
11: Advanced Vocal Techniques

Pro Tools 2

App 3

Nov 17, 2015

Overview

In the last chapter we went over playlists and comping vocals. Now that you have a comped final vocal lets focus on making the vocals of a professional quality. We'll look at using elastic audio within Pro Tools, using Vocalign within Pro Tools and then we'll look at getting the audio in and out of Pro Tools effectively to use within software that operate more efficiently in stand alone mode such as Melodyne or iZotope RX.

Quick Keys

Quick Fade While in focus mode:
F

Fade Dialogue Box:
Command + F

Cleaning Vocals

Fades

There are lots of options for fading clips in Pro Tools and all of them have their own unique uses. Personally when cleaning up vocals I find parabolic fades on the top (Figure 1), Linear Crossfades (Figure 2) in the middle and S-Fades on the tails (Figure 3) to be most natural sound to the ear. They allow you to get nice and tight to the audio removing any noise without noticeable cutting the vocal short. While in focus mode you can quickly crossfade any two regions by pressing the F key. When in any mode you can bring up the fade dialogue box by pressing Command + F .

Figure 2

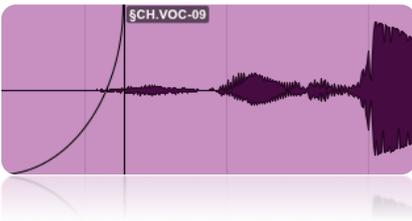


Figure 1

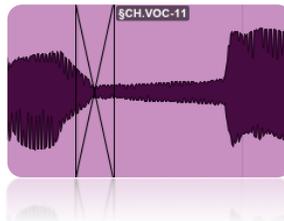
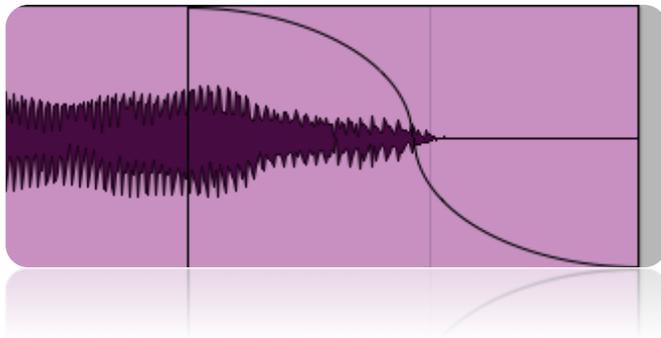


Figure 3



Handling Breaths

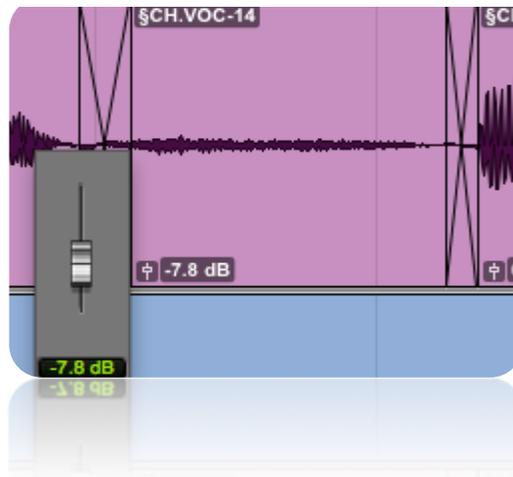
Breaths in music must be handled delicately. Only time and practice will get it right. In some cases you can remove breaths entirely and it works with the production style. Pop is infamous for entire tracks where not a single breath exists. *I guess there is no air in pop*. Most genres you will have to leave the breaths in. Be careful to not crossfade over breaths or you may end up with a shaky sounding double breath. I don't think your singer would appreciate having all of their breaths sound wheezy. In some cases after compressing the vocal you will find all of your breaths are too loud. You then may want to use audio suite to permanently gain them down, or if you are on Pro Tools 10 or later you can use the new clip gain features!

Clip gain options are enabled within the View Menu under the clip sub heading. There you will find two options.

1: **Clip Gain Line:** Allows you to draw automation right on your clip. It is essential that you remember this automation exists on the audio clip. The automation will follow the audio clip wherever it goes. Any automation written on the clip is PRE INSERTS! I must say this again. ANY AUTOMATION WRITTEN HERE IS BEFORE YOUR INSERTS. That means if you turn the volume up or down here and you have a compressor inserted on the track you will be feeding the automation to the compressor, meaning that you can keep pushing audio up and the compressor will just push it down farther.

