



Puff Puff mixPass

user manual PPP 1.0.0

KORNEFF
the other side of sound



PUFF PUFF mixPASS 1.0

A large part of modern audio production is making finished recordings loud so they're competitive on streaming platforms such as Spotify and YouTube, terrestrial and satellite radio, etc. The downside to this "loudness war" is music with boring, static dynamics and a lifeless, squashed quality, typically caused by using a lot of compression and limiting.

The Puff Puff mixPass allows you to make competitive, loud recordings that have natural, engaging dynamics without the unpleasant side effects that render a mix dull and lifeless. The PUFF PUFF excels at increasing the perceived loudness of virtually any form of program material, regardless of pre-existing compression levels or dynamic range. More than just enhancing volume, Puff Puff mixPass shines in adding warmth, character, and the lively sonic interest often found in analog equipment.

Puff Puff mixPass enhances audio by using a combination of waveshaping and slight upward expansion to accentuate the intensity of peaks without introducing common compression artifacts like 'pumping' or blunt force trauma on sharp percussive sounds. Despite the notable increase in density (loudness), the essence of the dynamic content is predominantly retained.

More than just a loudness tool, Puff Puff mixPass can create a harmonically enriched signal with a sound quality reminiscent of recordings made on classic tube (valve) equipment. The result is optimal loudness with a rich, analog-like texture, whether on individual tracks, sub-mixes or the main mix bus. PUFF PUFF is also useful to enhance audio for video and in mastering situations.

Of course, it wouldn't be a Korneff Audio plug-in if it didn't have additional controls to add character, saturation, distortion, etc. The Puff Puff mxPASS can be transparent and clean, or as gnarly as a broken fuzz pedal. It's up to you and your creativity.

How Does This Thing Work?

There's loudness as the meter on your DAW reads it, and then there's loudness as your ears hear it. These are two different things.

Loudness to a meter is how high the peaks read, and also the average distance between the peaks on the meter and the lower stuff the meter reads. How much that meter jumps around.



If that meter jumps a lot—the distance between the quiet stuff and the peaks is wide—the recording has natural sounding dynamics, but it typically won't sound all that loud to your ears. If that meter is pretty much locked up, not jumping that much at all—the distance between quiet and loud is minimal—things might sound very loud but somewhat dead and flat.

Your ears have a much more complex way of perceiving loudness. Yes, they take into account dynamic range (that's what the meter is responding to), but they also pick up on things like harmonic complexity, distortion, frequency response and harmonic balance. The PUFF PUFF mixPASS increases perceived loudness by providing the sorts of loudness cues your ears identify, not by squashing things to reduce dynamic range, like a compressor or limiter. In fact, you can run something that is already crushed to hell through the PUFF PUFF and it will not only increase the perceived loudness, but it will seemingly add back some of the lost dynamics.

The PPP (PUFF PUFF mixPASS) contains two waveshapers that act in different ways upon the signal to change its harmonic content. Harmonics are created and added in, and your ear interprets it sounding louder. That isn't all that happens, though. The PUFF PUFF also selectively amplifies transients to upward expand the dynamic range of the signal.

The net result is that the PUFF PUFF mixPASS increases apparent loudness as well as signal liveliness, mimicking a complex signal chain that back in the days of analog yore would have required a bunch of tube equipment adding saturation and overtones, some very fancy expansion circuitry and then all sorts of parallel processing. The PPP does all of that with a few knobs.



