L-8 · L-12 · L-16
ADVANCED MODULAR NETWORKABLE CONSOLES

Wheatstone
BROADCAST AUDIO PERFECTIONISTS℠

THE SURFACE

Our L-Series consoles feel exactly the way a surface like this should...perfect

**Make it happen with this sleek control surface scaled just right for producing news and voiceovers.
Like the LX-24, the L-8/L-12/L-16 has all the latest goodies plus is hot-swappable down to the individual fader.**

These cousins to the popular LX-24 are big in capability but scaled for news production, voiceover work and all those applications requiring a solid control surface that will deliver under deadline. The L-8, L-12, and L-16 are based on all the same design principles as the LX-24: precision-built, low-profile, tabletop IP control surfaces with hot-swappable individual fader modules that offer assignable sources to any fader.

Each fader can access four stereo output busses, a stereo cue bus, and its own individual Bus-Minus. An OLED source name display, an A/B source selector, and one programmable soft button are also provided, and a SET button gives access to assignable controls in the master section. Snapshots of the L-8, L-12, or L-16 configuration can be saved and recalled at the touch of a button, making setup for different working sessions a snap.

The L-8/L-12/L-16 meterbridge features three sets of bright, high resolution LED meters. A digital timer is also included. The console has control room and headphone outputs with level controls and source selection, as well as an independent studio monitor output. The L-12 and L-16 each have a built-in cue speaker.

These control surfaces are designed for use with the WheatNet-IP Intelligent Network. A Console Audio BLADE provides the audio mix functionality as well as power to the L-8 (the L-12 and L-16 have dedicated power supplies); additional BLADEs can be added for I/O in a variety of digital and analog formats. These IP consoles are versatile and low profile (no tabletop cutout needed). Just plug the L-8, L-12, or L-16 into your WheatNet-IP Intelligent Network, and quickly assign any source of any type from anywhere in your network to any channel fader.

- Low-profile, tabletop form factor allows clear sight lines and requires no furniture cutouts
- Any source to any fader
- Four stereo busses
- A/B dual input switching
- Bus Minus (N-1) on each input channel
- Hot-swappable fader modules
- Event preset recall
- Built-in headphone amplifier and level control
- Built-in Cue speaker on L-12 or L-16
- Includes IP88CB(L) Console Audio BLADE or IP88CBE(L) for optional EQ functions

OLED SWITCH PANEL

The optional OLED Switch Panel is available for the L-8, L-12, and the L-16. Each button has a high-resolution OLED display screen that can easily be customized to indicate its function.

The buttons are programmable to handle anything you can script.
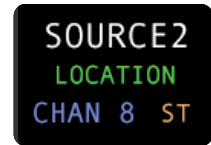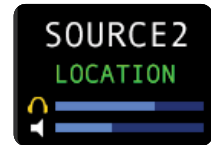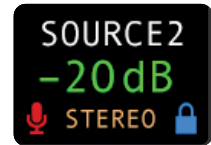
High-definition OLED displays on every channel are dynamic to give you exactly the information you need.

L
R

-6 -52 -48 -44 -40 -36 -32 -28 -24 -20 -16 -12 -8 -4 0

DBFS

SWITCHED

02:34

▼ HOLD FOR SET

A/B SET   SOFT

ASSIGN

PGM   AUD

AUX   UTIL

Mic 1
-3.3 dB
STEREO
INFO

TB   CUE

▼ HOLD FOR SET

A/B SET   SOFT

ASSIGN

PGM   AUD

AUX   UTIL

Mic 2
-6.3 dB
STEREO
INFO

TB   CUE

FU

TAKE

PAN   MODE

EVNT

No Event

INFO

METER

EXT SET

AUX   UTIL

TIMER

S/S RST   AU

L8 A
Bla
0

CR/HDPN

EXT SET

PGM   AU

AUX

▼ HOLD FOR SET

A/B SET   SOFT

GN

AUD

FT

UTIL

X

Tel 1
-17.4 dB
STEREO
INFO

TB   CUE

Elegance and sophistication are not solely for expensive consoles.

