Blue Cat's Flanger User Manual



"The Free Vintage Flanger"





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

Introduction

Description

Very famous during the 70's and 80's, the Flanger effect can be used on almost any audio track: on drums, voices synths or guitars, from a subtle effect to a deep alien- like voice effect, enjoy it!

Despite its simple user interface, Blue Cat's Flanger is very versatile: harsh and metallic or smooth and soft filtering effects, it can do them all, for free!

The stereo version also lets you smoothly transform it into a stereo flanging effect with a single knob. Push the "Spread" slider and hear the difference: the effect is turning around your head, and the sound takes another dimension, spread into the stereo field.





Features

Main Features

- · Vintage flanger effect.
- · Stereo spread control.
- · Sine or triangle LFO shapes.
- In or out of phase feedforward and feedback paths.

Blue Cat Audio Standards:

- Available as: Mac- AAX, Mac- AU, Mac- RTAS, Mac- VST, Mac-VST3, Win- AAX, Win- RTAS, Win- VST, Win- VST3, Win x64-AAX, Win x64- VST, Win x64- VST3.
- 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.
- Customizable user interface with transparency management and zoom.
- Smooth Bypass: activate/ deactivate the plug- in with absolutely no noise.
- Undo/ Redo.
- Full featured integrated presets manager.
- Copy/ paste the state of the plug- in between instances using the system clipboard.
- Any sample rate supported.

System Requirements

Windows

- An SSE2- enabled processor (Pentium 4 or newer).
- Microsoft Windows Vista, Windows 7, 8 or 10.
- Any VST / RTAS / AAX compatible host software (32 or 64 bit).

Mac OS X

- An Intel processor.
- Mac OS 10.7 or newer.
- Any VST / Audio Unit (32/64- bit) / RTAS / AAX compatible application.

For more information about supported platforms, see our <u>FAQ</u>.

Installation

The plug- ins versions cannot be run standalone: they require a host application (see the <u>System Requirements</u> chapter for more information). Depending on which host application you use, you might need to install the plug- ins in different locations.

Before installing one of the plug- in versions, you should close all your host applications.

Windows

Install

All versions of the plug- in provide an installation program. Follow the steps of the wizard to install the software on your machine. During the installation you will be asked where you want the software 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. For other plug- in types, you should just use the standard path.

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 software is released, just launch the new installer: it will update the current installation.

Uninstall

To uninstall the software, 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 with an installer. After download, double click on the dmg file to open it. You can then double click on the installer (.pkg file) to install the package.

Upgrade

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

Uninstall

To uninstall the software, simply remove the component(s) from their install location (move them to the trash):

- AAX plug- ins are installed in the / Library/ Application Support/ Avid/ Audio/ Plug- Ins/ folder
- · Audio Units (AU) are installed in the / Library/ Audio/ Plug- Ins/ Components/ folder
- RTAS Plug- ins are installed in the / Library/ Application Support/ Digidesign/ Plug- Ins/ folder
- VST plug- ins are installed in the / Library/ Audio/ Plug- Ins/ VST folder
- VST3 plug- ins are installed in the / Library/ Audio/ Plug- Ins/ VST3 folder

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.

Please be aware that these directories may contain user data that you have created. Remove these directories only if you do not want to reuse this data later.

First Launch

Blue Cat Audio plug- ins cannot be run standalone, they require a host application (see the <u>System Requirements</u> chapter for more information). Some host applications will require you to scan the plug- ins before they are available in the application.

If the plug- in is not available in the application, please check that it has been installed in the appropriate directory (with no host application running), and that the host application has scanned it.

Using Blue Cat's Flanger

The User Interface

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

Overview

Blue Cat's Flanger is bundled with two skins. You may also create your own or download new ones on www.bluecataudio.com.



The user interface consists in a row of actionable knobs and buttons that control the parameters described in details in the <u>parameters</u> <u>section</u>.



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 <u>"Plug- ins Basics" chapter</u> of this manual.

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

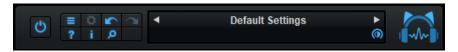
Like all Blue Cat Audio plug- ins, Blue Cat's Flanger uses a skinnable user interface. It means that the appearance and behavior of the user interface can be entirely customized.

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:



Smooth Bypass

On the left, the power button can be used to smoothly bypass 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.

Using the knob on the bottom right of this area, you can reduce the **opacity** of the window, and make it transparent (the actual result may depend on the host application). Additional messages may appear in the area next to this knob, depending on the plug- in.

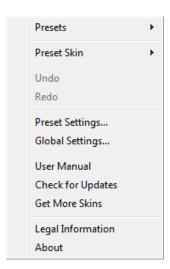
Commands

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

lcon	Name	Function	
	Menu	Open the main menu	
*	Control Settings	Display individual control settings (to manage automation and MIDI control, as described here).	
	Undo	Undo	
	Redo	Redo	
?	Manual	User Manual	
i.	About	About	
Q	Zoom	Scale the user interface (from 70% to 200%).	

