

DAVP4

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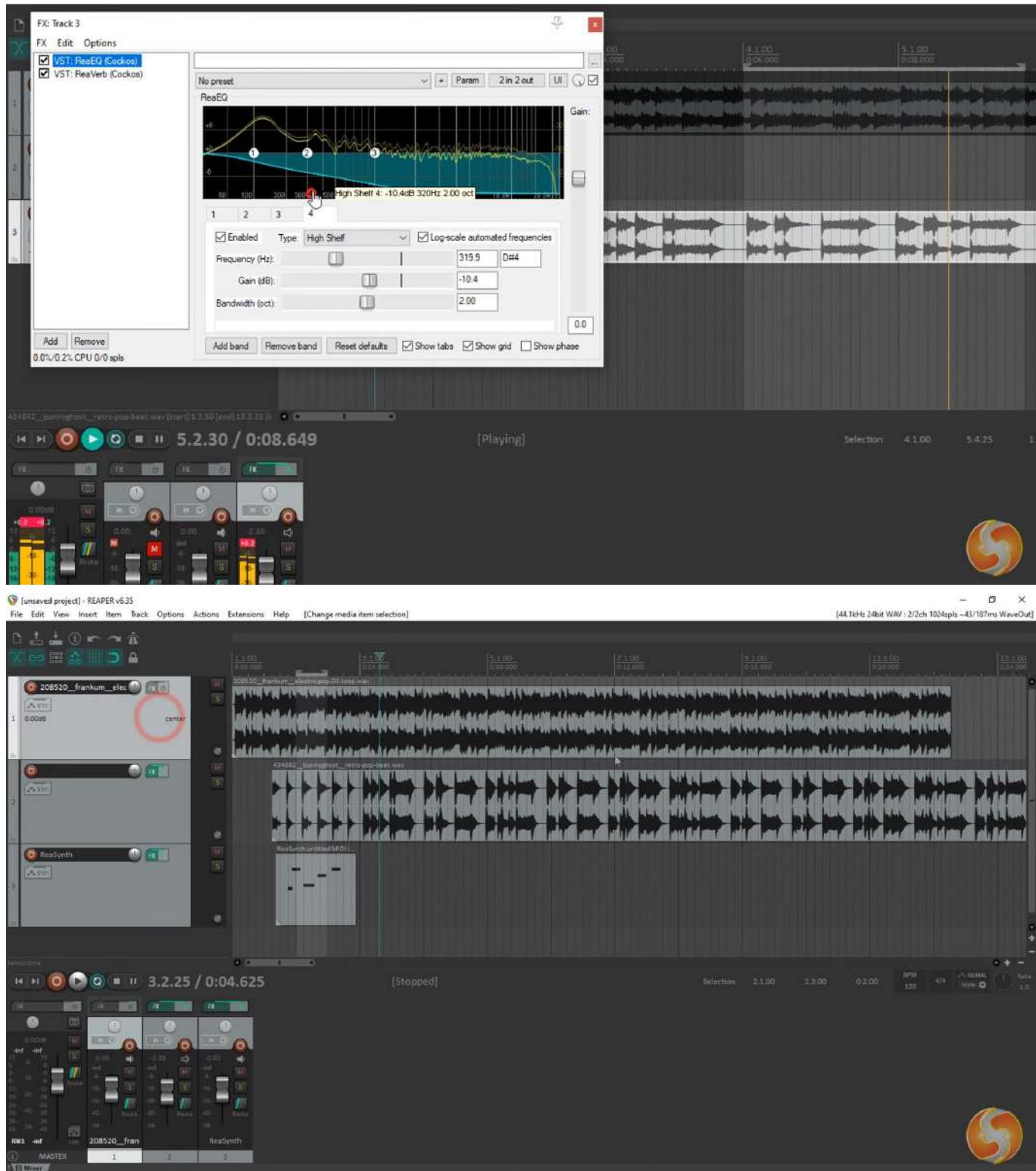
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REAPER

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

What is Reaper

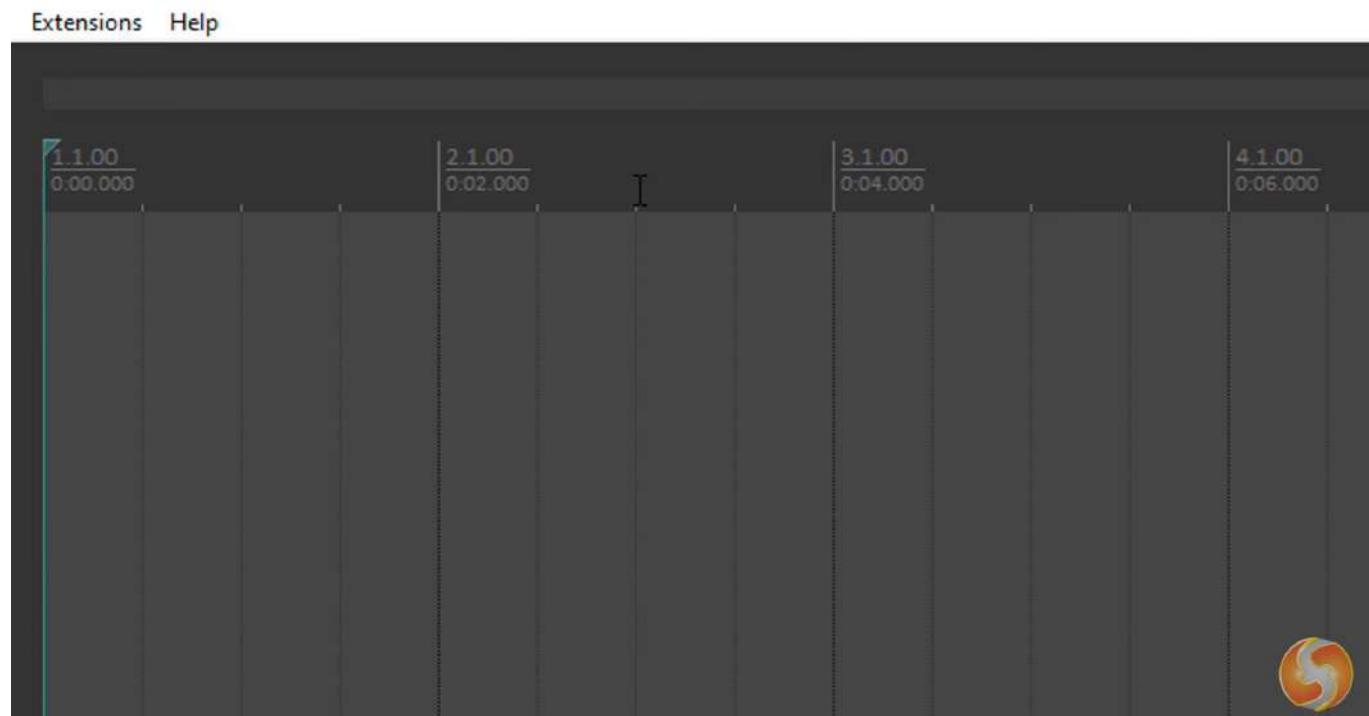
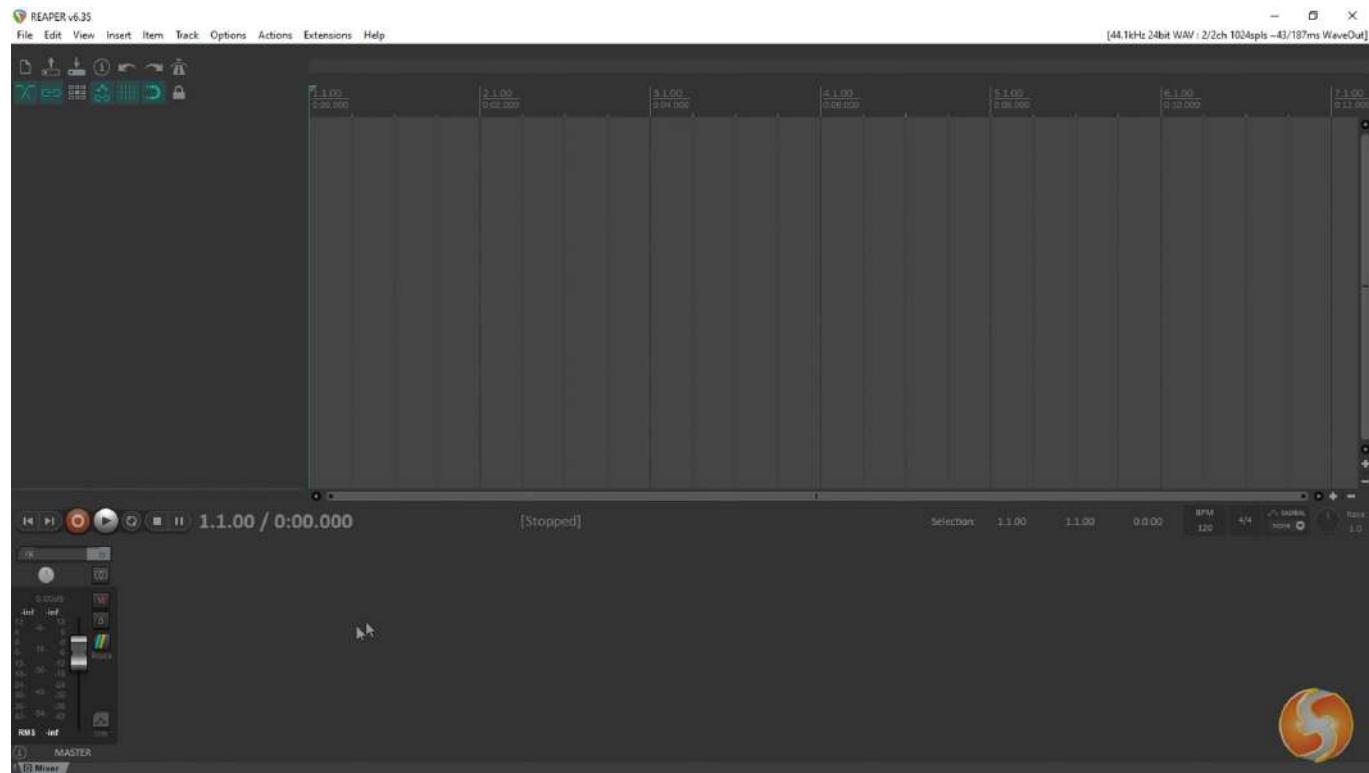
- Complete multi-track Digital Audio Workstation (DAW)
- Manages, edits, and combines samples, recordings, and MIDI compositions
- Available for Windows, MacOS, and Linux
- 60-day free trial before license required

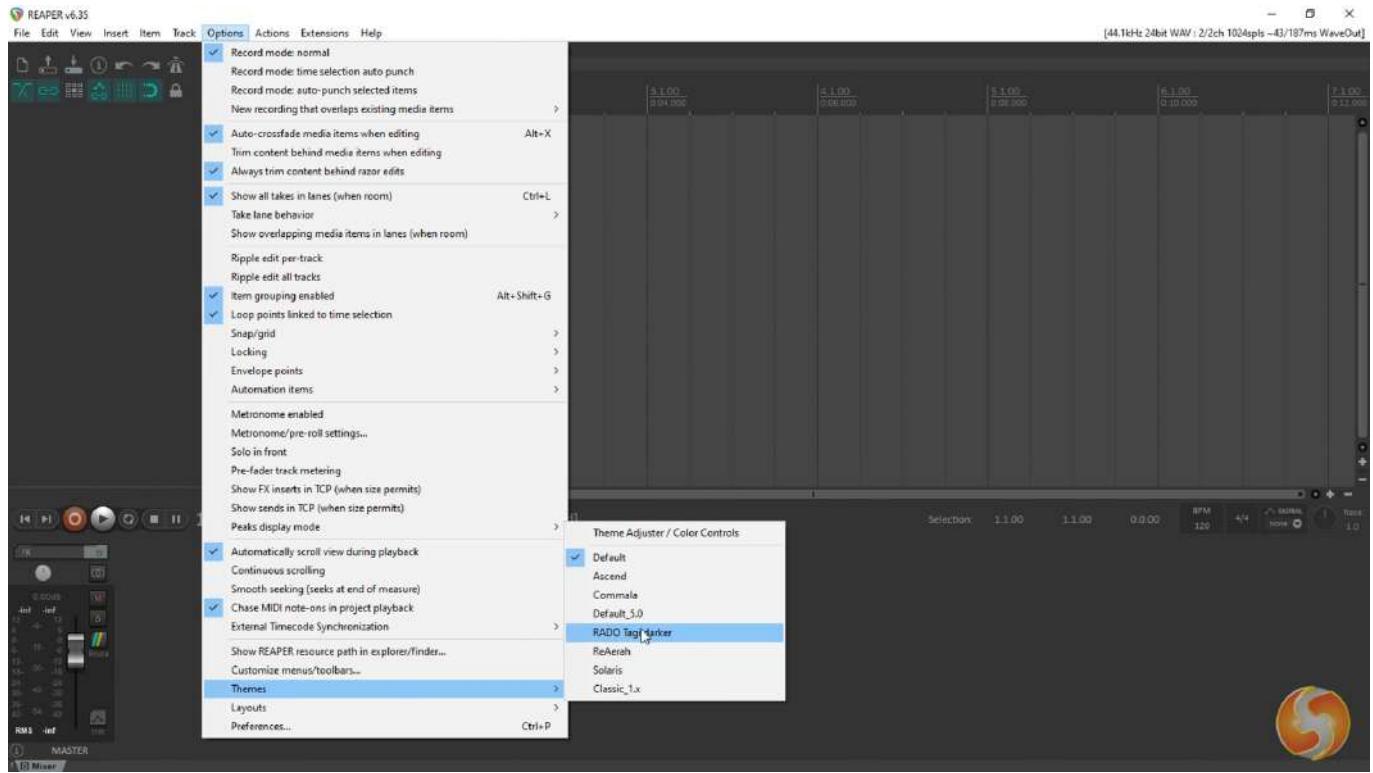




Interface Overview

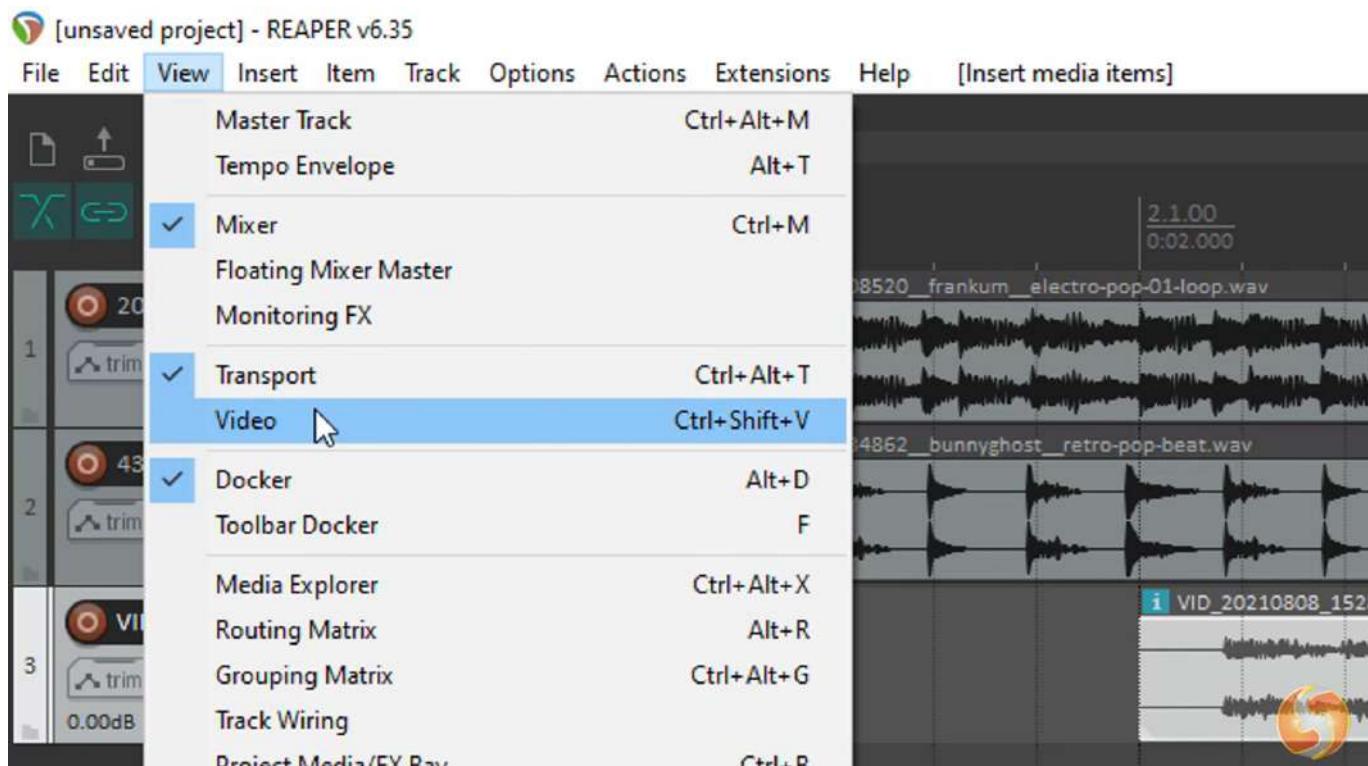
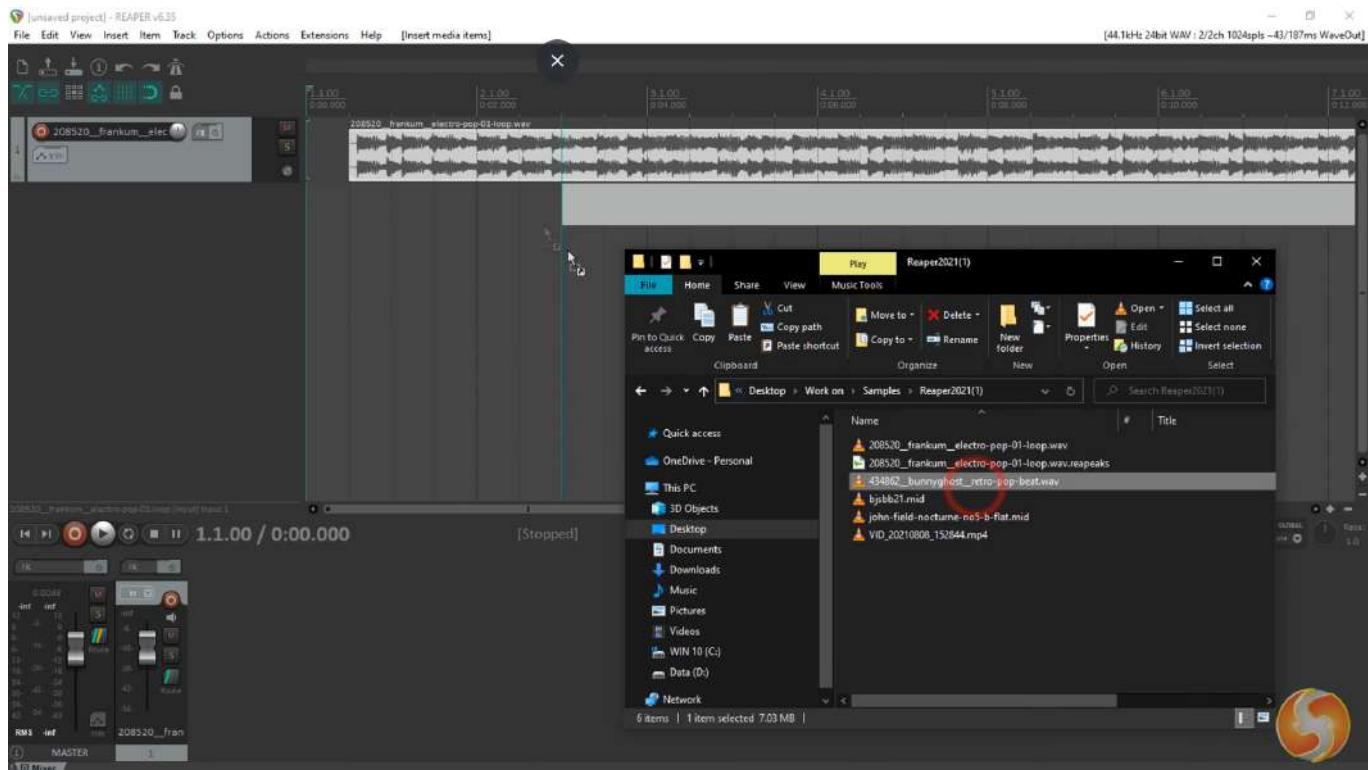
- Timeline/Arrangement window on top
- Mixer at bottom
- Timeline shows time in bars/beats (top) and seconds (bottom)
- Can change colors/style via Options > Themes

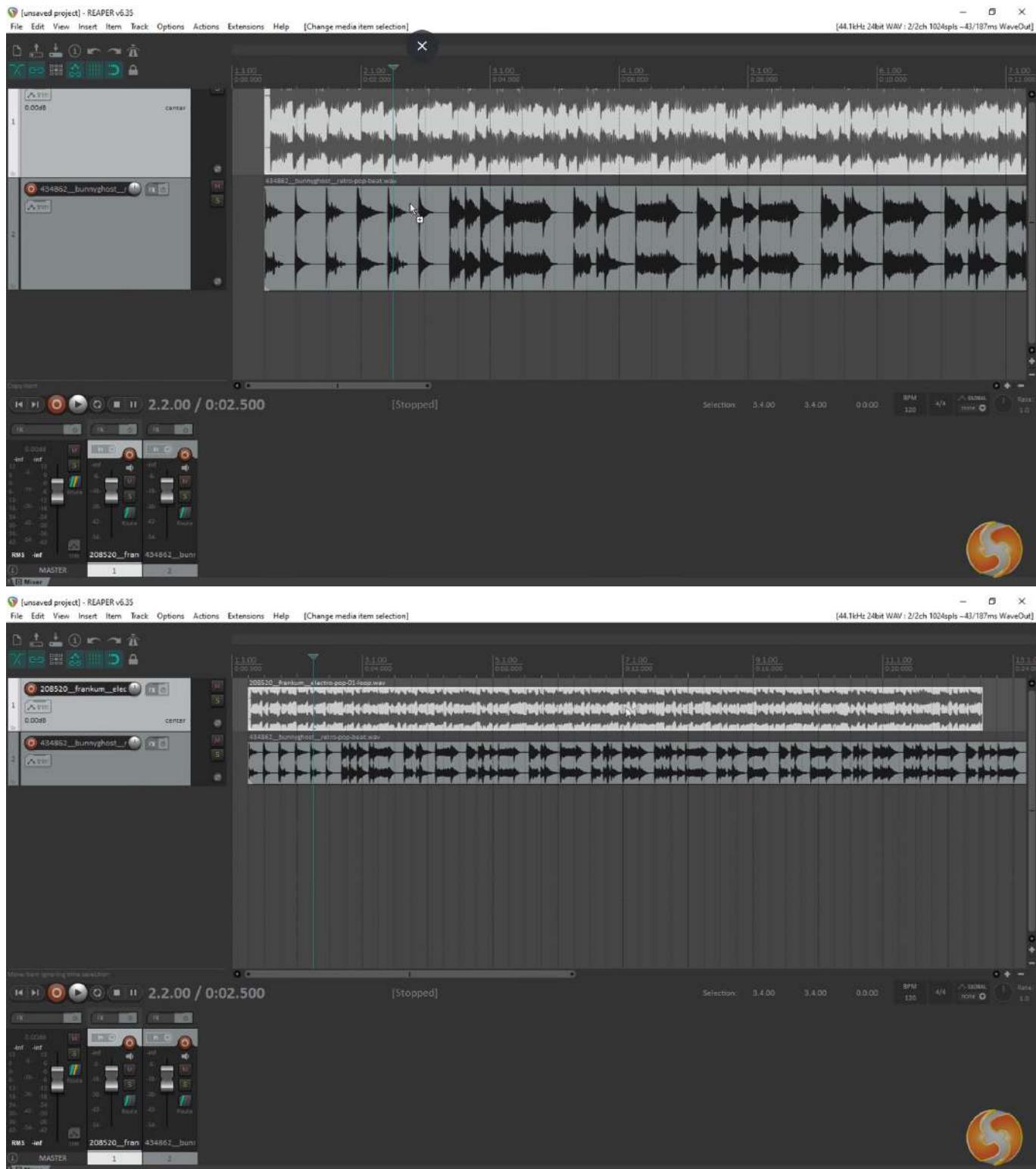


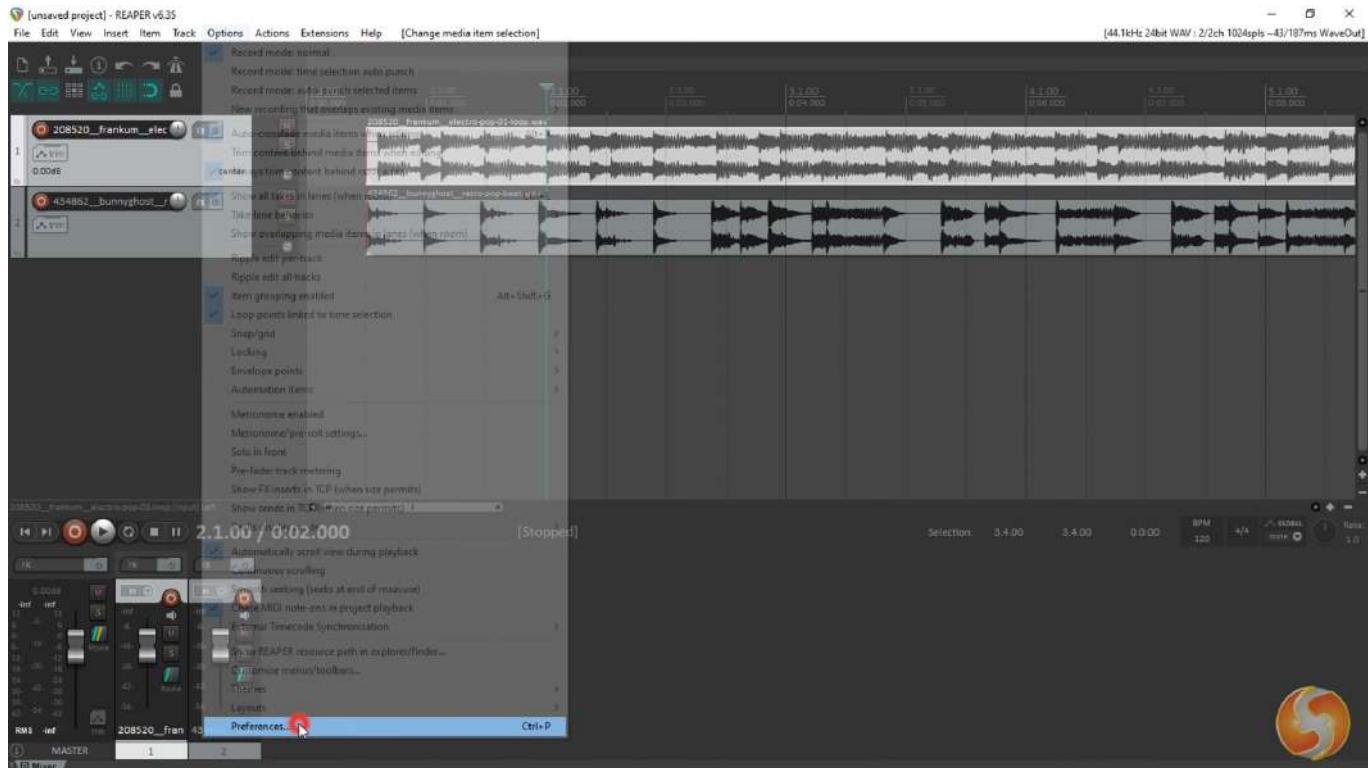


Working with Audio Files

- 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

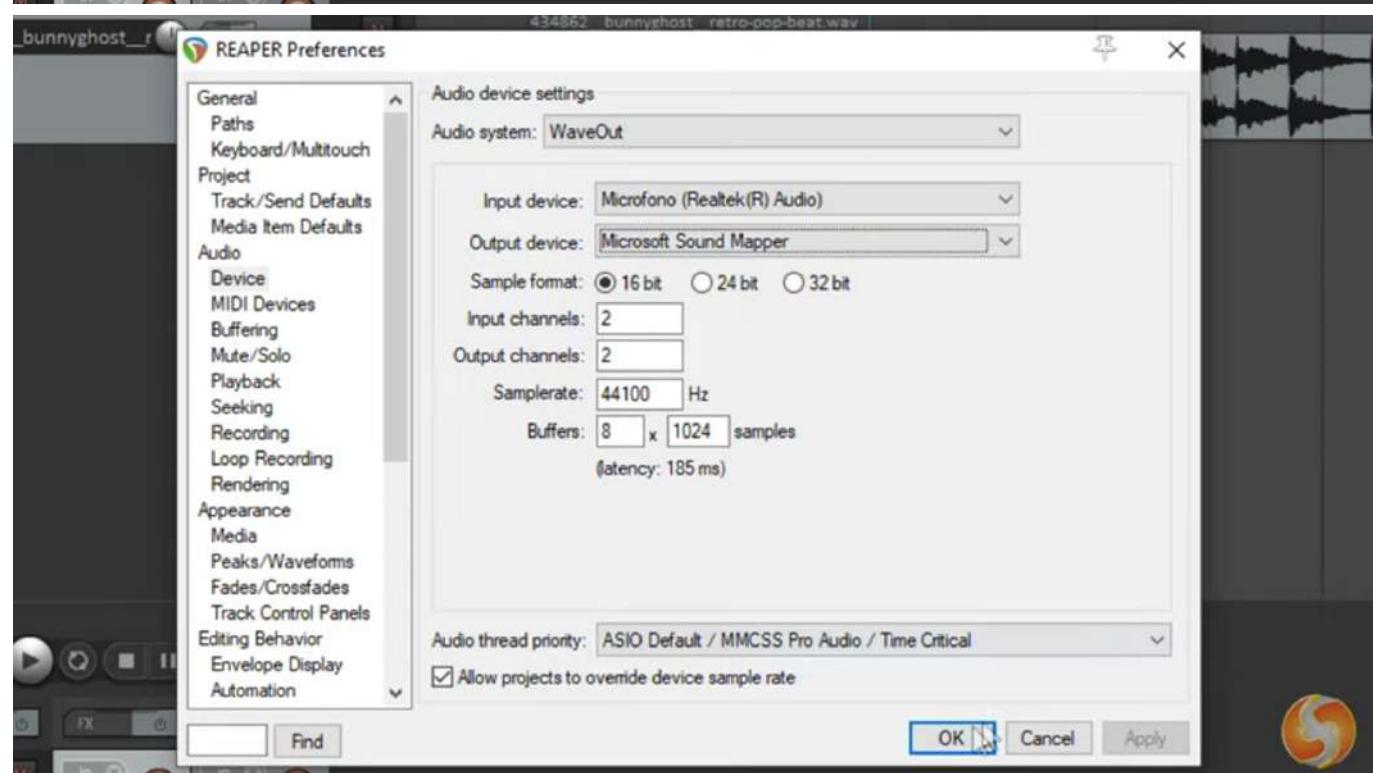
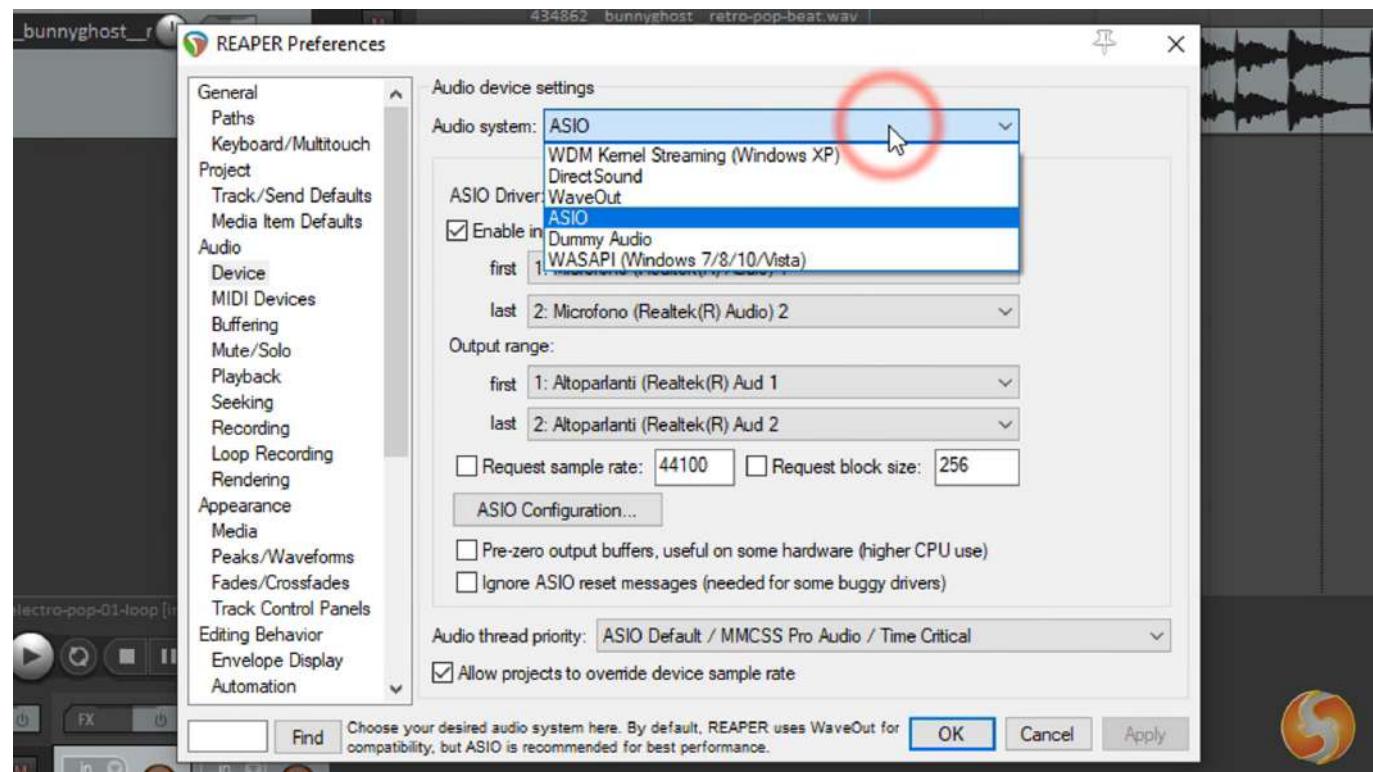


