

Pitch Correction Software

Vincent J. Manzo

1. What is pitch correction?

- a. Pitch correction is the term used for correcting pitch in performance or recording situations through unnatural means, in this instance, through a software engine

2. How is it used

- a. Historically, a tape head could be held or slowed down to correct pitch by either slowing it down to move the pitch down or speed up the head to move the pitch up. This method also slows down the tempo of that track for the brief instance
- b. Presently there are software engines that can perform the same tape head manipulation functions and, through time compression, can even keep the tempo accurate.
- c. These software engines detect the incoming pitch by measuring a small period and performing operations to move that pitch material to the nearest accurate pitch if necessary. These operations can be customized so that pitch material stays within a given key or a collection of notes. The margin of error before correction can also be tweaked.
- d. If not utilized properly, artifacts are noticeable, however, these artifacts have also become desirable in some popular music

3. Who makes it

- a. Antares – Autotune - <http://www.antarestech.com/>
 - i. Plug-in - \$320
 - ii. Hardware \$400
- b. Celemony – Melodyne <http://www.antarestech.com/>
 - i. Software \$550
- c. TC Helicon VoiceOne Voice Pitch and Modeling Tool Processor <http://www.tc-helicon.com/VoiceOne>
 - i. Hardware \$1000
 - ii. Plug-in (intonstor-HS)
- d. Oberheim – OB-Tune (uses the Antares engine)
 - i. \$50 plug-in

4. Do you agree with this?

- a. **How far is too far** – we use digital EQ's to change the sound—is that the same thing?
- b. **Voice tuners vs. guitar tuners – are they the same?** – Is autotuning vocals like having somebody play a guitar part sloppily and then editing it together to make it good?
- c. **Musician's Skills Improve** - by making the singer try to get it right by re-singing it helps him become a better singer, but is this really the goal of a recording process?