BLADE-4

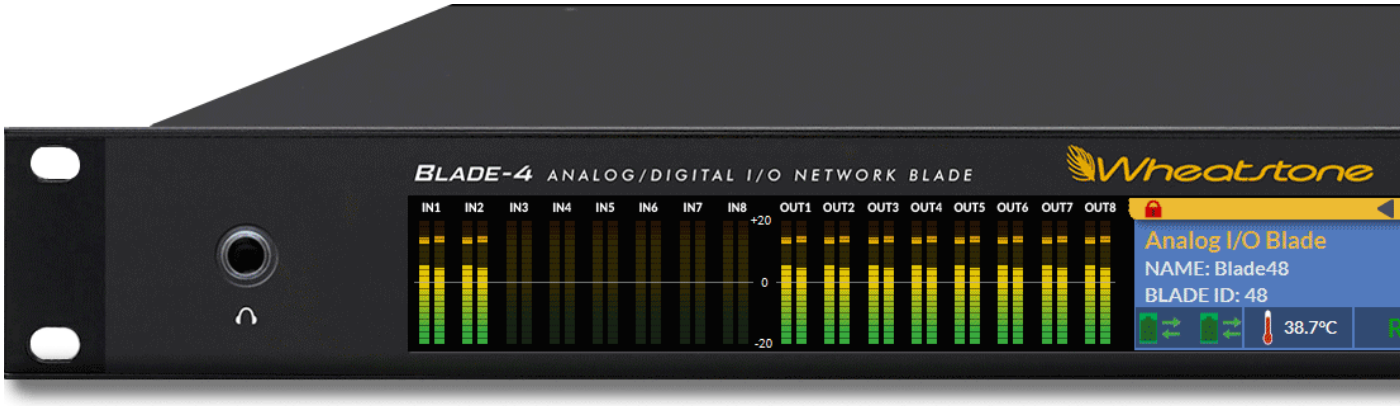
NEXT GENERATION INTELLIGENT IP INTERFACE

Wheatstone

BROADCAST AUDIO PERFECTIONISTS®

BLADE-4

Blade-4 is Wheatstone's fourth generation WheatNet-IP I/O unit and the most significant AoIP improvement to come out of recent times.



Unique to Blade-4 is its integration of key studio elements into one native AoIP environment, including audio processing, codecs, mixing, routing, control and operating system. It has a built-in OS for running apps and customized scripts for specialized software, metering apps and virtual interfaces.

Also included is Opus codec for streaming audio between the station studio and home studios, plus modern add-ons such as dual audio clip players, enhanced to play compressed or uncompressed audio files from the built-in USB ports, to virtually eliminate memory storage issues.

Blade-4 is fully AES67 compliant for interoperability with a wide range of AES67 networks and devices and supports SMPTE ST 2110, including the NMOS discovery standard for AES67 and next generation television networks.

Blade-4 puts both I/O and intelligence into one AoIP environment for everything from routing audio, mixing sounds and processing feeds, to turning mics on or off, controlling consoles and triggering mix-minus presets by show, location or talent.

These new functions are in addition to existing Blade features, such as two 8x2 stereo utility mixers for online mixing of sounds or segueing remotely between feeds; routable stereo processor with parametric equalizer, compressor and limiter; and 12 universal logic ports plus 128 software LIO ports, programmable as inputs or outputs, and routable through the network.

Completely compatible with existing Blade 3 network systems, the 1RU Blade-4 includes:

- Opus codec for integrating workflows from remote venues or home studios into the studio operation as needed. All codecs are routable in native AoIP; no additional studio hardware required.
- Built-in OS for running customized scripts and specialized software, metering apps and virtual interfaces.
- AES67 compliance, from .125 ms to 5 ms packets, for a wide range of interoperability with other AES67 devices and networks.
- Support for SMPTE ST 2110, including the NMOS discovery standard for AES67 and next generation television networks.
- Dual Ethernet ports available on every Blade-4 for failsafe redundancy.
- Integrated audio codecs, processing, mixing and operating system in one native AoIP environment for resource sharing.
- Two separate audio clip players, enhanced to play compressed or uncompressed audio files from the built in USB ports to virtually eliminate memory storage issues.
- Full AoIP I/O and intelligence in one unit for routing audio, mixing sounds, processing feeds, and controlling mics, consoles, and other studio appliances. Blade-4 has all the standard Blade features, including two 8x2 stereo utility mixers for online mixing of sounds or segueing remotely between feeds; routable stereo processor with parametric equalizer, compressor and limiter; and 12 universal logic ports plus 128 software LIO ports, programmable as inputs or outputs, and routable through the network.
- Codecs, software apps, mixing and audio processing, plus AoIP routing, control and interoperability in 1 RU for reducing rackroom real estate and associated cooling, cabling and other expenses.