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:

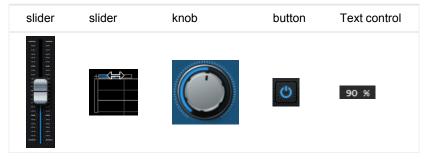


- Presets: opens the presets menu to manage presets.
- Preset Skin: opens the skins menu to choose the skin for the current preset and manage alternative skins for the software.
- **Undo/ Redo:** undo or redo the latest modifications. This includes all changes made to the current preset settings such 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 settings window. It lets you change the skin, MIDI and automation settings that are used by default in all instances of the plug- in (if not overridden 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.

Controls

Examples

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



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 plugins. 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): Gain 3.00 dB	
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)
е	Opens the 'fine tuning' window to precisely set the parameter: Gain 3.00 dB
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

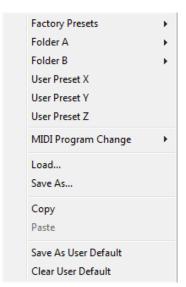
Key	Action
Enter	Pushes the button

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 <u>main menu</u> or the <u>main toolbar</u>. 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.
- MIDI Program Change: activate MIDI Program Change support (see below).
- · Load: load preset from file.
- Save: save current state to last loaded user preset.
- 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 User Default: save the current state as the default preset. This preset is used every time a new instance of the plugin is created
- Clear User 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.

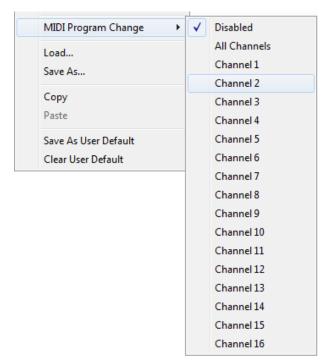
The user presets are stored in a subdirectory of the documents folders of your profile ("Documents" on Mac, and "My Documents" on Windows): Blue Cat Audio/ [Plug- in Name]/ Presets. Each preset is stored as an individual file. You can create folders and subfolders in the Presets directory to classify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

It is possible to load presets remotely using MIDI "Bank Select" and "Program Change" messages. To enable this feature, select a MIDI channel to receive the events from in the MIDI Program Change menu item from the <u>presets menu</u>:



This setting is a global preference (shared accross all instances of the plug- in). Once activated, the plug- in menu will display the bank number followed by the preset number for each preset:



Every root folder is considered as a new bank, starting with the factory presets (bank 0). Program and bank numbers may change while you add folders and presets, so you should be careful when naming them if bank and program numbers matter to you. It is recommended to use folders to make this task simpler. As a side note, sub folders do not define additional banks (all presets contained in sub folders are associated with the current bank.

As specified by MIDI, bank select messages are not used until a program is actually selected.

MIDI Implementation note: the software supports all types of Bank Select methods. You can use either MIDI CC 0 or MIDI CC 32 to select banks. If both are used simultaneously, they are combined together so that you can use more banks (in this case CC0 is LSB and CC32 is MSB, and actual bank number is 128*CC0+CC32).

MIDI and Automation Control

Blue Cat's Flanger 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 <u>main menu</u> (see the <u>Plug- in Settings</u> 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 <u>toolbar</u>button, dropdown menu buttons appears next to main controls:



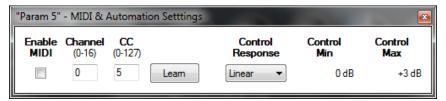
Clicking on this button shows the MIDI/ Automation settings menu:



- 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.

Advanced 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 <u>Plug- in Settings</u> 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 Flanger 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 <u>settings panels</u> described later in this manual.

Input

Name	Unit	Description
Bypass		Bypass the effect.
Gain	dB	Input gain.
Dry	%	Amount of dry input signal.
Feed Forward	%	Amount of direct delayed signal (signal modified by the non- recursive variable delay). A negative value means phase inversion for the direct delay.
Feedback	%	Amount of feedback for the recursive variable delay. If you set this value to +/-100% the signal might increase until it clicks. A negative value means phase inversion for the recursive delay. When set to 0, the effect behaves like a chorus effect with a short delay.
Delay	ms	Average delay applied to the signal.
Depth	%	Depth of the effect: amount of delay variation around the average delay.
Rate	Hz	Rate of the LFO.
Spread	%	(Stereo version only) Amount of stereo effect. Set this parameter to 0 if you want a mono effect.
Shape		Selects one of the two available shapes for the LFO: sine (0) or triangle (1) waveform.