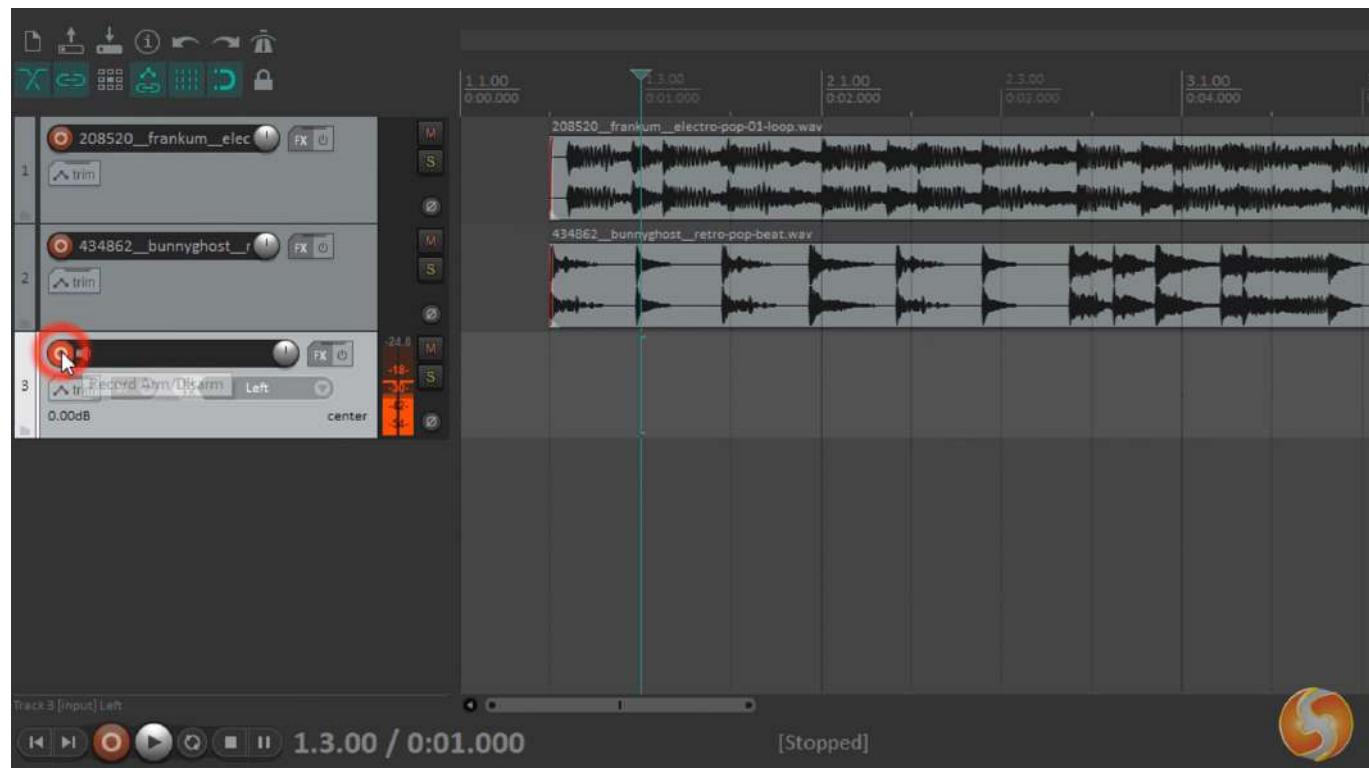
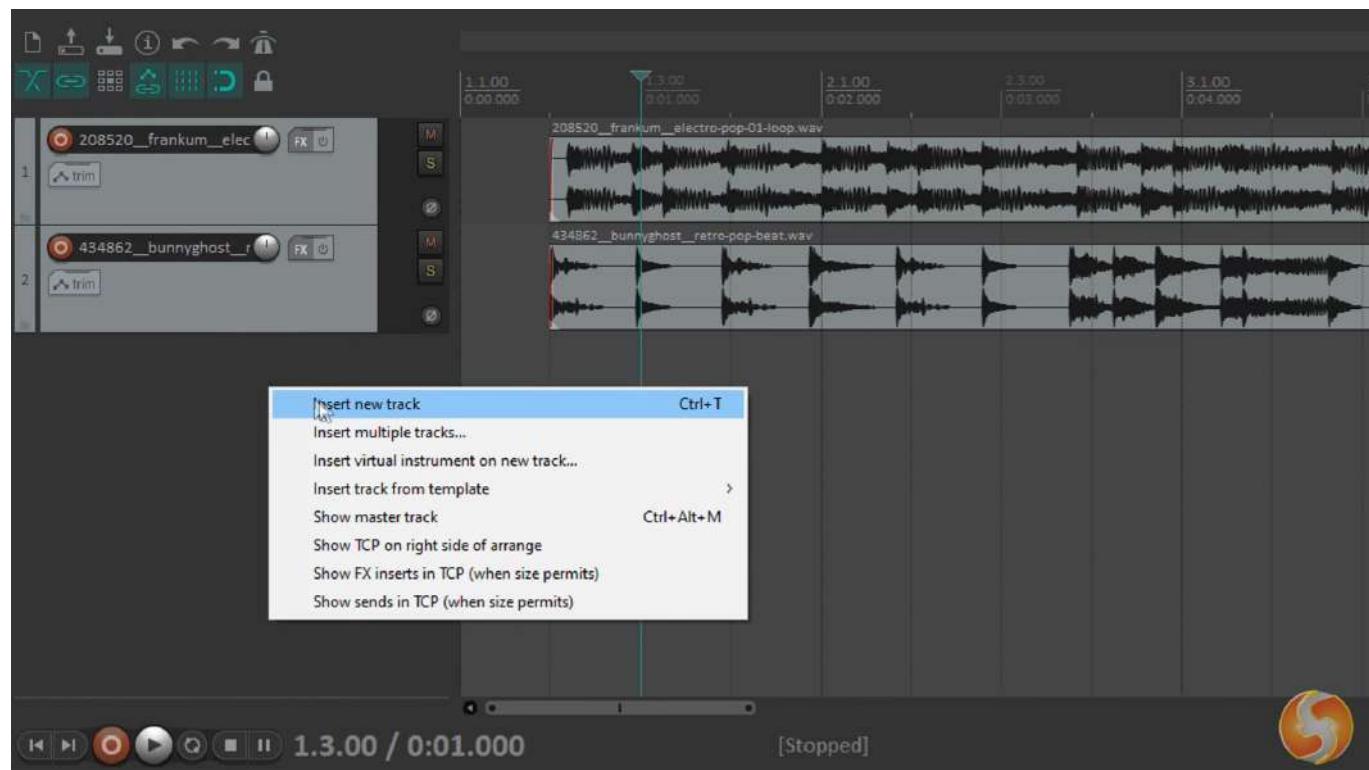


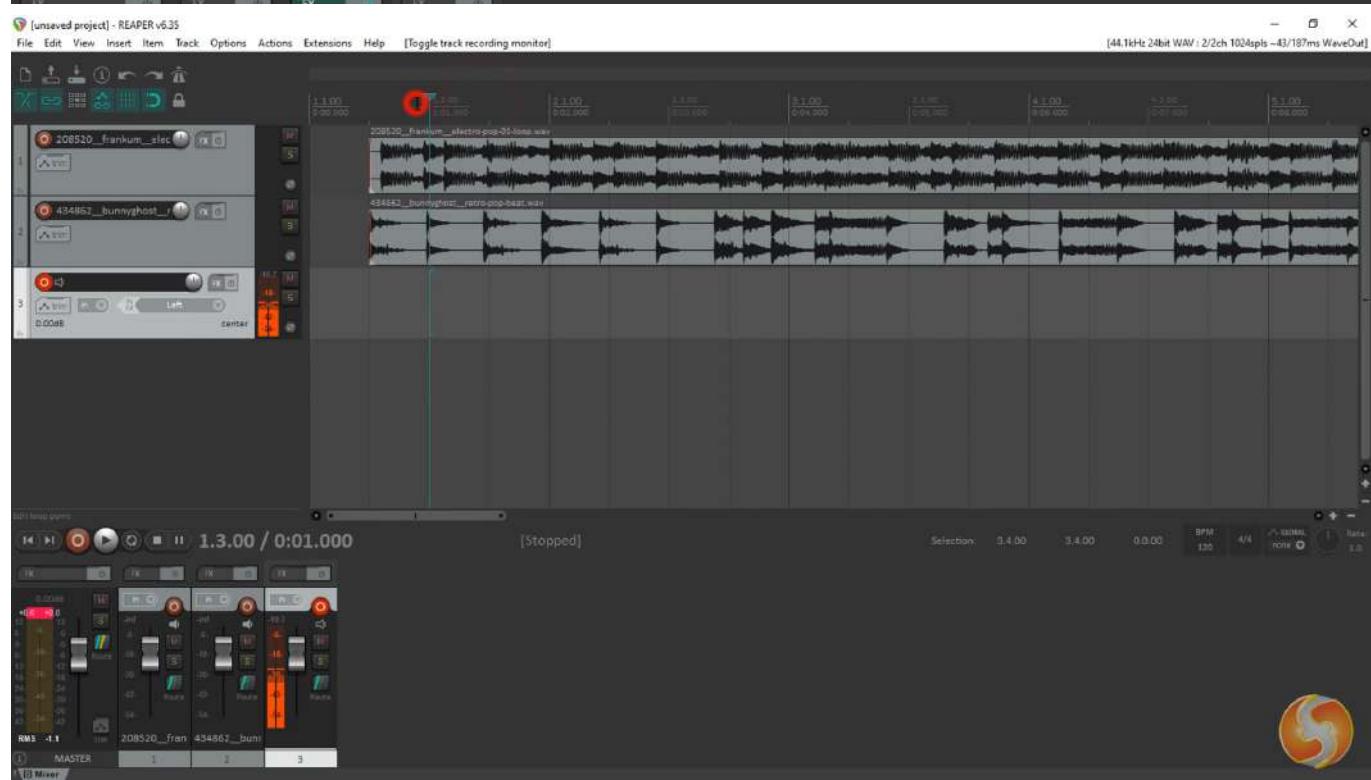
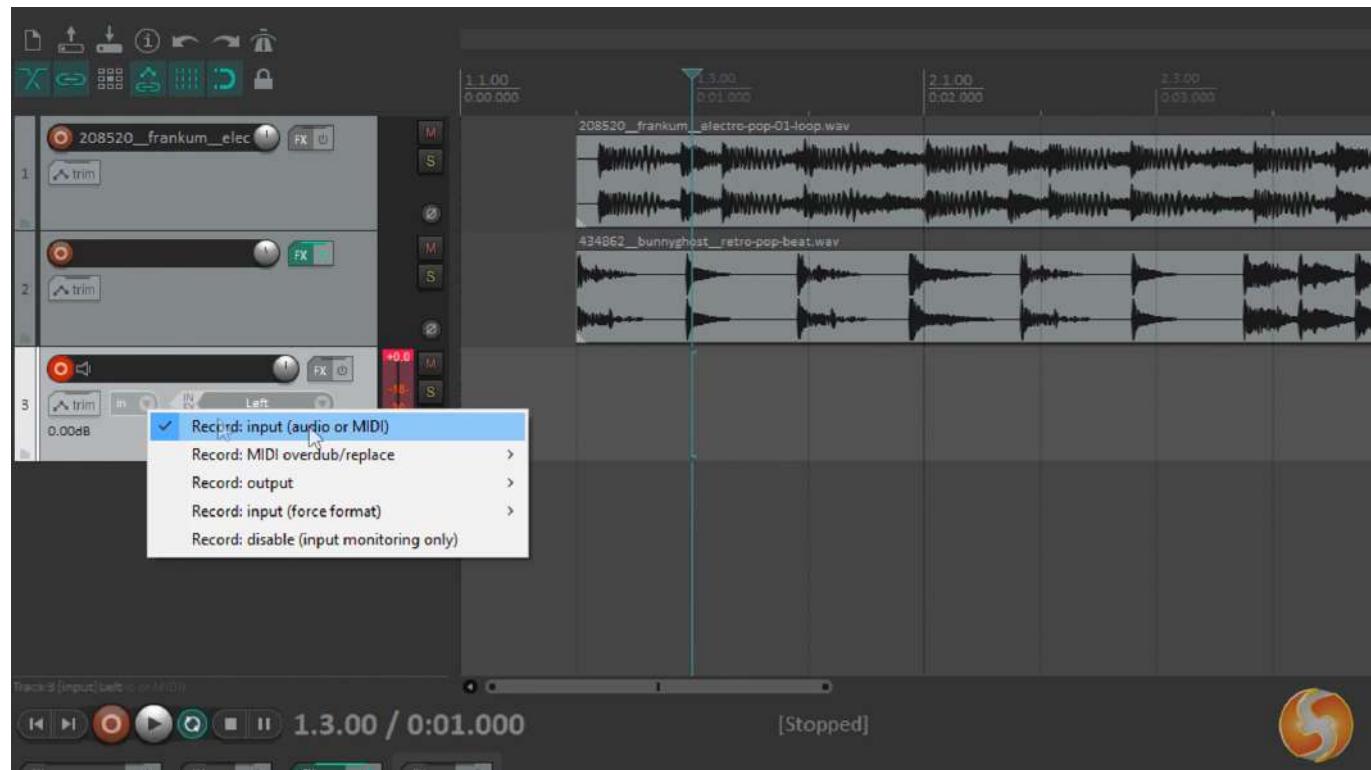


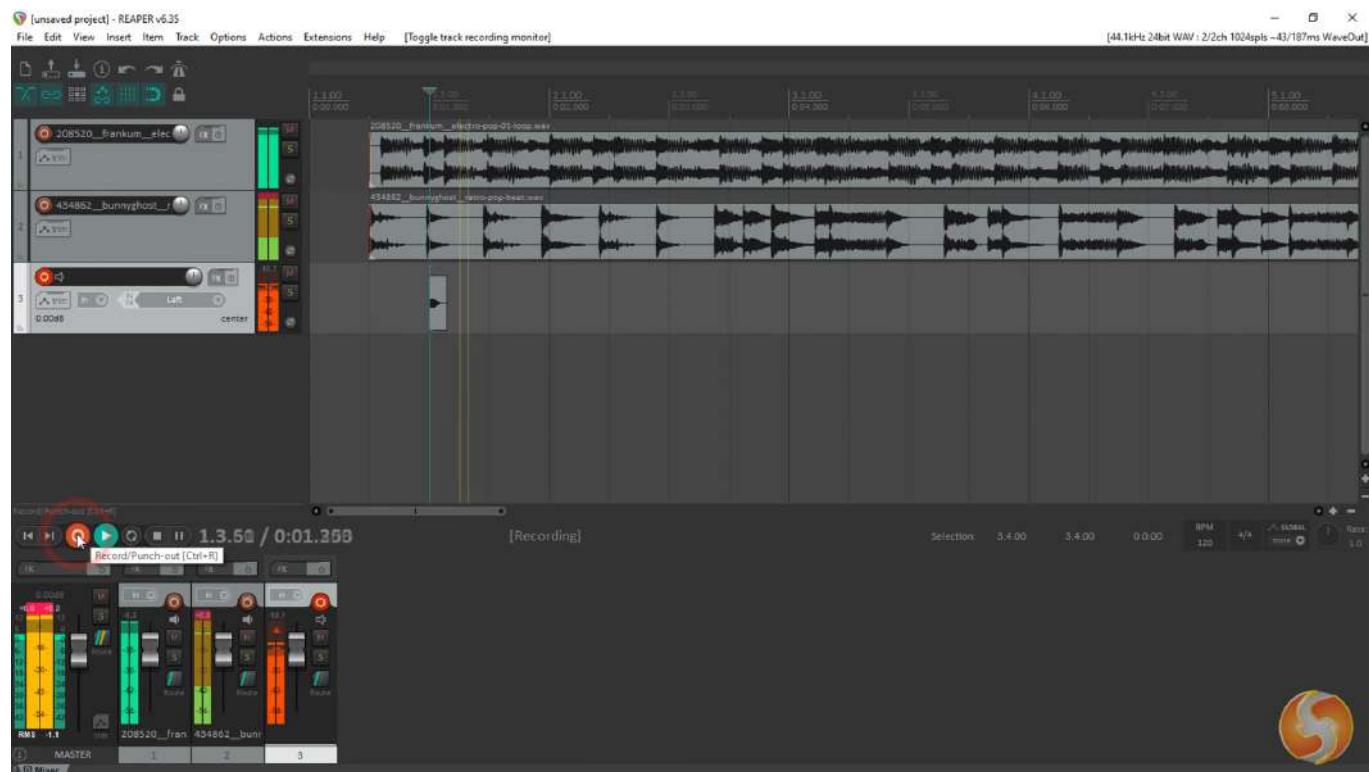
Recording Setup

- 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



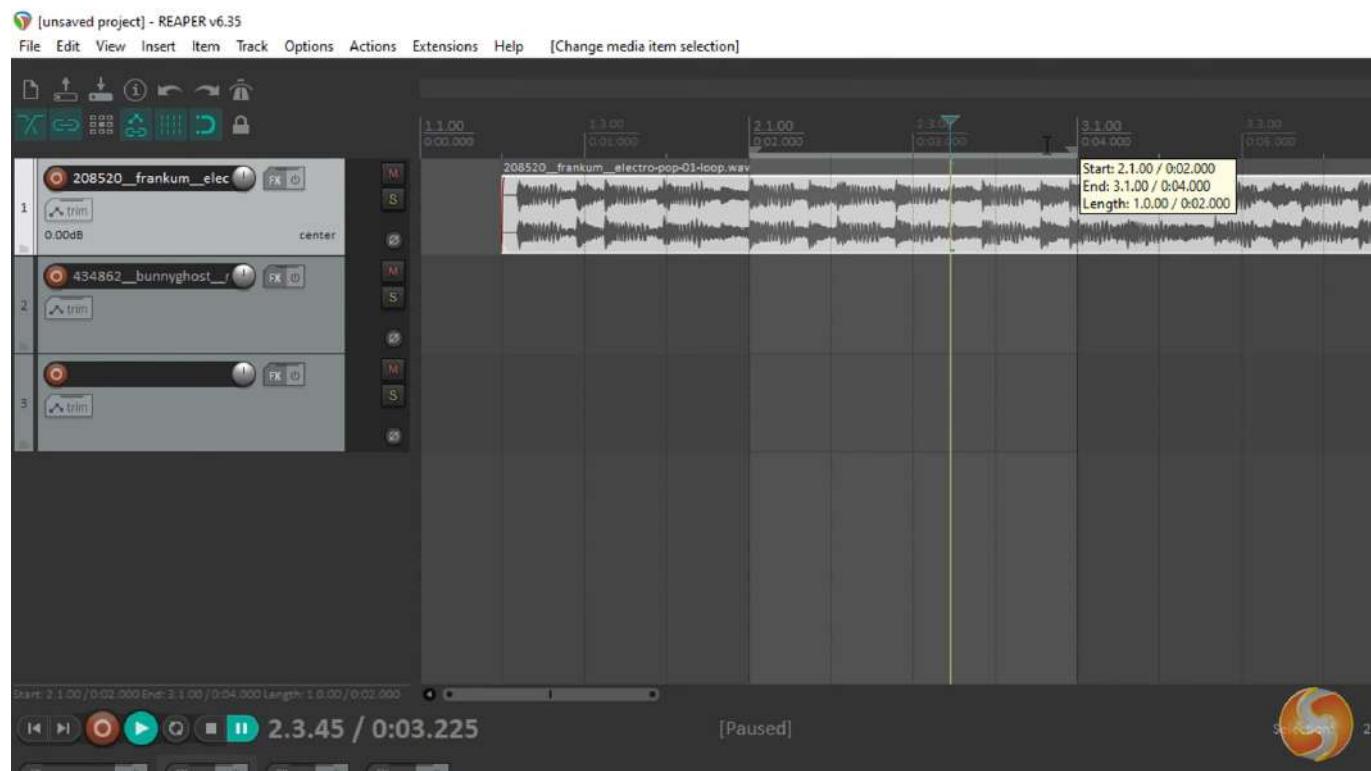
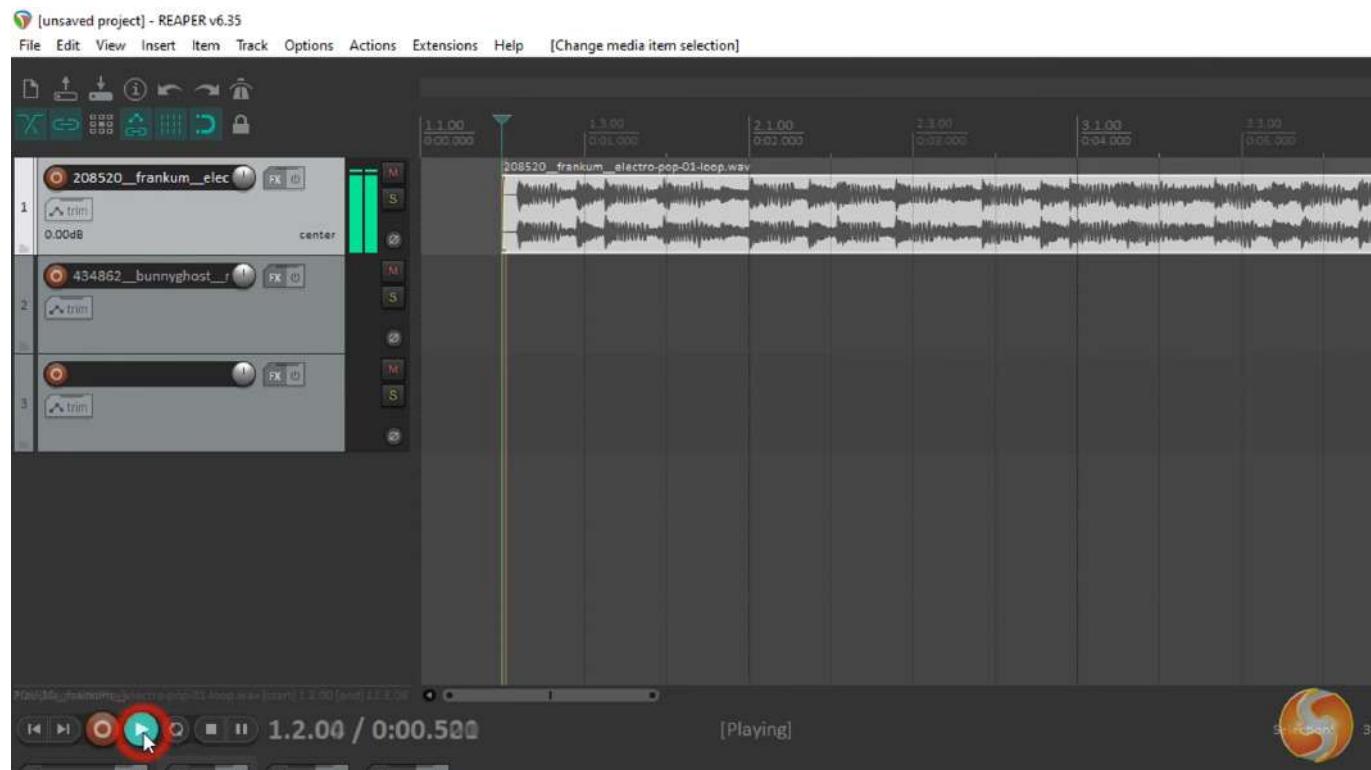


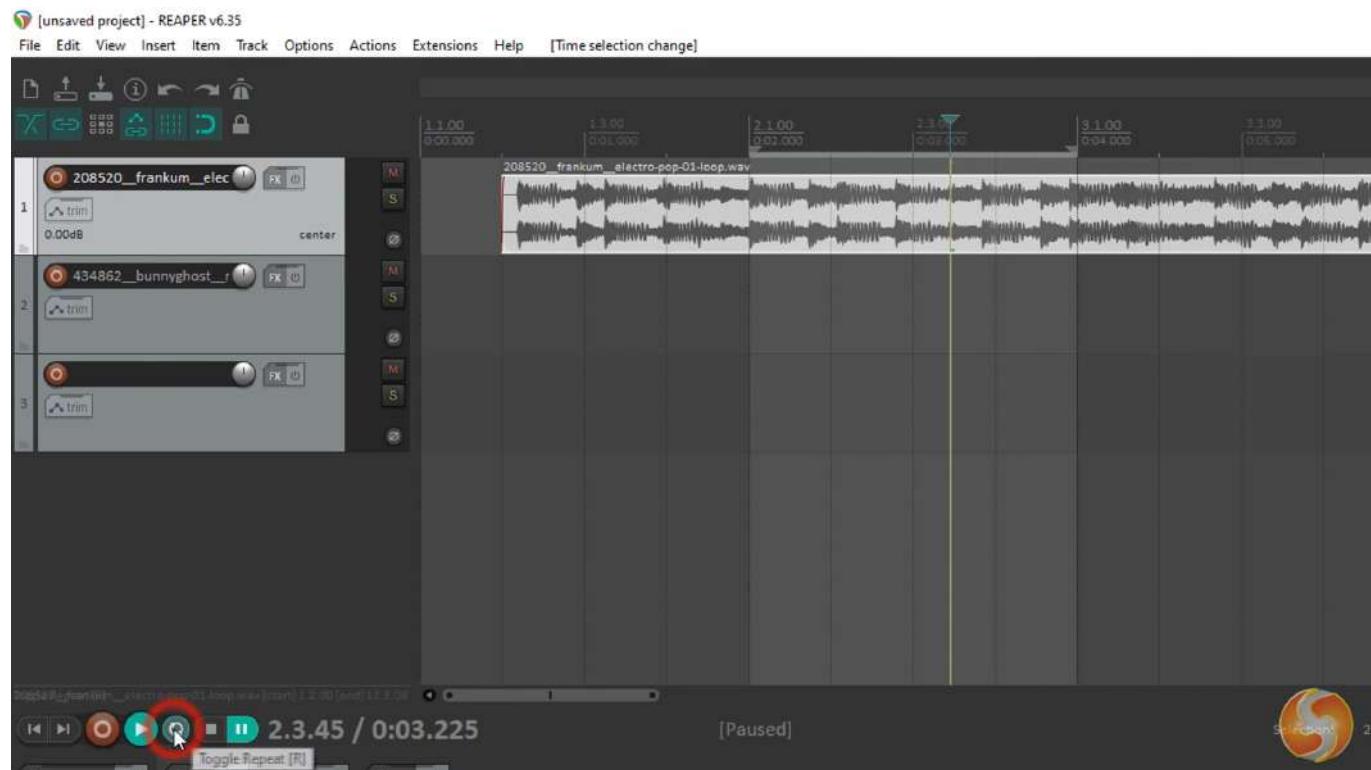




Playback Controls

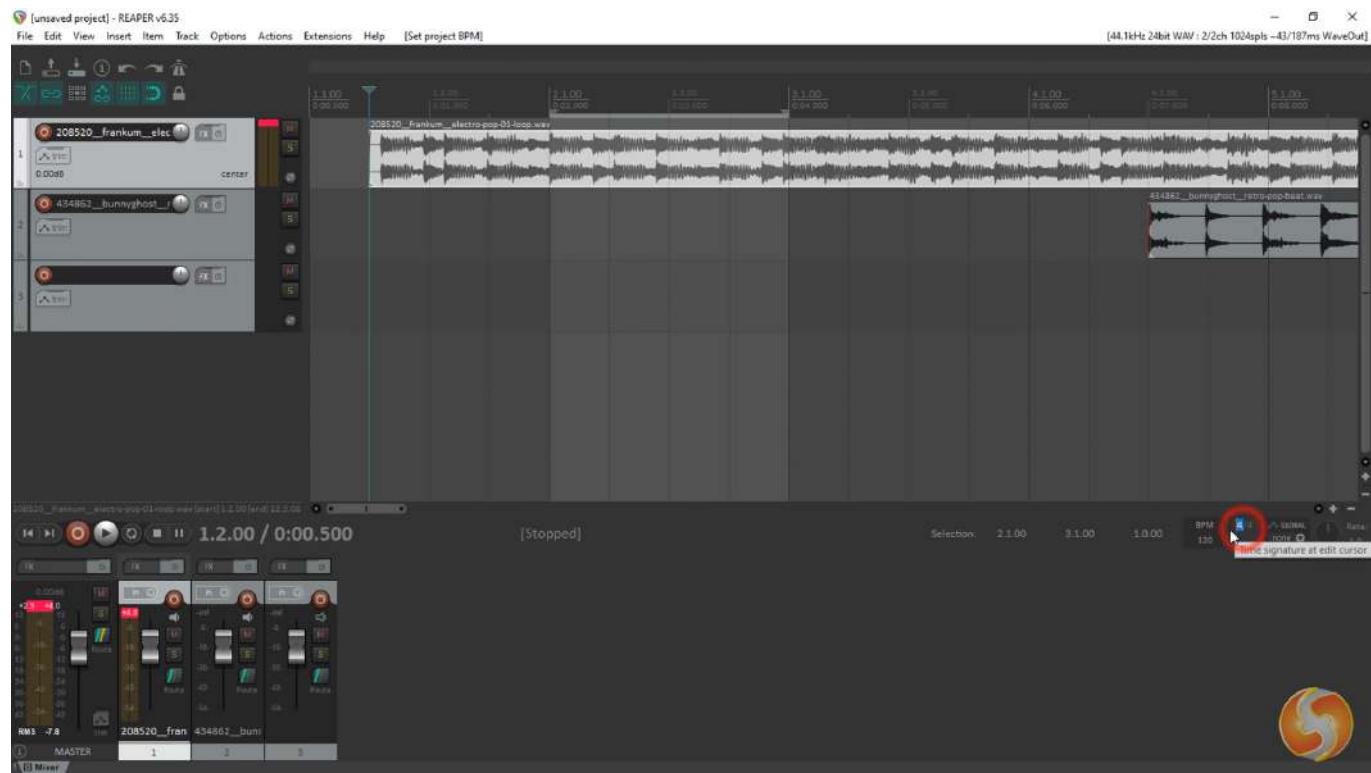
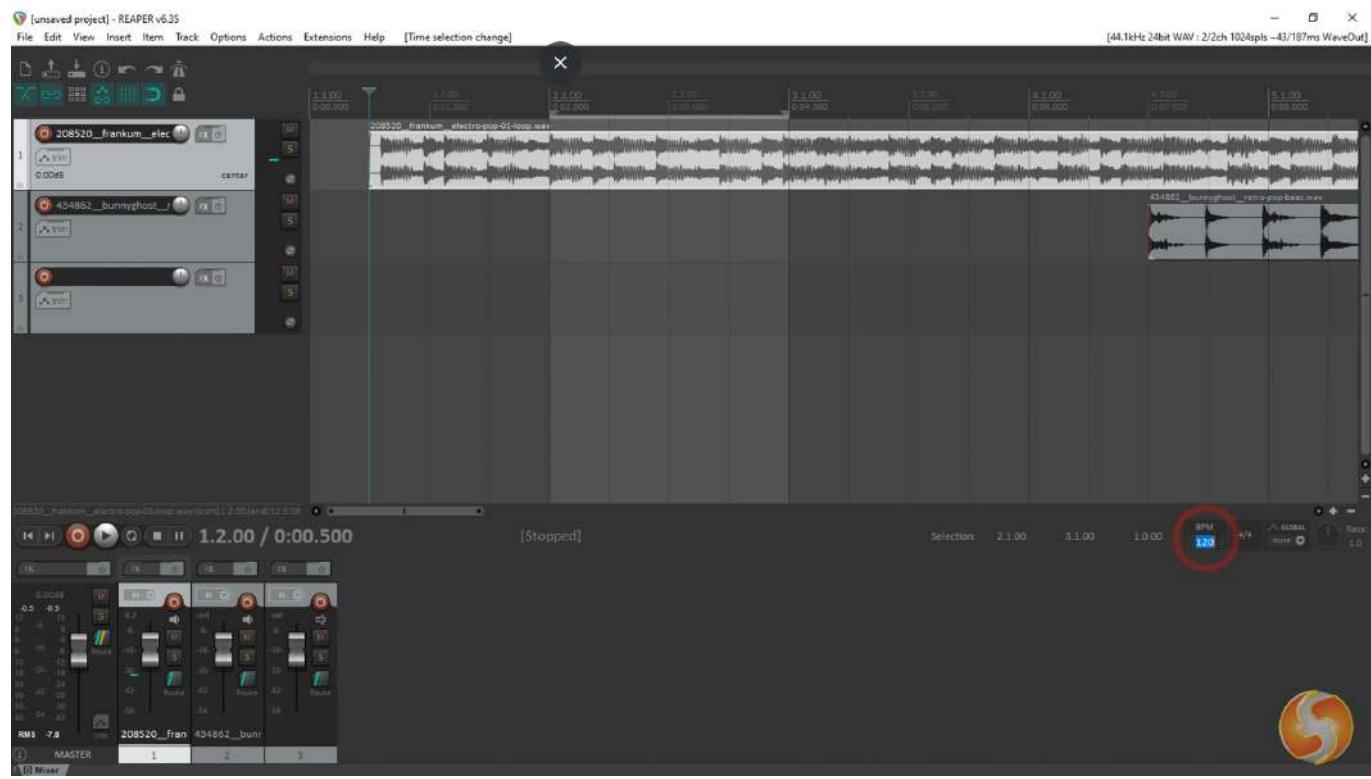
- Use player controls on left
- Spacebar to play/stop
- Enter key to play/pause
- Click and drag above timeline to create loop region
- Enable Toggle Repeat for loop playback

