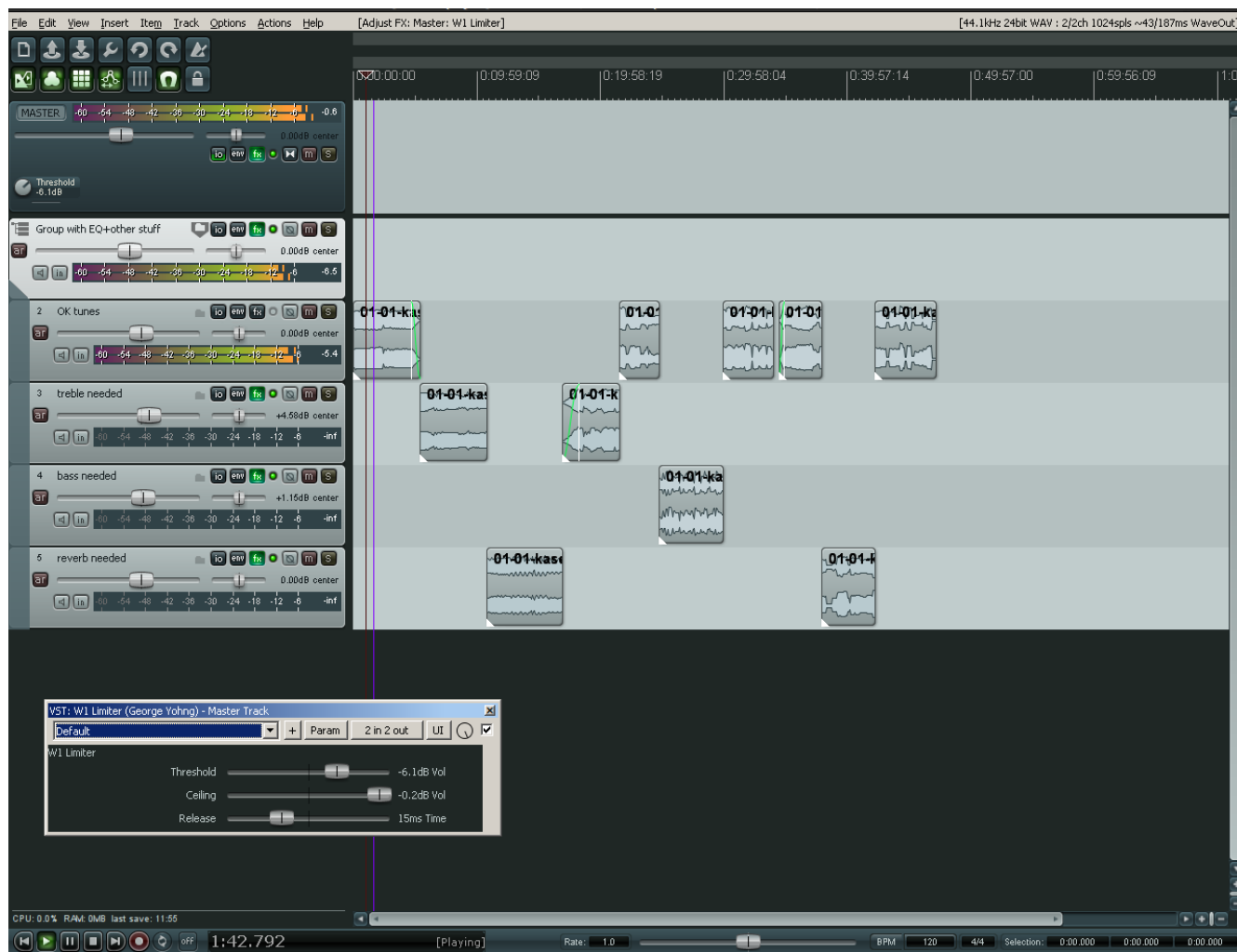


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Here's a very rough guide for DIY audio mastering or preparation for it. It's not complete nor absolute, but just one way to get forward from zero. Also the audio clips seen in the screenshot are not "real" tunes, just a huge tape transfer chunk... but chopped up to look like tunes with some fades...

Get Reaper + install + configure it so that you have audio when you hit spacebar (=play + stop). I use visual theme "Default 3.0", you can change it in "preferences"-> "appearance" -> "theme editor" -> current theme. For me it has been the clearest to use. Also get Yohng W1 limiter + install. OK...

Here's the imaginary mastering scenario as seen in pic#1.



The mixertracks (vertical pile on the left) have some plugins inserted (green little box called fx) except for #2, which I named "OK tunes" (fx is grey, no plugins inserted, volume untouched). For this example I labeled the tracks according to what i think is needed, this is just to help me remember what I'm doing. Labeling is optional, you can label them "pizza" for all I care.

