WAVEMARK LTD

WT AUTOMIXER
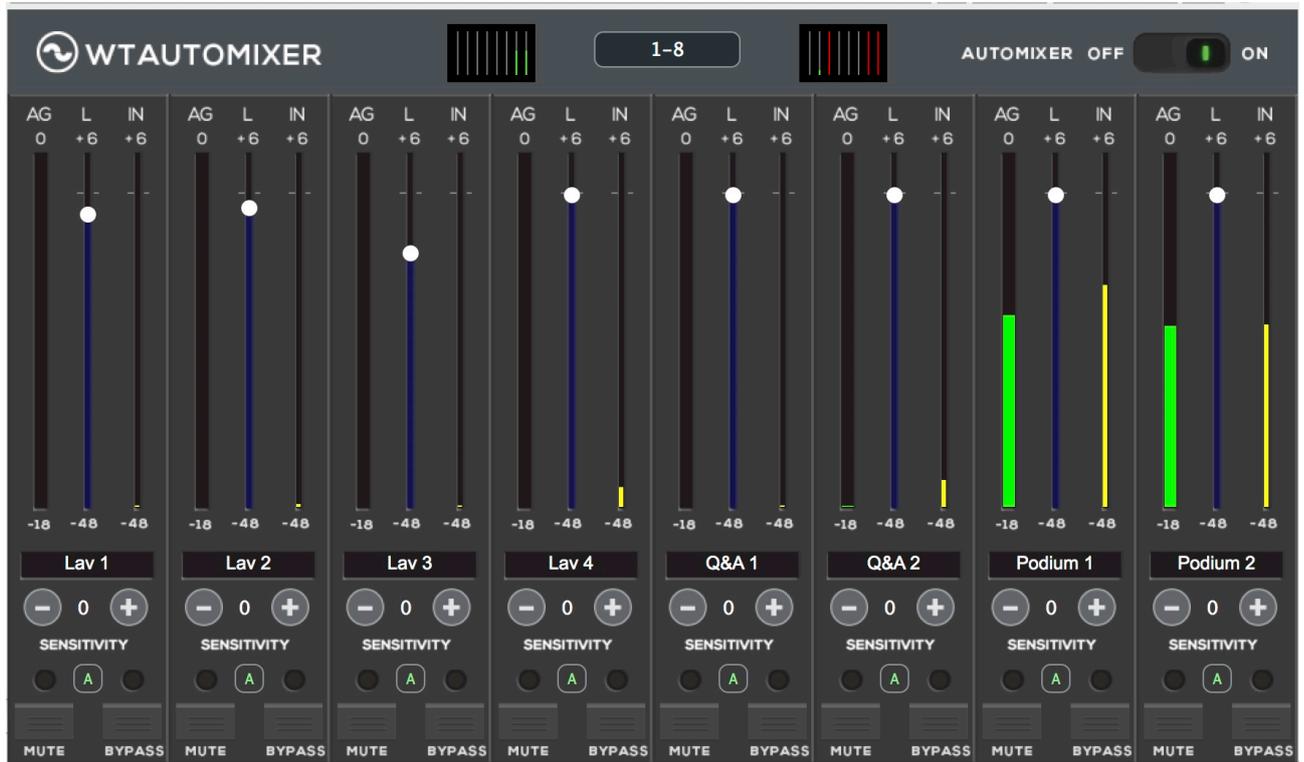
User Guide v1.41

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WTAUTOMIXER

Introduction

The WTAUTOMIXER plug-in is the first multi channel gain sharing automixer the can be inserted to almost any DAW /Host Application supporting VST3, AU or AAX format. WT Automixer automatically controls the gains of multiple microphones and is therefore ideal for live streams, discussions panels, talk shows, church services, post production editing and for any application the requires the use of multiple microphones.

The term "automixer" can be a bit misleading, as an automixer does not automate the mixing itself. What an automixer does very well is to turn down / attenuate microphones which are not actively being used.
There are two benefits to this:
First, this reduces the background noise in a mix, making the desired speech cleaner and more intelligible.
Second, when number of open microphones is reduced, there is less comb filtering happening, making the microphone in use sound much better and more coherent.

WTAUTOMIXER plug-in can be inserted to 16 channels making it a 16-channel automixer. There are three Channel Groups available (A, B and C) which gives the user a possibility to use the plug-in independently for each group.

