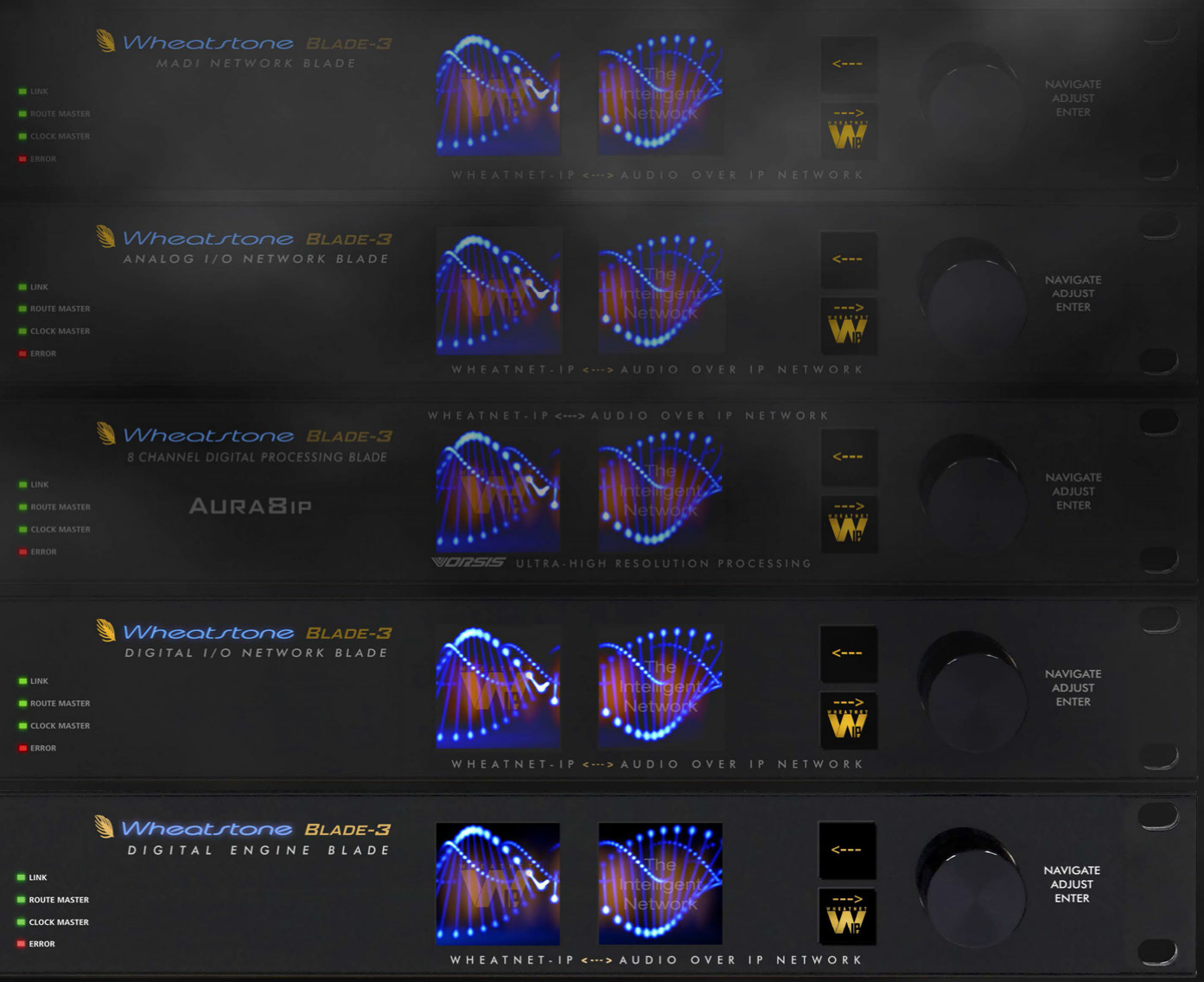
WHEATNET

THE INTELLIGENT NETWORK



BLADE-3

IP AUDIO TAKES ANOTHER QUANTUM LEAP

WHEATSTONE TOOLS TO RULE RADIO NOW • DEFINITELY

RULE RADIO NOW®

Wheatstone

BROADCAST AUDIO PERFECTIONISTS®

SAVE DIFFUSION

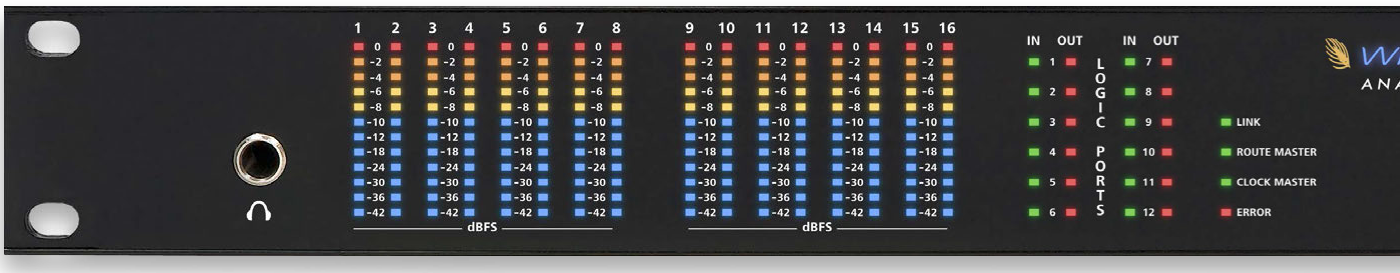
WHEATNET

THE INTELLIGENT NETWORK

BLADE-3s Are Different

BLADE-3s are what some people might call misfits. They almost fit that class of IP audio products called nodes because these are the access units and elements that make up the WheatNet-IP Intelligent Network. But there's a whole lot more going on inside a BLADE than mere I/O...

You told us that you wanted to stop chasing after logic, too, so we did it. No more chasing down a particular microphone setting when you call up the morning show's host mic from Studio A, or Studio B for that matter. In the BLADE world, the settings for devices and particular feeds follow audio like a puppy on a leash.



Like a powerful CPU complete with operating system. There's no PC running the show here. When we sat down to build a modern IP audio network, we wanted something that could think for itself so you wouldn't have to give system reliability and redundancy a second thought.

We also had in mind really, really smart I/O units that included logic control and onboard utility functions, like audio processing and utility mixing. Imagine that: routable channel mix-downs and microphone groupings, plus spot processing where you need it, for those loud callers, finicky codecs, and hushed satellite feeds.

And because broadcasters can be an impatient lot, we went with the fastest networking throughput we could get our hands on: Gigabit Ethernet. Every BLADE has a Gigabit Ethernet port, and this is why our WheatNet-IP Intelligent Network has been able to outrun audio where other IP audio systems haven't — and why our friends have been able to take advantage of readily-available, affordable network switches. (We can't remember the last time we even saw a 100BaseT switch for sale, can you?)

BLADEs are know-it-alls. Each individual BLADE I/O access unit has the tools to be a radio studio all on its own, yet it also holds the brain trust of the entire network operation for exceptional redundancy and scalability. They're smart and they're independent. But don't worry. BLADE I/O units are also very civilized, and even hold elections to determine which one in the network has the longest uptime record, for example, in order to assume the role as master over the rest. You won't have to bother with seating assignments, either. All BLADEs know what they're supposed to do — and what all their other BLADE friends are supposed to do.

We have BLADEs for just about every purpose that can be networked together with our control surfaces to make one smart, WheatNet-IP audio network. Our new third-generation BLADE-3s, now available in a smart new enclosure with some cool new features, come in a combination of analog and digital I/O models, and are available for MADI audio and for microphone inputs. All you have to do is plug them into an Ethernet switch, add the control surfaces you want, and WheatNet-IP does the rest.

MEET BLADE-3

Everything you need to put music on the air... all the way from audio input to your transmitter, in a single box.

When we invented modern radio audio networking, we vowed to build the first truly intelligent IP audio system. One where every interface held the DNA of the entire system for recovery. A system with true Gigabit connectivity. One that required only a single CAT-6 cable to interface any network piece – to carry audio AND control information. A system that could actually be up 24/7/365 and handle everything you need yet, so simple to interface as to be virtually foolproof. Well, here ya go...

Gigabit Connectivity

All BLADE-3s use Gigabit Ethernet. This makes all the difference in network capacity, near-zero latency, throughput, reliability – in short, everything.

Virtually All Audio Formats

BLADEs are built to handle native analog, microphone, AES/EBU, SPDIF, AOIP, MADI, SDI and AES 67. Once any type of audio is ingested into the WheatNet-IP network, any type of audio input can be converted to any other type of output. Example: analog to digital, AES to IP, MADI to AES 67, mics to AOIP, etc.

Two 8x2 Utility Mixers

Each BLADE has two 8x2 utility mixers that can be configured in many different formats. Two 8x2, four 4x1, etc. These internal mixers are full featured and include panning, channel ON/OFF, fader levels, and access to any source signal in the system. They also include a full ACI (Automation Control Interface) allowing remote control, ducking, auto fade, channel on/off, levels, source assign, etc.

Audio & Control Routing Matrix

You can take any audio input and route it to any output or all outputs. You can take any GPI and send to multiple GIO's or you can marry GPIO's to an audio source and have it follow that source through the system. All through one RJ45 connector for each device.

Source & Destination Control

Each BLADE has the ability to route any source to the destinations on that BLADE.

Dual OLED Displays*

Each BLADE has two small full color displays for monitoring and control of most functions right from the front panel. Setup, monitoring, network information, alarm status, enabling and operating utility mixes, setting input and output gain, enabling audio processing – and whatever else we can think of in the years to come.

Silence Detection

In case of an operator error, this can be programmed as a "source" or "input" for the failover. If an operator misses a cue or leaves a fader down when the system senses silence it can take the automation system directly to air or use the integral clip player to play music and ads until the operator catches up. Every single audio output channel can be programmed with a silence detection and automatic switch-over function.

