Blue Cat's FreqAnalyst User Manual

"What you cannot hear, Blue Cat's FreqAnalyst shows it to you, for free!"

Table Of Content

Note: *An online version of this user manual is available* *here*.

Description

Blue Cat's FreqAnalyst is a free spectrum analyzer plug- in that lets you monitor the spectral content of your audio signal in real time.

This plug- in has been designed to provide extreme smoothness and high resolution for both time and frequency: unlike most spectrum analyzers, Blue Cat's FreqAnalyst is able to display continuous variations even with a very high frequency resolution, thanks to its unique smooth interpolation algorithms.

Most aspects of the audio to frequency display conversion can be managed, which lets you total control over the monitoring. A special thresholding system has been developed to help you see the important parts of the spectrum easily. In case you need extra precision in a particular frequency range, you can zoom the display and check the part of the graph you are interested in.

This plug- in supports Blue Cat's skinning language, so that you can customize the user interface to your personal needs.

For more advanced capabilities, check Blue Cat's FreqAnalyst Pro plug- in, an extended version that offers many more features, such as saving/ restoring curves, precise measurement tools, 3D spectrogram view, MIDI output. For multiple tracks analysis, you can use Blue Cat's FreqAnalyst Multi plug- in.

Features

Main Features:

- Mono and stereo real time spectrum analyzer.
- Total control over the audio to frequencies tranformation.
- Smart interpolation algorithm for extreme display smoothness.
- Zoomable display with multiple sizes.
- Custom absolute and relative thresholds.

Blue Cat Audio Standards:

- Available as: Mac- AAX, Mac- AU, Mac- RTAS, Mac- VST, Win- AAX, Win- DX, Win- RTAS, Win- VST, Win x64- AAX, Win x64- DX, Win x64- VST.
- Native DSP code for optimal performance.
- Full MIDI control and automation support with silent, zipper- free parameters update, advanced response control and MIDI Learn.
- No CPU load on idle: when the plug- in is fed with silence, the processing smoothly shuts down, to optimize the CPU usage of your Digital Audio Workstation.
- Skinnable and customizable user interface with transparency management.
- Smooth Bypass: activate/ deactivate the plug- in with absolutely no noise.
- Undo/ Redo.
- Full featured integrated presets manager.
- Copy/ paste the plug- in's state between instances using the system clipboard.
- Any sample rate supported.

System Requirements

Windows

- An SSE2- enabled processor (Pentium 4 or later).
- Microsoft Windows XP, Vista, Windows 7 or 8.
- Any DirectX / VST / RTAS / AAX compatible host software (32 or 64 bit).

Mac OS X

- An Intel processor.
- Mac OS X Mavericks(10.9), Moutain Lion (10.8), Lion (10.7), Snow Leopard (10.6), or Leopard (10.5).
- Any VST / Audio Unit (32/64- bit) / RTAS / AAX compatible application.

For more information about supported platforms, see our FAQ.

Installation

Blue Cat Audio plug- ins cannot be run standalone, they require a host application (see the System Requirements chapter for more information). Depending on which host application you use, you might need to install the plug- ins in different locations.

Windows

Install

All versions of the plug- in provide an installation program. Follow the steps of the wizard to install the plug- in on your machine. During the installation you will be asked where you want the plug- in(s) to be installed. For the VST version you should install the plug- in inside the VST plug- ins folder used by your host application(s). The default path set in the installer should work for most applications, but you should check your host software documentation to know where it looks for VST plug- ins.

Some applications will not automatically rescan the new plug- ins, so you might have to force a refresh of the plug- ins list.

Upgrade

When a new version of the plug- in is released, just launch the new installer: it will update the current installation.

Uninstall

To uninstall the plug- in, simply launch the "Uninstall" program that is available in the start menu or in the configuration panel. It will take care of removing all files from your computer.

Mac

Install

On Mac the plug- ins are available as drive images. After download, double click on the file to open it. You can then drag and drop the plug- in file(s) to the shortcut that is provided within the image. It will install the plug- in(s) for all users on the machine.

In case you do not have admin rights on your Mac or if you want to install the plug- in(s) to another directory, just copy the files to the appropriate location. If required, more information is available in the README.txt file that is included in the package.

Upgrade

When a new version of the plug- in is released, open the new image and copy the files over the previous ones. The new version will replace the older one.

Uninstall

To uninstall the plug- in, simply remove the plug- in components from the folder where you have copied them during install (move them to the trash).

If you want to completely remove all settings and configuration files, you can also remove these additional directories that may have been created on your computer:

- ~/ Library/ Preferences/ Blue Cat Audio/ [Plug- in name and TYPE], where TYPE is VST, AU, RTAS or AAX: global preferences.
- ~/ Documents/ Blue Cat Audio/ [Plug- in name]: user data, such as presets, additional skins and user- created plug- in data.

Just beware that these directories may contain user data that you have created. Remove these directories only if you wo not want to reuse this data later.

The User Interface

Note: The main toolbar, menus and basic features available with all our plug- ins are detailed in the Blue Cat Audio Plug- ins Basics section.

Overview

Blue Cat's FreqAnalyst is bundled with a single skin. But you may create your own or download new ones on www.bluecataudio.com.

The screen shot below shows the main features of the stereo version (the mono version is very similar).

1. Show or hide the controls pane.

2. Select the display size.

3. Freeze the display (also bypasses the plug- in).

4. Choose the channel(s) to display on the screen.

5. For the chosen channels you can choose to display either the "instant" curve or the "peak" curve (maximum over time).

6. Show or hide filled curves

7. The settings described in the parameters section are available here.

8. The absolute threshold can also be controlled by the vertical slider on the right of the display.

9. These two sliders let you control the x and y zoom for the graph. When zoomed, you can drag the graph with the mouse with the horizontal and vertical rulers. The graph can also be zoomed by selecting a area. Right clicking on the graph will unzoom.

Analysis Controls

The settings described in details in the [parameters section](#) are available next to the graph view when activated. The absolute threshold can also be controlled by the vertical slider on the right of the display.
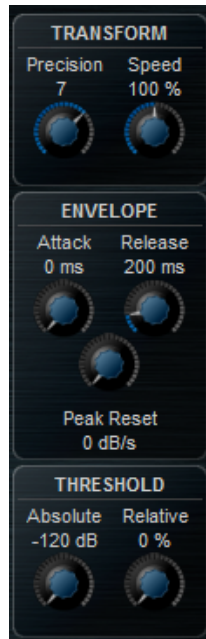
The various elements of the user interface (knobs, sliders, buttons...) are simple and intuitive to operate, but more information about how to interact with them is available in the ["Plug- ins Basics" chapter](#) of this manual.

Operation

This plug- in allows you to visualize the evolution of the spectral content of the audio signal in real time.