2: **Clip Gain Info:** The clip gain info simply shows an overall gain control for each clip. With a couple of fades and a simple clip gain move, ducking breaths has never been faster! (Figure 4)

Figure 4



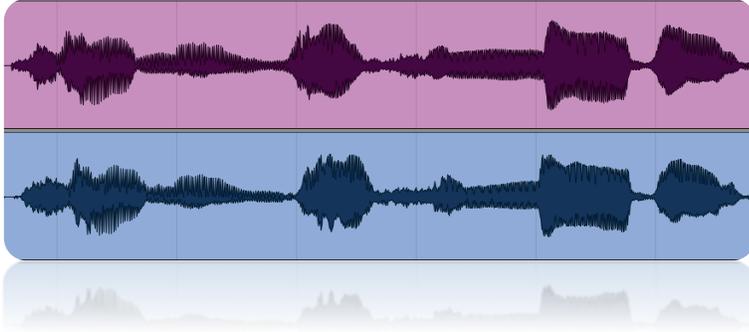
Visually Aligning Multiple Tracks

When working with vocal doubles, triples, harmonies or multiple singers sometimes it can be beneficial to nudge syllables around lining them up with one another. This technique is essential for artists who want a more natural sounding double or harmony track.

Quick Keys:

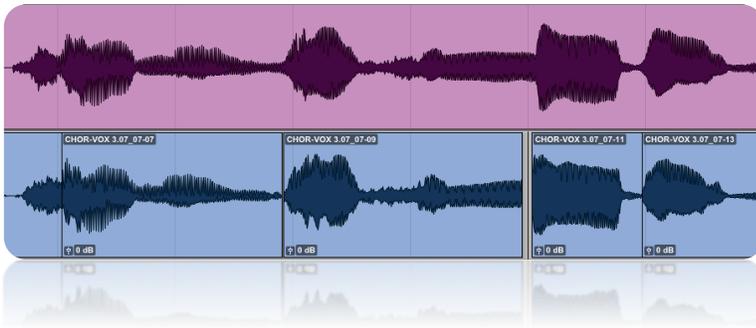
Nudge clip to current selection:
Control + Click

Figure 5: Before



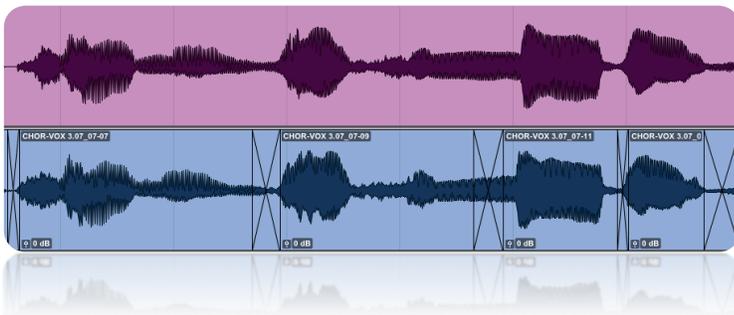
Step 1: Tab to transient on the track you want to follow your main track and break on key syllables. Then tab to transient on your main vocal track so that you get a destination for your separated audio clip. Once you have your destination located control + click the region and it will jump to the current location on your time line. Once you've faded all the audio clips in a section it should look like figure 6.

Figure 6



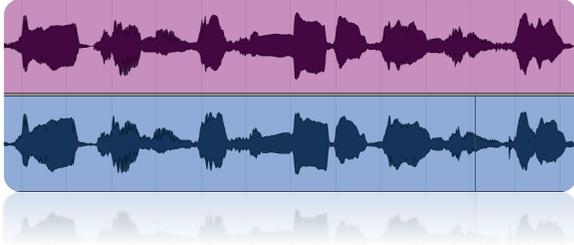
Step 2: Simply trim and fade the files to fill gaps, be sure to watch your phase alignment so you don't create artificial dropouts. Your final product should look like figure 7.

