DID YOU KNOW…?

## IN THIS SECTION WE INFORM YOU ABOUT TECHNICAL DEVELOPMENTS

AEQ DEVELOPS NETBOX DSP, A NEW AUDIO OVER IP ROUTER CONCEPT IN DANTE (AES 67 COMPATIBLE) NETWORK ENVIRONMENTS.

How Dante Controller works:

Audinate offers Dante Controller software, allowing the user to route all output audio channels provided to the Dante network by every device. Which signal each device's input channel subscribes to can be decided within one screen.

But Dante Controller has important limitations for the environment it was designed for. As an X-Y matrix tool, it can simply establish which available signal each input channel of a network device subscribes to:

- It distributes signals, but cannot mix them or control the level of each input.
- It doesn't manage stereo signal pairs.
- Audio cannot be processed.
- Lines cannot be displayed in different screens in order to show only those that the user is interested in.
- It doesn't offer schedules or clock-triggered configuration changes.
- It doesn't manage transport of contact closure signaling.
- The audio level of each line cannot be displayed in detail.
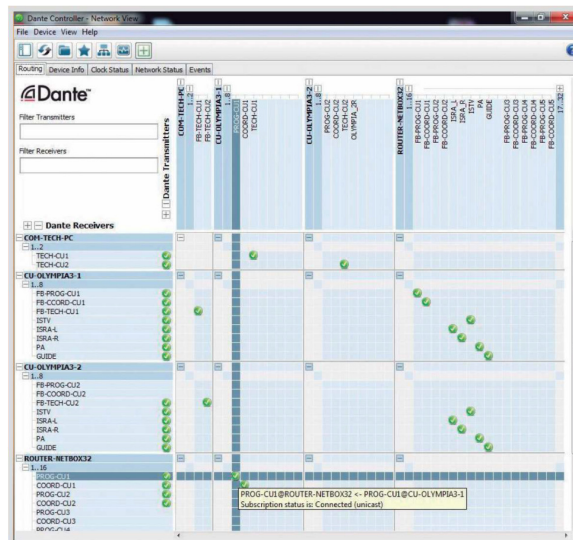
As a simple analogy, we could well say that Dante Controller manages the lines as if we actually had a patch panel including all inputs and outputs plus a rack full of audio distributors: we can link an output to an input, or even include a distributor that connects that output to some inputs of several pieces of equipment (that would receive the audio with the same level, indeed). But that's all. It is not little, but several functions we are used to when managing audio in a station are missing.

What's Netbox DSP and what it does?

NETBOX DSP is a truly unique device, designed to complement the audio routing capabilities of a Dante network, adding the missing features offered by a typical TDM-bus based audio matrix.

It is able to receive audio from a DANTE network and return it readily mixed and processed for its use by another device or subsystem. Audio signals can be managed as mono or grouped in stereo signal pairs. Also, a 1 kHz test tone can be generated and vu-meters for all inputs and outputs are available, which can be organized within frames with different colors.
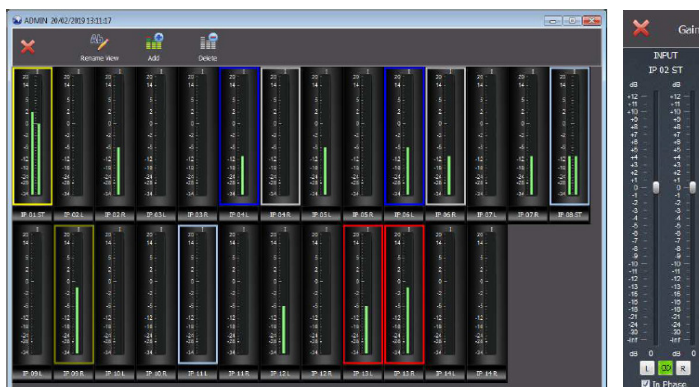
It is possible to sum any number of inputs (up to 160 depending on the particular model) into any of the available outputs. Gain input control is provided for any input, output and crosspoint, as well. All outputs can be muted independently, too.

