

## ***The Studio Levelizer Latest Release Info***

Thank you for purchasing the SAWStudio FX Levelizer Plug-In. This file contains the latest enhancements and bug fixes.

### ***Studio Version 3.8 Enhancements And Bug Fixes*** ***Enhancements***

#### ***Bug Fixes***

- \* More code adjustments to the remote meter functions.
- \* Fixed code that traps max/min crashes when adjusting controls in Win 8 with a pen or touch.

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### ***Studio Version 3.7 Enhancements And Bug Fixes*** ***Enhancements***

#### ***Bug Fixes***

- \* Fixed code to stop possible crashes when patching the plugin live in a SAC Host while the plugin is displaying active meters on a SAC remote.
- \* Fixed code to detect multiple remotes displaying the plugin and to not interfere with their meter display when shutting down one instance on one remote.

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### ***Studio Version 3.6 Enhancements And Bug Fixes*** ***Enhancements***

- \* Added a new option to the Options menu called Clear Preferences, which clears the preference file and resets the plugin to its default behavior.

#### ***Bug Fixes***

- \* Fixed code to stop the About window dialog from blocking network remote/host packets in SAC which could cause complete system lockups.
- \* Fixed code to properly clear plugin variables when an instance was removed in SAC when the engine was live and to reset the removed plugin without

stomping on variables which other instances of the plugin still needed. This should stop potential crashes and lockups that could occur on remote SAC links.

- \* Fixed code to properly initialize meters on plugins patched from a Remote SAC system and properly display on the remotes without regard to whether the plugin was ever opened on the host.
- \* Fixed code to properly initialize meters on SAC Remotes when switching hot channels or switching from one instance to the next by any means available.
- \* Fixed code to keep the processing thread from blocking while recalling presets or parameters from the host to the remote in SAC.
- \* Fixed code to stop host paramset corruption when canceling a load preset operation on a remote.

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### ***Studio Version 3.5 Enhancements And Bug Fixes***

#### ***Enhancements***

- \* Enhanced Key setting can now be altered live during playback in SAC 2.4 or higher and key channels will switch in realtime.

#### ***Bug Fixes***

- \* Fixed code to properly Save and Restore all plugin settings from remotes regardless of where and how the settings are altered.

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### ***Studio Version 3.4 Enhancements And Bug Fixes***

#### ***Enhancements***

- \* Enhanced code to allow SAC remotes to control the plugin controls and receive remote meter data.

#### ***Bug Fixes***

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### ***SAWStudio Version 3.3 Enhancements And Bug Fixes***

#### ***Enhancements***

#### ***Bug Fixes***

- \* Fixed code to properly initialize all parameters when loading presets while the

engine is live.

- \* Code modified to stabilize sending and receiving parameter set data for preset saves and loads while the processing engine is live. This may help with possible crashes in the SAC environment with active Levelizer patches when saving sessions while the engine is live.

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## ***SAWStudio Version 3.2 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* When SAWStudio or SAC was in Realtime Priority mode, certain system configurations could cause the left-click up/dn parameter adjustment feature to fail. This code fixes that issue.

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## ***SAWStudio Version 3.1 Enhancements And Bug Fixes Enhancements***

- \* Modifications made to properly update settings display on an open plugin altered by a SAC Scene change.
- \* The Options menu can now be opened while the engine is live to access some of the option selections.

### ***Bug Fixes***

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## ***SAWStudio Version 3.0 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed code to trap mouse-click control adjustments from crashing looped playback under certain conditions.

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## ***SAWStudio Version 2.9 Enhancements And Bug Fixes Enhancements***

- \* New Setup program now allows for proper installation in SAC.
- \* Pressing the Shift-Key while changing the Eq Hi or Lo controls now latches both controls together allowing you to set a narrow band and sweep the band, perfect for finding the sweet spot when using the Levelizer as a De-Esser for example.

### ***Bug Fixes***

- \* Changes added to correct for possible display corruption on dual processors.
- \* Fixed code to clear the GR Meter when the Key Listen switch is active.

