iZotope Nectar Help Documentation
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Introduction
Welcome to iZotope Nectar

Nectar was created out of a desire to provide engineers, musicians, broadcasters and other audio professionals with a complete vocal mixing and sound design tool. A great deal of time and effort has gone into ensuring that Nectar delivers superior sound quality and an innovative and complete feature set.

With multiple Genres and Styles to choose from, Nectar’s Main view gives all the tools and sliders you need to perfect and enhance your vocal takes. The Advanced view also gives you under the hood access to each module, allowing you to tweak individual settings to fit any project.

We hope that you enjoy working with Nectar and that it will bring a new creative edge to all of your projects.

Thanks for using Nectar!
- the iZotope team

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1. INTRODUCTION

Quickstart

Nectar’s Styles are designed to give you a quick starting point for your own projects. Every vocalist is different so no one preset will always work well for your audio. However we have attempted to provide a wide range of Styles that will help you find a good starting point for your own material.

**Step 1: Select your Genre and Style**
Always start here. The Genre and Style Selector tells Nectar what style of vocals you’re trying to produce, sets the default values for all parameters, and defines the behavior of Nectar’s controls.

**Step 2: Tracking and Mixing**
Nectar has two modes of operation: Tracking and Mixing. Use Mixing mode when you need the full power of Nectar and Tracking mode to lower CPU usage and latency. Tracking mode switches Pitch Correction, Doubler, and Limiter into streamlined modes and disables Breath Control.

**Step 3: Adjust Settings to Taste**
The top row contains tools for polishing your vocal recording. The sections below contain controls to modify the selected style and dial in the sound you are looking for, or to experiment with creative variations.

Advanced View
If the first three steps do not produce the vocal sound you want you can use the Advanced View to reconfigure Nectar using the eleven underlying modules.

**Using Styles in Nectar**
By starting with a Style and tweaking the available controls in Nectar’s Macro window, you’ll be able to make Nectar more closely fit the session you’re working on. If you want more advanced control of any of Nectar’s modules, you can go deeper by clicking on the Advanced View button.

**Setting Your Input Level**
Setting the input level in Nectar can make a huge difference in how the modules in Nectar behave. Setting your input level is important when selecting Styles as the Styles will sound drastically different if your input level is too loud or quiet.

![Input Level](image)

In order to ensure that you have a good neutral level as a starting point, we recommend setting Nectar’s input level so that the input meter is peaking within the recommended range bracket.

**Choosing a Starting Point**
Start by listening through several of Nectar’s Styles. We’ve organized Styles into categories that will let you search easily for Styles for every purpose. Because every vocal track is different, we’ve aimed to give you a lot of starting points so that you can choose the best one for your project. When you’ve found a Style that has what your track needs, further tweak the Levels, Space and "Creative" block sliders to just to your liking.
1. INTRODUCTION

iZotope Customer Support

How to purchase the full version of Nectar
If you are using the demo version of Nectar and would like the full version, you can purchase Nectar direct from the iZotope online store.

http://www.izotope.com/products/audio/nectar/

Once your purchase is complete you will be sent an email confirmation and a full version serial number that can be used to fully authorize your current installation of Nectar.

Customer Support Policy
iZotope is happy to provide professional technical support to all registered users absolutely free of charge. We also offer valuable pre-sales technical support to customers who may be interested in purchasing an iZotope product. Before contacting iZotope support, you can search our Product Knowledgebase to see if the solution to your problem has already been published.

http://www.izotope.com/support/center

How to contact Technical Support
For additional help with Nectar, please check out the support pages on our web site at http://www.izotope.com/support or contact our customer support department at support@izotope.com.

iZotope's highly trained support team is committed to responding to all requests within one (1) business day and frequently respond faster. Please try to explain your problem with as much detail and clarity as possible. This will ensure our ability to solve your problem accurately, the first time around. Please include all system specs and the build/version of Nectar that you are using.

Once your support request is submitted, you should automatically receive a confirmation email from iZotope support. If you do not receive this email within a few minutes please check your spam folder and make sure our responses are not getting blocked. To prevent this from happening please add support@izotope.com to your list of allowed email addresses.
Main View
2. MAIN VIEW

Interface

Nectar’s Main View provides all of the intuitive controls necessary to enhance your vocal takes for any given vocal genre or style.

Basic Operation
Start by selecting a Genre and Style using the large button at the top of Nectar’s interface. From here, you can adjust your settings to taste.

Instantiate Nectar directly on to your vocal tracks or use Nectar’s Space module on an Aux track to add in extra reverb or delay on to your vocals.

Modules
Nectar’s Main View presents you with multiple modules and controls to clean up as well as bring out your incoming audio.
Note: Depending on the chosen style, the "Creative" module’s controls may be hooked up to processing that would be bypassed by the Levels or Space module power button. When this is the case, the module power button will not be displayed for the "Creative" module.

You can engage or bypass Nectar's processing using the power buttons in the upper right corner of each block in the Main View.

While holding the Alt/Option key, clicking on the orange power buttons will temporarily bypass all modules except for the one module that was clicked on. This allows you to audition the effect of one module without hearing the effect of the others.

While holding the Alt/Option key, clicking again on the module power icon will re-enable the modules that were originally bypassed.

**Tools**
Use these modules to clean up and prepare your incoming audio for your session.

**DE-ESSER**
The Ess slider will allow you to define the amount of De- Essing that will be applied to your incoming audio. Nectar's De-Esser will apply the same amount of Ess reduction regardless of the incoming audio level and as such, there is no need for threshold or level based controls.

More

**BREATH**
Allows you to set the Target level in decibels that any detected breaths will be reduced to.

More

**GATE**
You can raise the Threshold of Nectar's Gate in order to reduce the gain of any low level signals in your audio.

More
**PITCH CORRECTION**

Allows you to access Nectar’s Automatic pitch correction. Use these controls to adjust the correction speed as well as the scale and root note that your incoming vocals will be corrected to.

Click the Manual Editor button in order to capture and manually edit any particular note in your audio.

**Enhance**

Reconfigured depending on your chosen Genre and Style, use these modules to bring out and sculpt your incoming vocals to fit your session and style.

**LEVELS**

Use the Preamp and Loudness sliders to adjust the settings and timbres created at the beginning of your vocal chain.

Increase the Preamp control in order to bring up the initial gain of your vocals as well as add in extra color to fit your chosen style. Depending on the Style, this can be achieved by Saturating the signal with certain harmonic profiles, adjusting certain aspects of the EQ contour, or with style appropriate compression controls.

The Loudness slider is most often used to bring up the overall comparative loudness of your incoming vocal audio. In most styles, this is done by adjusting varied compression parameters and other dynamics controls such as Limiting in order to even out your audio’s dynamic range.

**SPACE**

Whether with added Reverb or Delay, the Space module’s controls can help to add depth and shine to your dry incoming audio. The particular flavor and timbre of the spatial processing that is added will be tailored to suit your particular chosen Genre and Style.

Use the controls to adjust how much processing will be added, the size of that processing, and how dark or bright the added space will be.

"CREATIVE"

Unique to each Genre and Style, the “Creative” module of Nectar’s Main View can represent any number of different audio processes, all designed to further enhance or bring your particular style in a new direction. Using combinations of doubling processing, EQ contours, creative delays and echoes, extra dynamics controls, or varied saturation profiles, the “Creative” controls act as a compliment to the Levels and Space modules.

**Equalizer**

Adjust any of Nectar’s EQ nodes in order to shape your sound to fit into your mix. Click and drag to alter the frequency and gain of any node, and use the node brackets or the mouse-wheel to adjust the Q of that particular node.

You can also click and drag a box in the Equalizer display in order to select and edit multiple nodes simultaneously.
Command or Right-Click on any particular node in order to change its filter type. Command or Right-Clicking on the Equalizer background itself will allow you to Reset the EQ nodes to their default values, and access extra Equalizer and Spectrum Options.

**Note:** Holding Alt/Option while clicking in the EQ's background will enable the Alt-Solo filter, letting you hear only the frequencies that are under the mouse cursor, without affecting your actual EQ settings.

[More](#)
2. MAIN VIEW

Tracking and Mixing Modes

iZotope Nectar can be used at any point in the entire vocal process. Whether you are tracking (recording) your vocals into your session or giving them a final polish, the Tracking and Mixing modes can help to configure Nectar’s algorithms under the hood in order to give you the desired performance.

In order to achieve accurate and high quality processing inside of Nectar, certain modules require a larger amount of cpu usage and imposed latency (delay) upon your tracks. In general, this imposed latency is compensated for by your host audio application, aligning your tracks and preserving the timing of your audio with respect to your session.

Mixing
The default state of Nectar, all modules will be available for use and higher quality but more cpu intensive processes will be used.

Tracking
If near zero latency processing and lighter cpu usage are required either in a recording or live scenario, engaging Tracking mode will configure Nectar to run quickly and efficiently.

In Tracking mode, the following changes will occur:

- **Pitch Correction** - Only Automatic Pitch Correction will be available and a streamlined pitch correction algorithm will be used.
- **Doubler** - A lower latency and less cpu intensive doubling algorithm will be used.
- **Limiter** - The underlying algorithm is changed to a zero-latency Brickwall
- **Breath Control** - This module is disabled as a high latency is required for its operation.
Advanced View
3. ADVANCED VIEW

Breath Control

The Breath Control module will automatically detect breaths in your vocal takes and suppress them. This can be an essential tool when trying to get a very intimate or aggressive vocal sound that requires the singer to be very close to their microphone.

Once the vocal take is saturated, compressed or limited, the singers breathing can become loud and abrasive while the vocal take itself might be just the sound you’re looking for. The Breath Control module can allow you to reduce the gain of these breaths, while keeping the sung vocals untouched.

Detection
The Breath Control module automatically analyzes the incoming vocal take and distinguishes breaths from sung vocals based on their harmonic structure. If any piece of the incoming audio matches a harmonic profile similar to a breath, the module will suppress that portion of the audio until sung vocals are detected.

Different from a 'Threshold' based process in which the module is only engaged once the audio has risen to a certain volume, Breath Control will perform its analysis regardless of level. This allows for accurate breath recognition with a multitude of quiet or loud vocal styles with minimal adjustment of the module's controls.

Modes:

Gain
When a breath is detected in Gain mode, the Breath Control module will reduce the gain of that breath, regardless of the level of that particular portion of audio. With the 'Gain' slider set to a reduction amount of -30dB, if the singer breathes in very quietly and then very loudly, both the loud and quiet breaths will be reduced in gain by -30dB.