There are many situations where you need to be able to vizualize the content of the signal: when your ears are not enough (bad monitoring, ear fatigue, subtle spectral issue that requires visual confirmation). This is the main purpose of this plug- in: it provides visual assistance for what your ears cannot detect.

The analysis can be fine tuned in details to exactly fit your needs. This chapter describe in details how you can tweak the analysis:

Tweak the precision

It is possible to tweak the precision of the analyzer both in time and frequency. The higher the "precision" parameter, the better precision for the spectrum computation. The plugin also offers the unique capability of tweaking the frame rate of the spectrum analysis thanks to the "speed" parameter. With high precision, the frame rate of FFT analysis tends to be very low. The speed parameter and our unique frame interpolation algorithm compensate this issue.

Please note that the higher the precision and speed, the higher CPU consumption. It not uncommon that at low latencies setting the precision to 10 might cause drop- outs, depending on your system.

Customize the time response

The attack and release times control how fast the analyzer respectively responds to audio amplitude increase or decrease. For example, when pushing both parameters to their maximum the instant curve will show a local average of the audio spectrum.

The "Max Reset" speed control how fast the maximum spectrum curve is reset to the instant curve. This lets you tweak the max curve so that it follows the instant curve or shows the absolute maximum value of the spectrum.

Threshold control

In order to isolate the loudest parts of the signal, it is possible to set an absolute threshold on the curve. If the signal is below the threshold it is reset to its minimum value.

Display size

Since you may need various display sizes depending on the situation, this plug- ins offers 3 different sizes for the main analyzer display. Once the analyzer is setup, you can also hide the controls pane so that you can focus on the visualization.

Blue Cat Audio Plug-ins Basics

This chapter describes the basic features that are common to all our plug-ins. If you are already familiar with our products, you can skip this part.

User Interface Basics

About Skins

Like all Blue Cat Audio plug-ins, Blue Cat's FreqAnalyst uses a skinnable user interface. It means that the appearance and behavior of the user interface can be entirely customized.

Especially with third party skins, the experience may be quite different from the one offered by the default skins that we provide. However, our plug-ins and our skinning engine have several standard features that will be available whatever your favorite skin.

More information about custom skins can be found in the skins section.

The Main Toolbar

In most skins, an optional toolbar at the top of the user interface gives you access to the main options and settings of the plug-in:

Presets Area

At the center of the toolbar, you can see the current preset area (the "Default Settings" box). It displays the name of the current preset, with a "*" at the end if it has been modified since loaded.

The arrows on the left and right let you navigate thru the (factory and user) presets available for the plug-in.

Clicking on the preset name opens the presets menu which lets you manage the presets of the plug-in.

Commands

The icons in the toolbar give you access the to the following commands that are detailed in the next paragraph:

Icon	Name	Function
	Menu	Open the main menu
	Undo	Undo
	Redo	Redo
	Manual	User Manual
	About	About

The Main Menu

The main menu is available from the main toolbar, or if you right click anywhere on the background of the plug-in:
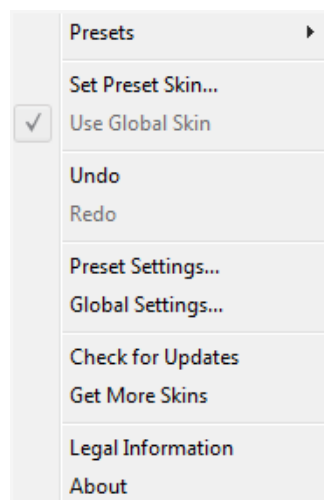
- **Presets**: opens the presets menu to manage presets.
- **Set Preset Skin**: change the skin for the current preset.

- **Use Global Skin:** use the skin defined in the global settings for the current preset. This item is enabled only if a skin has been defined for the current preset.
- **Undo/ Redo:** undo or redo the latest modifications. This includes all changes made to the current preset settings such as MIDI or automation preferences.
- **Presets Settings:** open the presets settings window. It lets you change the skin, MIDI and automation settings for the current preset.
- **Global Settings:** open the global settingswindow. It lets you change the skin, MIDI and automation settings that are used by default in all instances of the plug- in (if not overriden by the current preset).
- **User Manual:** open this user manual.
- **Check for Updates:** opens up our website to let you check if any update for this software is available.
- **Get More Skins:** get more skins for this software.
- **Legal Information**: browse licensing and misc legal documents.
- **About:** displays the "about" dialog box.

The Title Bar

In most skins, an icon bar is located below the main toolbar. The first commands are the same for all plug- ins:


From left to right:

- **Smooth Bypass:** smoothly bypass the plug- in (just like a power button).
- **Window Opacity:** reduce the opacity value by turning the knob, and make the the plug- in window transparent. (the result may depend on the host application).
- **Show/ Hide MIDI and Automation Control Settings:** show/ hide the buttons that give access to direct MIDI/ Automation setup for each parameter in the user interface. This button will show or hide dropdown menu buttons that popup a MIDI/ Automation setup menu described here.

Controls

Examples

Here are a few examples of typical controls you will encounter in the user interface of our plug- ins:

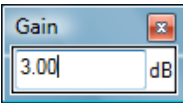| slider	slider	knob	button	Text control
				90 %
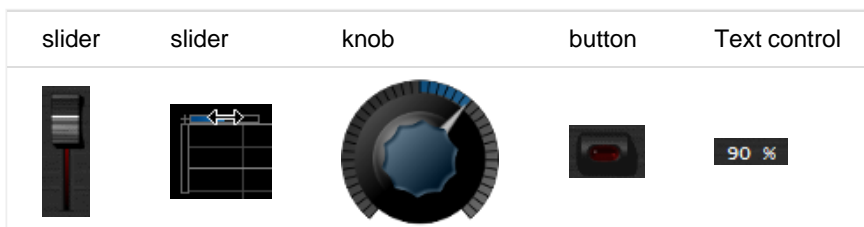
Interacting with Controls

You can interact with the controls of the plug- in interface either with the mouse or the keyboard.

Setting the keyboard focus on a control (so that it responds to key strokes) may be automatic (when you pass the mouse over it it gets focus) or manual (you have to click on the control to set the focus on it). Note that all host applications behave differently regarding keyboard handling. In some applications you may not be able to use all keys described later in this manual to interact with our plug- ins. It is usually made obvious to you to know the active surfaces of the skin (the places where you can click with the mouse): the mouse cursor usually changes when you can do something on a control. In the default skins delivered with the plug- in, the cursor changes to a small hand or an arrow to tell you when your mouse is over an active control.

