

Vocal Enhancer

Adaptive Vocal Processing Solution

MANUAL

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ABOUT THE COMPANY

Noveltech Solutions Ltd. was founded to commercialize new technologies resulting from current scientific research in several areas. For the audio market, we created the division Noveltech Audio.

For more information about Noveltech visit

www.noveltechsolutions.com

and for more information about Noveltech's audio related technologies please visit

www.noveltechaudio.com

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INTERNATIONAL DISTRIBUTION / SUPPORT

The Noveltech VOCAL ENHANCER is distributed by Noveltech Audio and exclusively available online from our website **www.noveltechaudio.com**.

Support is available via e-mail only. And please keep in mind that we cannot provide support for the other parts of your system – you will have to contact the respective vendors for that. In our experience, many problems result from issues in the host application or on the driver level – so if feasible, please verify any problems you might encounter with another Plug-In first before contacting us.

e-mail: **support@noveltechaudio.com**

INTRODUCTION

Thank you for purchasing our VOCAL ENHANCER Plug-In, we'd like to welcome you again to a new era of audio processing: Like the CHARACTER™ Plug-In bundled with many PowerCore systems, this virtual processor employs a fundamentally different and new approach to audio processing.

Most conventional tools simply modify the frequency intensity or dynamic structure of the source material without analyzing its contents prior to processing. Consequently, the user has to have this kind of expertise – and this often turns audio processing with such conventional tools into a specialist's job, requiring lots of engineering knowledge to get to the desired results. VOCAL ENHANCER and CHARACTER change this now: Their processing is based on the latest scientific research in digital signal processing and psychoacoustics, finally overcoming this significant limitation with its truly intuitive approach and instant gratification.

The algorithms are based on Noveltech's patent-pending Intelligent Adaptive Filtering (IAF) technology. The processing affects both, the frequency response and dynamic properties of the input material in a highly time-varying sense. They intelligently identify and enhance the characteristics in audio material that are pleasing to the human ear, increasing its perceived definition and depth.

One example of such characteristics is the time related attack and decay properties of the signal's transients. The processing is non-linear and highly dependent on the source material's original content, aiming to enhance the perceivably favored characteristics of the original musical instrument or voice.

Conventional audio processing tools such as EQs and compressors involve a large number of technical parameters, which have to be set to the correct values in order to get the desired result. Not so with IAF: It intelligently enhances the source's relevant characteristics, automatically adjusting complex sets of parameters – rather than only performing a static boost or cut in one or several specific frequency regions.

This revolutionary approach allows you to get to the desired results much faster – with almost instant gratification, and without the feared ear-fatigue conventional psychoacoustic enhancement technologies have a reputation for!

Keep in mind however, that – even if it might seem so at times – IAF doesn't perform magic or miracles. It doesn't "create" content that's not already there; it only sculpts and emphasizes characteristics that are present in the source material.

Enjoy!

The Noveltech Audio Team

GETTING STARTED

SYSTEM REQUIREMENTS

WINDOWS

- POWERCORE PCI or FIREWIRE running system 2.0 or later
- Windows XP
- PIII 1 GHz or faster
- 256 MB RAM
- Any VST compatible host application
- System must meet requirements of the host application

