



# AV CONTROL SYSTEMS FEATURE OVERVIEW

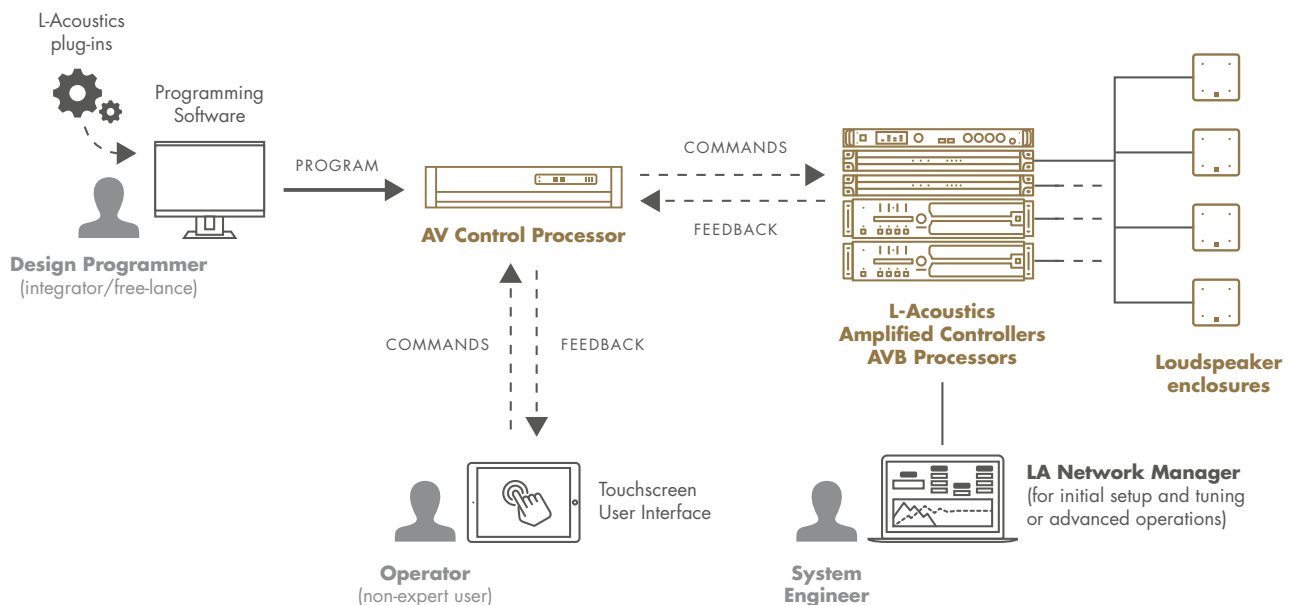
May 2021

## INTRODUCTION

L-Acoustics LA Network Manager software provides control and monitoring of amplified controllers and P1 through an Ethernet network. Nevertheless, in some situations and particularly in fixed installations, a third-party control application may be desirable, especially when:

- the user wants to avoid daily access to a PC and the management of passwords or antiviruses
- a simplified, customized and distributed user interface better suits the needs and habits of the venue operators
- the control and monitoring of the PA system must be integrated within the control and monitoring of other equipment in the venue
- the PA system must be monitored for voice alarm continuous capability by an external management solution

L-Acoustics meets these expectations by providing specific middleware acting as a bridge between the AV Control ecosystem and L-Acoustics electronic equipment. It takes the shape of plug-ins, available as programming toolboxes for the integrator who will implement custom interfaces according to the end-users' requirements.



## COMPATIBLE SOLUTIONS

L-Acoustics currently supports<sup>1</sup> and maintains third-party control solutions from:

- QSC® Q-SYST™: Software-based platform developed by QSC®, intended to deploy customizable audio, video and control workflows between networked equipment. [www.qsc.com/systems/products/q-sys-ecosystem](http://www.qsc.com/systems/products/q-sys-ecosystem)
- CRESTRON®: Popular AV integration solution of Building/Room Automation utilized for controlling various devices and automate enterprise and home environment. [www.crestron.com](http://www.crestron.com)
- EXTRON®: Worldwide provider of a wide range of audio, video, control, connection and network equipment. [www.extron.com](http://www.extron.com)

In addition, amplified controllers and P1 support the Simple Network Management Protocol (SNMP), an Internet Standard protocol designed for monitoring and control of IP network managed devices.