Mouse

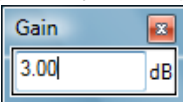Various mouse movements will let you interact with the controls:

Mouse Interaction	Action
Left Click	Acquire focus and start dragging or push (button)
Left Click + Alt Key	Set the value to default
Left Double Click	Acquire focus and launch the "fine tuning" edit box (except button):
Right Click	Set the value to default
Mouse Wheel	Increment or decrement the position (focus required)
Mouse Drag	Change the control position depending on mouse movement (except button)

Keyboard

All control widgets support the following keys (note that some of them are caught by the host and thus never forwarded to the control. For example in Steinberg Cubase SX you cannot use the arrow keys to control the plug- in):

Keys Common to All Controls

| Key	Action
Up Arrow	Small increment of the position (up or right)
Down Arrow	Small increment of the position (down or left)
Left Arrow	Same as Down Arrow
Right Arrow	Same as Up Arrow
Page Up	Large increment of the position (up or right)
Page Down	Large decrement of the position (down or left)
+	Small increment of the value of the control
-	Small decrement of the value of the control
d	Set to default value (same as mouse right click)
e	Opens the 'fine tuning' window to precisely set the parameter:
SHIFT	When the key is down, the fine tuning mode is on, and you can modify the value with better precision when moving the mouse, the mouse wheel or using the keyboard. Just release the key to get back to the normal mode.

Keys Specific to Buttons

Key	Action
Enter	Pushes the button

Presets

To get started with the plug- in and discover its capabilities, a couple of factory presets are provided. You can also save your own presets and recall them later for other projects. Our plug- ins propose a full- featured preset manager to let you save, browse, organize and recall its presets.

The Presets Menu

The presets menu can be opened from the main menu or the main toolbar. It displays the list of presets available for the plug- in as well as commands to load, save or organize presets:
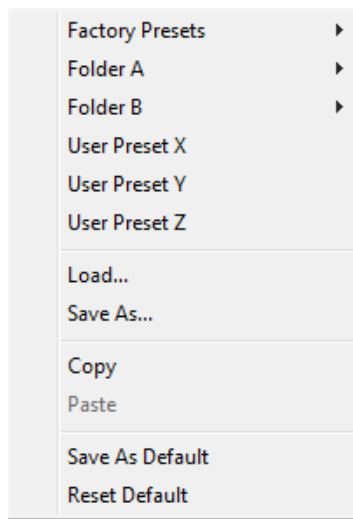
- **Factory Presets:** shows the list of factory presets delivered with the plug- in.
- **"Folder A" to "User Preset Z":** user presets and categories.
- **Load:** load preset from file.
- **Save As:** save current preset to a file.
- **Copy** copy preset to the system clipboard.
- **Paste** paste preset from the system clipboard, if available.
- **Save As Default:** save the current state as the default preset. This preset is used every time a new instance of the plug- in is created.
- **Reset Default:** reset the default preset to its factory state: this makes the plug- in forgets the custom settings you might have saved as a default preset.

More about Presets

There are two types of presets: factory presets (read only) that are provided with the plug- in, and user presets that can be created and stored by the user.

The user presets are stored in a subdirectory of the documents folders of your profile ("Documents" on Mac, and "My Documents" on Windows): Blue Cat Audio/ [Plug- in Name]/ Presets. Each preset is stored as an individual file. You can create folders and subfolders in the Presets directory to classify your presets, as shown in the example below:
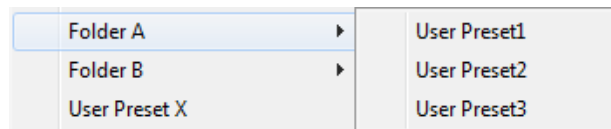

If you save a preset named "Default" in the root Presets directory, it will override the factory default preset (that's what "Save As Default" does). To restore the factory default preset, you can just remove this file or use the "Reset Default" command.

MIDI and Automation Control

Blue Cat's FreqAnalyst can also be remotely controlled via MIDI using MIDI CC ("Control Change") messages or automation curves, if your host application supports it. It is possible to customize the channel, control numbers, range and response curve used for each parameter in the settings panel available from the main menu (see the Plug- in Settings chapter for more details).

MIDI and Automation Settings Menu

Most skins also provide the ability to change MIDI and automation settings for each parameter directly in the main user interface. When this feature is activated using the corresponding title bar button, dropdown menu buttons appears next to main controls:
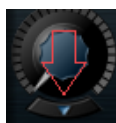
Clicking on this button shows the MIDI/ Automation settings menu:
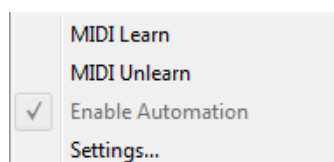
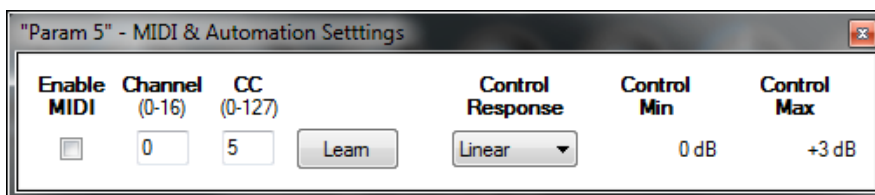- **MIDI Learn:** launches MIDI learn mode for the control: touch your MIDI controller and the control will learn from it the MIDI channel and CC number. To end the learn mode, reopen this menu and deselect the option.
- **MIDI Unlearn:** deactivates MIDI control for this parameter.
- **Settings:** launches the advanced settings panel described below. This controls the settings for the current preset.

Andvanced MIDI and Automation Settings

You can completely customize the way the plug- in is controlled by automation and MIDI. For a global view of all parameters at a time, you can use the Plug- in Settings window for the current preset which is available from the main menu.


MIDI Settings:

- **Enable MIDI**: enable/ disable the MIDI control of the parameter.
- **Channel**: MIDI Channel for the parameter control. If set to 0, the plug- ins will accept Control Change Messages from all MIDI Channels (MIDI Omni mode).
- **CC**: Control Change Number.
- **Learn**: click on this button to activate the MIDI learn functionality. When it is activated, you can move your MIDI controller, and the plug- in will automatically set the MIDI Channel and CC Number.

MIDI and automation settings:

- **Response**: response curve of the MIDI or automation control: from very fast to slow control.
- **Min**: minimal value of the parameter when MIDI controlled or automated.
- **Max**: Maximum value of the parameter when MIDI controlled or automated.

Note: if the Min value is higher than the Max value, the response curve will be reversed: increasing the control value will decrease the parameter value.

Note: if you double click on the parameter text control boxes for the max and min values, a "fine tuning" edit box will appear and let you change the min and max values with more precision:
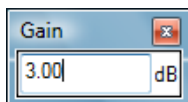
More

Check our online tutorial for more screenshots and more examples of our plug- ins user interfaces.

Blue Cat's FreqAnalyst Parameters

All parameters described below can be automated and controlled via MIDI if your host application supports it. You can precisely define this behavior in the settings panels described later in this manual.