MAC OS X

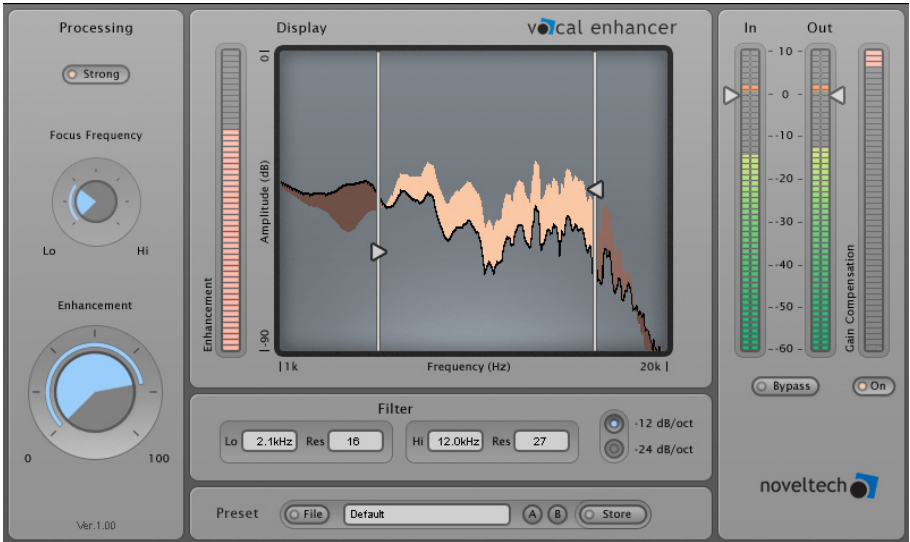
- POWERCORE PCI or FIREWIRE running system 2.0 or later
- Mac OS X (10.3 or higher)
- G4 or G5 / 800 MHz or faster
- 256 MB RAM
- Any VST or AudioUnits compatible host application.
- System must meet requirements of the host application

POWERCORE REQUIRED!

The VOCAL ENHANCER Plug-In requires POWERCORE hardware to be available in your system.

This Plug-In will NOT run without POWERCORE.

PLUG-IN VIEW



Processing Section

In the processing section, you will find the most critical parameters to set up VOCAL ENHANCER's processing. FOCUS FREQUENCY and ENHANCEMENT are best to start playing with in order to get a feel for this tools capabilities.

TIP: Please keep in mind, that the High and Low filter settings in the filter section also have an effect on the sound!

STRONG – Toggles between standard (off) and strong (on) processing modes. Standard setting should be off!

FOCUS FREQUENCY – Sets the processing focus within the high and low filter settings. As Vocal Enhancer influences multiple frequencies, it is hard to label this with exact frequencies – have a look at the display for feedback on the ranges affected.

ENHANCEMENT – This sets the amount of the processing. Let your ears be the judge on how much is too much! Unlike with conventional methods, there won't be any ear-fatigue so if it sounds good, it is good!

Display Section

ENHANCEMENT – Meter displaying the amount of overall enhancement in realtime.

DISPLAY – FFT display, showing the amount of processing over the frequency range from 1 kHz to 20 kHz in realtime.

LOW / HIGH FILTER BORDERS – These lines may be moved to narrow or widen the frequency range of the processed part of the signal. The dry signal will not be cut or affected by setting them. Moving these lines will update the filter settings below the display. The left line affects the low frequency setting and the right line the high frequency setting.

RESONANCE TRIANGLE – These triangles may be moved vertically to increase or decrease the resonance Q-value of the resonant high pass and low pass filters. Moving the triangles will update the low and high filters' resonance setting below the display.

TIP: The filter frequencies may be tracked with a constant width when clicking at the filter lines while holding SHIFT on PCs and CTRL or SHIFT on Macs. Alternatively, you can also click and hold the right mouse button instead. This is a great way to find the best processing area with a fixed filter bandwidth! This is also a great way to create sweeping filter effects in combination with automation.

Filter Section

The Filters affect only the enhanced portion of the signal; you will not cut or affect the dry part of it. An unusual feature for filters in an application like this is the RESONANCE – play with it and you will know why we added it! The filter type used are resonant high pass and low pass filters.

LO/HI – Displays the set frequency from 1.0 kHz to 20 kHz. Double-clicking will open a value input field.

RES – Displays the set resonance Q-value from 0 to 99. Double-clicking will open a value input field.

12/24 dB/Oct – Toggles the steepness of the filters between 12 and 24 dB.

Preset Section

FILE – Opens File dialogue and manager

A/B – Selects between the volatile A/B settings

STORE – Press store, then A or B to save a setting for comparison

NOTE: The Preset handling is explained on the page “Preset Handling”.

Metering Section

INPUT METERS – Indicates input levels with peak hold, the vertical triangle allows level adjustments.

