Character
User's Guide

Character Users Guide

Metric Halo

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1. Introduction

Congratulations

Thank you for purchasing Character. You have just added the sounds of over twenty different mic pres, DIs and head-amps to your Digital Audio Workstation.

What is Character

Character is a modeling plug-in for digital audio workstations. We measured a number of our customers' favorite analog signal processors to determine what they did to the audio signal being run through them. By measuring the harmonic distortion fingerprint of each device, we have been able to recreate their unique properties in Character.

Figure 1.1: Character's User Interface

By combining circuit modeling with variable gain, Character is capable of shaping your sound with subtle or over-the-top results.

2. Operation

The Character user interface uses a few different control elements to control its processing. These elements are:

Character Model Menu

Figure 2.1: Character Model Menu

This pop-up menu selects Character's model. There are over 20 models available, which are detailed in the Processing chapter.

Tooltip control

Figure 2.2: Tooltip Control

This button toggles the tooltip display. When enabled, tooltips wil be shown when the mouse hovers over a control. When the tooltip display is disabled, you may still see tooltips by holding down the ? key and hovering over a control.

Control Knob

Figure 2.3: Control Knob

Control Knobs are used to control the Drive and Output Gain parameters. You can change the value of each knob in a number of different ways. Click and drag the knob to change the value continuously. Dragging up or to the right will increase the value, while dragging down or to the left will decrease the value. If you hold down the ⌘ (Command) key when you click, you will be able to adjust the value with finer precision. If you hold the ⌥ (Option) key when you click, the knob will reset to its default value. You may also double-click a knob to reset it.

Click on the number (readout) of the knob to pop up a text entry field that allows you to type in a number directly. The popup will remain active until you dismiss it by clicking somewhere else or hitting the `return`, `enter`, `tab`, or ⌘. (Command + .) or `ESC` keys. Hit `return` or `enter` to confirm the value and dismiss the popup. Hit the `tab` key to confirm the value and pop up an entry field for the next control. ⇧-`tab` (Shift + tab) will pop up the entry field for the previous control). Hit ⌘. (Command + .) or `ESC` (Escape) to dismiss the popup and cancel the change.

Output Meter

Figure 2.4: Output Meter

For the main output stage of Character we have provided meters driven with SpectraFoo metering technology. These meters show, in addition to the peak metering provided for the input stages, RMS level and VU level. The peak level is represented by the floating colored bar, the RMS level by the solid colored bar and the VU level by the overlaid gray bar. Both the Peak and RMS level are represented with fast PPM ballistics. The VU meter shows IEEE standard 300 ms RMS average level. When Character is on a mono insert there will be a single meter. When Character is running in stereo mode the top meter shows the left channel output level and the bottom meter shows the right channel output level. The output section clip lights activate if there is an over in the output stage or in any of the processing section input stages. It is reset by clicking on the meter; ⌥ (Option)–click to reset the clip lights on all the meters.

3. Processing

A Detailed Description

In this chapter we discuss what each parameter does and how the controls work. While Character has a fixed number of model types, there are an infinite number of combinations in conjunction with the Drive control.
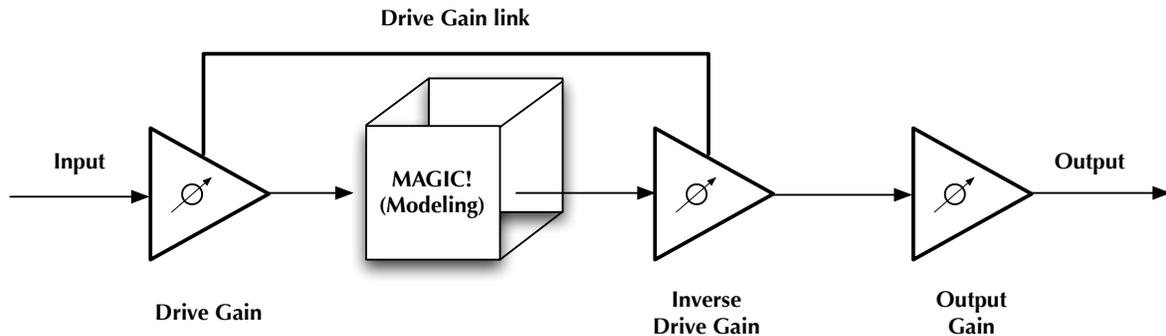
Drive Gain link

Figure 3.1: Character Block Diagram

The block diagram above illustrates the overall structure of the processing system provided by Character. This diagram does not indicate the metering blocks.

