

How to prepare your files  
**for Stem Mixing & Mastering**

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**A R A N L A V I**  
MIXTERING ENGINEER

Before the mastering session please provide us with any notes you have about what you'd like to achieve. Let us know about problems in the mix you want us to check and your wishes for the end result, communicating your needs to us will help us to provide you with the master you're looking for.

Each production requires a different approach depending on the type of music and your objectives. Please share your vision with us, we don't automatically equalise or compress. Many great sounding masters are mastered flat with no equalisation or compression at all, but almost every song that arrives our studio can use a little polish before it leaves the room. Submitting a few reference songs that have a similar sound desired is excellent for giving us an idea of your musical vision. This could be a reference to bands who inspire you, or who have a similar sound you like. When preparing your files for mastering please follow these guidelines when printing your final mix in order to get the most out of the mastering process and increase the efficiency and quality of our process:

### **Naming your files**

It is very important that you name your tracks so it's easy for us to tell which filename belongs to which song, please include the artist's name and the name of the song.

It is a common practice to provide alternative versions of the mix with vocals up, instrumental and acapella version for example, in any case you are sending more than one version of your mix please use clearly labeled file names to avoid confusion on our end.

### **Start\End**

It is important to include empty space at the start and the end of your song, export your mix at least 1-2 seconds before it actually starts. Include a few extra seconds to ensure instrument decays, reverbs and delays have tapered off completely.

### **File formats**

WAV or AIFF are preferred.

### **Stereo format**

We prefer stereo interleaved files over split stereo files, interleaved stereo files will make it easier to guarantee the stereo sync on your end.

### **What level should I mix to ?**

In order to stay clear of destructive overloads and leave enough headroom for the mastering process, make sure your digitally measured highest peak of the loudest part of the song does not exceed -3 dBFS which means 3 dB of headroom before exceeding the digital ceiling of 0.00 dBFS. Exceeding the digital ceiling of 0.00 dBFS will cause your audio to overload (clip) and that can't be undone and should be avoided since it will make the mix unusable for top quality mastering. Very low signal results in low resolution mixes which is not optimum for quality mastering either, make sure your digitally measured highest peak of the loudest part of the song exceed -12 dBFS which means 12 dB of headroom before exceeding the digital ceiling of 0.00 dBFS. When the highest peak of the loudest part of the song is somewhere between -12 and -3 dBFS your level is perfect for mastering ! It is important to note that we are talking about the audio levels not the digital master fader which controls that output level, your

digital master fader should always be left on 0.00 when printing or bouncing your final mix. If the loudest part of your mix is peaking, turning down the volume of your digital master fader won't help to prevent it from overloading, it will only turn the peaks down in volume, your transients are already damaged.. proper gain staging is the ticket ! Although mixing in 32Bit Floating Point would be much more forgiving and would theoretically allow us to "fix" your overloads post master, we would highly recommend approaching the gain staging when mixing on 32Bit Floating Point the very same as approaching a 24Bit mix. Many producers would use analog modelled plugins on the master bus (like an SSL mixes comp etc.) or external outboard gear, so although it would be mathematically possible to reduce the volume of an overloaded 32Bit mix and maintaining its transient response if it stayed completely ITB, the mix bus processors you are using could be driven too hard anyway and create an unwanted saturation and in some cases clipping, If you would be using analog outboard gear there won't be any difference between a 24Bit and 32Bit sessions because ADDA converters would only convert the signal from or to 24Bit frame. Proper gain staging is one of the most important aspects of stem Mixing & Mastering, please keep your levels right :)

### **Mix bus process**

If you are using plug-ins on the master output during mixing, then please export three versions:

A mix down with all plug-ins enabled on the master output (for reference use)

A mix down with plug-ins enabled on the master output except limiting or clipping 3. A mix down with all plug-ins bypassed on the master output

Limiting and clipping the mix you send to mastering should be avoided

But, If you find the limiter you have used to be an important part of your sound, please note so and write us which limiter did you use and what exact values been used, you can also save the preset you used or make a screenshot and email it to us. We will make sure to have your limiter available for the mastering session. This will allow us to do our process on the mix before it hits the limiter or make changes to it when necessary. Please check that your mix does not exceed the headroom when bypassing the plug-ins used on the mix bus, lowering an already overloaded mix using mix bus plugins would lead to the same results as lowering your digital master fader, your transients are already damaged before it hits your chain of mix bus plugins, please avoid that.

### **Sample Rates**

If you are mixing in digitally, please remain at the same sample rate as your multitrack \ mixing session. Do not sample rate convert (up or down) your mixes to avoid a degrading process. We want to see the earliest generation file possible.

If you are mixing on an analog console to a second workstation, there is an advantage in recording your mixes to a higher sample rate than the original multitrack files. We would recommend recording your mixes on 88.2Khz or 96Khz if that is the case.

### **Bit Resolution**

24 bit or 32 bit float files. Do not use dither or noise shaping on your mix downs.

### **Fades**

Do not fade out the end of the mix. Instead, tell us where the fade should begin and end. Write down the fade times in absolute or relative terms, i.e. "fade out from 3:15 to 3:30" or "fade the last 15 seconds of

the song". It would be very appreciated if you will send over a reference mix with your fade out so we can apply it to the final master.

## **Mix stems**

Although not a request, we highly recommend to create four mix stems of each song:

Full mix (that's what we will use unless there is a problem)

Lead vocals (the way it appears in the mix with its reverb, echo etc)

Backing vocals (the way it appears in the mix with its reverb, echo etc)

Instrumental (no vocals of any kind)

In mastering, the sum of mix #02 + #03 + #04 at unity gain = Full mix #01.

This way if for some reason the label or the artist asks for a vocal up version we can provide it without asking you to go back and recall your mix.

Having such mix stems will allow us to control a sibilant vocal without having to compromise by applying a de-esser to the whole mix, or if we feel the song can use more weight at bottom end frequencies we can equalise the instruments without making the vocals muddy.. If you are doing an extreme bus compression the interaction between the mix and individual elements will not be the same when creating mix stems, in this case such mix stems can't be produced accurately. That's a professional decision you have to consider because if a slight alternation of the vocal is necessary, you will have to remix it, it can't be done by us. Creating such mix stems protects you and your clients in many ways. It gives you archive options and alternative options. It gives you the TV mix your client can call and ask a year later for the TV \ Radio gig he has tomorrow ! It will also be extremely useful if the label decides to release the song to the radio and asks to create a short version by next week.. If we have the four mix stems we can do it anytime and you won't be bothered with remix requests months later only to discover your mix is not recallable to a 100% because you changed stuff in your system and have some plugins or gear missing.