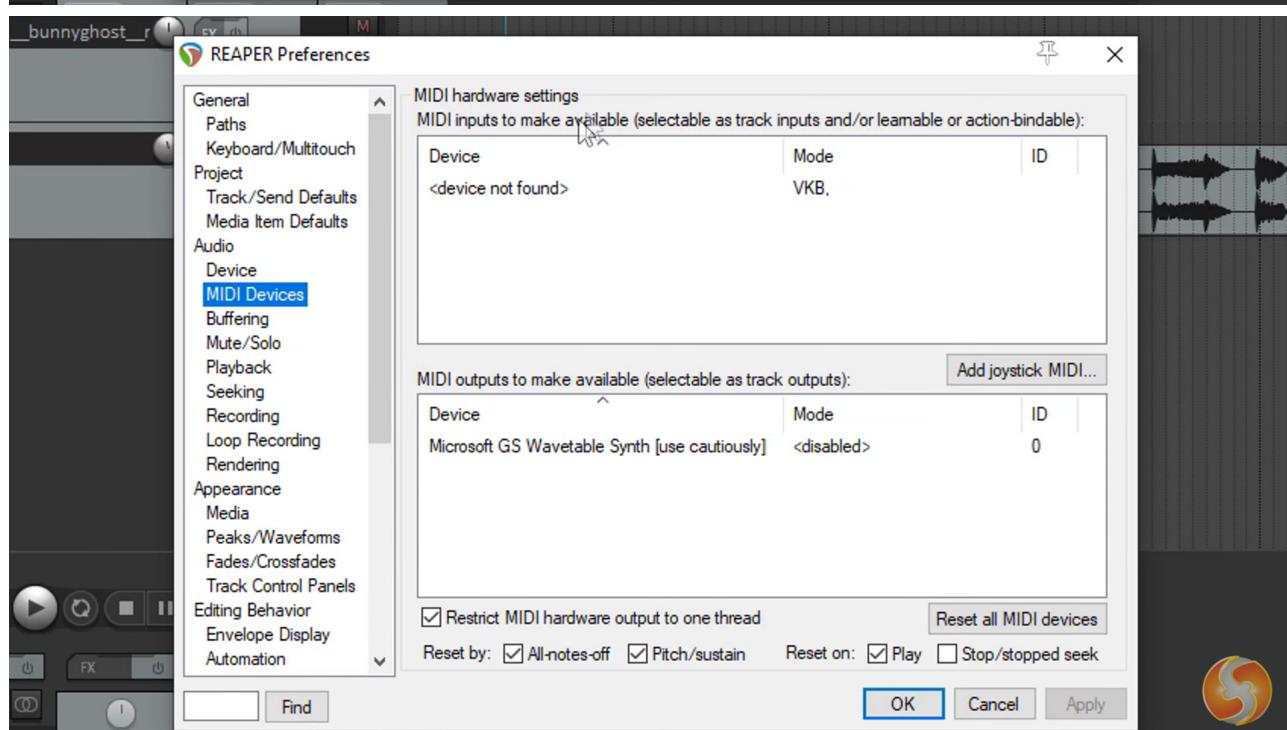
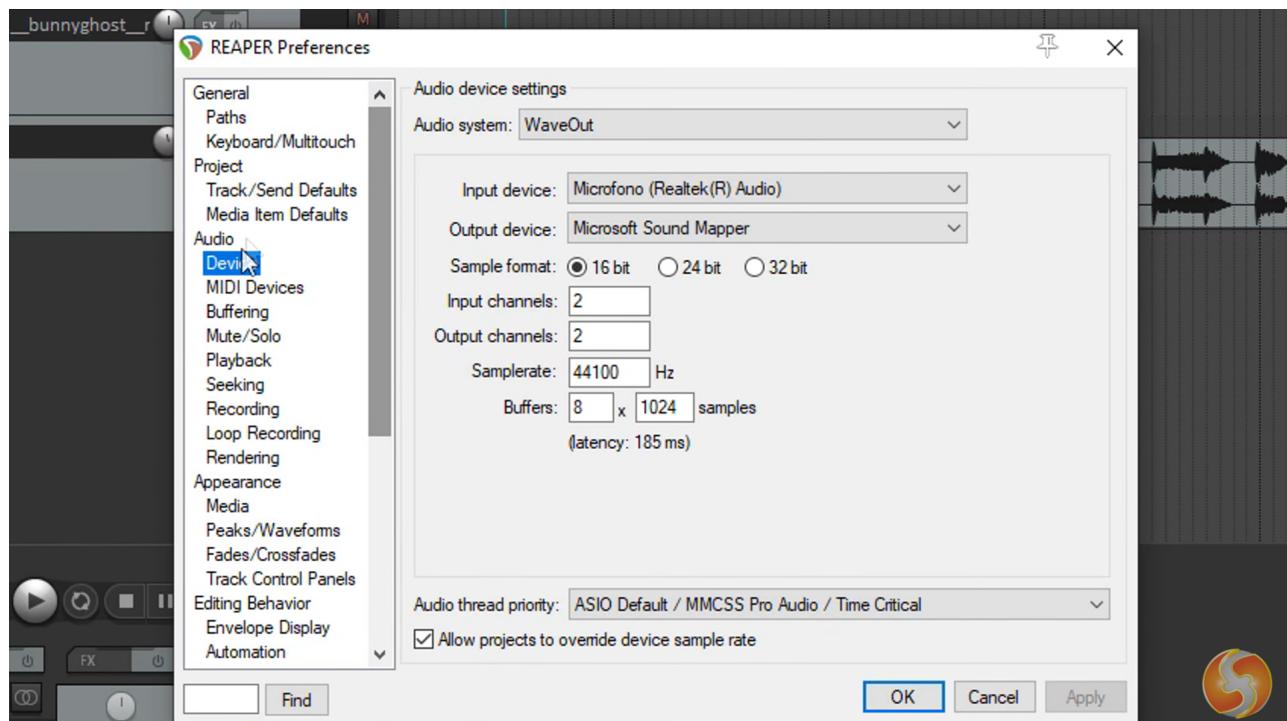


