



STYX MIXER
Audio Mixer For Dante® / AES67 Audio Networks

Highlights

- Dante® Network Audio Interface + AES67
- 48 x 46 Non-Blocking Mixer
- Windows 10 Remote Control App
- 32 Bi-Directional AoIP Channels
- All 2208 Mixer Points Have Level Controls
- 24 Assignable Switches & Encoders

Overview

STYX (*pronounced sticks*) is a hugely versatile configurable 48 x 46 mixer/ utility device with 32 x 32 network audio inputs & outputs with the added benefit of 6 x 6 analogue line level circuits, 2 x 2 AES3 circuits, 3(+3) x microphone/line inputs, 2 line up tone inputs & 3 stereo headphone outputs.

The front panel features 24 x assignable rotary encoders and 24 x assignable illuminated switches, plus a mono assignable PPM and LED graph to indicate positioning of the encoders when they are used.

The real power of STYX is its Windows 10 application which in real time can adjust any of the 2208 mixer cross point levels and also provides many setup options and importantly allows presets to be stored and recalled.

Reliability is key, STYX has multiple redundant power supply sources and redundant network interfaces.



STYX Mixer
2208 Crosspoint Mixer

GlenController Windows 10 App

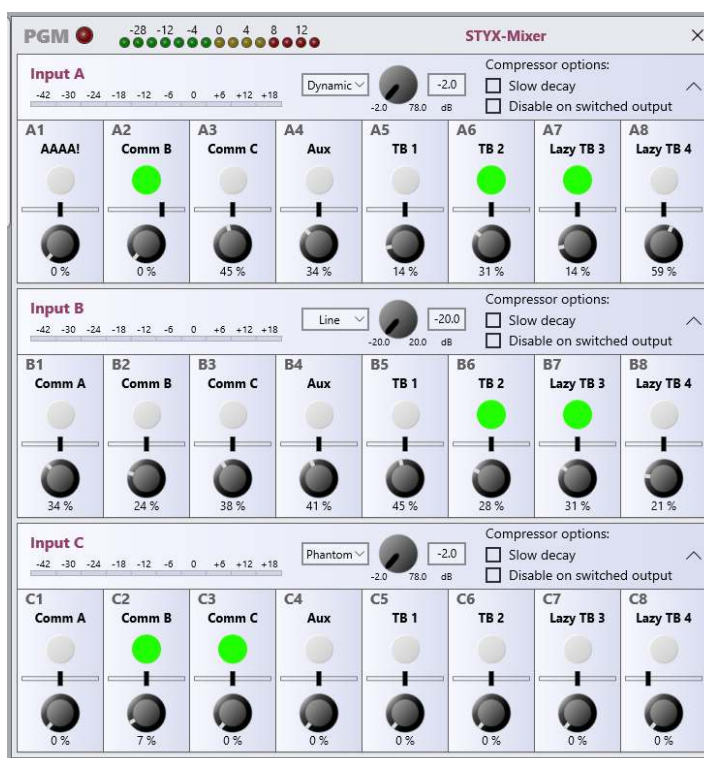
Overview

Our existing popular GlenController Windows 10 application has been expanded to provide the remote control facilities for the STYX Mixer.

When run, GlenController will automatically search your network and find all associated hardware devices that it can control and present these in a list for you to choose which one(s) you'd like to work with. However if you're using Dante Domain Manager and multiple subnets then an IP address can also be assigned for GlenController to communicate with. All units can be password protected to prevent un-authorised use.

Preset configurations are a must for any busy broadcast team providing facilities for different programmes each day of the week, as such the STYX mixer has a straight forward simple to use preset system built into GlenController that even enables configurations to be exported and imported between devices.

GlenController can be used in two ways, firstly as the STYX Mixer does not need the App to be running to work it can be used just as a configuration tool for setting up mixes and button/ shaft encoder functions for when the STYX mixer is being used in a simple or fixed environment. Secondly it can be used to provide real time mixing controls of any of the 2208 mix points within the mixer.



