

# Music Production & Engineering

## EFFECTS

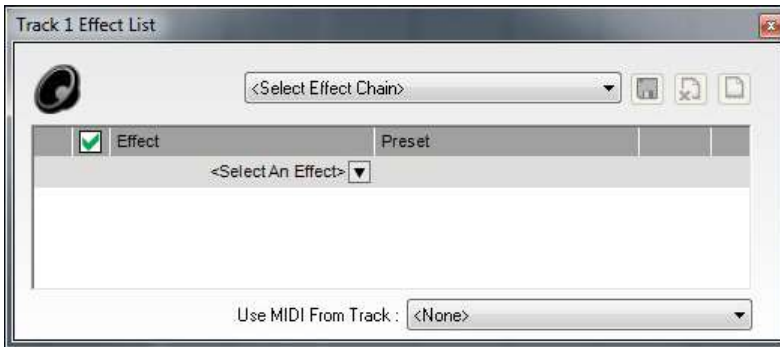
Mixcraft includes a large suite of real-time audio effects that can be applied to audio clips or virtual instruments. These are usually referred to as “plug-ins.”

### Adding Effects

To add effects to any Audio Track or Virtual Instrument Track, click the *FX* button to open the *Effect List* window.



Now click the *<Select An Effect>* drop-down menu and choose an effect.



Once you've selected an effect, the Effect List should look something like this:



◆ **Active/Inactive Checkbox**

Effects can be toggled on or off by clicking the green check mark to the left of the effect name. The check mark next to *Effect* toggles all effects on and off. (See *Effects Chains* below.) This allows auditioning of effects without losing settings.

◆ **Effect Name**

Click *<Select An Effect>* to add new effects, or click an existing effects name to replace an effect with a different one.

◆ **Preset**

The *Preset* drop-down menu lets you select from included presets. These are very handy for speedy mix setups (or if you're not sure how to operate a particular effect).

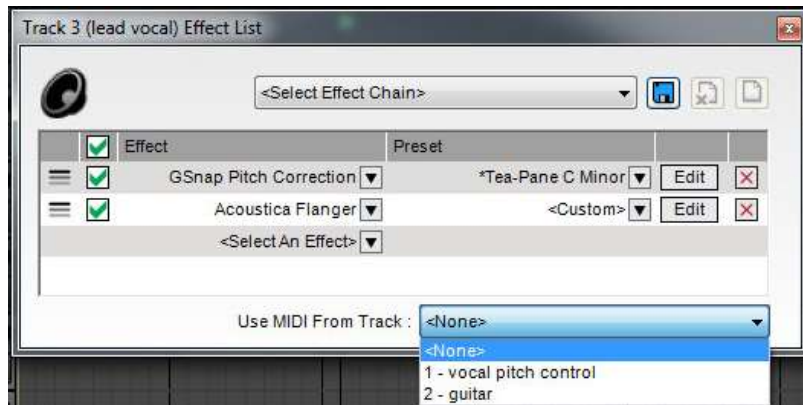
◆ **Edit**

The *Edit* button opens the effect's user interface for individual parameter tweaking.

◆ **X**

This removes an effect and returns its slot to the *<Select An Effect>* dialog.

◆ **Use MIDI From Track**



The *Use MIDI From Track* pop-up menu lets you route the playback of MIDI note data to a VST effect. This is most commonly used in conjunction with vocal tuning (like Mixcraft's *GSnap Pitch Correction* plug-in) or vocoder plug-ins. To choose a MIDI source track, click the pop-up menu and select the desired MIDI track. The *Use MIDI From Track* setting applies to all effects in the track's effect chain, but plug-ins that don't make use of MIDI data will simply ignore it.

## EDITING EFFECTS

To edit an effect's individual parameters, click the Edit button to the right of the effect name.



Below we've opened the Kjaerhus Audio Classic Compressor plug-in

Every effect will have a unique user interface and controls, but the top section will be the same for all effects in Mixcraft. Let's go over these:



### ◆ Active Checkbox

Exactly the same as the Active/Inactive checkbox in the Effect List window, just replicated in the effect interface for convenience.



### ◆ MIDI Map Parameters Gear

This opens the MIDI Mapping for an effect. This is used to assign hardware controllers to plug-in parameters.