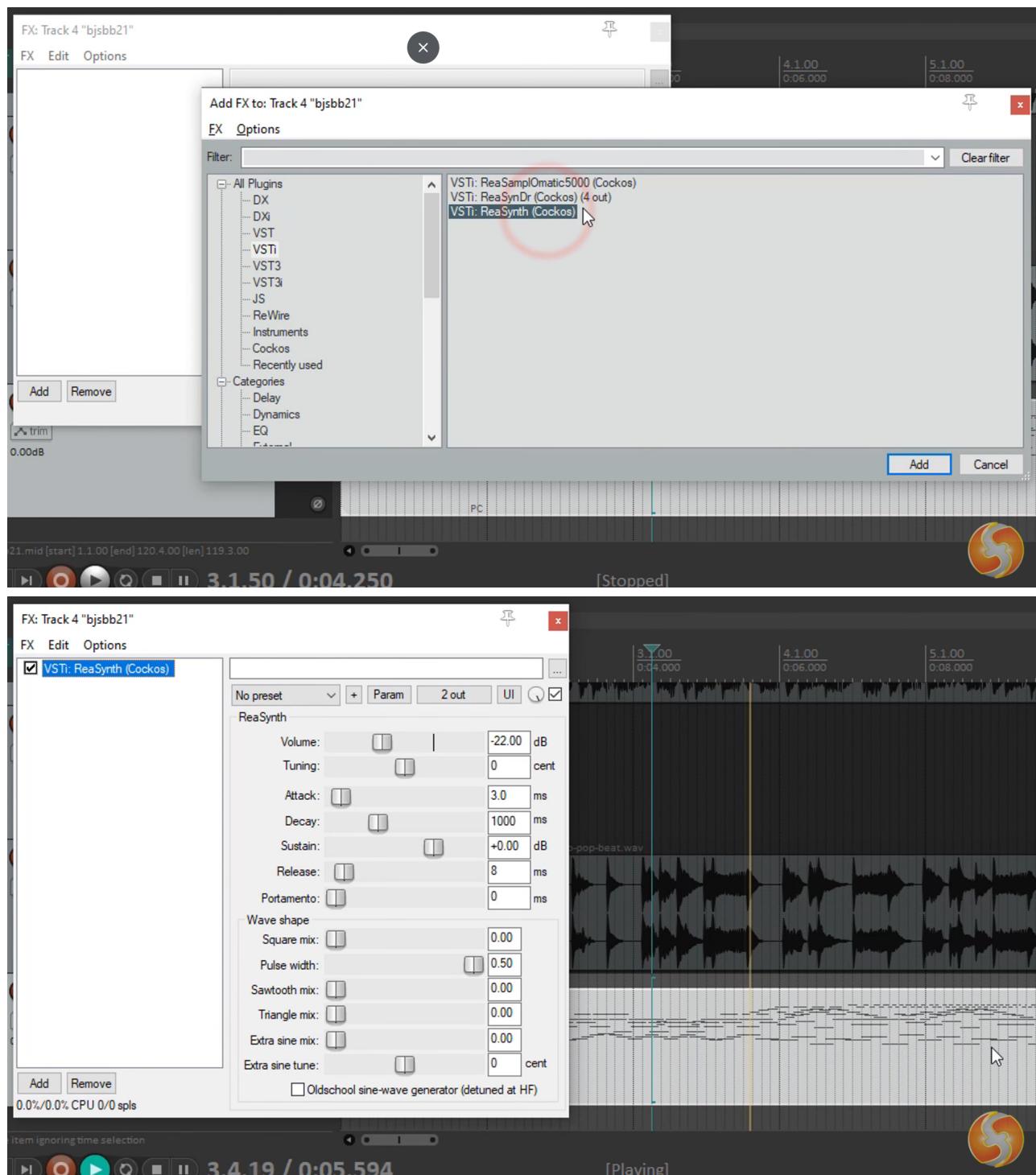
MIDI Files

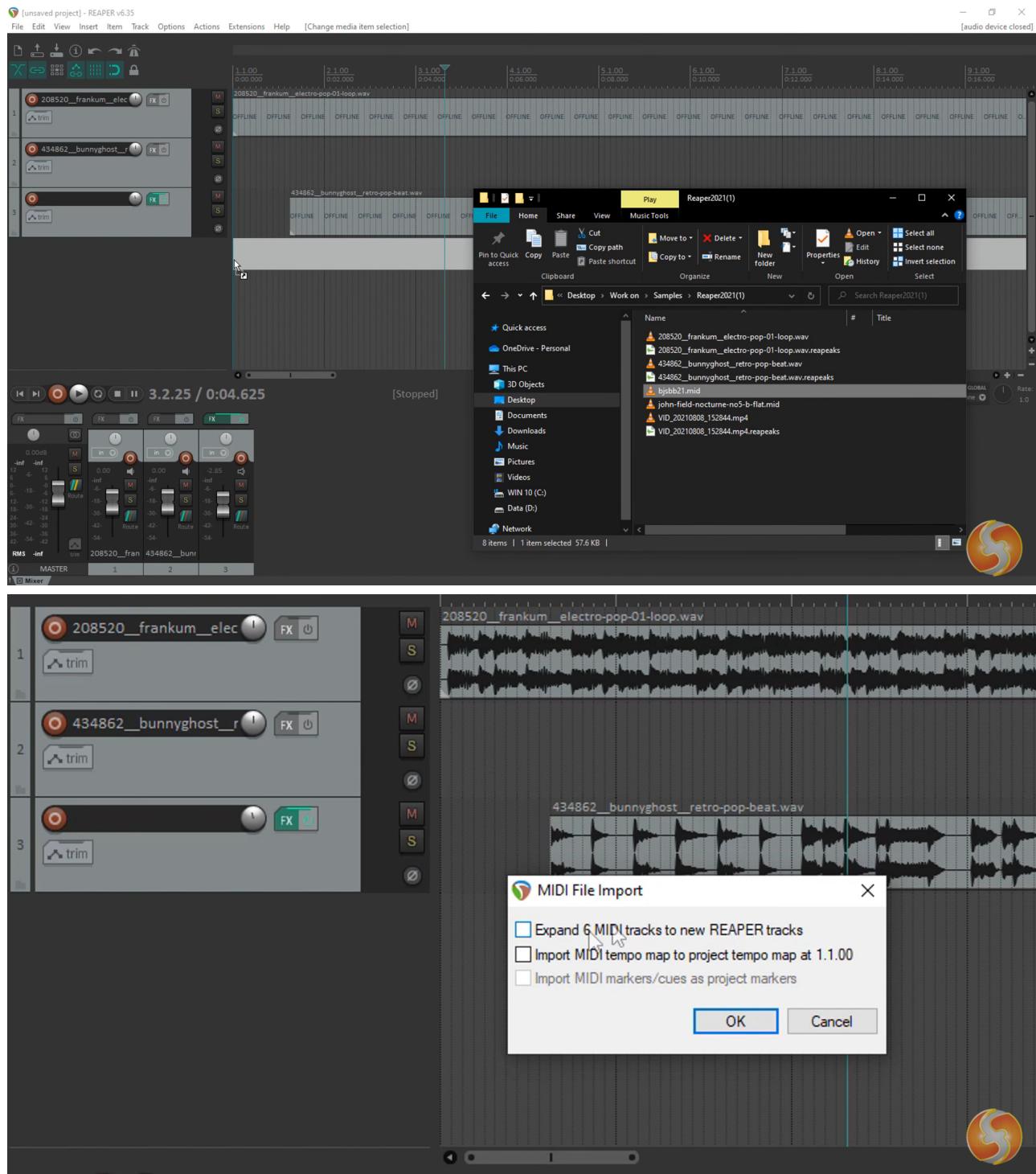
- Import by drag and drop
- May offer options to extract tracks or match tempo
- Must assign instruments to MIDI tracks via FX > Instruments
- ReaSynth for melodic sounds
- ReaSynDr for percussion/drums
- Right-click > Insert virtual instrument for new track with synth
- Hold CTRL/CMD and drag to create new MIDI item
- Press E or double-click to open Piano Roll editor