Up to 64 selectable inputs can be processed, and the resulting signal can be routed to any of the outputs. These are the available audio processors:
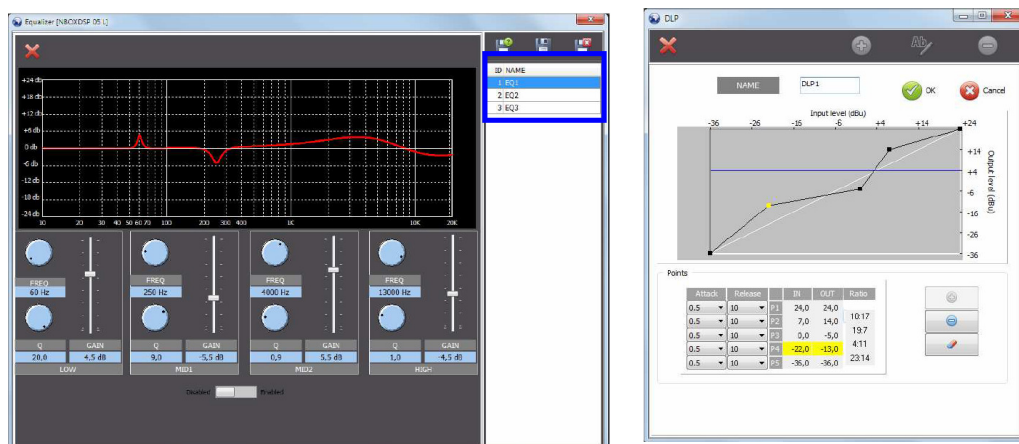
Frequency: high-pass, low-pass and band-pass filters, as well as 4-band parametric equalizer.
Dynamics: compressor, expander, noise gate, limiter and combined DLP
Delay.

Also, configuration salvos and macros can be managed, and tasks can be scheduled by a calendar and clock.

A multi-device, multi-user control system has been developed, including operation rights-management and the possibility to configure views, create particular work scenarios and protect critical lines.

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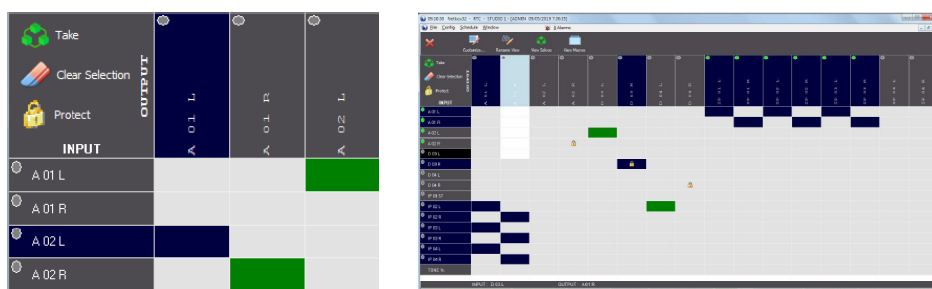
This is a general view of its back panel.

Notice! Not even one analog or digital audio connector is present: remember that audio is taken from the Dante IP network, processed and returned to it. It always operates in combination with other Audio over IP connected devices: mixing consoles, analog and/or digital converters/interfaces or any other specific devices. It is also AES 67 compatible.

It also provides 16 GPI and 16 GPO. GPI/Os can be transported by the IP network between compatible devices. This way, a GPI can act over other devices' GPOs in order to perform multiple functions, such as signaling transport between different pieces of equipment, alarms, audio presence detection in any input or output, remote test generator activation/deactivation, remote muting of any output, remote triggering of macros and salvos, etc.

Versions
Netbox DSP 64: routes and mixes up to 64 signals.
Netbox DSP 96: routes and mixes up to 96 signals.
Netbox DSP 128: routes and mixes up to 128 signals.
Netbox DSP 160: routes and mixes up to 160 signals.
All of them can process up to 64 signals.