Built-in Audio Clip Player*

There is an optional built-in audio clip player that can be used to put emergency audio on the air. The files are managed in Navigator where you can add files, organize the playlist, and fire playback with a logic port. Silence or LIO can trigger this playback or it can be manually controlled from Navigator.

Front Panel Logic Indicators*

Status indicator for active logic and the direction (in or out) of the BLADE.

12 Universal GPI/O Ports

Each BLADE is equipped with RJ45 connectors to provide 12 Universal Logic Ports which can be individually designated during set up as inputs or outputs. These ports are used to interface the various external switches, indicators, and control functions you need.

128 Software Logic Ports*

Used to interface with software switches, indicators, and control functions throughout the system.

LIO/SLIO Logging*

This logging app tracks LIO/SLIO activity throughout the system and shows the user when any input comes into the system and when it is sent, via multicast, across the network and to the output. A comprehensive Sort Section and Activity Visualizer let the user see a detailed view of what happened in the system.

Stereo Audio Processor*

Each BLADE-3 has a stereo multiband processor with the following: 4-band parametric equalizer, 3-way crossovers, 3 compressors, 3 limiters, and a final lookahead limiter. This is a "routable processor," meaning it is not limited to the local I/O on the BLADE – it can be considered a network resource.

Associated Connections*

This is a great feature in BLADEs for callers, codecs, networks, remote broadcast & live talk shows that require a mix-minus. You can create a predetermined back haul, IFB feed or mix-minus for each device based on its location in the system or on a fader. If you have a shared resource connected to your system, such as a codec, the software will "automagically" give the proper return feed to the codec based on its destination. When a base connection is made, up to ten additional connections can be made. This significantly helps streamline studio routing, phone and codec selection.

Aliases*

Allows the same source to be identified by different names. A signal can now be given an alias(es) which can be a more friendly name that operators understand. Multiple aliases can be used so different operators can share logic functions, source feeds, routing, etc.

AES67*

Ability to support AES67 compliant devices. Allows WheatNet-IP system to synchronize to IEEE1588 from a PTP grandmaster clock and ingest /stream AES67 compliant packets.

44.1, 48K, External Sync or AES 67 Operation*

This is the overall clocking for your digital system. The system clock rate can be either 44.1K, 48K, External Reference or AES 67.

Clock/Sync Indicators*

The 1588 Clock Loss Indicator notifies the user when the AES67 clock source has been lost.

The AES Sync Loss Indicator notifies the user when an AES input has lost its clock source. Also generates Alarms for any AES3 input that becomes disconnected.

Onboard Intelligent OS

Each BLADE has its own intelligence/operating system that allows it to be a powerful standalone router, be part of a larger system, or control the entire routing system. WheatNet-IP is an embedded system that does not require outside intervention or control from 3rd party software running on PC's. The configuration of the entire network is stored in each BLADE.

44.1K or 48K Sampling Rates

System operates at 44.1K or 48K while converting incoming signals up or down as needed.

Auto Mono Summing

Any stereo signal sent to a mono output is automatically summed: If you route a stereo source or stereo mix to a mono destination such as hybrid or codec, the system will automatically "sum" the left and right channels together.

Signal Splitting

The BLADE can take any Stereo AES /EBU or Analog input or output and split it into two mono channels.

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

Gain Control on Every Input & Output

Gain control on every input and output. This allows the user to calibrate the input level for each source or destination.

Balance Control

There is a balance control on every stereo input and output.

Flexible Signal Configuration

Signal can be defined as up to 16 mono, 8 stereo or any combination of mono and stereo totaling 16 channels.

Studio Bypass

With the push of a button or a command from the automation system, this output can feed the transmitter, freeing the on-air studio up for production or voice tracking.

Front Panel Input and Output Metering

There is metering for every input and output on the system – 12-segment, multi-color LEDs that can be used for metering inputs and outputs as 8 pairs or 16 mono signals.

Front Panel Headphone Jack and Source Selection

This is a self-powered headphone jack with volume control. It allows you to select and monitor any source or mix on that BLADE or in the entire system.

Salvos/Macros

There are an unlimited number of salvos and macros, used when more than one route needs to take place. These are preprogrammed events or a series of switched events that can happen within a BLADE or thoughout an entire WheatNet-IP network.

Automation Control Interface (ACI)

This is a “tool box” in every BLADE that allows full control functions such as routing, ducking, panning, full logic control, mixing and silence detection. Each BLADE supports up to 20 ACI connections which can be used with devices like Talent Stations, GP panels, Sideboards, etc. It also allows control of our partners’/third party equipment.

Screen Builder*

While not built into a BLADE, the screen builder app offers the scripting capability of a GP16, the control of GlassE, monitoring and metering of the IP Meters app, and ACI protocol. This will allow a user to build a custom screen to fit many needs in specific applications. Will work with any version BLADE.

SNMP

Wheatstone’s enhanced Simple Network Management Protocol (SNMP) management systems use SNMP to monitor network attached devices such as BLADEs for conditions that may require action by the end user. This tool gives you centralized monitoring over large distributed systems. You can configure alarms and set thresholds to get notified if and when a problem occurs. The instant alarms and notifications help you take quick corrective actions through e-mail, SMS, and executing custom scripts.

Connection Choices

Has both DB25 to make transitional wiring easy for existing BRIDGE TDM customers and RJ45 – Studio Hub compatible RJ connectors for input and output.

Info Screen

Each signal has a new info screen allowing the user to add text to signals such as wire numbers, termination locations, etc.

LIO Test

LIO Outputs can be tested from the front panel of each BLADE.

Backup

Due to its distributed intelligence, the system has automatic backup capability.

Alarm Notification

Using Alarm doc or LED status, BLADEs can report on a wide variety of error and alarms.

NTP

System can lock to a NTP server on the network for time of day synchronization.

Front Panel Locking

All BLADEs’ front panels can be locked for security

Version Checker

Built in version checker to aid in update process.

Crosspoint Save

Can save a current copy of all crosspoints in the system. This is done in Navigator.

Debugging

A comprehensive logging application is included for every BLADE to aid in system debugging.

No Cooling Fans

They don’t need them!

Specific Functions for Specific BLADES

Mic Pre

Using the 88m you have 8 Mic preamps

Mic Processor

using the M4 you have 4 Mic preamps, but also 4 M1 mic processors.

Eight Audio processors

The Aura8-IP has 8 stereo processors that allow user to process any audio in the WNIP system and route that processed audio to any output.

High density ingest

Using a MADI BLADE user can connect to a variety of 3rd party devices and ingest up to 64 channels of audio over a single coaxial cable.

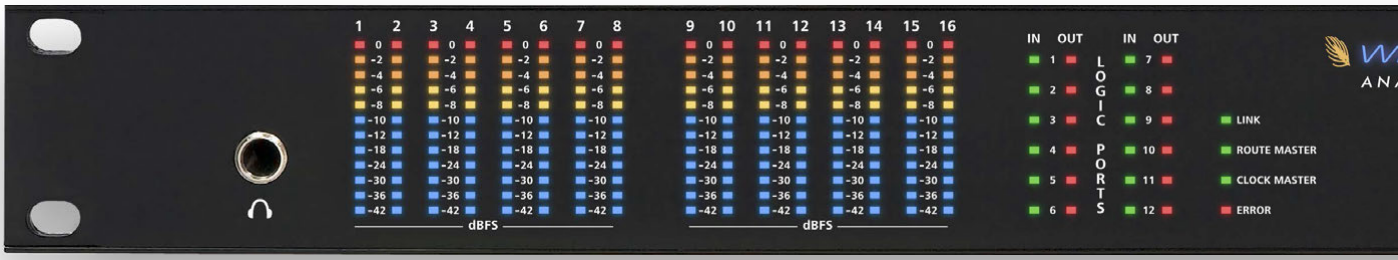
External Clock reference

88d, 88ad, Aura8-IP BLADEs can accept an AES reference into port 8 to use a master clock reference for the system.

** indicates features available only in BLADE-3s*

I/O BLADE-3s

IP-88A Analog, IP-88D Digital, IP-88AD Analog/Digital and IP-88M Microphone



IP88A Analog I/O BLADE-3

The IP88A is an analog input/output BLADE. It handles input and output, each with 8 stereo channels, 16 mono channels, or any combination totaling 16 discrete channels.

IP88D Digital I/O BLADE-3

The IP88D is an AES digital input/output BLADE. It handles input and output, each with 8 stereo channels, 16 mono channels, or any combination totaling 16 discrete channels.

IP88AD Analog/Digital I/O BLADE-3

The IP88AD is a combined analog and AES digital input/output BLADE. It handles input and output, each with 8 stereo channels, 16 mono channels, or any combination totaling 16 discrete channels. Half of these are analog, the other half AES digital.

IP88M Microphone I/O BLADE-3

The IP88M is an analog input/output BLADE with microphone-level inputs. It has eight built-in microphone preamplifiers complete with pad, phase switch, and phantom power. It provides eight analog line-level outputs.

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

I/O BLADEs are far more than mere access units connecting studios, elements and Wheatstone control surfaces in the WheatNet-IP Intelligent Network. Yes, I/O BLADEs convert audio and logic inputs to data streams on the network and convert outgoing data streams to hardware outputs. But these 1RU I/O units – which come in analog, digital and analog/digital I/O units - also have intelligence inside. Each I/O BLADE comes with a CPU and operating system so you can do amazing things with your audio network, starting with routable mixing, logic-follow-audio and a whole lot more.

BLADE I/O access units make up the audio routing backbone of the WheatNet-IP Intelligent Network and use RJ45 StudioHub+ compatible connectors for input and output, and also have DB25 connectivity for transitioning from BRIDGE TDM networks.