Input

The input parameters of this plug- in are described below. They can be used to modify the way the plugin analyzes the audio signal.

Param id	Name	Unit	Description
dsp.input0	Bypass		Bypass the effect.
dsp.input1	Precision		Precision of the audio to frequencies transform. The higher the setting, the higher the frequency precision, and the higher the CPU consumption
dsp.input2	Speed	%	Rate of the audio to frequencies transform. The higher this value, the better time resolution (and perceived smoothness). Beware that above 100%, CPU consumption might increase, especially when the precision is high.
dsp.input3	Attack	ms	Attack time for the frequencies envelope follower.
dsp.input4	Release	ms	Release time for the frequencies envelope follower.
dsp.input5	Peak Reset	dB/ s	Rate of the peak curve reset. If set to 0, the peaks will never decrease and will represent the maximum value.
dsp.input6	Abs Threshold	dB	Absolute threshold for spectrum display. All frequency bins which value is below this threshold are set to -120 dB)
dsp.input7	Rel threshold	%	Relative threshold for spectrum display (percentage of the maximum value). All frequency bins which value is below this threshold are set to -120 dB)

Blue Cat's FreqAnalyst Curves

The FreqAnalyst plug- in provides visual feedback about the frequency content of the audio signal thanks to output curves.

Mono Plugin

id	Name	Description
dsp.output_curve0	Instant Spectrum	Instant frequency content of the audio signal.
dsp.output_curve1	Peak Spectrum	Maximum value of the frequency content over time.

Stereo Plugin

The stereo version offers more choice (combinations of the left and right or mid and side channels):

| id	Name	Description
dsp.output_curve0	Instant Spectrum(L)	Instant frequency content for the left channel.
dsp.output_curve1	Peak Spectrum(L)	Maximum value of the frequency content for the left channel over time.
dsp.output_curve2	Instant Spectrum(R)	Instant frequency content for the right channel.
dsp.output_curve3	Peak Spectrum(R)	Maximum value of the frequency content for the right channel over time.
dsp.output_curve4	Instant Average Spectrum	Instant average frequency content (left and right).
dsp.output_curve5	Peak Average Spectrum	Maximum average value of the frequency content (left and right) over time.
dsp.output_curve6	Instant Maximum Spectrum	Instant maximum values of the frequency content for the left and right channels.
dsp.output_curve7	Peak Maximum Spectrum	Absolute maximum values of the frequency content for the left and right channels over time.

In addition to the controls offered in the main user interface, Blue Cat's FreqAnalyst has various settings that let you fine tune the behavior of the plug- in. You can choose to change these settings either for the current preset or globally for all instances of the plug- in.

The Global Settings Window

The settings available in this window **apply to all instances of the plug- in, for all presets**, if not overriden in the presets settings. Consider these settings as "default" settings.

General

You can change the default skin for all instances of the plug- in: write the skin file path in the text edit box or click on the button to open a file chooser dialog. If you have several instances of the plug- in opened in your session, you will have to re- open the user interfaces of these plug- ins to see the skin change.
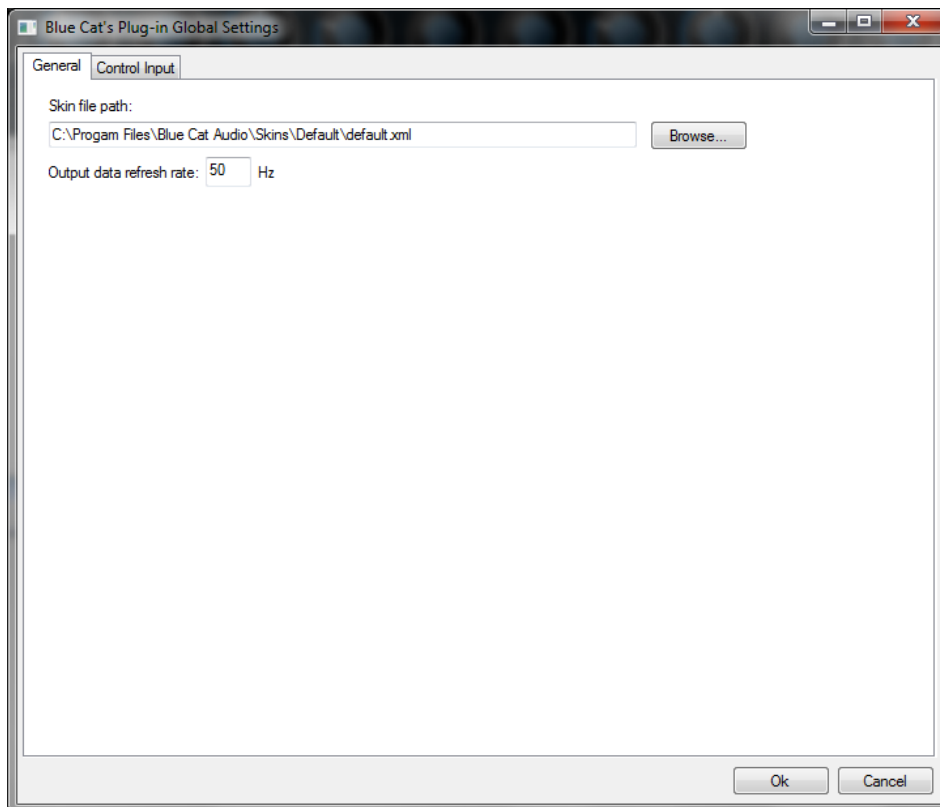
The output data refresh rate can also be customized for all instances of the plug- in. It controls the refresh rate of non- audio data produced by the plug- in (parameters, curves...). It also controls the refresh rate of output MIDI CC messages or output automation data. The higher the refresh rate, the better precision, but also the higher cpu usage (some host applications may also have trouble recording MIDI data at high refresh rates). The default value is 50 Hz.

Global Control Input Settings (MIDI and Automation)

The plug- in offers a couple of settings that affect the way it is controlled by MIDI messages or automation. While the first settings only apply to MIDI control, the "Control Response", "Min" and "Max" settings apply to **both automation and MIDI control**.

For each parameter you can define a default MIDI channel and CC number. You can then control the plug- in with an external MIDI controller or one of our plug- ins that generate MIDI messages.