BLADE-4

Blade-4 incorporates new hardware and software utilities/features that extend the capabilities of the WheatNet-IP AoIP audio infrastructure. These new Blade-4s work seamlessly with older Blade models in existing WheatNet-IP systems, and some of their new features can even be added to existing devices with a simple software update.

With Blade-4, broadcast audio becomes a truly modular AoIP system where the studio can exist anywhere it's needed.

Hardware Overview

11" full color high resolution front panel LED display

This wide screen makes front panel routing control, UMix control, Clip Player control, and more a practical reality. Users can even display their own logo on the front panel screen

Updated CPU with GPU graphics acceleration

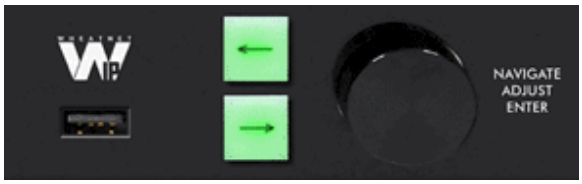
This allows for ScreenBuilder apps, Meter Apps, built in scripting, and so forth to be installed onto and run from the Blade-4 – no external PC required. This also supports two separate codec senders and two separate codec receivers for remote audio connections.

Rear panel HDMI video output on most Blade-4 types

With the Blade-4, you can run the LXE and GSX screen GUIs (as well as the apps above and more) directly on your external monitors (with support for touchscreens via the USB port).

Expanded internal memory capacity

Provides extended storage for auxiliary apps and scripts plus enhanced audio clip storage (clip player now supports MP3 compressed audio files). Plus there are now two independent clip players, each with their own LIO controls.



Front and rear panel utility USB jack

Included USB A connections on front and rear for file loading, keyboard/mouse/touchscreen requirements, and adding audio clips.

Rear panel dual NIC capability

Provides for network redundancy or separate LAN/WAN connections when using the built in audio codecs. NICs now provide for DHCP addressing.

Dual failsafe power supply capability (optional)

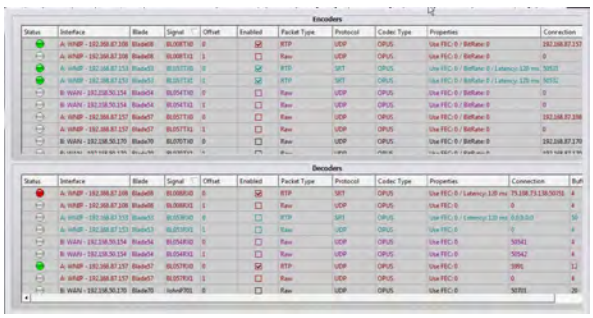
Dual power supplies provide enhanced reliability.

Software Overview

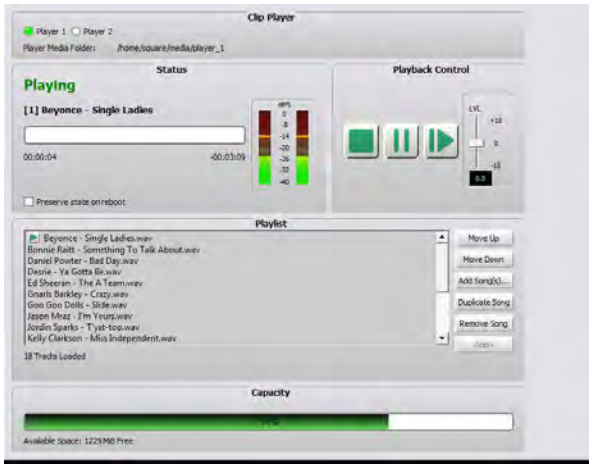
Along with the new hardware (and often because of its increased capability) Blade-4 brings a number of software enhancements to WheatNet-IP.