(See pg. 51. "[Mapping A Hardware Control To a Plug-In Effect Parameter](#)".)

### ◆ Select Preset

Allows selection of Mixcraft and user presets. This is the same as the preset selection menu in the Effect List window.



### ◆ Load VST Preset File (VSTi Plug-Ins only)

Some VST effect and instrument manufacturers distribute additional sound banks in the form of .fxb files, replacing current presets with a new presets.

### **Display Virtual Instruments and Effects, Right Now!**

Right-clicking a channel's FX button instantly displays the user interface for all effects on a channel, skipping the Effects List Window. This is really handy if you've already decided on which effects are to be used and just want to tweak their parameters. This works exactly the same for Virtual Instruments by right-clicking a track's Virtual Instrument button. To hide all effects or Virtual Instruments for a channel, press CTRL + right-click on the "fx" button.

◆ **Save A New Preset**



Saves the current plug-in settings to a new preset. You'll be prompted to enter a preset name. The preset will then appear in the preset list.

◆ **Remove A Selected Preset**



Permanently removes the currently selected preset. Factory presets cannot be deleted.

*Note:* If a track is frozen, its effects will not be editable until the track is unfrozen.

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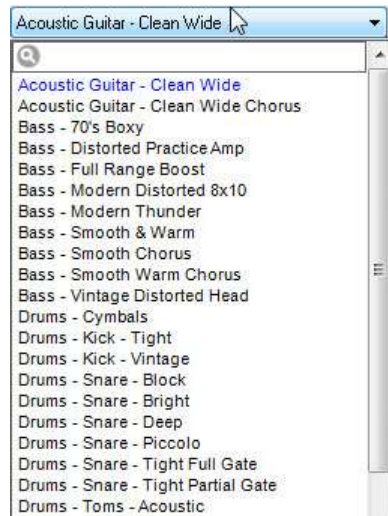
## EFFECTS CHAINS

A series of effects can be configured in the *Effect List* window by adding effects using the *<Select An Effect>* dialog.

To rearrange the order of effects in a chain, simply click on an effect anywhere in the list and drag it to the desired location in the chain. It's easiest to do on the left side as the cursor will turn into up/down arrows, and you won't risk accidentally clicking something else.



Mixcraft includes many useful effects chains that are optimized for common applications. To load an effects chain, click on the Effects Chain drop-down menu at the top of the *Effect List* window. To search for effects chains with a particular term (“drums” for example), simply type in a keyword next to the magnifying glass icon. You can add as many effects as desired to an Effects Chain.



The icons to the right of the Effects Chain drop-down menu perform the following operations:

◆ **Save A New Preset**



Saves the current Effects Chain setup to a new preset. You'll be prompted to enter a preset name. The presets will then appear in the Effects Chain presets.

◆ **Remove A Selected Preset**



Permanently removes the currently selected preset. Careful with this guy! (You'll get an, "Are you sure?" prompt.)

◆ **New Preset**



This clears all current effects if you'd like to start with a clean slate.

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## MASTER EFFECTS

This is the effect insert on the Main Mix bus. Use this for adding master effects to be applied to the entire mix such as bus compression, EQ, volume maximizers, etc.



Master Effects can be edited either by clicking the *FX* button in the transport area  
Master FX can also be edited by clicking the Main Mix FX button in the Mixer tab:



... or by clicking the FX button in the Master Track in the track list (if currently displayed):