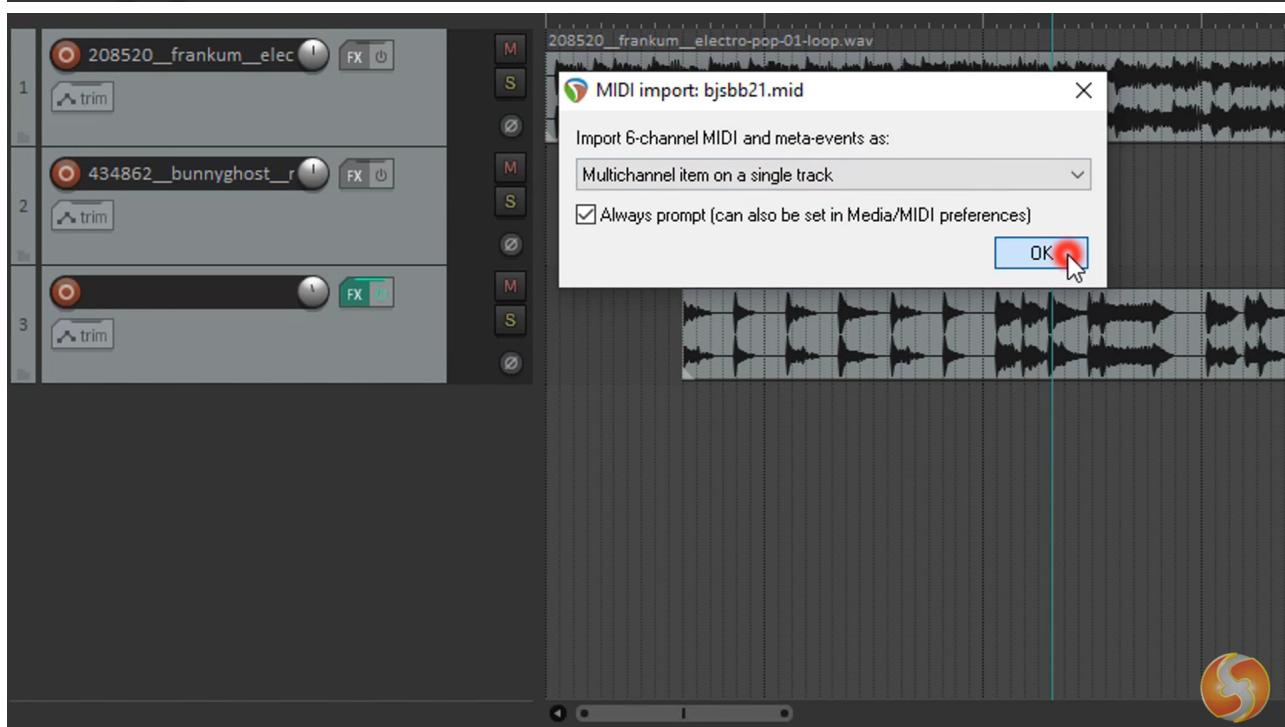
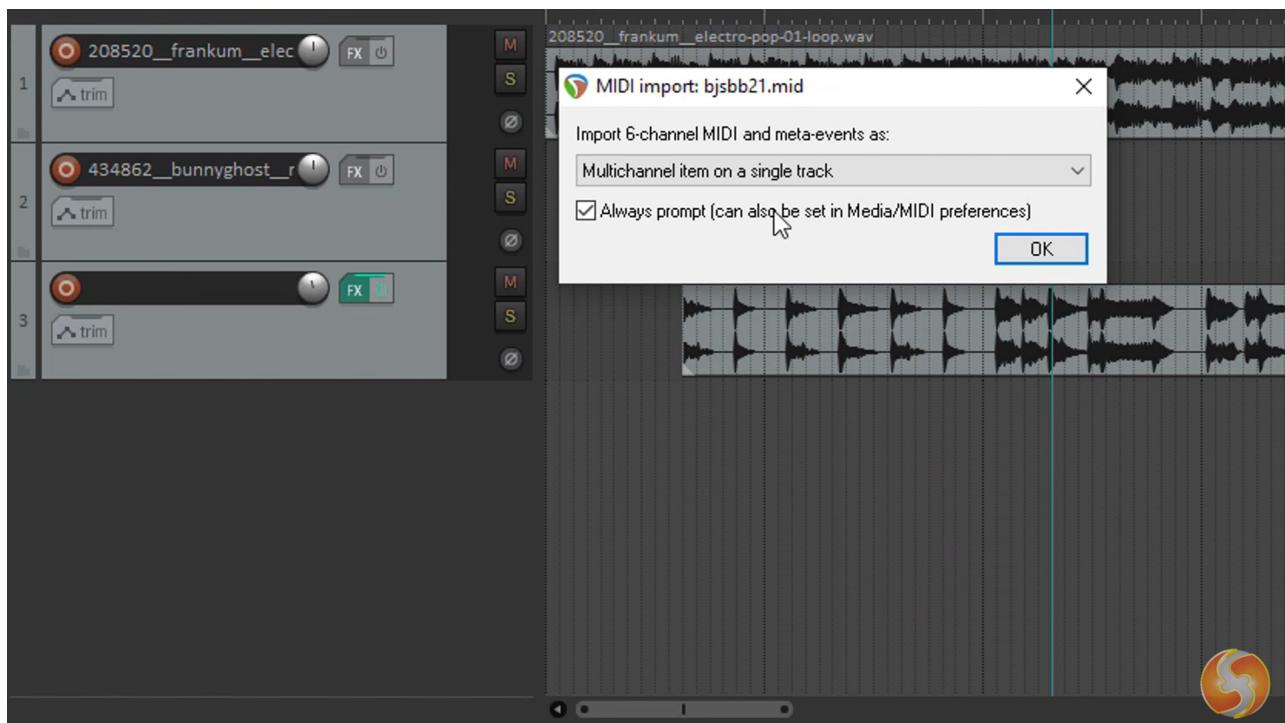
- Click piano keys to test sounds
- Click and drag in Piano Roll to place notes
- Move notes by dragging (changes time and pitch)
- Drag note edges to adjust length
- Pull down top line to adjust velocity
- Use CTRL/CMD + X to cut/remove notes
- Bottom panel adjusts note properties
- Hold CTRL/CMD to draw velocity envelopes
- ALT/Option to remove envelope points

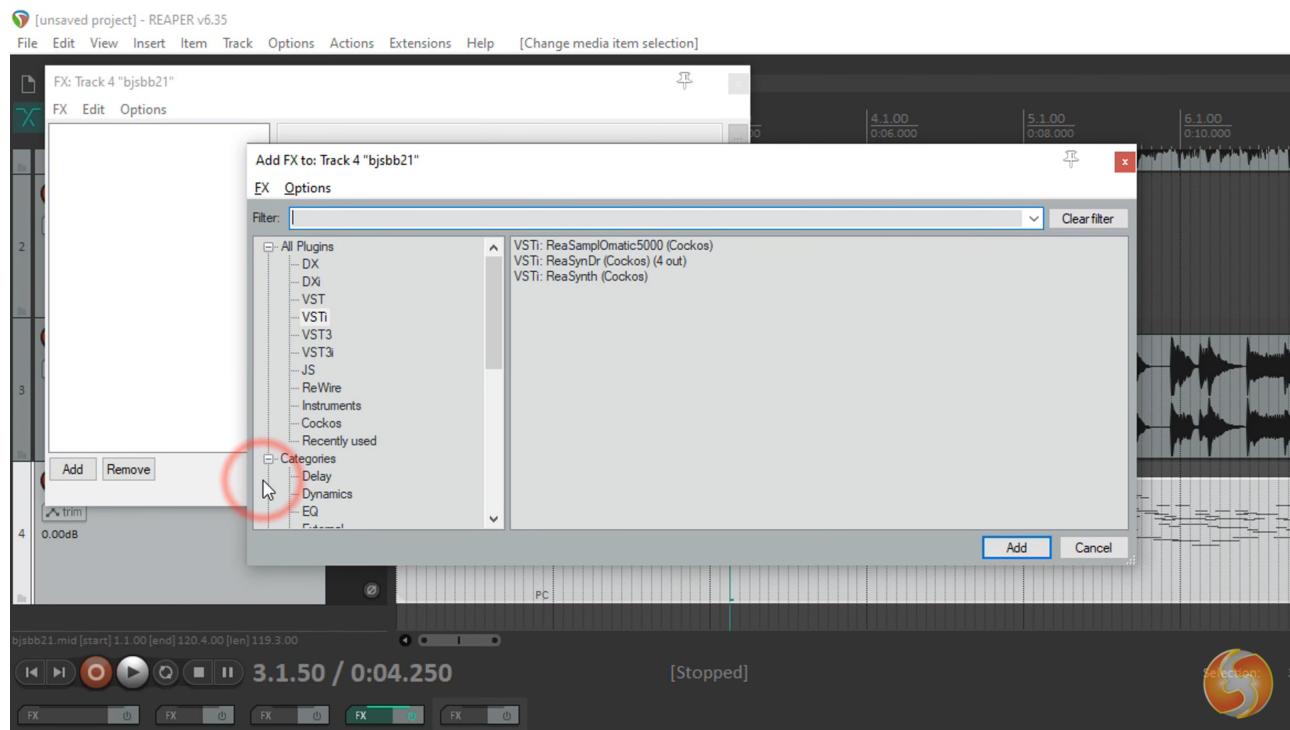
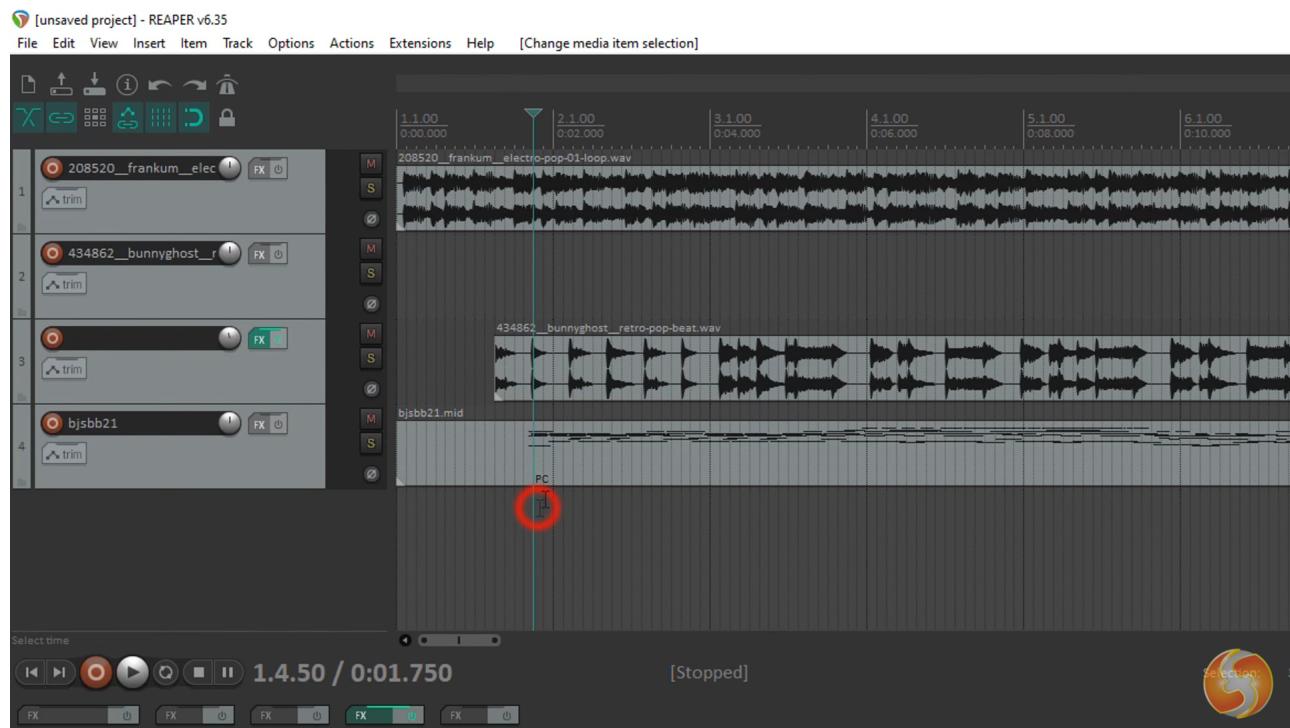