But there's more inside their sleek, all-metal housing than mere I/O. The I/O BLADE has its own CPU and operating system; no additional PC required. It can operate alone or as part of a network, and can be located anywhere in the studio (no noisy fans inside). Each BLADE has a 1000-base-T (Gigabit) network interface. This single network connection is used to send and receive audio, logic, and communications from the I/O BLADE to the rest of the WheatNet-IP network. Gigabit Ethernet provides very low latency while allowing the use of readily-available switches and infrastructure for connectivity. Connect automation and production PC's, codecs, audio processors, controllers, and other devices directly to the network without installing specialized sound cards, A/D-D/A converters, audio wiring, or control connections. The I/O BLADE communicates at the speed of Gigabit Ethernet connectivity for optimum network QoS and reliability, and includes logic control, onboard utility functions and the dedicated controller that is at the core of its intelligence. Each individual I/O BLADE can hold the brain trust of the entire system's operation for exceptional network redundancy and scalability.

- CPU with OS and standalone operation
- 24-bit A/D and D/A converters
- 1RU, no fans
- AES67 compatible
- One Gigabit Ethernet port
- Two stereo 8x2 utility mixers
- Stereo multiband processor
- Embedded audio playback (optional)
- Silence sensing can be applied to any outputs
- 16 analog input channels
- 16 analog output channels
- RJ45 connectors for audio (8 in, 8 out)
- Four D-Sub connectors for audio (2 in, 2 out)
- 12 universal logic ports (GPIO) on 2 RJ45 connectors
- 128 software logic ports
- Front panel headphone jack
- Two full color OLED displays on front

MIX ENGINE BLADE-3

IP-88E

Every nerve center needs a brain. For many Wheatstone control surfaces, the IP88E Mix Engine BLADE-3 is it. This is the unit that handles the audio mixing for most E-Series control surfaces and the Wheatstone Glass-E Virtual Console.

Unique to Wheatstone's console engine approach is its true IP connectivity. The control surface networks directly into the network switch itself, giving it access to mix engine functions as well as direct access to automation systems, network applications and other control surfaces that make true system interoperability possible. Other IP audio systems tie the control surface and the console engine together using CAN bus, thereby filtering all outside communications through the console engine first and isolating the control surface from other elements and functions in the network.

The IP88E BLADE-3 houses all the DSP processing power for an individual control surface and distributes the four stereo PGM busses, four stereo AUX sends, per-channel mix-minus feeds, monitor outputs, and other bus signals to the network. Once on the network, bus signals are available as sources and destinations anywhere. This creates an extremely flexible system in which program outputs from one surface can be sources on any other surface; for example, a news mixer's program bus can be brought up as a source on the air studio surface. While the IP88E doesn't house audio I/O, it does include 12 universal logic (GPIO) ports for interfacing various external switches, indicators and devices for control purposes.

The IP88E is AES67 compatible for use with other AES67-compatible devices and signals in the WheatNet-IP Intelligent Network.

- True IP connectivity: Includes DSP processing
- 12 universal logic ports (GPIO) on 2 RJ45 connectors
- AES67 compatible
- Front panel headphone jack
- OLED front panel display with graphical menu
- One Gigabit Ethernet port

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

CONSOLE AUDIO BLADE-3

IP-88CB

Console Audio BLADE-3s provide audio I/O and DSP mix engine functions for WheatNet-IP control surfaces through the network switch. Unique to Wheatstone's console engine approach is its true IP connectivity. The control surface connects directly into the network switch itself, giving it access to mix engine functions as well as direct access to automation systems, network applications and other control surfaces that make true system interoperability possible.

The IP88CB Console Audio BLADE-3 comes standard with L-8, L-12, E-1, IP-12 and IP-16 control surfaces. A single Console Audio BLADE-3 is all that is needed for most studio operations, but busy studios often require additional I/O BLADEs or an upgrade to Wheatstone's newer 2RU model with double the I/O.

At double the I/O, the new 2RU Console Audio BLADE-3 comes with 8 AES inputs, 8 stereo analog inputs, 8 AES outputs, and 8 stereo analog outputs on StudioHub+ RJ45s, plus 4 mic level inputs with gain trim and switchable phantom power on XLRs. 1RU Console Audio BLADE-3s are also available for the same control surfaces, and come with standard I/O (4 AES inputs, 4 stereo analog inputs, 4 AES outputs, 4 stereo analog outputs, and 2 mic level inputs).

Both the 2RU and 1RU Console Audio BLADE3 provide control room and studio stereo analog outputs on XLRs as well as cue and headphone outputs on both RJ45 and 1/4" TRS and 12 GPI logic ports on RJ45.

Paired with Wheatstone's L-8, L-12, E-1, IP-12 or IP-16 control surface consoles, the IP88CB provides an economical standalone/networkable solution.

With XLRs for mic inputs and monitor outputs, 1/4" TRS for sends to headphone and cue amps, and StudioHub+ compliant RJ45's for all the general purpose analog and digital I/O, the Console Audio BLADE-3 is essentially a plug-and-play console system in a box. Just plug the Console Audio BLADE-3 and the related WheatNet-IP control surface into an Ethernet switch and you're ready to go.

All Console Audio BLADEs are AES67 compatible for use with other AES67-compatible devices and signals in the WheatNet-IP Intelligent Network.

There are three types of IP-88 Console Audio BLADES:

CB: Used with IP-12 and IP-16 consoles
CBE: Used with E-1; includes DSP processing
CBL: Used with L-8 and L-12 consoles

- True IP connectivity
- 24-bit A/D and D/A converters
- 12 Universal Logic ports (GPIO) on 2 RJ45 connectors
- Integrated I/O Mix Engine BLADE
- AES67 Compatibility
- Cue and headphone outputs on RJ45 and 1/4" jack
- Control room and studio monitor outputs on XLRs
- OLED front panel displays with graphical menu
- Gigabit Ethernet port

I/O STANDARD 1RU ENCLOSURE:

- 2 Mic Preamps w/ XLR inputs, phantom power and gain trim
- 4 Stereo (8 Mono) Analog Line inputs on RJ45
- 4 AES inputs on RJ45
- 4 Stereo (8 Mono) Analog Line Outs on RJ45
- 4 AES Outputs on RJ45

I/O CB32 2RU ENCLOSURE:

- 4 Mic preamps w/ XLR inputs, phantom power and gain trim
- 8 Stereo (16 Mono) analog line inputs on RJ45
- 8 AES inputs on RJ45
- 8 Stereo (16 Mono) analog line outs on RJ45
- 8 AES outputs on RJ45

** NOTE: Control Room, Studio, Cue and Headphone outputs are part of the total of AES and stereo analog outputs. These may be reassigned for use as other outputs as desired.*

SPECIALTY BLADE-3s

MADI BLADE-3

The MADI BLADE-3 is a high-density multichannel I/O BLADE for converting a 64-channel MADI input to data streams on the WheatNet-IP Intelligent Network, and converting network data stream to 64-channel MADI outputs.

With this, you can now ingest into WheatNet-IP audio from any system that utilizes MADI. You don't need a full blown control surface to use the MADI BLADE-3, either. With WheatNet-IP NAVIGATOR, you can control routing all of your MADI gear in ways that can breathe new life into your existing infrastructure. Or, use our SideBoard control surface to take advantage of the MADI BLADE-3's built-in utility mixers.

As a bridge to the WheatNet-IP audio network, this 1RU box interfaces to intercom systems, TDM routers, ProTools systems and DAWS that are MADI-capable. It provides 64 bidirectional channels (AES 10) between the WheatNet-IP audio network and a TDM or intercom system over one coaxial cable.

The MADI BLADE-3 uses BNC connectors for coaxial MADI inputs and outputs (1 each), and an SFP (small form-factor pluggable) transceiver slot for fiber connectivity. It has a 1000-base-T (Gigabit) network interface for optimum network QoS and reliability, and includes logic control, onboard utility functions and the dedicated controller that is at the core of its intelligence.

Like all BLADE-3s, the MADI BLADE-3 has its own CPU and operating system, is AES67 compatible, and has two built-in 8x2 stereo mixers as well as a stereo multiband processor with 4-band parametric equalizer, 3-way crossovers, 3 compressors, 3 limiters, and a final, look-ahead limiter. It comes with 12 universal logic (GPIO) ports for interfacing various external switches, indicators and devices for control purposes – as well as 128 software logic ports for routing and controlling devices anywhere on the network.

- 64-channel bidirectional MADI interface
- BNC connectors for coaxial MADI inputs and outputs (1 each)
- One SFP transceiver slot for fiber connectivity
- CPU with OS
- 24-bit A/D and D/A converters
- 1RU, no fans
- AES67 compatible
- One Gigabit Ethernet port
- Two stereo 8x2 utility mixers
- Silence sensing can be applied to any output
- 12 universal logic ports (GPIO) on 2 RJ45 connectors
- 128 software logic ports
- Two full color OLED displays on front
- Front panel headphone jack

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

LIO-48 LOGIC BLADE

The LIO-48 is a high-density logic BLADE that can be added to any WheatNet-IP audio network to give you more of what you need in a modern studio: control. The LIO-48 Logic BLADE provides 48 universal logic I/O ports, each individually configurable, for machine control of devices and elements in the network.

LIO-48 logic ports can output to closures for machine control of on-air lights, mic tallies, transmitter remote control and the like. The LIO-48 also can receive machine closures from external devices like satellite receivers, remote mic panels or the automation system for triggering channels ON/OFF.

The LIO-4's logic I/O meter provides drill-down information for each of the 48 ports.

- 48 universal logic ports, individually configurable
- Front panel LED status indicators
- Ethernet port

HD-SDI BLADE-3

The HD-SDI BLADE-3 is a specialty BLADE for extracting encapsulated audio from a serial digital interface (SDI). With the HD-SDI BLADE-3, you can ingest audio into the WheatNet-IP Intelligent Network from video production automation systems, routers, and other professional video equipment that use HD-SDI.

Our new specialty HD-SDI BLADE-3 for the WheatNet-IP Intelligent Network de-embeds multiple audio channels from HD-SDI streams so you can mix, process or simply route audio to your console for final broadcast. This 1RU is capable of de-embedding up to four HD-SDI streams, and up to 8 AES/EBU pairs (16 audio channels) per stream.