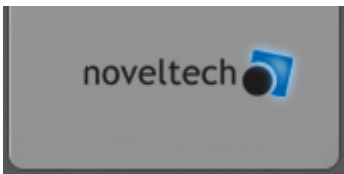
OUTPUT METERS – Indicates output levels with peak hold, the vertical triangle allows level adjustments.

REDUCTION METER – Displays amount of level reduction from top to bottom.

ON – Engages automatic gain compensation when lit. This function automatically adjusts the output level in order to keep the input and output peak levels in the same range.

No Latency Mode

By default, the NO LATENCY mode is disabled. In VOCAL ENHANCER the NO LATENCY mode can be engaged by clicking the Noveltech logo. Engaging NO LATENCY mode will eliminate DSP latency when using VOCAL ENHANCER Plug-In in the signal chain. While mixing or during playback, we advice you to disable NO LATENCY mode. Switching to NO LATENCY will increase the host CPU power.



PRESET HANDLING

The Preset Manager provides the same features as most TC Plug-Ins for PowerCore: It gives you access to a VST-independent preset handling, so you can use the same presets in different host applications easily. Presets are saved as discrete files on your hard drive. Once a preset is saved into the default location, it will automatically appear in the 'File' menu every time you use the Plug-In. The files can then be organized into subfolders, where you can delete, rearrange or create your own sub-folders to accommodate your needs. For example, you may create preset folders for projects, customers or by application, such as 'Clean Up'.

NOTE: A folder will not appear in the Preset File Menu unless it has at least one preset inside!

PRESET FILE MENU

Pressing the 'File' button will open the File menu. The following options are available from the File menu.

LOADING A PRESET

By selecting 'Load', you can navigate to any folder on the system that you have read access to, including any shared folder. By default, these will be loaded from the default location for VOCAL ENHANCER presets. Only presets located in the default file location will appear in VOCAL ENHANCER's pop-up preset menu.

SAVING A PRESET

By selecting 'Save', you can save your preset to any folder on the system that you have write access to, including any shared folder. By default, presets are saved to the default location for VOCAL ENHANCER presets.

QUICK PRESET COMPARISON

The "A / B" function allows to quickly compare two different settings. Select "Store" and then "A" or "B" to save a setting into either the "A" or "B" memory. After setting up both an "A" and a "B" setting, you can select either "A" or "B" to instantly compare the two settings.

NOTE: These settings are volatile, as these are provided for quick comparison only, so they will be LOST when you close the Plug-In! If you love your settings, we advise you to save them into a regular Preset!

DEFAULT PRESET LOCATIONS:

The following locations will describe where you can find the VOCAL ENHANCER presets, which are stored in a folder unique to each plug-in:

MAC OS X

Files are stored in your user folder:

~ \ Library \ Application Support \ Noveltech \ VocalEnhancer

~ \ Refers to your user folder: Users \ Your Name

WINDOWS

Files are stored on the Windows OS hard drive.

~ \ TCWorks \ Powercore \ Noveltech \ VocalEnhancer

("~ \" Refers to the path for your System Hard Drive \ Program Files)

- To delete a file, simply move it to the 'Trash' or 'Recycle bin'.
- To create a new subfolder that appears in the Plug-In menu, simply create a new folder in the Plug-In folder that resides in the PRESETS folder of the VOCAL ENHANCER default preset location.

NOTE: A folder will not appear in the Preset File Menu unless it has at least one preset inside!

GETTING THE BEST RESULTS – WITH VOCAL ENHANCER

The VOCAL ENHANCER's processing has been designed for unprocessed audio material.

Heavily compressed or processed material may overdrive the algorithm and result in unnatural sounding results.

This is especially true when using the STRONG mode – you should only use this mode if you have very weak, unprocessed material.

VOCAL ENHANCER is optimized for human voices, but it can also deliver great results on other material such as complete mixes. Try using it to ever so subtly adding “air” to your mix for instance!

TIP: Due to the Auto-Level feature, the VOCAL ENHANCER processing doesn't boost peak levels like the first version of the CHARACTER Plug-In, but it doesn't spare you to run a Limiter if you want a safe-guard against clipping!

