noveltech

ADAPTIVE SOUND-SHAPING SOLUTION

MANUAL

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ABOUT THE COMPANY

Noveltech Solutions Ltd was founded to commercialize novel technologies resulting from scientific research. For more information about Noveltech visit www.noveltechsolutions.com and for more information about Noveltech's audio related technologies visit www.noveltechaudio.com. If you would like to get in touch with us please email to contact@noveltechsolutions.com or write to:

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INTERNATIONAL DISTRIBUTION

Noveltech CHARACTER™ is distributed by TC Electronic. If you would like to get in touch with TC, please e-mail: **info@tcelectronic.com**. Alternatively, you may contact the TC Electronic distributor in your area, or write to:

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CHARACTER

TC SUPPORT INTERACTIVE

If you need support for the CHARACTER™ Plug-In for PowerCore visit the support section on TC pages www.tcelectronic.com to browse the online knowledge base, or contact the support staff with any questions you might have.

The TC Support Interactive website is designed as an interactive online support and information center. On the site you can find answers to specific questions regarding TC soft- and hardware. All known issues are stored in a database searchable by product, category, keywords, or phrases.

Under the section "My Stuff" you can login to check the status of your questions, download materials such as product manuals, software updates, and new presets. This site has been specifically designed to meet the needs of our users. We constantly update the database and you will find the site to be a vast and instant resource of information.

Browse through Q&A's and discover new aspects of your TC product. If you can't find an answer online, you have the option of submitting a question to our technical support staff that will then reply to you by e-mail. The TC Support Team will help you in any way they can.

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INTRODUCTION

Thank you for purchasing CHARACTER™ Plug-In for PowerCore. The Noveltech Audio development team welcomes you to a new era of audio processing.

The CHARACTER™ algorithm involves a new ideology and fundamental approach to audio processing. Conventional tools simply modify the frequency intensity or dynamic structure of the source material without analyzing its contents prior to processing. This turns audio processing with such tools into a specialist's job, requiring lots of engineering expertise to get the desired results. The CHARACTER™ technology overcomes this significant limitation and brings a truly intuitive approach and instant gratification to complex sound processing.

The latest scientific research in digital signal processing and psychoacoustics has led to the birth of this revolutionary solution. The CHARACTER™ algorithm is based on Noveltech's 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. CHARACTER™ intelligently identifies and enhances the characteristics in audio material that are pleasing to the human ear. 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. CHARACTER™ intelligently enhances the relevant characteristics found in the source, automatically adjusting complex sets of parameters rather than only statically boosting e.g. one specific frequency region. This revolutionary approach allows you to get to the desired results much faster - with almost instant gratification, requiring only three intuitive user parameters!

Keep in mind however, that CHARACTER™ doesn't perform magic or miracles - It can only emphasize existing characteristics that are present in the source material.

Enjoy!
The Noveltech Audio Team

GETTING STARTED

SYSTEM REQUIREMENTS

WINDOWS
- POWERCORE PCI or FIREWIRE running system 1.9.3 or later
- Windows XP
- PIII 1 GHz or faster
- 256 MB RAM
- Any VST compatible host application
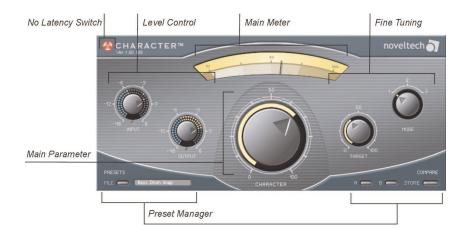- System must meet requirements of the host application

MAC OS X
- POWERCORE PCI or FIREWIRE running system 1.9.3 or later
- Mac OS X (10.2 or higher)
- G4 / 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 CHARACTER™ Plug-In requires POWERCORE hardware available in your system.
This Plug-In will NOT run without POWERCORE.

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PLUG IN VIEW

No Latency Switch   Level Control   Main Meter   Fine Tuning

Main Parameter

Preset Manager

GENERAL PLUG-IN CONTROLS

The CHARACTER™ Plug-In is designed for ease of use. Three different processing modes ensure the suitability for basically all types of audio material. The Target parameter adjusts the processing focus of the algorithm from the low to the high frequency region, and Character adjusts the amount of processing.

MODE

There are three different modes in the CHARACTER™ algorithm, which are used to select the type of characteristics to be enhanced.

Mode 1 is optimised for percussive instruments and vocals.
Mode 2 is optimised for guitars and synths.
Mode 3 is optimized for bass guitar and pads.