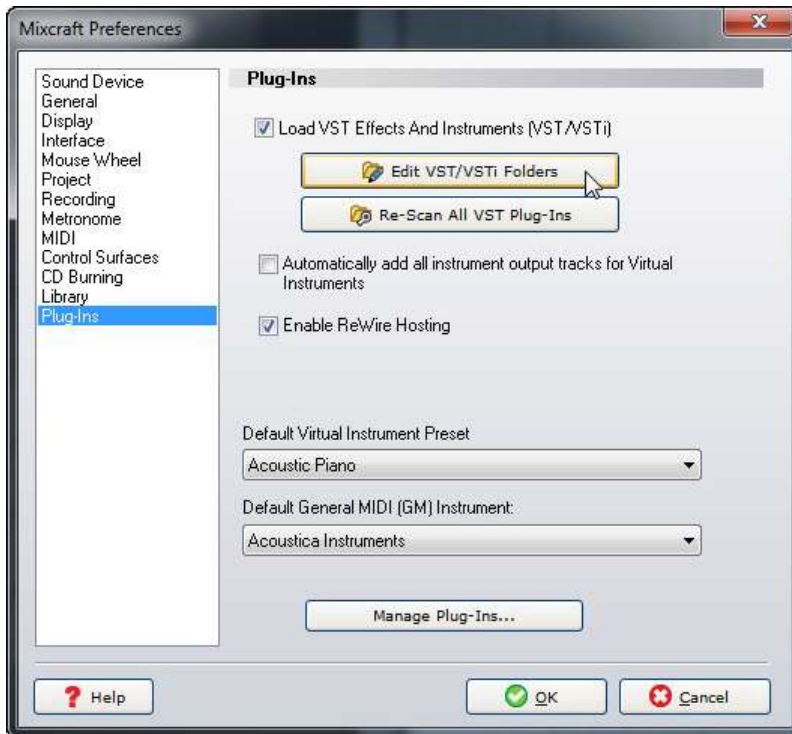
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## ADDING THIRD-PARTY VST EFFECTS

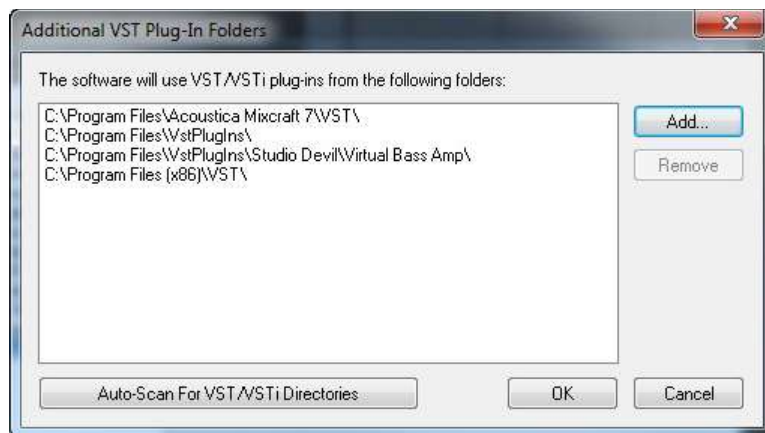
If you've installed a third-party VST effect and you're not seeing it in Mixcraft's effects menu, you'll need to add the VST effect folder. There are two ways to accomplish this:

The super-duper easy way is to simply drag-and-drop its DLL file into Mixcraft's main window. Mixcraft automatically installs the file in the correct location and adds it to the VST search path list (in other words, it'll just work!). The alternative method is to "manually" add VST effects to Mixcraft's VST/VSTi folders.

Select *Preferences>Plug-Ins* and click the *Edit VST/VSTi Folders* button.



Click the *Add...* button, navigate to the VST effect in Windows Explorer, and click *OK*. If you're not sure where the new VST plug-in is, click the *Auto-Scan For VST/VSTi Directories* button for assistance finding VST plug-ins.





# INCLUDED EFFECTS

All Mixcraft editions include the following effects:

## ACOUSTICA CHORUS



Chorus is used to thicken up a sound, by adding tiny variations in pitch as well as small amount of delay. It's often used to give the impression of more than one instrument or vocalist performing the same part.

## ACOUSTICA COMPRESSOR



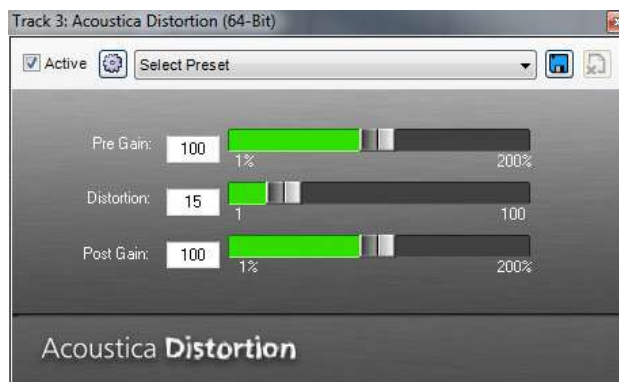
Compressors reduce the differences in volume between quiet sounds and loud sounds in a recording. This effect is often used on vocals and drums, where some portions of the sound are very quiet, and other portions are very loud. Reducing a recording's dynamic range makes mixing far easier and, dependent upon settings, can impart "punch" and impact.