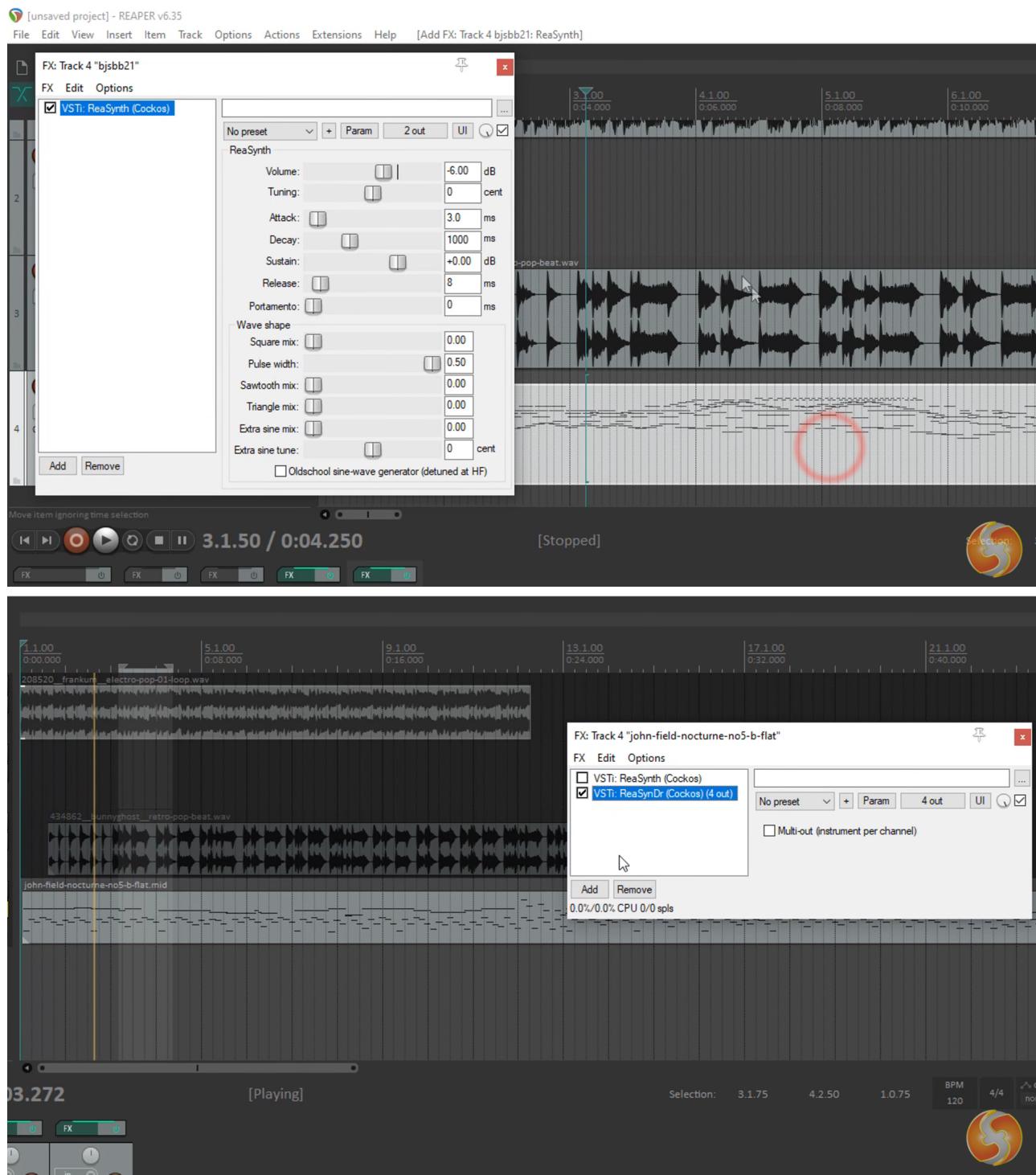


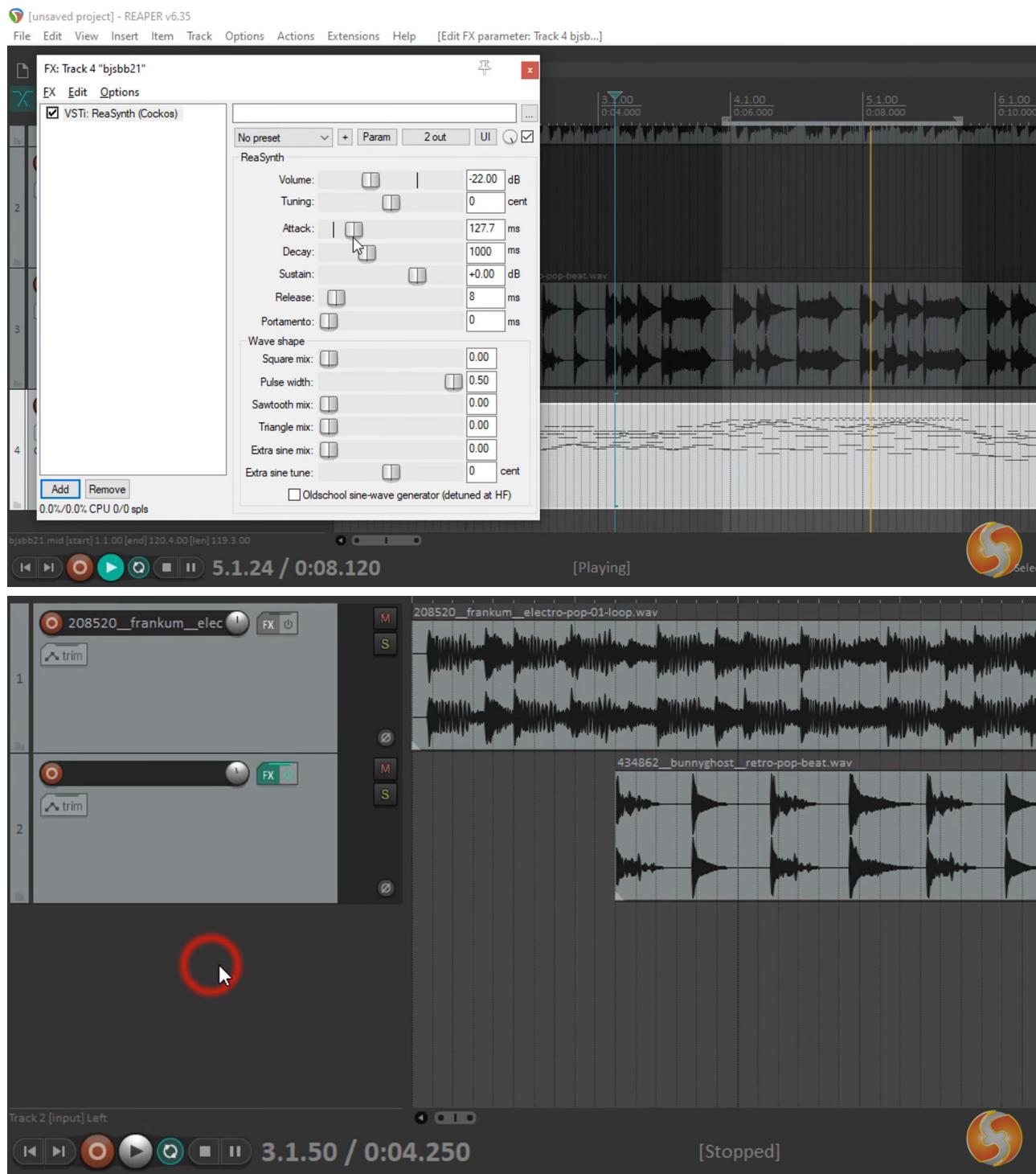