Whatever size your needs dictate, there's no reason to not have the best.

Our L-8, L-12, and L-16 bring the exceptional feel, appearance, response and

functionality of our LX-24 to a compact frame.

THE DETAILS

All the panels – everything you need to mix - right there at your fingertips

These are modular console designs that accommodate multiple input channel faders.

All modules feature sealed-contact illuminated LED switches. ON/OFF switches have stainless steel guards.

INPUT

A/B SET One press of this button toggles between the channel's A and B source inputs. Press and hold (SET) to program the channel's source signals and to access PAN and MODE functions.

SOFT A programmable one-press button; typically used to access hot source preset selection or channel mode settings.

ASSIGN Assign the channel's signal to the four console output busses: Program, Audition, Auxiliary and Utility.

**INFO** An OLED color display that shows the channel's signal source, fader and mode settings.

TB A momentary switch that activates talkback to the bus-minus/IFB output associated with the channel's source signal.

CUE Places the channel's signal on the console's cue bus.

FADER A long-throw Penny + Giles fader sets the channel's output level.

ON/OFF These switches turn the channel signal on and off. Can trigger external source feeds.

CONTROL ROOM
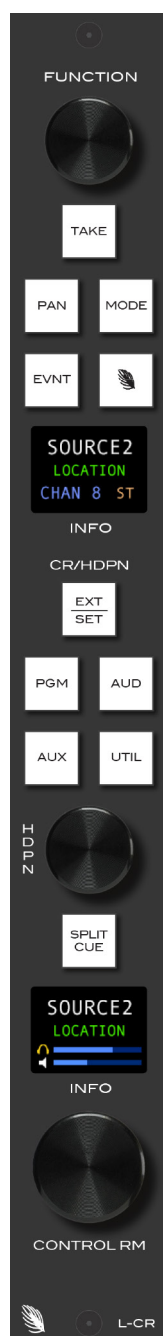
FUNCTION A rotary encoder that scrolls through various control choices whenever a SET button is pressed on the console.

TAKE Once the function control has selected the desired result (source, mode, pan, event, etc.) pressing the TAKE button activates that choice.

PAN Pans the selected channel's signal in the stereo field.

MODE Sets the selected channel's signal as left, right, stereo or mono.

EVENT The L-8 console can store 8 named events (console control surface snapshots) for instant recall.

INFO Displays information associated with a SET button – input panels, events, etc.

CR/HDPN Five source select buttons (EXT, PGM, AUD, AUX, UTIL) that determine the control room/headphone monitor feed. If the EXT/SET button is pressed and held, any source in the network can be selected (source visibility software controlled).

HDPN Sets the output level of the built-in headphone amp (output jack located in the righthand console endpiece).
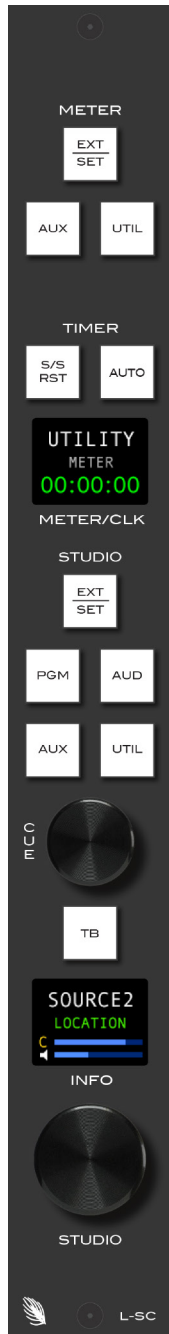
SPLIT CUE Sums the current monitor source L+R and sends it to the right channel; CUE appears in the left channel.

INFO Displays source and location information for the current CR/HDPN monitor signal, as well as bargraph indicators for the headphone and CR output levels.