## ACOUSTICA DELAY



Also known as "echo," delay is one of the oldest and simplest effects. Delay takes incoming audio, waits a specified amount of time, and replays the audio, creating an echo effect. The Feedback parameter allows a portion of the signal to be sent back into the delay effect, creating additional repeats of the echo.

## ACOUSTICA DISTORTION



Acoustica Distortion adds audio distortion similar to that used on electric guitars. This effect can range from subtle grit to extreme destruction of the original audio. Note that adding distortion can severely affect the volume of the recording. A little distortion goes a long way, so experiment with very low settings to see how the audio is affected and increase the amount gradually.

## ACOUSTICA EQ



Acoustica EQ is a ten-band graphic equalizer that allows boosting or cutting of audio frequency regions. If a recording sounds thin, bass frequencies may be boosted. If a recording sounds too bright, high frequencies can be reduced. The Output Gain control is used to raise or lower overall volume after EQ processing.

## ACOUSTICA FLANGER



Flangers delay the signal by a small amount while slowly varying the delay time, producing a swept comb-filter effect, commonly referred to as a “jet swooshing” sound (because of its similarity to the sound of a jet plane flyby).

## ACOUSTICA REVERB



Used to recreate the subtle echoes and reverberation of a natural room, reverb effects are some of the most useful in music. A single violin or piano playing in a large church or auditorium takes on new life when the last note bounces around the room and fades away.

Acoustica Reverb effect can be used to recreate the ambience of many different environments, ranging from small spaces to exceptionally large chambers. The decay of high frequencies can be set High Frequency Damping control; carpeted rooms, for example, absorb most high frequencies, but large empty houses with marble floors sound extremely bright and echoey because high frequencies are not damped.

### CLASSIC AUTO-FILTER



This produces filtering effects that change over time, most commonly used for automated “wah-wah” effects. However, Auto-Filter’s extensive parameters allow many more musical variations including triggered effects (where the filter follows the dynamics of a sound) or synced LFO effects (where the filter opens and closes at note values locked to the project tempo).

## CLASSIC CHORUS



Similar to the Acoustica Chorus effect, but with some additional features and a unique sound.

## CLASSIC COMPRESSOR



Similar to the Acoustica Compressor effect, but with additional parameters and a different tonality. (There are many different compressor types in the software and hardware world; pro audio engineers prefer different compressors for different source material.)

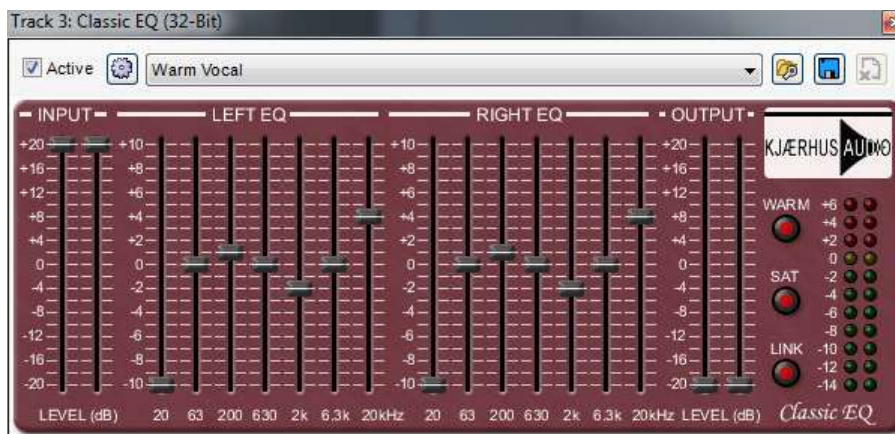
## CLASSIC DELAY



Like the Acoustica Delay effect, this offers echo and delay effects, but goes much further with several outstanding features. Most exciting is Sync, which automatically synchronizes delay times to note-values derived from the project tempo.

Synced delay effects are a fun and musically useful way to spice up parts. Classic Delay's *Sound* and *Type* parameters make it a great choice for replicating the sound of vintage analog and tape delay effects.