The HD-SDI BLADE-3 has four BNC connectors for coaxial input, and includes logic control, onboard utility functions and the dedicated controller that is at the core of its intelligence. Like other BLADEs, the HD-SDI BLADE-3 has its own CPU and operating system and provides a 1000BaseT (Gigabit) network interface for optimum network QoS and reliability. The HD-SDI BLADE-3 is AES67 compatible for interoperability with other AES67 compatible systems and devices, and has two built-in 8x2 stereo mixers. It comes with 12 universal logic (GPIO) ports for interfacing various external switches, indicators and devices for control purposes – as well as 128 software logic ports for routing and controlling devices anywhere on the network.

- De-embeds audio from four HD-SDI streams
- De-embeds 8 AES/EBU pairs (16 audio channels) per stream
- 4 BNC connectors for coaxial input and 4 BNC loop connectors
- CPU with OS
- 1RU, no fans
- AES67 compatible
- One Gigabit Ethernet port
- Two stereo 8x2 utility mixers
- 12 universal logic ports (GPIO) on 2 RJ45 connectors
- 128 software logic ports
- Front panel headphone jack

M4-IP BLADE-3

Four Channel Mic Processing BLADE

The M4-IP BLADE-3 combines four high-quality microphone preamps, four channels of Vorsis embedded microphone processing, and a WheatNet-IP BLADE interface, allowing you to place four microphone inputs anywhere in your WheatNet-IP Intelligent Network (although it also works just fine as a standalone processor). The preamps and processors are accessed and controlled from any point on the network via its Windows-based GUI.

The M4-IP is a great way to maximize your investment in on-air talent by combining four mic processors into a single rack space, accessible from anywhere.

The M4-IP microphone processor is equipped with four matched Super-Quiet (SQ) microphone preamplifiers featuring extremely low noise floor, very wide dynamic range, faithfully accurate transient response, and ruler flat frequency response. Operating in harmony with high quality 24-bit A/D converters and a 96kHz base sample rate, the M4-IP adds absolutely no undesired coloration to the signal and faithfully preserves the sound of any microphone and talent combination. It also features a four-section equalizer with high and low shelving EQ and two bands of fully parametric EQ, high and low pass filters, and de-esser and expander functions.

The M4-IP has four analog stereo line-level outputs, ideal for feeding headphone amplifiers associated with talent or studio monitoring systems, and four stereo AES digital outputs.

The signal path of the M4-IP includes four completely independent channels of Wheatstone's smooth-sounding Vorsis dynamics processing. Adjustable from anywhere on your network the M4-IP offers the security of password protected TCP/IP-based remote control and no front panel controls.

Like all WheatNet-IP BLADE-3s, the M4-IP BLADE-3 is AES67 compatible.

Wheatstone-designed Equalization

Based on great-sounding designs built for Wheatstone's high performance professional audio applications, the M4-IP's equalization section operates predictably and adds no noise, ringing, phasiness or other undesirable coloration to the sound.

Wheatstone-designed Dynamics Processing tools

A high performance and fully adjustable downward expander, de-esser, and smooth sounding broadband compressor and selectable low distortion final Lookahead limiter round out the M4-IP to create powerful and authoritative presence to production or on-air microphones.

Processing Presets

A variety of ready-to-use factory processing presets are provided, carefully tailored for different processing goals and formats. You can select a factory preset, confident that it will sound great just as it is. Or use a factory preset as a starting point and create a custom sound for each announcer, then save the new settings as a personalized user preset. In a facility with multiple microphone processors, presets saved in one unit can be easily copied to the others.

Wheatstone Talent Control Interface

The Wheatstone Talent Control Interface software can reside on an air studio/control room PC and gives talent the ability to recall presets from any Vorsis microphone processor without allowing processing adjustments.

All parameters of the M4-IP are controlled using the included Windows-based GUI. Voice talent can activate his or her own personal sound at the press of a button using the Talent Control Interface, a special GUI designed for preset recall only.

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

- Extremely high performance microphone preamplifiers with 48V phantom power
- Four completely independent processing channels
- Four stereo analog line level outputs
- Four stereo AES outputs
- All digital, field proven Wheatstone-designed advanced processing algorithms
- Phase Scrambler to correct asymmetrical voice waveforms
- High- and low-pass filters
- Fully adjustable downward expander
- Precision de-esser sibilance controller
- Four-bands of EQ: low-frequency shelving, two-band parametric, high-frequency shelving
- Broadband compressor
- Final precision peak limiter – can be defeated if desired for lower latency
- AES67 compatible
- TCP/IP-based remote control from anywhere via M4-IP Remote Control Software
- Talent Control Interface software for preset recall without processor control
- Password controlled access and control-less front panel for keeping settings secure
- Full color OLED front panel display
- Front panel metering of input and output levels

Recommended Applications:

AM Analog
FM Analog
FM HD
AM HD
Television
Webcasting
Podcasting
Mastering & Production
Live Sound

NOTE: An original BLADE version of the M4-IP is still available. Contact your Wheatstone sales engineer for details.

Original M4-IP BLADE

Wheatstone still manufactures and sells our original M4-IP based on the original BLADE. It's function is the same, less any of the new features for BLADE-3s. Please contact us for further information.

AURA8-IP BLADE-3

Vorsis Eight-Channel Audio Processing BLADE

Rack up eight audio processors in one networkable unit. Convenient, cost-effective, and more than able enough, the Aura8-IP audio processing BLADE-3 has I/O onboard and eight fully independent Vorsis multiband stereo audio processors. This 1RU BLADE-3 offers processing control and network connectivity through the WheatNet-IP Intelligent Network and full AGC, compression and limiting functions for HD, streaming or podcasting separate channels of programming in one unit.

The Aura8-IP BLADE-3 audio processor brings two of Wheatstone's core technologies together: Vorsis ultra-high resolution audio processing and the WheatNet-IP Intelligent Network. Merging these technologies in a single product provides a convenient and cost effective way to access audio processing wherever you need it on your WheatNet-IP network. The Aura8-IP occupies a single rack space, but packs in an impressive eight fully independent Vorsis® multi-band stereo audio processors.

Each processing chain consists of a 4-band parametric equalizer followed by a crossover and three bands of compression. The compressors each feed their own limiters, whose outputs are then fed to a broadband lookahead limiter for tight peak control. The Aura8-IP has its own local I/O, with four stereo pairs of AES digital audio and four stereo pairs of analog line level audio in and out, and can function as a standalone processing engine. Because it's a BLADE-3, it can also instantly configure itself as part of a new or existing WheatNet-IP Intelligent Network, making its processing power available throughout that network.

Like all BLADE-3 access units, the Aura8-IP BLADE-3 is AES67 compatible.

The Aura8-IP is configured and controlled over Ethernet using a laptop or desktop computer. Included with the unit is Wheatstone's acclaimed "Guru" GUI software, which allows easy setup of the processing using familiar, straightforward controls. Also available is a more sophisticated control interface called "GUI Pro," which provides access to every individual processing parameter for expert-level adjustments.

NOTE: An original BLADE version of the Aura8-IP is still available. Contact your Wheatstone sales engineer for details.

- Highest performance 24-bit A/D and D/A convertors
- 8 complete Vorsis multiband processors, each with:
  - 4-band parametric equalizer
  - 3-way crossover
  - 3 compressors
  - 3 limiters
  - Final lookahead limiter
- Two 8-channel utility mixers
- 4 AES digital inputs on RJ45 and "D" connectors
- 4 stereo analog inputs on RJ45 and "D" connectors
- 4 AES digital outputs on RJ45 and "D" connectors
- 4 stereo analog outputs on RJ45 and "D" connectors
- Built-in router control
- AES67 compatible
- Full color OLED front panel displays
- Front panel headphone jack
- Front Panel Metering
- Rugged Power Supply
- Can be used standalone or as part of a WheatNet-IP Intelligent Network
- Silence sensing can be applied to any outputs
- One Gigabit Ethernet port

NOTE: All BLADE-3s are still available as original BLADEs - just without the new BLADE-3 functionality

What can you do with the Aura8-IP? Virtually anything you want! These are just a few of the ways you might use Aura8-IP. As a standalone processor, you get eight stereo channels of jaw-dropping Vorsis ultra high resolution processing power for under $500 per channel. That alone is worth the price of admission. But when you take advantage of Aura8-IP being a BLADE with its built-in utility mixers, full logic, SNMP messaging and silence detection, and use all that with its eight channels of processing, its power is really unleashed. How many ways can YOU think of to use the Aura8-IP?

Low Latency Talent Headphone Processing

Often, the key to talent turning in their best performances is what they hear in their headphones. Give them a sound that drives them to brilliance with Aura8-IP.

Remote Feed Conditioning

The great and hard thing about radio is that you can tie the world together on your broadcast. That means you can have audio flying in from all over. Aura8-IP is exactly what you need for all of it, at a price that will make you very happy!

Talkshow Call-Ins

Processing can make a huge difference in the on-air quality of call-ins on your talk shows. Aura8-IP is up to the task.

Mic Processing

Every microphone does a better job when it's processed not only for the voice that's speaking into it, but for the path it's taking on the way to someone's ears. Aura8-IP does a superb job processing microphone audio.

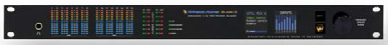
Satellite Uplink Peak and Spectral Control

The key here is keeping signals under control. Aura8-IP is perfect for the job, keeping an eye (or ear) on the peaks as well as ensuring the spectral range stays consistent.

IFB Conditioning

Clear communications between director, engineering and talent is key to presenting successful sports and multiple-report shows. Aura8-IP is perfect for cleaning up IFB.

STL Pre-Processing and Protection-Processing



There are a lot of dedicated STL systems out there. Or, if you have a WheatNet-IP, it's the perfect solution. No matter HOW you handle STL, let Aura8-IP handle processing to ensure the audio is optimized for it.

