



MIXCONTROL PRO

DNR COLLABORATIVE

1. Introduction

1.1 General Description

MixControl Pro is a multipurpose mixing channelstrip intended for a variety of audio production tasks, including complete track mixing, stereo mix enhancement and bus sub-mixing. It is not meant as an analog emulation of any kind, but a precise and flexible audio processing solution for professional mixing engineers and producers.

1.2 Available Formats

MixControl Pro is available in various popular professional audio plug-in formats. Please make sure that you own an audio plug-in host which is compatible with one of the following formats:

- Windows 32-bit RTAS
- Windows 32 and 64-bit VST 2.4
- Windows 32 and 64-bit VST 3.0
- Mac 32-bit RTAS
- Mac 32 and 64-bit VST 2.4
- Mac 32 and 64-bit VST 3.0
- Mac 32 and 64-bit AU



1.3 Requirements

MixControl Pro requires an audio hosting application such as [Ableton Live](#), [Steinberg Cubase](#), [Apple Logic Pro](#) or [Cockos Reaper](#), which is compatible with the list of available formats above. Be aware that very few hosting applications currently support the VST3 plug-in standard. The current minimum system specifications to run MixControl Pro are as follows:

- Windows XP / Win7 (32 or 64-bit)
- Mac OSX 10.5 or greater
- VST/AU compatible host
- 500mhz processor
- 512mb of memory

Because we do not have the ability to test and support all audio workstations and hosting platforms, we offer a 14-day fully-functioning demonstration version so that you can fully test the software with your audio production setup to make sure that it works properly. If you encounter any issues with the software and your current processing setup, please see the support section at the end of this document for locations to request assistance.

1. Registration / Removal

1.2 Evaluation Period

MixControl Pro will run for 14 full days with no restrictions whatsoever. After a literal 14 day period, MixControl Pro will require authorization through a simple license key file, which is provided during the purchase process.

1.2 Authorizing

After purchasing MixControl Pro, you can license the plug-in through a standalone version which is installed simultaneously during the plug-in setup. This standalone version is specifically for registering your software, and avoiding any issues of licensing via the host application. To license the software, just run the standalone version, and navigate to the license file which was provided to you during the purchase process. This will license MixControl Pro permanently.

1.3 Uninstalling

In order to completely remove MixControl Pro and it's files, we require that the plug-in and support files are removed manually, to avoid unnecessary conflicts in installer package. The following is a list of all folders created and added to your system during installation:

Under Win / PC	Under Mac OSX
<pre> /program files/TeamDNR/ /My Documents/TeamDNR/ /<VST-Plugin-Path> </pre>	<pre> /Library/Audio/Plug-Ins/VST/MixControl /Library/Audio/Plug-Ins/VST3/MixControl /Library/Audio/Plug-Ins/Components/MixControl (*) /Applications/TeamDNR/MixControl Pro/ /user/Libraries/Audio/Presets/ /user/Libraries/Preferences/ (*) AU specific files </pre>

2. Interface

2.1 Included Layouts

MixControl Pro comes with 2 separate layout designs to choose from: *Extended* (large) and *Refined* (small). We have included these different interface layouts so that users with different screen sizes can choose the one that will be the most efficient on their current screen. Also, users who avoid tabbed plug-ins and would rather see all controls on the screen at once can take advantage of the large version, while users who work better with tabbed layouts can utilize the smaller, refined layout.