CONTROL RM The level control for the control room monitor output signal.

STUDIO CONTROL

METER Similar to the CR/HDPN source select switchbank. Determines the monitor source for the console's switched meter pair.

TIMER Start/Stop toggle or RESET (press and hold) for the meterbridge digital timer. The AUTO switch starts the timer from zero when a programmed input channel's ON switch is pressed.

METER/CLK Displays the switched meter pair's signal info; includes a time of day digital clock.

**STUDIO** Similar to the CR/HDPN source switchbank.

CUE Sets the master level of the console's CUE bus.

TB A momentary action switch that sends the console operator's microphone signal to the studio monitor output.

INFO Displays source and location information for the studio monitor signal, as well as bargraph indicators for cue and studio monitor output levels.

STUDIO The level control for the studio monitor output signal.

EQ/DYNAMICS (OPTIONAL)
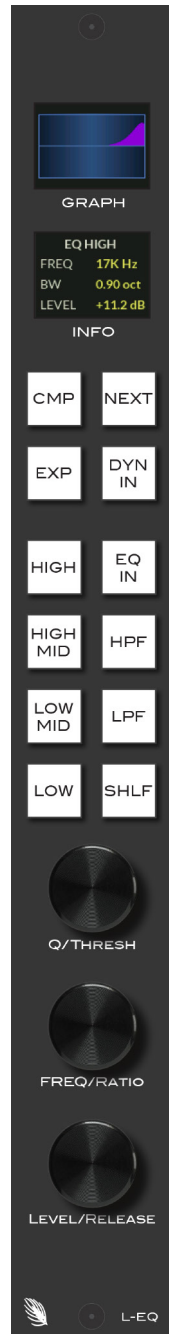
GRAPH Displays EQ curves or dynamics settings visually.

INFO Displays the textual data associated with changes being made to EQ or dynamics.

CMP/EXP Selects compression or expansion for editing of dynamics, controllable from three knobs at the bottom of the panel.

NEXT Navigates the EQ/DYN panel to the next fader from the current one, making it easier to cycle through EQ and dynamic settings on the console.

DYN IN Activates dynamics and applies it to the selected audio.

HIGH/HIGH MID/LOW MID/LOW Selects which frequency band will be affected by the panel's control knobs.

LPF/HPF Activates high or low pass filter settings.

SHLF Activates shelving control curves instead of peak boost/cut for HIGH and/or LOW EQ bands.

EQ IN Activates equalization and applies it to the selected audio.

Q/THRESH Controls the width of the range curve for the selected EQ band or the threshold setting for dynamics.

FREQ/RATIO Sets the center frequency for the selected EQ band or the ratio setting for dynamics/expansion.

LEVEL/RELEASE Controls the boost/cut level for the selected EQ band or the release setting for dynamics/expansion.

(**NOTE:** EQ for L-8/L-12/L-16 consoles is optional and requires an IP88-CBE console engine BLADE).

THE NETWORK

With modern, intelligent WheatNet-IP audio networking, you can...

Make wholesale studio changes.
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 WheatNet®.

Bring on the devices.
WheatNet-IP gets along with everyone, including MADI gear like ProTools, 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.