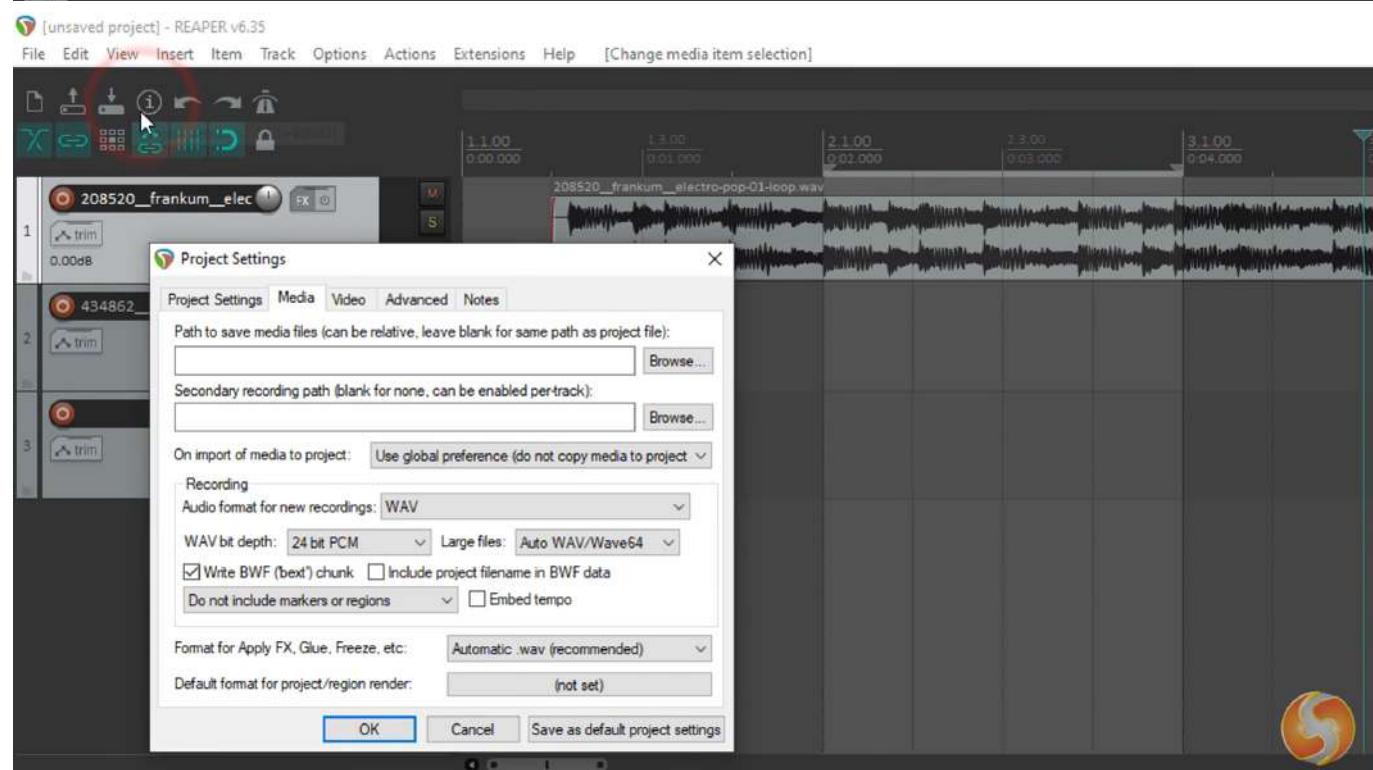
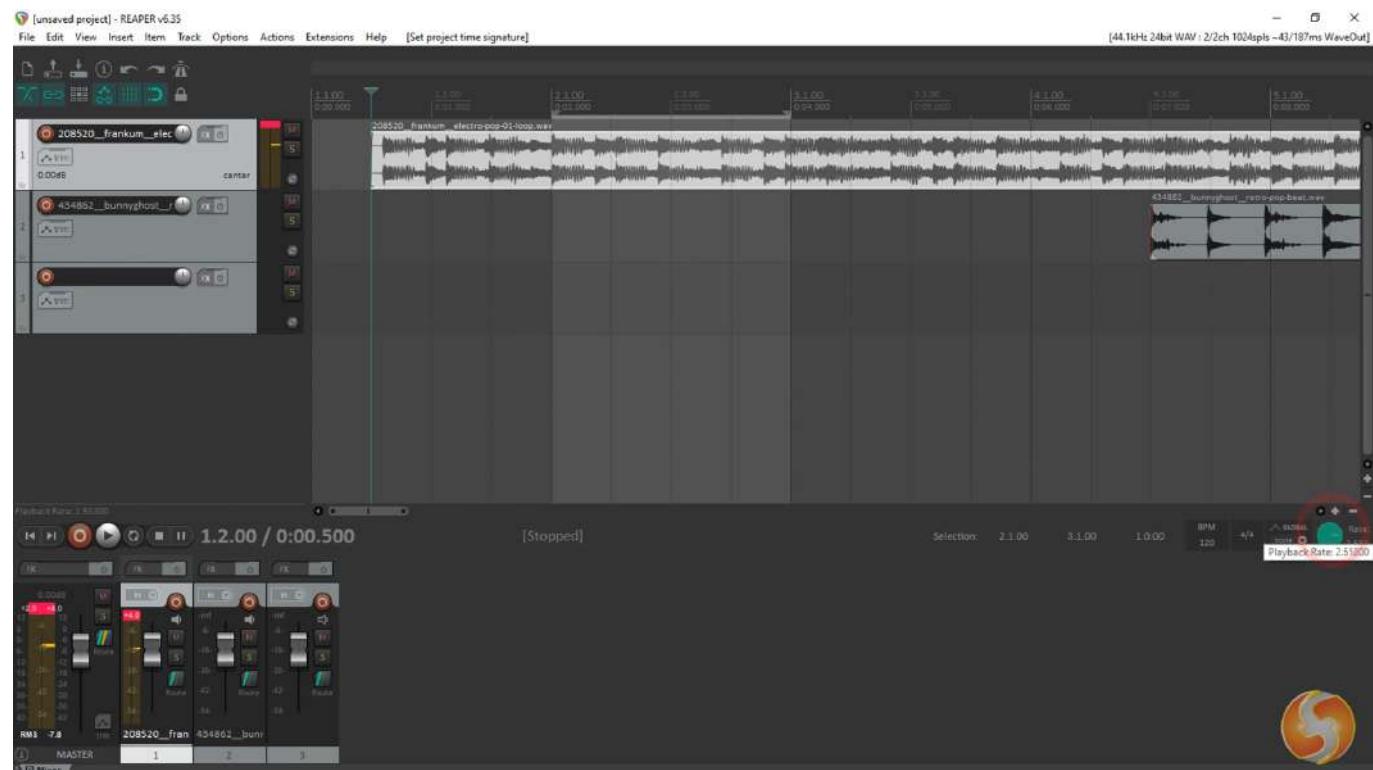


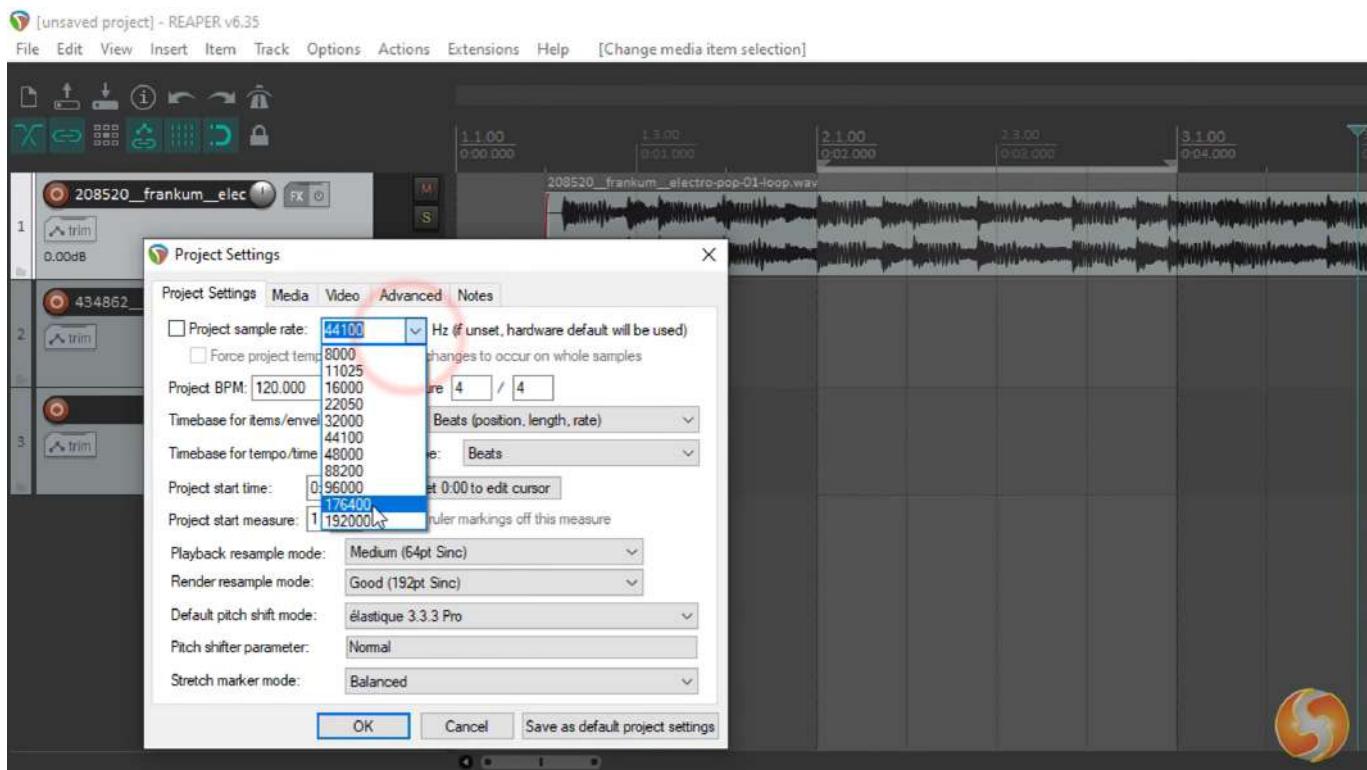


Project Settings

- 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)

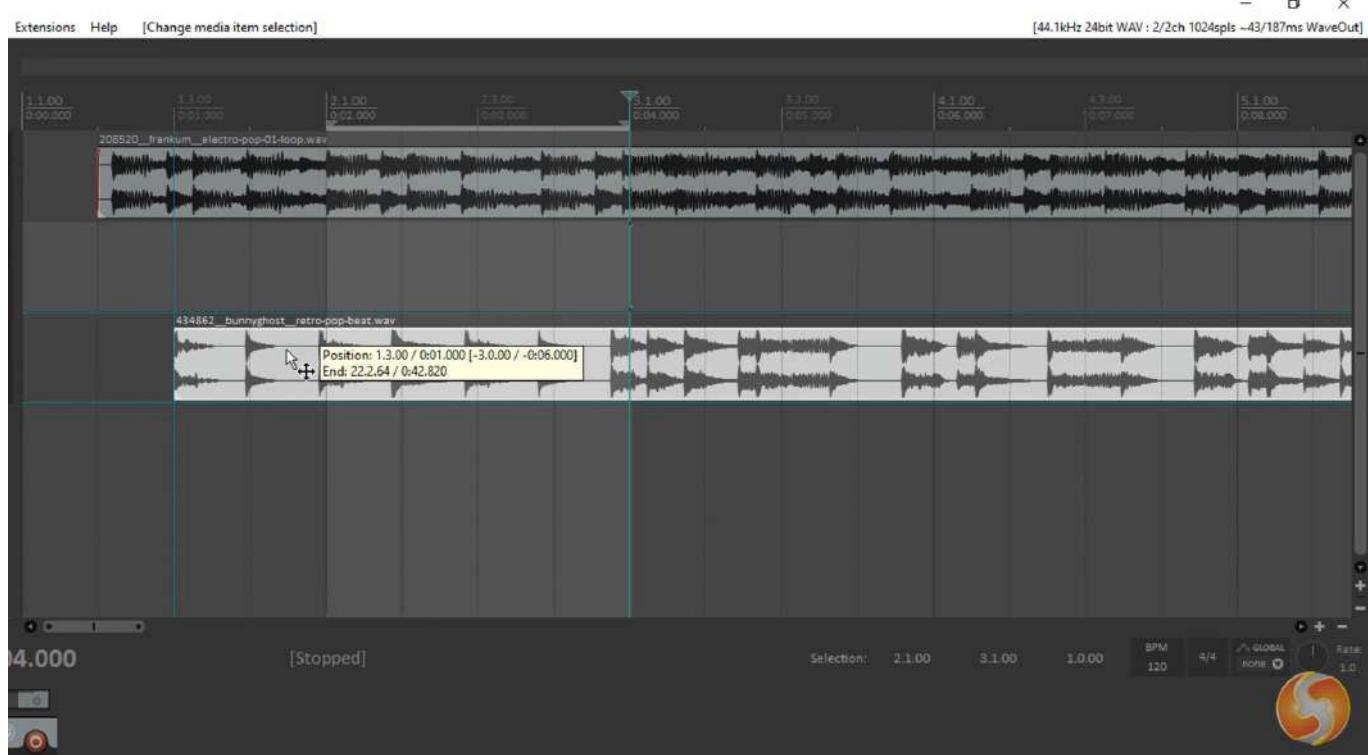
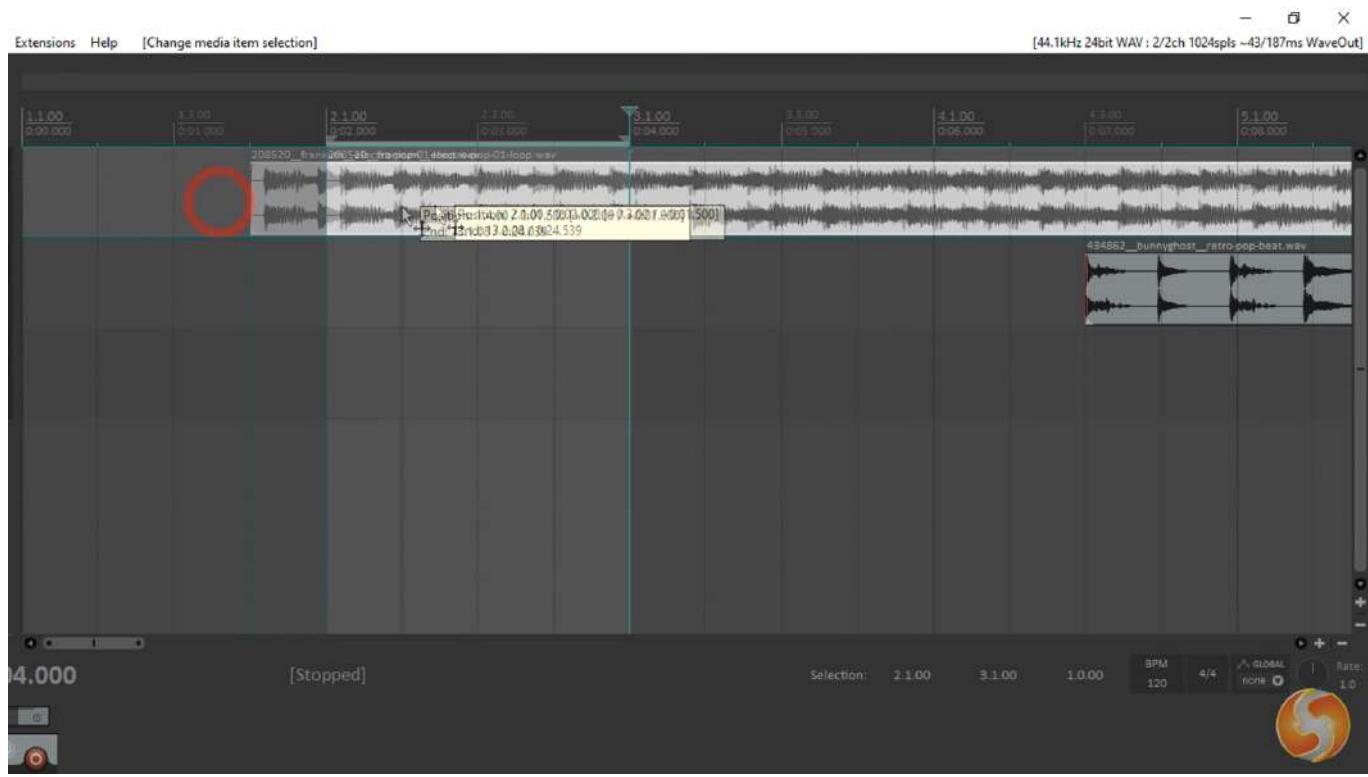


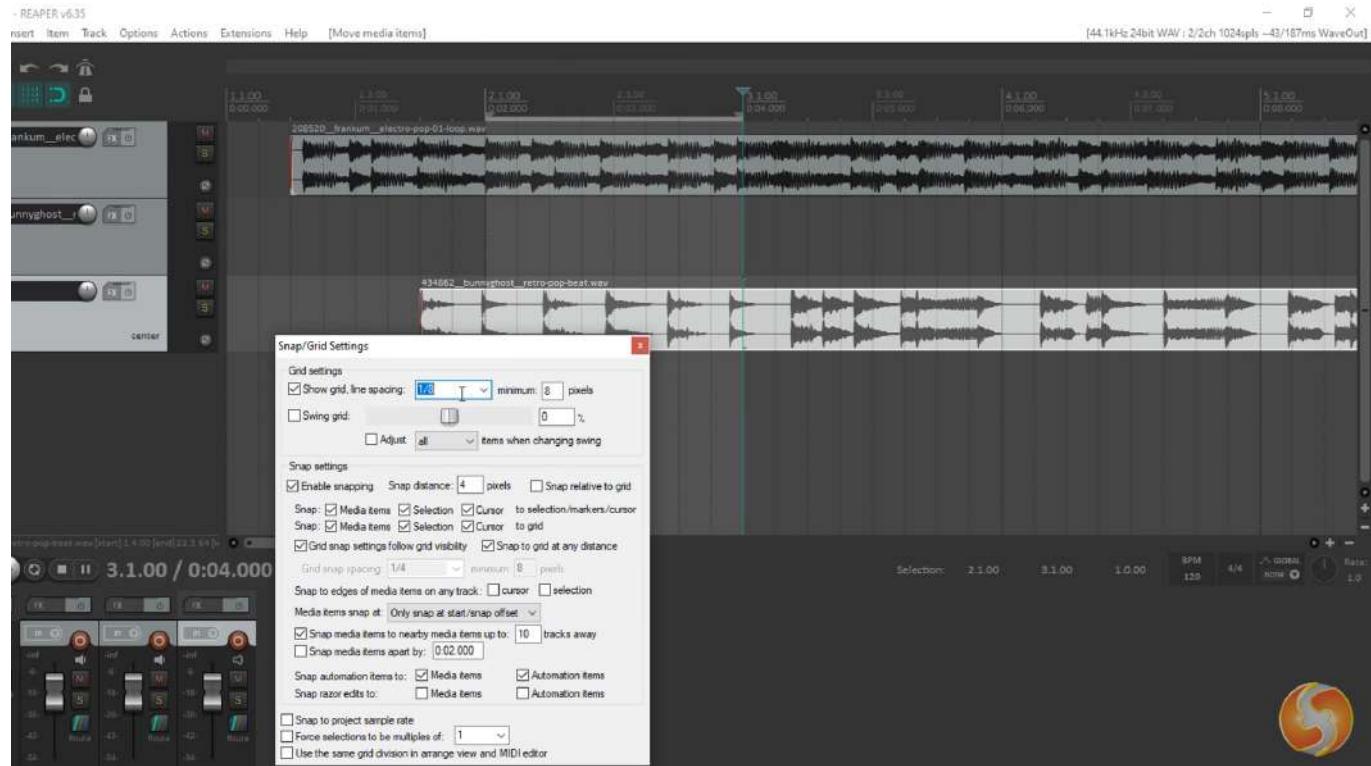
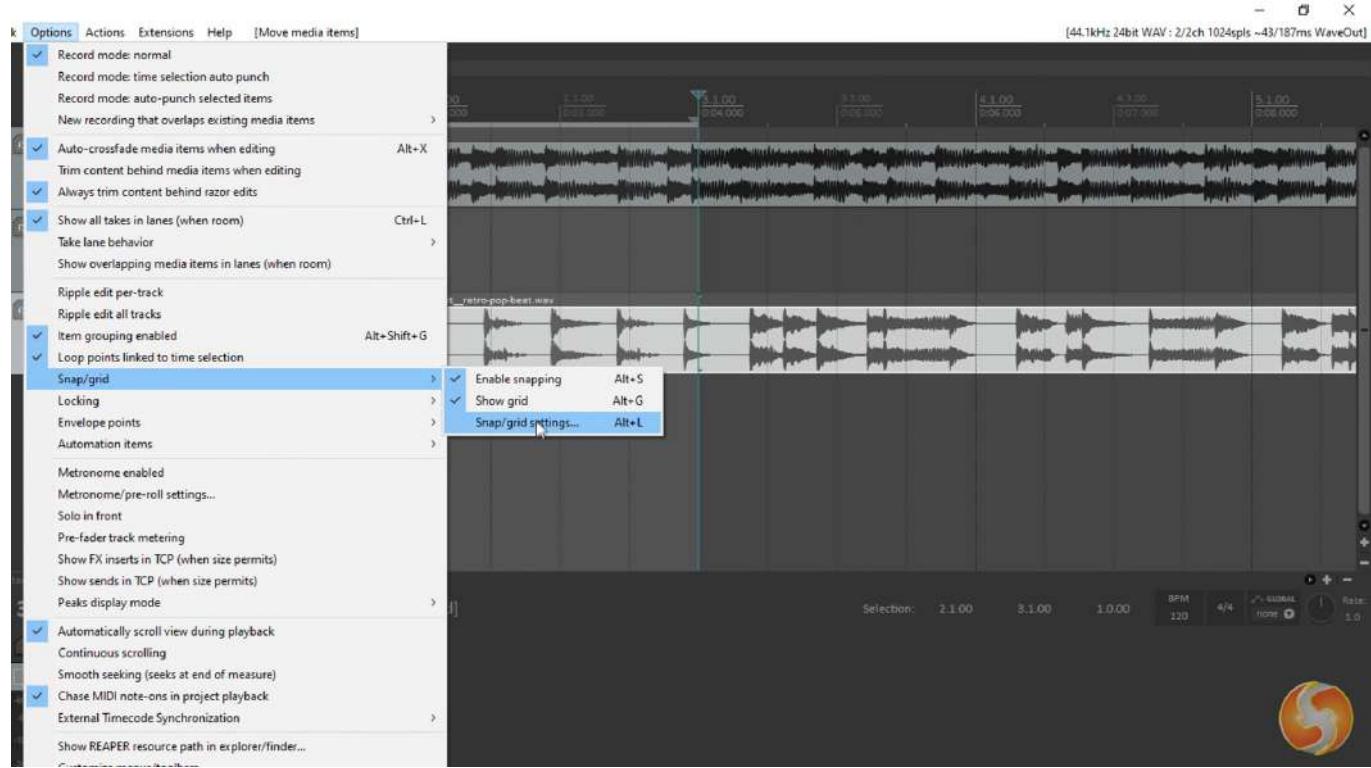


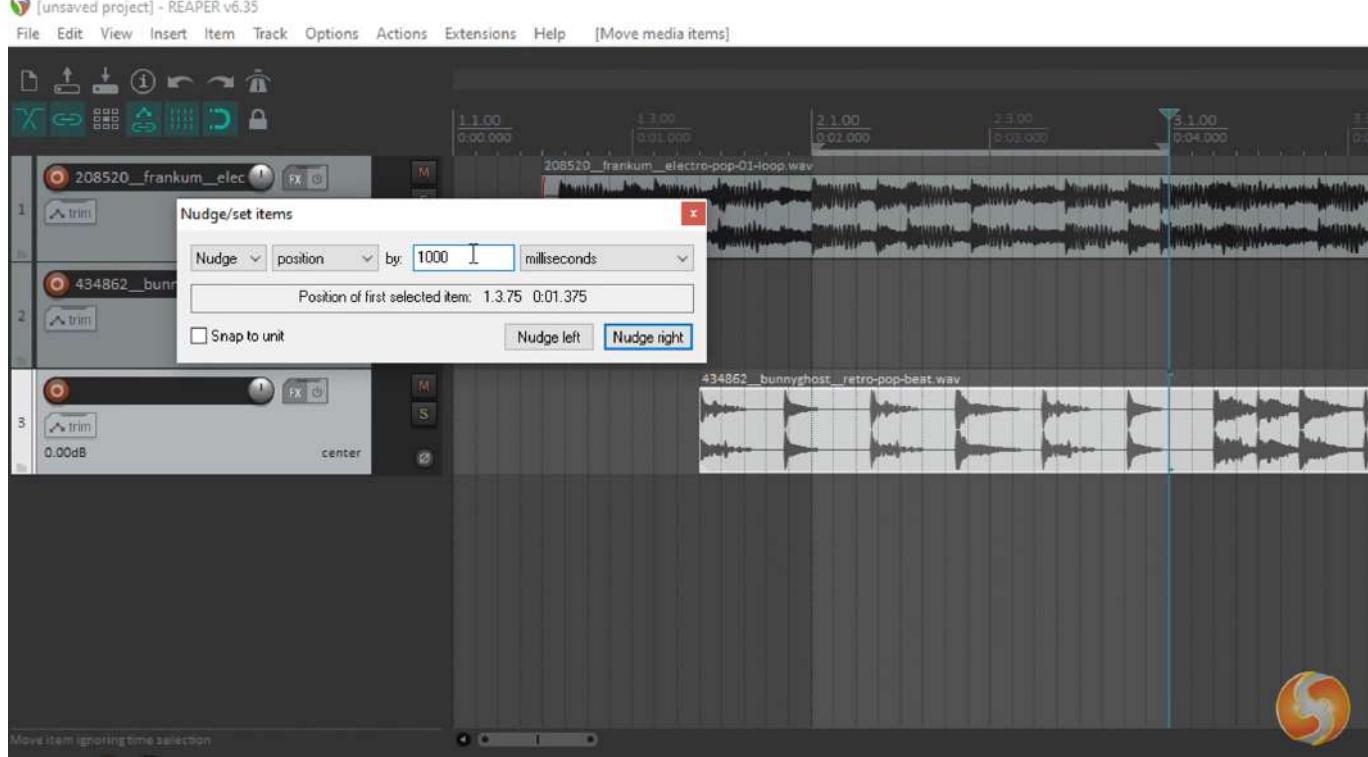
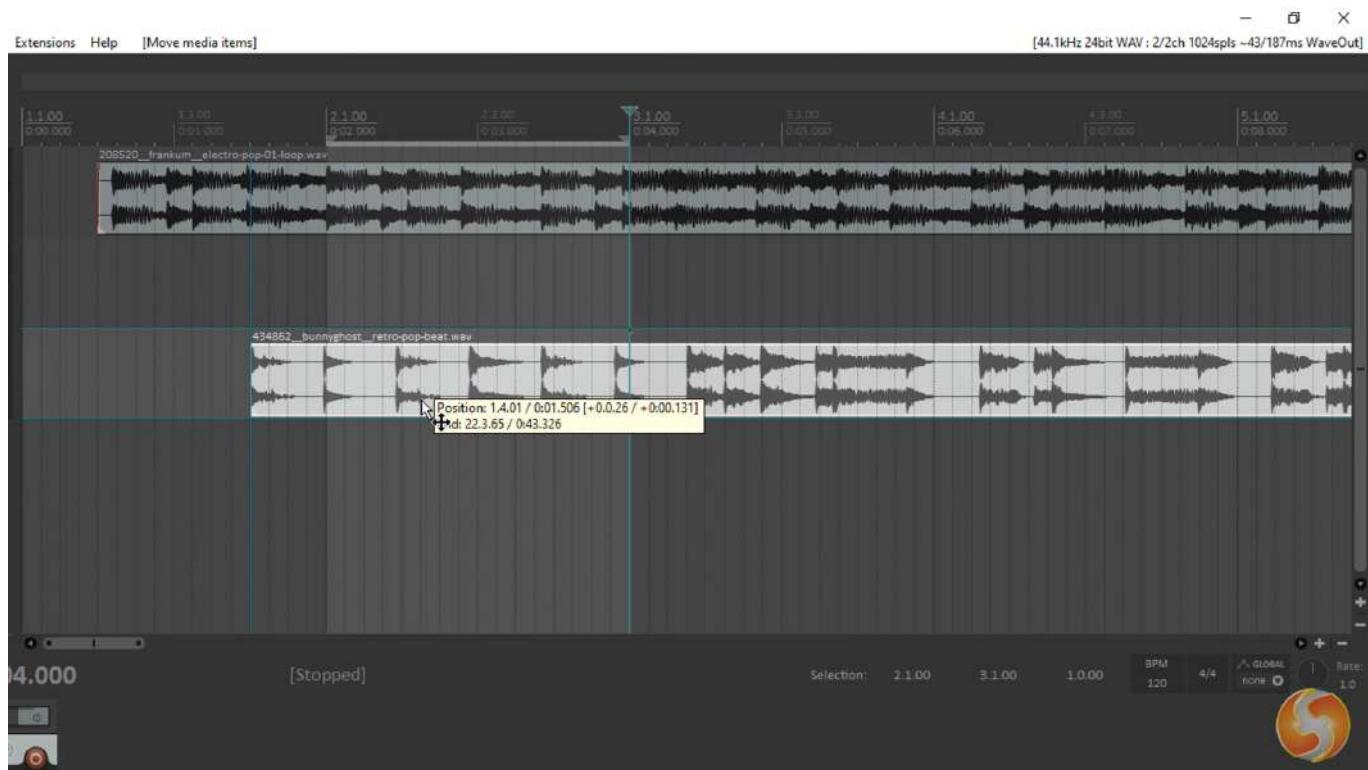