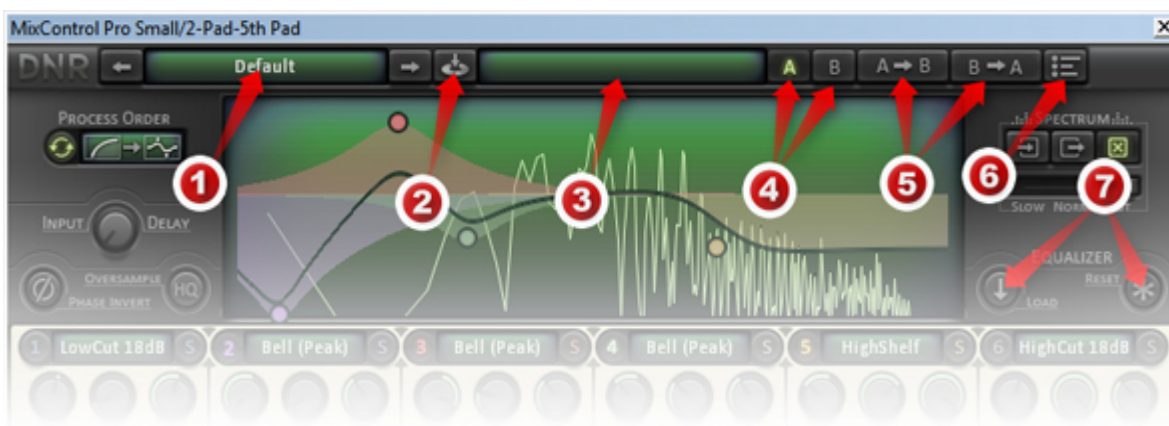
MixControl Pro / Extended



MixControl Pro / Refined

2.2 Layout Conventions

Both layouts included with MixControl Pro are arranged to be as simple as possible for the user to be efficient with, but there are a number of conventions that should be noted across the layouts in order to quickly get up to speed and working in an organized fashion. We will use the refined version to show these conventions in order to save space in the manual:



1. **Preset Name** – Shows the name of the current preset/patch that is loaded (if any).
2. **Save Preset** – Allows you to save the preset with it's current name and values.
3. **Parameter Info** – If you hover over a parameter, it's value is displayed here.
4. **A/B Patch** – You can switch between A and B locations with these switches.
5. **A/B Copy** – These allow you to copy each location to one another.
6. **Options** – This is a drop-down menu with numerous user preferences.
7. **Load / Clear** – These buttons are used widely to load and clear module-specific data.

3. Program Functionality

3.1 Module-Specific Functionality

MixControl Pro includes a large variety of different processing tools and consumes very little CPU power, allowing for complex processing of your audio signal and the ability to use MixControl Pro on every track in your project if you so desire. The following is a list of the modules that are available in MixControl Pro, a short description (via [Wikipedia](#), *Sweetwater* and *KVR Audio*) and the parameters available to alter these modules and the signal being processed through them:

Noise Gate

“A Noise Gate or gate is an electronic device or software that is used to control the volume of an audio signal. In its most simple form, a noise gate allows a signal to pass through only when it is above a set threshold: the gate is 'open'. If the signal falls below the threshold no signal is allowed to pass (or the signal is substantially attenuated): the gate is 'closed'...” [\[read more\]](#)

- Threshold (ms) - The signal level at which the gate opens, dependent upon the attack time .
- Attack (ms) - The amount of time it takes for the gate to open completely once the threshold is reached.
- Release (ms) – The amount of time it will take for the gate to close, after the hold stage is finished.
- Hold (ms) – How long the gate will stay open once the threshold is reached.
- Peak / Power / C-165 – Select between “peak”, “power” and ANSI C-165 standard level detection.
- Wet / Dry – This allows you to mix the effected from the non-effected signal.

Gate Sidechain

“Sidechain (and sidechaining) is a process by which one audio input is used to determine the amount of an effect which applies to another audio input. The determining audio input is called the sidechain and the process itself is called sidechaining...” [\[read more\]](#)

- Gain (dB) – Adjusts the level of side-chain signal being received from the gate module.
- Frequency (hz) – The frequency of the input signal that will activate gating.
- Q (dB) – This adjusts the bandwidth of the side-chain filter.
- Output (dB) – This adjusts the level of the side-chain filter output.
- Drop Down Menu – Selects the type of filter for the side-chain module to utilize.
- Sidechain Signal (INT/EXT) – Select internal internal or external input mode (ext mode is *VST3 only*)

Compressor

“Compression reduces the volume of loud sounds or amplifies quiet sounds by narrowing or "compressing" an audio signal's dynamic range...” [\[read more\]](#)

- Threshold (dB) – The signal level at which compression is applied.
- Ratio - The ratio determines the amount of compression by the level of input change to output change.
- Attack (ms) – The amount of time it takes for max compression to be achieved, once threshold is exceeded.
- Release (ms) – The amount of time it takes to stop affecting signal once it drops below the threshold.
- Knee (%) – This controls the shape of the compression curve.
- Peak / Power / C-165 – Select between “peak”, “power” and ANSI C-165 standard level detection.
- 1 / 2 (Selector) – Allows you to choose between transparent mode (1) and a proprietary vintage mode (2).