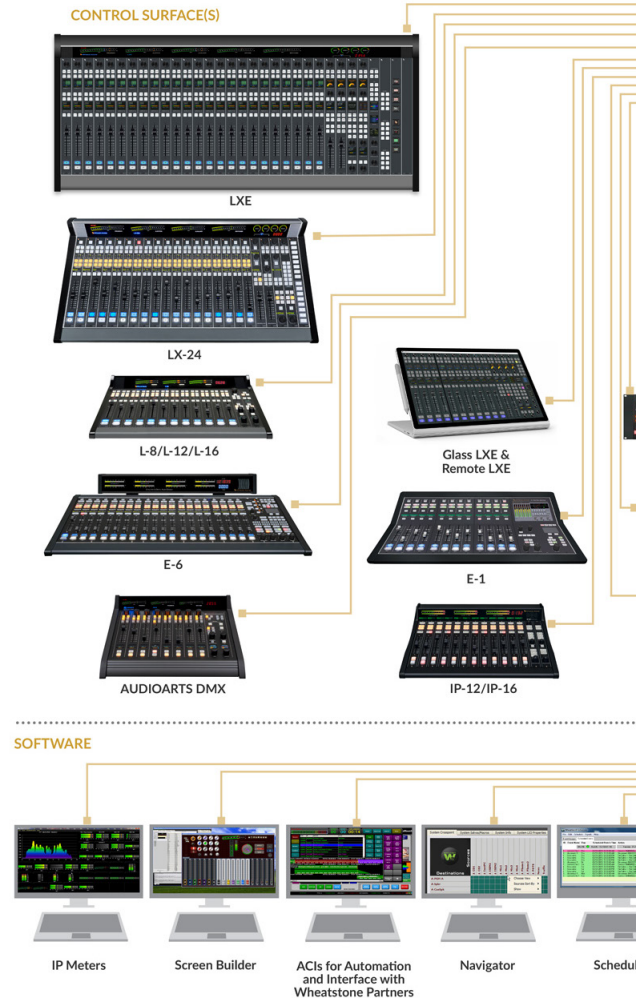**Relax, you have switch-over silence detection.**
Let's say an operator misses a cue or leaves a fader down. No problem. When WheatNet-IP senses silence, it can take the automation system directly to air until the operator catches up. Every single audio output channel can be programmed with silence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

Avoid costly system failures.
A distributed and intelligent network means no more centralized points of failure to go wrong, plus more points of recovery. Each 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!

CONTROL SURFACE(S)

LXE

LX-24

L-8/L-12/L-16

Glass LXE & Remote LXE

E-6

E-1

AUDIOARTS DMX

IP-12/IP-16

SOFTWARE

IP Meters

Screen Builder

ACIs for Automation and Interface with Wheatstone Partners

Navigator

Schedul

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 and every BLADE.