Figure 7



Time Aligning With Elastic Audio

Figure 8 Raw Audio

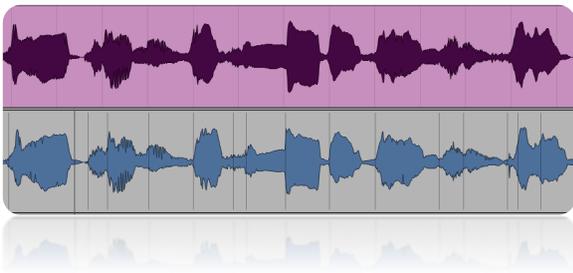


You can enable elastic audio from the dropdown menu in the edit window. Since vocals are a single pitch instrument you will want to select monophonic. Once pro tools has analyzed the audio information warp view will become available in the track view options. Once warp view is enabled it should appear like the figure 10.

Figure 9 Elastic Audio and Warp View



Figure 10 Warp View Enabled



Once warp view is enabled you can control + click to add warp markers anywhere on the track. Shift click will create warp points on the currently marker and the one before and after allowing the audio to be warped freely while locking all audio before and after.

Definitions:

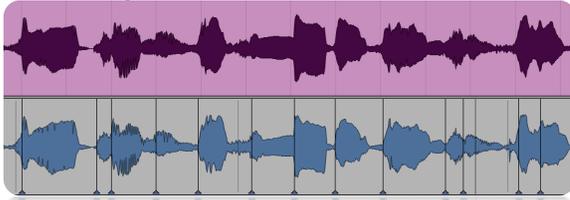
Monophony:

Music with a single "part" and a "part" typically means a single vocal melody, but it could mean a single melody on an instrument of one kind or another.

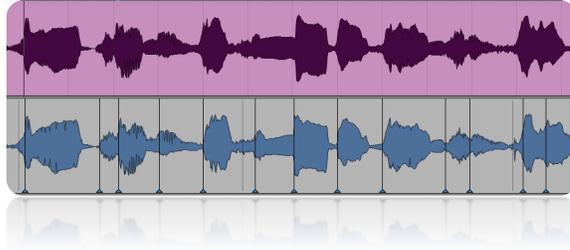
Polyphony:

Music with more than one part, and so this indicates simultaneous notes.

Before Warp



After Warp



Quick Keys:

Consolidate Audio Clips:

Option + Shift + 3

Once you have completed all of your warp moves you can disable elastic audio and commit your moves. Committing the elastic audio writes all of the information to an audio file so that no more dynamic information is available.

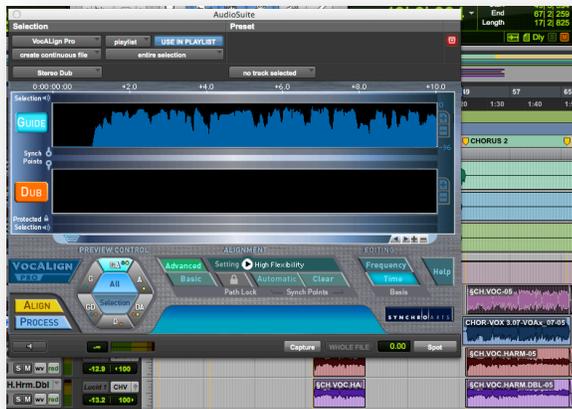
Consolidating

Another method of committing fades and other edits is to consolidate all of the clips in a track to a single new audio file. To consolidate audio on a track to a single file make a selection and then press Option + Shift + 3

Vocalign

Now that we've manually edited vocals lets look an automatic option. Vocalign is a plugin that runs only as an audio suite plugin. This tool started off in the pop and hip hop world but has now crossed over into almost every genre as the standard for vocal treatment.

You can open the Vocalign plugin from the audio suite plugin menu. Older versions of the Vocalign plugin do not support handle lengths so you will have to set the handle lengths from the default 2.00 to 0.00 in order to allow the plugin to function in Pro Tools 9 or beyond. Next Make your source audio selection choose guide and click capture. This will load the audio into the audio suite plugin.



Quick Keys:

Move Selection up a track with focus mode enabled: P

Move Selection Down a track with focus mode enabled: ;

Nudge the selection down to the next track using the “;” key with focus mode enabled. With the dub track highlighted click capture to load the second vocal track into Vocalign. Click spot to process the audio.



Getting Out of Pro Tools with Naming

Pro Tools has already set up an excellent session folder for you so why not continue using the session folder as an organizational tool. Leave your audio files in the audio files folder so that you always know exactly where they are. You can create new folders within the pro tools session folder to help you with your organization. Some folders I typically create are: EXPORTS, TUNING, iZOTOPE. Each of these sub folders can hold session files and audio files you are working on, or simply just link to the audio files folder. By using this organization technique when sending files to collaborators you can be sure that they will have everything!