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SPECIFICATIONS

Minimum System Requirements

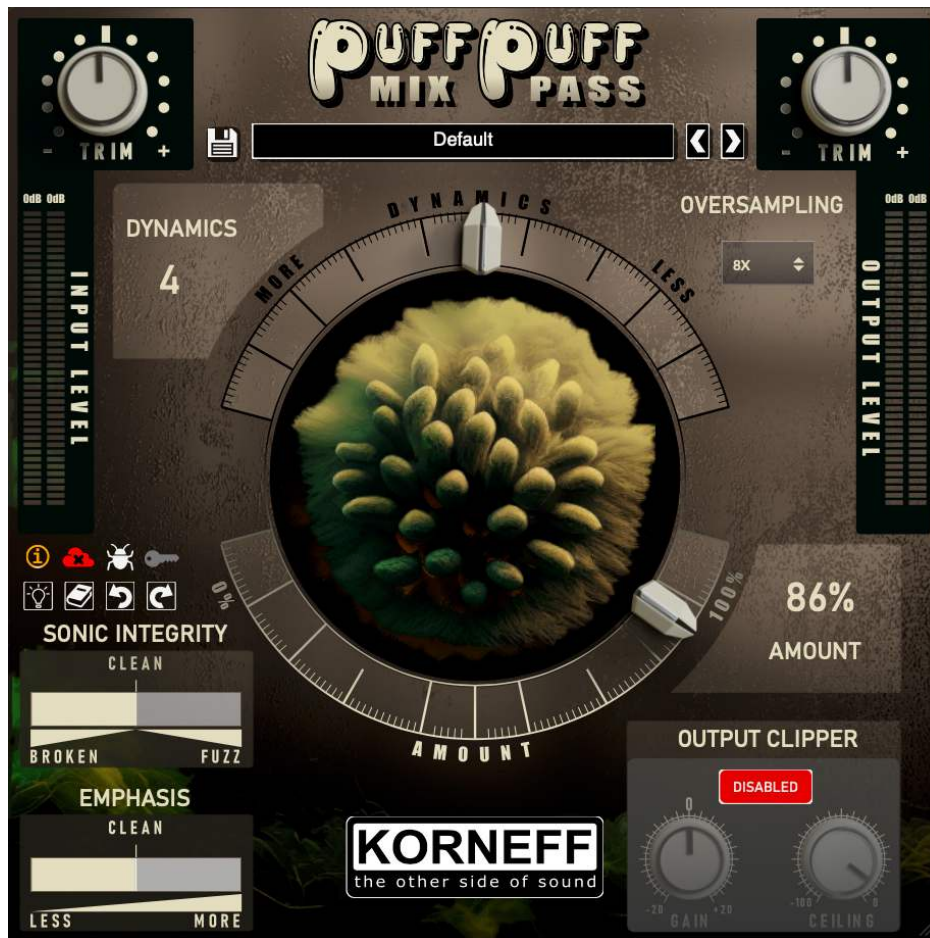
Quad Core i5 Processor
4GB of RAM
Mac OS X 10.14 or Later
Windows 7 & Above

Supported Plugin Formats

Intel Mac 64bit: VST3, AU, AAX
Windows 64bit: VST3, AAX

SIMPLIFIED BLOCK DIAGRAM

CONTROLS and OPERATION



1 - Input/Output Trim Controls

At the top of the plug-in are two level trims, **INPUT TRIM** to the left, **OUTPUT TRIM** to the right.

Generally, you'll use these to optimize the levels in and out of the PPP with respect to other plug-ins in your signal flow. Generally, you'll want these set so that the INPUT LEVEL and OUTPUT LEVEL meters are bouncing around but not going over that top 0dB point.

Quick tip: all Korneff plug-ins accurately model input and output amplification stages of a circuit, which means that if you crank up the input, you'll get usable overdrive and overload effects rather than just digital snap, crackle and pop (there will be munchies jokes in this manual).

2 - Dynamics Adjustment



2 - Dynamics Adjustment

The DYNAMICS control fine-tunes the processing, impacting both the signal's perceived loudness and its tonal characteristics. When set to its lowest (-100), the Puff Puff offers the gentlest enhancement, introducing a minimal loudness increase but significantly enriching harmonic content for a fuller sonic profile. This subtlety is most useful in final mixes, where it amplifies louder elements over the more ambient and reverberant sections, creating a dynamic expansion effect.