Self-pruning multicast trees.
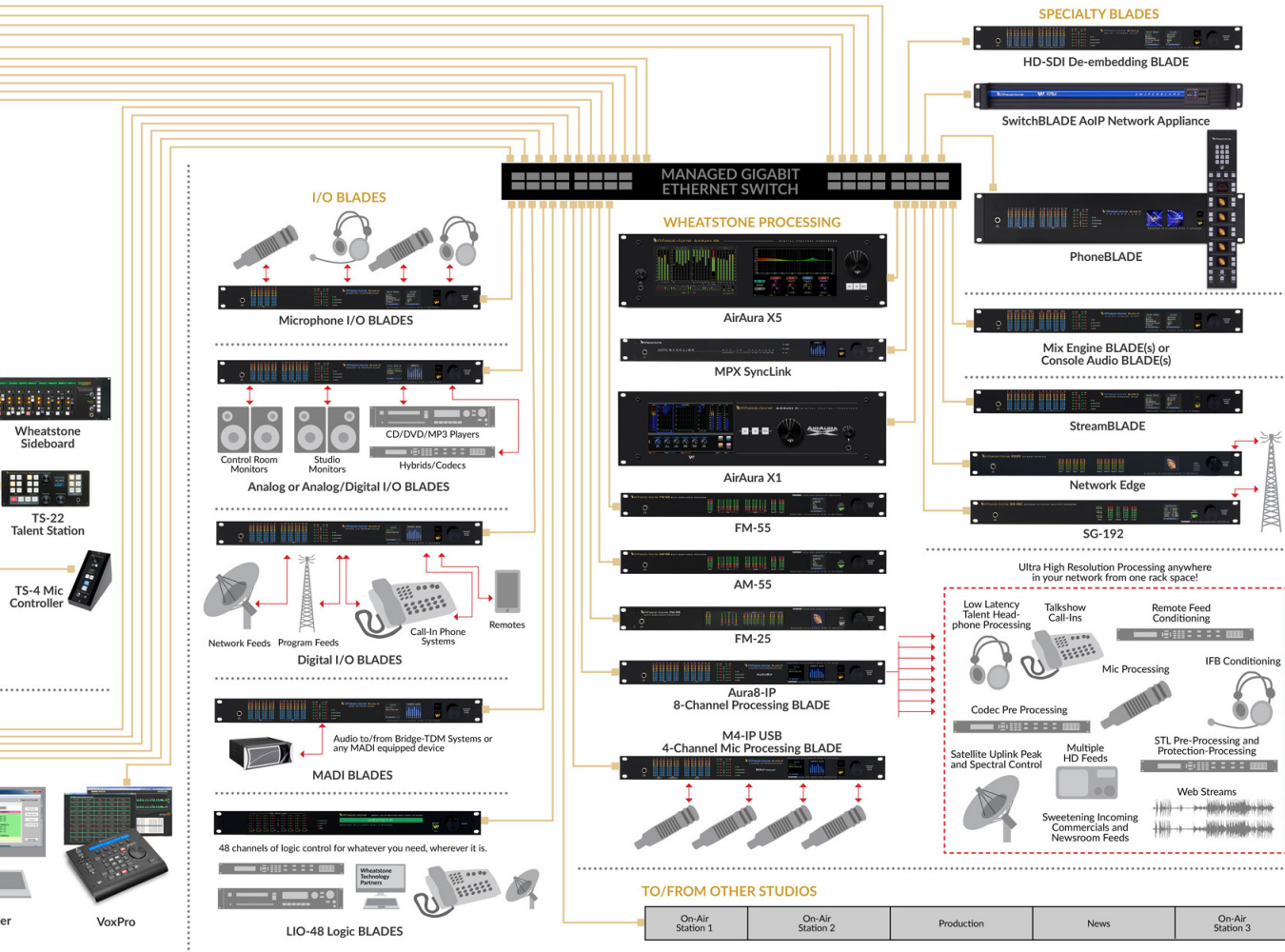A lot of older IP audio networks don't manage the multicast streams, which could require you having to periodically manage this yourself or getting a bigger, more expensive switch to handle the mounting volume of streams. Not WheatNet-IP, which continually prunes unused source groupings from the network so you don't run out of switch capacity or time having to delete unused channel assignments.

BUILDING THE AUDIO ECOSYSTEM
The building blocks of the intelligent aoip network

SPECIALTY BLADES

HD-SDI De-embedding BLADE

SwitchBLADE AoIP Network Appliance

PhoneBLADE

Mix Engine BLADE(s) or
Console Audio BLADE(s)

StreamBLADE

Network Edge

SG-192

I/O BLADES

Microphone I/O BLADES

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

48 channels of logic control for whatever you need, wherever it is.

Wheatstone Technology Partners

LIO-48 Logic BLADES

MANAGED GIGABIT ETHERNET SWITCH

WHEATSTONE PROCESSING

AirAura X5

MPX SyncLink

AirAura X1

FM-55

AM-55

FM-25

Aura8-IP
8-Channel Processing BLADE

M4-IP USB
4-Channel Mic Processing BLADE

Ultra High Resolution Processing anywhere in your network from one rack space!

Low Latency Talent Head-phone Processing
Talkshow Call-Ins
Remote Feed Conditioning
Mic Processing
IFB Conditioning
Codec Pre Processing
STL Pre-Processing and Protection-Processing
Satellite Uplink Peak and Spectral Control
Multiple HD Feeds
Web Streams
Sweetening Incoming Commercials and Newsroom Feeds

Wheatstone Sideboard

TS-22 Talent Station

TS-4 Mic Controller

VoxPro

TO/FROM OTHER STUDIOS

| On-Air Station 1 | On-Air Station 2 | Production | News | On-Air Station 3 |

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.