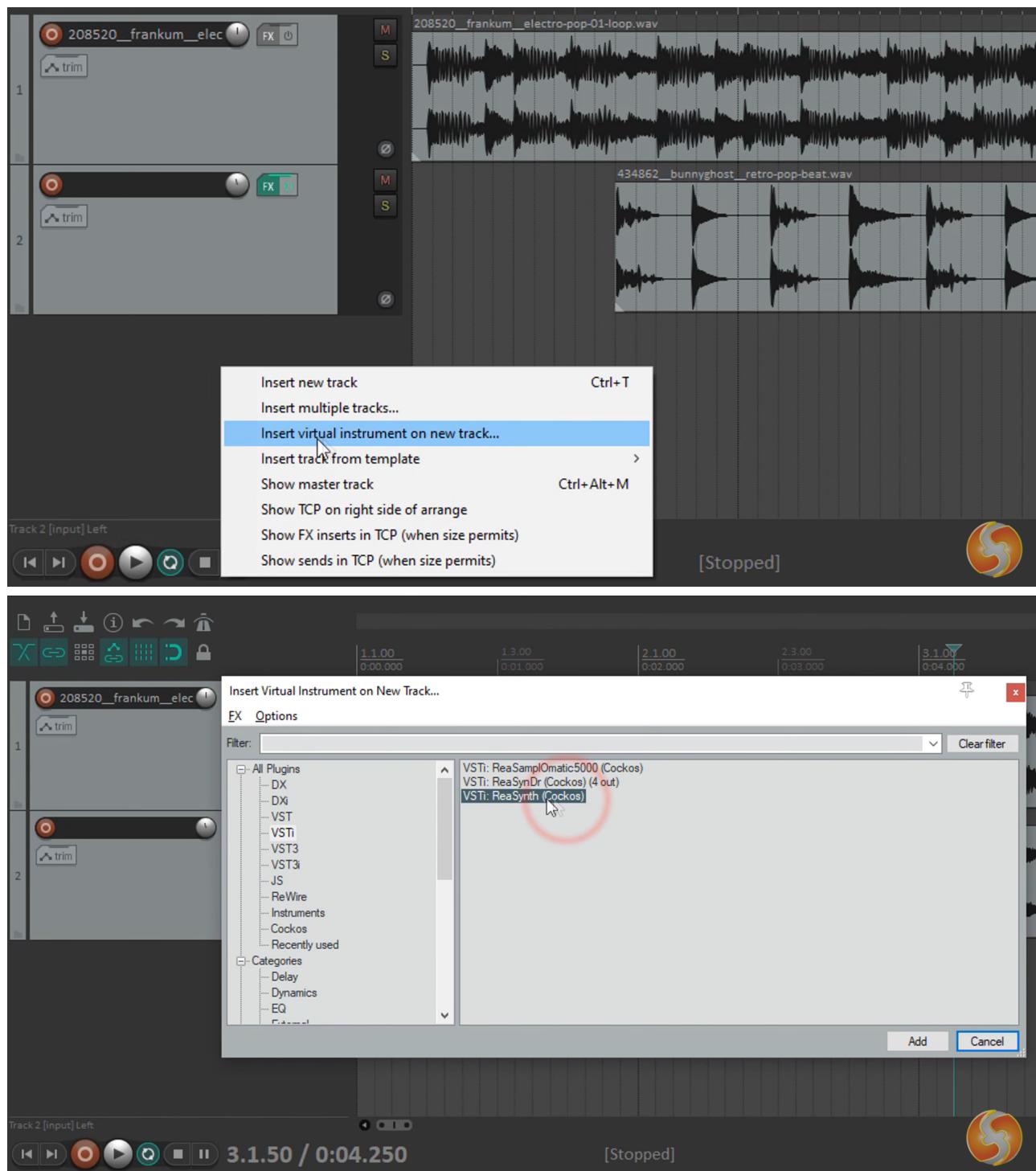


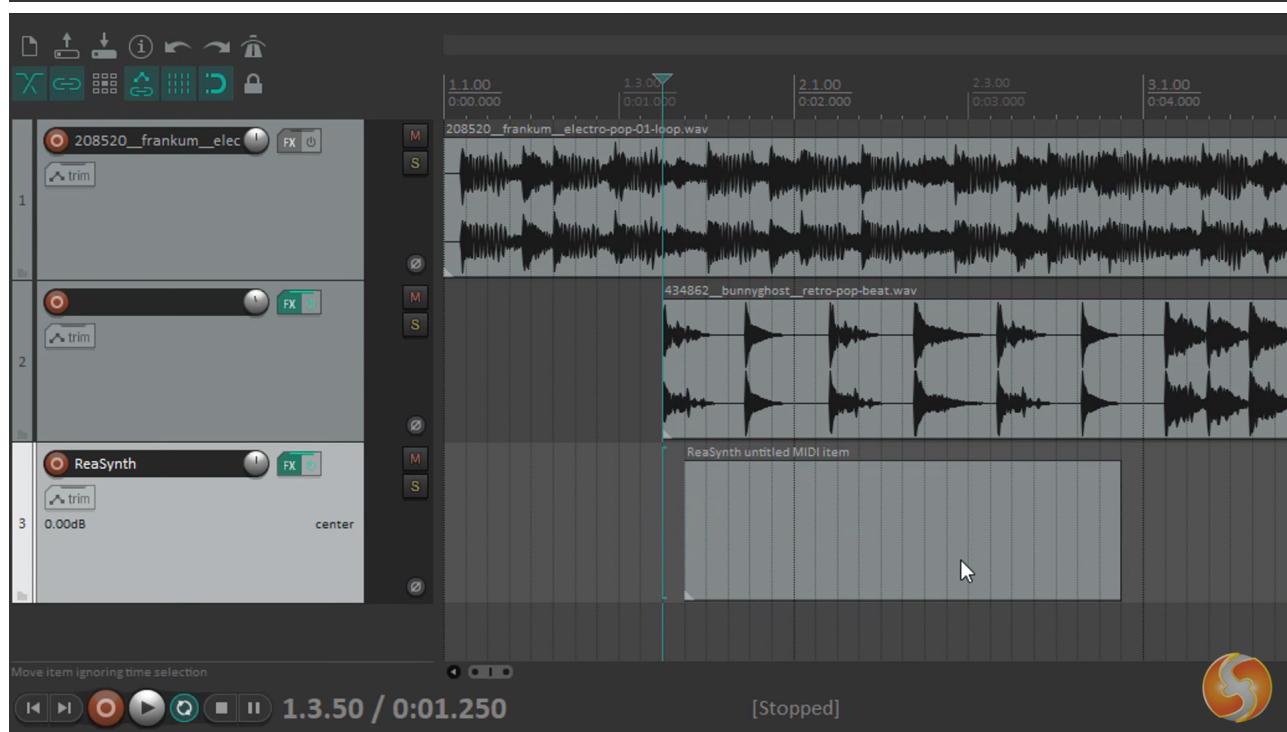
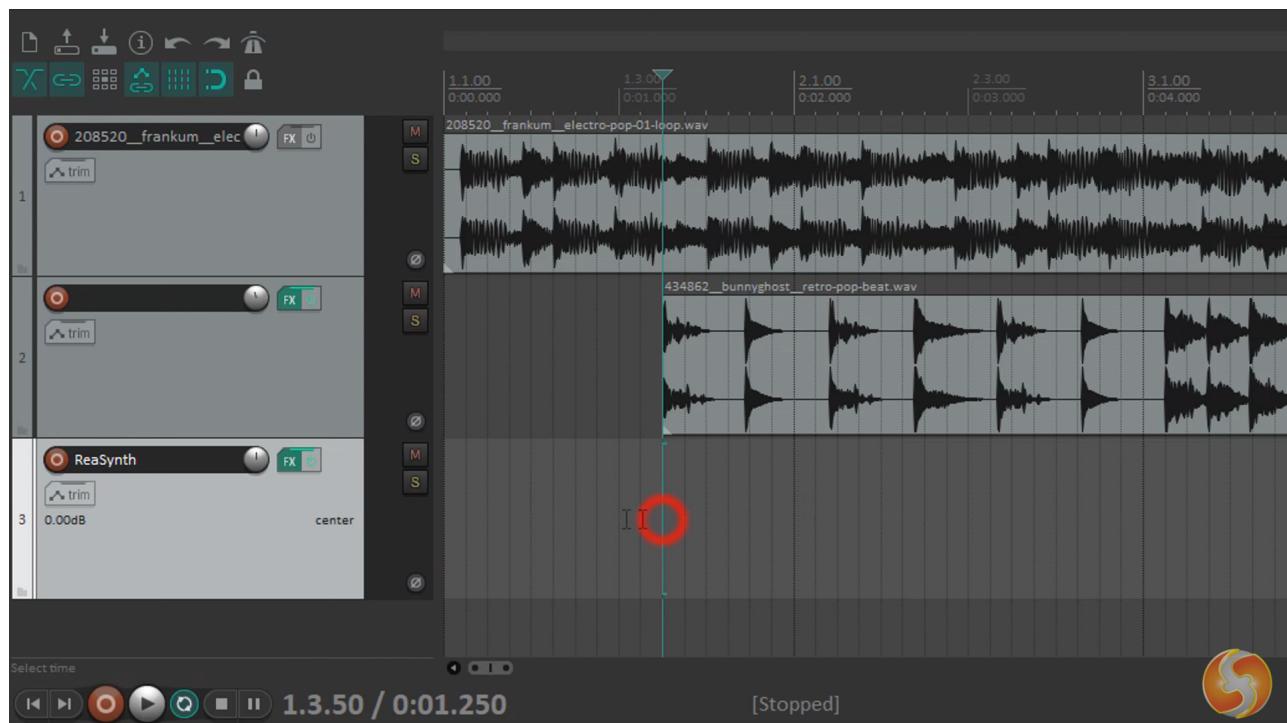