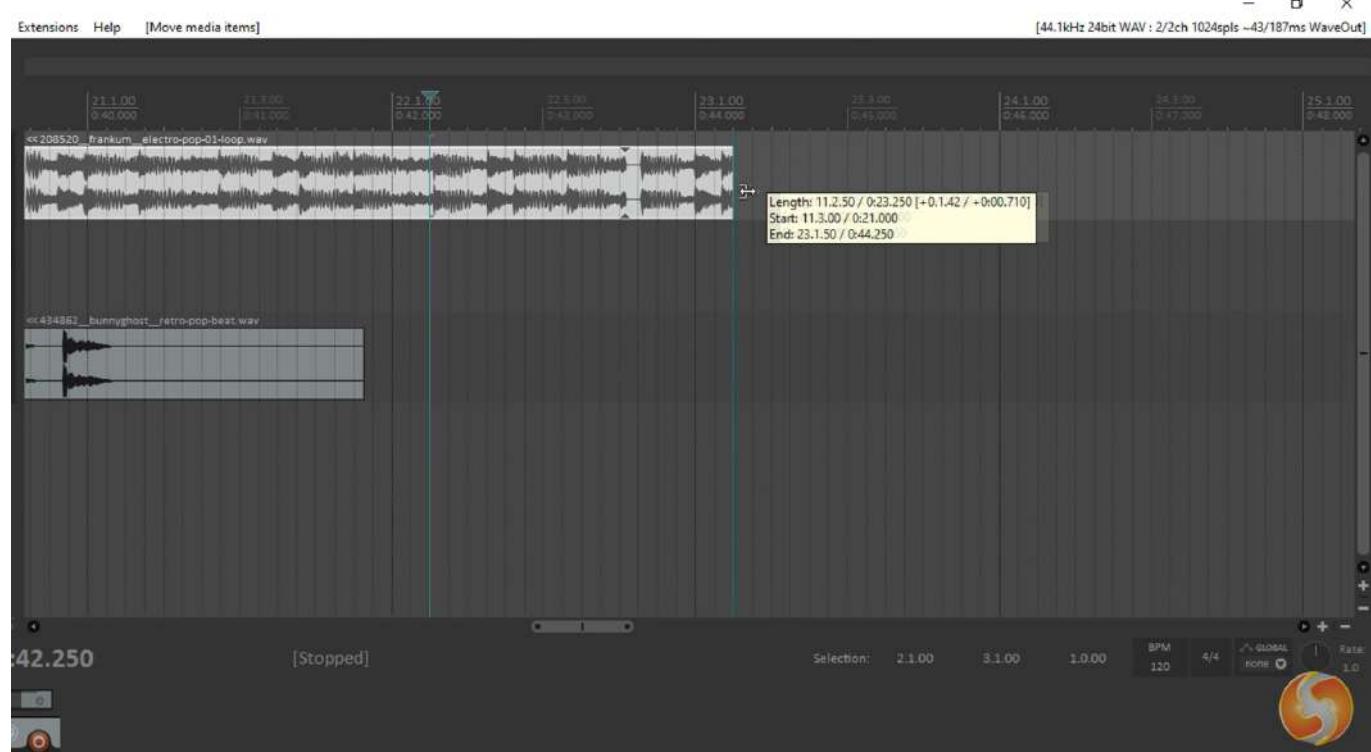
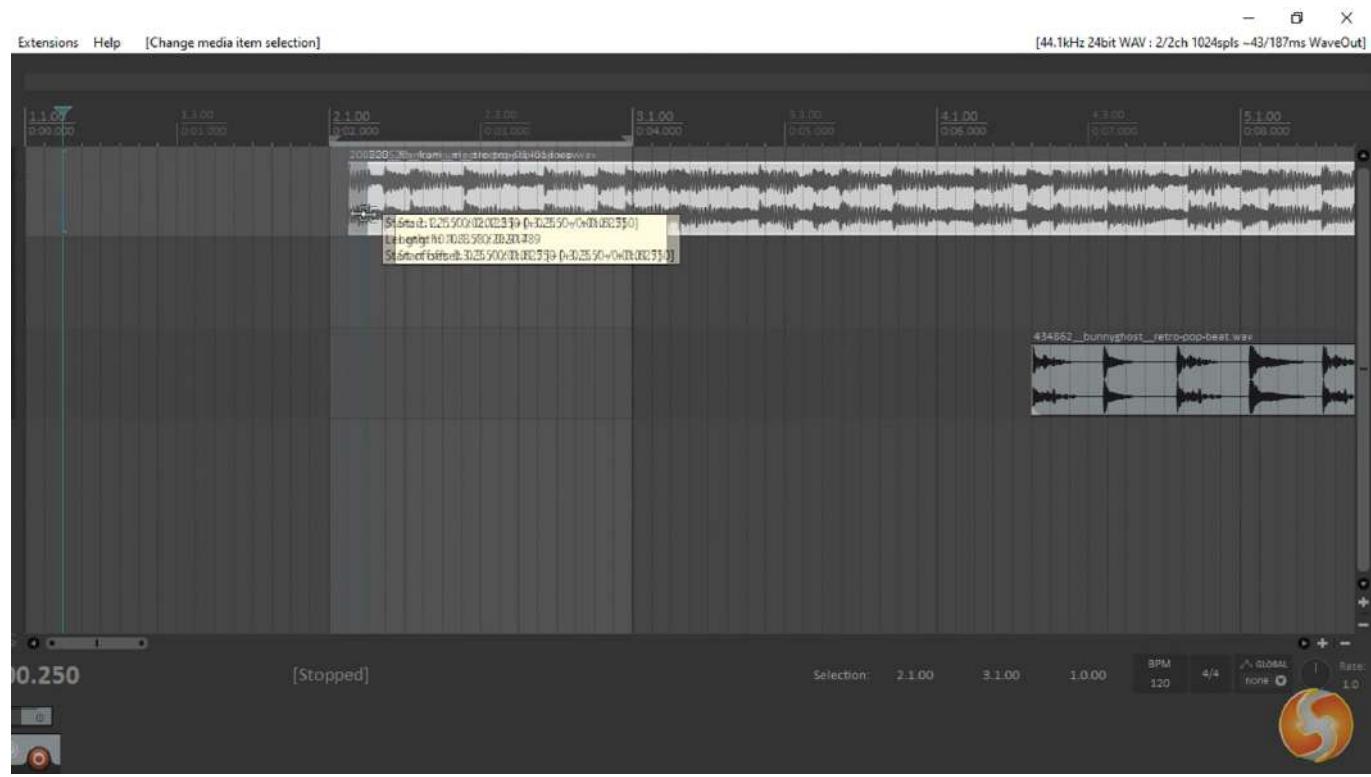
Editing Items

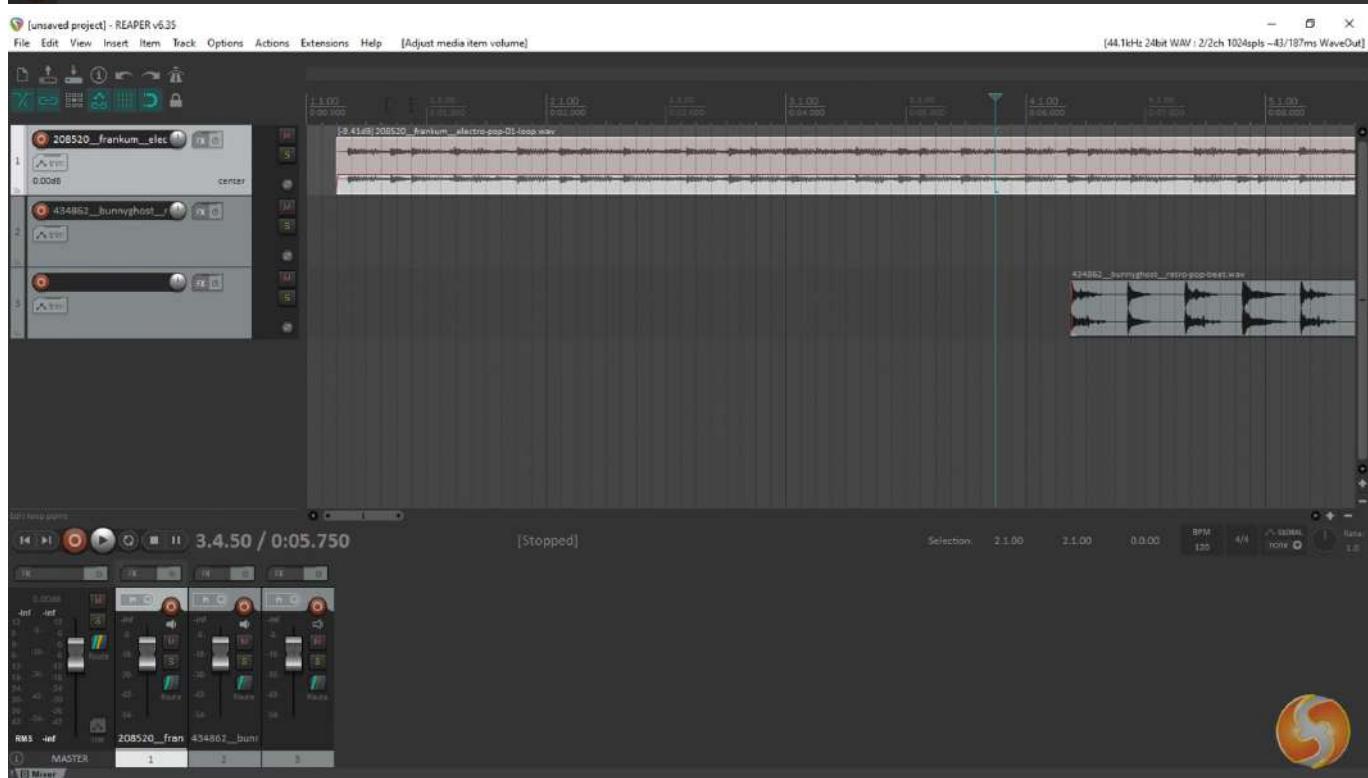
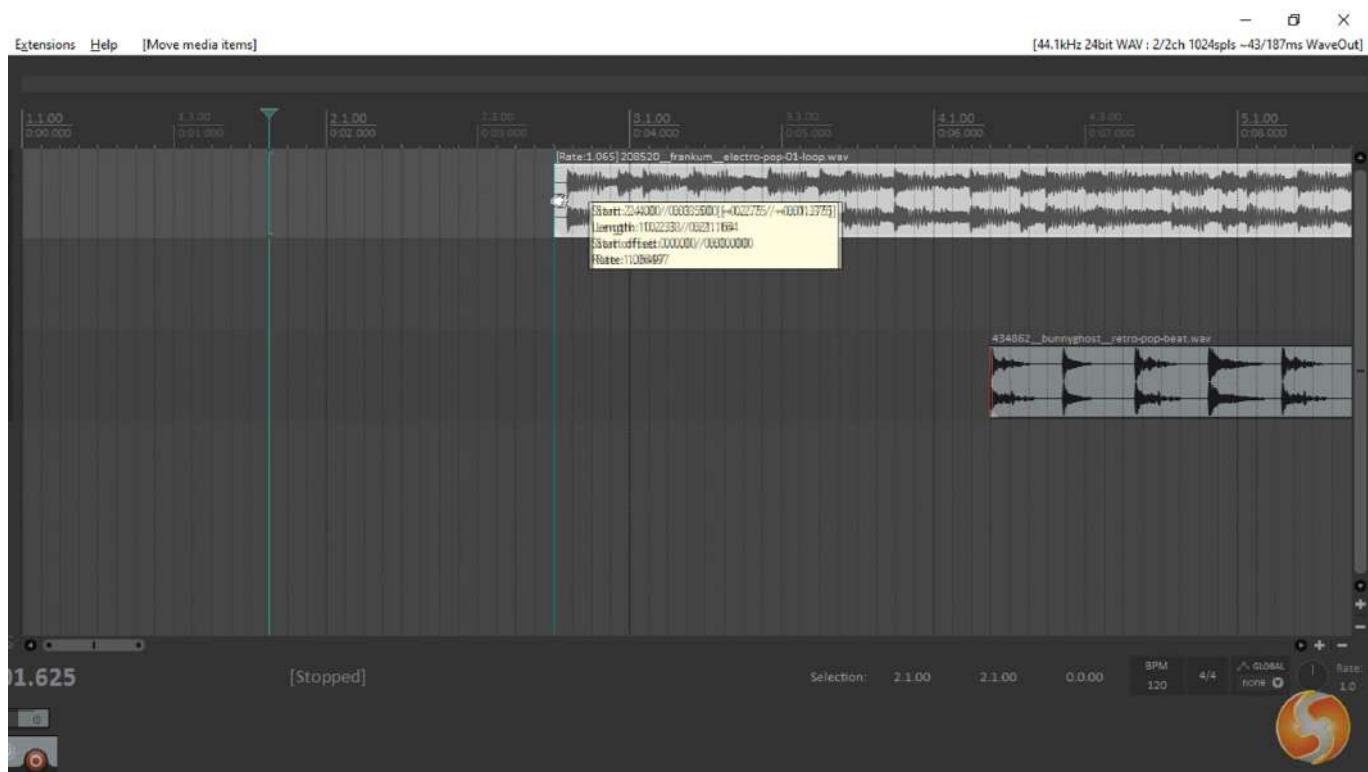
- Click and drag to move items in time or between tracks
- Snaps to grid (Options > Snap/Grid) unless holding Shift
- Press N for precise nudge dialog
- Drag edges to adjust length (cuts content when shortened, loops when extended)
- Hold ALT/Option while dragging edges to change speed instead of length
- 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

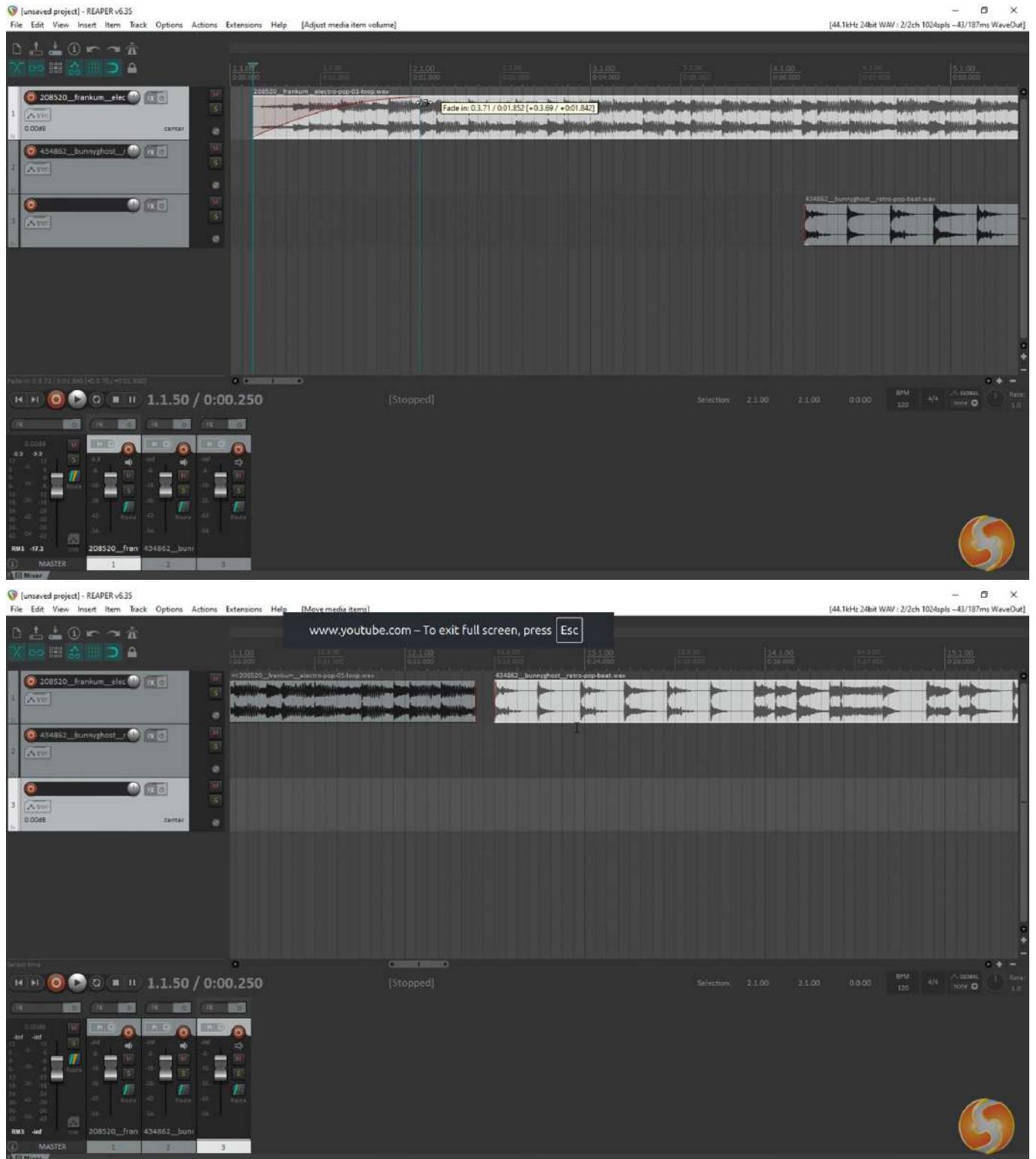


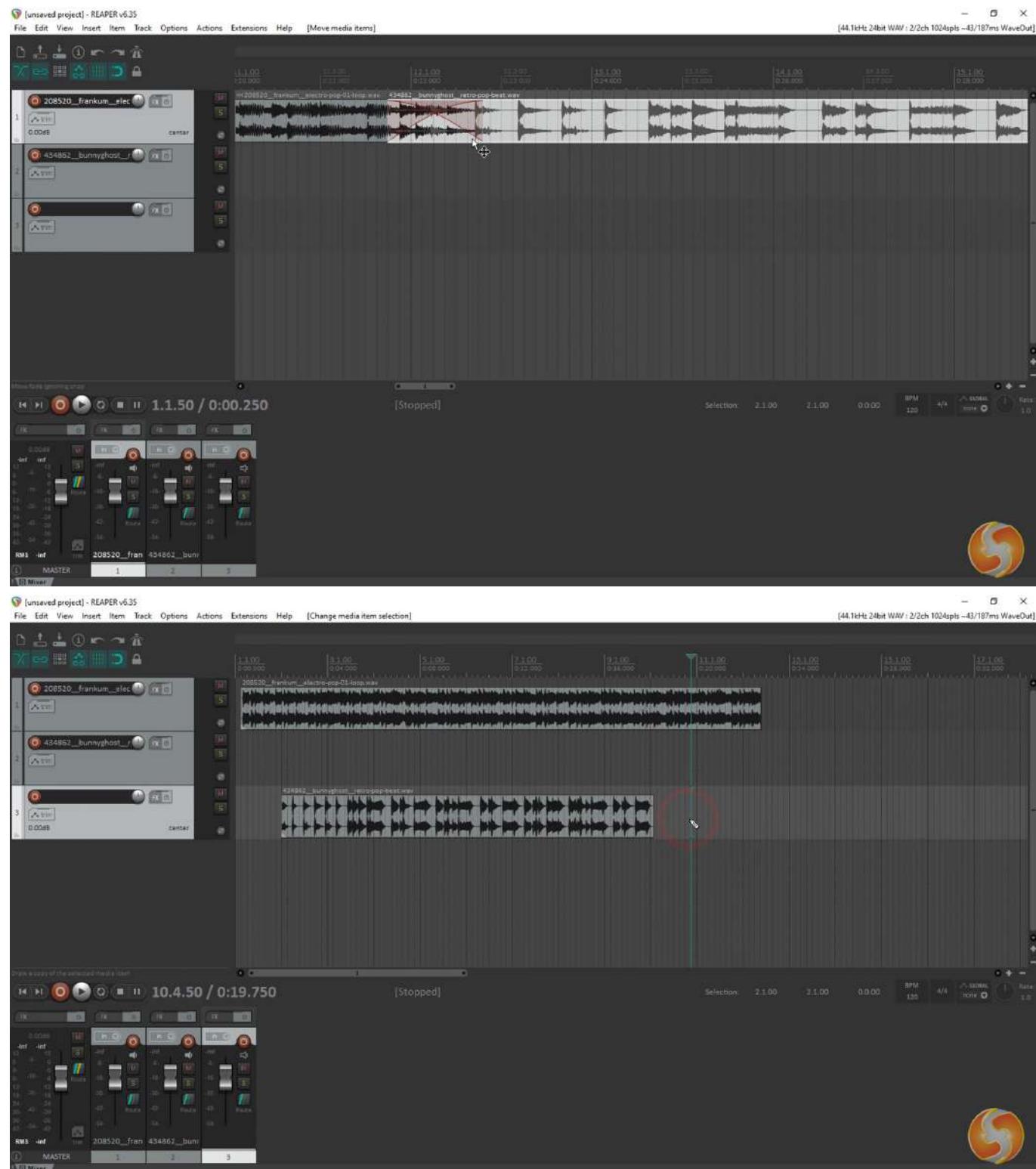


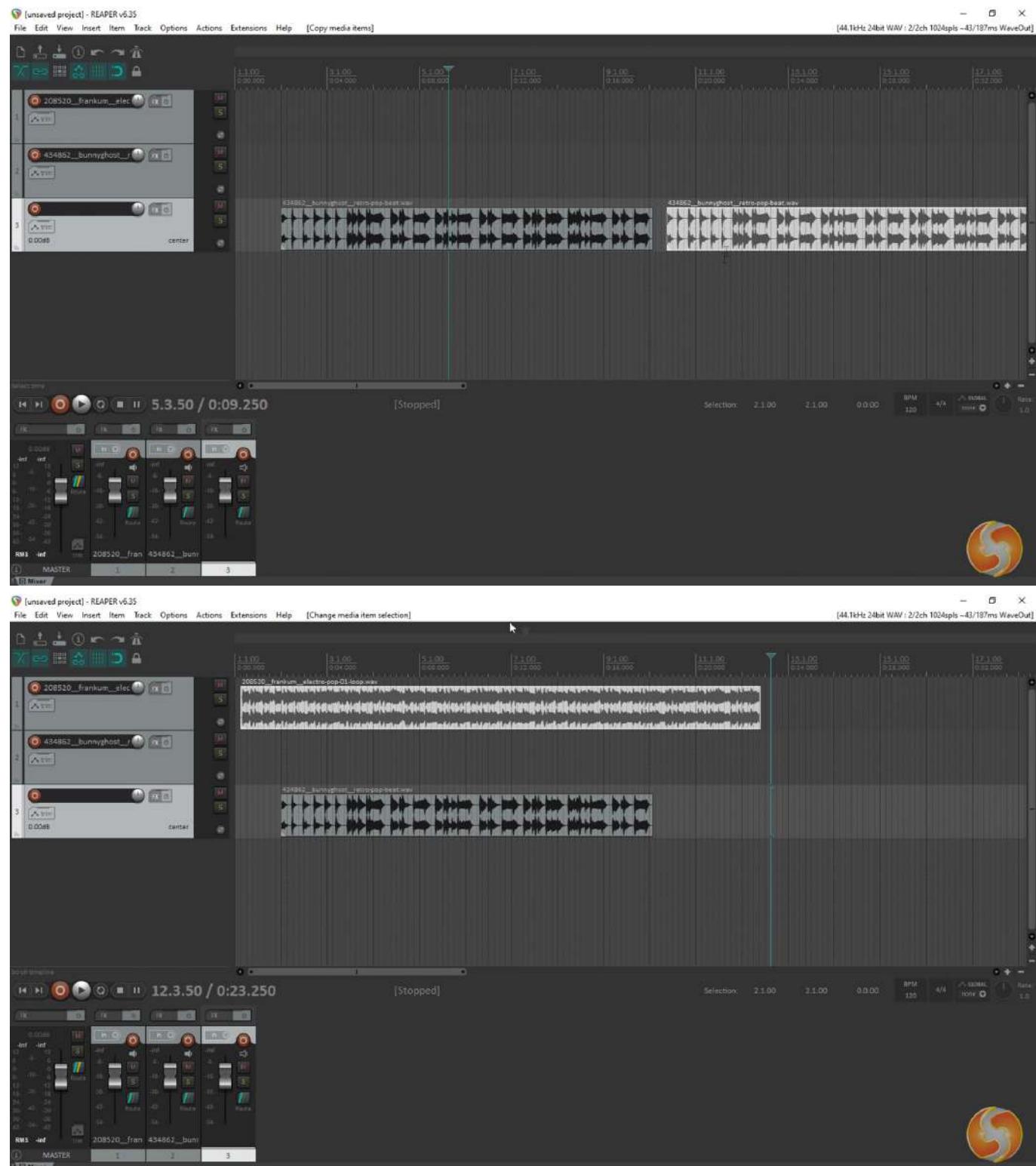


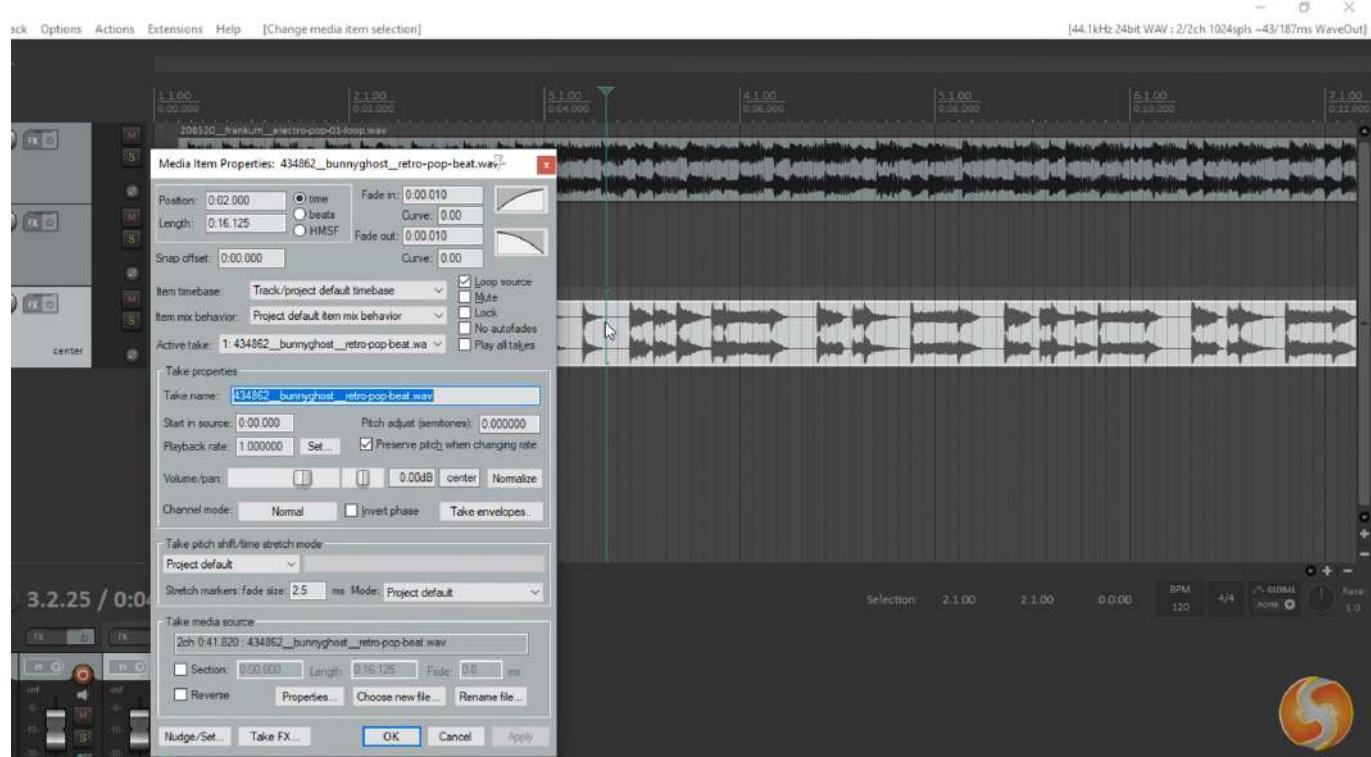
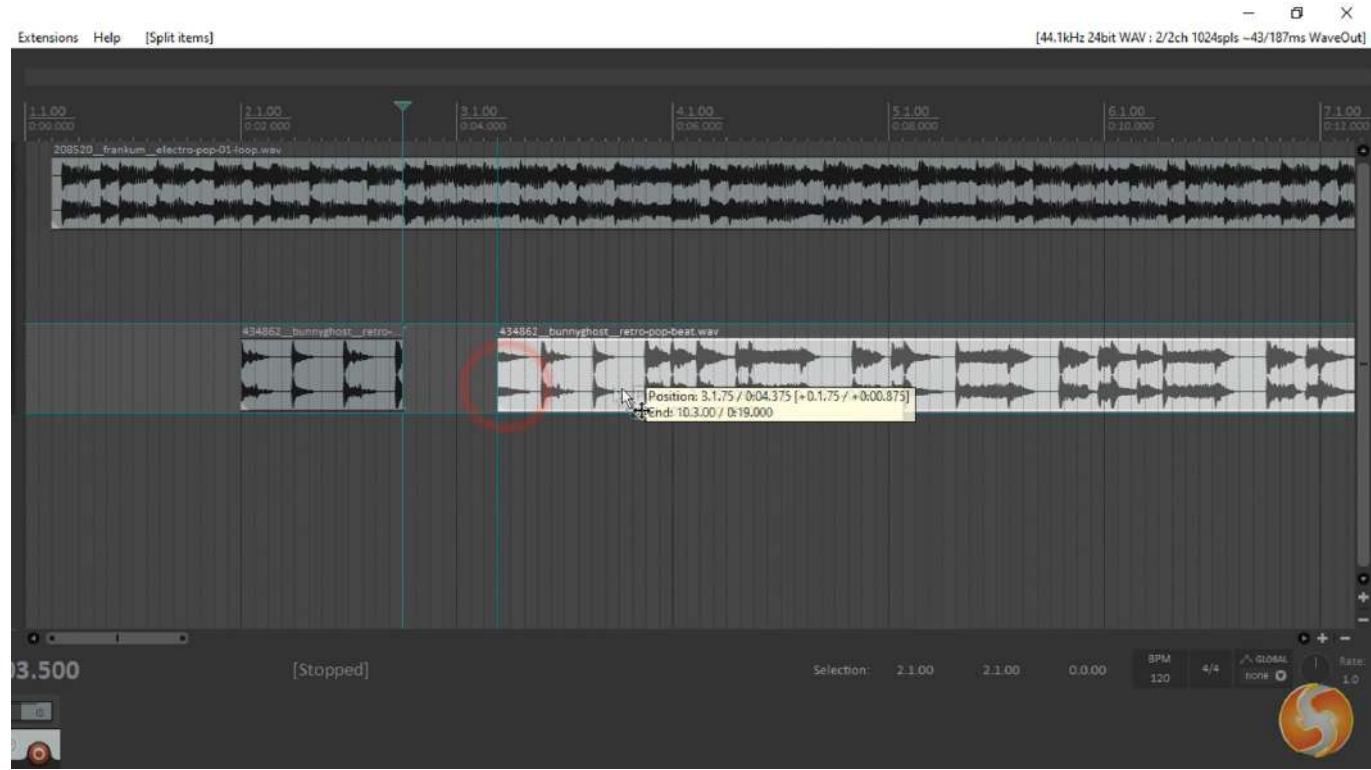


