



VOICEPRO
PROFESSIONAL VOICE PROCESSOR

Voice Optimized Tools and Effects

Depending on the application, there are countless devices used to shape and embellish the sound of the human voice. What separates VoicePro from any other device is its list of algorithms created specifically for manipulating the human voice. Including:

- ▶ **Pitch:** shift the voice using a transparent and versatile Hybrid Shifting™ algorithm with 8 octave shift range.
- ▶ **Time:** creative and humanized control over time shifting using FlexTime™
- ▶ **Character:** manipulate or enhance a voice's character using VoiceModeling™ technology
- ▶ **Harmony:** four voices of natural sounding intelligent harmony.
- ▶ **Transducer:** emulate the noise, bandwidth and distortion characteristics of phones, radios and megaphones.
- ▶ **Multi-FX:**
 - µMod: dial up an endless amount of the classic micro-shifted sounds including flange and chorus.
 - Delay: the voice-optimized delay includes input ducking and tap tempo.
 - Reverb: using TC Electronic's classic algorithms.
- ▶ **EQ/Dynamics:** standard filtering and leveling tools from TC Electronic's arsenal of respected algorithms.

Application Based User Interface

Producing voices isn't only about algorithms. It's about your ideas. VoicePro's interface is designed to assist you in realizing your ideas. This is possible through VoicePro's philosophy of browse-able application based presets. Because creativity is diverse, each preset offers top-level assignable parameters to fine-tune a sound. Navigating the efficiently designed interface makes creating all new presets an easy task.

Home: 250 user + 250 factory presets created by listening to vocals, dialog effects and the masters who created them.

Browser: Select your source and application to browse the best creative starting points.

Matrix: Presets become palettes through four top-level parameters and dedicated feature visualization assignable to each preset.

Professional Hardware Design

VoicePro offers 24/96 digital and analog I/O quality that rivals dedicated converter products. Tracking through your favorite mic-preamp into VoicePro's analog input stage provides >110 dB (unweighted) dynamic range in conjunction with rock solid jitter rejection. Multiple output configurations are possible with stereo analog and 8 channel AES/EBU outputs.

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TC Designed Analog I/O

2 in, 8 out AES/EBU for various mixing options

Word Clock for external synchronization up to 96 kHz



Ethernet for upgrade and control

Configurable MIDI Support

Technical Specifications

Digital Inputs and Outputs		General	
Connectors:	(2 in, 8 out AES/EBU)	Display:	Color TFT, QVGA 320x240 pixels 450 cd/m2 Luminance
Input Impedance:	11/4 kohm (Balanced/unbalanced)	Finish:	Anodized aluminum face and side plates Plated and painted steel chassis
Output Impedance:	40/20 ohm (Balanced/unbalanced)	Dimensions:	19" x 3.50" x 11" (483mm x 89mm x 274mm)
Max Input Level:	+15 to +30 dBu with analog domain scaling	Weight:	11.95 lbs. (5.4 kg)
Max Output Level:	+15 to +24 dBu with analog domain scaling	Mains voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Dynamic Range:	> 110 dB (unweighted, BW: 20-20kHz, note 1)	Power consumption:	<45W
THD:	< -100 dB @ BW: 20-20kHz	EMC Complies with:	EN 55103-1 and EN 55103-2 FCC part 15, Class B CISPR 22, Class B
Frequency Response, +0/-0.1 dB:	12 Hz - 20 kHz	Safety Certified to:	IEC 60065, EN 60065, UL 6500 and CSA E65 (CSA File#LR108093)
Crosstalk:	< -110 dB, 20 Hz to 20 kHz	Operating/Storage	
AD and DA Conversion:	24 bit (Dual bit delta sigma sampling at 6.1 MHz)	Temperature:	0° C to 50° C (32° F to 122° F) / -30° C to 70° C (-22° F to 167° F)
AD and DA + Processing Delay Total:	1.54 ms	Humidity:	Max. 90% non-condensing
DSP		Warranty Parts and Labor:	1 year
Internal sample rate:	44.1, 48, 88.2, 96 kHz		
Internal processing:	24 bit		
Processing Algorithms:	Hybrid Shifting™, FlexTime™, VoiceModeling™, 4-part harmony, 4-band EQ (2), Compressor (2), De-esser (2), Reverb, Delay, µMod, Transducer, Multi-path mixer.		
Control Interface			
Ethernet:	10/100 Mbits/s, Base-T (RJ45 XLR-housed EtherCon connector)		
Ethernet passive HUB for network:	10/100 Mbits/s, Base-T (RJ45 XLR-housed EtherCon connector)		
MIDI:	In/Out (5-pin DIN connector)		

Analog I/O: design by TC Electronic

VoicePro offers the finest AD/DA converters available in studio processors. Using analog domain gain scaling, the full resolution of the converters can be used regardless of the operation level of the surrounding equipment.