Multiple HD Feeds

HD Radio gives you the option of broadcasting multiple audio streams of varying quality. Make the most of each by giving them processing that will make them stand out.

Sweetening Incoming Commercials and Newsroom Feeds

Keeping your revenue sources sounding compelling can really help with audience perception and acceptance. Aura8-IP is a cost-effective solution for ensuring your entire audio stream sounds SWEET!

Codec Pre-Processing

Audio from codecs is subject to environmental conditions - at the source and through the connection. Processing with Aura8-IP can clean it up nicely.

Web Streams

Whether you are streaming now or getting ready to, there's no better investment you can make in your station than to ensure those streams sound great. That's exactly what Aura8-IP does.

Automation Streams

Wheatstone enjoys technology partnerships with the leaders in broadcast today. Use the AGC in Aura8-IP to keep your automation streams clean and under control.

Original Aura8-IP BLADE

Wheatstone still manufactures and sells our original Aura8-IP based on the original BLADE. It's function is the same, less any of the new features for BLADE-3s. Please contact us for further information.

SCREEN BUILDER

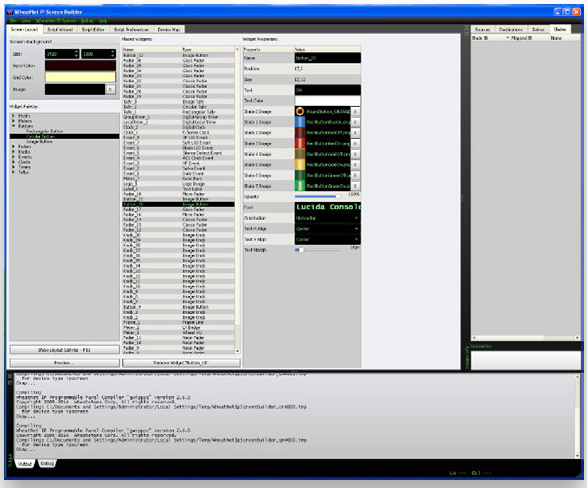
Control Your Entire WheatNet-IP Network. Create Custom Screen Builder Apps.

Admit it. You've always wanted complete control of everything and everyone. You've always wanted to be able to know what's happening at all times in all places in your world. Well, here you go. Welcome to ScreenBuilder (should we have called it World Builder?)

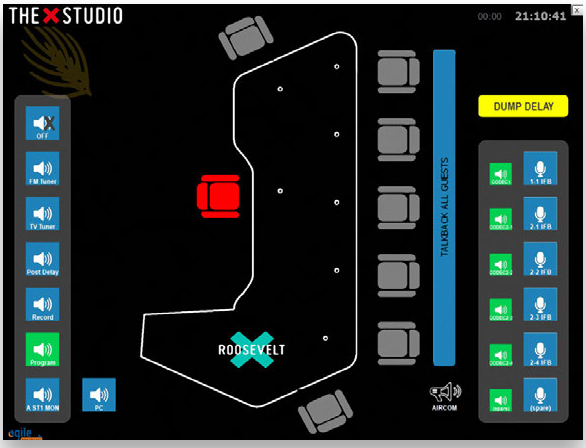
Build your own on-screen virtual control interface for just about any purpose. Our new Screen Builder app has faders, meters, labels, buttons, clocks, timers and other widgets that you can arrange on a PC screen to create your own custom control panels and touchscreens with quick-access buttons, faders and meters for level adjusting and monitoring, and more.

Add your own graphics and logos, even images. Custom panels made with Screen Builder have access to our complete AoIP network, the WheatNet-IP Intelligent Network and all of the BLADEs, control surfaces, processors, and partner devices on it so you are only limited by your imagination. Once created, your custom panels and touchscreen interfaces can be password protected to prevent unauthorized manipulation of the special graphics and functions you've designed.

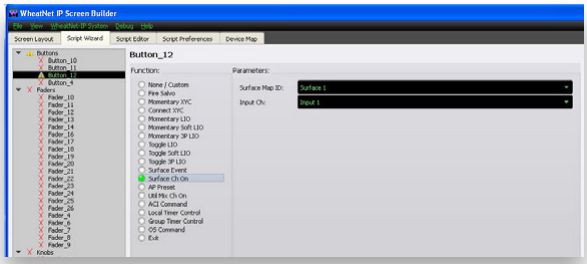
- Widgets include Faders, Knobs, Buttons, Graphics Tools, Clocks, Timers, Meters, and programmable events
- Easy to use layout environment
- Drag, drop and assign values to each widget
- Completely scriptable
- Control all aspects of your WheatNet-IP environment including all third party gear that's interfaced
- Password protection
- Use your own graphics
- Access from anywhere



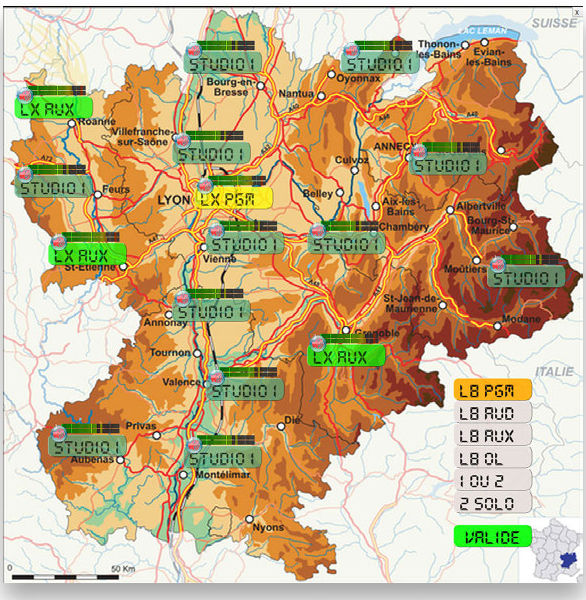
Screen Buiilder Environment Window

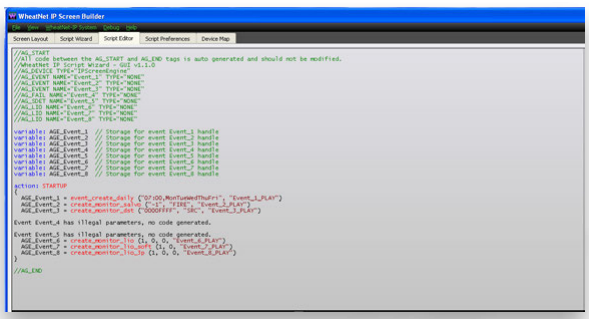


Custom Project from Agile Broadcast, Australia, created with Screen Builder

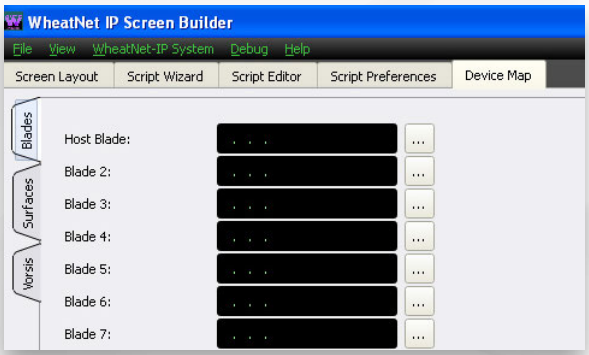


Screen Buiilder Script Wizard





Screen Buiilder Script Editor



Screen Buiilder Device Map

Two Custom Projects from Save Diffusion, France, created with Screen Builder

IP-METERS GUI

AoIP Software BLADE

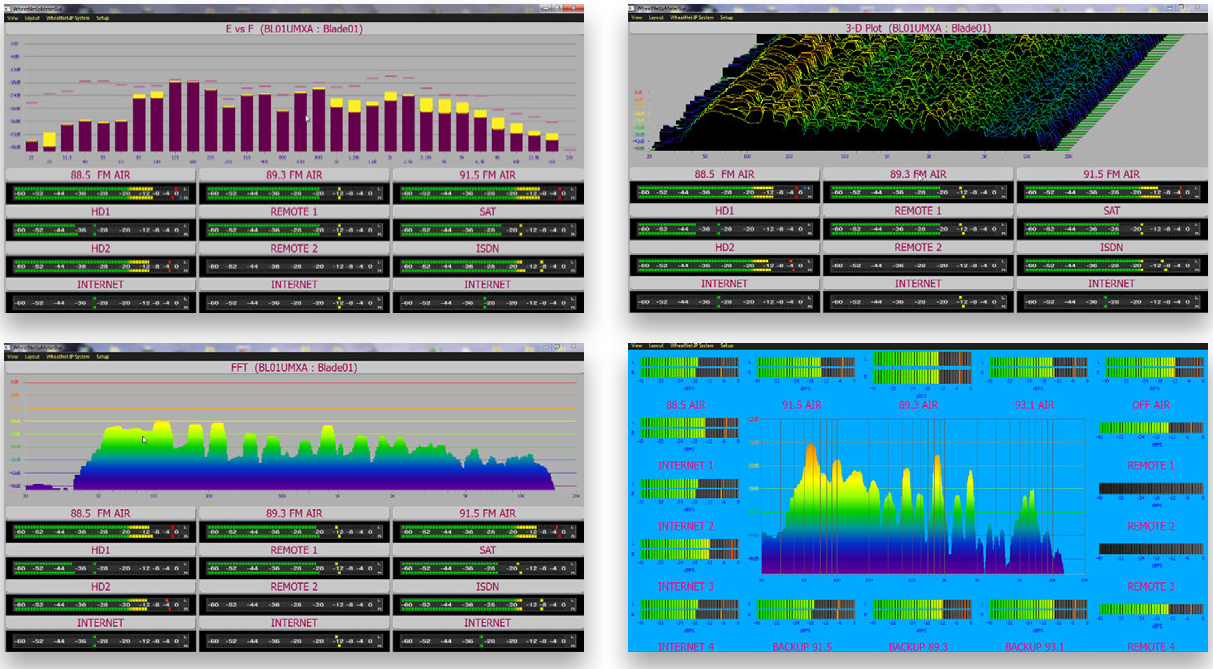
Get a quick read of any audio source, destination or stream in your WheatNet-IP Intelligent Network. Our new IP Meters GUI app displays a “wall of meters” on your computer screen for ongoing monitoring of audio peak levels and average levels at selected points throughout the entire network. Included is a separate FFT meter for spectral readings plus visual alerts should a channel go dark.