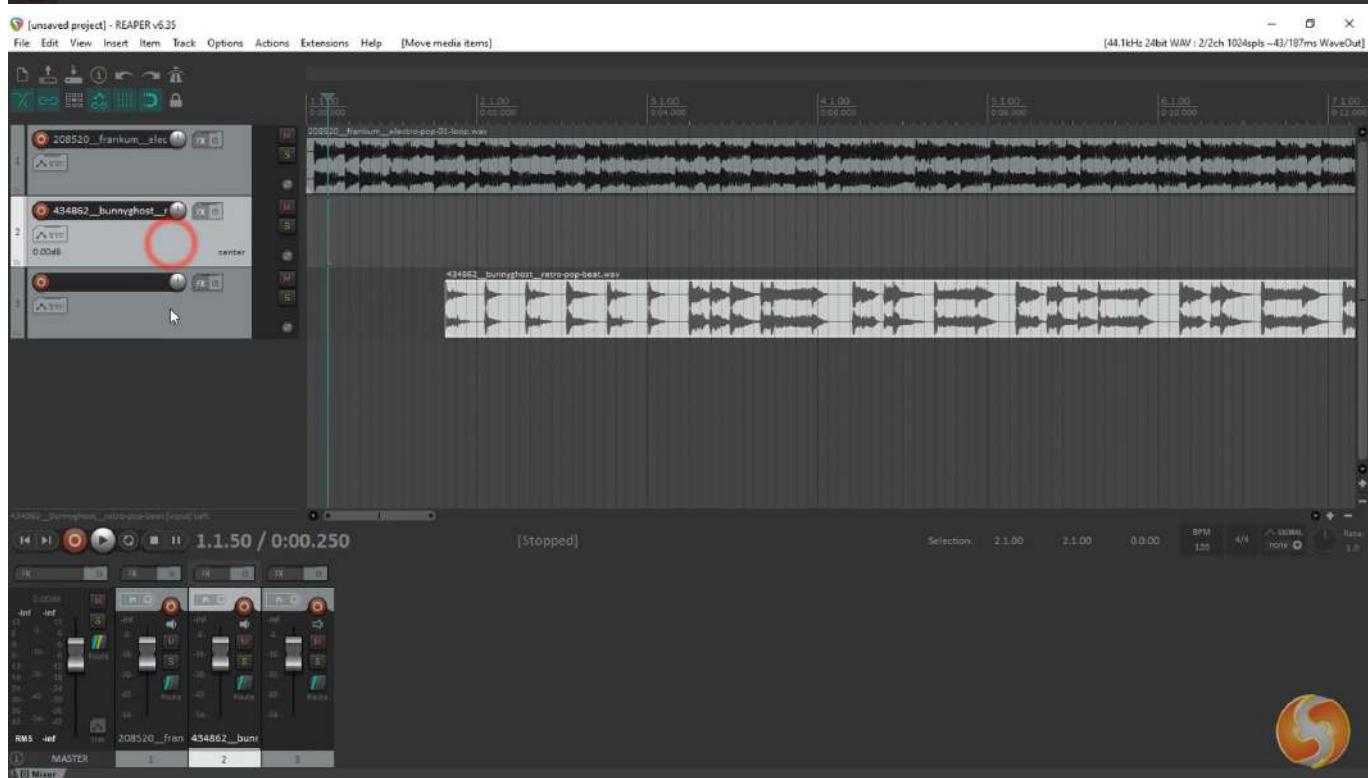
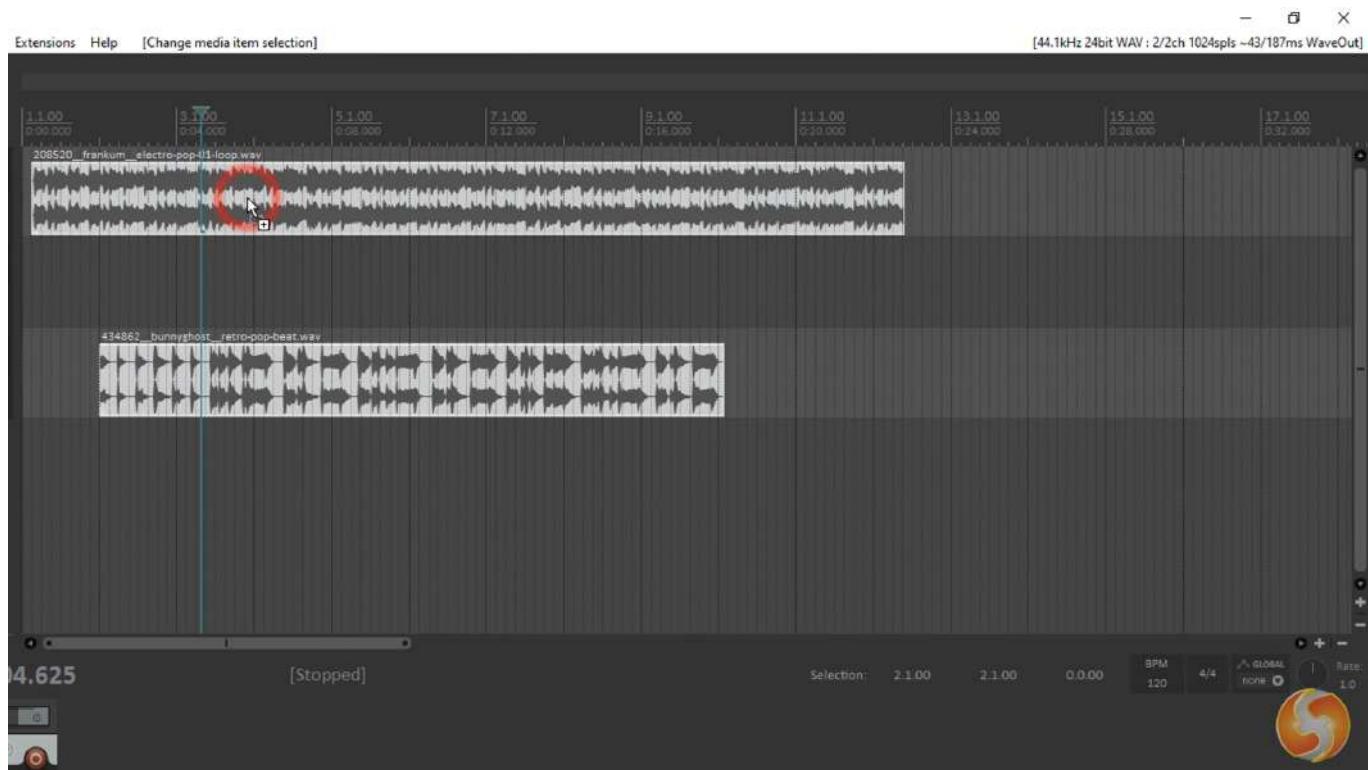


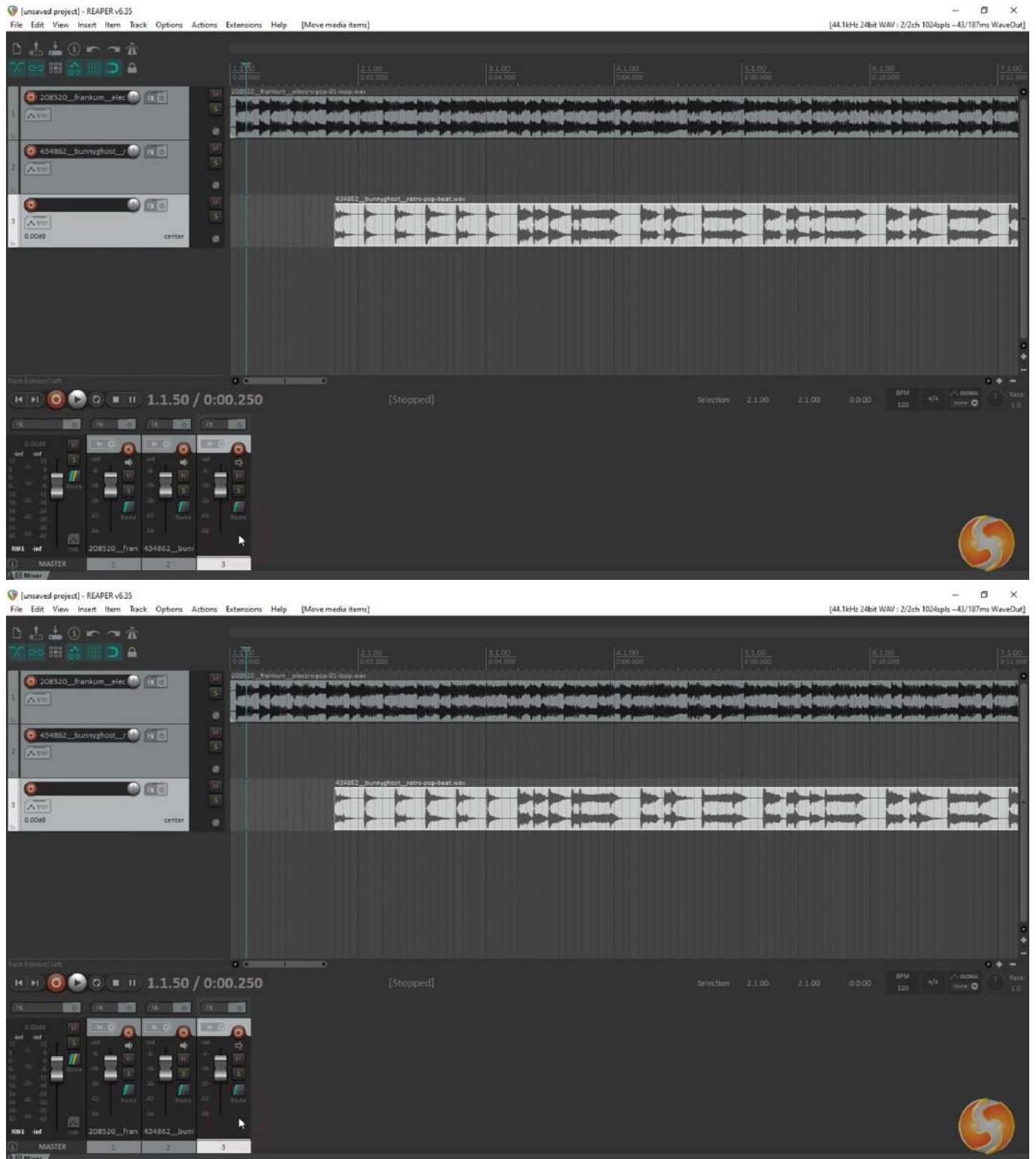






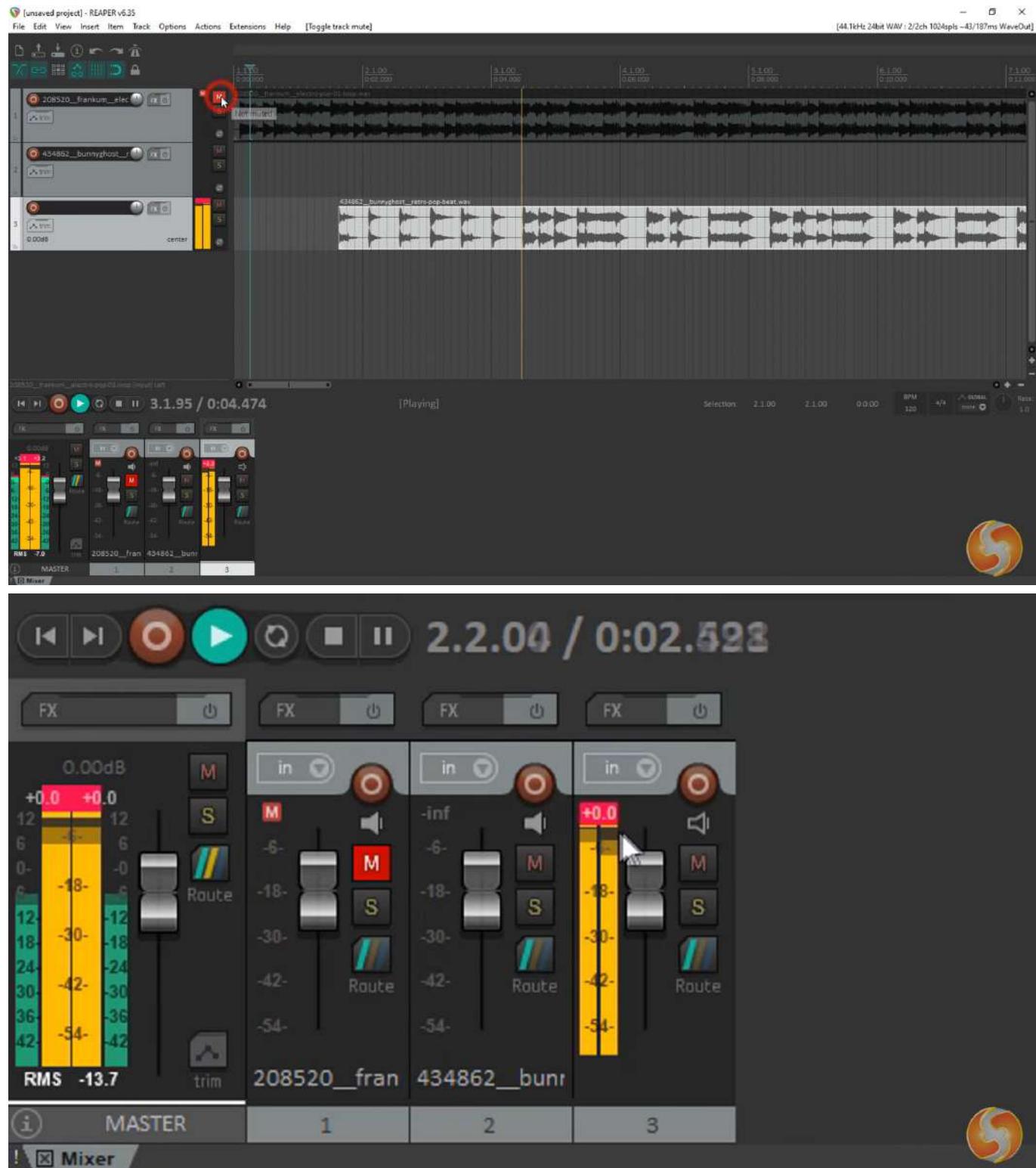


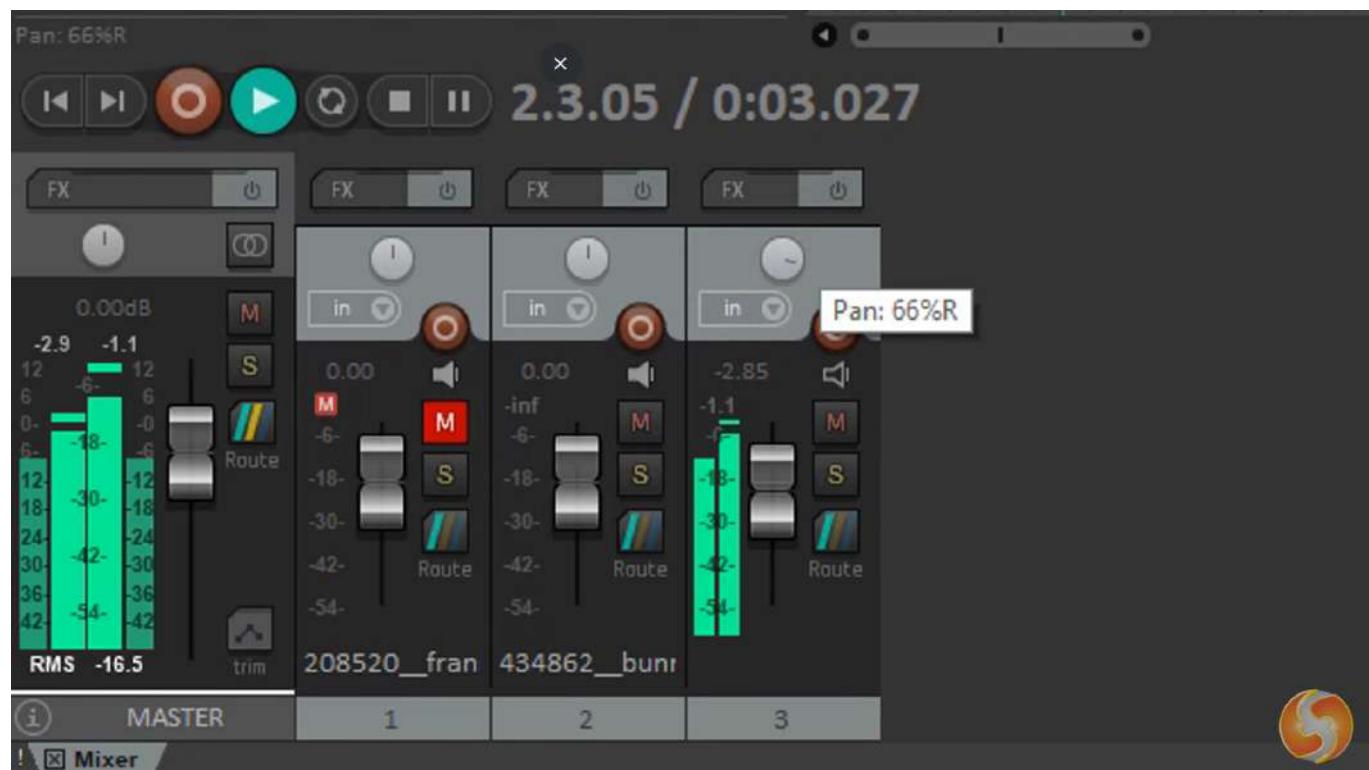
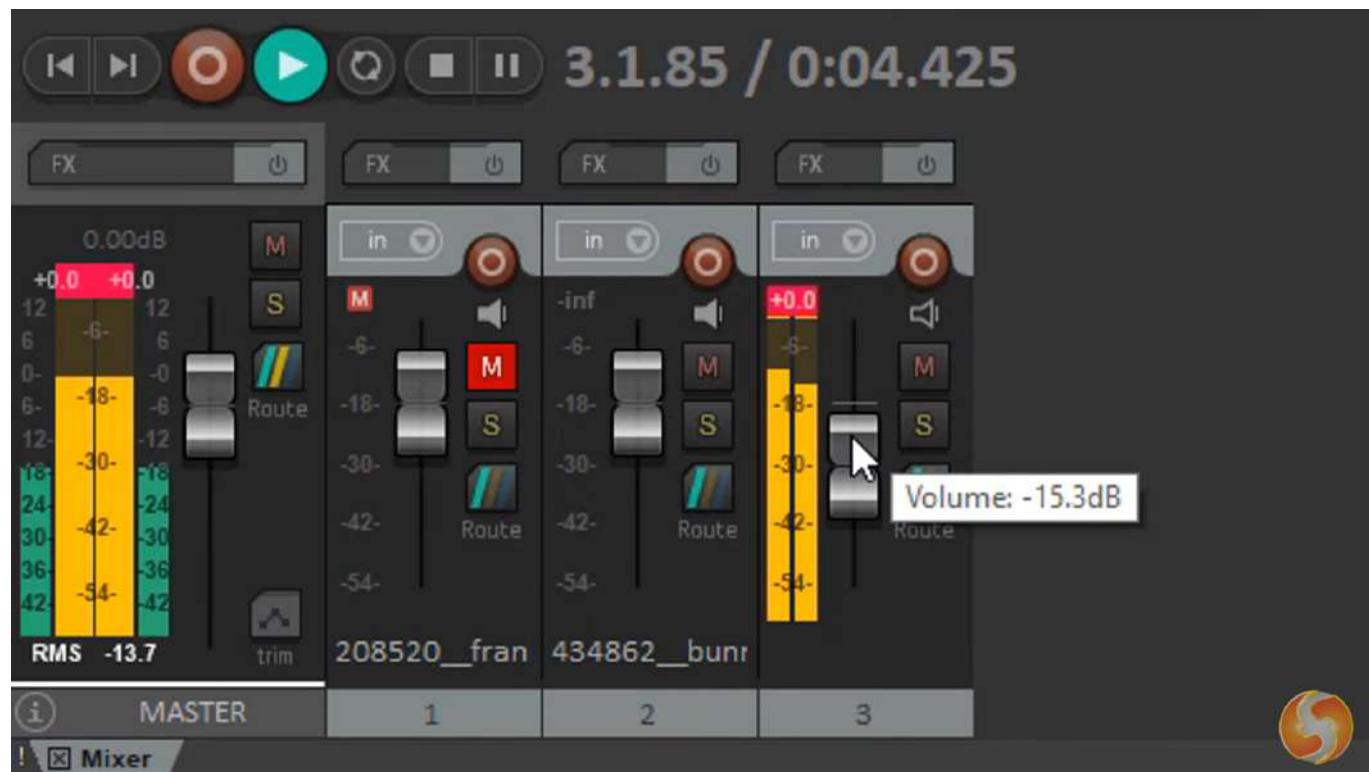


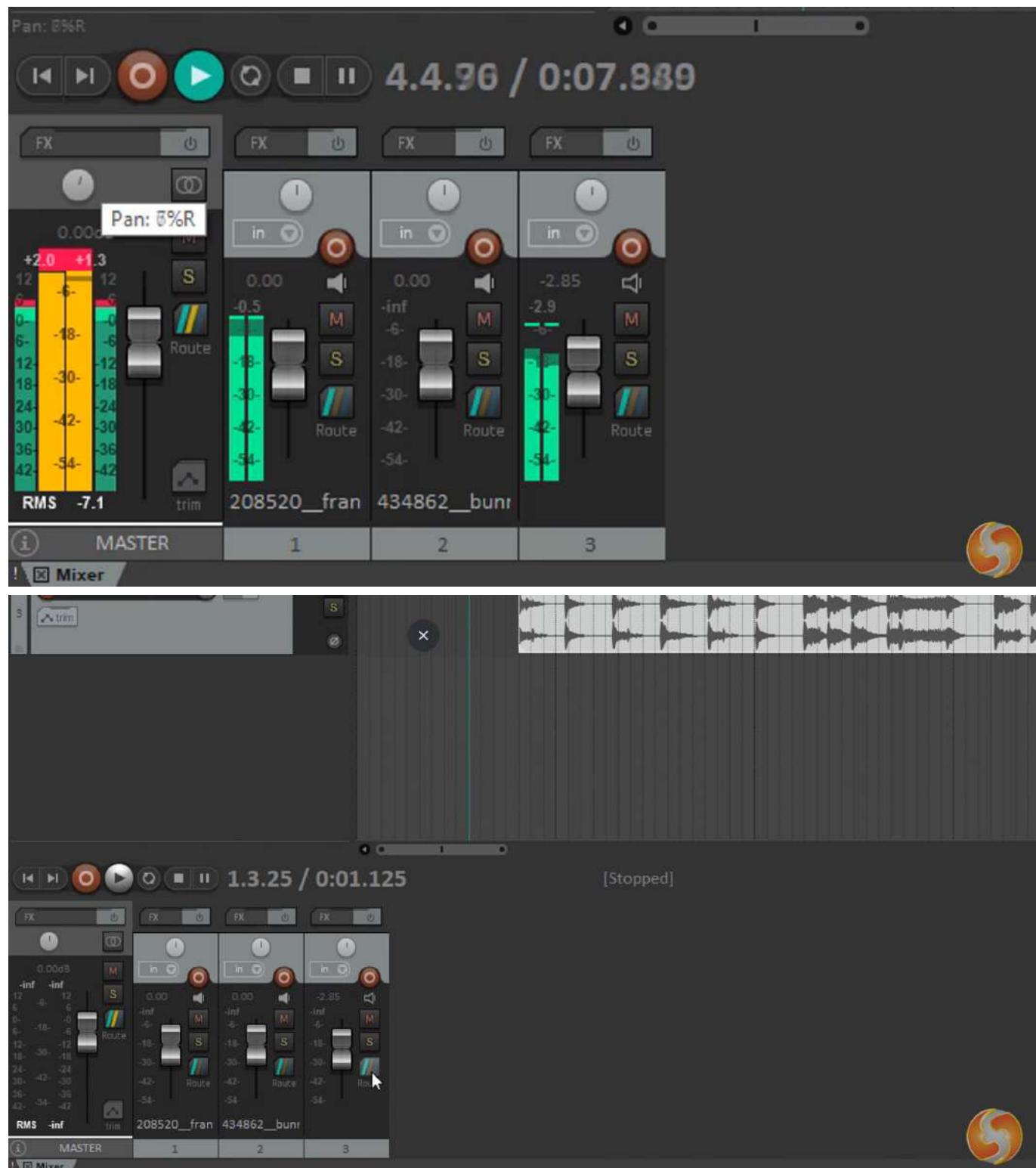


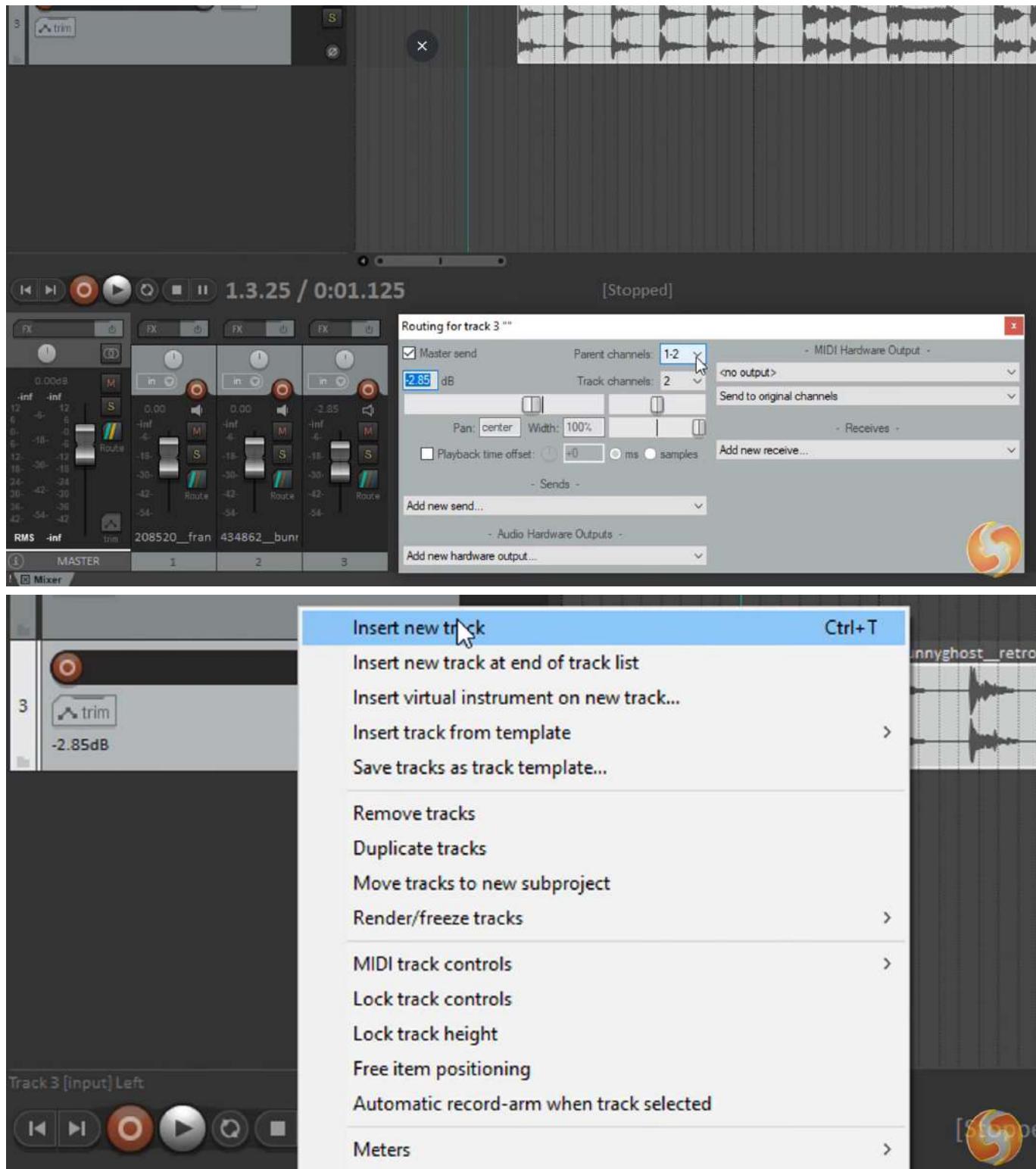
Track Management

- 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





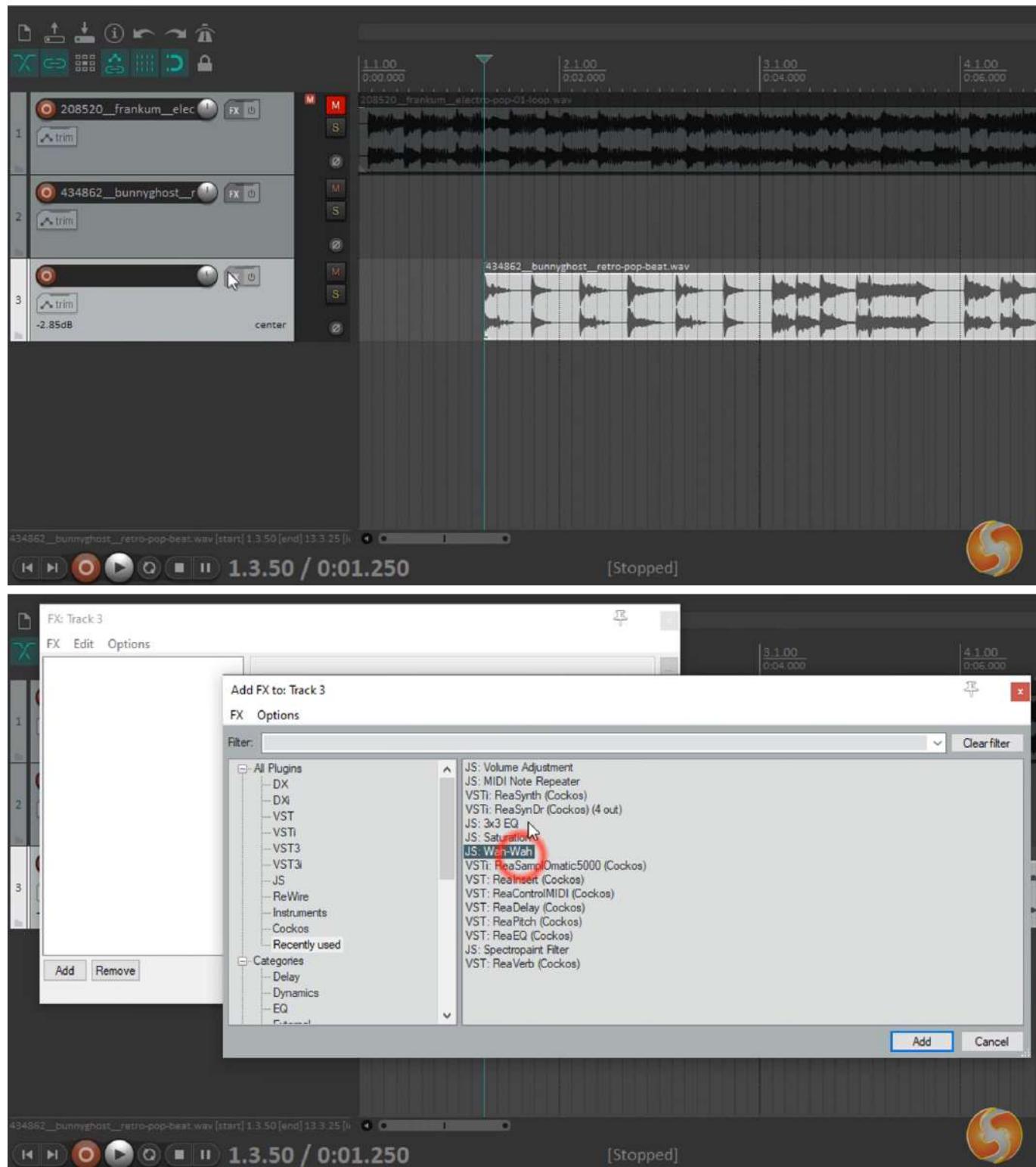




Effects (FX)