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## ***SAWStudio Version 2.8 Enhancements And Bug Fixes***

### ***Enhancements***

- \* This version is now sensitive to offscreen positioning saved with edls from higher resolution displays and will automatically correct itself to fit on the current screen resolution.
- \* Expanded Find-Peaks display resolutions for percentage and db values.
- \* Updated to utilize the new API function in SAWStudio version 4.0 and Basic version 1.5 to be dual monitor aware.

### ***Bug Fixes***

- \* Fixed code that could cause a crash because of improperly initialized meter variables when the Levelizer is first displayed under certain playback conditions. The crash might have randomly occurred as soon as you touched one of the controls.
- \* Fixed Find-Peaks routine which could cause wrong position and peak values to be displayed under certain conditions.

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## ***SAWStudio Version 2.7 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* Fixed code to maintain proper data sync when automating Peak Limit values while the Normalize function is active.

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## ***SAWStudio Version 2.6 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed Track List display to properly track multiple instances of the plugin on the same track.

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## ***SAWStudio Version 2.5 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed GR Meter to properly handle L/R Rvs Gate data.

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## ***SAWStudio Version 2.4 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Adjusted code to fix problems when using the Send Buffer A/B functions with multiple Levelizers patched and some set to Peak Limit. The A/B buffers were being cleared improperly.
- \* Fixed code to allow Key Listen switch to function correctly on Return and Output Tracks.
- \* Adjusted code to re-sync buffers when PeakLimit and Bypass functions are toggled. This eliminates slipped buffers when samples have been withheld by the Limit function.

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## ***SAWStudio Version 2.3 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Adjusted code to properly maintain compressor release values when dynamically raising compression threshold during playback.

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## ***SAWStudio Version 2.2 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed Normalize to default correctly to Off when re-patched into the same parameter set after setting it and removing it from the patch previously.

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## ***SAWStudio Version 2.1 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed PeakLimit values to correctly calculate Normalize factors when automated with Normalize active.

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## ***SAWStudio Version 2.0 Enhancements And Bug Fixes Enhancements***

- \* Activated native API automation for all controls.

### ***Bug Fixes***

- \* Fixed Render To AVI File processing initiated from the Video Track Viewer. Peak Limit and Normalize functions now operate correctly and process to the AVI rendered file.
- \* Fixed Compressor problem that could cause distortion at certain combinations of threshold and ratio settings when using low latency buffer sizes. This fix also delivers more consistency at low latency buffer sizes.
- \* Corrected proper clearing of Waveform Threshold display lines in Automation Mode.

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## ***SAWStudio Version 1.9 Enhancements And Bug Fixes Enhancements***

### ***Bug Fixes***

- \* Fixed PeakLimit/Normalize interaction to force PeakLimit value whenever Normalize is active. This eliminates crash that would occur if Normalize was on and PeakLimit was off.
- \* Fixed meter reset each time PeakLimit was turned on and off during playback.

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## ***SAWStudio Version 1.8 Enhancements And Bug Fixes***

### ***Enhancements***

- \* Updated To new FX API spec.

### ***Bug Fixes***

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## ***SAWStudio Version 1.7 Enhancements And Bug Fixes***

### ***Enhancements***

- \* New Hi-Res Key Eq filters have increased internal math decimal places effectively reducing DC offset and low level noise artifacts.

### ***Bug Fixes***

- \* Resource Leaks that could occur under certain conditions were fixed.
- \* EqHi and EqLo now correctly set defaults to 10K and 100.

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## ***SAWStudio Version 1.6 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* The Key Listen switch will now correctly solo the proper track in SAWStudio.

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## ***SAWStudio Version 1.5 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* Modifications to trap zero length buffers after a peaklimit operation for the rest of the process loop. This should eliminate random page fault errors under certain combined conditions.