Now lets examine the various processing blocks indicated in the diagram.

Drive

The Drive control applies ±24 dB of gain to the signal before it goes to the modeling section. This allows you attenuate the signal for a subtle effect, or boost to get a more dramatic effect.

As gain is changed before the modeling stage, the inverse gain is applied after. For example, if you set the Drive control to +6 dB, the gain is boosted 6 dB before the model and cut by 6 dB after. This allows you to "push" the modeling section with no increase in output level. You may also hit the model with less signal by setting the Drive control to a negative value without loss of overall volume.

You may still experience in increase in signal level when using positive Drive gain with some models; you can use the Output Gain control to correct this.

Please note that the Drive parameter may have a greater range than you need for a given model.

Character Model

Each Model represents a digital "copy" of an analog device; some models are made from measuring a device with different combinations of settings. The most effective way to utilize Character is to listen to how each model affects your sound rather than relying on the name alone.

- None: No modeling is applied.
- Transformer: Applies the harmonic distortion signature of a transformer-coupled input.
- Valve: A tube-based EQ input stage.
- FET: Model of a solid state (transistor) front end.
- Soft Sat: Tube-based EQ with saturation.
- Boutique Tube: Hand-made tube mic pre.
- American Transformer 1: A variation of the "Transformer" model.
- American Transformer 2: Second variation of the "Transformer" model.
- California Tube Mic: American designed tube mic pre.

- California Tube Line: American designed tube line input.
- Modern Tube DI: Mastering quality tube DI.
- Modern Tube EQ: Mastering quality EQ.
- Modern Tube Soft Sat: Mastering quality EQ with saturation.
- Modern Tube LG: A tube mic pre with a low gain setting.
- Modern Tube MG: A tube mic pre with a medium gain setting.
- Modern Tube HG: A tube mic pre with a high gain setting.
- Modern Tube Sym: Mastering quality EQ
- Modern Tube Soft Sat: Mastering quality tube mic pre with saturation.
- Classic British Mic Pre: A favorite large console mic pre.
- American Solid State: FET mastering EQ.
- California Vocal Box: Transformer coupled tube vocal processor.
- California Vocal Box Drive: Transformer coupled tube vocal processor with increased gain.
- British Mic Pre Clone: A popular clone of a favorite British mic pre.

The "soft sat" variations are particularly good at providing the "analog glue" that many engineers want for their final mixes. The "sat" stands for "saturation", such as you would get with analog tape. The "soft" part of the name indicates that the level is *lower* after processing. You may want to use the Output Gain to make up the lost gain.

While most of the models can be applied to every channel, overuse of the saturation models can lead to undesired effects.

Output Gain

The Output Gain applies ±24 dB of gain to the signal after it has been through the modeling stage. This can be used to increase the final output level after using a soft saturation model or otherwise gain-stage the signal for the next processor.

Using Character In Your Projects

There are several ways to use Character:

- Inserted on a single channel: This lets you add a little "flavor" to a channel by itself or as a pre-processor for another plug-in. By automating the Drive and Output Gain controls you can use Character as a creative effect.
- Inserted on all channels: Create a virtual mixing console, or use different models for different groups of inputs; mic pres for vocals, DIs for bass, tubes for drums…
- Inserted on the master bus: Put a Soft Sat model on the master 2 bus for the analog "glue" to finish off your mix.
- All of the above!

4. Working with Hosts

Pro Tools™

Your Pro Tools software provides a standard interface for controlling various aspects of AAX plug-ins. While you should refer to your Pro Tools documentation for a complete description, we will summarize the most important points here.