The settings below are available for each plug- in parameter.
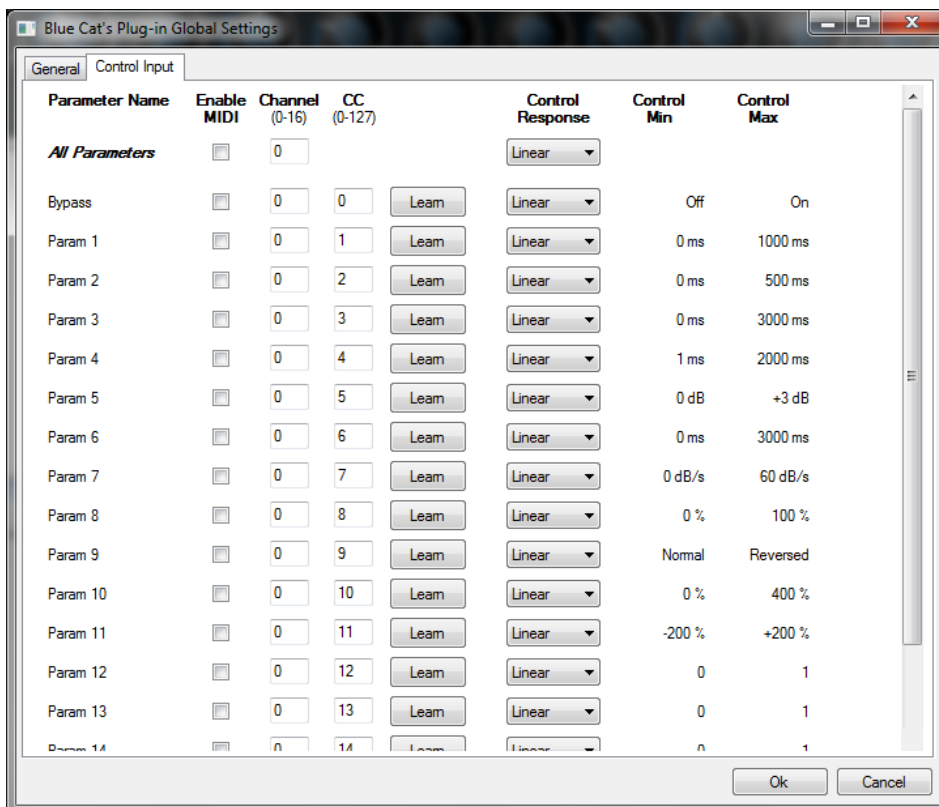
MIDI Settings:

- **Enable MIDI**: enable/ disable the MIDI control of the parameter.
- **Channel**: MIDI Channel for the parameter control. If set to 0, the plug- ins will accept Control Change Messages from all MIDI Channels (MIDI Omni mode).
- **CC**: Control Change Number.

- **Learn**: click on this button to activate the MIDI learn functionality. When it is activated, you can move your MIDI controller, and the plug- in will automatically set the MIDI Channel and CC Number.

MIDI and automation settings:

- **Response**: response curve of the MIDI or automation control: from very fast to slow control.
- **Min**: minimal value of the parameter when MIDI controlled or automated.
- **Max**: Maximum value of the parameter when MIDI controlled or automated.

(generic screen shot, does not correspond to the actual plug- in parameters)

Note: if the Min value is higher than the Max value, the response curve will be reversed: increasing the control value will decrease the parameter value.

Note: if you double click on the parameter text control boxes for the max and min values, a "fine tuning" edit box will appear and let you change the min and max values with more precision:
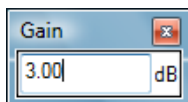
The Current Preset Settings Window

In this window you can change the settings *for the current preset of the current instance of the plug- in only*.

Preset Skin

You can choose to use the global skin setting or to change the skin for the current preset. This way you can have different skins for different instances of the plug- in in the same session in order to differentiate them.
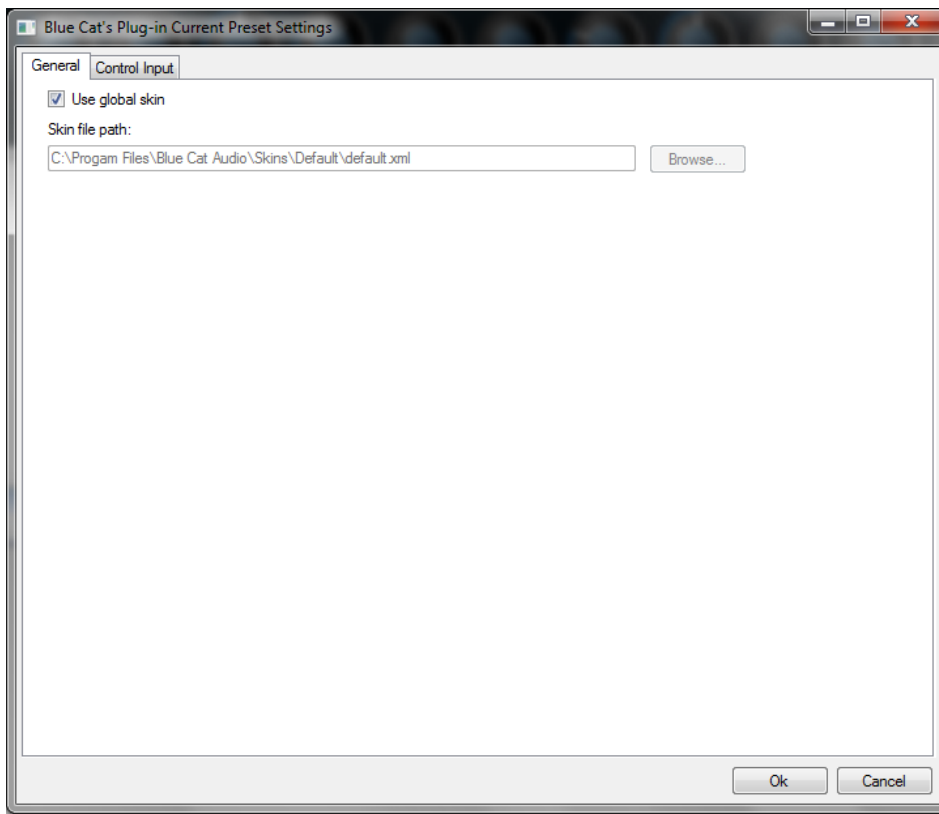
Preset Control Input Settings (MIDI and Automation)