Adjusting the DYNAMICS control towards zero gradually adds 'fatness' and volume. The control's midpoint (zero, the default setting) yields the most balanced outcome. It significantly elevates the signal's overall volume while keeping a harmonious balance between the louder and softer parts, with little to no distortion. The outcome is a warmer, more harmonically rich sound that enhances the presence and texture of instruments, especially in the lower frequencies. It also gently tucks high frequencies and peaks, preserving clarity, attack, and the sharpness of the sound without dominating the mix.

Sliding the DYNAMICS control from zero up to +100 increases 'fatness' and volume, albeit with a compromise to dynamic range. The result is an 'in-your-face' sound that maintains excitement and detail. This setting also makes quieter and background components more perceptible, with bass lines more pronounced, even on smaller audio systems. Using this process for audio material ensures a louder playback on all types of devices, large or small.

Remember, the DYNAMICS control is counterintuitive. As you slide it right, the Puff Puff effect INCREASES, the loudness INCREASES but the dynamic range DECREASES.

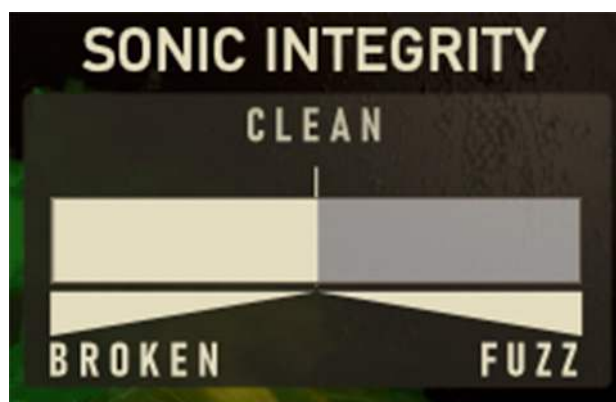
3 - AMOUNT ADJUSTMENT



AMOUNT determines the intensity of the overall effect that is applied to the signal. Turning it up increases the perceived loudness, warmth, and presence of the audio without a significant increase in peak amplitude.

An easy way to think of AMOUNT is as a mix control, except that it isn't a mix control. There is always some processed signal present when using the PPP, it's just that the effect is minimized when AMOUNT is moved to the left and increased as it's moved to the right.

4 - SONIC INTEGRITY



The SONIC INTEGRITY control is a distinctive feature that allows users to sculpt the character of their audio by adjusting the processing algorithm. This control spans a wide range of sonic textures, from a 'broken' sound to a pristine, clean tone (the default setting aimed at delivering high-fidelity audio) to distorted "fuzz box" types of effects. This

functionality makes it possible to either preserve the natural qualities of the original audio or to transform it radically, offering flexibility across various genres and production styles.

Broken: This setting intentionally degrades the audio quality, emulating the artifacts and character of damaged audio equipment or media. It's ideal for creating lo-fi effects or for adding texture to sterile tracks.

Clean: (Default) With the control set to its default position, it ensures the audio maintains its original clarity and purity, making it suitable for applications requiring high sonic fidelity.

Fuzz: Pushing the control towards "Fuzz" introduces a level of harmonic distortion reminiscent of overdriven analog gear, adding warmth, edge, and character to the signal.

5 - EMPHASIS



The EMPHASIS control works in tandem with the SONIC INTEGRITY setting to fine-tune how much of the chosen character is applied to the audio. By adjusting the Emphasis, users can determine the intensity of the effect, from subtle nuances to pronounced transformations. This control effectively modulates the depth of processing, allowing for precise manipulation of the audio's texture and timbre.

Less: A lower setting on the Emphasis control adds just a hint of the selected Sonic Integrity character, enhancing the audio without overwhelming its original qualities.

Clean: (Default) This setting provides a balanced application of the effect, retaining the core essence of the audio.

More: High settings on the Emphasis control fully embrace the selected Sonic Integrity character, significantly altering the sound for dramatic effect.