<sup>1</sup> Regularly check updates of this document on L-Acoustics website or email [avcontrol@l-acoustics.com](mailto:avcontrol@l-acoustics.com)



## FEATURES COMPATIBILITY WITH AMPLIFIED CONTROLLERS

		Q-SYS™	CRESTRON®	EXTRON®	SNMP
Compatibility	LA2Xi	✓	✓	✓	✓
	LA4X	✓	✓	✓	✓
	LA12X	✓	✓	✓	✓
	LA4	✓	✓	✓	✓
	LA8	✓	✓	✓	✓
Power management & monitoring	Standby	✓	✓	✓	✓
	Panel lock	✓	✓		
	Reboot	✓			✓
	Temperature	✓	✓	✓	✓
	Fuse protect	✓	✓		✓
Presets management	Preset load	✓ (User + factory presets)	✓ (User presets)	✓ (User presets)	✓
	Configuration recall	✓	✓		✓
	Configuration store	✓	✓		
Input management	Source selection (AVB, AES, Analog)	✓	✓	✓	✓
	Digital input status	✓	✓		✓
	Fallback control	✓	✓	✓	✓
	Input level meters	✓	✓		✓
Output management	Gain	✓	✓	✓	✓
	Mute	✓	✓	✓	✓
	Output level meters	✓	✓		✓
	Limit / Clip / Protect	✓	✓	✓	✓
	Routing	✓	✓		
PA/VA system monitoring	Status monitoring	✓	✓	✓	✓
	Pilot tone	✓	✓	✓	✓
	AES inputs status	✓	✓	✓	✓
	AVB inputs status	✓	✓	✓	✓
	Speakers monitoring	✓	✓	✓	✓



## FEATURES COMPATIBILITY WITH P1 AVB PROCESSOR

		Q-SYS™	CRESTRON®	EXTRON®	SNMP
Compatibility	P1	✓	✓		✓
Power management & monitoring	Panel lock	✓	✓		
	Reboot	✓			
	Temperature & Humidity	✓	✓		✓
Presets management	Configuration recall	✓	✓		✓
	Configuration store	✓	✓		
Input management	Digital input status	✓	✓		✓
	Fallback control	✓	✓		✓
	Gain	✓	✓		✓
	Mute	✓	✓		✓
	Input level meters	✓	✓		✓
	Mic preamp gain	✓	✓		
	Mic preamp +48V & HPF	✓			
Output management	Gain	✓	✓		✓
	Mute	✓	✓		✓
	Output level meters	✓	✓		✓
	Routing	✓	✓		
	DSP Bus limit	✓			✓
	Cue selection	✓			
Tools	Signal generator	✓	✓ (Sine only)		
	Media Player control	✓	✓		
	USB sensor	✓			
	GPIO control	✓	✓		
	GPIO functions	✓			

## Q-SYS™ PLUG-IN USER INTERFACE

Q-SYS™ plug-in for LA2Xi/LA4X/LA12X amplified controllers

**L-Acoustics LA2Xi / LA4X / LA12X 192.168.101.42**

Main | Configurations | GPIO (LA2Xi) | PAVA

Controller Status: Plugin v1.4.0.0 **LA2Xi** IP: 192.168.101.42 FW: 2.11.0.18

Disconnect  OK

Current Preset:  Connected  Temperature

On/Standby:  Online Identify  OK  OK  OK  OK

Display Lock  Reboot  High  High  High  High

Over  Over  Over  Over  Over

Input Settings: XLR Type:  A/B  C/D  ANA

Input Mode:  AVB Input Lock:  AVB Pri.  Sec.  AES A/B  AES C/D

AVB Stream Channel Mapping: A  B  C  D  Enable Active  Reset TEST Enable Active  Reset

