

8 – Time-Based Effects Exercise

Time-Based Effects: Reverb and Delay

Reverb, as opposed to the direct sound of a source, includes all of the many reflections of a sound bouncing around an acoustic space including the first arrival of early reflections and the subsequent wash of late reflections arriving at the listener's ear. The natural sound of reverb has been a part of mixes since the beginning of audio recording. However, since the creation of chamber reverbs as well as plate and spring reverb units in the 1930s through 1950s, artificial reverb has been added to alter the spaciousness and depth of recordings. Today, artificial reverb is most commonly found in plugin form and utilizes algorithmic or convolution processing.

The concept of delay is fairly simple and describes the variety of devices that delay an input signal for a certain amount of time. In practice, delays come in many forms and are used for a variety of purposes while mixing. Delays enable mixers to alter the soundstage and create a sense of spaciousness and depth in a mix.

Overview

Use the provided multitrack recording to practice your skills using time-based effects to process your tracks. While the purpose of the exercise is to focus on using reverb and delay specifically, you may also use any other processing you deem necessary to achieve a quality result (such as equalizers, compressors, etc.). However, the majority of the time you spend on this exercise should be working with reverb and delay.

The included vocal, acoustic guitar, and banjo tracks were recorded at MTSU's Studio A and B using small isolation booths. The sound captured was dry, and the significant amount of acoustically absorptive materials used in these rooms reduced the amount of natural ambience in the recordings. Your job as mixing engineer is to take these dry tracks and breathe life into them using reverbs and delays. Try to create a realistic sense of space and depth so that the mix sounds like a cohesive whole that was recorded in a particular place. You also might want to experiment with more artificial reverb and delay sounds, such as longer delays, to fill in some of the gaps between the vocal phrases.

This overall mixing scenario is not uncommon in modern recording. Tracking of a song may take place in a fairly deadened environment to reduce unwanted acoustic properties of particular spaces. Recordings done in this way often lack ambience and reverberation, acoustic properties that may be beneficial to the final product. When it comes time to mix, ambience and reverberation must be added back into the recording using digital reverb and delay processors.

Guidelines

1. Before starting to mix, come up with a plan for your approach to this exercise by using what you have learned about reverb and delay 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 reverbs and delays. The primary purpose of this exercise is to improve your skill with reverb and delay.
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, compression, etc.). You may use processors other than reverbs and delays. Don't forget that level relationships also contribute to the depth of a mix.

Initial Deliverables

Please deliver the following in one parent folder entitled “**LastName_TimeBasedEffects 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>	<i>Overall quality of mix</i>	<i>All materials submitted as requested</i>	<i>Followed exercise guidelines</i>	<i>Focused on the assigned mixing technique</i>
<i>Points Allotted</i>	2 points	1 point	1 point	1 point
<i>Guidelines for full points</i>	Your mix has a detailed sense of spaciousness and depth as a result of the use of reverb and delay. The final mix is not dry or clinical sounding.	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 reverb and delay in the exercise.

Revision Process

To simulate a real-world mixing process better, and to help you to continue improving your skills using reverb and delay, 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?

Revision Deliverables

Please deliver the following in one parent folder entitled "**LastName_TimeBasedEffects 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>	<i>Addressed revisions</i>	<i>All materials submitted as requested</i>	<i>Followed exercise guidelines</i>	<i>Focused on the assigned mixing technique</i>
<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 reverb and delay in the exercise.