6 - OUTPUT CLIPPER



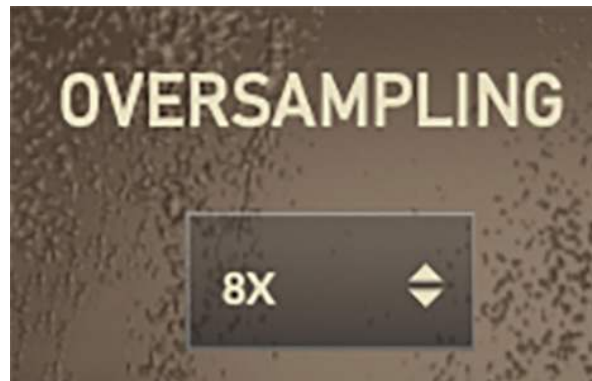
The OUTPUT CLIPPER lets you set a maximum peak output level, the **CEILING** control, and then the **GAIN** lets you "push" into that ceiling setting. Switch the effect in and out using the **DISABLED/ENABLED** button.

Typically, clipping effects cause all sorts of artifacts, from things pleasant (harmonic distortion) to things unpleasant (digital snap, crackle and pop). The clipping algorithm of the PPP processes the digital unpleasanties out of there, with the net result that you can really crank up the GAIN and make the output of the PUFF PUFF quite hot and squashed, without things sounding awful.

Yes, the OUTPUT CLIPPER sort of obviates the premise of the PPP, but it's cool and fun and you might as well fight in the loudness wars fully armed.

(Oh, some intentionally left blank space....)

7 - OVERSAMPLING ADJUSTMENT



OVERSAMPLING adjusts the sample rate of the plugin up to 16 times the current sample rate of your project. Oversampling minimizes deleterious digital artifacts that can lessen the sound quality of signals. However, engaging OVERSAMPLING will increase the load on your computer's processors, which can cause stuttering and other issues with your audio. If you are working at sample rates above 48kHz, you probably don't need to use oversampling because artifacts will most likely already be minimized. At rates below 48kHz, adjusting oversampling can yield an improvement in sound quality.

8 - TOOL TIPS/USER MANUAL



The **LIGHTBULB** brings up the tool tips, and the **BOOK** opens the user manual, which you are currently reading. Well done! You've mastered the **BOOK** button and the day is still early!

UNDO, to the left, reverses all the damage done to your inner child, which has been causing trouble in all of your intimate relationships. **REDO**, to the right, takes you back to where you are now, insecure and wondering about your future, insecure and it goes back to the previous settings you tweaked on the PUFF PUFF mixPASS. Know that we at Korneff Audio love you and are sure you've got greatness in your future. We're not kidding.

LICENSE MANAGER: Activate or deactivate your plug-in here. (More on this later)



INFO (letter I in a circle)

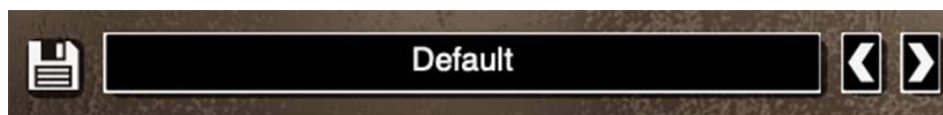
Click this to see the version number of the plug-in, a list of who did what to make it happen, tips for how to behave around naked people, etc.

UPDATE NOTIFIER (colorful cloud symbol): This indicates whether or not there is an update to your plug-in software. Green means good, and there is more information about this under **Activation**.

The **BUG** is a link to a place on the Korneff Audio empire where you can report problems with this software. If you don't see the BUG, then it means everything is utterly perfect with our software.

Click on the **KEY** symbol to see your license activation options. There's a whole bunch about licensing looming in your immediate future.

9 - PRESET BROWSER



Click on the dark display area with lettering on it to access the preset browser and load and save presets. The **ARROWS** allow you to step through the presets and audition them. The **DISK** button saves the current setting to the preset library.

The **PRESET BROWSER** has three columns. The column to the far left shows the name of the Bank, the middle column shows the Category, and the third column shows the Preset.

