Bouncing to audio also means that our project will be reset to unity gain (0dbfs) on all of the faders. There will also be no processing power taken up by plugins from the composition phase. Further to this, we will be able to load the project file into a DAW mixing template.

DAW MIXING TEMPLATES

We can set up all of the below settings we can save our blank project as a mixing template:

- Buffer and latency settings
- Send & return channels
- Default audio and midi tracks
- Master channels
- Side-chain track
- Arrangement track
- Default settings for devices

This will save us from repeating the same processes every time we mix a track as well as saving us valuable time in the long run.

TRACK STRUCTURE CHANNEL

Create a blank midi channel and map out a typical arrangement of a track in a genre of our choice. We can even import a favourite reference track to copy its structure. This can then be mapped out using midi clips, which can be colour coded and renamed. We can then save this as a default set, so that every project we work in has a rough guide of sections at the top of the arrangement view.

When we import different tracks for mixing, we can then shuffle the midi clips around to fit our track. We recommend colour coding and renaming these sections such as: intro, verse, break, chorus etc.

SETTING UP A STEREO/MASTER BUS COMPRESSOR

A common technique used when mixing a track, is to balance parts straight into a mix bus compressor on the master output. This is one of the final processors, which is going to glue the elements of our tracks together. Many producers find that trying to put this compressor on right at the end of the mix process means that the whole track has to be re-balanced into the compressor, so instead, it helps to either keep the compressor on, with certain settings from

the very start, or find a rough mix balance, then put the compressor on and continue from there.

The compressor should be set up so it is barely affecting the signal. Settings may need to be tweaked later on, but good starting settings are:

- Ratio - between 1.5:1 and 2:1
- Threshold - allow for between 1 - 4dBs of gain reduction
- Attack - slow attack
- Release - slow release, auto release, or a setting that allows the compressor to reset between hits in a smooth manor that compliments the groove

There is a further book in this series dedicated entirely to compression, which will cover this subject in much more detail.

IMPORTING & FILE MANAGEMENT

We can either import our audio files using the browser or we can simply drag them into the DAW. We should make sure that we copy all of our files to a place on our hard disk, and ensure that the project, samples, and info folders are included, by pressing 'collect all and save'. This is especially crucial for DAW's such as Logic, which have a tendency to crash unexpectedly. Especially in its more recent updates.

Nothing is worse than being 5 hours into a mixing session, which is going really well, only to lose the whole project because of a power outage. Pro-tools has an auto-save function that can save and recall a snapshot of the project at certain time intervals, such as every 5 minutes.

Remember to save regular backups, especially when making big decisions. Alternatively use the 'save a copy' function if you wish to make alternative versions in case you need to flick back to a previous point in the mix process.

MACRO MANAGEMENT AND HANDLES

We can manipulate each of our sound sources, and set up quick controls to be able to sculpt and fit sounds from different channels together, into the mix quickly & efficiently.

In Ableton Live this is made very simple with the power of racks and macro controls.

We can set up these 'handles' for our sounds so we can control any number of properties of the sound, such as:

- Dynamics
- Tonal balance
- Filtering
- Volume
- Equalization
- Spatial placement within the stereo field
- Width
- Modulation

We can use these handles or multi-device racks, to solve common mixing problems that we may get asked, such as:

"Make the kick punchier"
"Make the vocal more upfront and present."
"Widen the drums"
"Put the pads in the background"

Using macro's to create custom handles for complete control of Ableton Live

REFERENCES AND A/B COMPARISON

If we are mixing for someone else, we should ask for some reference tracks with a similar vibe to the result they want from the mix-down. If we're mixing our own track, then we can also do the same.

A brilliant referencing plugin is sample magic's MAGIC A-B. This allows us to load, edit and loop a number of reference tracks, for quick A-Bing at the touch of a button.

The tracks we decide to use should sound great on a variety of platforms. Don't use low quality compressed mp3 files. We will need to use lossless audio for our reference tracks such as .Wav or .Aiff.

When referencing remember to pay particular attention to the comparison in dynamics, layering, width/narrowness of the mix, depth, muddiness of mid and low frequency content, overall EQ and tone. This will help give a different and comparable perspective to our track, relative to the reference, which (providing your reference is of high quality) will result in a much better final mix.