Use the global settings or override them for the current preset. The parameters are the same as for the global input settings.
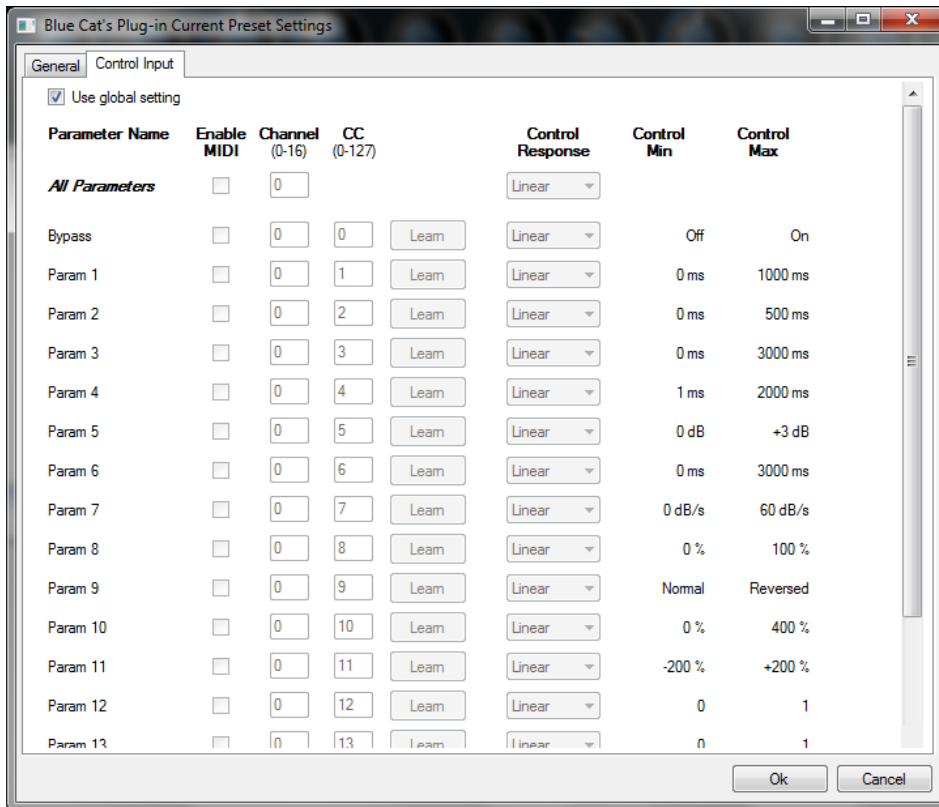
(generic screen shot, does not correspond to the actual plug- in parameters)

About Skins

Blue Cat's FreqAnalyst integrates Blue Cat's skinning engine that allows you to customize the user interface. You can download new skins for your plug- in at the following address:

http:// www.bluecataudio.com/ Skins/ Product_FreqAnalyst

If you don't find a skin that fits your need or if you want a really custom one, you can choose to create your own skin.

Changing the Skin

You have two ways to change the skin of your plug- in: you can change the default (or 'global') skin in the global settings, or change the skin for the current preset only (either in the preset settings page or from the main menu). The global skin applies to all plug- in instances, whereas the current preset skin only applies to the current preset of the current plug- in instance.

See the main menu for more information about how to access these options.

On some hosts the plug- in window won't resize automatically when you choose a skin with a different size. In this case, just close the window and re- open it: it will be displayed with the right size.

Create a Custom Skin

You can create custom skins for your plug- in in order to adapt it to your exact needs. You can change its look and feel and make it completely integrated in your virtual studio!

Just read the Blue Cat's Skinning Language manual and download the samples for the tutorial on http:// www.bluecataudio.com/ Skins. You can get ready to create your own skins in a few minutes.

You can then share your skins on our website.

Plug- ins Formats

What are DirectX (DX), Audio Unit (AU), RTAS, AAX and VST plug- ins?

VST, Audio Unit, RTAS, AAX and DirectX plug- ins are software components than can be used in "Host" Software (such as Cakewalk Sonar, Steinberg Cubase or Wavelab, Sony Vegas, Logic Pro, Garage Band, Ableton Live, Pro Tools...) in order to perform some MIDI and/ Or Audio real- time Processing tasks. To be more precise what we usually call directX plug- ins is actually a "DirectShow Filter". VST is owned by Steinberg, DirectX by Microsoft while Audio Units is the property of Apple Computers and RTAS and AAX are owned by AVID.

How can I use your plug- ins?

Download and install a host software, then download and install the plug- ins from our page. They will appear in the host "effects" menu. If you are using a DirectX host with our MIDI controllable plug- ins and they do not show up in you host list, you might need to use our freeware DXi Manager. Note that our plug- ins are sometimes shown in the "MIDI controllable audio effects" or "soft synths" sections in some host applications.

Where can I find a host?

There are many commercial or freeware hosts that will suit your needs. You can find a long list of applications here. You can also use demos of Cubase, Wavelab, Ableton Live, Tracktion, or Sonar software, which are usually available on the companies websites. On the Mac, Garage Band is part of the system and can be also used to host our Audio Unit plug- ins.

What are the main differences between DX, VST, RTAS, AAX and Audio Units?

VST is a protocol that works on several platforms (Mainly Windows, MacOS, BeOS, and some Linux platforms use it as well) whereas DirectX is Microsoft Windows only, and Audio Units are available only on the Mac. RTAS and AAX are available on Mac and PC, but only for Pro Tools products (AVID). AAX plug- ins are compatible with Pro Tools 10 and higher, whereas RTAS versions are compatible for Pro Tools 10 and lower versions.

What is the difference between DXi and DX effects?

DXi effects are MIDI controllable DirectX plug- ins. It's the same as DX effects plus MIDI control.

Which version (VST, Audio Unit, RTAS or DX) should I use in my host application?

Here is a list of host software and the version we recommend you to use. Many other applications are supported, check your application user manual to choose the best version (AU stands for "Audio Unit" and DX for "DirectX"):

Host Application	Plug- in Version
Cakewalk Products (Sonar, Project5...)	DX
Sony Products (Vegas, ACID, Soundforge)	DX for old versions, VST for new
Steinberg Products (Cubase, Nuendo, Wavelab)	VST (Mac or PC)
Ableton Live	VST (Mac or PC)
Adobe Audition	any
EnergyXT	VST
Magix Samplitude	VST
Avid (Digidesign) Pro Tools	RTAS
Apple applications (Logic Pro, Logic Express, Garage Band...)	AU
Cockos Reaper	VST (Mac or PC)
...	

In general, we recommend using VST over Audio Unit on Mac (when both are supported), particularly for the plug- ins that can output automation or MIDI CC messages.

Where can I find more information about this topic?

- www.steinberg.net
- www.microsoft.com
- www.kvraudio.com
- www.apple.com
- www.digidesign.com

Installation

I have installed my software and it is not listed as an application. Why? What can I do? How can I launch it?

Most software you can purchase on this website is plug- ins for host applications. It means you need another application to use it. See the "Plug- ins Formats" section in this FAQ for more information.

I have installed my plug- in and it does not show up in my host application. What can I do?

First check that you application supports DirectX, Audio Unit or VST plug- ins.

If you are using the DirectX version, check that your host application supports DXi plug- ins (MIDI enabled DirectX plug- ins). If it does not, it may remove it from the DirectX plug- ins list (some applications such as Sony Vegas 5 and Cool Edit Pro are known to do this). In this case, use our DXi Manager free utility and disable the MIDI capabilities of the plug- in. You may need to reinstall the software again before it shows up into your host application. For more information about this topic please read our DXi in Sony Vegas tutorial (it is applicable to other applications than Sony Vegas).