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, reliabiliy, and a whole lot more.

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.

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 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.

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

BEYOND THE SURFACE

There's a world of Wheatstone smart control panels, software, BLADE-3s and other surfaces for you to put to work

I/O BLADE-3s

I/O BLADEs are access points on the WheatNet-IP Intelligent Network, converting each hardware physical input — audio or logic — to a data stream on the network, and converting data streams to hardware digital outputs. They provide the means of interfacing and controlling all of the audio equipment on your network.

The IP88A (analog), IP88D (digital), IP88AD (analog/digital) and IP88M (mic level) BLADEs handle your standard audio I/O requirements. Each has 8 stereo channels, 16 mono channels, or any combination totaling 16 discrete channels. The A/D versions are half analog, half digital. And the mic BLADE has 8 XLR inputs with high-quality mic preamps.

Special Purpose BLADE-3s

Another I/O BLADE is the MADI BLADE, which converts a 64-channel MADI input to data streams on the network, and converts data streams to 64-channel MADI outputs.

The LIO-48 Logic BLADE provides 48 universal logic I/O ports, each individually configurable, for turning devices on or off by time or event, for automatically adjusting the audio processing settings when a certain mic turns on, and for any other logic control you need in your studio operation.

Mix Engine & Console Audio BLADE-3s

We have several BLADES built to handle specific tasks. First are the Engine BLADES: IP88E and IP88CB. The IP88E is a BLADE that houses all DSP power for an individual control surface or Glass-E virtual mixer, 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, they are available as sources and destinations anywhere. This creates an extremely flexible system, where program outputs from one surface can be a source on any other surface. For example, a news mixer's program bus can come up as a source on the air studio control surface. While the IP88E doesn't house audio I/O, it does include 12 universal logic (GPIO) ports.

The IP88CB provides powerful interface options, including four AES inputs, four stereo analog inputs, four AES outputs, and four stereo analog outputs on RJ45s; control room and studio stereo analog outputs on XLRs, two mic level inputs with gain trim and switchable phantom power on XLRs; cue and headphone outputs on both RJ45 and 1/4" TRS, and 12 GPI logic ports on RJ45.

WheatNet-IP Overview & Planning Guide

Get a good overview of the Intelligent Network. Learn about all of your console options, details about all BLADEs and compatible processors, all accessories, details on WheatNet-IP technology, interface ideas and more.

This guide is downloadable from any WheatNet-IP product page on our website.

Or, just go to: **wheatstone.com/wheatnet-ip**

Audio Processing BLADE-3s

Placing a processor everywhere you'd like one has been costly and impractical. Until now.

A single Aura8-IP gives you up to eight processors to use as you wish. Use it as a standalone processor with analog and digital inputs or make it a part of your WheatNet-IP network. Either way, the Aura8-IP is a powerhouse.

The M4-IP Microphone Processor BLADE 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. The preamps and processors are accessed and controlled from any point on the network via its Windows-based GUI.
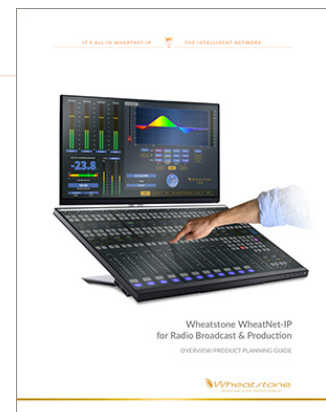
All Wheatstone processors are WheatNet-IP native as well.

Small Control Surfaces

1. TS-4 Talent Station
Provides lighted on/off/cough and talkback switches for a single talent microphone. A rotary headphone source selector is provided along with an OLED display for identifying the selected source.