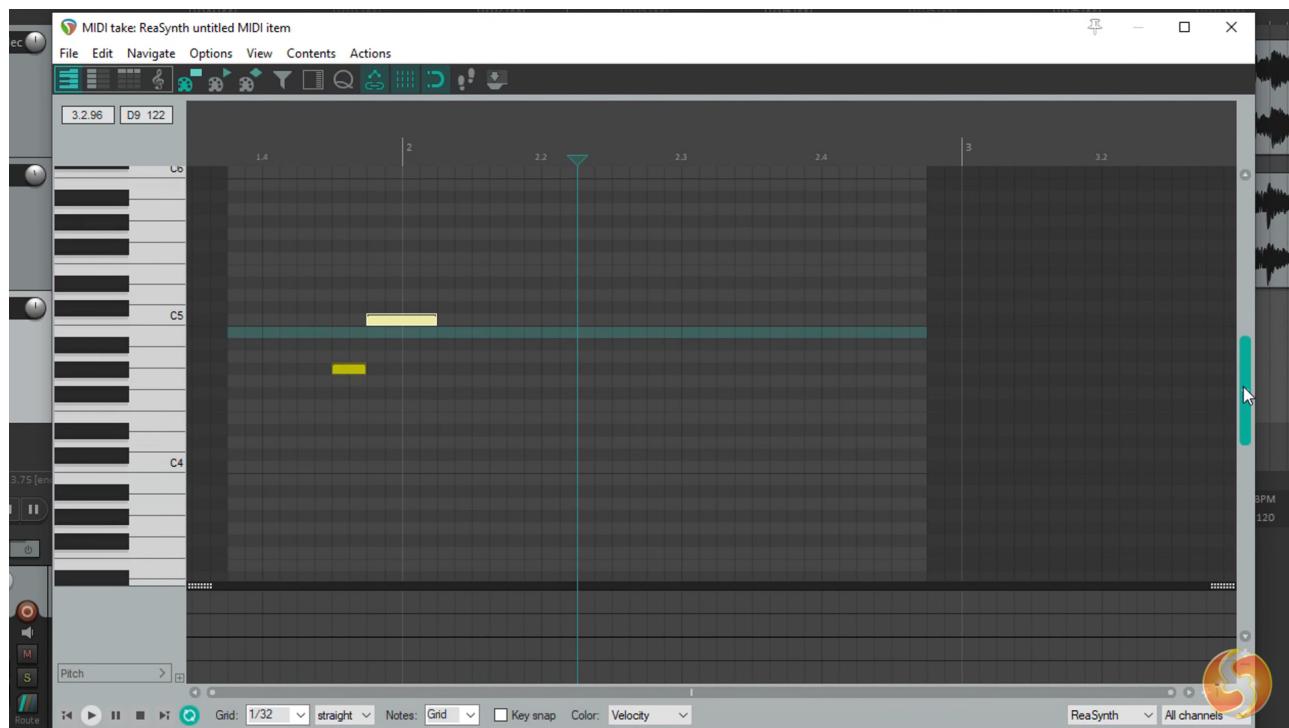
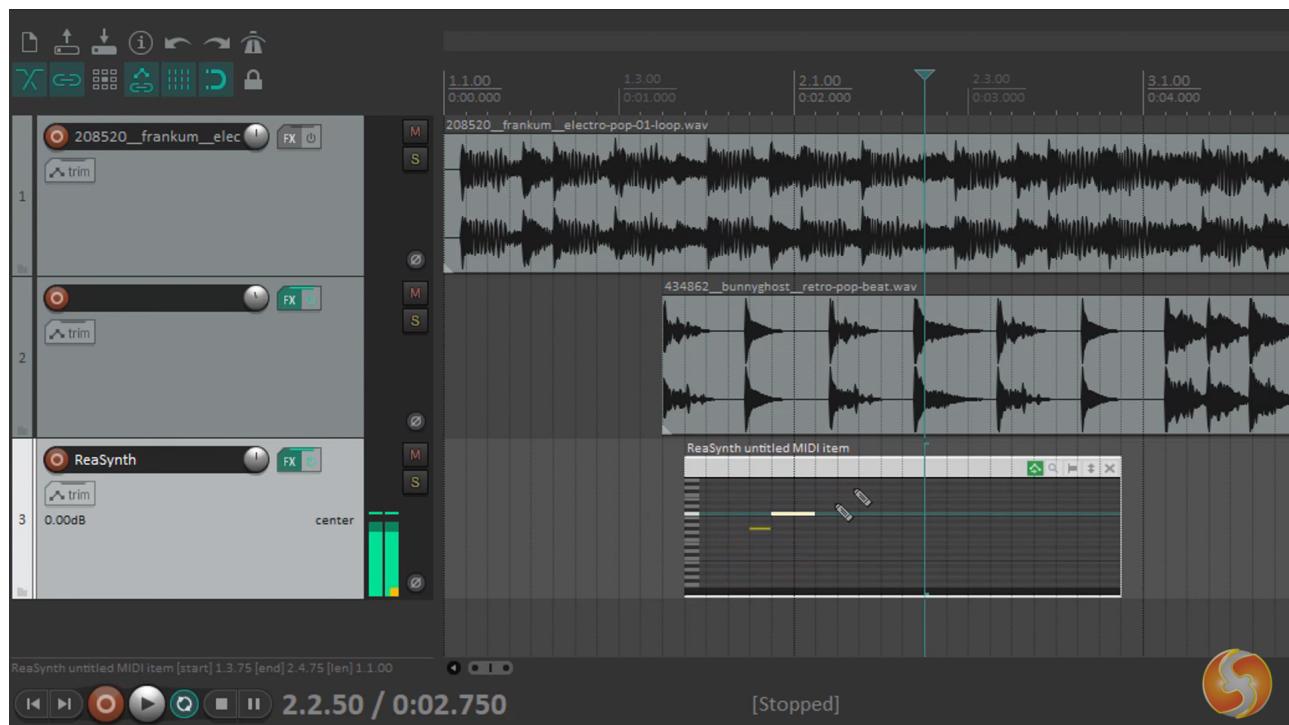