AVB Fallback to XLR:  AES Fallback to C/D:

Audio Levels: Input Meters: Signal LED Threshold:  Hold Time (s):

Signal: A  B  C  D

AVB: A [-36.0dB] B [-36.0dB] C [-60.0dB] D [-60.0dB]

Output Meters: Gain:     Mute:     Protect:     Clip:     Limit:

Output 1: 1 [-22.0dB] PA A

Output 2: 2 [-22.0dB] PA A

Output 3: 3 [-22.0dB] PA B

Output 4: 4 [-22.0dB] PA B

Signal Routing: (LA2Xi only) BTL PBT BTL

Q-SYS™ plug-in for LA4/LA8 amplified controllers

**L-Acoustics LA4 / LA8 192.168.101.45**

Main | Configurations

Controller Status: Plugin v1.4.0.0 **LA8** IP: 192.168.101.45 FW: 2.10.3.3

Disconnect  OK

Current Preset:  Connected  Temperature

On/Standby:  Online Identify  OK  OK  OK  OK

Display Lock  Reboot  High  High  High  High

Over  Over  Over  Over  Over

Input Settings: Source Settings:  AES Lock  Fallback:  Enable Active  Reset TEST

Input Mode:  AES Lock:  Fallback:  Enable Active  Reset TEST

Audio Levels: Input Meters: Signal LED Threshold:  Hold Time (s):

Signal: A  B

AES: A [-38.0dB] B [-38.0dB]

Output Meters: Gain:     Mute:     Protect:     Clip:     Limit:

Output 1: 1 [-20.0dB] LF A

Output 2: 2 [-20.0dB] LF A

Output 3: 3 [-34.0dB] MF A

Output 4: 4 [-36.0dB] HF A

Signal Routing: A A A A



## Q-SYS™ plug-in for P1 processor

**L-Acoustics Networked Audio Processor 192.168.101.41**

Status | Inputs | DSP | Outputs | Media Player | Configurations

Processor Status Plugin v1.2.0.0 P1 IP: 192.168.101.41 FW: 2.11.0.18

Disconnect  OK

Display Lock  Reboot  Connected  Current Configuration P00: DEFAULT

Condition  Temperature 40 °C 104 °F  OK 57 % (0 ~ 70°C)  High temp.  Over temp. Fan Error Humidity 22 %

USB USB 1 USB 2  
Connected    
Temp. 28 °C 82 °F  
Humidity 48 %

GPIO

GPI Status and Functions

<input checked="" type="checkbox"/> IN1	Load configuration slot A	Slot A	1
<input checked="" type="checkbox"/> IN2	Load configuration slot B	Slot B	2
<input checked="" type="checkbox"/> IN1	Load configuration slot A	Slot A	3
<input checked="" type="checkbox"/> IN2	Load configuration slot B	Slot B	4

GPO Status and Functions

<input checked="" type="checkbox"/> OUT1	Manual state	On	60	Alive period (sec)
<input checked="" type="checkbox"/> OUT2	Manual state	On	60	Alive period (sec)

Signal Status

Inputs Fallback

Input	Source	Active	Reset	Test
AES 1-2	Disabled	<input checked="" type="checkbox"/>	Reset	Test
AES 3-4	Disabled	<input checked="" type="checkbox"/>	Reset	Test
AVB 1-4	Disabled	<input checked="" type="checkbox"/>	Reset	Test
AVB 5-8	Disabled	<input checked="" type="checkbox"/>	Reset	Test

Input Lock AVB 1  AVB 2  AES 1-2  AES 3-4

Include in status AVB 1  AVB 2  AES 1-2  AES 3-4

AVB Talker(s)