- 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

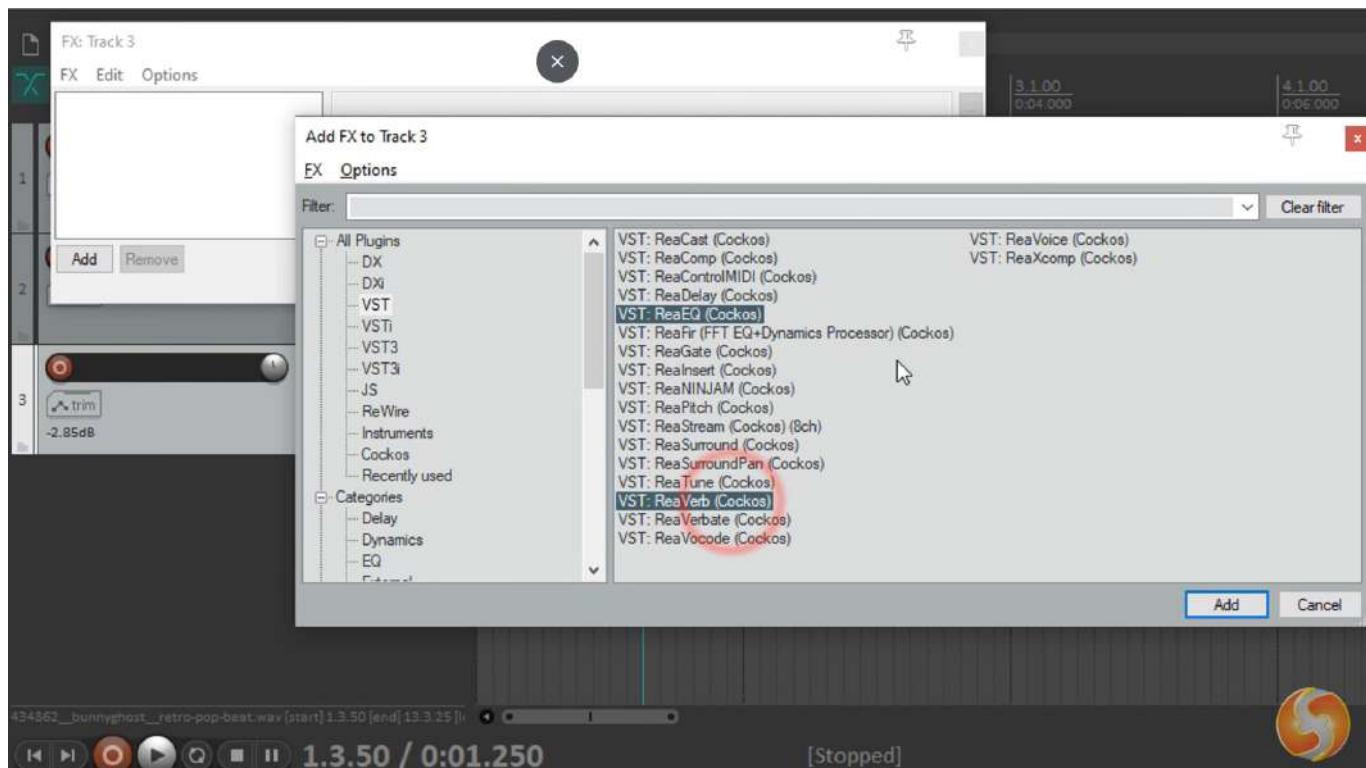
maxfreq=2000;
minfreq=200;
pos=slider1/.819;
pos=1-pos;
fh=minfreq+(pos)*(maxfreq-minfreq);
Ctrl+(Pane Find/Replace match Save Line 1/54 [1-23] Col 0 [INS]
```

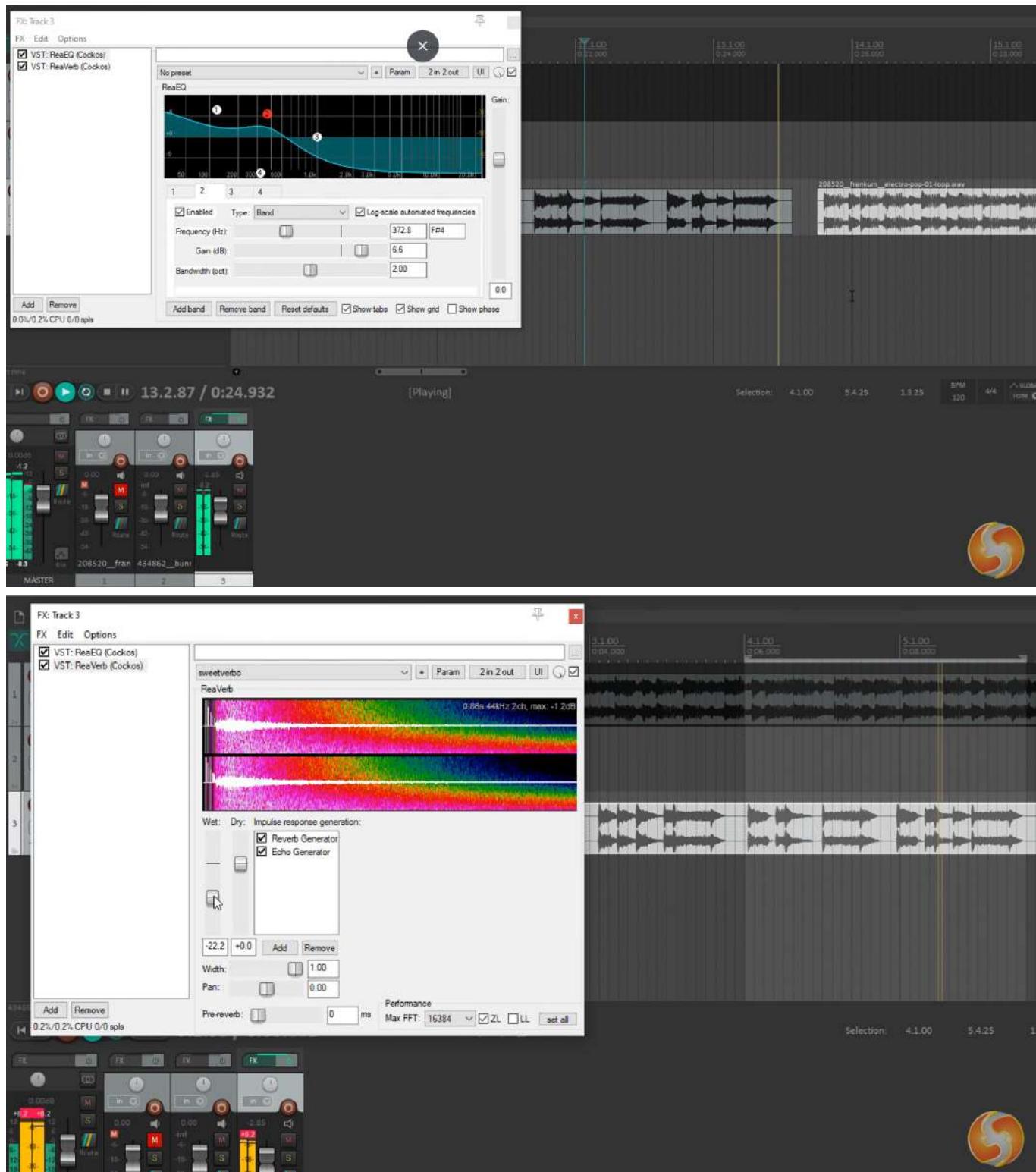
Full recompile/reset Open in external editor

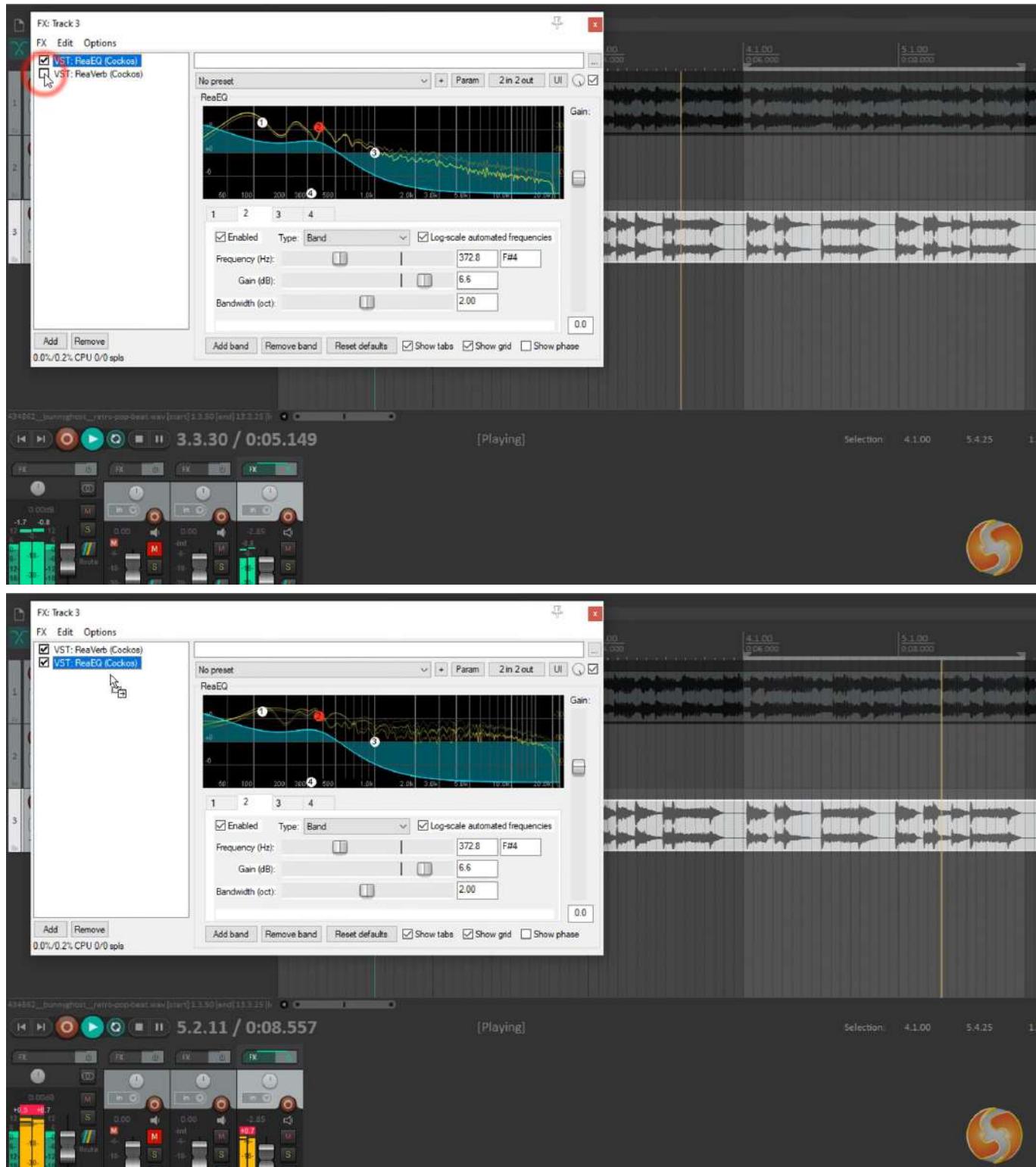
Name	Value	Refs
band	-0	17
damp	0.32667994...	3
drive	0.05	3
fh	2000	6
freq	0.14235538...	7
high	-0	4
in	0	3
low	0	6
maxfreq	2000	4
minfreq	200	5
notch	0	4
out	-0	2
pos	1	6
res	0.49	6

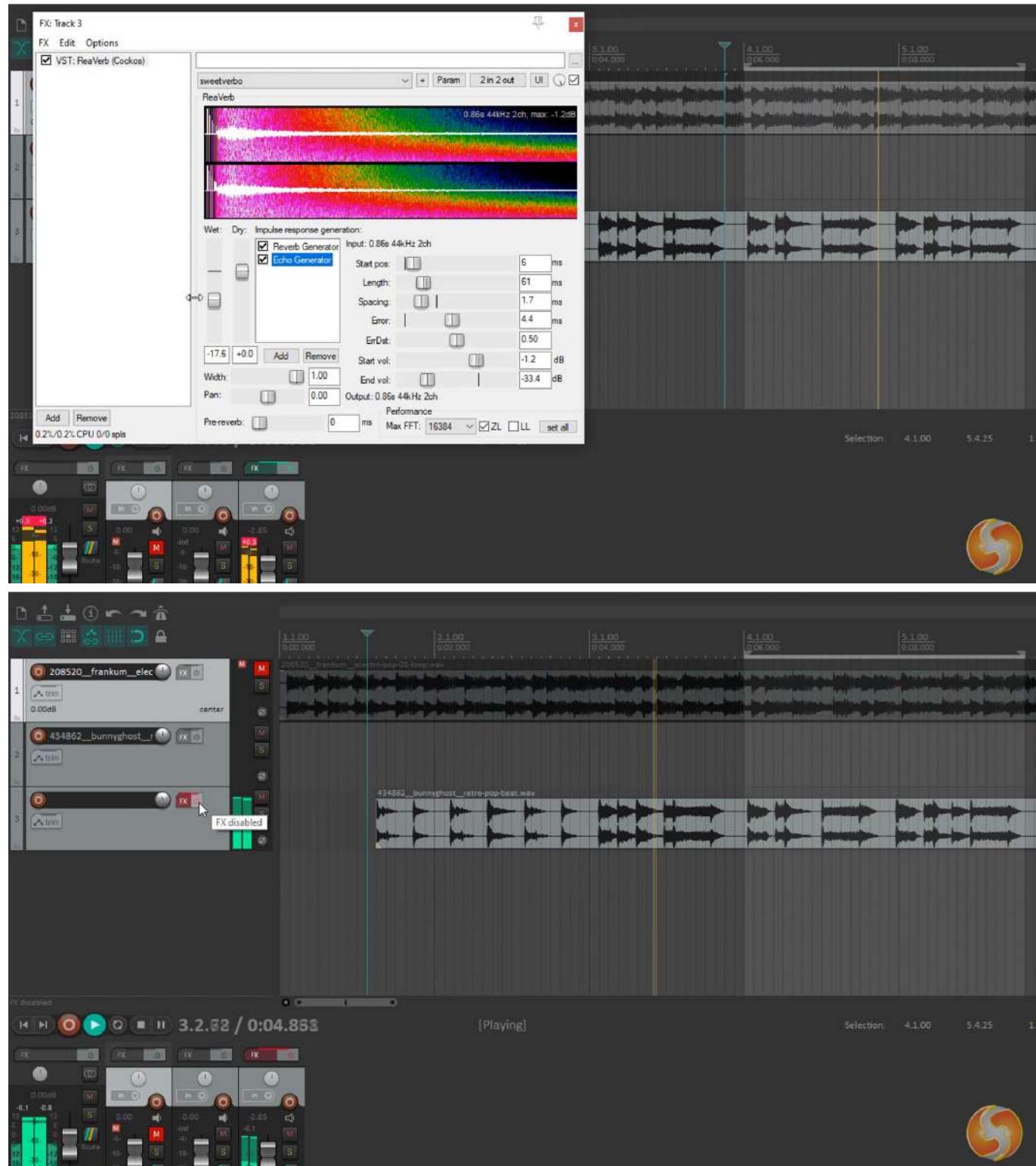
System variables:
beat position 2.5 0

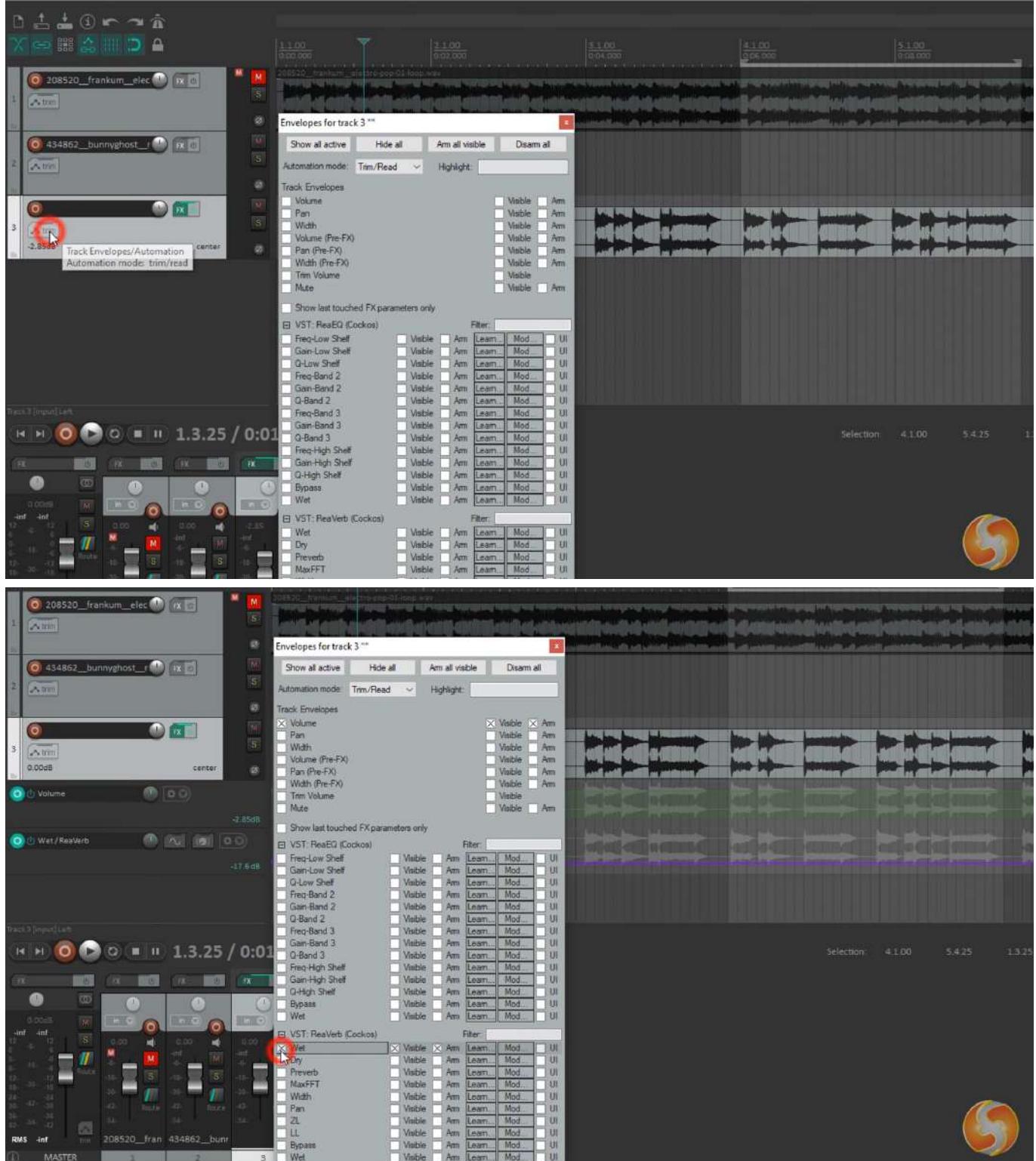
Refresh now Auto-refresh

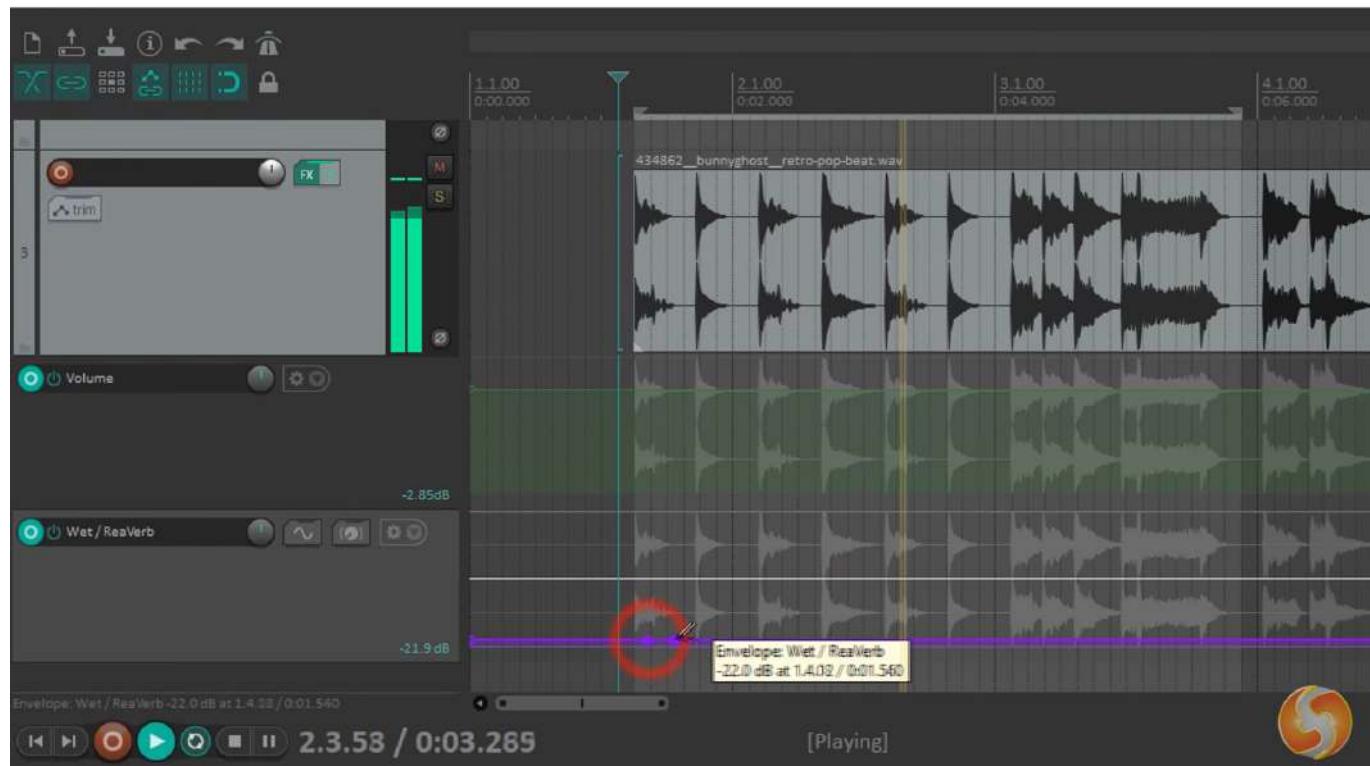
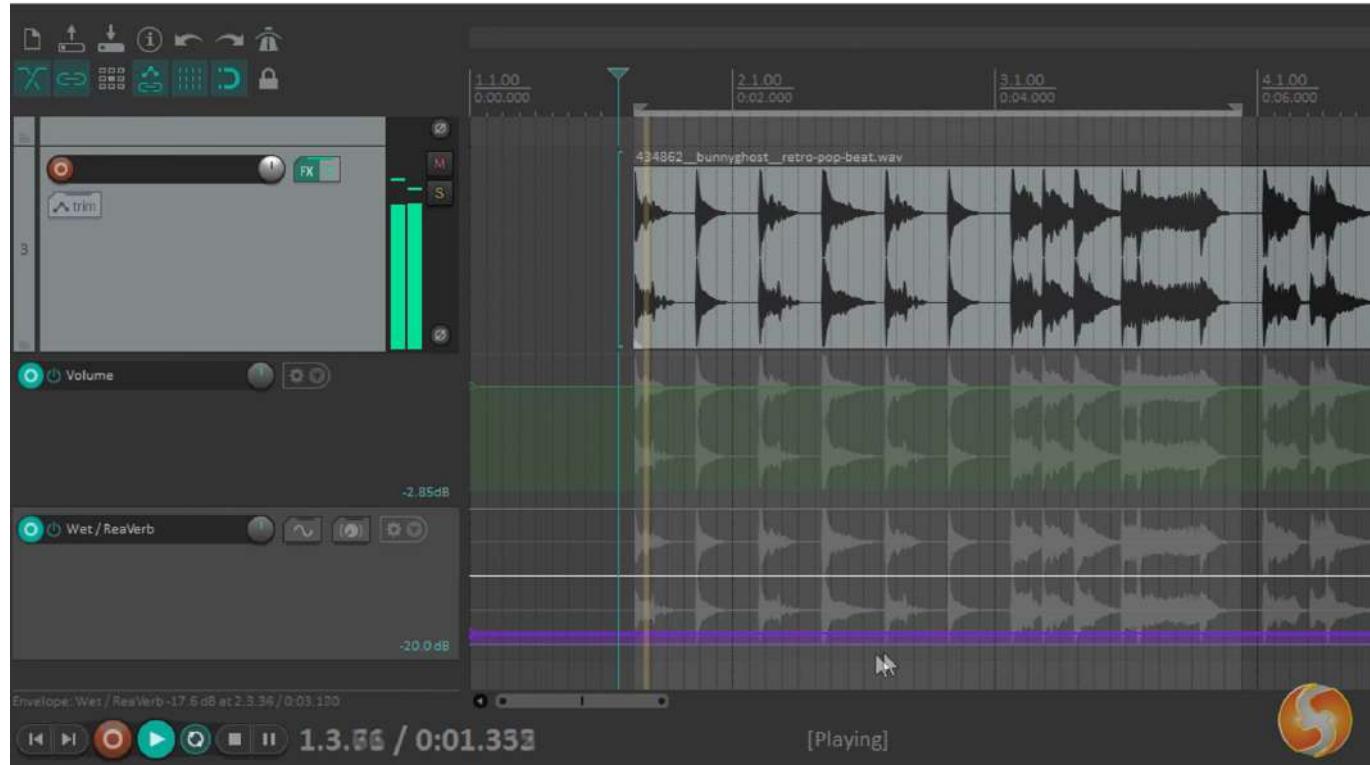


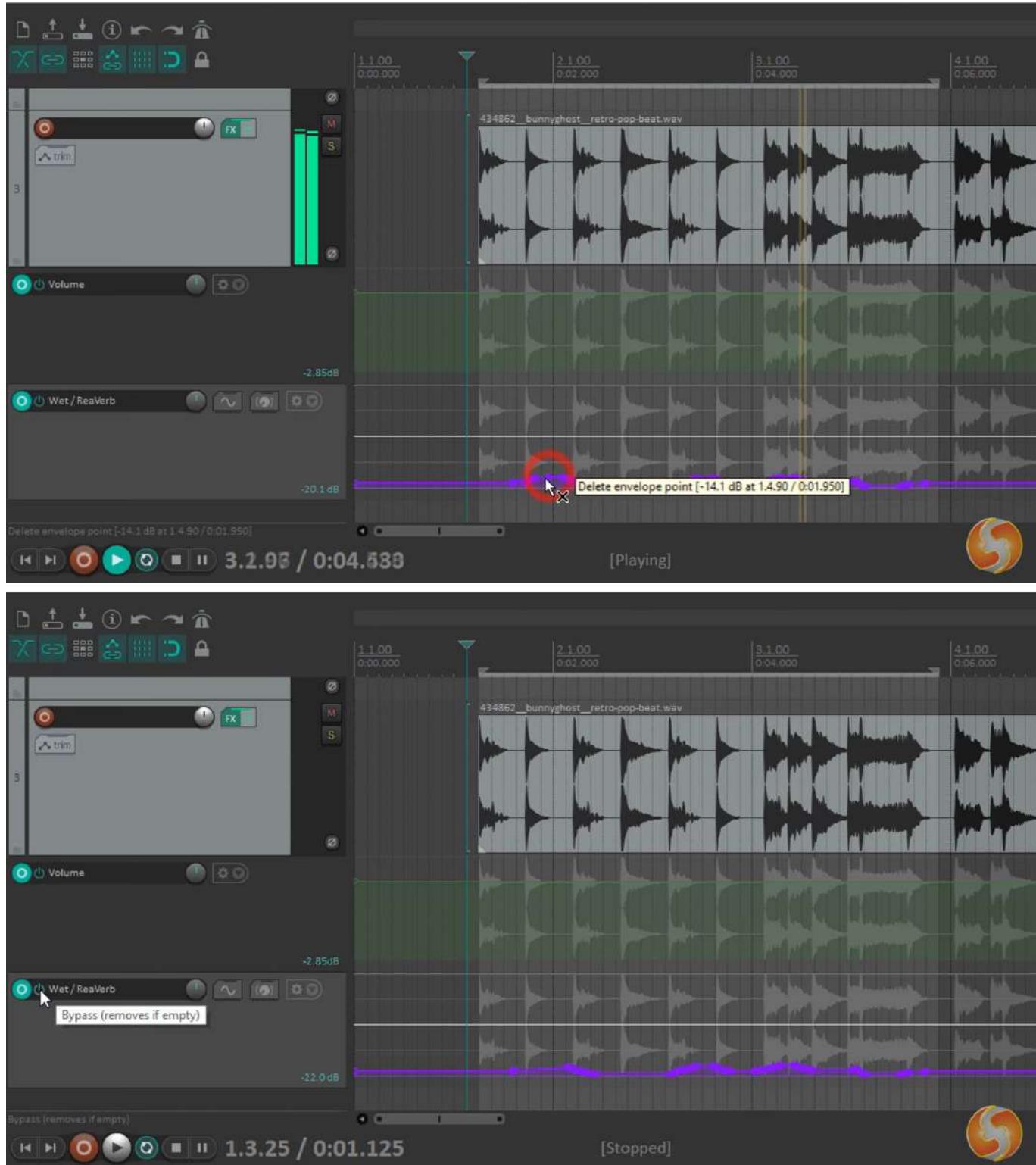