Compressor Sidechain

“Sidechain (and sidechaining) is a process by which one audio input is used to determine the amount of an effect which applies to another audio input. The determining audio input is called the sidechain and the process itself is called sidechaining...” [\[read more\]](#)

- Gain (dB) - Adjusts the level of sidechain signal being received from the compressor module.
- Frequency (hz) – The frequency of the input signal that will activate compression.
- Q (dB) – This adjusts the bandwidth of the sidechain filter.
- Output (dB) – This adjusts the level of the sidechain filter output.
- Filter Selection – Selects the type of filter for the sidechain module to utilize.

Stereo Adjustment / Enhancer

The stereo enhancement module included within MixControl Pro will allow you to enhance (not create) the stereo signal of the incoming audio. Because the module is not a typical “stereo widener” type of effect, any Mono signals fed into the unit will remain unaffected.

- Width (%) – 100% = max enhance; 0% = unaffected; -100% = mono,
- Frequency (hz) – Adjusts the high/low crossovers. The frequencies between the two equal the second band.
- Auto Gain – When enabled, this will compensate mono signal volume in relation to the width setting.
- Solo – Allows the auditioning of one or more signal bands.

6-Band Parametric Equalizer

“Parametric equalizers are multi-band variable equalizers which allow users to control the three primary parameters: amplitude, center frequency and bandwidth. The amplitude of each band can be controlled, and the center frequency can be shifted, and bandwidth (“Q”) can be widened or narrowed...” [\[read more\]](#)

- Enable – Enables the selected EQ band to be active, and shown in the display at the top of the interface.
- Gain (dB) – Increases the amount of gain applied to the selected band.
- Frequency (hz) – Adjusts the frequency which will be affected by gain and bandwidth changes.
- Q (dB) – Sets the width of the frequency band to be adjusted.
- Filter Selection – Selects the type of filter to be applied to the selected EQ band.
- Solo (“S”) - This button allows you to solo individual equalizer bands.

Saturation

“Saturation refers to the maximum amount of magnetism a magnetic tape can hold. Attempting to add more magnetism to the tape's oxide particles will result in distortion...” [\[read more\]](#)

- Mode #1 – This algorithm is generally better for use on multiple elements, or even on the entire mix.
- Mode #2 – This algorithm is tuned for individual instruments and voices, and may not be suitable for mixes and such.
- Mode #3 – An experimental mixture of algorithm 1 and algorithm 2.
- Mix (%) - Sets the amount of effected signal to be mixed with the non-effected signal.

Limiter

“A limiter is a dynamics processor very similar to a compressor. In fact, many compressors are capable of acting as limiters when set up properly. The primary difference is the ratio used in reducing gain...” [\[read more\]](#)

- Threshold (dB) – Adjusts the maximum signal ceiling.
- Release (ms) – Sets the amount of time it takes for gain reduction to subside.
- Output (dB) – Amount of overall perceived gain to the output signal.

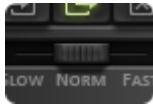
3.2 Additional Functionality

MixControl Pro contains various audio enhancements and also additional features that improve the user experience than the original version. The following is a list of the additional functionality that is contained within MixControl Pro:



High-Quality Oversampling *(on / off)*

Turning this feature on will extend the audio processing by applying a high-quality oversampling algorithm. This feature not only uses more CPU than without, but it also introduces a small amount of latency to the plug-in's processing. The control for this feature is located in the top-left hand corner of the display, directly next to the button for phase inversion.



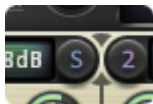
FFT Display Speed *(fast / normal / slow)*

This allows users to select how quickly the visual display is keeping up with the audio being processed. Just remember – the more “real time” it is, the more CPU it consumes. The control for this option is in the top-right corner of the display, directly under the tools marked “spectrum”.