In today’s connected world of AoIP, it’s nice to know what’s going on with your audio. Not just the audio at local sources and destinations, either, but all audio at every point in your network. You could haul out all that expensive test gear for a look, but who has time for that? It’s much easier to drop in an app like our new IP Meters GUI for the WheatNet-IP network, which gives you ongoing metering of audio levels, signal density, FFT readings – the works.

Fully customizable, the IP-MTR64 Meters GUI lets you display an almost limitless array of metering and analysis on the monitor of any computer connected to the WheatNet-IP Intelligent Network. Plus, meters have silence detection, so you can see at a glance if an audio stream has gone down, and where.

Each meter – or cell – in your IP “wall of meters” can be set up as a horizontal, vertical or eyebrow bargraph meter. You can set up two or 20 or 60 or more cells in one “wall.” You determine where and what to meter: console inputs, mic outputs, the satellite receiver, studios, web streams, you name it. In addition, a separate analysis window allows you to view one audio stream in a variety of informative ways, including FFT, 3-D plot, oscilloscope, energy vs. frequency, spectral dynamic range, and more.

Meters are arranged in a grid layout with the individual cells placed where you want. You can also choose the size and location of the analysis window. Style of metering can be curved, horizontal or vertical bargraph (you determine the number of bars) for mono or stereo, and for reading peak levels, average levels and peak over average levels. Set up one or two bright VU or PPM meters for instant loudness verification of on-air studios from across the room, for example, and add five or 10 or 30 side meters for checking levels of players and mics feeding those studios. Size, background color and text labeling for each cell is fully customizable by you. One meter at a time can be zoomed to a full-screen view for detailed observation. Multiple layouts, complete with source selection, metering choices, colors, labels, and analysis settings, can be saved and recalled for use in various situations.



Easily customize the look and functionality of IP-Meters to your specific applications

- Multiple bargraph meters in one computer display for checking levels of any source, destination or audio path in a WheatNet-IP network
- Separate analysis window for detailed signal evaluation using FFT, 3-D plot, oscilloscope, energy vs. frequency, spectral dynamic range, and other tools
- Real-time metering of audio peak levels, average levels and peak over average levels; stereo or mono
- Two to more than 60 meter cells in a single display screen
- Style of metering can be curved “eyebrow,” horizontal or vertical bargraph (you determine the number of bars)
- Silence detection/failover at a glance for alerting you if an audio stream has failed
- Customizable as an overall grid layout of meters with color options and font selections for metering in a way that makes sense to you

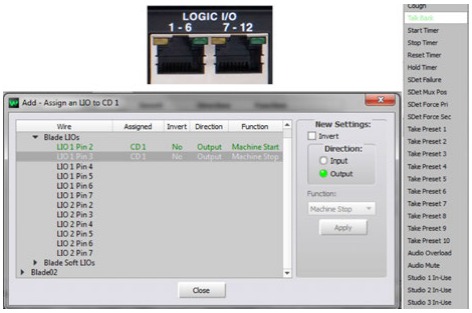
I TO O, BLADE-3 IS AMAZING

BLADE I/O access units make up the audio routing backbone of the WheatNet-IP Intelligent Network and use RJ45 StudioHub+ compatible connectors for input and output, and also have DB25 connectivity for transitioning from BRIDGE TDM networks.

But there's more inside their sleek, all-metal housing than mere I/O. The I/O BLADE has its own CPU and operating system; no additional PC required. It can operate alone or as part of a network, and can be located anywhere in the studio (no noisy fans inside). Each BLADE has a 1000-base-T (Gigabit) network interface. This single network connection is used to send and receive audio, logic, and communications from the I/O BLADE to the rest of the WheatNet-IP network. Gigabit Ethernet provides very low latency while allowing the use of readily-available switches and infrastructure for connectivity. Connect automation and production PC's, codecs, audio processors, controllers, and other devices directly to the network without installing specialized sound cards, A/D-D/A converters, audio wiring, or control connections. The I/O BLADE communicates at the speed of Gigabit Ethernet connectivity for optimum network QoS and reliability, and includes logic control, onboard utility functions and the dedicated controller that is at the core of its intelligence. Each individual I/O BLADE can hold the brain trust of the entire system's operation for exceptional network redundancy and scalability.

Logic follows audio like a puppy on a leash

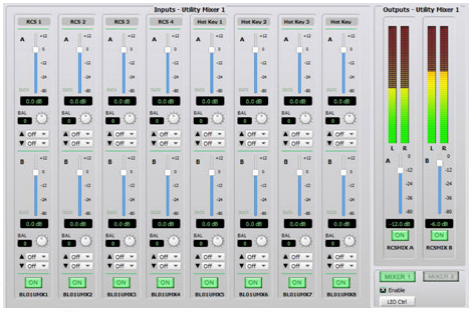
I/O BLADEs come with universal logic (GPIO) for interfacing various external switches, indicators and devices for control purposes – as well as software logic ports for routing and controlling devices anywhere on the network. Send any GPI to multiple GIOs or marry GPIOs to an audio source and have them follow that source through the system -- all through one RJ connector. Audio and the logic controls for that audio are all on the same CAT6 cable, to be used anywhere in the network. When routing the audio of a CD player to a console fader, for example, the START button logic is routed right along with it. These logical associations reside within the I/O BLADE itself, and do not require a PC or other controller to work.

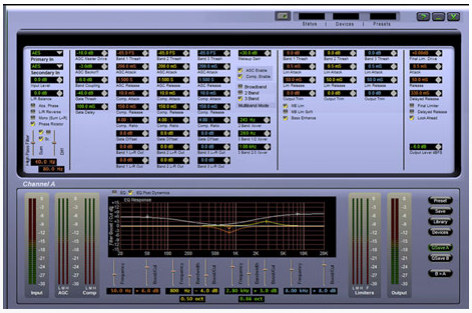


Mixers and Audio Processing Included

I/O BLADEs include two built-in 8x2 stereo mixers. In addition, newer third-generation BLADE-3 I/O units include a stereo multiband processor with 4-band parametric equalizer, 3-way crossovers, 3 compressors, 3 limiters, and a final, look-ahead limiter. By routing mixing and audio processing, these functions are no longer limited to a location in the studio and instead are resources available anywhere in the network.

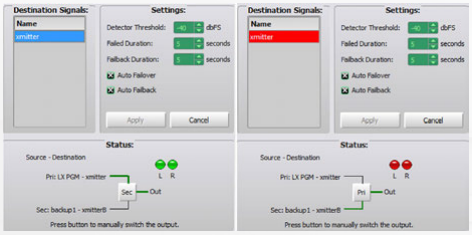
The I/O BLADE's internal mixers are full-featured, stereo mixers implemented within its internal hardware. The inputs and output busses of these mixers are available as resources on the network, accessible anywhere and don't use up any of the inputs or outputs of the BLADE itself. From simple features like summing, splitting, and level adjustment all the way to creating custom mixes and intercom systems under automatic control and performing fades and segues, the potential uses for these mixers are nearly endless. The I/O BLADE includes the Wheatstone ACI (Automation Control Interface) "tool box" for third party control of its functions, such as routing ducking, panning, logic control, mixing and silence detection. Each I/O BLADE supports up to 20 ACI connections that can be used with devices like Talent Stations, GP panels and SideBoard surfaces as well as to integrate with automation systems and other Wheatstone partners for control purposes.





Silence detection, emergency audio

Each I/O BLADE comes with a headphone jack with volume control and source selection for local monitoring of any sources or mixes anywhere in the network. Each of its output channels can be programmed for silence detection and for automatic switchover and switchback to/from a standby device – or to the unit's onboard audio player – in an emergency. In addition, new I/O BLADE-3s come with embedded audio storage and playback for emergency or utility applications, or any other application requiring an hour or more of 24-bit, uncompressed audio. Silence alarms or LIO/SLIO can trigger playback or this can be manually controlled from the NAVIGATOR configuration and crosspoint software.

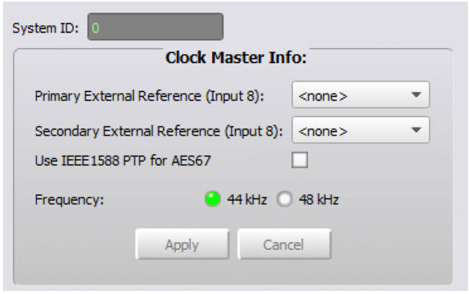


Interoperable and flexible

I/O BLADEs operate at 44.1k or 48k sampling rates while converting incoming signals up or down as needed. Newer third-generation I/O BLADE-3s provide selectable system clocking at 44.1kHz or 48kHz, External Reference or AES67.

I/O BLADE-3s support AES67 compliant devices using an IEEE1588 PTP grandmaster clock for synchronizing to and ingesting /streaming AES67 compliant packets. A 1588 Clock Loss Indicator is included for notifying operators when the AES67 clock source has been lost; an alarm is also generated when an AES input has lost its clock source or becomes disconnected.

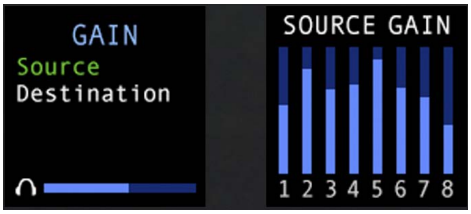
All BLADEs can take any analog and/or digital input or output and split it into two mono channels. Any stereo signal sent to a mono output is automatically summed. When routing a stereo source or stereo mix to a mono destination such as a hybrid or codec, for example, the unit will automatically "sum" the left and right channels together. It has gain control on every input and output, and balance control on every stereo input or output.