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## ***SAWStudio Version 1.4 Enhancements And Bug Fixes*** ***Enhancements***

### ***Bug Fixes***

- \* Changes made to the thread shutdown routines to adjust for differences in Win ME and Win 2K. This should eliminate lockups and other random fault errors when exiting the program.
- \* HelpFiles are now correctly read from the Native\_PlugIns folder.
- \* The Load Presets option has been corrected from giving "Incorrect Format" errors on every load.
- \* The PeakLimit Meter display has been altered to maintain accuracy from any playback position.
- \* Toggling PeakLimit, Normalize, or Bypass now correctly resets the meter display.

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## ***SAWStudio Version 1.3 Enhancements And Bug Fixes*** ***Enhancements***

- \* The *Gate* has been enhanced with a *Rvrs* button. This button causes the gate to operate in reverse. When the signal is greater than the threshold, the gate closes down to the floor setting and when the signal falls below the threshold, the gate opens back up to full. This can be used to create a simple and powerful ducking processor by assigning the key to another track which will then control when this track lowers its level. Set the floor value to the desired ducked level and adjust the attack, release and threshold to control the overall timing. You can also use this mode with self keying to create a new sounding limiting effect. When the signal rises above the threshold on loud transients, the gate will lower the level to the fixed floor level. This sounds different than limiting or compression, because the transient is actually dropped below the level of the rest of the average signal.



- \* The *Key* option now takes advantage of the extended API and allows direct keying from any of the Studio virtual console input channels, even if the key channel is a higher channel number than the channel the Levelizer is patched into.
- \* The *Key Listen* switch now also takes advantage of the extended API and controls automatic soloing of the Studio virtual console when activated.
- \* The plugin now pops up over the respective Patch window that it is opened from the first time it is opened, instead of in the middle of the screen.

### ***Bug Fixes***

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## ***SAWStudio Version 1.2 Enhancements And Bug Fixes***

### ***Enhancements***

- \* The plugin now conforms to the new SAWStudio 1.4 FX API spec.
- \* The Gate Threshold, Gate Floor, Compressor Threshold, Peak Limit and Normalize settings will now display reference lines in both the MultiTrack and SoundFile view waveform display areas.

### ***Bug Fixes***

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## ***SAWStudio Version 1.1 Enhancements And Bug Fixes***

### ***Enhancements***

- \* The Plug-in has been modified to display tracks labeled as Input, Return and Output.

### ***Bug Fixes***

- \* The plugin now correctly follows and adjusts meter decays to samplerate changes.

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## ***SAWStudio Version 1.0 Enhancements And Bug Fixes***

### ***Enhancements***

- \* This version has been ported over to the new SAWStudio FX API.

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## ***Version 1.6 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* Modifications to eliminate processing bogdown when keying from empty virtual buffers during blank areas of a MultiTrack Send Track.
- \* Corrected stuck meter displays during blank MultiTrack areas.

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## ***Version 1.5 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* Redesigned code used in Find-Peaks function to eliminate conflict with certain VST Plug-ins and the system floating point routines.

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## ***Version 1.4 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* Gain Reduction Meter displays for multiple Levelizer patches will no longer interact.

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## ***Version 1.3 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* The Threshold display adjustments will now work correctly in SAWPro on the output tracks 16 bit purple FX patch.
- \* The Threshold Values will now properly initialize for the Threshold display when first patching in a new Levelizer.

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## ***Version 1.2 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* The Key Listen Switch now correctly only mutes other Levelizers that are sending data to the currently active Key selection. This correctly allows the Key Listen to function on an output track Levelizer.
- \* Page faults will no longer occur when setting thresholds to -inf. Peak Limit and Normalize settings are now correctly trapped from reaching 0%.

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## ***Version 1.1 Enhancements And Bug Fixes***

### ***Enhancements***

### ***Bug Fixes***

- \* The Key Listen Switch is now properly cleared when removing a patch or loading a new EDL. Also, only one Key Listen may be ON at any time. Stopping and starting playback with a Key Listen Switch engaged, now properly mutes other Levelizer signals.
- \* Multiple Levelizers with PeakLimit and/or Normalize functions engaged will no longer cause a page fault on a buildmix operation.

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## ***Version 1.0 Enhancements And Bug Fixes***

### ***Enhancements***

- \* This is the first release of the Plug-in.

### ***Bug Fixes***

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