### CLASSIC EQ



Similar to the Acoustica EQ effect, Classic EQ offers individual control of the left and right channels. This can be used to create unique stereo effects or to correct audio anomalies in one side of the stereo image.

### CLASSIC FLANGER



Similar to Acoustica Flanger but with added controls and a unique tonality. The modulation of the sweep can also be synced to the project tempo.



## CLASSIC MASTER LIMITER



Similar to the Acoustica Compressor in function, the Classic Master Limiter is intended to be used in the Master Effects bus to smooth out and increase overall project level for a professional “sheen.”

## CLASSIC PHASER



Similar to a Flanger with a less metallic and more “swooshing” tonality, phasing is often added to guitar and synth pad sounds, adding animation, depth, and character.

## CLASSIC REVERB



Similar to the Acoustica Reverb effect, with some additional features and a unique sound. Reverbs are another example of an effect where each brand and type has its own



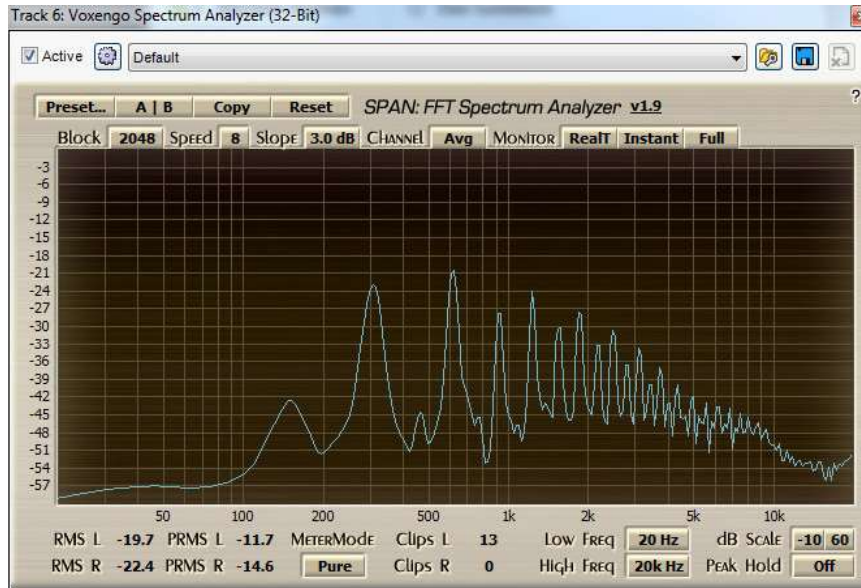
unique audio “fingerprint,” so it’s often good to have a few different types for different characters.

## VOXENGO AMP SIMULATOR



Voxengo Amp Simulator is a carefully modeled guitar amp simulator with extensive boost and cut filtering, and numerous guitar cab and mic emulations.

## VOXENGO SPECTRUM ANALYZER



Voxengo Spectrum Analyzer is a supremely powerful tool for viewing the frequency spectrum of audio content. This is great for learning about audio frequencies and refining mixes. (Voxengo Spectrum Analyzer needs to be currently viewed to use it, so remember to click the Edit button in the Effects List or double-click the channel's FX button.)

## EZQ EQUALIZER



There's no easier way to EQ tracks! Instead of adjusting numeric parameters or spinning virtual knobs, EZQ lets you move a dot within a 2D plane to quickly impart brighter, darker, warmer, or tinnier sound characteristics.

## GTUNE GUITAR TUNER



GTune guitar tuner can be used for guitar and bass tuning or for tuning other monophonic instruments such as flutes, violins, and synthesizers. This effect does not alter audio in any way.

## MIXCRAFT 7 ADDITIONAL PLUG-INS

Mixcraft 7 (Standard Edition) adds the following plug-ins:

### VOCALZAP



VocalZap removes vocals and other center-panned content from stereo recordings. It's ideal for creating karaoke tracks.