In some cases, this is desirable when trying to handle egregious breathing or as a way of removing all breaths from a particular spoken or sung vocal take. Depending on your settings however, this can result in unnatural sounding results as the very quiet breaths may be inaudible, while the loud breaths will be reduced to a normal level.

**Target**

When in Target mode, the reduction amount of the 'Target' slider represents the desired level that you wish all detected breaths to be reduced to. This means that if a singer breathes in quietly and then loudly, both the loud and quiet breaths will be reduced only as much as is necessary to have both breaths reach the desired level.

This can result in much more natural sounding breath reduction as the detected breaths in your audio are only reduced when necessary. Loud and abrasive breaths will be reduced heavily while quiet natural sounding breaths will be left at the same volume.

*Note:* By default, the Breath Control module will be in Target mode.

**Tracking vs. Mixing**

When in Tracking mode, the Breath Control module will automatically be bypassed.

In order for the Breath Control module to have time to perform its analysis, it must incur a good deal of latency. The result of this latency is that the incoming audio is delayed in time with respect to the other tracks in your session.

Most modern day host audio applications have a feature called 'Delay Compensation' which will recognize the latency (delay) that Nectar is reporting and will adjust the tracks in your session accordingly - making sure that all of your tracks are aligned and in time with each other. This 'Delay Compensation' can only happen once the audio has been recorded into your digital audio workstation however.

When tracking (recording) your incoming audio, if Nectar is in Mixing mode and the Breath Control module is engaged, the latency of the Breath Control module will cause a delay between when the audio comes in to your computer, and when it passes through Nectar. In these instances, be sure to switch Nectar into Tracking mode.

*Note:* If your host has a limited number of samples of latency compensation, Breath Control may still cause tracks to be played back out of sync with each other. In these cases, we recommend processing your vocal takes with Breath Control as a separate offline process, and then using the other modules in Nectar to enhance your vocals in real-time.

**Sensitivity** - This controls how sensitive the breath control module is when detecting the harmonic structure of breaths in your incoming audio.

**Gain (dB)** - Sets the desired amount of gain reduction applied to all detected breaths, regardless of level.

**Target (dB)** - Sets the resulting desired level of all detected breaths
Breaths Only - When enabled, only the audio of the detected breaths will be passed to the output of the module. This can help when setting the Sensitivity control in order to make sure that only the breathing in your audio is being processed.
3. ADVANCED VIEW

Pitch

The Pitch Correction module contains both Automatic and Manual Pitch Correction that work together in Nectar to get you the best vocal results possible.

Workflow

1. Start out by turning on Nectar’s Pitch Correction module and specifying your scale and root note as best you can from the Main or Advanced View. If working in the Advanced view, you can engage the Automatic Correction checkbox as in many cases, this can get any vocal most of the way there, very quickly.

2. Also, be sure to specify your incoming vocal range. In the Advanced button drop-down, you can define the desired overall reference pitch, and whether or not you want to apply an overall pitch or formant transposition.

These parameters, along with the specified root note and scale will impact both Automatic Correction as well as how Nectar’s Manual Editing and Capturing will behave so it is important to set them as accurately as possible.

3. In the event that you wish to adjust the corrected notes of a particular section in order to fit your music or style, launch the Manual Editor, enable the Capture button to begin streaming audio in, and play in the audio you wish to edit.

4. The incoming vocal data will then be analyzed, displayed, and stored in to your captured data directory on your computer, allowing you to now manually edit any of your newly captured vocal material. When you have captured in all of the audio you wish to edit, click the Capture button again to disable capturing and begin editing your vocals.

5. Any manual edits that are made will be remembered for your particular audio position and will be applied to your incoming vocal takes whenever that audio is played back.

Note: Nectar’s Manual Pitch Editing and Capturing is based upon the exact sample position of your incoming audio. If you wish to adjust the timing of your vocal takes in your session after capturing and editing pitches manually, use Nectar as an offline process in order to print the pitch correction directly into the audio region.
Automatic Pitch Correction

Snap to Scale
When the Pitch Correction module is enabled in Nectar’s Main View, or the Snap to Scale checkbox is enabled in the Advanced View, the incoming vocals will be corrected to the scale and root note specified in the appropriate drop-down menus.

Correction Speed (ms)
You can use the Correction Speed control in order to control how quickly your incoming vocals will be snapped to any particular note. Set your Correction Speed to 0ms in order to achieve robotic immediate pitch snapping, or use values from 30-60ms in order to obtain more natural transparent results.

Root Note
Here you can define the root note or key that your vocal takes are in. Even when using Manual Pitch Capturing, it is important to set a relatively accurate Root Note as this can help the algorithm to determine the best possible pitches for your particular session.

Chromatic
A scale in which every note of every octave will be available as a pitch your vocals could be corrected to. If you are not sure of the scale that your vocal takes are in, be sure to set your scale type to Chromatic in order to get the best results.

Note: When in chromatic mode, as every pitched note is available for pitch correction, the defined root note has no effect.

Major / Minor / Custom
Here you can select to snap your incoming vocal pitches to either a Major, Minor or Custom scale of your choosing based upon your specified Root Note.
When defining a Custom scale, click one upon the notes of the keyboard you wish to enable as options for pitch correction. When the individual notes are enabled, they will turn gold or dark gold for black keys. White and black notes will be disabled and not used in pitch correction.

**Note:** To specify a Custom scale from Nectar’s Main View, launch the Manual Editor and select Custom once more from the Scale drop-down menu at the top of the Editor.

**Vocal Range**
An important parameter to set to correctly, the specified Vocal Range will control how Nectar will detect and analyze any incoming vocal data. Start with the Middle setting for most audio applications, and if you notice any undesirable behavior in the detected pitches, experiment with the Low and High options to suit your vocals.

**Advanced**
Use these controls to fine tune how Nectar’s Automatic and Captured Pitch Correction will perform.

**Reference Pitch (Hz)**
By default, all pitches will be based upon a standard A = 440Hz tuning reference. If your audio is not based on this standard reference pitch, or has been moved slightly due to analog tape recording, you can adjust your Nectar’s Reference Pitch here.

**Note:** When changing Nectar’s Reference Pitch after data has been captured, you must use the Clear All Data option to erase and recapture your audio.

**Transposition (semitones)**
Here you can define anywhere in between an Octave Up or Down transposition of all incoming audio. This pitch shift will be applied to both Automatically Corrected vocals as well as Manually Captured vocals.

**Formant Shift (semitones)**
Use this control to specify the amount of Formant transposition you wish to apply to your incoming vocal tracks. In general, this can be left at 0 as Nectar’s Pitch Correction algorithm will automatically preserve your audio’s formants during pitch shifting. You can however use this control to manually adjust your vocal formants. This shift will be applied to both Automatically Corrected vocals as well as Manually Captured vocals.

**Global Formant Scaling**
Nectar’s Pitch Correction algorithm will exactly preserve the formants of your incoming vocal takes. These formants are what give the voice its timbre and are very important in keeping your vocals sounding as natural as possible when pitch shifting.

It can however be desirable to shift the formants slightly in the direction of the desired pitch shift, as this corresponds to what humans naturally do. When singers sing a higher note, our vocal formants also shift slightly higher.

Global Formant Scaling can therefore help to allow for more natural results if necessary.

**Note:** Unlike other Advanced drop-down functions that will be written in to your audio data when capturing your vocals, the Global Formant Scaling parameter will be applied in real-time to all incoming and captured audio.
**Note Sensitivity**
Use this control to adjust Nectar's behavior when 'accepting' notes during capture. With a low note sensitivity, fewer note changes will be recorded while a high sensitivity will result in more notes being captured.

**Manual Editor**
In the event that you wish to edit certain notes or sections of your vocal take, click on the Manual Editor button (Main View) or the Undock Editor (Advanced View) in order to view your Manual Editor as a separate floating window.

*Note: Manual Pitch editing is only available when Nectar is in Mixing mode*

---

**Capture**
Clicking the Capture button will enable Nectar to be ready to receive and analyze any incoming pitched vocal data.

After engaging the Capture button, begin playback in your host audio application of the specific audio portion that you wish to edit. The incoming vocals will automatically be analyzed and the detected pitches will be displayed in real-time in the Manual Editor window. A faded waveform display will also be present behind the detected pitches in order to give a reference for the position of the audio file.

Nectar's Manual Pitch Editing and Capturing is based upon the exact sample position of your incoming audio. If you wish to adjust the timing of your vocal takes in your session after capturing and editing pitches manually, use Nectar as an offline process in your DAW in order to print the pitch correction directly into the audio region.
**Do not** set your host application to loop playback while Capturing audio into Nectar. In some circumstances, this can cause the Capture process to fail.

**Pro Tools AudioSuite:** When using Nectar as an offline AudioSuite plug-in, Nectar’s own Capture button will be hidden. Instead, make use of the AudioSuite Capture button at the bottom of the Pro Tools plug-in shell. When clicking the AudioSuite Capture button with the Pitch module engaged and in Mixing mode, Nectar will automatically detect and capture pitches for the entire audio selection.

**Captured Data Folder**
By default, Nectar will store all of its captured data in the directories listed below. In your Captured Data Folder, each labeled folder will contain audio, layout and pitch data for each individual instance of Nectar across multiple sessions.

In order to preserve any Captured pitch edits when moving any of your sessions to a new machine, the corresponding Captured Data Folders containing that data for each instance of Nectar must always move along with your session.

**Note:** Command or Right-Click on the Manual Editor piano roll background and select the "Reveal Pitch Data Folder..." in order automatically find the specific data that corresponds with that instance of Nectar.

Windows:
C:\Documents and Settings\<your username>\My Documents\iZotope Nectar\Captured Pitch Data

Mac:
<username>/Documents/iZotope Nectar/Captured Pitch Data

When moving your Captured Data Folders between machines in order to preserve any sessions

**Note:** You can change your default Captured Data folder directory in Nectar's 'Options -> EQ/Compressors/Pitch' tab.

**Selections**
Single-click on any detected note region in order to highlight that particular note for editing, or click and drag in Nectar's Manual Editor interface in order to select multiple notes at any one time.

Different from the Automatic Correction controls which are applied to all incoming audio, you can use the sliders below to define independent values for each detected note.

**Correction Speed (ms)**
This controls how quickly the selected regions will be snapped to their specified pitches. This control can be used to adjust Nectar's note transitions and can control how natural or robotic sounding you wish the Pitch Correction to sound.

**Correction Strength**
Use this parameter to define how much the incoming vocal will be corrected to the specified pitch. At %100, the incoming vocal will be snapped entirely to the desired pitch, whereas at
%50, the incoming vocal will only be corrected half of the way from the original pitch to the desired pitch.