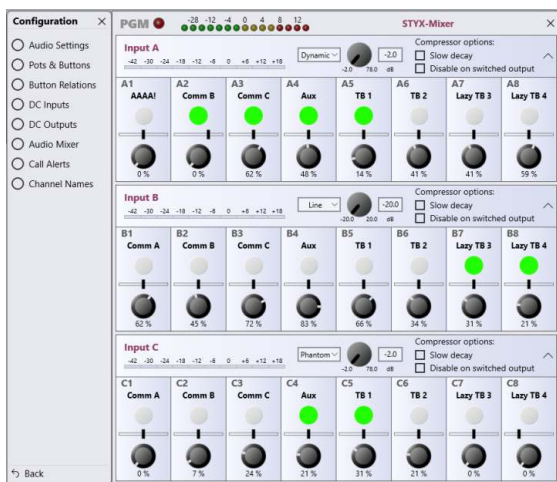
Dante® / AES67 UTILITY



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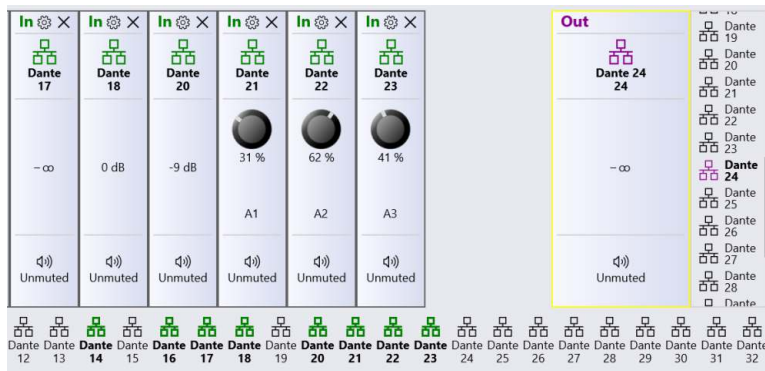
Functions/ Configurations



The App provides multiple configuration options to help make the work flow as easy as possible for the operator. Details such as being able to provide meaningful names to the input and output channels in the App which automatically get transcribed to Dante Controller so that your network routing names match the mixer channel names and the ability to see real time status of all devices help to keep programmes flowing.

The App also allows configuration of the shaft encoders and buttons on the 1RU rack, including how all the buttons interact when one is pressed including interaction with 4 x GPIO circuits that can work as external buttons or as outputs to trigger external equipment. Gains for the 3 inbuilt microphone amplifiers are also adjustable in the App.

The hardware front panel has one Peak Programme Meter (PPM) however the App has the ability to simultaneously show nine level meters. Three of these level meters are permanently assigned to the inputs of the three microphones, whereas the other six meters can be assigned to monitor any one of the outgoing circuits.





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Inputs & Outputs

- **AoIP Inputs & Outputs**

32 audio inputs and outputs to the network are provided. These are Dante® but can also be set to AES67. They are fixed at 48kHz and there is a fully redundant physical connection of two copper network circuits (Ethercon) and two SFP slots (normally used for fibre).

- **Line Level Analogue Inputs & Outputs**

There are 6 balanced line level analogue inputs and outputs presented on 2 x D25 plugs wired to the AES59 (Tascam) standard.

- **Microphone Inputs**

Three low noise large dynamic range high quality microphone inputs are provided on rear panel XLRs. Gain is set via the App and 48 Volt phantom power can also be turned on/ off from the App. The output of the microphone amplifiers are routed in the DSP to individual compressor/ limiter circuits. Both compressed and uncompressed signals are presented as inputs to the mixer. These inputs can also be set to receive a line level circuit.

- **AES3 Inputs & Outputs**

On a rear panel 9 way D connector that is shared with the GPIO there is an AES3 input & output circuit. Being AES3 this provides 2 audio channels in & out.

- **Headphone Outputs**

For monitoring purposes three stereo headphone outputs are provided. These utilise our unique amplifier circuit suitable for both low and high impedance headphones.

- **Line Up Tone**

The internal DSP provides two fixed rate oscillators, one at 1kHz and the other 1/5th Octave lower at 629Hz. The outputs of these oscillators are presented as two inputs to the mixer.



Styx Dante

In "The Inferno", Dante describes how the River Styx made up much of the fifth circle, and within its swampy waters, the souls of both the Wrathful and the Sullen were punished. Apparently the Styx is so deep that Phlegyas wades underwater and only the flat top of his crown can be seen.

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Controls

- **Shaft Encoders**

The 24 front panel shaft encoders are rotary level controls. When one is rotated a row of LEDs above the front panel PPM illuminate to indicate the current position (i.e. how far up (or down) the control is currently set).

These shaft encoders can also pan the associated circuits by pushing them in while rotating.

The mixer cross point circuits that these controls adjust can be configured in GlenController. One shaft encoder can be set to control many cross points, however individual cross points can only ever be controlled by one shaft encoder.

- **Switches**

There are 24 illuminated push switches on the front panel. These can be set to turn any or multiple mixer cross points on/ off. They can also be set to route outputs to the headphones and meter circuits.

The interaction between switches is fully configurable.

- **GPIO**

Four general purpose input/ output circuits are provided. There are four circuits in total and any one can be set to be either an input or an output. These can perform any function a switch can and share full interaction with the switches.

- **Line Up Tone**

The internal DSP provides two fixed rate oscillators, one at 1kHz and the other 1/5th Octave lower at 629Hz. The outputs of these oscillators are presented as two inputs to the mixer.