USAGE IDEAS

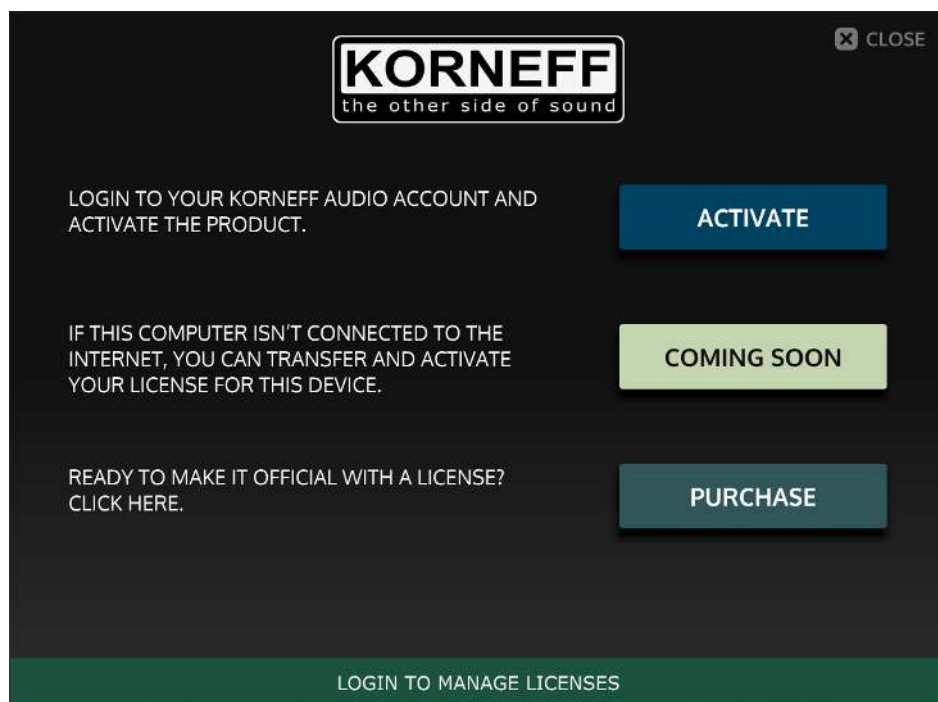
10 - the Mysterious PUFF PUFF Flower

Ah, what a nice thing it is to watch the magical Puff Puff flower move and undulate gently as your tracks and mixes are processed to perfection. Turn off your mind, relax, float downstream...

LICENSING ACTIVATION

Activation is a crucial step in getting your plugin up and running. In this section, we'll guide you through the activation process, explaining the available options and how to use them.

Activation Options



Upon launching the plug-in, you'll be presented with a set of activation options. Here's a breakdown of the available choices:

Online activation: Allows you to connect to your Korneff Audio account and activate the product seamlessly. This method ensures that your plugin is always up to date and connected to your account, providing you with the latest features and improvements.



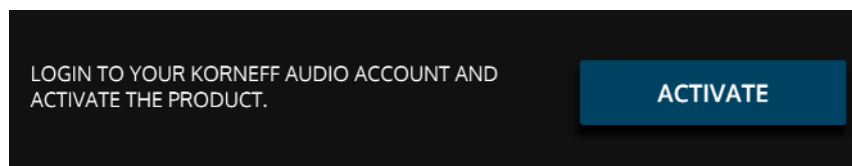
Offline activation: While currently disabled, will soon allow you to transfer and activate your license on a device that isn't connected to the internet. This feature is ideal for situations where internet access is limited or unavailable.

Please note that offline activation is marked as **COMING SOON** and will be available in future updates of the plugin.

Purchase: If you haven't obtained a license yet, you can easily purchase by clicking on the **PURCHASE** button. This will direct you to the Korneff Audio website, where you can make your purchase and receive your license.