**Formant Shift (semitones)**
This control allows you to adjust the vocal formants of your captured vocal audio. While in many cases, this can be left at 0 in order to preserve the formants as they were originally recorded, adjusting this parameter can aid in finding more natural results when performing larger pitch shifts beyond a few notes in a given direction.

**Split Tool**
Use the split tool in order to separate any existing note region into two note regions.

Single-click on the Split Tool and then move your cursors to the note region and location in you which you would like to perform your cut. Single-click again on the desired note region in order to perform the cut.

After splitting a desired note region, the Split Tool will automatically turn off and restore your cursor to its default state.

**Merge**
This will merge any of your selected notes into one note region. The pitch of the resulting region will be set to the note that has the most prominence in your original selection.

**Delete**
Deletes any selected manually edited note regions. Manual Pitch edits will only be applied to the incoming vocal audio in areas where captured manual note data has been captured. If the Automatic Correction checkbox is enabled, Nectar’s Automatic Pitch Correction will be applied to any areas without captured note data.

**Reset**
When pressed, any selected notes will be moved back to their originally detected note pitches.

*Note: Double-clicking on any note selection will also perform a pitch reset.*

**Select All**
Use this button to automatically select all notes that have been captured into Nectar’s Manual Pitch Editor. This can be very helpful when you wish to adjust the Correction Speed or Strength for all of your captured pitch data without having to zoom out to encompass your entire vocal take

**Clear All Data**
Use the Clear All Data button to completely remove any captured audio and note data for that particular instance of Nectar. After clicking OK, clearing all data cannot be undone.

**Tracking Mode**
While in Tracking mode, only Nectar’s Automatic real-time pitch correction will be available in both the Main and Advanced view. The screen below will be displayed when in working in the advanced view.
When working in the Main View in Tracking mode, the Manual Editor button will also be de-activated.
3. ADVANCED VIEW

Gate

The Gate can be thought of as performing the opposite task as the compressor. It takes program material below the threshold and reduces it by a factor determined by the ratio. Depending on the Ratio setting, this module can function as a noise gate (silencing quiet sections) or an upward expander (boosting quiet sections).

This allows you to boost or cut (expand/gate) the level of soft signals while applying compression in the Compressors module to high level signals. The combination is such that you can tighten the dynamic range by compressing "from the top" or expanding/gating "from the bottom" or a combination of both.

This can also be particularly useful when there is bleed in your vocal audio - noise in the room not coming from the vocalist. When the vocalist is singing or speaking, the signal is allowed to pass untouched. When the vocalist stops singing or speaking however, the ambient noise in the room is gated and reduced in gain.

Controls

**Threshold (dB)** - Set the point where the dynamics processing takes place.

**Ratio** - Sets the ratio for the dynamics process. Higher ratios will result in more extreme gating.

The Gate can have a ratio greater or less than 1.0. When the ratio is greater than 1, it is operating as a gate and any signals below the threshold will be decreased in volume.
With ratios less than 1 the Gate can act as an "upward compressor" by boosting the low level signals. This is an effective technique for adding fullness to a track as you can bring up the lower levels without compressing or limiting the upper levels.

**Attack (ms)** - This is the amount of time in milliseconds that Nectar will wait after the incoming signal has passed the defined threshold value, to apply the specified ratio of gain to the signal.

Shorter attack times will engage the Gate module much more quickly, while longer attack times can result in slower more subtle processing.

**Release (ms)** - The release time is the amount of time in milliseconds that it takes for Nectar to bring its gain reduction back to zero once the signal has fallen below the threshold.

Shorter release times can tend to unnaturally pump on certain audio material, where longer release times have a more subtle gradual feel to them.

*Note: Auto-smoothing, available in the Options menu, causes Nectar to intelligently make small changes in its attack and release times to reduce the amount of distortion generated by the dynamics processing.*

**RMS Detection** - When this option is enabled, instead of processing your audio based on the incoming peak level of the signal, Nectar looks at the RMS average signal level. This can allow for much gradual processing and may give more natural results depending on the incoming audio.

**Make-Up Gain (dB)** - Adjusts the output gain of the signal after being processed by the Gate module. This is useful for compensating for any change in volume caused by the processing.

**Auto Gain** - When selected, Auto Gain calculates RMS levels of both the input and output signal and applies the appropriate amount of gain to the output signal to compensate for the difference. This allows you to not worry about manually applying make-up gain as you set the module's controls.
Nectar’s Saturation module can infuse your vocals with the subtle effects of tube, tape and other analog hardware by emphasizing even and odd harmonics in varying amounts.

They can also be used in mid and even low frequencies to add a boost or presence to tracks and busses. Nectar’s Harmonic Scaling technology is designed to emulate the subtle effects of tube, tape and other analog hardware by emphasizing even and odd harmonics in varying amounts.

**Amount**: Controls the amount of the harmonic excitation.

**Mix**: Allows you to control the mix of the excited signal with the original mix.

**Highshelf Filter**
When saturating your vocals, often times the added harmonic content can make the sibilant frequencies in a vocal take harsh or biting. Click and drag on the Highshelf filter node in order to reduce the gain of these high frequencies.

The highshelf filter will only reduce the high frequencies present of the saturated (wet) signal. Different saturation algorithms such as the Tube and Warm modes, rely on a strong dry signal in order to perform their saturation. As such, the highshelf filter will have varying amounts of perceived effect upon your vocals depending on the algorithm chosen.

**Modes**

**Tape**
Tape mode emphasizes odd harmonics but with a shorter harmonic slope than transistor, and emulates the sound of analog tape when pushed to saturation.

**Tube**
Tube mode emulates the sound of tube saturation with a mix of even and odd harmonics. It is characterized by its clear "tonal" excitation.

**Warm**
The Warm excitation mode generates only even harmonics with a steep slope and, as such, may be used as a subtle warming effect.

**Analog**
The Analog mode emulates the sound of transistor type odd harmonics giving a driven grit to your audio.

**Retro**
This algorithm is based on a row of odd harmonics characteristic of transistors resulting in a sharp, somewhat aggressive sound.
3. ADVANCED VIEW

Equalizer

Nectar’s versatile EQ allows you to add warmth and character with analog-modeled filters, and precisely boost and cut frequencies with its helpful frequency spectrum overlay.

**Frequency and Gain**
The black numbered circles mark each of the five EQ nodes. You can adjust an EQ band by clicking on a node and dragging the crosshairs to change the frequency and gain of the band. You can also use the arrow keys to adjust a selected band, or the Shift key in combination with the arrow keys to adjust in larger increments.

**Q/Bandwidth**

You can adjust the Q or bandwidth of the EQ by clicking and dragging on the "handles" on the side of the band, to widen the band. If you have a wheel mouse, you can use the mouse wheel to widen/narrow a selected band.
Selecting Filter Shapes
Nectar provides the ability to set the type or shape of any of the five EQ nodes. Any node can be one of the filter types below:

- Bell
- Lowshelf
- Highshelf
- Lowpass
- Highpass
- Sharp Lowpass
- Sharp Highpass

To change the shape of a particular node, click on the "Show Info" button.

From this table, you can specify a different filter shape by clicking through the corresponding nodes’ filters. You can also use the Show Info dialog to enter values for the EQ bands directly.

Either double-click on the value to manually type in your desired setting, or click and drag on the value’s text to increase or decrease the value. You can also disable bands with this table by clicking on the square checkbox to the left of a band.

Zooming

You can zoom in on the EQ curves by clicking the ‘1x’ button to magnify 1x, 2x, 3x or 6x. This allows you to better see and position EQ nodes around the 0 dB line. The zoom deliberately does not zoom the spectrum.

The purpose of the zoom is to give you better visibility and resolution for small tweaks of the EQ around the 0 dB line. If the spectrum also zoomed in, well, the spectrum would be ineffective as a visual aid since you’d only see the spectrum around the 0 dB line, when what you probably want is a "stepped back" view of all the peaks and valleys.

Note: With Nectar, right-clicking (under OS X you can also ctrl-click) a button toggles it in reverse - so for the zoom button a right click zooms back out - 6x to 3x to 2x to 1x.

Editing Multiple Nodes

When clicking and dragging in the EQ display, a shaded selection box will appear. You can use this to select and edit multiple nodes simultaneously. Once you have your nodes selected, you can proportionally adjust them by clicking and editing any one node in the selected group.

Visuals

As you adjust a band you will see two EQ curves. The bright yellow curve is the composite of all EQ bands while the darker yellow curve shows the EQ curve of the selected band.

A spectrum is overlaid by default on the EQ module for visual feedback of the mix. You can turn off the spectrum to conserve CPU or if you just don't want to see it using the Options
screen. You can also set options such as average or real time spectrum, show peak spectrum, etc. These are available in the Spectrum Options screen.

In the background you’ll see the gain scale for the EQ down the center in a light grey color. This will change as you zoom the EQ in or out. You’ll see the scale for the spectrum in gray down the right side of the EQ display.

**Note:** The scales for the EQ and spectrum are different, by design. If they were made to match, you wouldn’t see enough of the spectrum for it to be useful. The frequency scale in grey applies to both the EQ and the spectrum.

**Alt-Solo**

If you hold down the Alt key and click on the spectrum, you have an "audio magnifying glass" that lets you hear only the frequencies that are under the mouse cursor, without affecting your actual EQ settings.

This is useful for pinpointing the location of a frequency in the mix without changing your actual EQ bands. Releasing the mouse button returns the sound to the actual EQ.

**Note:** You can set the default bandwidth of this filter in the Options screen under “Alt-Solo Filter Q”.

**Additional Tips using Nectar’s Equalizer**

- If you hold down the Shift key and drag an EQ band, the EQ band will be "locked" in the direction that you’re dragging. So if you just want to change the gain without affecting the frequency (or vice-versa) just hold the Shift Key while you drag.

- If you’ve chosen to display an averaging spectrum or a peak hold spectrum (using the Spectrum Options screen) you can reset the peak hold or the averaging by clicking on the spectrum.

- Right click on the spectrum to bring up an options dialog to control the spectrum display.
3. ADVANCED VIEW

Compressors

The Compressors module allows you to shape the dynamics of your audio by reducing the dynamic range of a recording, make it more consistent in volume, and increase its average level. When the audio input level is greater than its threshold setting, gain will be reduced by an amount controlled by the ratio parameter.

Extremely versatile, Nectar’s Compressors module can range from smooth vocal compression, extreme and aggressive pumping, and anything in between. Two independent compressors modules can also be used in parallel giving you many creative possibilities for shaping your audio.

Parallel Compressor
Instead of Nectar’s compressors running one right after the other, with Parallel Processing enabled, the incoming audio will be split into two identical audio streams, each running independently into the top and bottom Compressor. What this allows for is to have two different compressors acting upon the incoming audio at the same time.