Since you will want to use Character on every channel in your mix, you should ⌥ (Option) insert Character on all of your main mix channels and ensure that Character is inserted on the same insert point on every channel (e.g. ensure that Character is on insert "a" for every channel). This will allow you to take advantage of a number of time saving features provided by Pro Tools.

Plug-in Window

The illustration below shows the standard Pro Tools plug-in window.

Figure 4.1: Pro Tools Plug-in Window

If you have inserted Character as we suggested above you can click on the channel name popup in the upper left hand corner of the window (labeled "Audio 1" above) to switch from channel to channel.

The next popup in the window (labeled "c" above) allows you to switch to another insert on the same channel. You would use this to switch to another plug-in on the same channel.

The bypass button allows you to bypass the effects of Character.

The Pro Tools editor/librarian button (the small, downward pointing triangle) provides access to a pop-up menu that allow you to manage presets and libraries of settings for Character. Use this menu to save libraries or open groups of libraries. See your Pro Tools documentation for more information.

The preset library popup menu (labeled "factory default" above) shows the active preset name (in italics if the current settings do not match the library). Click this popup to select from the available presets.

The "Compare" button indicates when the controls have changed for the current preset settings. Click this button to toggle between your current settings and the preset settings.

Figure 4.2: Compare Button

Clicking the "Automation" button causes Pro Tools to display the plug-in automation configuration dialog box:
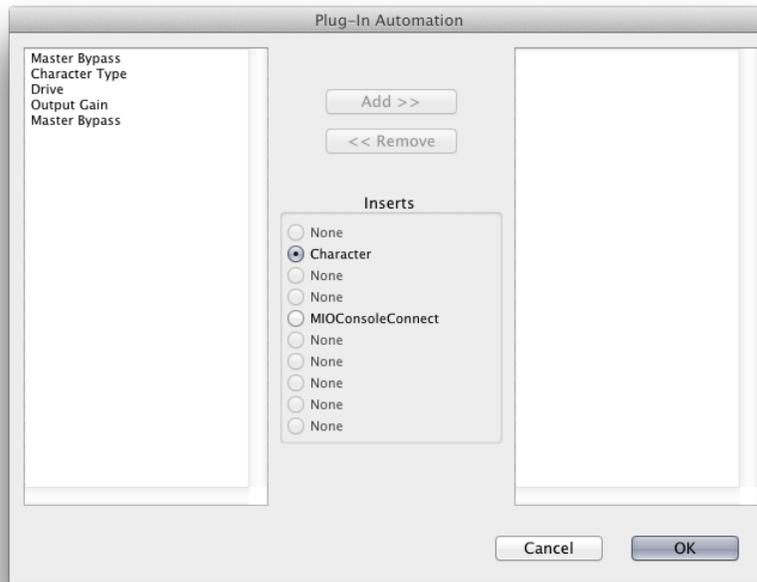
Figure 4.3: Automation Window

This dialog box allows you to enable any or all of the processing parameters for automation. When a parameter is enabled for automation you will be able to record and play-back automated parameter changes directly from your Pro Tools session. If the channel that Character is inserted on has automation enabled Character will highlight the controls associated with the automated parameters:

- Off: No color
- Read: Green
- Touch, Latch, Write: Red
- Controlled via control surface: Blue

KEY COMMANDS

Pro Tools provides two standard key commands for use with plug-in automation. ⌥⌘ (Option + Command)–click a control to pop up a menu that allows you to enable/disable automation of the associated parameter, or to bring up the automation dialog. ^⌘ (Control + Command)–click a control to cause Pro Tools to show that control's automation breakpoint graph in the Pro Tools edit window.

5. Conclusion

After working with Character, we hope you will agree that it meets or exceeds the goals that we described in the introduction of this manual. We think that you will find the flexibility, sonic quality and efficiency of Character hard to beat. While we know that there are other processors that you will use to get a specific "sound" or to accomplish processing not provided by Character we think that you'll find yourself using Character on every track.

6. Service and Support

Metric Halo takes great pride in the reputation for customer service and support that we have built. If you have any problems, questions, or suggestions please get in touch with us at:

- http://mhsecure.com/support
- support@mhsecure.com
- (727) 725-9555

Please keep us informed about your successes and projects. We love to hear from you!