

HOW TO PREPARE YOUR MIX FOR MASTERING: METROPOLIS GUIDE

 **Metropolis**

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HOW TO PREPARE YOUR MIX FOR MASTERING: METROPOLIS STUDIOS

The primary role of mastering is to present the mix to the world in the best possible light, whatever the final medium - whether tape, vinyl, CD or streaming. To this end, the most important thing you can do when preparing your mix for mastering is to ensure that you love your mix. The better your mix is the better the final master will be.

So above all other considerations, we want you to be completely confident that your mixes sound how you'd like them to sound. Include enough time for the reverbs to fade out at the end. Listen carefully for noises, hiss, clicks, pops, etc. And where possible remove these before even sending it over for mastering. Often just adding a slight fade or crossfade to any edit points can clean up clicks, and if this is done before mastering, then the finished result will be that much better. If there is a noise you can't remove and you know about it, let us know in advance, and we'll see if we can remove it. Do consider that this isn't always possible.

MIX BUSS PROCESSING

One of the most common questions we receive is whether or not you should remove any buss processing before mastering. The answer however isn't quite as simple. The reason for this is that mix buss processing can play a huge role in determining the sound of your mix. And if you love that sound, taking it off is only going to weaken the mix, and leave the mastering engineer striving to recreate it. Buss processing can also influence how you mix. If your buss is compressing your drums, you might not lean into drum compression as heavily. And if your buss compressor is responding to vocal rides, you might find yourself riding a little heavier. Take the buss compressor off, and all of a sudden a great mix can start to fall apart. The drums don't have enough glue, and the vocal is popping out on various phrases where previously it sat perfectly in the mix.

On the other hand, buss processing does tie the hands of the mastering engineer. If you've over-compressed the mix, a mastering engineer is going to struggle to bring out any dynamics, and any additional compression or limiting can sound comparatively weak.

As a rule of thumb, if you have had your mix buss processing in place from the start of your mix, and you have mixed into it throughout, you're going to want to leave it on. But if you added the buss processing towards the end of your mix, to get a taste of how mastering might affect your mix, then it's best to leave it off, or send both a dry and a processed version, and leave us to decide.

HEADROOM

Another question we are often asked is; how much headroom should be left on a mix? The answer to this has changed as technology has progressed. Back when engineers were working on tape, the answer was down to the tape. Essentially you could drive the tape as loud as you want to get the sound that you require. If you pushed the tape hard you could get a saturated overdriven sound, which many engineers would use to their advantage. This changed drastically in the early digital days when pushing the headroom on digital convertors would introduce harsh clipping. However, leaving too much headroom would reduce your signal-to-noise ratio, especially as the signal was turned up in mastering. So a basic 3dB of peak headroom became an unofficial best practice. As bit-depths got greater – from 16- to 24- and later 32-bit fixed point, the noise floor got pushed further from the signal, and the importance of maintaining a loud signal got lost, while the importance of not clipping remained. So, some engineers started working with 6dB or more of headroom for their mixes. More recently, floating point bit-depths have removed the threat of harsh clipping distortion completely, as well as putting the digital noise floor far below human perception.

So what would we recommend? We don't recommend you focus on headroom at all. Instead, focus on ensuring your mix sounds great and isn't clipping. Keep all audio below 0dBFS to some degree and you'll be fine. If you are sending audio at 32-bit floating-point technically you can go over 0dBFS, and it shouldn't clip (note that 32-bit fixed-point still clips), but while your mix buss won't clip, that doesn't guarantee your plug-ins won't, so it's still best to maintain a sample peak value below 0dBFS. If we feel your mix is too quiet, then we'll turn it up, and if it's too loud to send out through our analogue chain? Well, then we can turn it down just as easily.

SAMPLE RATE

When printing your final mix, where possible print to a 32-bit floating-point .WAV file at the native resolution of your mix. That means, if you've been mixing at 44.1kHz, then print your mix at 44.1kHz. There is no advantage, and several disadvantages to printing at a higher sample-rate than the session. Similarly, if you recorded and mixed at 96kHz, then print your mix at 96kHz, even if you only want a 44.1kHz file back. This allows us to work at the higher sample-rate, and make the conversion decisions ourselves. Plus, should you ever want a higher-resolution file in the future you won't need to re-print your mix, and send it for mastering all over again.

REFERENCES & NOTES

We tend to have a good idea of what most music is "meant" to sound like, but it's always helpful to have an idea of what you want your music to sound like. So please feel free to include notes and one or two reference tracks. Reference tracks should be in a similar style and ideally include similar instrumentation to the mix you want us to work on. Notes should mention anything unusual in the track that we might not expect. For instance, if your track has deliberate clicks and pops or noises that you want to keep, let us know. Similarly, if you have strong opinions on the fade out/in, or what tracks need crossfading then let us know. Finally, please include a running order, and any ISRC codes you want embedded in the audio.