To turn the parallel compressor ON, simply click the small “parallel” logo button in the middle left of the Compressors module. When enabled, the second parallel compressor will appear and the audio will now be routed into both compressors simultaneously.

The benefits of parallel processing are such that, one Compressor can have very severe pumping settings, in order to create the effect of heavy compression and expansion, while the other module only has very light settings. This will therefore give your audio the sound of heavy dynamics processing without sacrificing your dynamic range entirely.

With the parallel compressor turned OFF, the audio that would have previously run through the bottom parallel compressor, will now be passed as dry unprocessed audio to the output of the Compressors module. You can blend between the dry and compressed sound using the Mix control.

Filter
The parallel compressor features a post filter with low and high shelf EQ nodes. After the audio has been compressed by the parallel compressor, the audio will run through the filter, allowing you to either further shape the timbre of the sound.

Boosting the high end of the parallel compressors audio for example, will give a very pleasing bright sound when mixed in with the top compressors audio, providing a more colorful alternative to a simple high end boost in the EQ module. This technique is known as the ‘Motown’ sound as many vocal sounds of the past have been created using this parallel filtered compression setup.
**Threshold (dB)**  
Set the point where the dynamics processing takes place.

**Ratio**  
This control sets the ratio for the dynamics process. Higher ratios will result in more extreme compression or expansion/gating.

The Ratio determines how much gain reduction happens when audio levels pass the threshold. For example, with a 4:1 ratio, for every 4 decibels the input signal increases, the output will only increase 1 decibel.

**Attack (ms)**  
This is the amount of time in milliseconds that Nectar will wait after the incoming signal has passed the defined threshold value, to apply the specified ratio and compression algorithm. Shorter attack times will result in much quicker compression and a clamping down on incoming peaks in your audio, while longer attack times can result in much more subtle processing.

**Release (ms)**  
The release time is the amount of time in milliseconds that it takes for Nectar to reduce its gain reduction back to zero once the signal has fallen below the threshold. Shorter release times can tend to unnaturally pump on certain audio material, where longer release times have a gradual feel to them.  
Note: Auto-smoothing, available in the Options menu, causes Nectar to intelligently make small changes in its attack and release times to reduce the amount of distortion generated by the dynamics.

**RMS detection**  
When this option is enabled, Nectar acts as an RMS compressor/gate/expander. This means that instead of looking at the peak level of the incoming signal, Nectar looks at the average signal level.  
By default, this is Off and Nectar’s Dynamics will be triggered by incoming signal peaks. In general, peak detection is useful when you’re trying to even out sudden peaks in your music. RMS detection is useful when you’re trying to increase the overall volume level without changing the character of the sound.

**Compressor Modes**  
Nectar’s compressors contain multiple algorithms, tailored specifically for vocal processing, that give you access to a range of sounds and timbres to choose from for any style of music.

**Digital**  
This compression mode is built upon modern compression techniques and is designed to provide very clear, precise, and linear compression to give a great sounding but minimally colored sound.

**Available Parameter ranges**  
Ratio: 1:1 – 50:1  
Attack: 0.10 – 300ms  
Release: 1 – 1200ms  

**Vintage**
This mode emulates the program-dependant compression and non-linear release characteristics of classic analog compressors.

**Available Parameter ranges**
- Ratio: 1:1 – 50:1
- Attack: 0.10 – 300ms
- Release: 1 – 1200ms

**Optical**
In this mode, Nectar’s compressors will emulate the smooth compression of hardware optical compressors. With non-linear attack and release characteristics and subtle harmonic coloration, Optical mode can provide transparent but pleasingly colored compression.

*Note: Turn RMS detection ON to further emulate the sound of hardware optical compressors which were based on this design.*

**Available Parameter ranges**
- Ratio: 4:1 fixed
- Attack: 1 – 100ms
- Release: 40 – 200ms

**Solid-State**
Based on early VCA transistor based hardware compressors, the Solid-State mode can give a clear but aggressive compression sound distinguished by the very fast attack and non-linear release times characteristic of the original hardware units. With its own unique harmonic coloration, the Solid-State can be a great mode for accentuating lyrics, or the transients in any vocal performance.

*Note: Leave RMS detection OFF to allow the Solid-State mode to react in a much quicker ‘peak’ detection mode to make the pleasing vocal sound of this algorithm more present.*

**Available Parameter ranges**
- Ratio: 4:1 – 12:1
- Attack: 0.20 – 80ms
- Release: 50 – 1200ms

**Mix**
When the Parallel compressor is enabled, this control will allow you to blend how much of each compressor’s audio you would like to hear in the final output.

With the parallel compressor disabled, the mix control can also be used to blend between the top compressor module and your dry audio passing through the module.

**Gain (dB)**
Adjusts the output gain of each compressor. This is useful for making up for any decrease in volume caused by the audio processing.

**Auto Gain**
When selected, Auto Gain calculates the RMS levels of both the input and output signals of the compressor and applies the appropriate gain to the output signal to compensate for the difference. This allows you to not worry about manually applying make-up gain as you set the compressor.
Auto Gain is also a useful tool for A/B'ing the compressed signal against your original audio. If you compare your original audio to the audio being processed by Nectar’s Compressors section by hitting the module’s Bypass switch, having Auto Gain enabled will ensure you’re really hearing the effect of the compression and expansion, not just a change in volume.
3. ADVANCED VIEW

De-Esser

Nectar’s De-Esser is a powerful tool for controlling sibilance on vocal takes as well as other high frequency problems.

Traditionally, De-Essing dynamically reduces loud sibilant noises by means of a threshold and ratio. As the sibilant audio in a particular frequency band pass a certain threshold, they are attenuated. This can work well with other instruments that are less dynamic in nature such as guitars.

Vocals however, tend to be very dynamic and contain certain sections that are quieter in level than others. This can pose a problem with a threshold based De-Esser as settings that might work great for one section of audio, may be too drastic for another section.

Controlling Sibilance
Nectar’s De-Esser performs its processing independent of the incoming audio level. Whether your vocals are loud or soft, the amount of De-Essing taking place will be the same.

This is performed by analyzing the current level of your vocal take, and how loud it is in proportion to the audio above the specified frequency parameter. If a large difference is detected due to a sibilance, the amount of Ess gain reduction will be applied.

Ess
Controls the amount of gain reduction that is applied to the incoming vocal take when a sibilance is detected. This gain reduction is applied quickly and transparently to the entire incoming vocal take, instead of simply reducing the gain of a particular set of frequencies.
This allows for much more natural sibilant reduction and prevents strong processing from creating the effect of the singer having a lisp.

**Frequency**
The frequency control is used to set how the De-Esser is going to detect any incoming sibilant material. This control serves as a cutoff point in which everything above the specified frequency will be used to detect sibilance, in proportion to the level of the entire audio take.

In general, this control can be left at its default value of 2500 Hz and should not need to be adjusted much in order to achieve excellent results on a wide variety of material.
3. ADVANCED VIEW

Doubler

Doubling, tripling or quadrupling of a vocalist can be an effective tool to fatten up your vocal take, add a little space to the track with a chorusing effect, or simply create interesting vocal effects.

Nectar's Doubler allows for intuitive graphical control over a maximum of 4 doubled copies of your vocal take.

**Note:** Click and drag in the Doubler's graphs to select and edit multiple voices together.

**Gain/Pan**
Use this graph to adjust the individual gain and panning of each doubled voice. The sliders on the left and bottom of the graph serve as scalars to add more or less to each voices current position.

**Note:** The unmarked orange dot is a representation of the dry incoming vocal signal. Only the gain of the incoming dry signal can be adjusted.

**Pitch/Delay**
This graph gives you control over the individual pitch and delay of each voice with respect to the original vocal take.

The pitch and delay of the original dry signal (unmarked dot) cannot be edited.

**Octave**
The Doubler allows each voice to be scaled up or down an octave, as well as remaining in the same register as the original take.

Use the individual drop down menus to select either Up, Down, or None for each voice of Nectar’s Doubler.

If an octave shift is selected for a particular voice, the pitch value represented in the pitch/delay graph will still be applied to the octave up voice, making it either a perfect in tune octave, or a sharp or flat double of the original vocals.

**Variation**
As opposed to having simply static copies of the original vocal take, the Variation control automatically adds in natural variation in pitch to each voice independently.

The variation itself is represented in the Pitch/Delay graph by the small vertical lines on either side of each dotted voice.

**Equalizer**
In order to shape and color the doubled voices, use the low and high shelf EQ nodes in upper right to boost or cut certain frequencies.

*Note: The Equalizer will only process the doubled voices and not the original dry vocal take.*

**Polyphonic**
Engaging this option will allow Nectar’s Doubler to process incoming polyphonic material (multiple voices of different pitch).

The Doubler’s internal pitch shifting algorithms are designed to work with single voice monophonic audio material and as such, engaging Polyphonic mode will disable any pitch shifting or octave doubles.
3. ADVANCED VIEW

Limiter

Nectar’s Limiter serves two purposes: it allows you to aggressively limit high level signals to prevent clipping, and it allows you to create an overall louder or fuller sound by limiting the dynamic range and boosting the perceived overall level of your vocals.

**Threshold (dB)**
Determines the level at which the limiter will begin limiting. Turning down the threshold limits more of the signal and in turn will create an overall louder output.

In other words, by turning down the Threshold you limit the dynamic range of the audio. The limiter also automatically applies gain as you bring down the Threshold, boosting the overall level of your audio.

**Margin (dB)**
Determines how much to boost the output signal after limiting. If the Margin is set to 0 dB, the signal will be boosted all the way up to 0 dB. If the Margin is set to -0.3 dB, makeup gain will be applied until the output signal is at -0.3 dB. Note that in the Soft mode, the level may be allowed to cross the Margin setting, while in Brickwall mode the Margin serves as an absolute "stop" point.

**Tracking vs. Mixing mode**
In Mixing mode, Nectar’s Limiter module will make use of an Intelligent Release Control algorithm in order to provide the most transparent results for your vocals. This process requires a small amount of latency (delay) however and as such is only available in Mixing mode.
With Nectar in Tracking mode, the Limiter module’s algorithm will switch to a Brickwall limiting algorithm in order to provide zero latency operation
3. ADVANCED VIEW

Reverb

Nectar's multi mode Reverb module allows for detailed Hall and Plate reverb sounds designed specifically to enhance your vocal takes.

Modes

**Modern Plate**
A standard plate reverb setting useful in bringing out the space in your vocals while preserving their clarity and enhancing the overall mix.

**Vintage Plate**
Similar to the Modern Plate setting. Vintage Plate is less full and slightly less clear giving an older plate reverb sound.

