

# MIXING OUT THE BOX



# Advantages and Disadvantages

<p><i>Advantages of Mixing in the Box:</i></p> <ol style="list-style-type: none"><li>1.) Low cost because you will simply need to purchase DAW software that can be used for both recording and mixing. It is why this become the standard for 99% of budget home recording studios.</li><li>2.) All settings can be preserved or saved digitally for future use. So when the mixing session ends, you will simply save the projects then all the plugin settings, etc. would be retained.</li><li>3.) You can take the benefits of zero digital noise unlike in analog where each outboard gear could contribute to overall noise.</li><li>4.) Effect plug-ins is mostly affordable because it can be obtained from open source and is generally cheaper than buying outboard gear/hardware effects. For example a bundle of Waves plugins that you will be using in mixing inside the box could cost around \$600 (all plug-ins in that package like EQ, compressor, etc.) but this budget alone can only buy one decent piece of hardware for an analog console.</li><li>5.) Low cost in maintenance – if you have corrupted your DAW or plugin, you simply need to reinstall, no need to hire maintenance techs.</li></ol>	<p><i>Disadvantages of Mixing in the box:</i></p> <ol style="list-style-type: none"><li>1.) Digital summing is considered inferior to analog summing because digital technology relies on approximation and computation unlike analog summing with the console where it deals purely with the complete analog signals and nothing else. This will have a profound effect in quality; it is why most pros hired by major labels use analog mixing console for a mix down.</li><li>2.) Takes time to mix; it is faster with knobs and real faders than using the software equivalent.</li><li>3.) A signal distortion in digital like clipping should be avoided at all cost, while signal distortion in analog can further add warmth in some instances.</li></ol>
<p><i>Advantages of Mixing out of the box:</i></p> <ol style="list-style-type: none"><li>1.) Analog console summing is considered superior because of the vintage and warm sound associated with it. All professional records in the past that we love are mixed in analog consoles.</li><li>2.) You can easily adjust faders and effects without messing with a lot of settings unlike in digital.</li></ol>	<p><i>Disadvantages of Mixing out of the box:</i></p> <ol style="list-style-type: none"><li>1.) Too expensive. It is not practical for high budget home recordings.</li><li>2.) The settings cannot be remembered as easily as in digital.</li><li>3.) The noise chain in analog can also be a problem because of the electronic circuitry involved in the console and in the outboard gears/effects.</li><li>4.) The maintenance of the console can be a problem typically if its damage. It can be difficult to find service personnel for that.</li></ol>

# Creating STEMS in Logic

## Save as a new Alternative

Logic's new "Alternatives" feature allows you to save a version of the track inside the same project. Save a new "Alternative" before you begin and call it "Stem Prep." This way you can do any of the steps below without worrying that you've damaged the original project. From Logic's **File** menu select **Alternatives**, then **New Alternative**.



## Bypass Unnecessary Effects

Bypass any effects on the tracks that will not be part of the stems package. There's really no easy way of doing this. This is your decision and you'll need to go track by track.