### PULTRONIC TUBE EQ



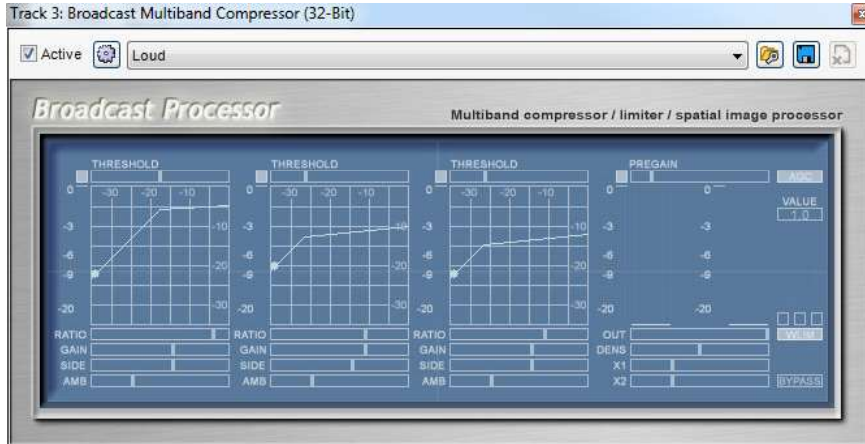
G-Sonique's Pultronic Tube EQ is a detailed recreation of a classic vintage vacuum-tube based equalizer found in top studios throughout the world. Warm up tracks or add a completely new character with the Pultronic Tube EQ's array of tube models and presets.

## SHRED AMP SIMULATOR



Shred Amp Simulator by AcmeBarGig is a complete guitar amp and cabinet suite including five classic amp heads, 17 cabinet models, and six powerful effects. Shred faithfully models classic British and American tube heads, and includes powerful room modeling technology.

## BROADCAST MULTIBAND COMPRESSOR



Broadcast Processor is a multiband compressor/limiter designed to impart maximum overall volume to a mix by breaking up audio into separate frequency bands, and then compressing these bands individually to make them louder or quieter. It can also lower louder audio parts with downward compression for a more dynamically balanced mix. This tool is essential for creating loud, dynamically balanced, professional mixes for dance, electronica, pop, and other genres where “loud” mixes are needed.

## GSNAP PITCH CORRECTION





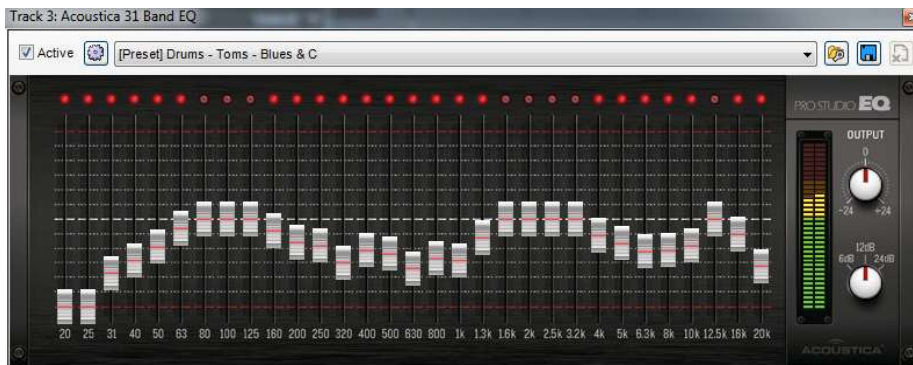
GSnap is a state-of-the-art pitch correction plug-in that's ideal for subtly (or not-so-subtly) tuning vocal performances in real-time (i.e. as they play back in a project). Note choices may be limited to preset or user-specified scales, and the speed and amount of pitch correction can be adjusted.

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## MIXCRAFT PRO STUDIO 7 ADDITIONAL PLUG-INS

Mixcraft Pro Studio 7 adds the following plug-ins:

### ACOUSTICA 31 BAND EQ



Acoustica 31 Band EQ is a 1/3-octave graphic equalizer offering precise control over frequency content. Slider range is adjustable from 6dB to 24dB of boost and cut, and many presets are included to get you started.

### ACOUSTICA PRO STUDIO REVERB



Acoustica Pro Studio Reverb takes the lush, crystal-clear reverb used in our award-winning Pianissimo grand piano and expands it into a flexible, great-sounding reverb effect.

## DUBMASTER LIQUID DELAY



Dubmaster Liquid Delay combines tempo-synced rhythmic liquid delay with powerful LFO-driven filtering and phase effects to add atmosphere and a unique sound to tracks

## FAT+





FAT+ mixes all of the essential ingredients for truly huge sounds into one powerful plug-in, combining analog warmth, vacuum-tube distortion, and tape saturation into a single effect that'll make your tracks sound enormous!