**Echo Plate**
A plate reverb algorithm with a stronger echo'ing repeated quality to it, useful for taking advantage of smaller echoes versus washing your vocals in reverb. This can help to keep your mix cleaner and less muddy from excessive reverb build-up.

**Damaged Plate**
A minimal plate reverb setting, this algorithm provides a unique characteristic that would be akin to a very poorly constructed plate reverb unit. Sparse and colorful, this setting can help to give vocals a lo-fi unique reverb quality.

**Rounded Hall**
A standard hall setting that can be useful for a range of applications in which a hall reverb sound is necessary.

**Thin Hall**
Similar to the Rounded Hall setting however it is less dense and has a slower pickup time than the Rounded Hall algorithm.

**Cathedral**
Provides a very lush cavernous reverb setting useful for classical vocal scenarios or those in which a very large simulated space is necessary.

**Predelay** (ms)
This determines the amount of time that the dry signal will be delayed before being sent to the reverb, and thus delaying the processed vocals from entering.

This can help to keep the wet processed vocals from sounding directly on top of the dry vocals, the result of which is slightly increased clarity in the overall vocal track and a greater sense of space.

Predelay is also useful for simulating larger spaces in which it takes a longer amount of time for the sound to travel and reflect off of the simulated reverb chamber. To create a larger sense of space for the Hall reverb modes, increase the Predelay control until the reverb decay sits well in the mix.

**Damping**
As reverbs decay in a space, often times the higher frequencies will lose energy and fade off before lower and more powerful frequencies do. Damping controls how much of this loss of high frequencies over time will occur in the selected reverb mode.

While Damping can help to make a reverb sound more realistic and natural, when set to a higher value, there will be a noticeable perceived drop in the overall decay time of your reverb. As the frequencies are rolled off and attenuated, only very low frequency reverb decays are left which are less perceivable to our ears.

**Color**
Changing the color control will alter the frequency balance of your reverb as it is being processing and generated as opposed to after the reverb has already been created. At times subtle, these changes in color can alter the timbre of your reverb from dark to bright and everywhere in between.

**Low and High Cutoff**
These parameters control the amount of low and high frequency material that is sent to the reverb.

Lowering the High Cutoff control will filter out a large portion of the high frequencies of the dry input signal that is sent to the reverb resulting in an overall darker reverb. The same is inversely true for the Low Cutoff control.

**Decay Time** (s)
This controls the overall amount of reverb decay that will be used. Larger decay times result in much longer, larger reverb tails, while sorter reverb times create very quickly decaying and tight room ambiance.
**Note**: The overall Decay Time of the reverb module can be lowered by the effects of the Damping slider

**Dry/Wet Mix**
Controls how much of the wet processed vocal is sent to the Reverb modules output.
3. ADVANCED VIEW

Delay

<table>
<thead>
<tr>
<th>Mix</th>
<th>Trash</th>
<th>Delay</th>
<th>Feedback</th>
<th>Low Cutoff</th>
<th>High Cutoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.9 %</td>
<td>100.0 %</td>
<td>250.0 ms</td>
<td>28.5 %</td>
<td>775.1 Hz</td>
<td>15868.9 Hz</td>
</tr>
</tbody>
</table>

- **Modulation**: Modulation Depth, Modulation Rate
- **Sync To Host**:
- **Mode**: Digital, Tape, Analog

Nectar's Delay module can help to create transparent or colorful delayed copies of your original vocal track.

A helpful alternative to reverb, the Delay module can give your vocals a sense of space without losing any vocal clarity or adding unwanted clutter to your overall mix.

**Mode**

**Digital**
Transparent and classic, the Digital delay mode provides exact copies of the incoming vocal signal with minimally colored repetitions

**Tape**
A unique and colorful sound, the Tape delay mode will filter and distort each progressive repeat in the way a signal would be degraded over time on magnetic tape. This can help to add extra color to your delayed vocals while preserving the clarity of the repeats.

**Analog**
Based off of circuit distortion, the Analog delay mode can give a large amount of grit and distortion to your signal. This grit can help to give your processed audio the extra edge that it needs.

**Trash**
This controls the amount of processing effect the specified Delay Mode will have upon the processed signal.
**Note:** This control is disabled when in Digital mode.

**Delay (ms) / Tempo Sync (note values)**
Determines the amount of time that will pass before each successive repeat of your incoming dry vocal.

With the Tempo Sync checkbox enabled, these values can be specified in subdivisions or multiples of one musical beat determined by your host’s time signature and beats per minute.

**Feedback**
The feedback percentage will control how much the signal is repeated before it is faded out. For longer delays, increase this control whereas shorter feedback times result in very short one repeat slap back echoes.

**Note:** When increasing this control to %100, special delay effects can be created which while interesting, can also grow to be very loud. Be mindful of the levels of your audio when adjusting this control into higher percentages.

**Low and High Cutoff**
These sliders control how much low or high frequency content from the original audio will be sent to the Delay, effectively controlling the timbre of your individual delays.

While the Delay modes can color your vocal repeats over time, Low and High Cutoff controls will adjust the balance of all of your processed repeats.

**Modulation Depth and Rate**
In order to create more realistic delayed effects, the delay time will be varied in real-time within a certain limit. After enabling the Modulation check box, the Depth and Rate controls will determine how much of this effect is applied, and how fast the delay times will be varied.

With subtle settings, a very gentle movement of the signals delay time can create a natural cohesive delay and with more extreme settings, creative delay effects can be achieved to fit the creative goals of your session.
General Functions
5. GENERAL FUNCTIONS

Input and Output Gain

The panel on the right side of the interface is the main input/output section for Nectar. This is used for setting and monitoring gain levels going in and out of the Nectar plug-in.

![Input and Output Gain Panel]

Setting Input and Output Gain
You can adjust the input or output gain by sliding the black faders with your mouse, either by clicking and dragging or clicking and using the wheel of a wheel mouse. You can also use keyboard shortcuts to adjust the level in small increments.

**Note:** Hold the CTRL/Command key for finer resolution while adjusting the input/output gain sliders.

Adjusting Left and Right Channels Independently
By default, the left and right gains are linked (moving one moves the other). You can adjust the left and right gain sliders independently by clicking on the 'link' icon. You can offset the two channels and then 'relink' them, so that later adjustments move both channels by the same amount.

Faders will remember their offset even if they are temporarily turned up or down all the way, so that when you bring the faders back to the middle the offset will be preserved.

Double-click to Reset Faders
If the left and right faders are linked, double clicking on either fader will reset both of them to 0 dB. If the left and right faders are unlinked and set at different levels, double clicking a specific fader will reset it to 0 dB.
If the left and right faders are locked but had been previously been set to different levels, double clicking on a fader will reset it to match the level of the other fader. Another double click will reset both faders to 0 dB.

**Setting the Scale of the Meters**
You can further customize your metering by adjusting the scale of the input and output meters.

Clicking the (+) sign below the meters will increase the zoom or resolution of the metering scale, and clicking the (-) sign will decrease or zoom out the resolution of the metering scale.
5. GENERAL FUNCTIONS

Standard Module Controls

At the bottom of each of the modules is a navigation bar that includes a set of buttons and controls. The function of these controls is the same regardless of which module you are using.

Options
Opens the Options screen which lets you customize the behavior of meters and other properties.

History
Clicking on the History button brings up a window which shows a history of the operations that have been performed. You can undo a single operation or sequence of operations and assign setups to shortcuts for A/B/C/D listening comparisons.

Solo
Checking the Solo button turns off (bypasses) all the modules except the one currently displayed. This allows you to audition the effect of one module without hearing the effect of the others.

If you change screens by selecting a different module, the solo will be automatically turned off so that you can work immediately on the new screen and hear the effect (without worrying that a screen that isn't displayed is being solo'd).

Alt - Solo
While holding the Alt/Option key, clicking on the orange module power icons will temporarily bypass all modules except for the one that was clicked on.

While holding the Alt/Option key, clicking again on the module power icon will re-enable the modules that were originally bypassed.

Bypass
Checking the Bypass button on the touch-screen turns off the processing within the currently displayed module. This allows you to compare the sound with or without the currently displayed module.

Unlike the Solo button, if you change screens by selecting a different module the bypass will still apply, allowing you to bypass more than one module.

Reset
Resets the control to its default value. For most modules, this means setting the values of controls in the displayed module to zero or some "neutral" state.

Note: For the Equalizer module only, double-clicking the Reset button will reset the filter types of each node along with the gain, frequency and Q values.
'(?)': Opens the Help file to the specific page or topic that relates to the module shown.

**Slider Compare Feature**
You can Shift+Click on any slider in Nectar to quickly A/B the changes that have been made to that slider. This works for all sliders in the Main and Advanced View.
5. GENERAL FUNCTIONS

Undo and History Comparisons

The History window is a unique and powerful feature for comparing settings in Nectar. To access the History list, click on the History button.

As you tweak controls, each movement is captured and displayed in the History list. To go back and hear a previous setting, simply click on the list at the point you want to audition. The changes that you’ve undone will show up in a lighter color.

Clear
You can also press the Clear button to clear the history list at any time.

Close
If you close the History window, processing resumes from the point you had last selected, so you can continue building on the History list from a earlier point.

A,B,C,D
You can assign up to four points in the History list to A, B, C and D buttons.

To do this, select the point in the list you want to capture, and click on the 'Set' button below the A, B, C or D button. Clicking on the appropriate button will then recall the setting assigned to that button.

History
The history list has a depth setting which controls how many edits it remembers. You can change this setting in the General Options tab.

When you exit Nectar, the History list and any settings assigned to the A, B, C or D buttons will be saved to the file iZNectar3.hst in the directory where you installed Nectar.

The next time you start Nectar, the list will be remembered so you can pick up right where you left off.
Presets
6. PRESETS

Working with Presets

Different from the defined Genres and Styles at the top of Nectar's interface, Presets serve as snapshots to save all current settings, slider values as well as the selected Genre and Style in your current instance of Nectar.

Click on the Presets button in the bottom right of Nectar's interface to launch the preset selector.

**Note:** You can also use the directional arrows on your keyboard to scroll through and audition multiple presets.

**Adding and Removing**
Use the corresponding Add and Rename buttons in order to save all of Nectar's settings into a preset file of your desired name.

If you would like to update the settings of an existing preset to Nectar's current state, simply click Add and re-save the preset to your directory using the same name. You can then click Yes when prompted if you would like to overwrite the original preset.

Use the Delete button to remove the currently highlighted preset.
6. PRESETS

Transferring Presets

Similar to Nectar's Styles, Presets are stored as '.XML' files inside of your default or chosen Preset directory. These '.XML' files will be named and categorized as they appear inside of your Nectar Preset window.