WTAUTOMIXER is available for both Windows and macOS platforms:
Windows10 64 bit VST3 and 64bit AAX
macOS 10.13 (High Sierra) - macOS 10.15. (Catalina) as 64bit VST3, AU and AAX

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Licensing

The WTAUTOMIXER license can be purchased from our web shop: https://www.wtautomixer.com/. Once the purchase has been done, you will automatically receive an email with your WTAUTOMIXER license.

One license allows activation of the plug-in for one computer. License is valid for both Windows and macOS platforms.

iLok account and iLok License Manager installation is required for the WTAUTOMIXER license. iLok dongle is not required but can be used if that is the users preference. Internet access will be required for the initial installation of the product and trial. iLok License Manager and free iLok account can be found from here: https://www.ilok.com/#!license-manager

To install WTAUTOMIXER follow these steps:
1. Download and install iLok license manager
2. Download and install WTAUTOMIXER plug-in
3. Launch your host application and either start the 7-day trial or enter the activation code received after the purchase
4. In case your host application says "not responding" or gets stuck after the launch, please make sure that the iLok licensing window is not hiding behind any other window waiting to get the response for either the trial or activation code.
5. In case you want to be sure that your setup works well with WTAUTOMIXER, please first start the 7-day trial and only then make the purchase when you know that your setup is good to go

To Un-install the plugin, delete it from the following folders:
Windows: C:\Program Files\Common Files\VST3\WT Automixer.vst3 **and** C:\Program Files\Common Files\Avid\Audio\Plug-In\WT Automixer.aaxplugin
macOS: /Library/Audio/Plug-Ins/Components/WT Automixer.component **and** /Library/Audio/Plug-Ins/VST3/WT Automixer.vst3 **and** /Library/Application Support/Avid/Audio/ Plug-Ins/WT Automixer.aaxplugin

Theory of operation

WTAUTOMIXER plug-in uses an automatic mixing function that shares the gain of a one open microphone over the entire system, maintaining the natural ambience of one mic open.

When one person speaks, the used microphone`s gain level fades up and the same time all the other unactive microphone gains are reduced. When the speaker stops talking, all microphone gains are adjusted to match the level of one microphone at full gain. When many people speak at once, the gain is shared, again, to match the level of one microphone at full gain. The resulting effect is like all speakers would be sharing a one microphone. Because of the shared gain, the system ouput will stay pretty much constant no matter if there are two or sixteen active microphones in use. Also the backround noise will stay constant regardless of number of open microphones.

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WTAUTOMIXER GUI explained

The first adjustable parameter of WTAUTOMIXER is **Automixer OFF / ON** button:
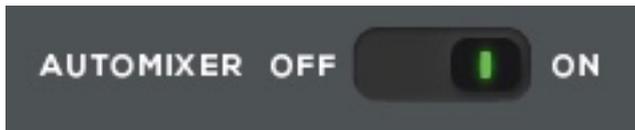
This button turns ALL channels (1-16) of WTAUTOMIXER OFF or ON, so it can be used for example to compare how the mix would sound like without an automixer.

Also in the upper part of the plug-in UI you`ll find two small screens with 8 channels each and between either **1-8 or 9-16**.


By pushing the button 1-8 gets you to the next eighth channels (9-16) and pushing it again gets you back to the first eighth channels. Pretty simple, ey?

The channel view itself is where the magic happens. Let´s first look into the meters and the level fader.

AG in the upper left corner equals to Auto Gain. This meter tells you how much gain this particular channel is getting.

L in the center let`s you adjust the Level of the channel (PRE Automix) between -48dB and +6dB. The default is 0dB.

IN in the upper right corner tells you the incoming audio signal level before the automixer.

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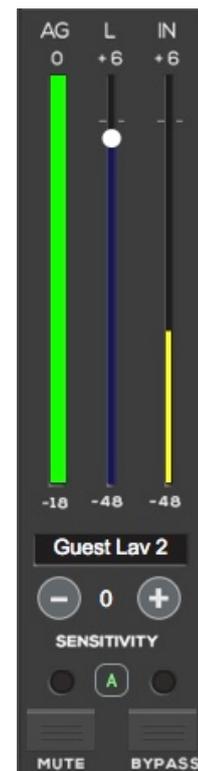
On the bottom section of the channel there are a few additional parameters.