Module Sub-Preset Control *(load / clear)*

You can now load and unload module configurations via the module itself. If you want to load module-specific settings, just click the *down arrow* on any module, and load the desired preset. To clear the module's parameter changes, just click the *star icon* directly next to it.



Equalizer Solo Band Control *(solo / un-solo)*

Each equalizer band now includes a solo function, where you are able to hear what frequency ranges the selected band is being applied toward by clicking on the solo ('S') control. The control to solo each band is located directly to the right of the filter selection drop-down menu.

4. Preferences

4.1 Adjusting User Preferences

You can change various user preferences by clicking on the options drop-down menu (*section 2.2*), and under the **preferences** menu item, you will find a variety of choices shown below. We have also included the ability to adjust all of the LCD display screens to the color and brightness of your choice, through the use of “hue”, “saturation” and “brightness” slider controls located also within the preferences panel on the right-hand side. The colors and shades you choose for the display are stored within a preferences file, and maintained between instances.



- Knob Style** - Choose between circular knob motion and up/down motion
- Dyn. Input Meters** - Set input meters in the dynamics to follow peak input or an env. follower
- Control Tool Tips** - Turn tool tips for the EQ display on or off
- Eye Candy** - Turn screen animation and object shading on/off

5. FAQ

Q: How do I get updates to MixControl Pro?

A: Updates can be found by logging into your DNR Collaborative account on the DNR website (www.teamdnr.net) and navigating to the folder containing MixControl Pro. This folder contains the installation files and the license key you will need to install, update and register your copy of MixControl Pro.

Q: How long do I get free updates to MixControl Pro?

A: This is a question that may change depending on the version, the amount of work that goes into development and the length of time between updates. If you go to our support forum, you can find the answer by asking anyone from DNR Collaborative. Alternatively, you can e-mail us at support@teamdnr.net and we will respond promptly.

Q: What about adding a chorus effect or distortion module?

A: MixControl Pro contains everything you need to create a professional mix, but we will not add any additional effect modules such as chorus or reverberation. Those are effects that we believe are better off adding separately.

Q: Where do I ask about particular feature requests or bug fixes?

A: Please visit our forum (www.teamdnr.net/forum) and you will find a variety of locations dealing with bug-fixes, feature requests, suggestions and other user related resources.

Q: Can't I try the demo version again after it times out??

A: If your demo version has timed out and you would like another test run, you may contact our support staff and request a demo license reset. Depending on the circumstances such as the amount of time since you last tried MixControl Pro, we may or may not allow another installation of the demo.

Q: Can I resell my copy of MixControl Pro?

A: Sure, just contact us through one of the support avenues and we will be happy to assist you. Please include your full name, registered e-mail address and password for your DNR user account. We will create an account for your buyer and transfer MixControl to the new user's account.

6. Support

6.1 Support Avenues

Although we work very hard through public and private beta testing, you may encounter a bug or two while you use MixControl Pro. If you encounter any bugs while using MixControl Pro, please utilize our website customer support forum and we will endeavor to respond as quickly as possible with confirmation of a bug or status of your previous submission. Our web forum is located at <http://www.teamdnr.net/forum/> and we monitor this forum daily, so your submission is likely to be answered accordingly. The following is a thorough list of possible support avenues to pursue while looking for support:

1. DNR Public Support Forum: <http://www.teamdnr.net/forum/>
2. DNR Support Contact Form: <http://www.teamdnr.net/contact/>
3. DNR Support E-mail Address: support@teamdnr.net

Also, please keep in mind that occasionally there are issues with spam filters, blacklists, and other technology that prevents us from getting your e-mail or contact in a timely manner. Utilizing the support forum is a sure bet that we will see your problem and attend to it quickly and effectively.

7. Credits

Michael Olsen – DSP, Framework and GUI Development

Anders Hedstrom – UI Development and Consulting

reason lahalla – Product design, Sound Design and Consulting

Joseph Ganley – Documentation, Sound Design and Testing

Special thanks goes to the multitude of beta testers who have given up their time to help us test, track and squash some random bugs, and their support of this project. Thanks also to all of our current users who have helped shape MixControl Pro into what it has become!

VST plug-in technology by *Steinberg media technology GmbH*

AU plug-in technology by *Apple computers*

PXDK framework by *PhonoXone Software*

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