

6 – Mix Bus Compression Exercise

Mix Bus Compression

Mix bus compression is the strategy of using a downward compressor on the entire stereo mix to create a sense of dynamic cohesion among mix elements, to slightly increase overall loudness, to help avoid clipping from the overall stereo mix, and/or to alter the tonal balance of the whole mix. While this technique is commonly used and can deliver great results, it is easily misused and can cause a variety of mix issues such as added unmusical distortion, elimination of musical dynamic climaxes, and the creation of unmusical compression artifacts such as pumping or breathing. A little mix bus compression can often go a long way and too much can potentially destroy your mix.

Overview

Use the provided multitrack recording to practice your skills using mix bus compression to process your stereo mix. While the purpose of the exercise is to focus on using mix bus compression specifically, you may also use any other processing you deem necessary to achieve a quality result (such as equalizers or other processors). However, you should spend the bulk of your time experimenting and selecting the best settings for mix bus compression.

This song, System of a Down's "Aerials," is a cover recorded in MTSU's Studios B and D. It has already undergone significant processing on an individual track basis to create a fairly compelling mix. However, the mix lacks a little bit of overall dynamic cohesion between elements and occasionally rises above 0 dBFS. It is your job as the mix engineer to apply a small amount of compression on the entire stereo mix to create a sense of dynamic consistency and to make sure the mix does not exceed 0 dBFS. However, be careful not to eliminate the musical sense of dynamic increase between the verse and chorus, and try not to add unmusical compression artifacts like distortion, breathing, or pumping.

Guidelines

1. Before starting to mix, come up with a plan for your approach to this exercise by using what you have learned about mix bus compression from your readings and class instruction. Listen to all the tracks provided and take notes of: 1) any problems you hear, 2) your best guess as to how to fix these problems, and 3) what you would like your final mix to sound like. *Be prepared to discuss your mix approach in class after handing in your assignment.*
2. Focus on using mix bus compression. The primary purpose of this exercise is to improve your skill with mix bus compression. Take time to explore multiple different settings on your compressor to see what negatively impacts the overall dynamic contrast of the mix and what presents all the elements of the mix in a dynamically compelling way.
3. Use only stock plugins within your DAW. The reason for this is twofold. Firstly, it does not take expensive or unique plugins to achieve a good mix. Simple tools used by a skilled mix engineer will outperform fancy plugins used by an unskilled novice. Secondly, this enables a fair comparison between student mixes.

4. Apply any processing as necessary to achieve a polished and professional product (e.g. EQ, reverb, etc.). You may use processing other than mix bus compression. Although, since these tracks are already significantly processed, be sure not to over-process the mix.

Initial Deliverables

Please deliver the following in one parent folder entitled “**LastName_MixBusCompression v1.**” Upload this folder and share it with your instructor.

1. Pro Tools session of your mix. Label the session name with your last name and “v1”.
2. Make sure the “Audio Files” folder in the Pro Tools session includes only newly created audio files. The original files included in the exercise should be deleted for delivery to the instructor. Please note that you will want to keep a copy of the session with the original audio files for your own records and for future revisions.
3. 48kHz sample rate and 24 bit interleaved stereo .WAV file bounce of your final mix.

First Mix Attempt - Rubric

<i>Criteria</i>	Overall quality of mix	All materials submitted as requested	Followed exercise guidelines	Focused on the assigned mixing technique
<i>Points Allotted</i>	2 points	1 point	1 point	1 point
<i>Guidelines for full points</i>	The dynamics of the song are musical but controlled. Musical climaxes (like from verse to chorus) are maintained after mix bus compression is applied. The mix is free from distracting artifacts from over compression like distortion, pumping, or breathing.	All materials are properly labelled, all original audio files are deleted in Pro Tools session, and final mix delivered at proper specifications.	Used only stock plugins. Product delivered is well-organized and professional in presentation.	It is clear that a significant amount of effort was put into using mix bus compression in the exercise.

Revision Process

To simulate a real-world mixing process better, and to help you to continue improving your skills using mix bus compression, this mixing exercise will go through one round of revisions between the instructor and student. In the professional realm, it is very common for clients to listen to the initial mix and provide the mixing engineer with notes for revisions.

After you have submitted your initial mix to the instructor, they will provide you with notes regarding their thoughts on your mix, including what you did well and areas for improvement. Come up with a plan to address the instructor’s concerns before starting your revisions. This could

be a simple checklist of the revisions you need to complete or a general brainstorm of what techniques you might use during your revisions. Coming up with a plan will help you stay focused and address the instructor's concerns.

Once you are finished revising the exercise, closely listen to the results of your work and write a brief paragraph about your experience. In your written reflection, outline any difficulties you encountered while mixing. Compare your initial impressions and goals for your mix with the actual process of mixing and the final result. Did you fully or partially achieve your goal for what you wanted your final mix to sound like? Were you able to address all of the instructor's revision notes? Were there any particular revision notes that you struggled with and why?

As the mix engineer, it is your job to provide the instructor (the client in this scenario) with one updated version of this mixing exercise with the below deliverables.

Revision Deliverables

Please deliver the following in one parent folder entitled “**LastName_MixBusCompression v2.**” Upload this folder and share it with your instructor.

1. Pro Tools session of your revised mix addressing the instructor's concerns. Label the session name with your last name and “v2”.
2. Make sure the “Audio Files” folder in the Pro Tools session includes only newly created audio files. Please note that you may want to keep a copy of the session with the original audio files for your own records.
3. One Word Doc or PDF of your written reflection notes for your revised exercise. This document should include a brief paragraph and be no longer than one page maximum (shorter is fine).
4. 48kHz sample rate and 24 bit interleaved stereo .WAV file bounce of your revised mix.

Second Mix Attempt - Rubric

<i>Criteria</i>	Addressed revisions	All materials submitted as requested	Followed exercise guidelines	Focused on the assigned mixing technique
<i>Points Allotted</i>	2 points	1 point	1 point	1 point
<i>Guidelines for full points</i>	Your mix addressed all or almost all of the instructor's concerns regarding revisions.	All materials are properly labelled, all original audio files are deleted in Pro Tools session, and final mix delivered at proper specifications.	Word Doc or PDF included with written reflection. Used only stock plugins. Product delivered is well-organized and professional in presentation.	It is clear that a significant amount of effort was put into using mix bus compression in the exercise.