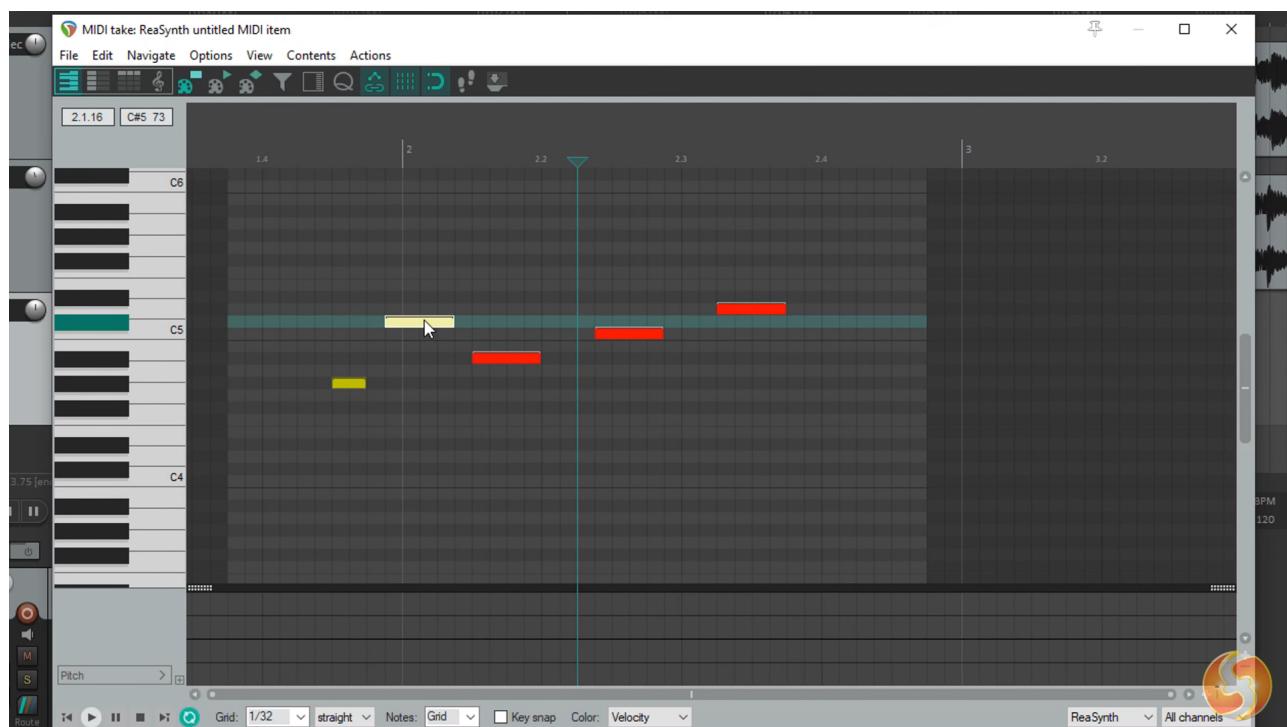
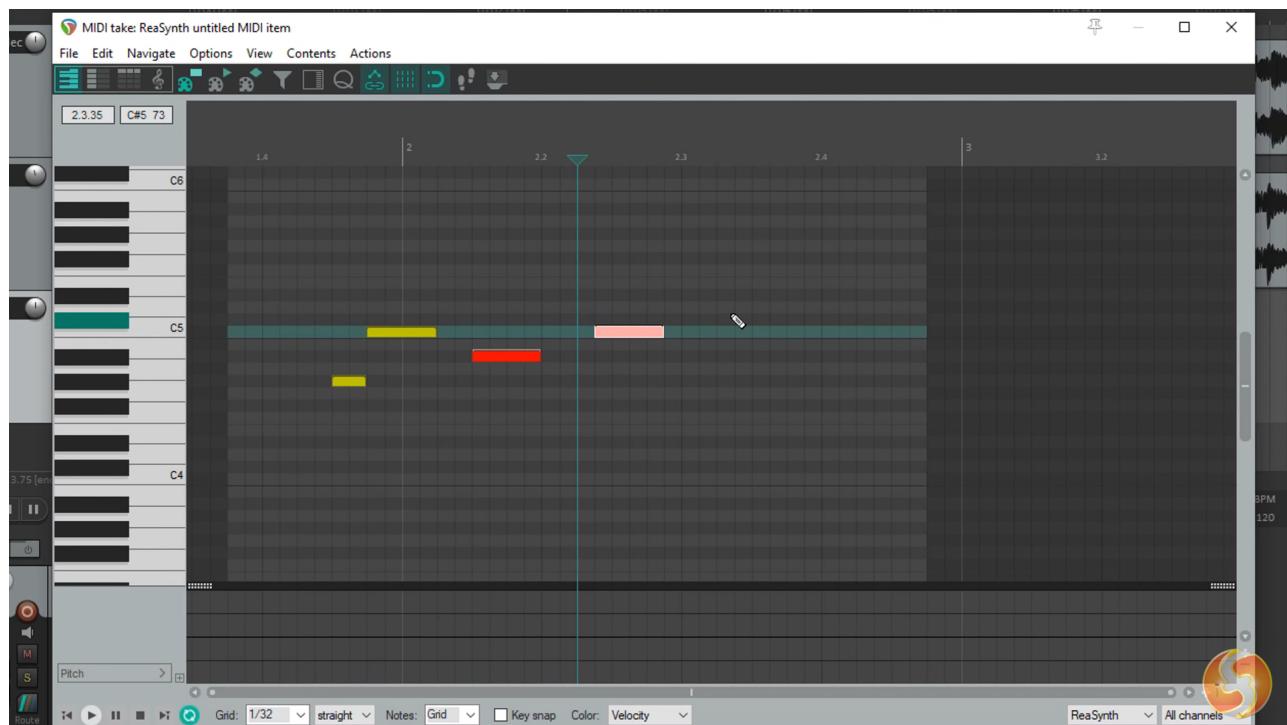