Backing up these presets is as simple as copying files. Just browse to the location of your presets, select the directory or individual '.XML' files you would like to backup, and copy them onto your backup drive or location.

To restore any presets that have already been backed up, simply copy the desired presets back into your Nectar Preset directory, and on the next instantiation, Nectar will recognize their presence and display them in the internal Preset window.

Default Preset Directories

Windows Users
C:\Documents and Settings\<your username>\My Documents\iZotope Nectar\Presets

Mac Users
<username>/Documents/iZotope Nectar/Presets
The spectrum provides a real time display of the frequencies of the mix. Nectar can show both peak hold and real-time spectra, so users can see both a peak and running spectrum simultaneously in the display.

By default, only a real-time averaging spectrum will be shown in the Equalizer.

Options
You can set options for the spectrum by accessing the Spectrum Options tab or right-clicking (under OS X you can also ctrl-click) the spectrum and selecting "Spectrum Options" from the context menu.
7. METERS

Breath Control

In order to provide an accurate visual component, Nectar’s Breath Control module will display a real-time running waveform of the incoming audio signal. The horizontal orange line at the top of the display represents the amount of gain reduction being applied for any particular portion of the audio.

When a breath is detected and gain reduction is applied, the gain reduction orange line will drop to show the portion of audio that was recognized as a breath.

This can be a helpful aid in setting the Sensitivity control giving visual feedback as to what the Breath Control module is recognizing as a breath.
7. METERS

Pitch

Correction Meter
When working with Nectar’s Pitch Correction module in the Main View, a Correction meter will be displayed, providing visual feedback as to how much and how quickly each incoming note is being corrected to the desired pitch.

![Correction Meter](image)

The meter will display each incoming note anywhere between -2 and +2 semitones from the middle line at "0" which represents the perfect desired pitch.

Manual Editor
Captured vocal data will be displayed on the Pitch Correction modules piano roll manual editor. An orange note region will be created for each individually detected pitch and can be selected and edited by single-clicking with the mouse.

Clicking and dragging in the piano roll editor will allow you to select and edit multiple note regions simultaneously.
The Corrected Pitch Contour will be displayed as an orange line running on top of your detected note regions, and the Original Pitch Contour will be displayed in black.

**Note**: Command or Right-Click on the Piano Roll Editor in order to show or hide either of these contours.
Saturation

Nectar’s Saturation display provides accurate visual feedback of the extent certain frequencies are being saturated.

No saturation is represented by the faded grey color of the overall spectrum. As more saturation is added, this grey will become a more prominent gold color showing clearly where your audio is being affected by the processing and chosen saturation mode.
7. METERS

Gate/Compressors

**Curve Level Meter**
The curve level meter is a traditional dynamics curve. The X (horizontal) axis is the signal going into the dynamics module, and the Y (vertical) axis is the signal coming out. Flatter compression curves means the signal is being flattened (compressed) more.

The individual break points in the curve level meter can be used as a means of visually editing the Threshold and Ratio controls of the corresponding processing.

**Zooming**
You can zoom in on the curve level meter by holding down the Ctrl/Command key and clicking on the meter.

Left clicking will zoom the meter in, while right clicking zooms the meter back out.

**Peak Reduction meters**
Present in the Breath Control, Gate, Compressors, and Limiter modules, these meters are very informative for displaying not only the overall peak level, but the resulting peak level after processing and the amount of gain reduction applied.

1. – The peak level before processing
2. – The resulting output peak level after processing
3. – The amount in decibels of gain reduction applied to the signal
7. METERS

DeEsser

The DeEsser's specialized curve level meter will provide accurate visualization of Nectar's DeEsser processing.

The Y (vertical) axis of the graph represents the amount of gain reduction in dB being applied to your vocals. The X (horizontal) axis shows the difference in level between the high frequency audio content as defined by the Frequency control, and the overall level of the incoming audio.

Dropping the Ess control simultaneously increases the maximum amount of gain reduction and lowers the threshold for when this processing will take place.

To the right of the DeEsser's level graph, a gain reduction meter of the same scale allows you to proportionally view the current amount of gain reduction being applied. The gain reduction amount will be shown in dB at the bottom of the meter.

The break points of the DeEsser level graph can be visually edited to control the Ess reduction amount.
7. METERS

**Limiter**

A level histogram is provided in the Limiter module to provide a view of the audio level as a function of time. As Nectar processes audio, it calculates the level and displays it on the level histogram. Unlike a standard level meter, the level histogram provides a view of the history of the level over time.

The height of the histogram represents the high and low levels of the audio, while the width of the bar indicates the most frequent levels. For additional visual feedback, the histogram is displayed in red for regions that are being limited by the Limiter.

You can adjust the range of the level histogram by holding the CTRL/Command key and clicking on the meter. Click the left mouse button to zoom in and use the right mouse button to zoom out.

*Note*: Using an Apple mouse and computer, you can hold Control + Command and single click to zoom out.

Nectar also provides a peak gain reduction meter which provides a visual and numeric decibel readout of the amount of limiting or gain reduction that is being applied.
7. METERS

Reverb

Nectar’s Reverb module provides an impulse decay graph of amplitude (vertical axis) over time (horizontal axis) in order to visualize the current reverb settings.

The graph will update each time a parameter is changed or a new reverb mode is selected.

**Color and Damping**
At its default state, the Reverb decay graph will be represented in a medium orange color. As the Color control is increased or decreased, the graph's color will update to represent a brighter or darker sound.

The Damping parameter controls the amount of high frequencies that are rolled off as the reverb decays, and as this control is increased or decreased, the color of the decay graph will update to reflect the gradient of the reverb's timbre over time.

**RT60**
RT60 is a way of visualizing how long it will take for the decay of your reverb to fall below -60dB. This is represented by the vertical dotted line in the Reverb decay graph and is useful when looking to determine the actual perceived decay time of your current reverb settings.
7. METERS

Input and Output

Nectar level meters display the input and output level for the left and right channels as your audio enters and exits Nectar.

You can set options for the Input/Output meters by opening the 'Options' dialogue and selecting the 'Meters' Options tab. The available options for calibrating Nectar’s I/O meters are listed below.

RMS
RMS (Root Mean Square) is a software-based implementation of an analog style level meter. Using different integration times, you can model popular VU or PPM meters. The RMS meter displays the average level calculated over a short window of time. The result is a meter that is appropriate if you are interested in tracking the overall loudness. The RMS meter readout will typically be lower than an equivalent PPM meter (Digital/Analog), since it is averaging peaks into the overall loudness.

Peak
The Peak meter is a fast meter that measures instantaneous maximum sample value OR peak analog waveform values, depending on the "detect inter-sample peaks" checkbox. If you are tracking the peaks for possible clipping the Peak meter is appropriate.

RMS + Peak
This is a combined RMS and Peak meter. This meter displays a lower bar representing the average level (RMS) and a higher bar representing peak level. There is also a moving line above the bar representing the most recent peak level or peak hold.

Setting the Scale of the Meters
By default, the range of the meters is from 0 dB to -96 dB. You can further customize your metering by adjusting the scale of the input and output meters. Clicking the (+) sign below
the meters will increase the zoom or resolution of the metering scale, and clicking the (-) sign will decrease or zoom out the resolution of the metering scale.

You can also adjust the scale by pressing down the Ctrl key under Windows or the Command key under OS X and clicking with the left mouse button to expand the range or right to decrease the range. Once you've zoomed in, you can change the viewing range by clicking on the range and dragging it up or down.

**Peak Hold**
By default, the meters will temporarily hold the peak values of your incoming audio.

Peak holding as well as the amount of time that peaks are held can both be edited inside of the Options -> Meters window.

**Clipping**

Above the meter is a red LED that serves as a clipping indicator. If the level exceeds 0 dB at any point, this LED will light up and remain lit until you double click anywhere on the LED itself.
8. OPTIONS

General

The General tab lets you configure general Nectar properties to improve Performance, Automation, Graphics, and Buffering. These properties are displayed in the table below.

<table>
<thead>
<tr>
<th>Graphics</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable meters</td>
<td>Although each meter has its own options, this option allows you to quickly turn on/off all meters.</td>
</tr>
<tr>
<td>Show tooltips</td>
<td>When enabled this allows informational notes to appear when the cursor/pointer is hovering on top of the features' controls</td>
</tr>
<tr>
<td>Enable animation</td>
<td>Allows you turn on/off the animated appearance of dialog boxes.</td>
</tr>
<tr>
<td>Enable animated focus</td>
<td>Allows you to turn on/off the animated white brackets which indicate the control where keyboard commands are sent.</td>
</tr>
<tr>
<td>Show background grid</td>
<td>Toggles the visibility of the grid in the background of Nectar's display and also will hide the glare layer on top of Nectar's interface.</td>
</tr>
<tr>
<td>Frame rate limiter</td>
<td>Allows you to set the speed (frames per second) that Nectar should use to display and update meters. In most cases the default will provide smooth displays while still allowing adequate processing time for audio. If your PC hardware allows it, you can increase the frame rate for smoother animation. On the other hand, if you are running Nectar on slower...</td>
</tr>
<tr>
<td>Workflow</td>
<td>hardware or notice graphics performance problems in your host application, you can set the FPS value lower to limit the amount of CPU Nectar uses for drawing.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Opacity</strong></td>
<td>Allows you to control the opacity or transparency of the Nectar UI. This is helpful when working with automation, for example, to be able to have the Nectar UI in front but be able to &quot;see through it&quot; to the automation curves on the track view of the host app. Setting partial transparency does require additional CPU, but there is no CPU penalty when opacity is at 100% (i.e. the feature is not being used). If you find this feature useful, be sure to note the keyboard shortcuts for it. The slider will be disabled in host applications that do not support this feature.</td>
</tr>
<tr>
<td><strong>Brightness</strong></td>
<td>This allows you to adjust the brightness of the Nectar interface. The Nectar interface brightness will vary depending on how your monitor is configured. This can help you compensate and make it easier to see and read the interface controls.</td>
</tr>
<tr>
<td><strong>Dim controls when bypassed</strong></td>
<td>When this option is enabled, each module's controls will be dimmed when the module is bypassed. This feature helps to remind you when a module is bypassed, so that you don't make adjustments to a bypassed module unintentionally.</td>
</tr>
<tr>
<td><strong>Solo/bypass indicators</strong></td>
<td>Allows you to set the behavior of the Solo/bypass indicators. Options are Blinking red, Solid red, or None.</td>
</tr>
<tr>
<td><strong>Delay compensation</strong></td>
<td>Using some of Nectar's more CPU intensive settings and algorithms may result in a delay of the signal. That is, Nectar needs some time to &quot;work on&quot; the audio before it can send it back to the host application. That time represents a delay when listening or mixing down. Fortunately, many applications provide &quot;delay compensation&quot; which is a means for Nectar to tell the application it has delayed the signal, and the host application should automatically &quot;undo&quot; the delay on the track. If your host application supports delay compensation, enable this option. If your application doesn't support Nectar's delay compensation feature, or skips/stutters with this option turned on, you can manually correct the delay offset in the host application (i.e. manually edit out the short delay of silence). You can also switch Nectar into Tracking mode in order to reduce any plug-in latency. To help you perform manual correction, the delay that Nectar will introduce is shown below &quot;Total System Delay&quot; in both samples and milliseconds. See Delay Compensation documentation for more info.</td>
</tr>
<tr>
<td><strong>View Buffers</strong></td>
<td>This launches the View Buffers dialog, which lets you inspect the buffer sizes which your host application is using. See Buffer Sizes documentation for more info.</td>
</tr>
<tr>
<td><strong>Host Sync</strong></td>
<td>This launches the Host Sync Viewer window which displays information about your current session/host application including Tempo, Transport State, Time signature, etc.</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
</tr>
<tr>
<td><strong>History depth</strong></td>
<td>Lets you set how many levels or steps are remembered in the History dialog.</td>
</tr>
<tr>
<td><strong>Keyboard Support</strong></td>
<td>Keyboard support must be set to full for all Keyboard shortcuts to be available. Available options include Full (full keyboard support), Minimal (only TAB, arrow keys, and ENTER), or None (Keyboard shortcuts turned off).</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Smooth Global Bypass Transitions</strong></td>
<td>This feature enables a gentle crossfade for smoother transitions when toggling Nectar's Global Bypass control.</td>
</tr>
<tr>
<td><strong>Default to Advanced View</strong></td>
<td>This feature will cause Nectar to launch automatically into the Advanced View on every new instantiation of the plug-in.</td>
</tr>
<tr>
<td><strong>Check for Updates</strong></td>
<td>Define how often Nectar will automatically check for software updates from <a href="http://www.izotope.com">www.izotope.com</a>. Click the Check Now button to perform a software update check immediately.</td>
</tr>
</tbody>
</table>
**8. OPTIONS**