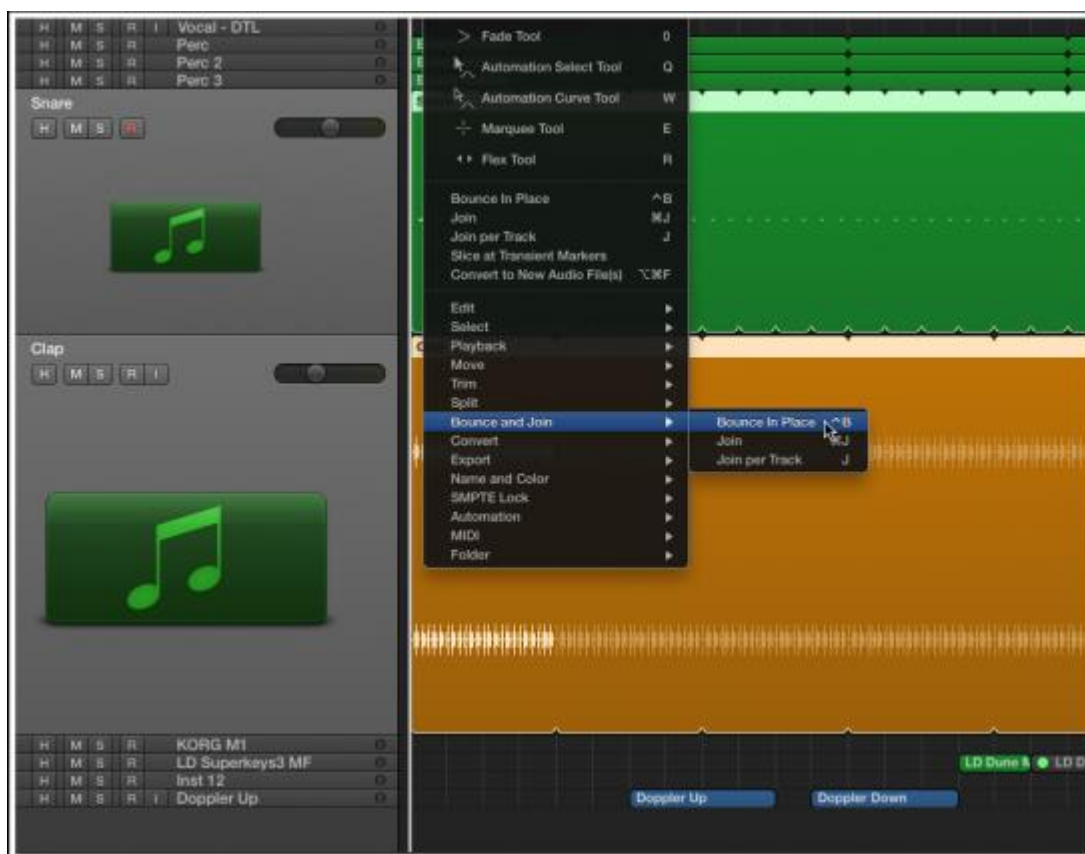
## Delete Muted and Unused Tracks

Even though tracks without content are not included when exporting, deleting them really helps to keep things organized. From Logic's **Track** menu select **Delete Unused Tracks**. Muted tracks are included, so unless you want them included in the stems package, delete them too.