If you are using the Direct X version and your host application supports DXi, check that the plug- in does not appear in the 'virtual synth' or 'synthesizers' category. If you wish not to use the MIDI capabilities of the plug- in and use it as a regular Direct X plug- in, you can download the freeware DXi Manager and disable the MIDI capabilities of the plug- in.

I have installed my plug- in on windows 64- bit, checked the items above, and it still does not show up in my host application. What can I do?

You are probably running a 32- bit application. If that's the case, you need to install the 32- bit version of the plug- in: the choice for 32 or 64- bit is not determined by the operating system (64- bit windows can run both 32 and 64- bit applications), but by the host application that you are using.

Why are there two plug- ins called xxxx(Mono) and xxxx(Stereo) installed ?

"Mono effects" (which are effects that do not make any difference between left and right channels) are bundled this way for performance reasons. Some developers just deliver a stereo Version which also processes (twice) mono streams. The "(Mono)" plug- in is to be used with mono streams, and the (Stereo) one with stereo streams. The effect itself is the same in both cases but the number of processed channels is different: this may drastically improve performance for CPU intensive plug- ins.

How do I uninstall my plug- ins?

Open the Windows configuration panel/ Add Remove Programs, and choose 'Remove' on the corresponding plug- in. If you have installed the VST plug- in zip file version, just delete the corresponding dlls.

Why do your plug- ins need an installer on Windows? Do they modify the registry or system settings? Why not providing just a dll?

Our plug- ins require several additional files for default settings, skins and miscellaneous data. We provide an installer for our customers' convenience. Our installers do not modify the system settings or the Windows registry, except for the DirectX versions registration. Our installers won't harm your system.

Software Version

How do I know the version of the plug- in I am using?

You can see the version information in the about box: right click on the background of the plug- in user interface and select "About". The product version is also available in the Windows Add/ Remove Programs Window.

Why do newer versions of a plug- in override older ones (they have exact same name and IDs)?

Because newer versions improve previous ones. When a new version is released, older versions are not supported anymore. In some cases the new versions may be installed as new products (compatibility reasons, major changes...), but it is explicitly documented on the product page.

A new minor version of a product I purchased some time ago is available. Where can I download the update?

The new version can be downloaded from the same place where you downloaded the original version. All information is contained in the email you received when you purchased the product. Your registration number has not changed either.

Upgrade

A new minor version of my plug- in has been released. Where can I download it?

When you purchased the plug- in, an email containing the information to download and register your software has been sent to you. You can download the new version from the exact same location as the first time.

I have downloaded a new version, do I need to uninstall the previous version?

No, you don't, except if it's specified on the product page, in the "history" section. Just run the installer and it will upgrade your software.

Automation

What is "Parameters Automation"?

The parameters of an effect can be automated in most host software. It means that you can record the changes you do during playback or recording so that it's replayed when playing back again. It's a way of sequencing parameters changes the same way you do with Audio or MIDI data.

What is "Smooth Update"?

When changing parameter values in real time or replaying a song where parameters have been automated, our plug- ins compute intermediate values between parameter changes in order to avoid "clicks" and "pops" that may occur otherwise. It results in a non audible smooth parameters update and lets you freely use automation or MIDI control to change the effects in a song.

Do your plug- ins support MIDI Control?

Yes they do. They offer precise control over the mapping of MIDI Control Change (CC) messages to parameter values: you can adjust both the channel and CC number as well as the response curve of the control. Since some of our plug- ins are also capable of creating MIDI CC from the audio signal, they can all be connected for real time signal- dependent audio effects. See our MIDI Control in Sonar tutorial for an example.

This manual only covers the basics of Blue Cat's FreqAnalyst. Our website offers many additional resources for your Blue Cat's FreqAnalyst plug- in and is constantly updated, so keep an eye on it! You will find below a few examples of available resources.

Extra Skins

We encourage our customers to propose their own skins for our products and we often propose alternative skins to let you choose the one that best suits your needs. You can check Blue Cat's FreqAnalyst skins page to get the latest skins.

Fast Display

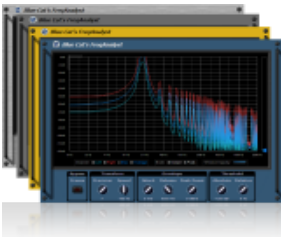**Product:** FreqAnalyst
Description: This skin set (mono and stereo) is similar to the default one, except that it does not uses alpha blended surfaces below curves. Recommended for configurations with old graphics cards, when the original skin uses too much CPU.
Author: Blue Cat Audio
Download: Skin_FastDisplay.zip

Teksonik Edit

Product: FreqAnalyst
Description: This package includes 6 color edits of the original skins by Teksonik.
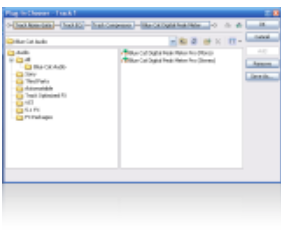**Author:** Teksonik
Download: Skin_TekEdit.zip

Tutorials

Many Tutorials are available on our website. They cover a wide range of topics and host applications. You will find below a list of tutorials that are related to the Blue Cat's FreqAnalyst plug- in. An updated list is also available online.
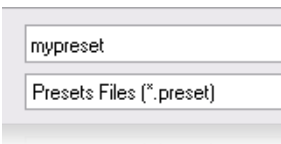
Tutorial - Using DXi plug- ins in Sony Vegas

This tutorial will teach you how to use any DXi plug- in in Sony Vegas: Sony Vegas does not support MIDI automation, so if your plug- in supports the MIDI Dxi protocol, it is removed from the plug- ins l...

[Read More...]

Tutorial - Export Plugin Presets to Share them with the Community

This tutorial shows you how to export your presets in order to share them with the community on the Blue Cat Audio website. This tutorial uses Blue Cat's Stereo Triple EQ for the demonstration bu...

[Read More...]

Tutorial - Getting Started with Plug- ins User Interface

Get used to the user interface features of Blue Cat Audio products! They have been designed for an optimal workflow, so here are the tips and tricks to save time. All these functionalities are explain...
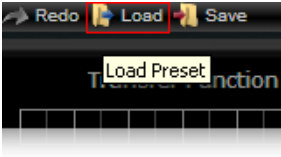
[Read More...]

Tutorial - Using MIDI Control in Sonar

This tutorial will help you understand how to use parameters MIDI control in Cakewalk Sonar. It is applicable to any DXi plug- in (MIDI enabled DirectX plug- in)....

[Read More...]

Tutorial - How to Use the Free Presets Available on this Website

This tutorial shows you how to get and load free presets for your favorite Blue Cat Audio plugin. This tutorial uses Blue Cat's Dynamics for the demonstration but is applicable to all our plugins...