**Spectrum**

The Spectrum tab lets you control Nectar’s spectrum meters. These controls are listed in the table below.

<table>
<thead>
<tr>
<th>Spectrum Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable EQ spectrum</strong></td>
<td>Turns on or off the spectrum meter in the Equalizer module.</td>
</tr>
<tr>
<td><strong>Spectrum type</strong></td>
<td>Lets you select between three types of spectrums:</td>
</tr>
<tr>
<td></td>
<td><strong>Linear</strong>: a continuous line connecting the calculated points of the spectrum</td>
</tr>
<tr>
<td></td>
<td><strong>1/3 octave</strong>: splits the spectrum into bars with a width of 1/3 of an octave. Although the spectrum is split into discrete bands, this option can provide excellent resolution at lower frequencies.</td>
</tr>
<tr>
<td></td>
<td><strong>Critical bands</strong>: splits the spectrum into bands that correspond to how we hear, or more specifically how we differentiate between sounds of different frequencies. Each band represents sounds that are considered “similar” in frequency.</td>
</tr>
<tr>
<td><strong>Show peak hold</strong></td>
<td>Toggles whether Nectar displays and holds the peaks of the spectrum.</td>
</tr>
<tr>
<td><strong>Peak hold time</strong></td>
<td>You can click on the Peak Hold time to select between specific hold times in milliseconds, or Infinite, where the peak is held indefinitely. You can reset the peaks by clicking on the spectrum.</td>
</tr>
<tr>
<td>Feature</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Show Hz/dB readout</td>
<td>Allows you to display a continuous readout of the mouse position (in Hertz and decibels) when in the Equalizer module.</td>
</tr>
<tr>
<td>Show musical units</td>
<td>Allows you to display frequency labels as notes (for example, A ) in addition to Hz.</td>
</tr>
<tr>
<td>Average time</td>
<td>Averages the spectrum according to this setting. Higher average times can be useful for viewing the overall tonal balance of a mix, while shorter average times provide a more &quot;real time&quot; display.</td>
</tr>
<tr>
<td>Window size</td>
<td>Controls the trade off between frequency and time resolution in the spectrum. Higher values will let you see smaller peaks in the spectrum, but the spectrum will update more slowly.</td>
</tr>
<tr>
<td>Overlap</td>
<td>Controls how often the spectrum updates. More overlap will cause the spectrum to update more frequently, at the expense of increased CPU usage.</td>
</tr>
<tr>
<td>Window</td>
<td>Selects a window type for the spectrum. In most cases the default window type will work well, but you can choose from a variety of window types. Each window type has different amplitude and frequency resolution characteristics.</td>
</tr>
</tbody>
</table>
8. OPTIONS

Meters

The Meters tab lets you control many of Nectar's meters.

<table>
<thead>
<tr>
<th>Input/Output</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable meter</strong></td>
<td>Turns on or off the level meters</td>
</tr>
<tr>
<td><strong>Show peak hold</strong></td>
<td>Turns on or off the peak hold display for the level meters</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Allows you to set the type of metering used for Nectar's I/O meters. Options include RMS, Peak and RMS+Peak.</td>
</tr>
<tr>
<td><strong>Scale</strong></td>
<td>For RMS, Peak, and RMS+Peak you can choose between dB (linear) and dB (non-linear).</td>
</tr>
<tr>
<td><strong>Peak hold time</strong></td>
<td>If peak hold is on, clicking this button allows you to cycle through different peak hold times. The choices are 5 ms, 250 ms, 500 ms, 1000 ms, 5000 ms, and infinite. If set to infinite, the peak value will be held until you double click on the meter.</td>
</tr>
<tr>
<td><strong>Integration time</strong></td>
<td>This setting only applies if the level meter is set to RMS. It lets you specify the integration time for the RMS calculation. In most RMS meters, the integration time is set to around 300 msec.</td>
</tr>
<tr>
<td><strong>Readout</strong></td>
<td>Allows you to control what is displayed by the numeric display on top of the meters: peak or actual (real time). If set to &quot;Max Peak&quot;, the display will reflect the meter's highest peak value encountered during processing. If set to &quot;Current&quot;, the display will reflect the meter's current value of the level. If there are two levels displayed (Peak+RMS), we read the RMS value.</td>
</tr>
<tr>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Gain reduction meter</strong></td>
<td>Turns on or off the gain reduction meter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compressors/Gate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Curve level meter</strong></td>
<td>Allows you to turn on or off the dynamics curve level meter, displaying the compression and gating/expansion curve of your dynamics module.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limiter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable histogram</strong></td>
<td>Turns the level histogram meter on or off.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Breath Control</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable meter</strong></td>
<td>Turns the Breath Control real-time waveform meter on or off.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Saturation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable meter</strong></td>
<td>Turns the frequency and color coded saturation meter on or off. The High shelf filter will still be active even with this meter disabled.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>De-Esser</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable meter</strong></td>
<td>Turns the De-Esser modules gain reduction meters on or off.</td>
</tr>
</tbody>
</table>
8. OPTIONS

**EQ/Compressors/Pitch**

<table>
<thead>
<tr>
<th>Equalizer</th>
<th>Compressors</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Show Node Labels in Main View</strong></td>
<td><strong>Auto-Smoothing</strong></td>
<td><strong>Captured Data Folder</strong></td>
</tr>
<tr>
<td>Gives the option to have each EQ node appear with a numbered labels.</td>
<td>This causes Nectar to intelligently make small changes in its attack and release times in the Compressors module to reduce the amount of distortion generated by the dynamics processing.</td>
<td>Defines the directory in which all audio, layout and note data captured in Nectar's Pitch module will be stored. Use the drop-down arrow to change this to a new directory, reset to the default folder, or explore currently existing data.</td>
</tr>
<tr>
<td><strong>Alt-Solo Filter Q</strong></td>
<td></td>
<td><strong>Piano Key Labels</strong></td>
</tr>
<tr>
<td>Allows you to set the default Q or width of the filter that is activated when Alt-clicking on the Equalizer.</td>
<td></td>
<td>Controls what notes or octaves will be displayed in the Pitch module's manual editor piano roll display.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th><strong>Label Octaves</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Controls whether or not notes will be displayed with their octave numbering</td>
</tr>
</tbody>
</table>
Workflow
9. WORKFLOW

CPU Optimization

Unlike many single task plug-ins, Nectar harnesses the power of 11 plug-ins in 1. Nectar performs a significant number of calculations when running.

The combination of 64-bit processing, multiple DSP modules performing analog modeling, and a half dozen real time meters dictates that it requires more CPU processing than a typical plug-in.

While continuing to push the limits of high quality audio signal processing, Nectar offers significant improvements concerning CPU optimization allowing your sessions to run more efficiently.

The integrated Tracking and Mixing switch allows you to control the latency and CPU usage of Nectar depending on the production task at hand.

Optimizing your CPU
If you're not using modules for processing, you should be sure to bypass them to conserve CPU power.

Try changing the buffer size and/or latency setting in your host application. When buffers are too high (latencies are too large), meters may update slowly however less stress will be placed on your CPU allowing. As buffers become very small (latencies are very low), Nectar will consume more CPU.

You can also disable meters in their option screens. Right click on any meter to bring up the options screen for that meter.
9. WORKFLOW

Buffer Size Viewer

The Buffer Size Viewer dialog lets you inspect the buffer sizes which your host application is using.

If you are using Nectar at low latencies, you may experience unusually high CPU usage. Nectar allows you to tweak several buffer sizes in order to optimize CPU usage for your host application settings.

Some host applications make it very easy to see what your buffer sizes are, but it can be more difficult to determine in others. For that reason, Nectar provides this dialog to let you find out exactly what buffer sizes are being sent to the plug-in.

To use this dialog, simply launch it by clicking the View Buffers button on the General tab of the Options screen. Then use the following controls:

Captured buffer sizes
This list-box shows the buffers you have captured thus far. The number on the left is the input buffer size (the host applications buffer size), and the number on the right is the output buffer size.

Note: The input and output buffer sizes will be equal in Pro Tools, VST, AU and MAS versions of Nectar, but in the DirectX version if delay compensation is enabled then the sizes may differ.

Start/Stop
Push Start to begin capturing buffer sizes. Now each time a buffer is sent to the plugin, it will be added to the list of captured buffer sizes for you to see.

Push Stop to stop capturing buffer sizes. Note that buffers are sent in very rapid succession to the plug-in, and after 100 buffer sizes are captured, the capturing will automatically be stopped.