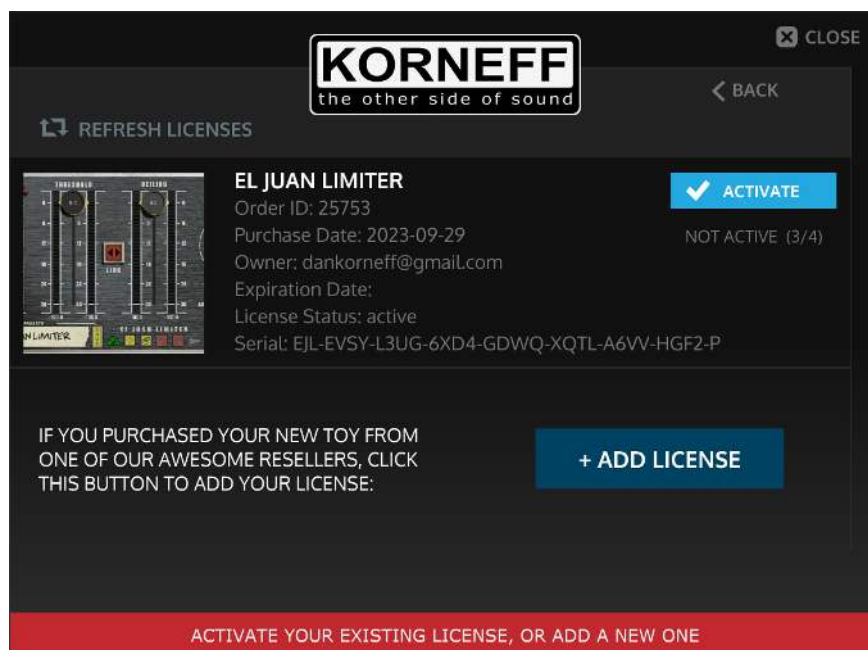
Online Activation

Online activation allows you to easily activate your product by connecting to your Korneff Audio account. Follow these steps to complete the online activation process:



Select Activate: Start by selecting the **ACTIVATE** option from the activation options panel.

Log In to Your Account: You will be prompted to sign in to your Korneff Audio account if you haven't already. Enter your email and password associated with your account.





Activate Your License: Once you're logged in, you'll see a list of your licenses associated with your account. Locate the license you want to activate in the list, then click on the **ACTIVATE** button next to the license you wish to activate. This will initiate the activation process for that specific license.

Add License: If you purchased your product from a third-party reseller, you may need to click on **ADD LICENSE** to import the license to your Korneff Audio account.

Once you log in to your account, you can access the Add License panel by selecting the **ADD LICENSE** option from the License panel. This panel is specifically designed for users who have purchased their Korneff Audio product from an authorized reseller.

The screenshot shows a dark-themed modal window titled "ADD YOUR THIRD-PARTY LICENSE". At the top left is the Korneff logo with the tagline "the other side of sound". At the top right is a "CLOSE" button with an 'X' icon. Below the title is a "BACK" button with a left arrow. The main content area contains a welcome message: "WELCOME! IF YOU'VE PURCHASED OUR PRODUCT FROM AN AUTHORIZED RESELLER, YOU CAN EASILY ADD YOUR LICENSE HERE. SIMPLY ENTER YOUR LICENSE KEY BELOW, AND WE'LL TAKE CARE OF THE REST. IF YOU HAVE ANY QUESTIONS OR NEED ASSISTANCE, OUR HELP RESOURCES ARE JUST A CLICK AWAY." Below this message is a light gray text input field. Under the field is the placeholder text "Enter your License Key above." and a blue "SUBMIT" button. At the bottom of the modal is a green bar with the text "ADD A NEW LICENSE TO YOUR ACCOUNT".

- In the **Add License panel**, you will find a text input field where you will enter your license key. This key is provided to you by the third-party reseller from whom you purchased the product. Copy and Paste the entire code, including dashes.
- Once you've entered your license key, click on the **SUBMIT** button. This action will send your license key for validation.
- The system will validate the license key to ensure it's authentic and associated with a legitimate Korneff Audio product. If the validation is successful, you will receive a confirmation message indicating that your license has been added to your account.