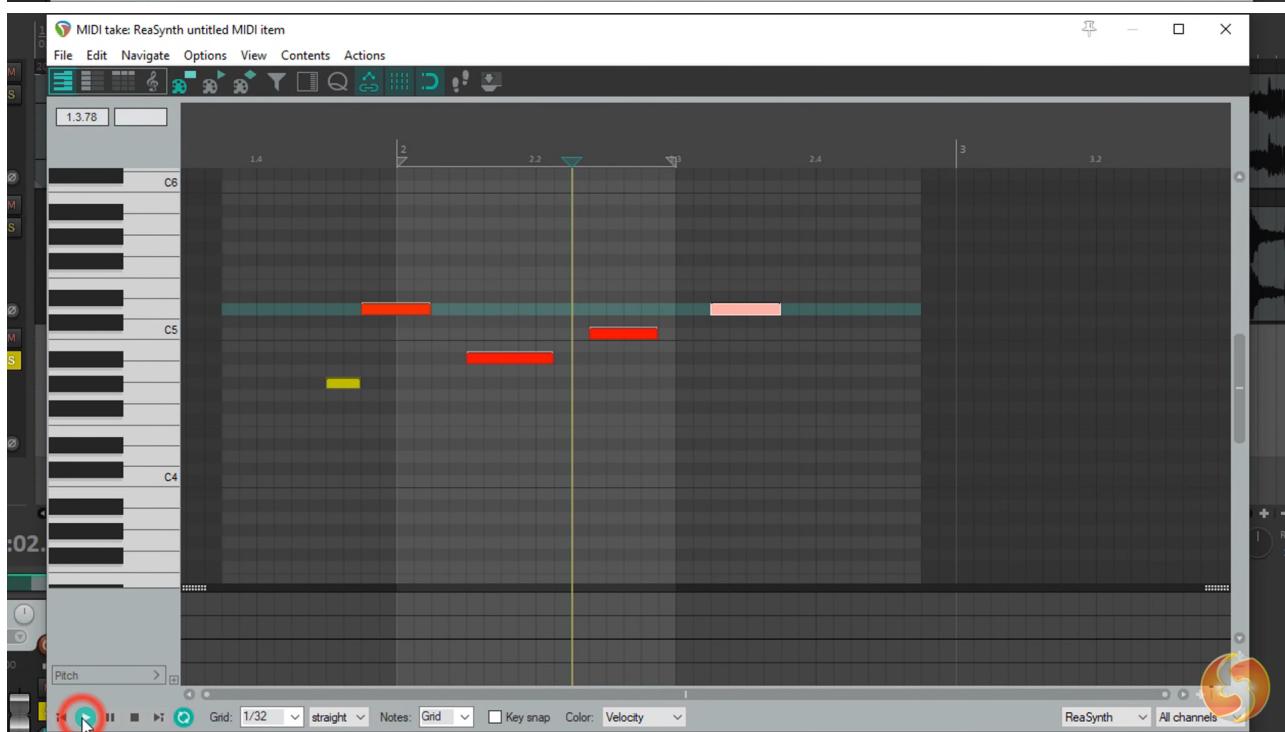
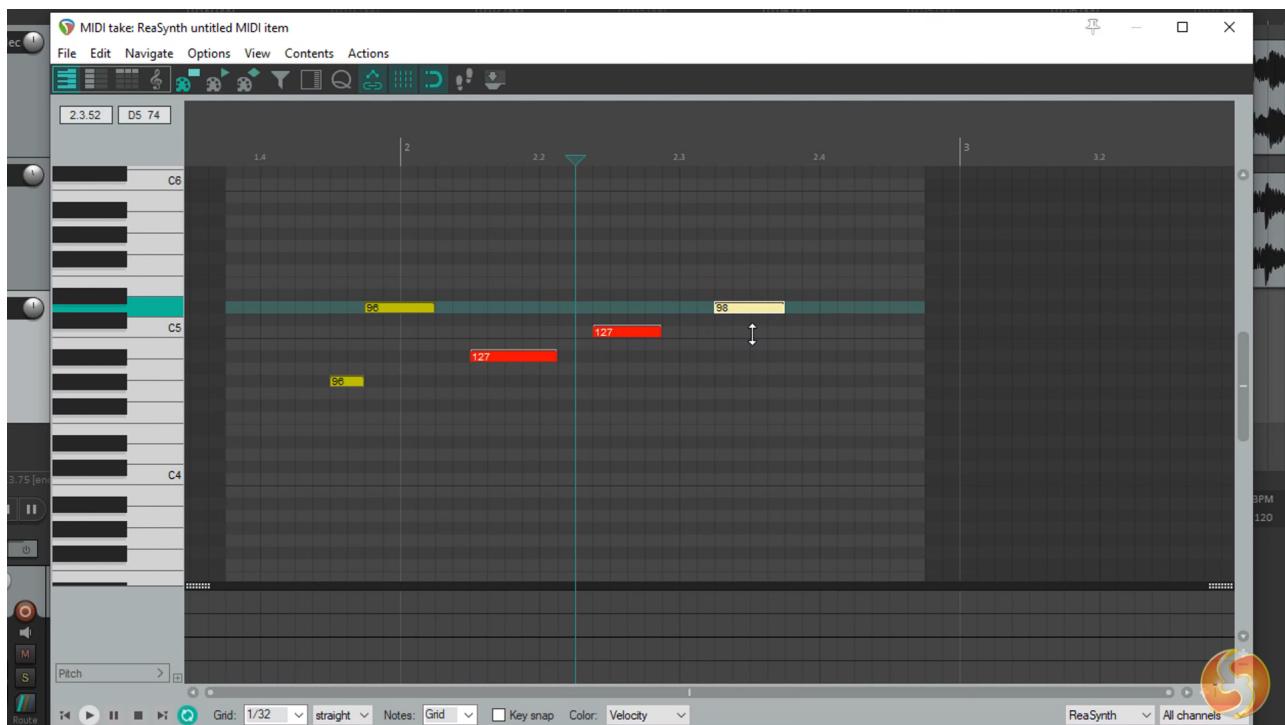


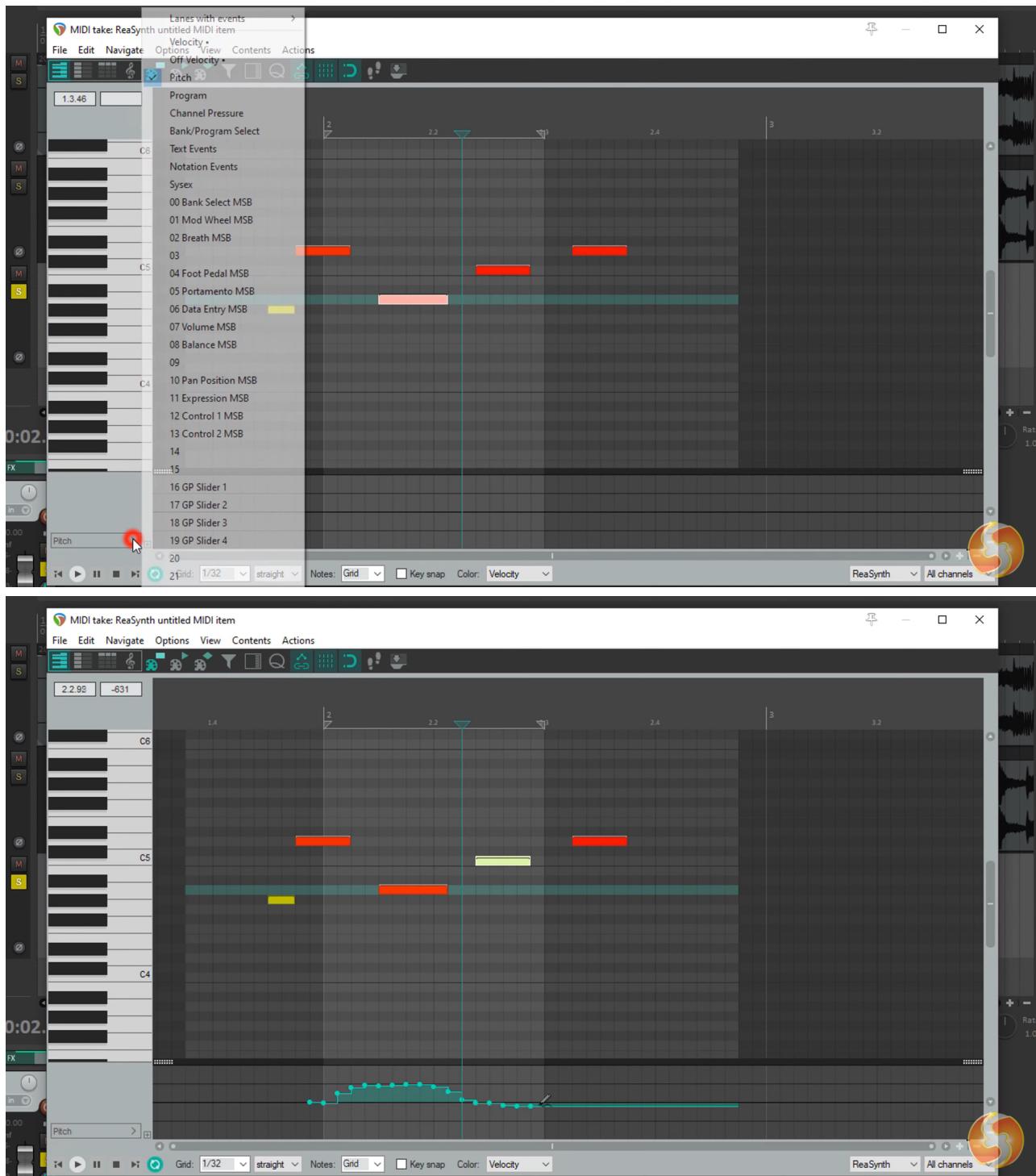












Saving and Exporting

- File > Save project as... creates .RPP files (stores entire timeline)
- File > Render... exports as audio file
- Select Master mix for full output
- Choose export bounds (entire project, loop region, time selection)
- Set directory, filename, sample rate, channels
- File formats: WAV, FLAC, MP3 for audio; GIF, AVI, FLV, MP4 for video

- Control bitrate, frame size, and frame rate for video exports

