

PRO TOOLS LOGIC PRO CUBASE STUDIO ONE



Correcting and Enhancing Audio with DAWs

Simon Langford



Digital Audio Editing

Correcting and Enhancing Audio in Pro Tools,
Logic Pro, Cubase, and Studio One

Simon Langford

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Introduction

WHAT EXACTLY IS AUDIO EDITING?

Welcome to *Digital Audio Editing: Correcting and Enhancing Audio in Pro Tools, Logic Pro, Cubase, and Studio One*. During the course of this book, I will guide you through the principles and practice of a number of regularly used audio editing techniques, as well as a few less-frequent ones, and will wrap things up with a look at some of the more advanced and unusual editing techniques.

I would also like to point out, right at the very beginning, that the audio editing process can often cross over into the production process and even the “sound design” process. Many of the techniques that we will be looking at in this book could be seen as the fundamentals of sound design as well, and it is very tempting to branch off into both of these areas as an extension of what we will be looking at. However, in an effort to try to keep things focused and manageable, we should probably stick to the definition that audio editing involves taking sounds and recordings that we already have and making the best version of them for the purpose they have to fulfill. I would view sound design more as the process of creating new sounds, either from scratch or by heavily manipulating existing sounds or recordings, and would view production more as the process of combining the edited audio recordings into a finished piece.

The simplest analogy that comes to mind is that of building a house. We could consider audio editing as actually making the bricks as straight and uniform and correct as we can. These bricks are arranged and put in place by the builder (mix engineer) under the direction of the architect (producer) who has the blueprints for the building. If the bricks aren’t straight and uniform, then the builder’s job becomes far more difficult.

So with that in mind, let’s ask the key question: What exactly is audio editing? I think that everybody would think of the obvious things such as cutting, pasting, cross-fades, and track “comping,” but there are many more ways to edit audio. As a general rule, we can put all these editing methods under one of three main headings: corrective, creative, and restorative. We will look at each of these in more detail as the book progresses, but, as a taster, I would suggest

that the most common corrective tasks include the previously mentioned cutting, copying, pasting, and comping, while the most common creative tasks would include time-stretching and pitch manipulation. Restorative tasks are an area where technology seems to be changing at a ridiculous pace, and we now have the ability to do things that were simply unimaginable until fairly recently. We can carry out spectral repairs and manipulate individual sounds within a complex mix and further manipulate “mixed” recordings in some truly mind-bending ways. In fact, we can change pretty much any aspect of audio recordings in one form or another, some more successfully and easily than others, obviously.

There are a couple of things to consider at this point, and both of these relate to assessing the true need for these advanced techniques. The things we are able to do with audio recordings today are breathtaking, and having these abilities and techniques available to us gives us a great deal of freedom when working with audio files. The problem, as I see it, is that having this much power to manipulate the recordings can lead us down the path of “let’s fix it in post-production.” I don’t think that this is necessarily a healthy attitude to have. Of course there are situations when we, as audio editors, will be presented with a collection of files and expected to sort out the mess that we have been given, and that is when all the techniques presented in this book will become invaluable to us. But equally there might be times when the knowledge of what is possible after the recording has been completed will make those actually doing the recording a little lazy.

Let’s look at the relatively straightforward situation of working with vocals. We can compile a “master” take from a number of different takes in order to not be reliant on the singer actually delivering a (subjectively) “perfect” take. We can correct the pitch if singers are a little off-key, and we can correct the timing if they are a little loose in that respect. We can even control the dynamics of their performance to some degree and perhaps even the tone of their voice, although the plug-ins and software that allow us to do this will give us only a very limited range to change before the effects become very noticeable and, in my opinion, damaging. Armed with this knowledge, it wouldn’t be a huge leap for the people involved in the recording (including the singer, the producer, and the engineer) to simply make do and rely on fixing it later. While I am sure that this doesn’t happen very often, I can understand this from a financial point of view, because hiring a studio is usually far more expensive in terms of hourly rate than having somebody fix things later. But to look at it this way would be a major mistake, in my opinion. If at all possible we should always strive to have the very best take/performance that we can to work with. We can achieve great things with audio editing, and we can make an average performance or recording sound pretty damn good! But with that in mind, imagine what we could do with a take or performance that is already very good!