Dual audio codecs

Each Blade-4 can now support two channels of encode and two channels of decode capability. The codecs use the Opus



Codec status window

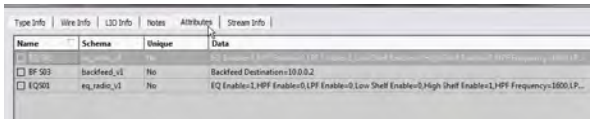


Dual audio clip players

While Blades have had an optional clip player, Blade-4 now provides a second clip player, both of which give you enhanced full remote control capabilities. When used with a hardware button panel (or a virtual button in ScreenBuilder) these players can be used in real time as effects/sounder decks in addition to executing song playlists.

Because Blade-4 has increased memory, you can store more clips (it can now play MP3 files for even more storage capacity). Clip Player features level controls and meters, and status shows elapsed play time and clip metadata. Clip players can even run files from a front panel USB stick.

Software Overview (continued)

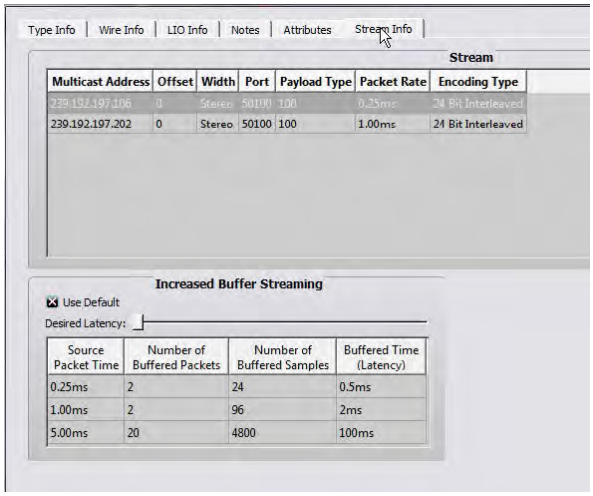


Source attributes

Each source signal can be assigned attributes (corresponding back-feed, audio processing, etc) that are automatically activated on whatever destination the source is routed to.

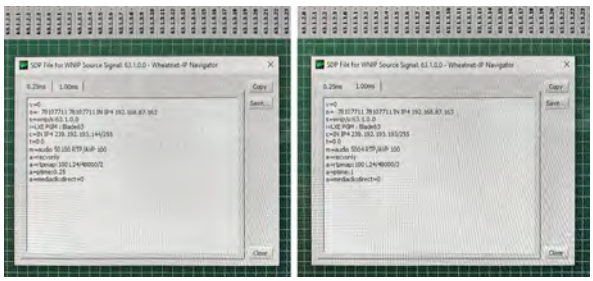
Enhanced signal names

File names are no longer restricted to 8 characters. Ditto for Blade and location name, making it much easier to navigate.

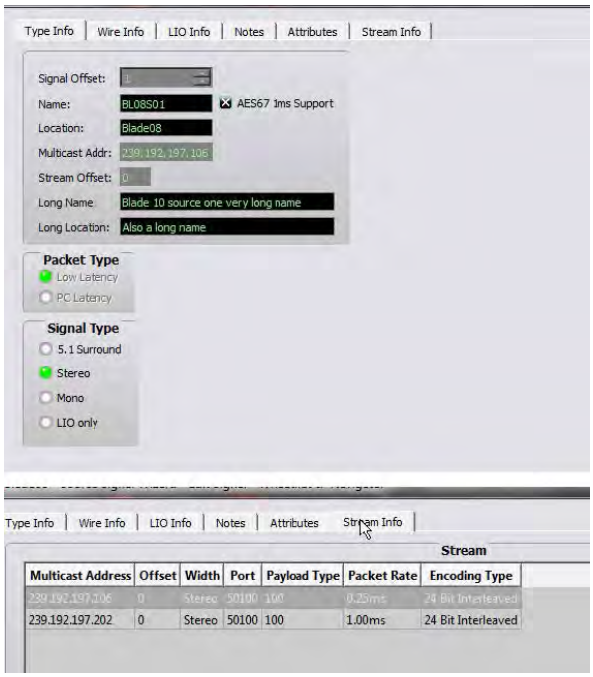


Variable buffering on destinations

Individually adjustable buffering compensates for jitter on remote connection.