[Read More...]

Updates

As you can see in the history log below, we care about constantly updating our products in order to give you the latest technology available. Please visit our website often to check if Blue Cat's FreqAnalyst has been updated, or subscribe to our Newsletter to be informed of the latest news about our products.

You can also follow us on twitter and facebook for almost real time updates notification, and subscribe to our YouTube channel to see the latest videos about our software.

Versions History

V2.1 (2014/01/09)

New Features:
- Copy/ paste the plug- in's current state from the presets menu using the system clipboard.

Improvements:
- Reduced the plug- in's memory usage.
- Windows VST Installer now remembers where the plug- in was initially installed to simplify upgrades.
- (Mac) plug- in version number is now available when using "Get Info" in the Finder.
- (Mac) Improved display of Audio Unit parameters in most host applications.

Bug Fixes:
- Fixed window frame not showing with Cubase 7.5 (32- bit) on Mac.
- (Mac) About window does not show up first in the corner of the screen anymore.
- (Win) Alt- Click on a control now resets the value to default in Pro Tools, as expected.
- Fixed version number reported to host application for VST and Audio Unit versions.

V2.02 (2013/06/21)

New Features:
- 64- bit AAX support for Pro Tools 11.
- Audio Suite support for offline processing in Pro Tools (AAX).

Improvements:
- The windows installer now automatically detects the most appropriate VST install path.

Bug Fixes:
- Fixed AAX version not showing up in Pro Tools 10.3.5 on Windows.
- (RTAS) Fixed parameters control with EUCON control surfaces in Pro Tools.
- Fixed user interface issues in Final Cut Pro X.
- Fixed compare button issues in Pro Tools.
- Mac- VST: Fixed window resize issues on Cubase and Nuendo (Mac).
- Mac: Control MIDI settings dialog now brought back to front when already opened in the background.

V2.01 (2012/04/23)

Bug Fixes:
- AAX/ RTAS on Mac: Fixed audio engine freeze or error issue with Pro Tools on some Mac configurations.
- AAX on Mac: Fixed compare button that did not work well when using factory presets or any preset created on Windows.
- Performance improvement when running under high CPU load for other platforms.

V2.0 (2012/03/28)

New Features:
- New animated user interface with multiple display sizes.
- New integrated presets manager:
    - Load/ save presets from the plug- in's user interface.
    - Organize presets with folders.
    - Customize the default preset.
    - Exchange presets easily.
- Automation range and response curve can now be customized for each parameter.
- Automation and MIDI settings (channel, MIDI learn etc.) are now accessible from the main user interface.
- AAX plug- in format is now also supported on Windows.

Improvements:
- Plug- in name has been shortened for a clearer display in mixer view for most host applications.
- Changed the default VST install path on Windows.
- Improved default response curve for automation and MIDI control.
- Added new presets.
- Improved value display in fine edit window.
- Improved user manual.

Optimizations and Performance Improvements:
- Reduced VST plug- in loading time.
- Improved parameters precision (now stored as 64- bit).
- More compact presets format (uses less space and loads faster).
- Smaller binaries on Mac (dropped PowerPC support).

Bug Fixes:
- Fixed presets- related crashes in Cubase on Mac.
- Fixed user interface display issues in Wavelab on Mac.

Note: this new version can be installed side by side with the previous version for backward compatibility reasons: installing this new version won't break your previous projects.

V1.71 (2011/02/10)

- Fixed keyboard focus stealing issue in Pro Tools and several other host applications.
- 64- bit Mac VST support.

V1.7 (2010/12/01)

- 64- bit Mac VST support.
- User interface enhancements:
    - Improved readability.
    - Select and zoom with one click.
    - Drag the rulers to move the curve when zoomed
    - Zooming is now animated.
    - Improved consistency with our other analysis tools.
- Performance improvements (the plug- in now requires an SSE2- enabled processor).
- Default release time is now shorter.
- Fixed issue with Freeze button not freezing all curves on the stereo version.

V1.52 (2010/03/19)

This update only concerns the RTAS version of the plug- in:
- RTAS plug- in bug fix: when using both the mono and stereo versions in the same session, the controls of the instances were linked together.

V1.51 (2010/02/25)

- Space bar does not trigger plug- in buttons anymore (avoids conflict with transport control in most applications).
- Win x64: fixed issue with some hosts not opening the plugins.
- Win x64: fixed issue with settings window that was not displayed properly in some hosts.
- Mac: fixed keyboard/ mouse focus issues in some hosts.
- Mac: fixed multiple screens issue.

V1.5 (2010/01/30)

- RTAS plugin format support for Pro Tools (Mac and Windows).
- 64- bit applications support for Windows DX and VST under Windows x64.
- Mac AU 64- bit format support (compatible with 64- bit Logic 9.1 on Snow Leopard)
- Mac: fixed user interface crashes in some hosts under Snow Leopard.
- Fixed MIDI learn issues.

V1.4 (2009/11/20)

- RTAS plugin format support (final beta stage - currently available with the Free Pack only)
- Mac: fixed keyboard/ mouse focus issues in some hosts.
- Mac: fixed user interface crashes in some hosts, when used with particular display settings.
- Mac- AU: fixed user interface resizing issue when changing skin in some hosts (Logic).
- Mac- AU: fixed settings lost issue when doing offline rendering in some applications.

V1.3 (2009/09/21)

- New Windows Installer (much faster install, improved upgrades).
- Bug Fix (PC): Cubase freezes when loading a preset using a different skin while the plugin window is open.
- Blue Cat's Skinning Language 1.6.1 support.

V1.21 (2009/05/05)

Mac VST update: fixed incompatibility issues with Cubase 5 on Mac.

V1.2 (2009/02/03)

Mac Audio Unit Support.

V1.2 (2008/11/21)

- First Mac version.
- New skins with enhanced usability and new look and feel.
- New toolbar to access main features.
- Undo/ Redo.
- Import/ Export presets in a host and platform independent format.
- Smooth Bypass: activate/ deactivate the plugin with absolutely no noise.
- Improved parameters display in host application and settings window.
- Improved graphical display performance and smoothness.

V1.1 (2007/10/18)

- Undo/ Redo.
- Load/ Save presets in a host- independent format: you can now share presets between the directX and VST versions.
- New toolbar to access main functionalities.
- Improved skin loading speed.
- Improved user interface performance.
- Reduced memory consumption when using several instances.
- It is now possible to choose wether displayed curves are filled or not.
- Improved the display of parameters values in the MIDI settings panel and the host application.
- Bug fix (VST): when loading a project or changing presets, some host applications could hang.

V1.0 (2007/01/22)

First version.

Thanks again for choosing our solutions!

See you soon on www.bluecataudio.com!