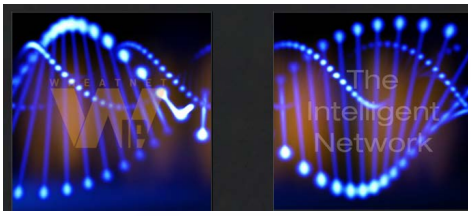


Easy to configure and maintain, with failsafe

Activating the I/O BLADE is as easy as plugging it in. No need to assign it an IP address or prioritize packets. Once plugged in, it will instantly recognize that it's been connected to a functioning network and configure itself into that network with almost no human intervention at all! All of its resources are instantly available so it can be pushing out or bringing in audio in little more than a minute after it is first plugged in.

New I/O BLADE-3s come with dual OLED displays for monitoring and control of most functions right from the front panel, including audio routing setup, monitoring, network information, alarm status, enabling and operating utility mixes, setting input and output gain, and connecting audio processing. Settings can also be done remotely using a PC.

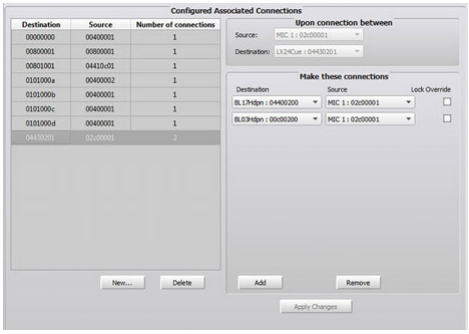




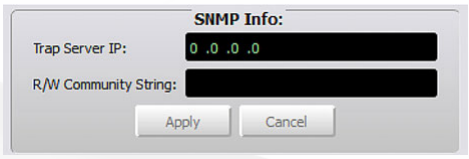
Ongoing changes and updates are just as easy. Change a signal name on the fly and it is instantly updated in every device on the network; no reboots or configuration file gymnastics required.

The I/O BLADE-3s' new Aliases feature allows the same source to be identified by different names. A signal can be given an alias that's more familiar to a particular operator, and multiple aliases can be used so different operators can share logic functions, source feeds and routing while using signal names they recognize.

Another new I/O BLADE-3 feature, Associated Connections, is useful for callers, codecs, networks, remote broadcasts and live talk shows that require a mix-minus. With this, operators can create a predetermined back haul, IFB feed or mix-minus to each device based on its location in the system and the fader to which it is connected. For a shared resource connected to your system, such as a codec, the software will 'automagically' give the proper return feed to the codec based on its source connection. When a base connection is made, up to ten additional connections can automatically follow. This significantly helps streamline studio routing, phone and codec work flow.



The I/O BLADE comes with maintenance and diagnostic tools, including built in SNMP capability for network management, statistics, and alerts. Newer BLADE-3s also include a new logging app that can be used for tracking LIO/SLIO activity throughout the system. This app shows time-stamped location activity messages in high resolution for when inputs come into and leave the system, and provides sophisticated filtering functions for revealing relevant information that otherwise might be buried in the clutter of system data.



Any I/O BLADE can restore the settings for the entire network and allow remaining segments of the network to continue to operate in the event of a facility-wide disaster. Only the section of the network that has been brought down by a power failure, for example, is affected. When power is restored, affected BLADEs will seamlessly rejoin the network, all without any user interaction.

WHEATNET-IP

Why WheatNet-IP Intelligent Network Is SO Much Better

With the modern, intelligent WheatNet-IP audio networking, you can:

Make wholesale studio changes...
...or switch studios from any seat, reconfigure control surfaces for multiple purposes, and even change audio processing settings automatically when, say, a certain mic turns on. It's all in the WheatNet®.

Bring on the devices.
WheatNet-IP gets along with everyone, including MADI gear like ProTools and TDM systems, and interfaces to more than 40 third-party brands and/or products for end-to-end, seamless operation from the microphone to the stick. In addition, new third-generation WheatNet-IP access units are AES67 compatible, which means you can integrate your audio network with other AES67 compatible devices and systems.

Integrate audio routing and automation.
Imagine interfacing your audio network to your automation system with no sound cards, external logic connections or added routers. Or, better yet, imagine fully integrated audio automation and routing so an announcer seated at the playout system can set a fader for a console located anywhere in the facility. That's WheatNet-IP.

Access any audio, anywhere.
WheatNet-IP handles native analog, microphone, AES/EBU, SPDIF, AoIP, MADI, SDI and even AES67, which is now included in our third-generation access units. Ingest any audio format into the WheatNet-IP, and convert to any audio output — analog to digital, AES to IP, microphone to AoIP or MADI to AES67.

Control and route audio all on the same cable.
No more having to chase down or create new logic commands for sources every time you change control surfaces or studios. Logic follows audio. Audio and control for that audio travel down the same cable, so you can pick up feeds and the logic for those feeds anywhere along the network. Route any audio input to any or all outputs in the network.

Relax, you have switch-over silence detection.
Let's say an operator misses a cue or leaves a fader down. No problem. When WheatNet-IP senses silence, it can take the automation system directly to air until the operator catches up. Every single audio output channel can be programmed with silence detection and automatic switch-over function.

Simplify things.
No need to assign IP addresses or allocate bandwidth or pay someone else big money to do it. Just plug it into your managed gigabit Ethernet switch and let WheatNet-IP do the rest. Add codecs, processors and controllers or change I/Os in a snap. You spend less time configuring the system, and more time on what's important: creating awesome sound.

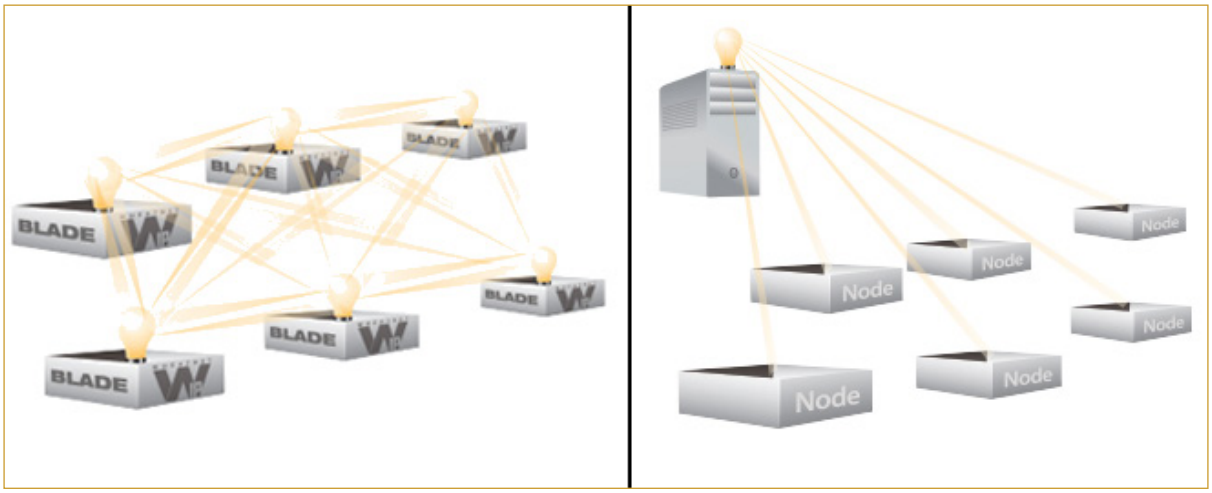
Call the shots.
You call the shots, not some PC. WheatNet-IP distributes the workload to all access points in the system for better overall network stability. Each WheatNet-IP BLADE access unit has its own embedded processor with operating system that allows it be a powerful standalone router or part of a larger system. WheatNet-IP is an embedded system that does not require outside intervention or control from 3rd party software running on PCs. The configuration of the entire network is stored in each BLADE.

Self-pruning multicast trees.
A lot of older IP audio networks don't manage the multicast streams, which could require you having to periodically manage this yourself or getting a bigger, more expensive switch to handle the mounting volume of streams. Not WheatNet-IP, which continually prunes unused source groupings from the network so that you never run out of switch or time having to delete unused channel assignments that are no longer in use.

Avoid costly system failures.
A distributed and intelligent network means no more centralized points of failure to go wrong, plus more points of recovery. Every WheatNet-IP BLADE access unit is self-aware, and can reconfigure itself in an emergency. In fact, each BLADE in the network can recover settings for your entire studio operation!

MODERN
(WHEATSTONE)

NOT SO MODERN
(NOT WHEATSTONE)



Stay ahead of the curve with Gigabit Ethernet architecture.
You might not be in a hurry now with 100mbps throughput, but we promise you'll want the system that has 1 gigabit/second Ethernet throughput once you get your audio network up and running. All WheatNet-IP BLADEs use gigabit Ethernet. This makes all the difference in network throughput, near-zero delay, reliability – and a whole lot more.

Get more on the network for less cost.
Some IP audio nodes are mere input/output devices. Each WheatNet-IP BLADE I/O access unit, by comparison, comes standard with routable utility mixers for mixing, summing and controlling audio in lieu of costly DAs, plus newer BLADE-3s include a multi-band stereo processor for "spot" processing satellite feeds, headphone audio, web streams or any audio feed routed throughout the network. Also included in our new BLADE-3 access units is embedded audio playback that can be used to put emergency audio on the air, and much, much more. With all that functionality built in, WheatNet-IP can save you substantially in hardware costs alone.

Eliminate audio latency problems.
Finally, an audio IP system that can keep up with audio, which means your automation system won't ever drop a satellite feed or skip a commercial because of delay again. Gigabit Ethernet is why.