- After successfully adding your license, you will be automatically redirected back to the main license panel. Here, you will see your newly added license in the list, ready for activation.

Offline Activation

This option is currently under development and will be added soon.

UPDATE NOTIFICATIONS



RED - Auto-Update Off (Expired)

This status indicates that either you've manually turned off the auto-update feature or haven't checked for updates in the last 30 days. When you see this status, it's a gentle reminder to consider enabling auto-updates. Keeping your software up to date ensures you have access to the latest features and improvements.

When you encounter the Auto-Update Off (Expired) panel, it's essentially your software's gentle nudge to consider enabling auto-updates. This status appears for two main reasons: Auto-Update Turned Off: You might have manually turned off the auto-update feature, which means your software won't automatically fetch update information.

30 Days Since Last Update Check will appear if Auto-Update is off and it's been a month since you last checked for updates. This panel reminds you to stay current. Staying up to date ensures your software remains robust, secure, and packed with the latest enhancements.

Consider enabling auto-updates to streamline the update process and keep your software at its best.

YELLOW - Update Available

When there's a new update waiting for your software, this status lights. Clicking on this icon will reveal a panel packed with information about the available update, including its version number, release date, update type, and a detailed description. Plus, you'll find a handy button that takes you straight to the downloads section of your account, making the update process a breeze.

The **Update Available** panel signals exciting news – there's a new update ready and waiting for your software. This panel provides comprehensive information about the



available update, making it easy for you to decide whether to proceed with the update. Here's what you'll find:

- **Project Name:** The name of your software project, ensuring you know exactly which application is receiving the update.
- **Version Number:** The specific version number of the update, indicating how significant the changes are.
- **Release Date:** When the update was released, so you can gauge its freshness.
- **Update Type:** This section highlights the type of update. Is it a minor bug fix, a major feature enhancement, or something in between? This detail helps you understand the nature of the update.
- **Update Description:** A detailed description of what the update entails. This can include new features, bug fixes, and other improvements. It's your roadmap to what's changing.

GET UPDATE Button: A convenient button that, when clicked, takes you directly to the downloads section of your account. This means you can initiate the update process right away.

The Update Available panel equips you with all the information you need to make an informed decision about updating your software. Whether it's new features, bug fixes, or security enhancements, you'll know exactly what you're getting.

OLIVE/GREEN - Up to Date

When everything's ship shape and your software is already running the latest version, this status puts your mind at ease. It's a reassuring pat on the back, confirming that you're already on the cutting edge of what your software has to offer.

The Up to Date panel is your digital seal of approval, confirming that your software is already running the latest version available. When you see this status, it means you're in sync with the latest developments, features, and improvements. There's no immediate action required because you're already enjoying the best your software has to offer.

It's always a good feeling to know that your software is up to date and optimized for peak performance, and it's the least we can do to comfort you, given the mess that is this modern world and the inevitable rise of SkyNet and the extermination of the human race.

RED GLOBE with TILTED DEATH STAR - No Internet Connection

If you find yourself in a digital desert with no internet connection available, this will appear. This status is a friendly way of saying, "Hey, we can't check for updates right now because the internet is out of reach." It's a temporary reminder that you may want to reconnect to the web when it's convenient to ensure you don't miss out on any future updates. Also, the Empire might be waiting to destroy your planet.



The No Internet Connection panel steps in when there's a temporary hiccup in your internet connection. This status politely informs you that, at the moment, it's unable to check for updates due to the lack of an internet connection.

While this status may appear momentarily, it serves as a reminder to ensure your device is connected to the internet. Once you're back online, the Update Notifier will resume its role, keeping you informed about your software's status.



USAGE IDEAS

Where to start with this thing... it's sort of like a compressor or a limiter but without any gain reduction component... so it really isn't like a compressor or a limiter. It's kind of like an aurel exciter except that it makes things sound louder, so it isn't really an exciter. It adds harmonics like a saturator, and at some settings it is a saturator, but it's not a saturator.

Let's look at the Puff Puff mixPass in applications to give you some ideas on what it can do for you.