If you remember from the comping chapter we've named all of our comped audio with an infinity symbol at the beginning. Now without even opening Pro Tools you can easily open your audio files folder and just grab the appropriately named files to modify in any other audio software. You can later either re-import into Pro Tools, or if you like to take risks you can just replace the audio file in the audio files folder and pro tools should automatically recognize it. I personally prefer to re-import so that I have two versions, the original and the modified file.

Before consolidating or exporting audio for use in other DAWs you may want to check your session window (Command + Number Pad 2) to make sure that your session starts at 00:00:00:00. Pro Tools may be set to start at a different start time by default for video sync reasons. Other audio DAWs may get confused by this and require you to manually map the locations. Setting this within Pro Tools guarantees sync across most DAWs.

Melodyne

Melodyne Studio is a stand alone DAW that handles multitrack monophonic audio editing. Melodyne Editor is another stand alone software that offers polyphonic pitch and time correction which can be useful in a pinch but sonically is not ideal therefore we will not discuss the editor here.

Melodyne Studio allows you to import multiple stereo or mono audio tracks. In my own humble opinion Melodyne's elastic engine is far superior to that of any other DAW so in my production workflow I use it primarily for pitch and time corrections.

Setting Your Clock

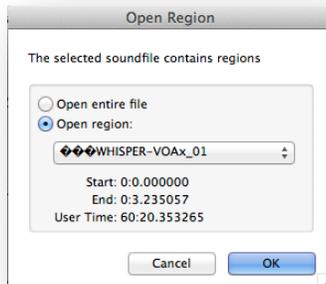
On more advanced hardware systems you will have to lock the software to the hardware clock. In the Melodyne > Preferences > Sample Rate drop down menu you can set it to sync with your master clock. On digital systems that automatically change this option will not be available.

Importing Your Audio

After creating a New Arrangement (Command + N) you can import multiple audio tracks by selecting File > Import Audio (Command + Shift + O). If you have set the session start to 00:00:00:00 in Pro Tools then all of the audio files should import without any interruptions.

If Melodyne detects any User time other than 00:00:00:00 it will launch this dialog box.

Melodyne gives you the option to import the entire audio file or just the individually marked region. For our purposes the entire file is usually ideal.



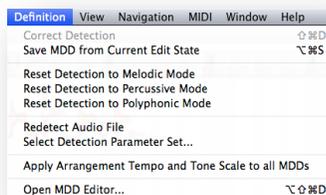
Detection Modes

There are 3 main detection modes in melodyne.

Melodic Mode: Used for detecting audio with single melodies.

Percussive Mode: Used for detecting any percussive audio tracks. Ie: Drums, Shakers, or any non melodic instruments.

Polyphonic Mode: Detects audio tracks with multiple melodies.

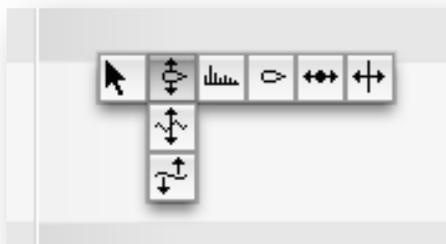


Redetecting Audio Manually

Melodyne may occasionally detect audio in the wrong octave. If you notice that audio is in the wrong range you can correct the detection manually by selecting Correct Detection from the Definition menu or use the quick key (Command + Shift + D). Careful not to play back audio while correcting detections it can cause crashes!

Correcting Pitch

Right clicking anywhere on an edit window shows you all of your available tools immediately. All of the tools within melodyne automatically snap to grid. In order to move notes freely you have to hold down the option key.



1: Edit Pitch: allows you to drag the pitch of individual notes up and down.

2: Pitch Modulation: Pitch modulation controls the amount of vibrato within the note.

3: Pitch Drift: Controls the amount of drift occurring over the course of the entire note.

Correcting Time



Time Correction can be done with the time correction tool. Simply right click and select tool and you can drag the audio to the grid or freely by holding option.

Editing Amplitude



Within Melodyne you can control the volume of each individual note by selecting the Amplitude tool from the right click menu.

Adjusting Formant

Multi-Track Editing

Creating Artificial Harmony

Exporting and Naming Conventions