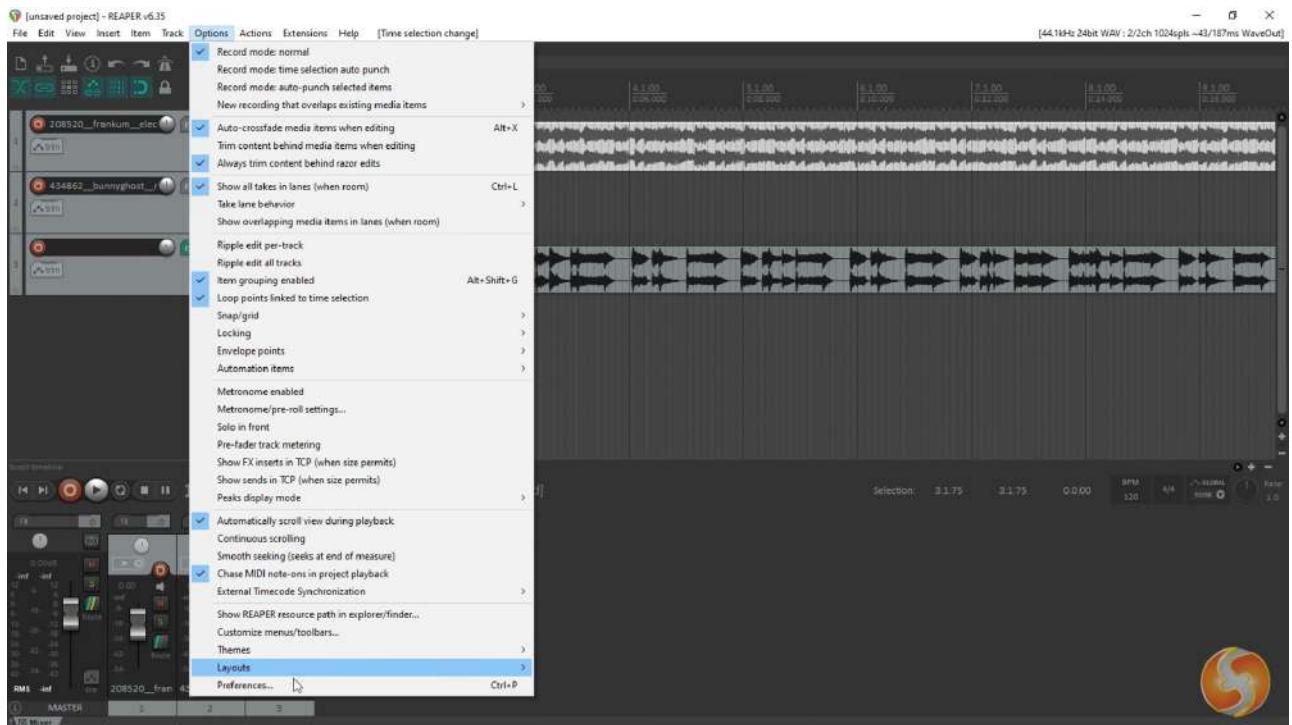
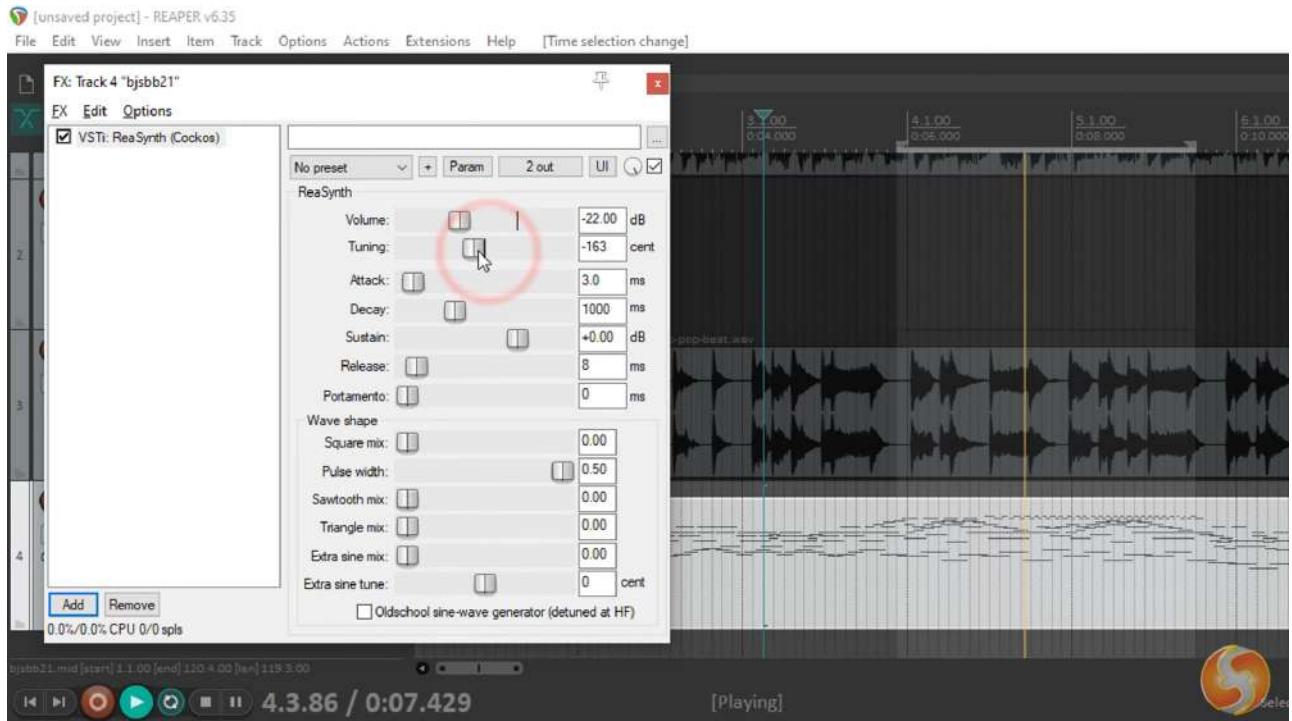


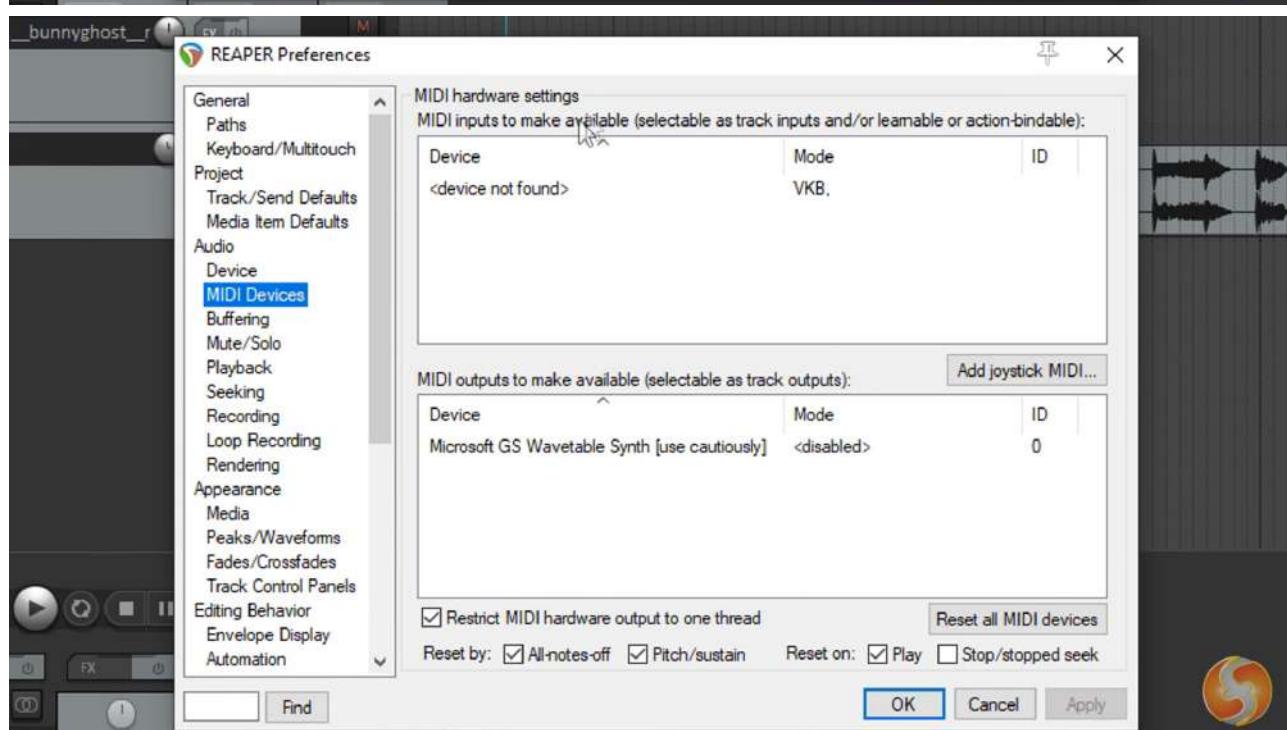
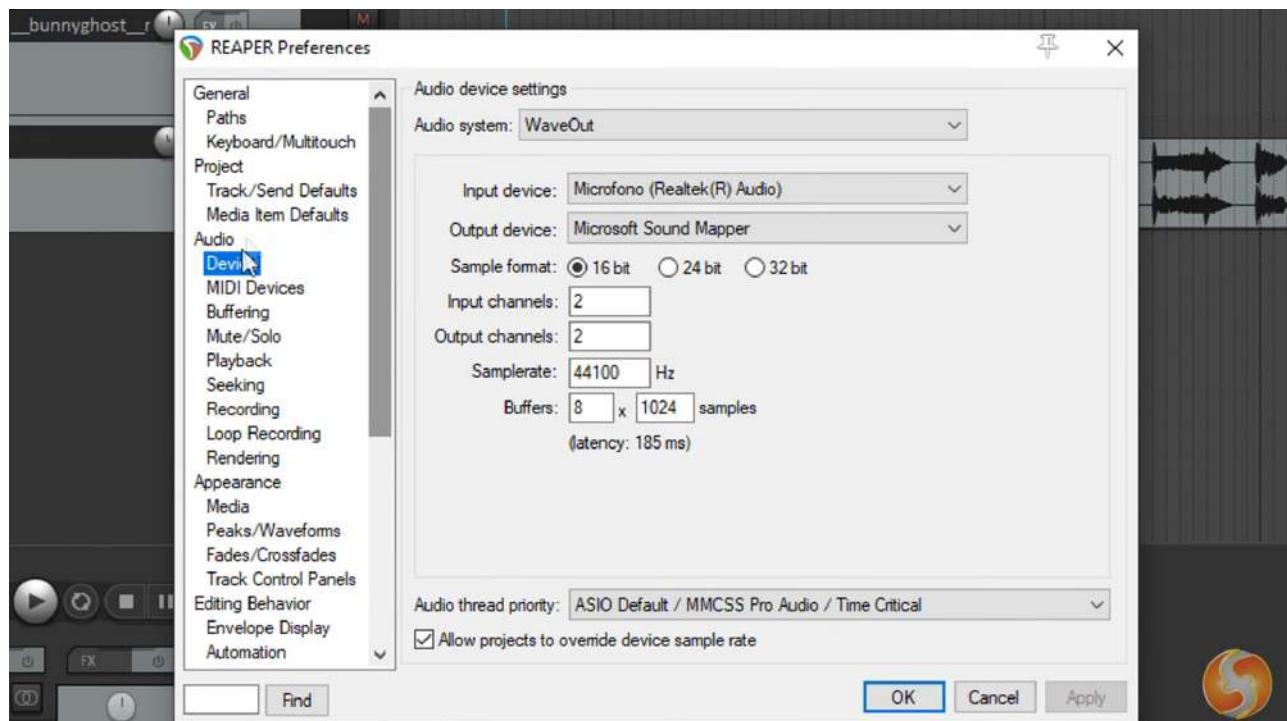


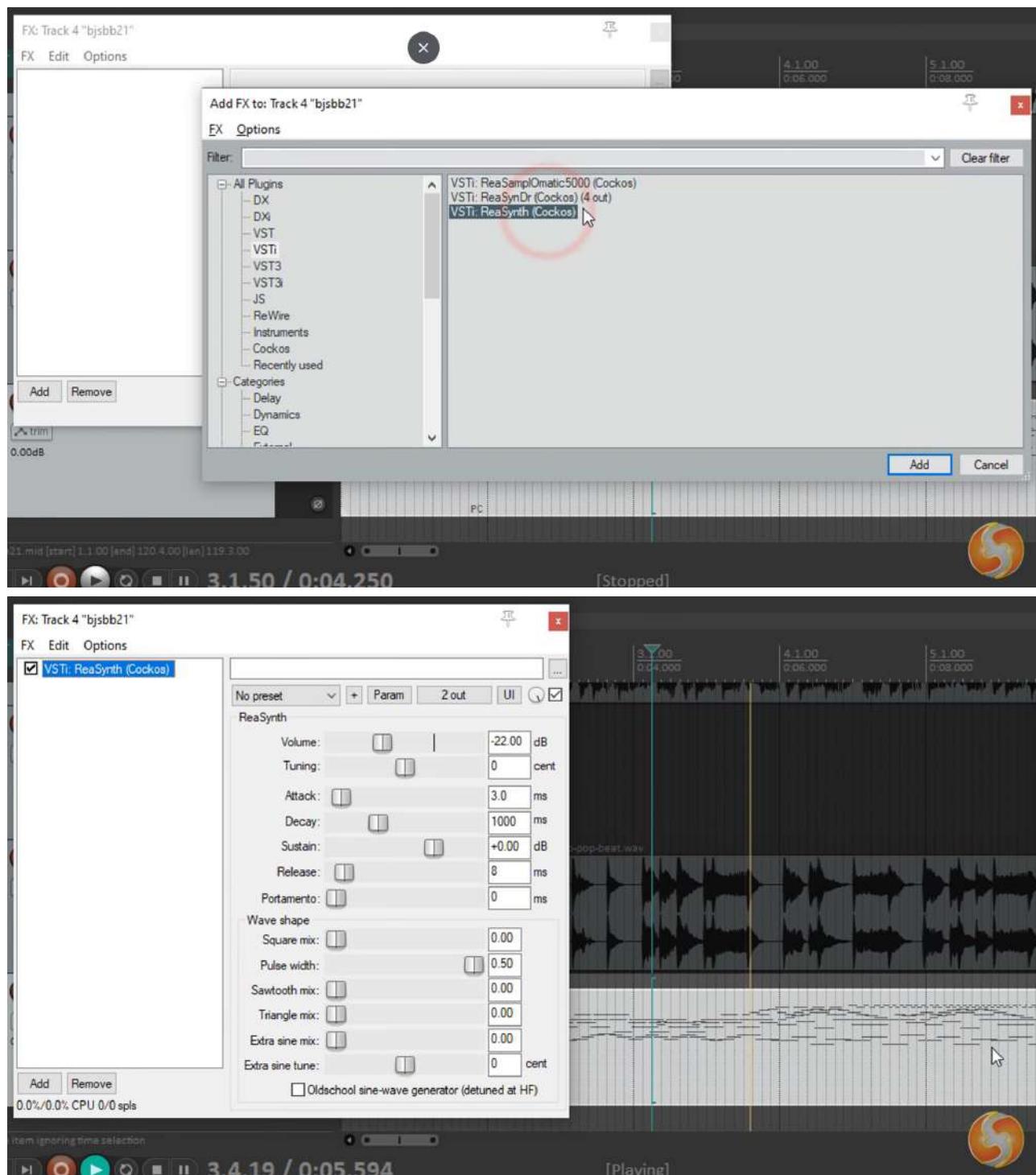
MIDI Files

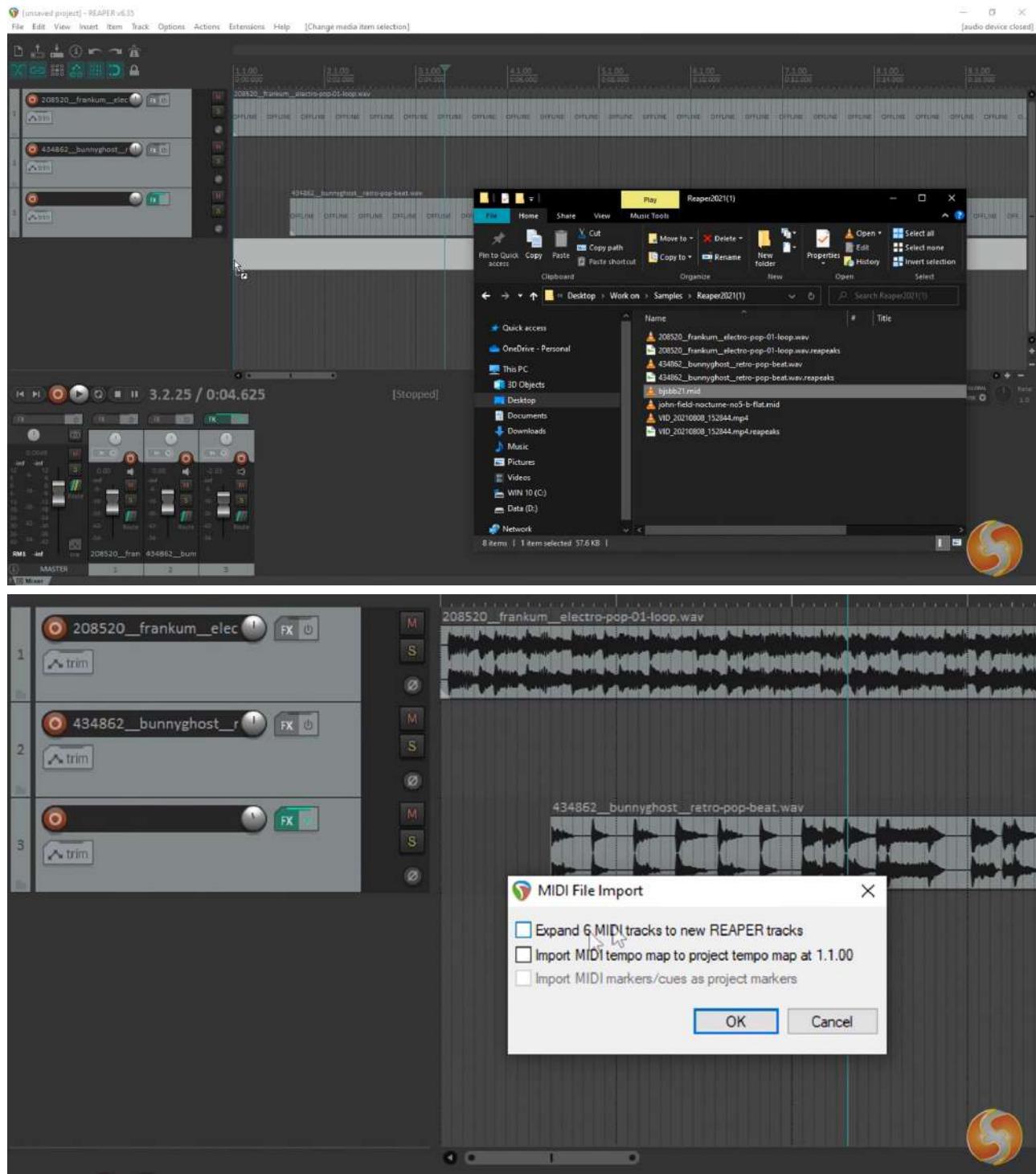
- Import by drag and drop
- May offer options to extract tracks or match tempo
- Must assign instruments to MIDI tracks via FX > Instruments
- ReaSynth for melodic sounds
- ReaSynDr for percussion/drums
- Right-click > Insert virtual instrument for new track with synth
- Hold CTRL/CMD and drag to create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

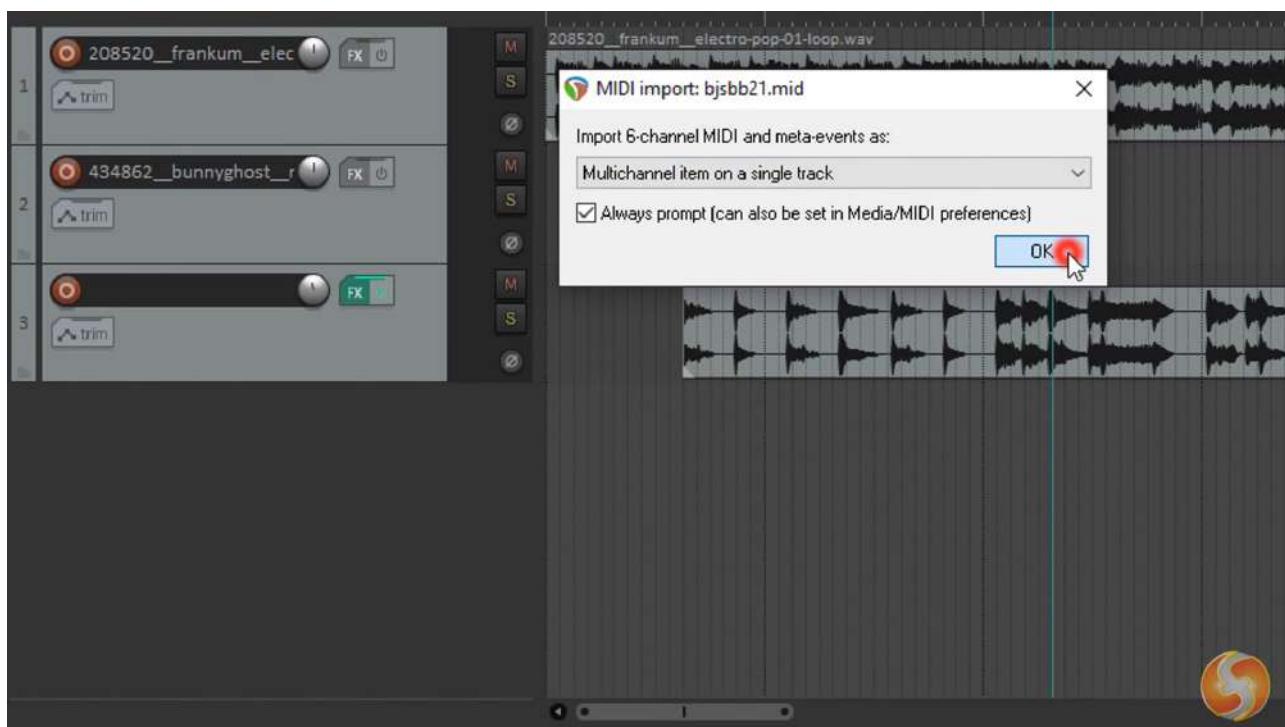
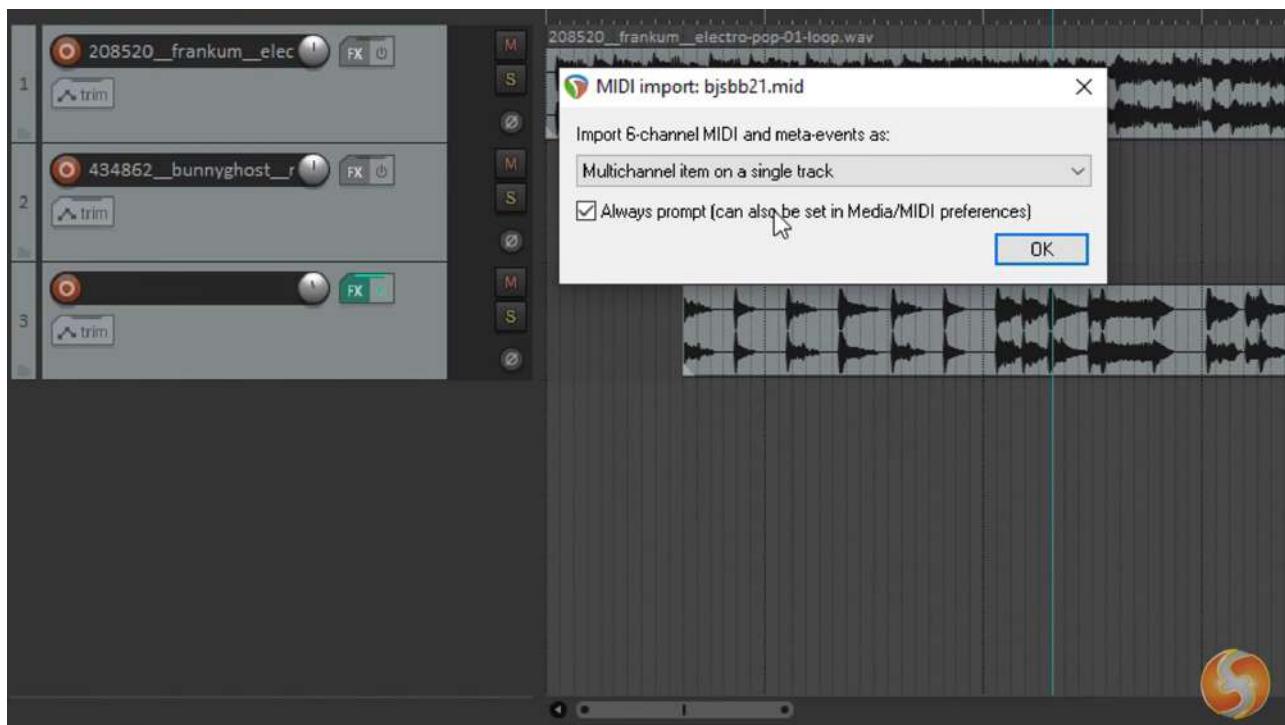
- Click piano keys to test sounds
- Click and drag in Piano Roll to place notes
- Move notes by dragging (changes time and pitch)
- Drag note edges to adjust length