## FEROX TAPE EMULATOR



There's something about the sound of tape, and Ferox captures that intangible "something." The unique combination of authentic tape hiss, saturation, and compression brings personality and classic feel to tracks.

## FSQ1964 TRANSIENT VITALISER



This powerful mastering tool adds sweet high frequencies, analog colors, crystal and transparent transients, and boldness to any mix.

## GSXL4070 VINTAGE PARAMETRIC EQ



Four bands of parametric equalization plus a high pass filter emphasize the sizzle and bass in tracks, cut out noise and mud from the mix, and dial in the perfect tone. Inspired by the EQ section of one of the world's most coveted studio mixing consoles.

## IZOTOPE MASTERING ESSENTIALS



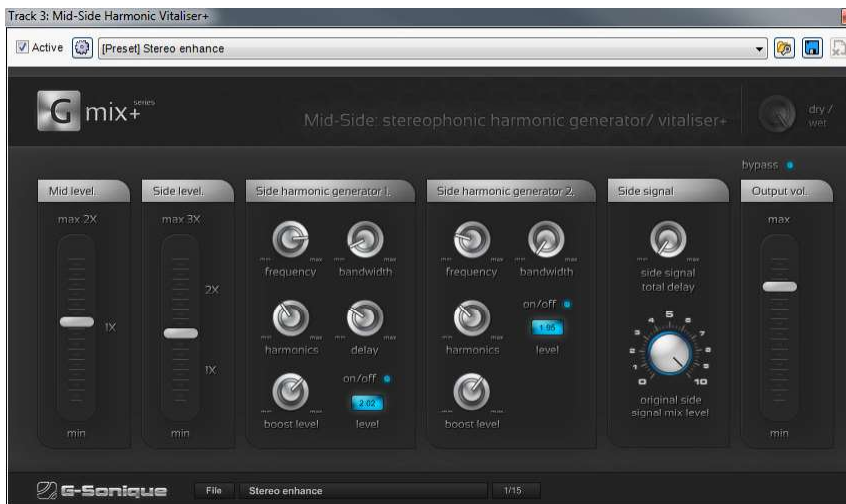
Mastering Essentials delivers iZotope's world-class mastering tools to Mixcraft with a gorgeous-sounding parametric EQ, spectrum analyzer, a phenomenal room simulation, vacuum-tube compression, limiting, and saturation.

## MID-SIDE ENVELOPE FOLLOWER+



An envelope follower using the dynamics and amplitude of the incoming audio to modulate the cutoff frequency of a filter... the result is a funky, liquid filtering effect that dynamically responds to music content. The signal is split into mono (*Mid*) and stereo (*Side*) signals. Each part can be boosted or attenuated to create panoramic 3D effects.

## MID-SIDE HARMONIC VITALISER



Mid-Side Harmonic Vitaliser+ is a stereo enhancer featuring a new technology for vitalizing, coloring, controlling, adjusting, and widening stereo audio content (the *Side* part of a signal), as well as adding space, width, and depth to mixes.

### MID-SIDE STEREO PHASE FILTER+



Offers new, creative methods of modulating stereophonic sound by creating special 3D modulation effects with phasing and filtering, and creates the illusion of effected sound that appears to fly around your head while the center audio content (Mid) remains untouched.

## TB GATE



A good gate effect is critical for removing noise and mud from a mix. Gates remove hiss and noise from areas of a track containing no desirable sound, such as the hiss between vocals or guitar passages.

## TB PARAMETRIC EQUALIZER



The key to a good mix is proper EQ'ing, and this graphic parametric equalizer has a gorgeous interface, six color-coded bands, six filter types, spectrum analysis, and the ability to independently EQ the mono (Mid) and stereo (Side) portions of stereo material.

## TIMEMACHINE BIT CRUSHER



Recreate the sound of 8-bit video games, 12-bit samplers, or trash audio by turning it into 2-bit noise! TimeMachine simulates the effect of A/D and D/A aliasing, re-sampling, and bit reduction (both linear and mu-Law quantization).



## TWISTHEAD VS-206 PREAMP



Adds subtle analog warmth or fierce overdriven tube grit to tracks. This vintage tube preamp adds 1960's charm and character to vocals, guitar, drums, and more.