Name P1 Media Clock Internal

Stream 1 AAF PCM32, 96kHz, 8 ch  Include

Stream 2 AAF PCM32, 96kHz, 8 ch  Include

**L-Acoustics Networked Audio Processor 192.168.101.41**

Status | Inputs | Matrix Mixer | DSP | Outputs | Media Player | Configurations

Outputs

Source	BUS 1	BUS 2	BUS 3	BUS 4	BUS 5	BUS 6	BUS 7	BUS 8
Output Gain	0dB	0dB	0dB	0dB	0dB	0dB	0dB	0dB
Mute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level	-34.6dB	-32.2dB	-23.4dB	-33.7dB	-27.9dB	-43.4dB	-30.9dB	-27.0dB

Source	BUS 1	BUS 2	BUS 3	BUS 4	BUS 5	BUS 6	BUS 7	BUS 8	CUE	CUE
Output Gain	0dB	0dB	0dB	0dB	0dB	0dB	0dB	0dB	-12.0dB	-12.0dB
Mute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level	-34.6dB	-32.2dB	-23.4dB	-33.7dB	-27.9dB	-43.4dB	-30.9dB	-27.0dB	-35.4dB	-35.4dB

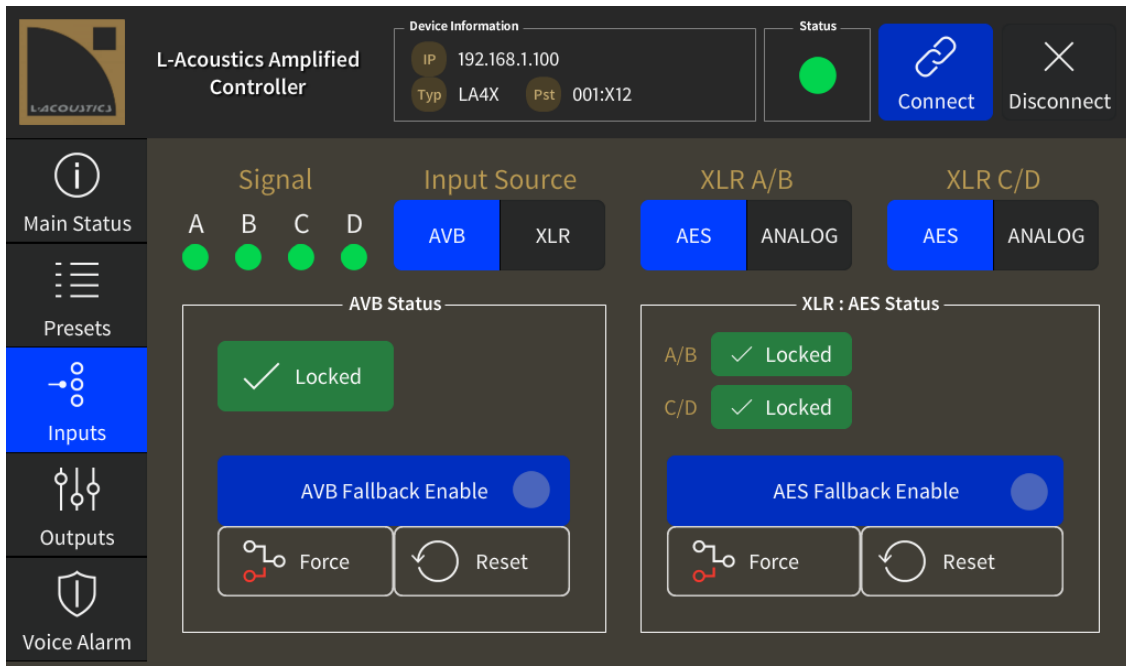
AVB Output Stream Mapping

Channel	1	2	3	4	5	6	7	8
Stream 1	AVB 1	AVB 2	AVB 3	AVB 4	AVB 5	AVB 6	AVB 7	AVB 8
Stream 2	AVB 1	AVB 2	AVB 3	AVB 4	AVB 5	AVB 6	AVB 7	AVB 8