- Pull down top line to adjust velocity
- Use CTRL/CMD + X to cut/remove notes
- Bottom panel adjusts note properties
- Hold CTRL/CMD to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

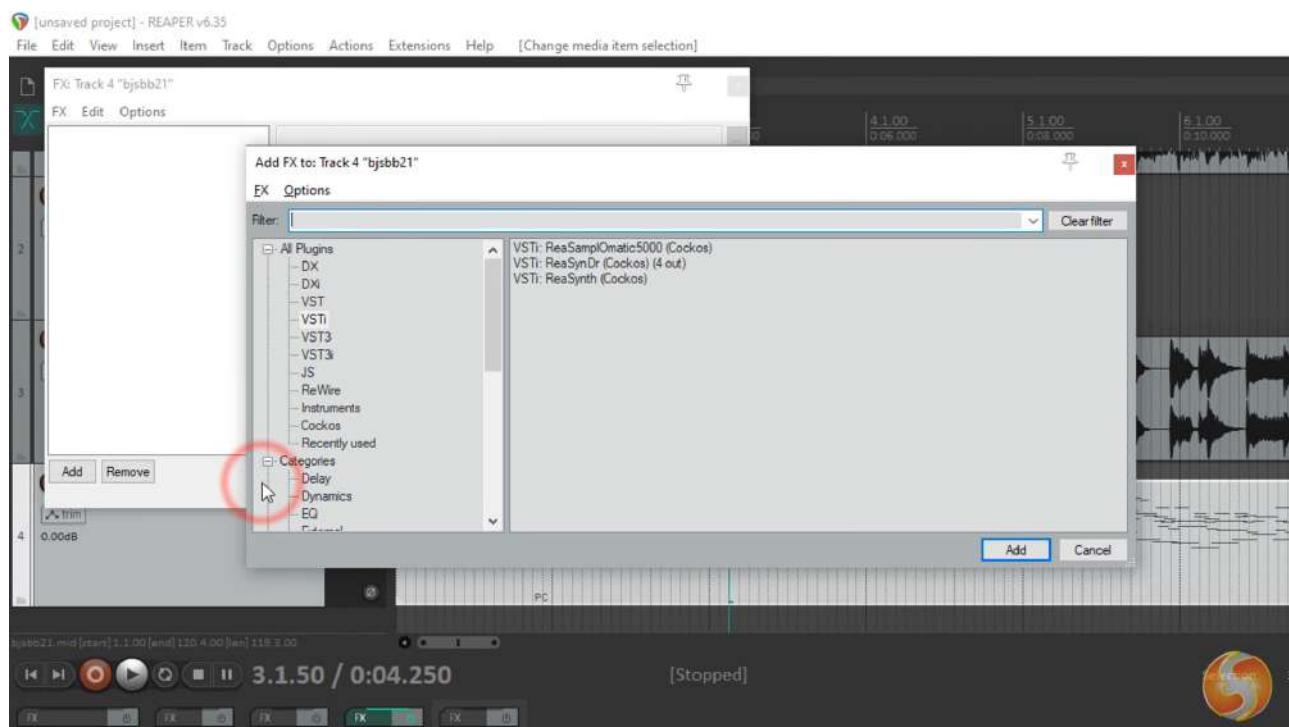
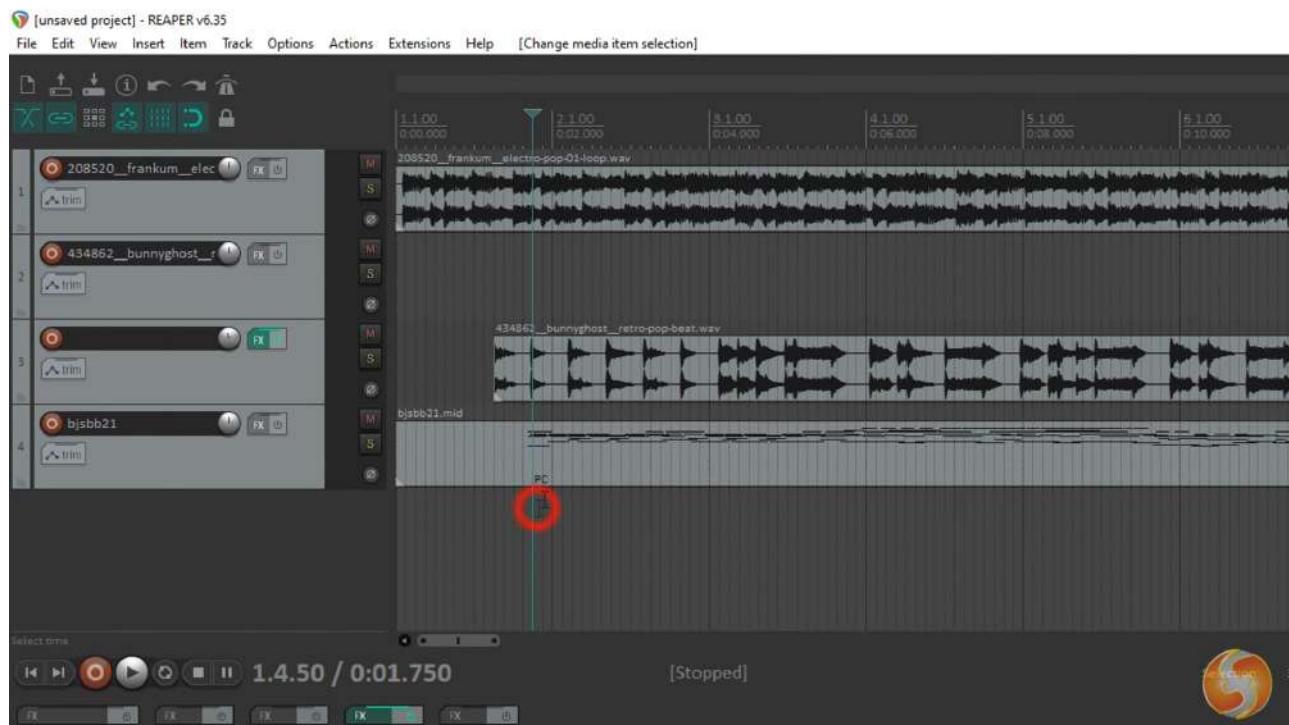


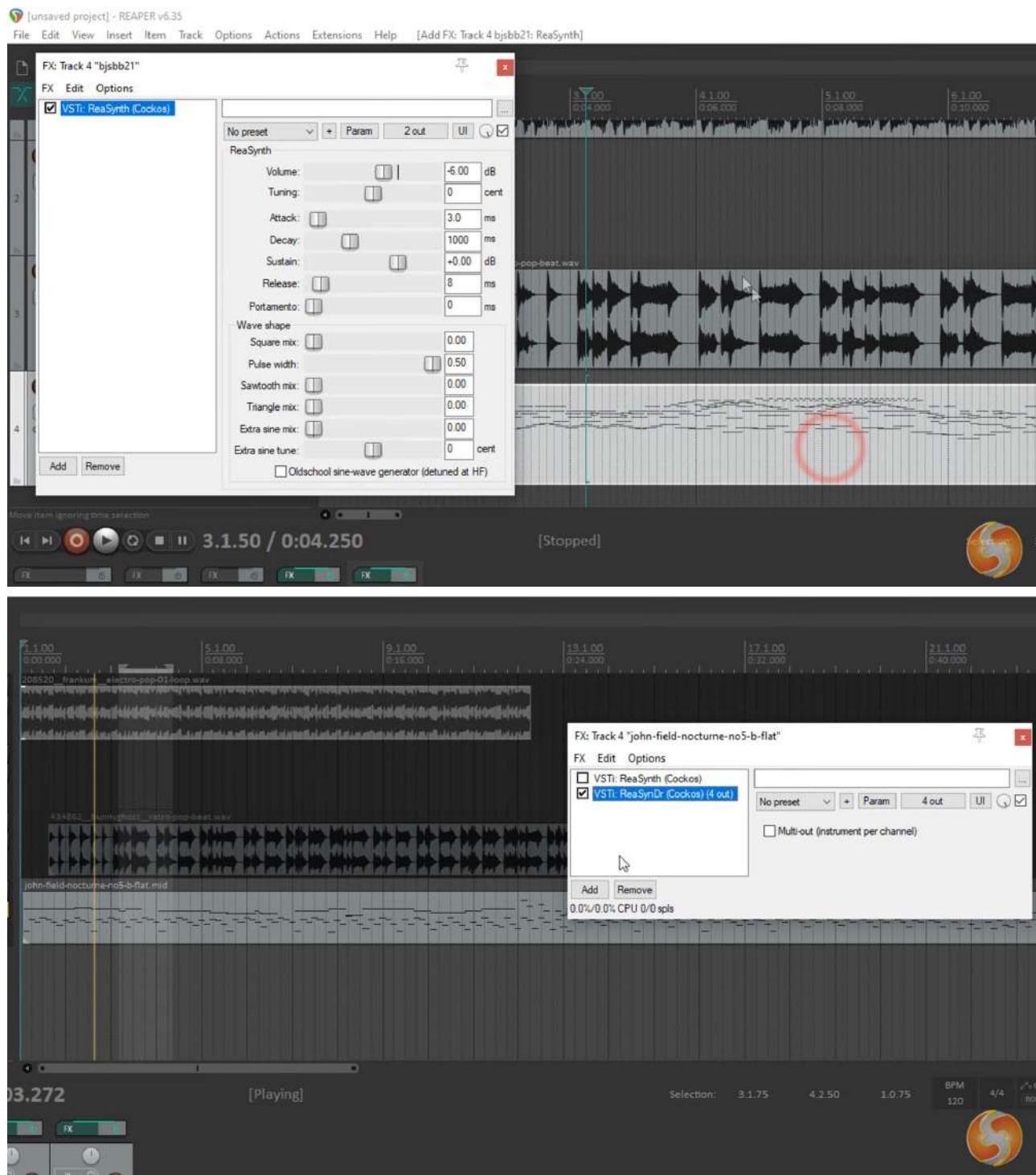


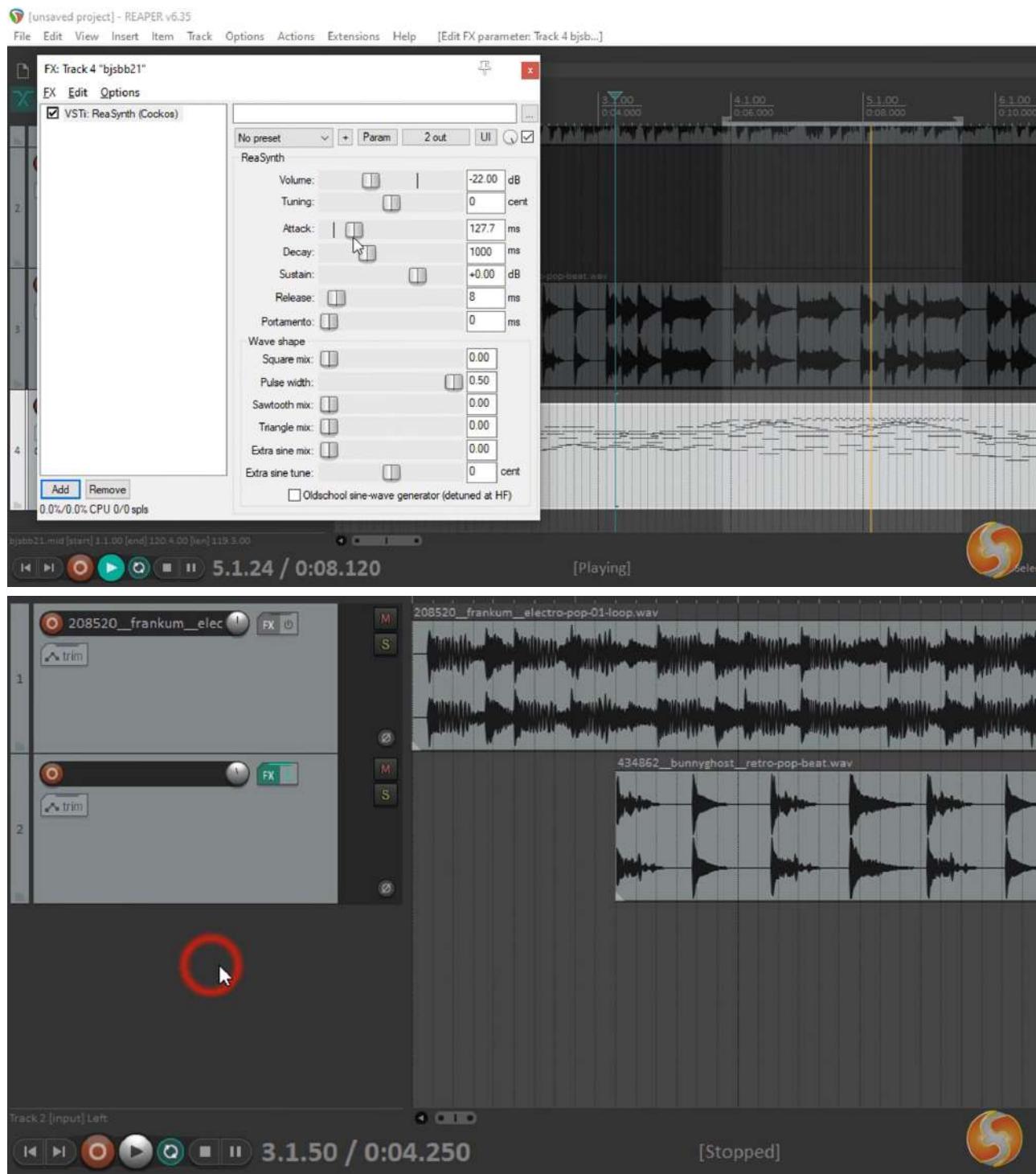


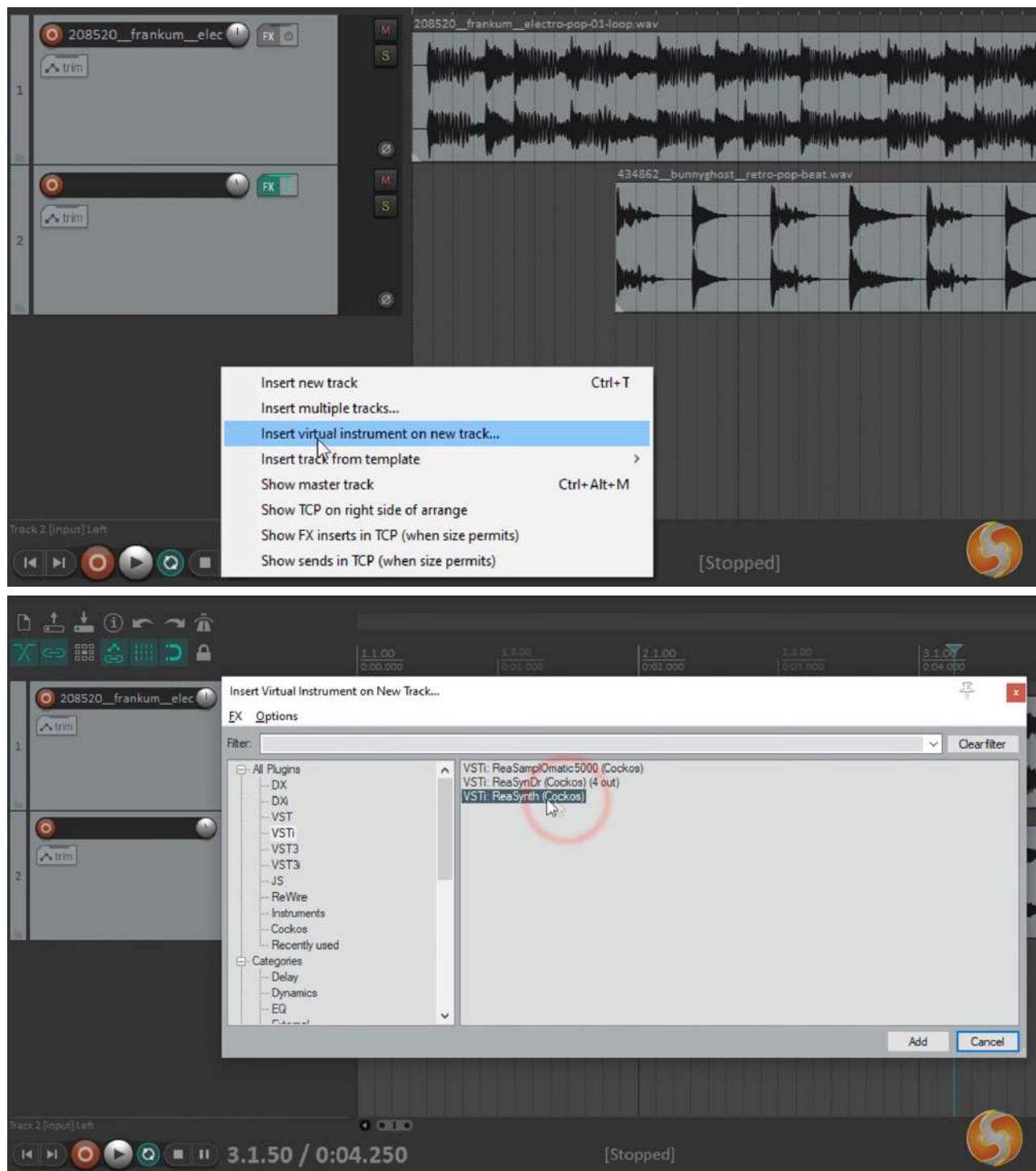


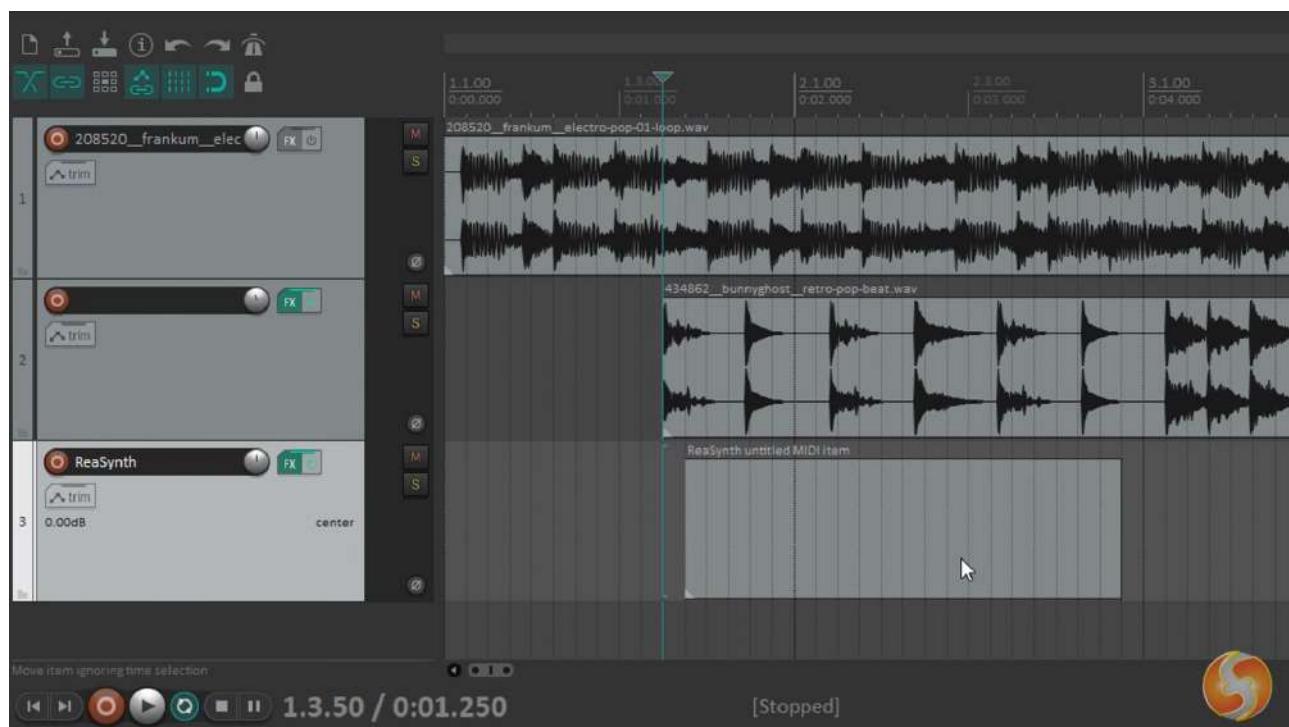
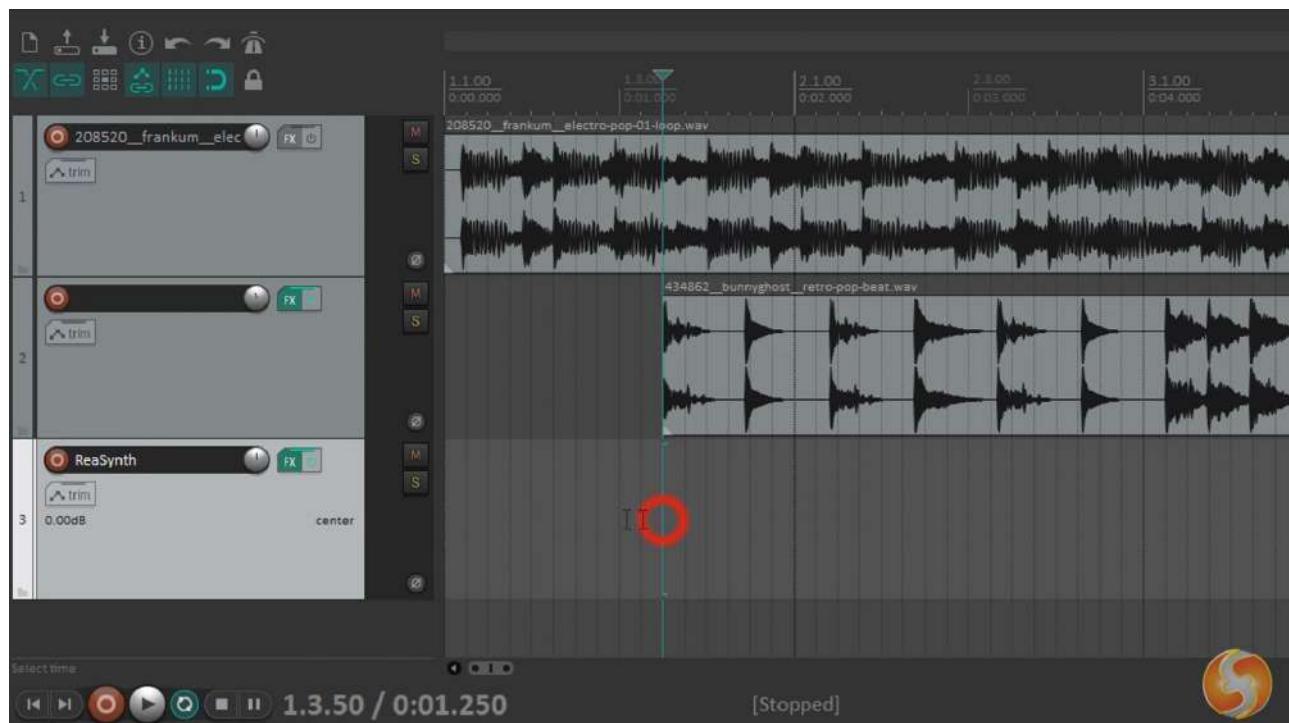


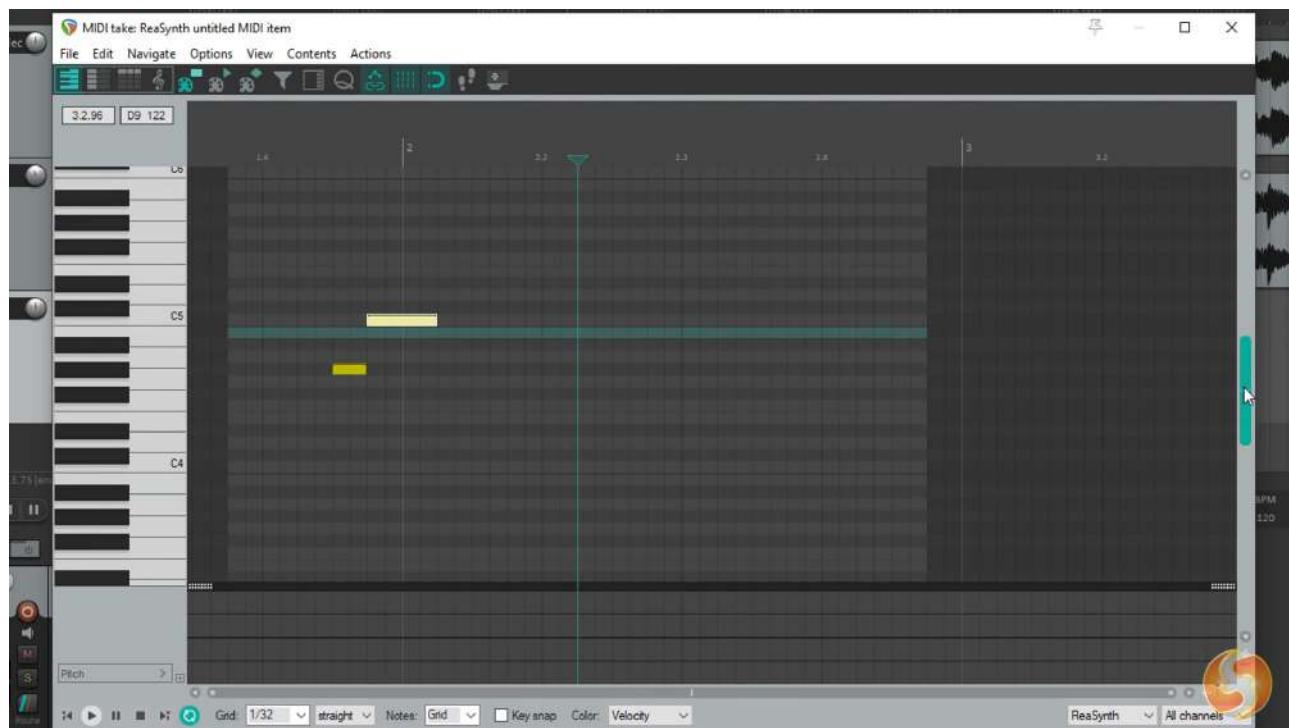
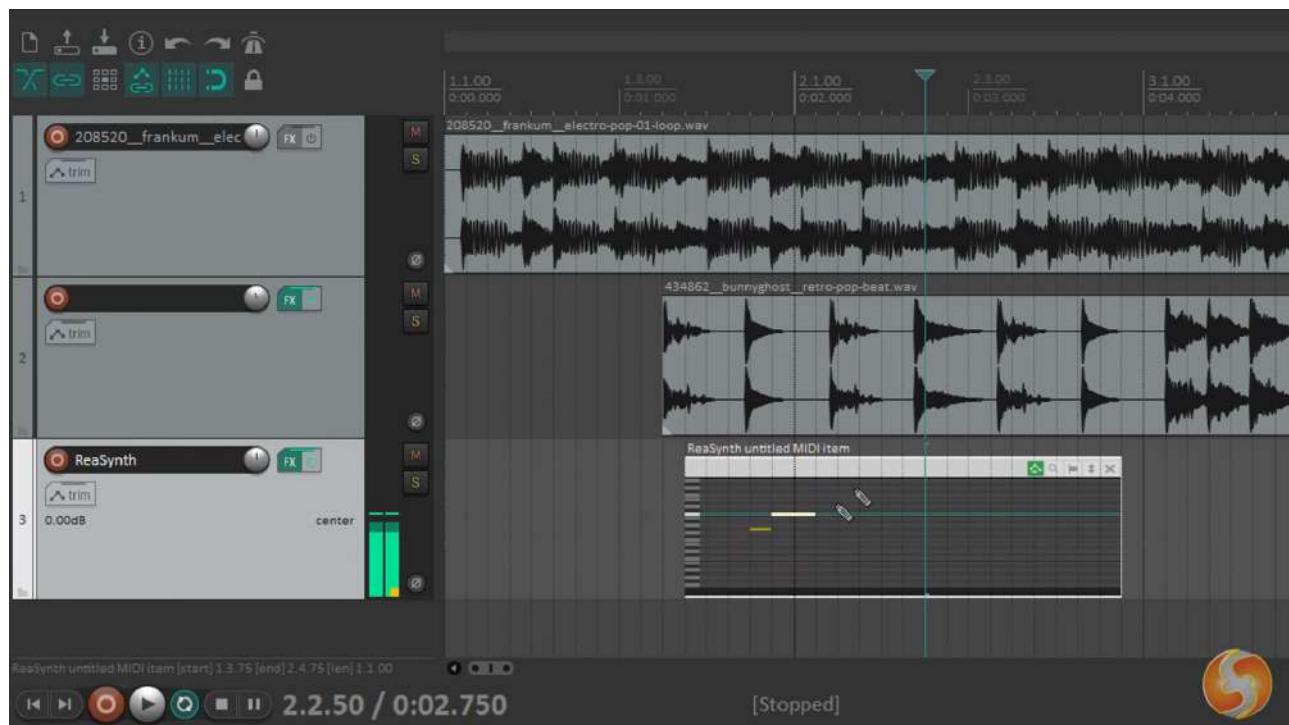


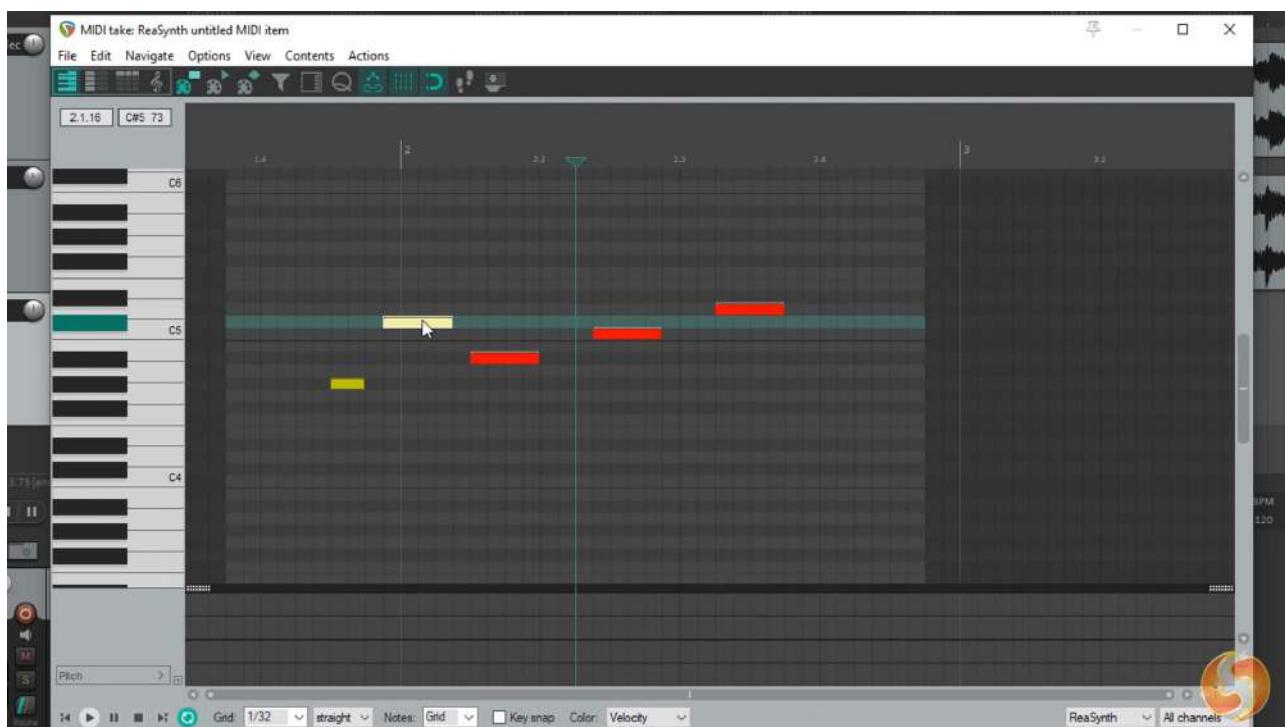
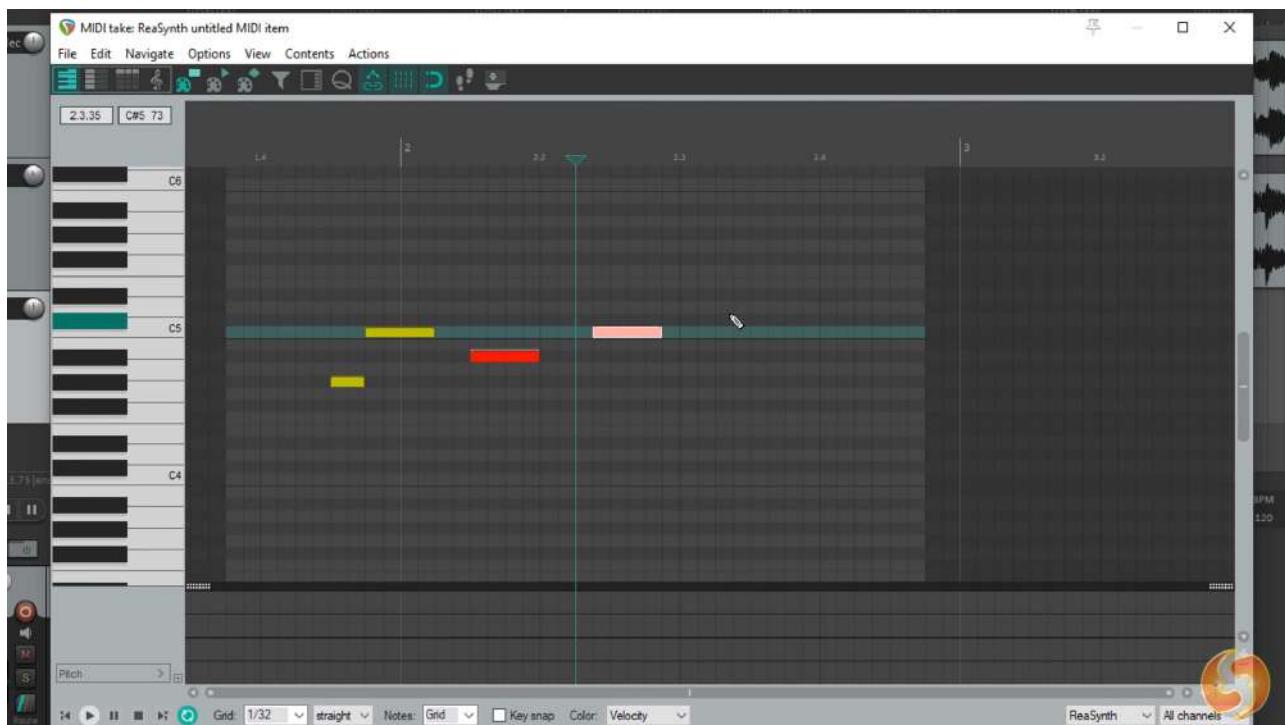


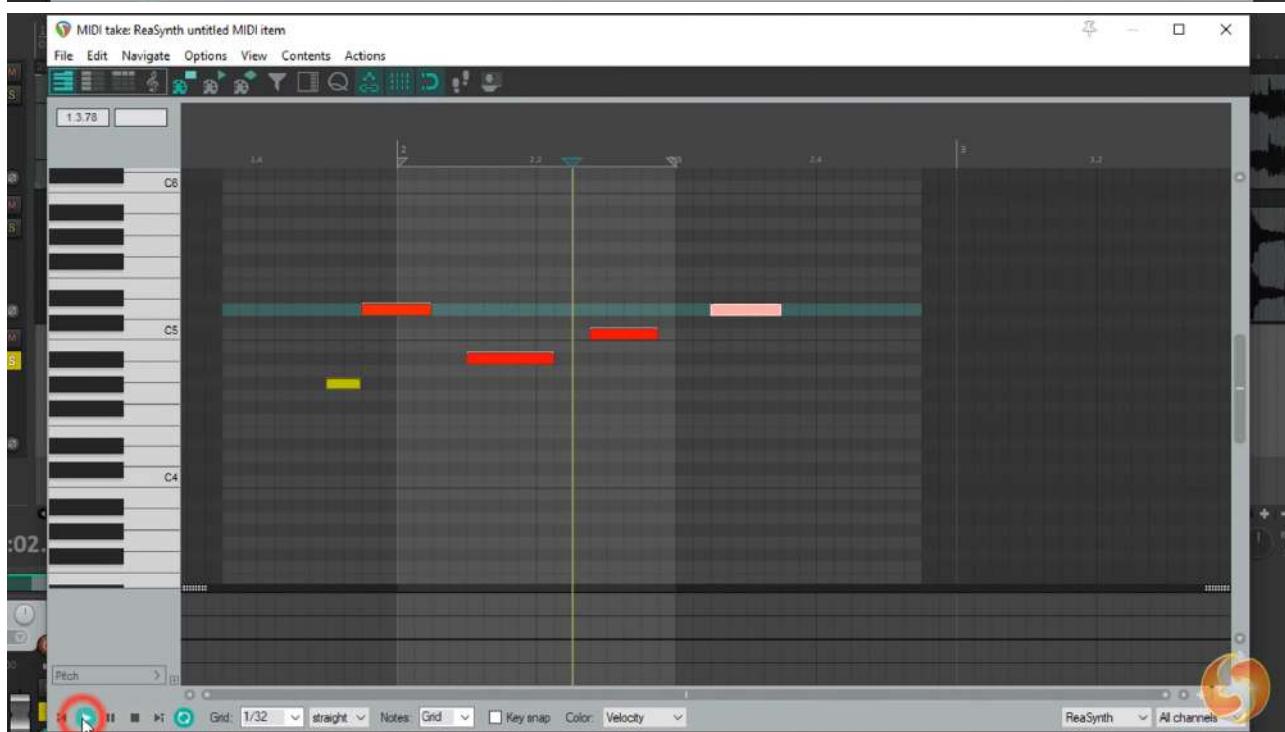
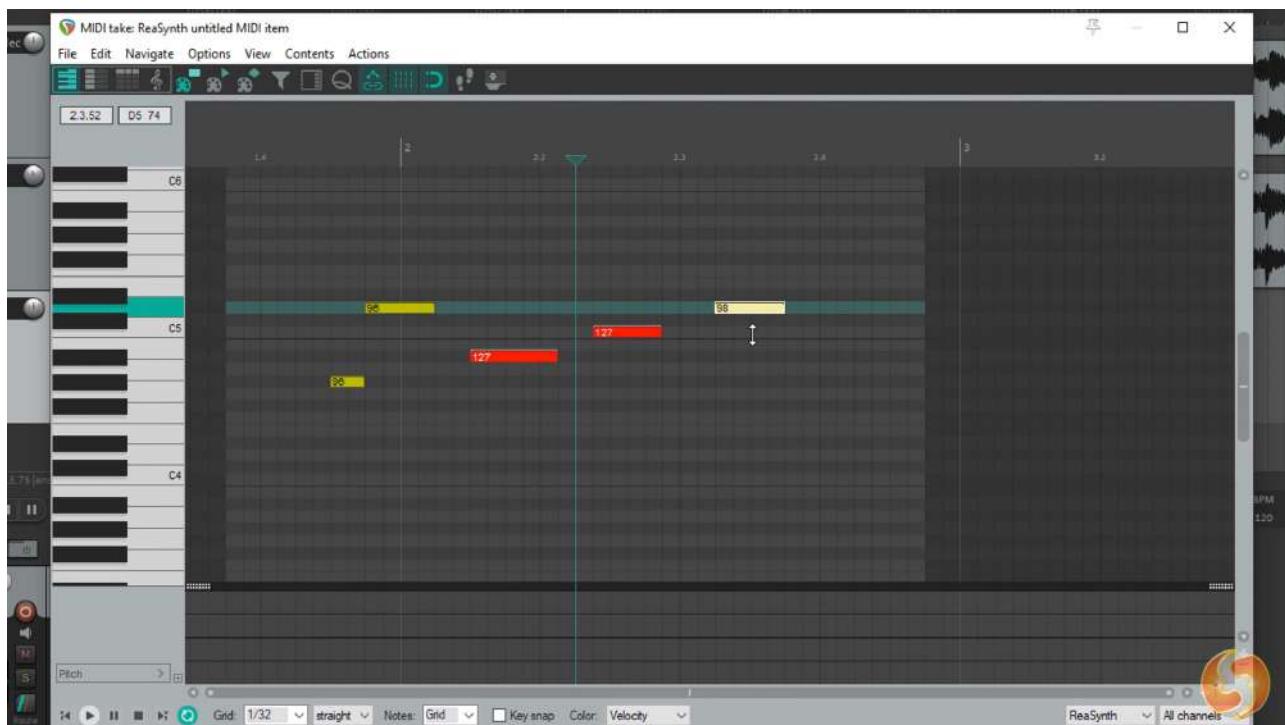


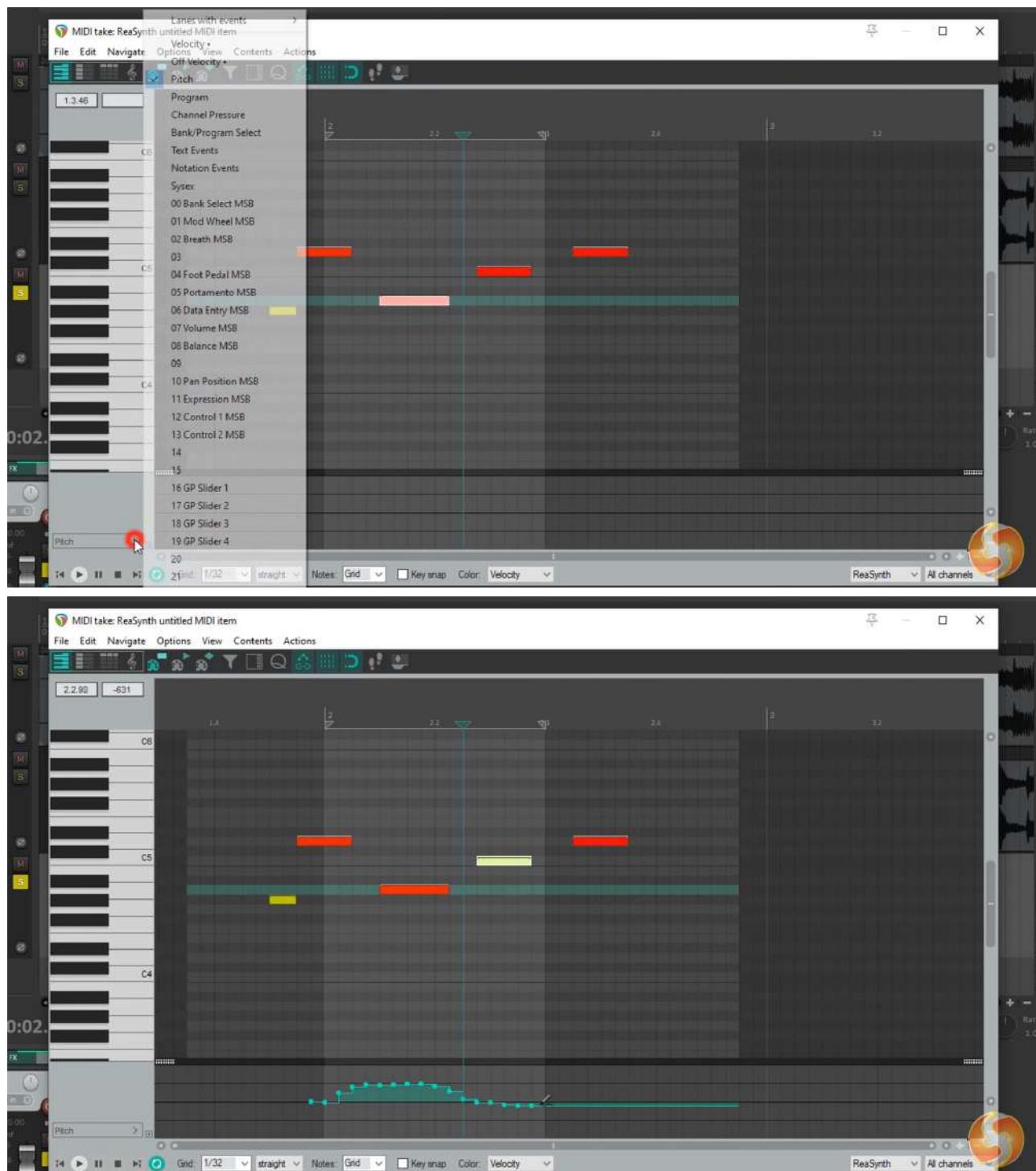












Saving and Exporting

- 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