TIP: : While all modes can be used for any type of input source, we recommend starting with Mode 1, which works with the widest range of material.

TARGET

The Target parameter sets the relative frequency range where the processing is targeted. The target parameter affects relatively depending on the input material. The target scale from 0 to 100 does not represent absolute frequency. It represents the relative position in the full frequency range of the input signal at a current time instant. For example, the frequency range of the characterization with the same target value will be significantly different for bass guitar and for female voice. Furthermore, the frequency range of the characterization for each string of a bass guitar will be different in order to achieve a similar level and type of characterization in a perceived sense.
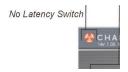

CHARACTER

The character parameter sets the amount of processing.

NO LATENCY MODE

By default, the NO LATENCY mode is disabled. In CHARACTER™ the NO LATENCY mode can be engaged by clicking the PowerCore icon. Engaging the NO LATENCY mode will eliminate DSP latency when using CHARACTER™ in the signal chain. While mixing or during playback, we advise you to disable the NO LATENCY mode. Switching to NO LATENCY will increase the host CPU power.

No Latency Switch

METERING OPTIONS

CHARACTER™ has three different meters; input level, output level, and a main meter for the amount of characterization. By clicking the input and output level meters you will have access to customize the visual feedback provided by the meters.

LEVEL FALLBACK

The Level Fallback parameter sets the level indication's display speed to fall back to the current level. '20dB/s' is the fastest setting; '3dB/s' is the slowest setting.

PEAK HOLD

The Peak Hold option adjusts the time that the maximum peak value is displayed in the meter. The hold time range, in seconds, is 5, 2, 1, or None.

PEAK FALLBACK

The Peak Fallback parameter sets the speed of the peak level indication to fall back to the current peak level (after the hold time is over). '20dB/s' is the fastest setting; '3dB/s' is the slowest setting.

CLIP HOLD

The Clip Hold option adjusts the time that the plug-in displays clipping in the Clip Indicator. The Hold Time options are "6 seconds", "Forever" and "Disabled". There is also a Reset option, which is useful when Clip Hold "Forever" is engaged.

PRESET MANAGEMENT

CHARACTER's comprehensive file based preset architecture makes archiving presets a simple process. This allows you to organize your presets the way you find most comfortable for your workflow, and for exchanging presets with other users. No matter what platform or application is used! 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 could 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 **CHARACTER** presets. Only presets located in the default file location will appear in **CHARACTER**'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 the CHARACTER presets.

QUICK PRESET COMPARISON

The "A / B" function of the CHARACTER™ plug-in allow for a quick comparison of 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 simply select either "A" or "B" to immediately compare the two settings. As these are meant for a quick comparison, these settings are LOST when closing the Plug-In! If you love your preset, we advise you to save it!

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COMPARISON KEY COMMANDS

A Pressing 'A' on the keyboard will select the temporary preset stored in location 'A'. If store is engaged, pressing 'A' on the keyboard will store current preset to location 'A'.

B Pressing 'B' on the keyboard will select the temporary preset stored in location 'B'. If store is engaged, pressing 'B' on the keyboard will store current preset to location 'B'.

S Will engage and disengage Store.

DEFAULT PRESET LOCATIONS:

The following locations will describe where you can find the **CHARACTER** 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 \ Character

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

WINDOWS
Files are stored on the Windows OS hard drive.

~ \ TCWorks \ Powercore \ Noveltech \ Character

("~ \" 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 CHARACTER default preset location.

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

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GETTING THE BEST RESULTS
- WITH CHARACTER

The CHARACTER™ is designed for unprocessed audio material. Heavily compressed material can overdrive the algorithm and result in over-characterization, which will sound unnatural. The CHARACTER™ is optimized for single instruments, but it can also create good results for mixed groups such as drums and guitars etc. The use of Mode 1 for mixed material is recommended.

Basically, CHARACTER™ can be used with all types of source material. Mode 1 is optimized for percussive signals such as kick drums, snares, or cymbals. For example, getting the high frequency snap added to your kick drum has never been easier: just select Mode 1 and twist the target knob towards the higher frequency range until you hear the desired result. Mode 2 is tuned for guitars and synths whereas Mode 3 is designed mainly for electric bass. All of the modes can be used for any type of input material, depending on what type of characterization is required. However, for complex audio material mode 3 may create slow modulation. To prevent this, use mode 3 only with relatively stationary audio material.

TIP: The use of CHARACTER increases the output peak level, which might cause clipping problems. In case of clipping decrease the input level until the clipping disappears.

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