## Merging Tracks

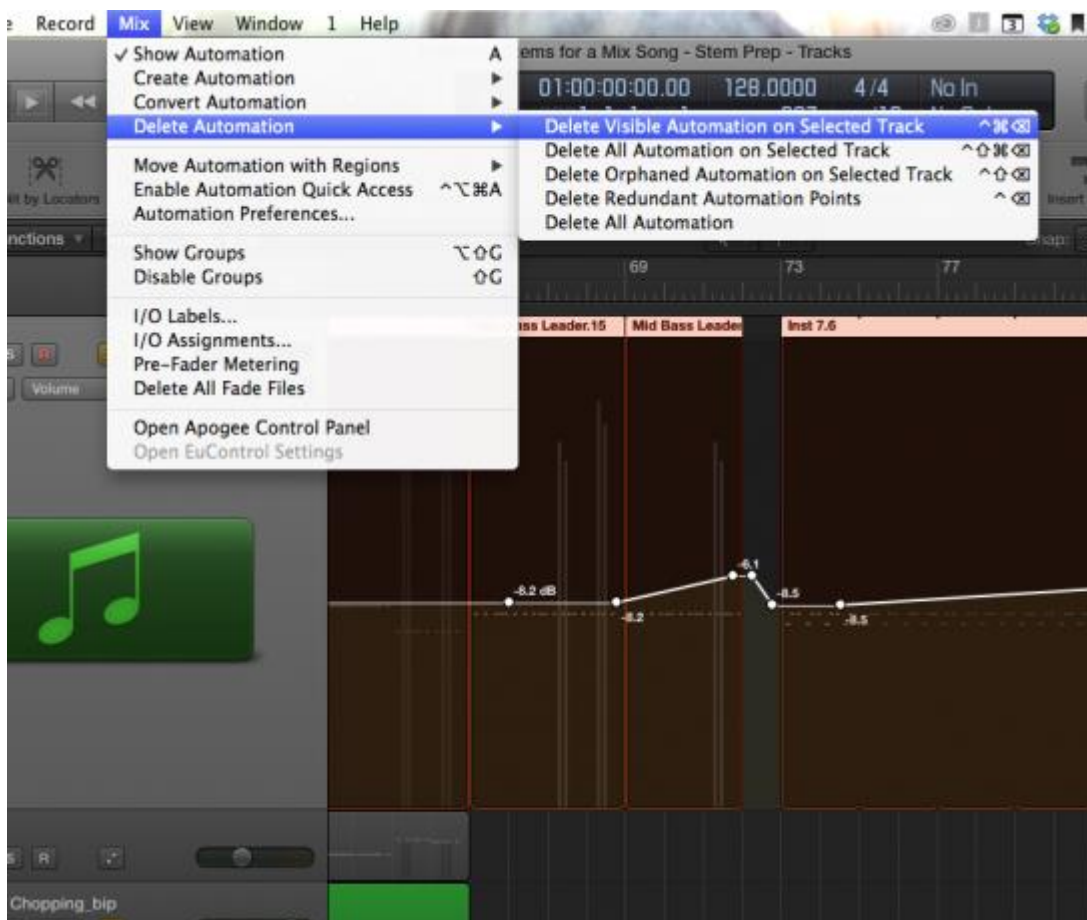
Are there tracks in the song that can be merged together? Snare/Clap sounds? Stacked sounds that are never meant to be played apart from one another? Give this some serious thought. The less tracks the mixer will have to dig through, the faster he/she will be able to get down to business. On the other hand, don't give them too few that would limit their options. Merging Tracks in Logic X is extremely easy. You can even mix and match audio tracks with software instrument tracks. Select all the regions you'll be merging. **Control-click** one of the selected regions and from the menu select **Bounce in Place** (from the **Bounce and Join** menu). You'll even be given the option of whether or not to include any effects on the tracks! Once the newly merged track is created, delete the two originals and all the content on them. Don't worry... remember you saved your song as a new Alternative so the original is perfectly safe.





## Remove Unnecessary Automation

If you already started mixing, you might have added volume and panning automation. Often this is not wanted by the mixing engineer. You can easily remove this. First select the track, press **A** to toggle the automation view, then select the automation you want to remove from the list. Once it's visible, from the **Mix: Delete Automation** menu, select **Delete Visible Automation on Selected Track**. You have the option to remove automation/panning across all tracks when exporting, but from my experience, it's not normally all or nothing. When producing EDM—just like using creative effect—volume and panning can be a part of the “sound” itself so options are vital.



## Include Busses in the Export

So you're using plenty of busses in your track and you want to include them in the stems package? First open the mixer and find the Aux/Bus tracks you want to include. **Control-click** each of them and select **Create Track**. This will add the track to the Arrange Window/Work Space.