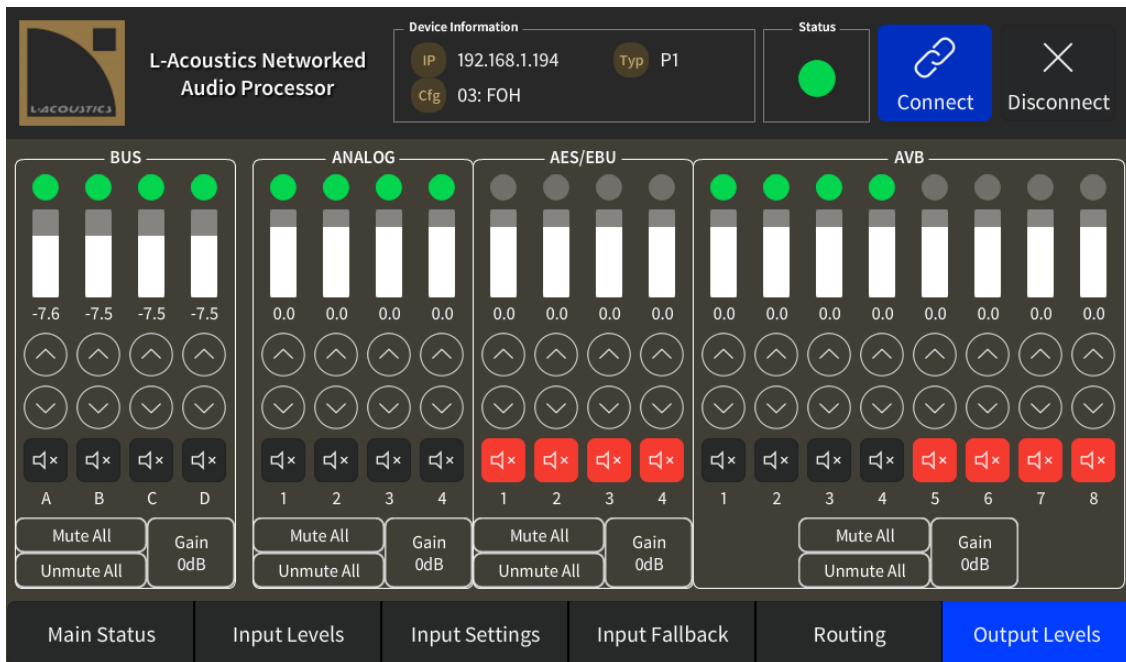


## CRESTRON® MODULE PROGRAM EXAMPLES

CRESTRON® module for amplified controllers



CRESTRON® module for P1 processor





## EQUIPMENT SOLUTION EXAMPLES

	Programming software	AV control processor	Touchscreen
Q-SYS	Q-SYS Designer software ( <a href="#">QSC product page</a> )	Core 510i integrated processor ( <a href="#">QSC product page</a> )	TSC-116w-G2 touch screen ( <a href="#">QSC product page</a> )
Crestron	SIMPL Windows software ( <a href="#">CRESTRON product page</a> )	PRO4 4-Series™ Control System ( <a href="#">CRESTRON product page</a> )	TSW-1070 touch screen ( <a href="#">CRESTRON product page</a> )
Extron	Global Configurator ( <a href="#">EXTRON product page</a> )	IPCP Pro 555 ( <a href="#">EXTRON product page</a> )	TLP Pro 1720MG ( <a href="#">EXTRON product page</a> )

## SNMP AND OTHER AV CONTROL SOLUTIONS

To control amplified controllers and P1 using SNMP or with other AV control solutions using UDP/IP protocol, contact L-Acoustics at [avcontrol@l-acoustics.com](mailto:avcontrol@l-acoustics.com).

## CONTACT

For more information, write to [avcontrol@l-acoustics.com](mailto:avcontrol@l-acoustics.com)

### Legal notices

QSC® and Q-SYST™ are trademarks or registered trademarks of QSC, LLC in the U.S. Patent and Trademark Office and other countries.

Crestron® is a trademark or registered trademark of Crestron Electronics, Inc. in the United States, other countries or both.

Extron® is a registered trademark of Extron Electronics.

All third-party trademarks, registered trademarks, product or service names, logos or slogans are the property of their respective owners.