2. TS-22 Talent Station
This full featured Talent Station turret plugs into the WheatNet-IP intelligent network to provide microphone control, headphone (with built-in amplifier) and speaker levels, plus source select, programmable soft buttons and timer control. No outboard equipment required and no wiring it all together; a single CAT6 cable handles everything. Also available as a flush-mount countertop panel.

3. Sideboard Control Surfaces
This small control surface is available in 4 or 8 input, tabletop or rack versions and provides an extensive tool set, yet simple operation. Includes built-in headphone amp and controls, source select, and programmable buttons. As with the Talent Stations, just plug it into the WheatNet-IP network and go.

Controllers

HBX8-R Controller
An eight button rackmounted source controller for rapid access to eight preprogrammed sources. An encoder knob with associated display allows access to any signal on the network.

XYE-R IP Controller
A rackmounted controller with full dial-up source and destination control. Any signal accessible in a networked system is fully routable.

IP Meters GUI Software

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 analysis meter for spectral readings plus visual alerts should a channel go dark.

Software and Software-Based Control Surfaces

In addition to hardware, Wheaststone also offers software-based control surfaces and applications.

Our Glass LXE can be configured to be exactly the console you need and can operate on any PC-based touchscreen device.

Glass-E software provides remote capabilities to other console lines, such as the LX-24 and E-Series.

We also offer ScreenBuilder - an app that lets you build custom touchscreen interfaces to accomplish just about any task in your WheatNet-IP environment.

Wheatstone has plenty of other software solutions to provide you the tools you need to get the job done.

GP Series Control Panels

GP8 and GP16 Panels
More than simple switch arrays, these 8 and 16 button panels come with their own scripting wizard. At the simplest level they can do source selection, push-to-talk, and preset/salvo activation. But the intelligence in each panel allows them to query the entire network and make switching decisions based on what they find. Conditional switching using Boolean logic functions allows for complex switching scenarios such as IF Studio B has requested the airchain, AND Studio A has acknowledged, THEN fire the Studio Change salvo.

GP3 Panel
A straightforward headphone panel with level control, 1/4" headphone jack and a switch with LED tally (typically used for the COUGH function, but can be custom wired). Connectorized with both RJ45 and Phoenix screw terminals.

GP4 Panel
A 4 button switch array for remote mic functions (typically ON, OFF, COUGH, TALKBACK). Interfaces with any available BLADE GPIO ports. Of course, all four switches can be custom wired for other functions as well.

GP Turret
A compact desktop turret designed to house up to three (or six in our double width version) GP Panels.

Headphone Jack

Back of L-8

Console Audio BLADEs – IP-88CB (L) (E)

The IP88CB provides powerful interface options, including four AES inputs, four stereo analog inputs, four AES outputs, and four stereo analog outputs on RJ45s; control room and studio stereo analog outputs on XLRs, two mic level inputs with gain trim and switchable phantom power on XLRs; cue and headphone outputs on both RJ45 and 1/4" TRS, and 12 GPI logic ports on RJ45.

The L-8 uses the IP-88CBL which adds a power supply via a DC output jack.

The L-12 and L-16 utilize the IP-88CB and a compact external power supply.

The IP-88CBE or IP-88CBLE adds EQ and dynamics capabilities to the L-8/L-12/L-16 which are controlled by the optional L-EQ panel. This EQ/Dynamics Console BLADE and panel can be configured when ordering new consoles, or added to existing consoles, by contacting our sales department.

CONSOLE CONNECTORS:
Ethernet: RJ-45
Headphone: RTS 1/4" phone
Power: DC connector jack w/locking ring

CONSOLE PHYSICAL DIMENSIONS:
Front to back: 16-1/4" (41.275 cm)
Front height: 1-1/2" (3.81 cm)
Rear height: 4-1/4" (10.8 cm)
Width L-8: 16-5/8" (42.23 cm)
        L-12: 25 5/8" (65.09 cm)
        L-16: 31 5/8" (80.33 cm)

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Wheatstone
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