To counteract harsh sound and listening fatigue often associated with digital processors, VoicePro uses a unique TC Electronic technology that incorporates headroom for reconstructed peak signals exceeding digital full scale. For more exotic level handling requirements, the analog inputs can receive signals as hot as +30 dBu.

visit www.tc-helicon.com for complete technical specifications

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Note: Due to continuous development and standardization all specifications are subject to change without notice

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The perfect take just got better



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Working with Vocals or Speech

In any medium where the human voice is spoken or sung, VoicePro provides unique, high quality tools and effects.

Pitch & Time

Whether it's sound design for gaming, dialog editing or getting the best vocal take: pitch and phrase timing are key to effectively delivering a message. Because the message is so important, VoicePro offers the most versatile and transparent voice pitch and time manipulation algorithms available in any plug-in or device.

With VoicePro, you can add a fixed pitch shift for more authority or manipulate segments of a dialog track with Freestyle mode to alter inflection intensity. The same holds true for the manipulation of word phrasing using the Freestyle time control. Individual words or syllables can be extended or shortened, or a single phoneme can be frozen indefinitely.



Producing Hit Vocals

In every application where vocals are recorded, processed and mixed, timely creativity are the ingredients to a hit vocal sound. VoicePro delivers creative options through automation of time-intensive procedures and focuses your time on crafting a new sound.

Harmony

The best harmony part is not always the first one that comes to mind. Experimentation is required and VoicePro is an excellent timesaver for this purpose. Long after your singer has given their best and left the studio, harmony parts can be built up and broken down again in order to find that perfect part. The uncanny virtual harmony abilities of VoicePro allow you to use them up front in the final master or interspersed with real voices. A digital output for each voice allows individual mix adjustment.



Doubling

Even the most subtle mix of a singer doubling their voice in unison can add richness and punctuate lyric lines where desired. Every conceivable type of doubling is possible using various VoicePro blocks. Use µMod to get classic micro-shifted sounds, the Harmony block for stereo stacked vocals or for natural and effected doubled parts use the modeled VirtualLead.



Correction

Subtle yet effective pitch correction is nearly a contradiction. Too much and the effect is noticeable, too little and a vocal can lose impact. VoicePro's gentle pitch processing and bullet proof pitch detection produce a musical balance. Time spent on retakes to capture a pitch-perfect performance can be allocated to other aspects of the production when the singer's focus is primarily on delivery and emotion. Setup of correction can be done to a musical scale, keyboard input or a combination of both with a scrolling history view of input and corrected output pitch.



The most comprehensive human voice processor yet

VoicePro is the culmination of 15 years of research into re-defining the production of vocals. Combining a complete suite of voice optimized tools and effects with an application based user interface; TC-Helicon's Professional Voice Processor is your path to limitless vocal possibilities. VoicePro, the perfect take is just the beginning.

Producing the human voice

There is no debate. The human voice is recorded more than any other source. Whether for film post or chart-topping vocal hits, the human voice goes through the most scrutinizing production: the right mic, the right take, the right balance. Time and creativity spent on voice production is critical to the successful delivery of your message.

Producing VoicePro

Appreciating the value of the human voice, TC-Helicon invested in real-world human voice research and the multitude of production processes it goes through. The culmination of this investment is VoicePro. All aspects of VoicePro's innovative technologies have been designed to match the quality of vocal and speech production demanded in any medium where the human voice is heard.

Algorithm Spotlight

Pitch: Hybrid Shifting™

Hybrid Shifting™ is a pitch manipulation algorithm that preserves the naturalness and intelligibility of the human voice. Matched with a voice-trained pitch detection algorithm, the Hybrid Shifting™ algorithm creates quality results even when shifting large intervals.

Time: Flextime™

TC-Helicon's Flextime™ algorithm preserves the naturalness of a time stretched voice due to its independent recognition of voice components.

Find out more at www.tc-helicon.com/whitepapers

Character

With VoicePro's Character block, aspects of the human voice that were previously impossible to manipulate in a natural way, can now be creatively controlled after the artist has left the studio. Containing TC-Helicon's 3rd generation Voice Modeling™ algorithms, VoicePro can manipulate the character of a dialog track to produce fascinatingly strange and unique characters. Jingle singers looking to offer more personalities or artists looking to keep their sound consistent from year to year can make subtle tweaks to their vocal character. Infinite creative possibilities are possible by enhancing or transforming character.



Special FX

From aliens to monsters to dialog over a telephone, special effects are where VoicePro shines. Completely unique sounds for audio post are possible using a combination of blocks such as character and pitch. A transducer block allows any dialog track or effect to be filtered through emulations of telephones, radios, distortions and other quality reducing devices.



Classic FX

From pristine reverbs, tap tempo delays, stereo micro shifting to distortion, VoicePro delivers a finished product with each preset selection. In fact, VoicePro can be used simultaneously as a vocal production center and an auxiliary effects processor for instrument tracks when the aux input is fed from a separate effects buss.