There are a bunch of "tunes" (the separate clips) spread out on the timeline in the order we want them. The tunes I left on #2 will be my reference cos they sound similar in loudness, low end, hi end, etc... the tunes on #3 could be brighter and louder, so that track has an EQ inserted with some treble boost and the volume is rolled up a bit to my taste (in this case +4.58dB). The tune on #4 is almost ok but it's a bit thinner than the "OK tunes" so here's another EQ, but this time with low end boosted and also volume rolled up a bit (in this case +1.15dB). The tunes on #5 are otherwise ok, but they're really dry so i inserted a room simulator there.

Now, track #1 is different, cos it's a "Folder" track. See how there's a folder icon pointing down, also see how the left border is tilted, and there's a wierd logo before the text "Group". This works like a group on real-life mixer consoles, that's why i labeled it "Group with EQ+other stuff". I wanted to cut down some middles on all of the tunes, and let's say, narrow the low end down to mono, so I inserted an EQ + other plugins onto this track only. Everything under this track "obeys" the "foldermaster", that's why I don't need this particular EQ+otherstuff for each track, and so I let my oldcrapp computer's processor breathe a bit.

Finally on the MASTER channel there's only the mighty W1 inserted to bring levels up. You can also make a knob like I have by adjusting the threshold slider in the W1 window, then klik "Param" + "show in track controls" (this way you make knobs for every parameter you have just

touched, works on any track). Since my "Group with EQ etc" track has now all tunes sounding more or less equally i can see that there's still -6.5 dB of headroom till the top, which is 0dB in the MASTER track. So now i can bring all up ca 6 or 7 dB from W1 "Threshold" while keeping the "Ceiling" at -0.2 dB (see W1 window), which means that none of my tunes will snapcracklepop over this ceiling. You can experiment with the threshold by bringing it down. If you hear no more change in the overall volume, then you have probably squashed the "volume energy" and the last of the dynamics to shit haha.

So you'll find out with your own ears how you can basically squeeze the overall volume up so it feels a bit "louder", but then also the quiet parts will be equally as loud, which is unwanted cos you maybe want at least some parts to maybe hopefully still crush over other parts like an avalanche at some point! Think of the chorus that will not "explode higher" after the verse cos it's already maxed out...

Time to render = mixdown/bounce (different names in different programs) = making new files with these settings = ALT + CTRL + R. See if you have "time selection" or "entire project" selected. Now you can render out separate tunes or the whole thing into one chunk according to what you "paint" in the upper time-ruler.

If you get confused bout the final resolutions and samplerates you can at least burn cdr's from WAV or AIFF files that are:

- 44.1 kHz samplerate
- 16bit PCM bit depth
- stereo

- check "Save copy of project to outfile.wav.RPP" yes please. This will help you come back to whatever you have exported if you need to tweak more.

DO NOT RENDER TO MP3. WHY WOULD YOU?!?!? DONT BE AN IDIOT!!!

Make wav/aiff first, then compress that to mp3 if you really need to. There's many converters out there for that. For windows systems I highly recommend "Lame Front End" by Pazera.

Bonus --- about folders in Reaper:

You just create a new track, then drag it above the track where you want the group to start, click on the folder icon to make it point down, then on the last track you want to be "inside" the group you click the folder again to make it point up. (I did not do it in fig.1, cos it's not needed here cos there's no more tracks after #5) This way you can have as many tracks as needed "obeying" only one track. You can also create folders inside folders... for example like this:

1. kik
2. snare
3. tom1
4. tom2
5. tom3
6. oh-l
7. oh-r
8. room-l
9. room-r

can easily be turned into:

1. *FOLDER1 -has eq+comp+otherstuff (folder icon points down)
2. kik
3. sna
4. *FOLDER2 has gate+otherstuff (folder icon points down)
5. tom1
6. tom2
7. tom3 (folder icon points up)
8. *FOLDER3 has eq+otherstuff (folder icon points down)
9. oh-l
10. oh-r (folder icon points up)
11. room-l
12. room-r (folder icon points up)

you will understand when you try it, it's much clearer than if I try to explain it like this.

But basically *FOLDER1 controls everything up to 12, *FOLDER2 only controls 5+6+7, *FOLDER3 only controls 9+10... this way you can apply 1 plugin, or chain of plugins, for as many tracks as you want, instead of loading many plugins on each track and then adjusting all the same. Think of this as "using only 1 room for a bunch of tracks", or something... much easier on the CPU! Of course you can have as many plugins as you want in your project, and they will all be rendered fine in the mixes/bounces/renderz, but for real-time listening and working it will make your computer slower and heavier, your project a mess, and you run the risk of crashing when you have 10 reverbs, 15 eqs, etc... but that's another story....