Plug- in Settings

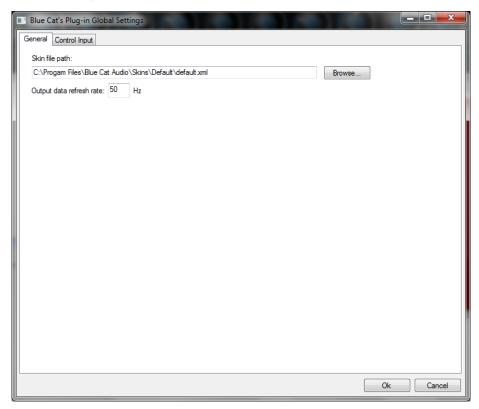
In addition to the controls offered in the main user interface, Blue Cat's Flanger has various settings that let you fine tune the behavior of the plug- in. You can choose to change these settings either for the current preset or globally for all instances of the plug- in.

The Global Settings Window

The settings available in this window *apply to all instances of the plug- in, for all presets*, if not overridden in the <u>presets settings</u>. 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.

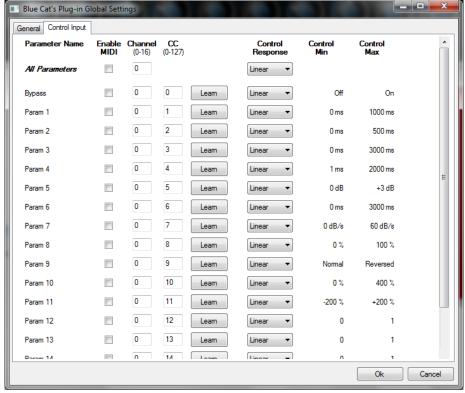
The settings below are available for each plug- in parameter.

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:

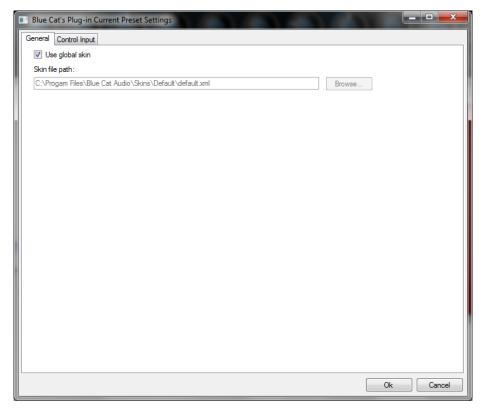


The Current Preset Settings Window

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

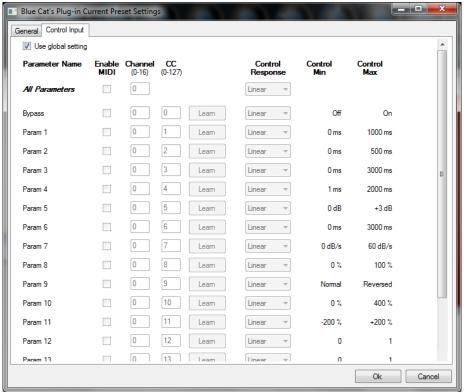
Preset Skin

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

http://www.bluecataudio.com/ Skins/ Product Flanger

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

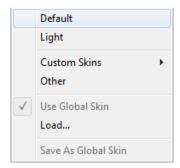
Choosing the Skin

There are two ways to select the skin of your plug- in: you can change the default (or 'global') skin, or change the skin for the current preset only (either in the <u>preset settings page</u> or from the main menu). The global skin applies to all plug- in instances (choose this one if you want to use the skin used by default, regardless of the session or preset), whereas the current preset skin only applies to the current preset of the current plug- in instance (use this one if you want to change only the skin for the current session/ preset).

Note: in some host applications, 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.

The Skins Menu

The skins menu can be opened from the <u>main menu</u>. It displays the list of skins available for the plug- in as well as commands to manage the skin used by default when no preset skin has been selected:



- First Section Factory Skins: shows the list of factory skins delivered with the plug- in ("Default" and "Light" in this example).
- Second Section User Skins: shows the list of user skins that have been installed in the Documents Skins folder for the plugin (see below).
- **Use Global Skin:** use the global skin for the current preset/ session (unloads any custom skin previously selected for the current preset).
- Load: opens a file browser dialog to manually select the skin from the file system.
- Save As Global Skin: use the current preset skin as the global skin (loaded by default if no preset skin has been defined).

Installing User Skins

To select user skins directly from the skins menu, install them in the "Skins" directory available in the plug- in's documents folder:

[Your Documents Folder]/ Blue Cat Audio/ [Plugin Name]/ Skins/

The skin engine will scan this folder for new skins (xml files) and display them in the menu. The skin files should be in the root skins folder or in a subdirectory inside this folder: subdirectories are not scanned recursively.