The channel name can be typed in manually and with some of the DAWs, the channel name will be automatically imported from the DAW file. With some DAWs the plug-in editor window needs to be closed and opened up again to receive the name from the DAW.

Sensitivity establishes the relative sensitivity of the automixer for the channels in use. Sensitivity does not change the mix levels. When the sensitivity values are equal, each microphone has an equal opportunity to take over the system. For example, when channel 1 has greater sensitivity value then channel 2, with equal input level for both channels, channel 1 will get more gain then channel 2. In other words, if the channel 1 has sensitivity value of +2 and the channel 2 has sensitivity value of 0, it equals to a situation where the channel 1 audio input level would be 2dB higher then channel 2 input level.

Channel can be assigned to **Channel Groups** by pushing letter A below sensitivity. Every channel can be assigned to one group (A, B or C) and each group functions as an independent automixer. By default, all the channels belong to group A.

When **Bypass** is activated, the audio will go through plug-in without automixing.

When **Mute** is activated, the channel`s output is muted and the channel is not included in the automixing.

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Supported Hosts

Please test your setup with your host application & WTAutomixer plug-in before the purchase, as in some cases the validation process might not work as intended.
We have tested WTAUTOMIXER plug-in with following hosts:

macOS 10.13.-10.15.
ProTools (2018 ->)
Logic Pro X
Nuendo
Cubase
Mainstage 3
Reaper 6
Ableton Live 10
Harrison MixBus6
LiveProfessor 2
GigPerformer 3
SoundDesk

Windows 10
ProTools (2018 ->)
Nuendo
Cubase
Reaper 6
Ableton Live 10
LiveProfessor 2
GigPerformer 3
vMix (The host application needs to be rebooted after removing a plug-in from a audio channel to get the plug-in editor up to date)
Please do let us know in case you are using WTAUTOMIXER succesfully with a host that is not listed here by sending an email to support@wtautomixer.com

Known issues with hosts:
Most of the video editors like Final Cut, DaVinci or Premiere Pro can`t cope with this multi channel plug-in properly and therefore are not currently supported.

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Frequently Asked Questions and User Tips

Q: Should WTAUTOMIXER be inserted to Pre or Post fader insert point?
A: Always when possible, use Post fader insert to ensure that when the channel fader is all the way down on the host application, the automixing is not interrupted by the channel that is currently not in use anymore.
If only Pre insert point is available, the best practice is to have the host application fader at unity level and then adjust fader and mute directly from the WTAUTOMIXER plug-in editor.

Q: When I use WTAUTOMIX, the track names in my DAW aren`t pulled into the plug-in.
A: The track naming feature in WTAUTOMIXER is specific to DAWs that support this functionality. DAW manufacturers have to intentionally make this function available for us to use it. In case the track name is not pulled from the DAW automatically, the track name can be typed in manually. With some DAW`s the plug-in editor window needs to be re-opened to receive the names from the DAW.

Q: Which plug-in formats does WTAUTOMIXER support?
A: For macOS 10.13.-10.15. VST3, AU and AAX Native are supported. For Win10 VST3 and AAX Native are supported. 32-bit versions are not supported, only 64-bit.

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Q: When using WTAUTOMIXER, some of the mics open up much easier then others and I need to adjust the sensitivity quite a bit. What am I doing wrong?
A: Please make sure that your input gain structure is taken care of so, that the input signals coming into the plug-in are within the same ball park. For example, if your lavalier 1 mic comes into the plug-in +20dB louder then the lavalier 2, you would need to set sensitivity difference of 20dB between the mics to treat them equally in the automixing process. Instead of adjusting the sensitivity level, we would advice to adjust the gains for incoming input signals to match each other.

Q: How much is the latency of WTAUTOMIXER plug-in?
A: At 48kHz the latency is 128 samples and at 96kHz it is 256 samples so 2,67ms for both sample rates.

Q: Which audio buffer lenghth should I choose from my Host application settings and does it affect on how the plug-in works?
A: We would recommend to use shorter buffer sizes rather then extra long ones. The comparison of the audio channels in automixing algorithim reacts a bit better with shorter audio buffers like 64 or 128 samples when compared to a longer buffer like 2048 samples.

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