## XBASS 4000L BASS ENHANCER



X-Bass 4000L adds the warm, fat bass tone found in vintage tube circuits to your projects. X-Bass 4000L combines two unique algorithms to enhance the bass spectrum of tracks, adding emphasis to the audible bass content, enriching the bass and sub-bass spectrum, and boosting higher harmonic frequencies.

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## NEW MIXCRAFT PRO STUDIO 7 PLUG-INS

The following plug-ins are new additions to Mixcraft Pro Studio 7:

### DUBSHOX MULTI-BAND DISTORTION



DUBSHOX Multi-Band Distortion is a multi-band distortion and waveshaping unit with over 40 types of distortion and shapers, from analog, transistor/diode and tube distortions, to crazy digital waveshapers. Every band has a knob for drive and output level for adding heavy distortion without excessive volume boost. DUBSHOX Multi-Band Distortion is ideally suited to aggressive modern dance styles including Dubstep, Drum and Bass, and EDM.

### POD4500 PARTICLE DELAY



The POD4500 Particle Delay expands upon standard beat-synced delays with wildly unique “particles” that can be delayed, tuned up and down by octaves, filtered, and modulated. A fantastic addition to any type of music, POD4500 Particle Delay especially shines in experimental and dance music styles.

## PSEQ-1 VACUUM TUBE PASSIVE EQ



The PSEQ-1 Vacuum Tube Passive EQ faithfully replicates the sweet and warm “undoctored” tonality of passive EQ circuits. Even with large boosts at narrow-Q settings, the PSEQ-1 Vacuum Tube Passive EQ avoids the harshness that often plagues conventional active EQ topologies. The perfect EQ for individual channels or two-channel final mix busses.

## TREBLECREAM



TrebleCream is a unique new master bus plug-in intended to minimize the effect of screaming or distorted mid-treble frequencies and transients resulting in more pleasing final mixes.

### TRW-1 VACUUM TUBE TRIODE WARMER



The TRW-1 Vacuum Tube Triode Warmer is a plug-in with an inner structure similar to real blocks of vacuum tube studio devices, including emulation of physical phenomena like small positive inner feedback, tube softening of transients, compression, and generation of both odd and even harmonics.

### VBE-1 VACUUM TUBE BASS ENHANCER



VBE-1 Vacuum Tube Bass Enhancer is vacuum tube analog bass enhancer. When standard equalization does not bring the massive fatness and warmth you're seeking, VBE-1 Vacuum Tube Bass Enhancer delivers real vacuum tube warmth, saturation, and drive to bass lines and kick drums.



## VTC-1 VACUUM TUBE COMPRESSOR



Pentode Audio VTC-1 Vacuum Tube Compressor is an analog-modeled virtual VST compressor with a warm analog and transparent sound. Compared to modern compressors, Pentode Audio VTC-1 operates differently: VTC-1 doesn't have a threshold knob; the amount of compression is set by increasing or decreasing input level as with old analog tube compressors. The Compression amount knob is similar to the ratio knob on modern compressors.

## ZENER LIMITER LM-2Z



The Zener Limiter LM-2Z models rare and unique compressors utilizing a zener-diode as a gain-reduction element. Compared to classic digital brickwall limiters, the Zener Limiter LM-2z offers a more transparent, liquid, and airy sound with significantly less distortion and unwanted artifacts.

## FUSION FIELD



Fusion Field is a smooth diffusion reverb that sits beautifully in a mix. Designed to imitate complex, natural spaces, it's also very easy to use. Using an innovative “cloud” display to represent reverb spaces, Fusion Field offers powerful control with few controls to hamper your creativity.

## SIDEKICK6



SideKick 6 Extended is the easiest, yet most comprehensive sidechain compressor available. Sidechaining lets you compress one sound with another, most commonly used to duck other sounds in the mix on each kick drum hit for maximum impact when creating dance music.

## STUDIO DEVIL VIRTUAL BASS AMP



Studio Devil Virtual Bass Amp is loaded with fantastic features for strikingly realistic emulations of legendary bass amps including a vacuum-tube preamp, power amp drive control, variable-knee limiter, seven-band EQ, two speaker cabinet emulations (plus D.I.), and numerous presets.