.25 & 1ms packet timing

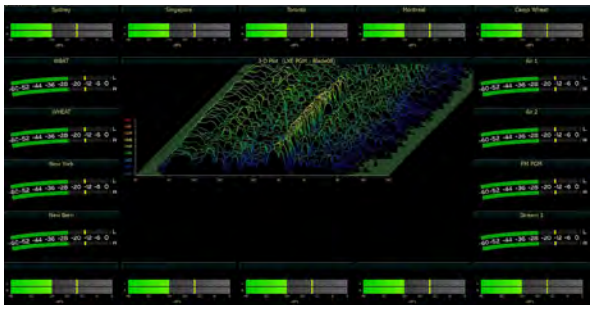


Enhanced standards compliance for AES67 and SMPTE 2110

- Supports simultaneous transmission of 1ms audio in addition to WNIP .25 on every source so you don't have to sacrifice low latency if you need to add an AES67 device
- 1ms packet timing available for all Blade-4 signals.
- True 1ms mono and surround stream capability
- .125ms receive capability
- Automatic failover and recovery on redundant networks
- Basic PTP master clock for simple systems
- NMOS stream visibility and exposure for 3rd party routing control

Built in scripting

Blade-4 devices can run user scripts directly on the Blade without requiring separate hardware devices or PCs.



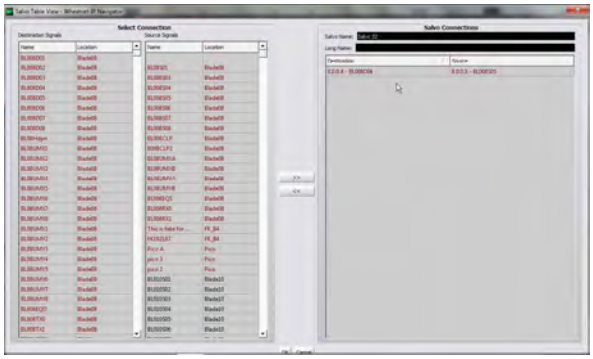
Application manager

Blade-4 can run separate applications directly on the Blade in addition to WheatNet-IP. ScreenBuilder and MeterApp are currently supported, with more to come.

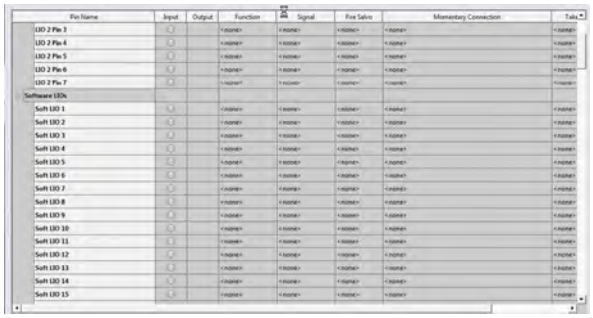
Enhanced Navigator software

- Provides displays and controls for all the new hardware and software features.
- Custom configurable system meter/monitor page.
- Simplified Salvo controls.
- Enhanced LIO status display - now shows SLIO and functional LIO status.

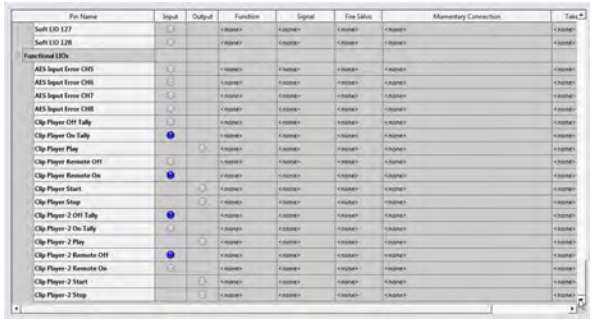
Custom meter screen



Salvo viewer



Soft LIO status



Functional LIO status

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