On the Mix Bus

We typically use the Puff Puff as the very last thing in the signal chain that's on the mix bus —after the bus compression, the EQ, etc.

You've got your mix sounding good, but perhaps there's a lot of overall compression happening and it's a little bit dead, a little bit squished to death.

Back off the threshold of the limiter, just until the mix "catches its breath" and some of the natural dynamics are restored. Of course, it sounds a little bit quieter now.

Switch in the Puff Puff. Set DYNAMICS fully to the left, set AMOUNT to 0 (the default position) and make sure SONIC INTENSITY and EMPHASIS are in the middle (the default setting).

Enable the OUTPUT CLIPPER and set CEILING to 0.1dB. Make sure GAIN is at unity.

Slide DYNAMICS a little to the right, maybe 10% and listen. You'll notice an increase in volume but no real change in your output meters. You'll also notice an increased fullness and more details. Keep increasing DYNAMICS, and as you do the output will get louder and louder. Most of the work in setting the Puff Puff on the mix bus or in mastering applications is juggling with AMOUNT and DYNAMICS to get the loudness and fullness of the mix where you want it.

It's possible to get a brutally loud mix with the Puff Puff. It's also possible to add just a touch of fullness without getting any sort of compression artifacts. At low settings the Puff Puff is very stealthy, and useful for jazz and classical music, or any kind of material that just cannot sound compressed.

On Submixes

The Puff Puff shines on submasters or submixes, and its flexibility as a processor becomes very apparent.



Set lightly, with DYNAMICS and AMOUNT more towards the right, the Puff Puff will enhance transient response, making it a lovely plug-in to add on percussion and drums, acoustic guitars, pianos, etc.

Increase DYNAMICS and AMOUNT to add loudness and more details to the submitted tracks. We LOVE adding the Puff Puff to backing vocals and vocal program material in general. While the PUFF PUFF doesn't do that "compressor glue" thing, it does pull things together a bit in its own way.

Adding Back Dynamics

The Puff Puff can be a lifesaver on very distorted, heavy guitar parts.

Distortion can be thought of as extreme compression, and distorted guitar parts can too easily become dynamically gunky and dull—the chugga chugga seems to lose the "chug" and become a wall of "ugga." This is because the distortion has rounded off the transients of the pick attack.

At low settings of DYNAMICS and AMOUNT, the Puff Puff mixPass can restore sparkle and transient life, and the perceived presence of the guitars in the mix can be controlled by further adjustments of these two controls without having to touch a channel fader.

Adding Character

There's a tendency to use the Puff Puff just to make things louder, ignoring that it has additional controls that make it a very capable character box/distortion generator.

SONIC INTEGRITY and EMPHASIS are unique features to the Puff Puff; you want to take advantage of them.

As an example, on the guitar submix we were talking about a few paragraphs up. Want to get the sound of an overloading channel bus? Slide SONIC INTEGRITY to the right to add harmonic distortion that has a nice, analog quality to it. Adjust accordingly with EMPHASIS.

Need to get something happening on a dull keyboard part? Slide SONIC INTEGRITY to the left to, well, basically dump a sonic junk drawer into the proceedings and then adjust how much junk with EMPHASIS. And of course, you can make the junk more detailed by increasing DYNAMICS.

The point is please experiment with it. Try it on individual tracks. Make a fuzz bass. Make splintered, fractured vocals. Throw it across a reverb bus and turn it into a thick, rich goop. Combine it with The WOW Thing here to spread the goop all over the control room.



Puff Puff mixPass Everywhere?

Dan developed the Puff Puff in his usual manner, by using it on commercial mixes for his many clients. He noticed that at the end of the mix, the darn thing was EVERYWHERE, on all the buses, the master, on some individual tracks. In short, the Puff Puff got passed around and every track had a hit of it. Hence it's name. It puffs up the dynamics and everyone wants some.

So feel free to use the Puff Puff mixPass EVERYWHERE on your recordings. It's habit-forming, and it sounds great.