COMPUTERS & THEIR SETTINGS FOR MIXING

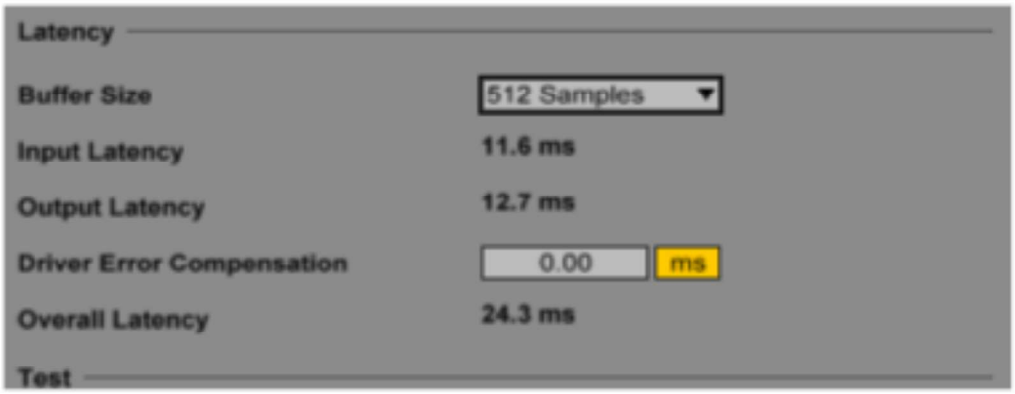
Here is a list of specifications that are nice to have if we are going to be doing a lot of mixing on our computer.

- i5 or i7 processors
- Large/dual display
- 2.7MHz++ clock speed
- Quad core++
- SSD or FUSION drives

Fusion combines a small SSD (solid state drive) with a standard disk hard drive and allocates the space, dependent on the most frequently used items, which can be edited in the settings.

BUFFER SIZES & LATENCY

Buffer sizes within the DAW can be set relatively high because latency isn't really an issue at the mixing stage: The larger the buffer size - the bigger the latency, a larger latency means less load on the CPU. It isn't having to process all the plugins and effects as often, on a sample-by-sample basis, but rather it processes the data in chunks of every 256, 512, or 1024 samples.



Latency & buffer size settings in Ableton's preferences

FREEZING AND FLATTENING

This technique is mainly used during the actual mix process, but is worth mentioning early, so we can apply it as and when is necessary in our mix. Computers with low CPU processing or projects containing lots of tracks and third party VST and AU plugins can really struggle to keep up with the processing workload, This can be resolved by freezing certain tracks in the arrangement.

Freezing a track will render that tracks audio, so that the processing is already applied. (Such as compression and any effects plugins) This will effectively lock the track and plugins from any further editing, but will stop the track from taking up real-time CPU processing power.

The track can be 'unfrozen' at any point to allow us to change any parameters.

When tracks are frozen they can then be 'flattened' to audio, which will remove all plugins and bounce the track in place to an audio file, This can also be achieved by simply dragging and dropping the frozen tracks audio into a new audio track.

MIX PREPARATION SUMMARY & KEY POINTS

- A tracks compositional decisions should not be altered after the mix preparation phase
- Standard audio CD quality is 44.1KHz, 16bit
- Use track arrangement markers to move quickly between sections of a project
- Set a separate side-chain trigger track which can be set in a default template
- Name and colour all files correctly
- Remove low-end rumble from recordings and samples (20-40Hz)
- Reduce the amount of tracks within a project (backing vocals in particular)
- Group similar tracks together and set up sub-mix busses
- Double check the timing and tuning of all parts
- Bouncing the track to audio will stop any further tweaking and also allow faders to be set to unity gain when re-imported (unity gain = 0dB
- on the fader)
- Build a DAW mixing template with standard go-to settings for the project, tracks and devices
- Make a midi channel at the top of the DAW, which can be used to plot the structure of your track
- If required, set up a master bus compressor
- Set up 'macros' and 'handles' which can be midi mapped for complete control of the project
- Find a good selection of reference tracks in the same genre you wish to produce