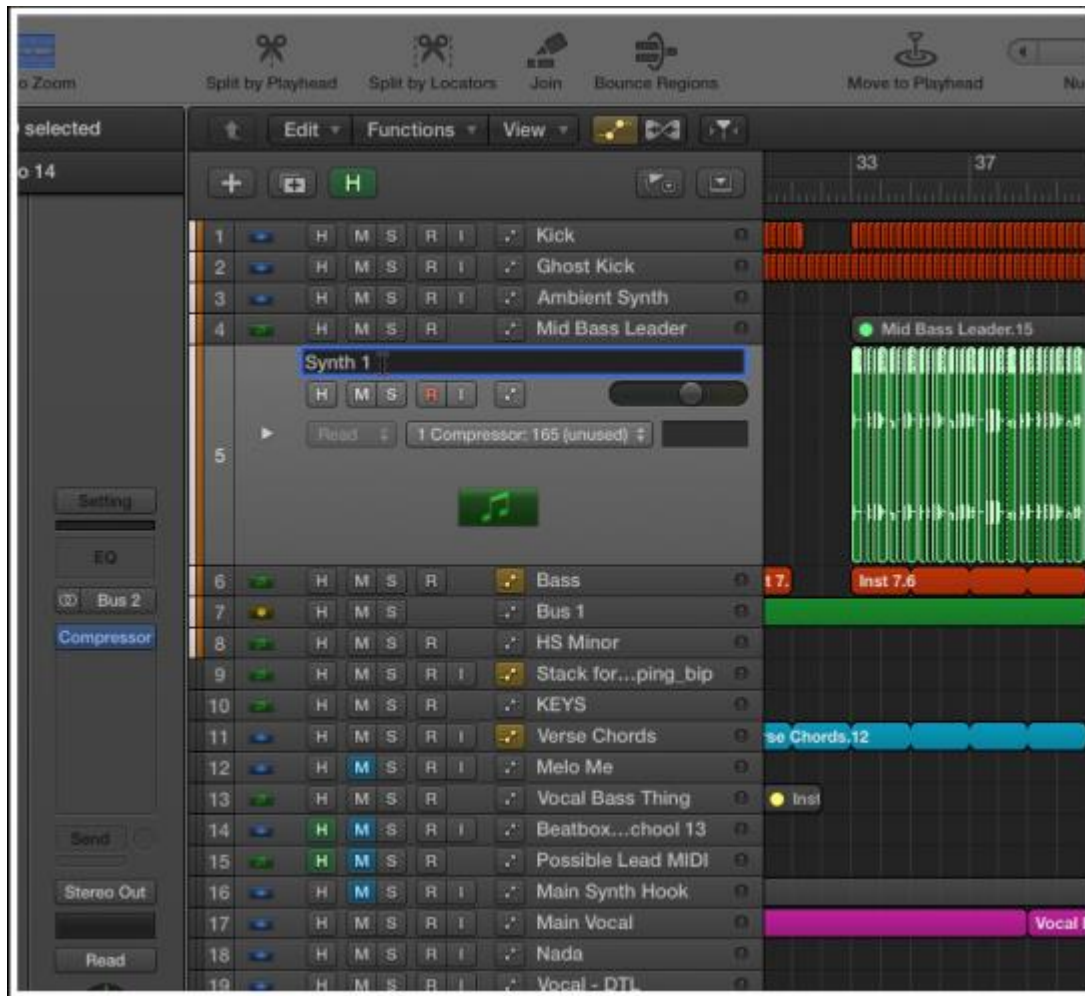


Close the Mixer and select the newly created Aux/Bus track in the Arrange window. Switch now to the Pencil tool, and create an empty region on bar one. Stretch that region all the way out to the end of the song. When you go to **Export All Tracks** in the final step of this article the busses will now be part of that export!



## Rename the Tracks

Before actually exporting your tracks, giving each one a meaningful name will help the mixer quickly organize them before starting. There's nothing worse than "Track 1, 2, 3, etc., or obscure preset names when receiving a batch of stems. Double-click the track's existing names to rename them. Whatever you write here will be saved to the track's file name when you export.



## Export All Tracks (Including Multi-Out Instruments)

From Logic's **File** menu, go to **Export**, then select **All Track's as Audio Files**. A finder window appears allowing you to save all the tracks from your song. In the example below I've created a folder within the project's audio folder called "Stems." This is where I'll save them. So what about the multiple output instrument tracks that were only visible in the Mixer (if you have them)? Needless to say you want to include those too. From the **Multi-Output Software Instrument** menu, select **One File Per Channel Strip**. This selection works best for me, but some of the other options in this menu might work better for your workflow. Let's say that you're not entirely sure if some of the tracks were clipping. From the **Normalize** menu I'll choose **Overload Protection**. This great feature will lower the volume of any tracks that are over zero decibel, and doesn't touch the tracks that are below it. Choose either AIFF or WAV as the Save Format, 24-bit for the Bit Depth and press **Save**. As mentioned above, you also have the option to bypass/include effects, and volume/pan automation. It's all up to you as to what you actually want to include and not include, so the steps above show how to remove these on single tracks. This makes more sense to my work flow since often I want a combination of options.