Other Methods to Select Skins

You can also select the skins in the settings panels available from the main menu:

The global skin (used by default if no preset skin has been selected) can be changed in the <u>global settings</u> pane. The current preset skin can be changed in the <u>preset settings page</u>.

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 <u>Blue Cat's Skinning Language manual</u> 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.

More...

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

Tutorials

Many Tutorials are available on our website. They cover a wide range of topics and host applications.

You can find here a list of tutorials related to the Blue Cat's Flanger plug- in.

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 Flanger skins page to get the latest skins.

Updates

As you can see in the <u>history log</u> 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 Flanger has been updated, or subscribe to our <u>Newsletter</u> to be informed of the latest news about our products.

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

Versions History

V3.3 (2018/12/13)

- Refreshed GUI design, with improved usability and improved touchscreen support.
- The GUI can now be zoomed from 70% to 200%.
- Added Retina displays support on Mac (text and graphs using high resolution).
- Last loaded preset is now remembered in session and displayed in the presets menu.
- Plug- in state can now be reverted to the last loaded preset.
- New installer on Mac.
- Fixed minor compatibility issues with Mac OS High Sierra and Mojave.
- Dropped support for Windows XP and Mac OS X 10.6 and earlier.
- Dropped support for legacy DirectX plug- in format.
- Fully compatible with previous versions of the plug- in (except for VST3 on Mac, as explained below).

Warning: because of a bug of the initial VST3 release, this new version may not work with existing sessions that used the VST3 format. See this blog post for more details and how to fix it.

V3.2 (2016/03/03)

- VST3 plug- in format support.
- Custom skins can be selected directly from the main menu.
- Presets can now be selected using MIDI Program change and bank select messages (optional).
- · Last loaded preset can now be saved directly from the presets menu without having to select the file.

V3.1 (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.

V3.02 (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.

V3.01 (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.

V3.0 (2012/03/28)

New Features:

- · New user interface.
- 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.
- The plug- in now appears in the "Modulation" category in Pro Tools.
- 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.
- This product now includes both the mono and stereo versions.

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.

V2.63 (2011/02/10)

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

V2.62 (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.

V2.61 (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.

V2.6 (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.

V2.5 (2009/11/20)

- Factory presets are now available from the plugin menu.
- 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.

V2.4 (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.

V2.31 (2009/05/05)

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

V2.3 (2009/02/03)

Mac Audio Unit Support.

V2.3 (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.
- Performance improvements.

V2.2 (2006/11/29)

- Now supports Blue Cat's Skinnning language 1.2.4.
- Parameters can be fine tuned when the shift key is down.
- CPU efficiency improvement: no processing occurs when input is silent.
- · Settings window now loads faster.
- (Bug fix): in some plug- in adapters (such as FxPansion's VST to RTAS adapter) the GUI did not display properly when first loaded.
- (Bug fix): when reinstalling the software in another directory, the "skin not found" message was displayed.

V2.1 (2006/09/27)

- Minor UI enhancement for hosts not supporting Windows XP Theme.
- (Bug fix): presets load/ save did not always work properly in Sonar 5 for some european versions of Windows XP.

V2.0 (2006/09/11)

- Brand new skinnable Graphic User Interface using Blue Cat's skinning language v1.2.2.
- Advanced MIDI control with customizable parameters curve response and MIDI learn.
- All parameters can now be fine tuned thanks to a text- edit popup window that appears when double clicking on user interface widgets.
- Feedback and Feed forward parameters can now be negative for phase inversion.
- Precision of the gain control enhanced.
- User Manual accessible from plug- in UI.
- DX version: the factory presets are now available from the host standard presets view (for hosts that support static presets)
- Warning: because it now supports MIDI events, the DirectX plug- in may appear in the "Synth" or "DXi" category instead of "effects" in some hosts (such as Cakewalk Sonar). If it does not appear in you host, you might want to use our DXi Manager to de- activate MIDI features.
- Warning: this new version breaks the presets compatibility, and is thus installed as a new plug- in. If you have a previous version installed and do not want to keep it, just uninstall it manually.

V1.3 (2005/12/29)

- Now shows version information when clicking on the logo.
- DX version fix: host may crash when stopping playback and effect bypassed.
- DX version fix: Cakewalk Sonar crashes when loading custom presets.

V1.4 (2005/01/15)

• Fixes a potential denormal issue, which could cause high CPU cost when feeding the effect with silence (15% CPU for a stereo track on an AMD 2000+, instead of 2%).

V1.2 (2004/12/21)

- GUI Improvement: now supports non- standard DPI Settings.
- "Rate" slider now shows 2 digits.

V1.1 (2004/12/18)

- First VST Version.
- DirectX version: smooth update and performance improvements.

V1.0 (2004/09/21)

First DirectX Version.

Thanks again for choosing our solutions!



See you soon on $\underline{www.bluecataudio.com!}$