Get way more for less.
We're talking full-featured routable mixers, stereo processor, and automation control in each BLADE-3 I/O unit , so operators can pan audio, turn channels ON/OFF, set fader levels, and do audio fades, ducking, source assignments – and lots more. The possibilities are mind-boggling.

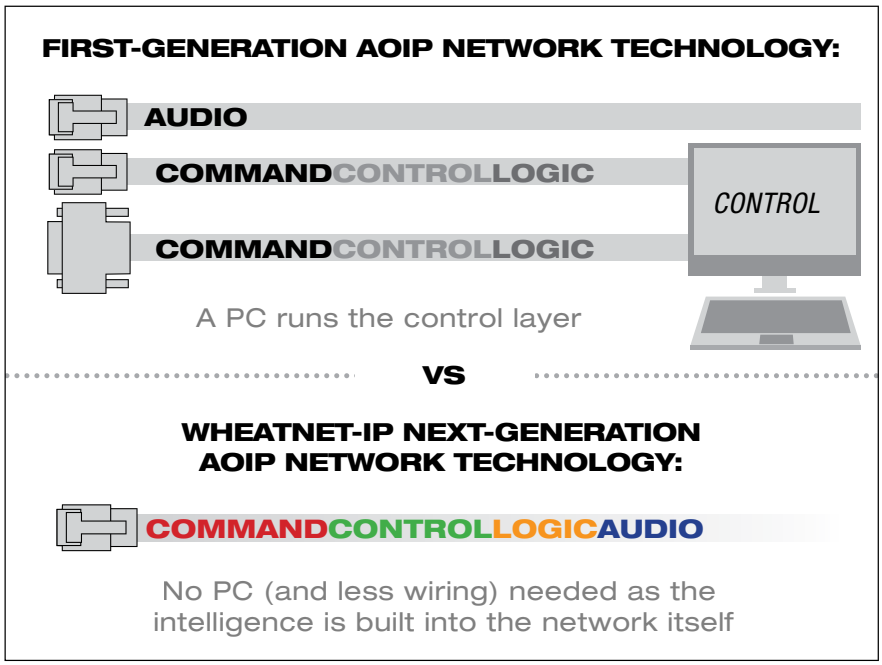
Expand your network at any time, for less.
With control and intelligence built into every WheatNet-IP BLADE I/O access unit, you already have most of the networkability you need to grow with the times.

WHEATNET-IP

An Overview of the AoIP Audio Ecosystem

Why the Integrated Control Layer is Important

Broadcasters who connect their studios with an AoIP network can make their facilities more efficient and flexible. But to take full advantage of the capabilities of these networks, a second control layer is needed. Up until now, AoIP technology has been deployed in two steps: first the transport layer, which carries the IP audio is built, and then a second, optional control layer, usually running on networked PCs, is added on top. But the next generation of AoIP networks combine the two from the start.

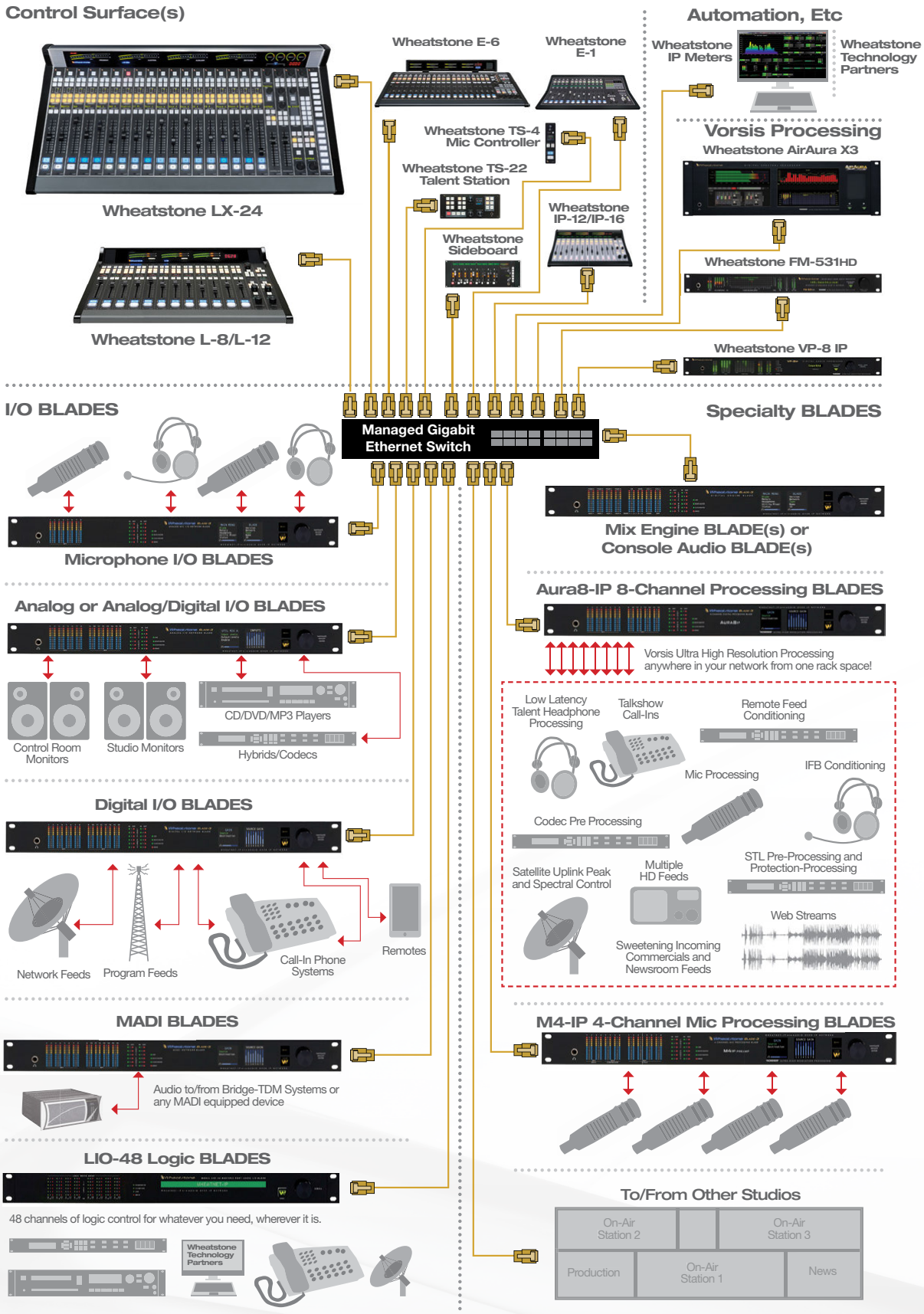


The system becomes one integrated audio ecosystem. Users interact with it as an entity and have greater control and capability because each component of the system is always linked in and available from anywhere on the network. Just as a large computer network benefits from centralized administration and control, so does an AoIP network. Any node, control surface, or application that is not directly controlled becomes time consuming and difficult to deal with, just as orphaned printers, drives, or modems do in a computer network. Devices isolated from networked control ultimately limit flexibility, reliability, and creativity.

When all of the devices in the system are true IP devices, installation and maintenance are simplified. Every device uses a common Ethernet cable and plugs into an Ethernet switch. No special serial cables and distribution systems or logic adapter cards and breakout boxes are needed. Changing logic functionality means clicking on a computer screen, even from a remote location, rather than punching down wires or sending configuration files as is needed in older systems.

Because each member of the system is able to see and interact with all of the other members, complex features and dynamic, conditional functionality can be user programmed; things like wholesale station reformatting, studio switching, or changing audio processing when a certain mic turns on can be easily achieved, all over the single CAT6 cable that is already in place for the audio connection.

Just as audio processing has evolved beyond a simple equalizer or compressor, today's most advanced AoIP systems have progressed beyond simply sending audio over a network. They can provide unparalleled control for unleashing the creativity, responsiveness and flexibility needed to succeed in the most competitive of environments.


Control Surface(s)
Wheatstone LX-24
Wheatstone L-8/L-12
Wheatstone E-6
Wheatstone E-1
Wheatstone TS-4 Mic Controller
Wheatstone TS-22 Talent Station
Wheatstone IP-12/IP-16
Wheatstone Sideboard
Automation, Etc
Wheatstone IP Meters
Wheatstone Technology Partners
Vorsis Processing
Wheatstone AirAura X3
Wheatstone FM-531HD
Wheatstone VP-8 IP
Managed Gigabit Ethernet Switch
I/O BLADES
Microphone I/O BLADES
Specialty BLADES
Mix Engine BLADE(s) or Console Audio BLADE(s)
Aura8-IP 8-Channel Processing BLADES
Vorsis Ultra High Resolution Processing anywhere in your network from one rack space!
Low Latency Talent Headphone Processing
Talkshow Call-Ins
Remote Feed Conditioning
Mic Processing
IFB Conditioning
Codec Pre Processing
Satellite Uplink Peak and Spectral Control
Multiple HD Feeds
STL Pre-Processing and Protection-Processing
Web Streams
Sweetening Incoming Commercials and Newsroom Feeds
Analog or Analog/Digital I/O BLADES
Control Room Monitors
Studio Monitors
CD/DVD/MP3 Players
Hybrids/Codecs
Digital I/O BLADES
Network Feeds
Program Feeds
Call-In Phone Systems
Remotes
MADI BLADES
Audio to/from Bridge-TDM Systems or any MADI equipped device
M4-IP 4-Channel Mic Processing BLADES
LIO-48 Logic BLADES
48 channels of logic control for whatever you need, wherever it is.
Wheatstone Technology Partners
To/From Other Studios
On-Air Station 2
On-Air Station 3
Production
On-Air Station 1
News

Designed and built by
Wheatstone Corporation
600 Industrial Drive | New Bern NC 28562-5440 USA
phone 1.252.638-7000 | fax 1.252.635-4857
wheatstone.com | sales@wheatstone.com

Wheatstone
BROADCAST AUDIO PERFECTIONISTS®