Clear
Clears the list of captured buffer sizes.

Copy
Copies the list of gathered buffer sizes to the Windows clipboard, useful for pasting into a support e-mail if necessary.
9. WORKFLOW

Automation

Automation allows you to specify changes to parameters over the duration of a mix - such as Exciter widening during a chorus or boosting an EQ during a solo. You can automate more than 200 parameters in Nectar using host applications which support effects automation.

Using Automation in Nectar

The implementation and specifics of automation are dependent on the host application, so please refer to the documentation of the host app for setting up an automated mix. In general, though, you patch Nectar as an ordinary effect on a track, then in the track view of the host app, assign automation envelopes to it.

These envelopes control how Nectar parameters are changed over the course of the mix. In this case, most of your "tweaking" is done in the track view of the host app, dragging curves and envelopes as opposed to changing controls in Nectar.

When you automate a control from the track view, you can see the control on the Nectar interface move under the control of the host application. We purposely don't update the position of the control as often as we could. It takes CPU to redraw controls and it takes CPU to process audio. So we update the drawing of the control less frequently. Therefore, it may look like the control is moving in steps, but rest assured that the audio is being processed smoothly.

When automating in a track view with envelopes, but working mainly with the Nectar interface, we found it helpful to be able to "see through" Nectar so you can monitor Nectar meters and controls but see the track view and automation curves behind Nectar. So we provide an Opacity slider in the main options dialog. This allows you to see through Nectar to monitor both what Nectar is doing and what is happening with the automation curves. Note that this is not available in all host applications, and it does require more CPU than a standard "opaque" plug-in if you set the Opacity to less than 100%.
9. WORKFLOW

Delay Compensation

Some plug-in configurations require high latencies from your host application. During playback, this can result in a delay or offset to a single track's output, and can sometimes put a track out of sync with the rest of a mix. During mix-downs and edits, this can cause a gap or silence to appear and displace the beginning of the output.

There are a couple of ways to fix this problem:

1. Try enabling the "Delay Compensation" feature in the plug-in Options screen, under the General tab. You can access the Options screen by pressing the "Options" button at the lower-right corner of the plug-in's touchscreen.

   In compatible host applications, this will allow you to use a plug-in's more latency-intensive settings and DSP without delaying or offsetting your tracks. It corrects, or compensates for, the offset created by latency in both playback and mix-down.

2. The delay compensation freeze is designed to help in certain hosts that don't completely support delay compensation. In general, some hosts only check a plug-in's latency when the plug-in first starts up or opens.

   The freeze feature will allow you to freeze the delay that Nectar is reporting to the host. This way, you can close and reopen Nectar, and the host will have the correct reading.

3. If your host application doesn't support Delay Compensation, you can still put Nectar into Tracking mode to reduce any latency or manually adjust your track to compensate for the offset (manually edit out the short delay of silence).

To find out how much delay has been imposed by your plug-in, enter your plug-in's Options screen, and select the General tab. The delay contributed by your plug-in will be listed under "Total System Delay," and will be given in both samples and milliseconds.

**Note:** Delay Compensation will have no effect in some host applications, and enabling it may cause output problems in others. If you begin to hear regular "clicks" or "pops" in your output immediately after enabling this feature, it may be incompatible with your current host application.
9. WORKFLOW

Keyboard and Mouse Support

Turn Keyboard Support On or Off
You can turn Keyboard Shortcuts On or Off from the General Options menu. Keyboard support must be set to Full for all Keyboard shortcuts to be available. Available options include Full (full keyboard support), Minimal (only TAB, arrow keys, and ENTER), or None (Keyboard shortcuts turned off).

Alt/Opt+click
If you Alt/Opt+click on the ON of a module on the faceplate, that module is made active (on) and all other modules are bypassed.

If you Alt/Opt+click on the Bypass ("b") button of a multiband that band is solo'ed.

If you Alt/Opt+click on a module in the preset system that module is made active and the rest inactive.

Alt/Opt+clicking on most other controls will reset them to their default value.

Wheel Mouse Notes
If you have a wheel mouse, you can adjust most controls (I/O gain, sliders, etc.) by simply positioning the mouse cursor over the control and rolling the wheel. Hold CTRL to move in smaller increments and SHIFT to move in larger increments. If the wheel has no effect, try clicking on the plugin to make sure Nectar has the keyboard focus.

In the Equalizer, you can adjust the Q of a selected band or bands with the wheel.

In the Equalizer table (accessed with the "Show Info" button) you can adjust a value by holding the mouse over the value and rolling the wheel.

In the History screen, you can use the wheel to scroll through the History list.

Copy/Paste Support
Right-click (under OS X you can also Ctrl-click) on any slider to bring up a context menu allowing you to copy and paste its value. You can copy/paste between sliders, even if the sliders are in different instances of the plugin. You can also copy/paste between a slider and a text editor such as Notepad or TextEdit in order to see the slider's value to a much higher precision than the plugin displays.

Mouse and Meters
You can zoom in and out on level meters and level histograms by holding down the Ctrl/Cmd key under Windows or the Command key under OS X and clicking with the left mouse button to zoom in or the right mouse button to zoom out. Under OS X you can also Ctrl/Cmd-click to zoom out.

You can reset the peaks or averaging of the spectrum by clicking on the spectrum.

You can reset a meter's peak indication by clicking on it. You can also reset a level meter's clipping indicator by clicking on the clipping indicator (the red "over" light at the top).
## Available Shortcut Keys (PC/MAC)

### Front Panel

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl/Cmd + Shift + 1 through 4</td>
<td>Displays options dialogs: 1: General Options 2: Spectrum Options 3: Meter Options 4: EQ/Compressors/Pitch Options</td>
</tr>
<tr>
<td><strong>Note:</strong> Under Mac OS X, 'Cmd+Shift+3' and 'Cmd+Shift+4' are taken by the operating system and cannot be used to open Nectar's Meter and EQ Options windows.</td>
<td></td>
</tr>
<tr>
<td>Ctrl/Cmd + P</td>
<td>Toggles Preset Manager</td>
</tr>
<tr>
<td>Ctrl/Cmd + B</td>
<td>Toggles bypass for all Nectar processing.</td>
</tr>
</tbody>
</table>

### Modules

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab and Shift + Tab</td>
<td>Select the next or previous control. You can also select a control by clicking on it with the mouse. To select a slider without moving the slider, click on the slider label.</td>
</tr>
<tr>
<td>Home and End</td>
<td>Set the value of the selected control to its lowest or highest value, respectively.</td>
</tr>
<tr>
<td>Arrow keys</td>
<td>Turn the selected control up or down. Use with Shift key for larger increments. You can select a control by clicking on it. To select a slider without moving the slider, click on the slider label.</td>
</tr>
<tr>
<td>Page Up and Page Down</td>
<td>Turn the selected control up or down in larger steps. Use with Shift key for larger increments.</td>
</tr>
<tr>
<td>Enter</td>
<td>Toggles the value of a checkbox or button control if selected, or enters numeric entry mode if a fader is selected.</td>
</tr>
<tr>
<td>Space Bar</td>
<td>Toggles the value of a checkbox if selected.</td>
</tr>
<tr>
<td>Direct Entry</td>
<td>Note that you can enter a numeric value directly for a selected control by pressing Enter or clicking on the numeric value label, entering a new number, and pressing the Enter key.</td>
</tr>
</tbody>
</table>

### EQ

<table>
<thead>
<tr>
<th>Shortcut</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt/Opt + click</td>
<td>Apply a bandpass filter at the mouse cursor to &quot;solo&quot; the frequencies under the cursor</td>
</tr>
<tr>
<td>Ctrl/Cmd + click (Windows) Command + click (OS X)</td>
<td>Selects multiple EQ bands to adjust them as one group</td>
</tr>
<tr>
<td>Shift + click</td>
<td>Constrain mouse movements (dragging an EQ band) in either the vertical or horizontal direction.</td>
</tr>
<tr>
<td>Double click</td>
<td>Double click on a band to reset it to its default position.</td>
</tr>
<tr>
<td>Left/Right arrow keys</td>
<td>Adjust the frequency of a selected band or bands. Use with Shift key for larger increments.</td>
</tr>
<tr>
<td>Up/Down arrow keys</td>
<td>Adjust the gain of a selected band or bands. Use with Shift key for</td>
</tr>
<tr>
<td>Key Combination</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Alt/Opt + up/down arrow keys</td>
<td>Changes the filter type (bell, lowpass, highpass, etc.) for the selected band.</td>
</tr>
<tr>
<td>Alt/Opt + left/right arrow keys</td>
<td>Select the next or previous EQ band.</td>
</tr>
<tr>
<td>Ctrl/Cmd + left/right arrow keys</td>
<td>Adjust the Q of a selected band or bands. Use with Shift key for larger increments.</td>
</tr>
</tbody>
</table>

### Input/Output Gain

<table>
<thead>
<tr>
<th>Key Combination</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl/Cmd + -</td>
<td>Increase the left and right input gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + =</td>
<td>Increase the left and right input gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + [</td>
<td>Decrease the left and right input gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + ]</td>
<td>Decrease the left and right input gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + ;</td>
<td>Increase the left and right output gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + '</td>
<td>Increase the left and right output gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + .</td>
<td>Decrease the left and right output gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + /</td>
<td>Decrease the left and right output gain. Use with Shift key for larger increments</td>
</tr>
<tr>
<td>Ctrl/Cmd + ,</td>
<td>Toggle locking the left and right input or output gains</td>
</tr>
</tbody>
</table>

### Misc

<table>
<thead>
<tr>
<th>Key Combination</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ctrl/Cmd + Z</td>
<td>Undo the last change made to a control.</td>
</tr>
<tr>
<td>Ctrl/Cmd + Y</td>
<td>Redo the last change made to a control.</td>
</tr>
<tr>
<td>Alt/Opt + 0 through 9 or Ctrl/Cmd + Alt/Opt + 0 through 9</td>
<td>Sets the opacity/transparency of the Nectar UI. 0 is fully opaque (not transparent at all). After that, 1 through 9 set increasing levels of opacity.</td>
</tr>
<tr>
<td>Esc</td>
<td>Cancels dialog boxes.</td>
</tr>
<tr>
<td>F1</td>
<td>Launch help for active module</td>
</tr>
<tr>
<td>F3</td>
<td>Toggle options dialog visibility</td>
</tr>
<tr>
<td>F4</td>
<td>Toggle filter graph visibility</td>
</tr>
<tr>
<td>F5</td>
<td>Toggle History visibility</td>
</tr>
<tr>
<td>F6</td>
<td>Resets active panel</td>
</tr>
</tbody>
</table>