



AV CONTROL SYSTEMS FEATURE OVERVIEW

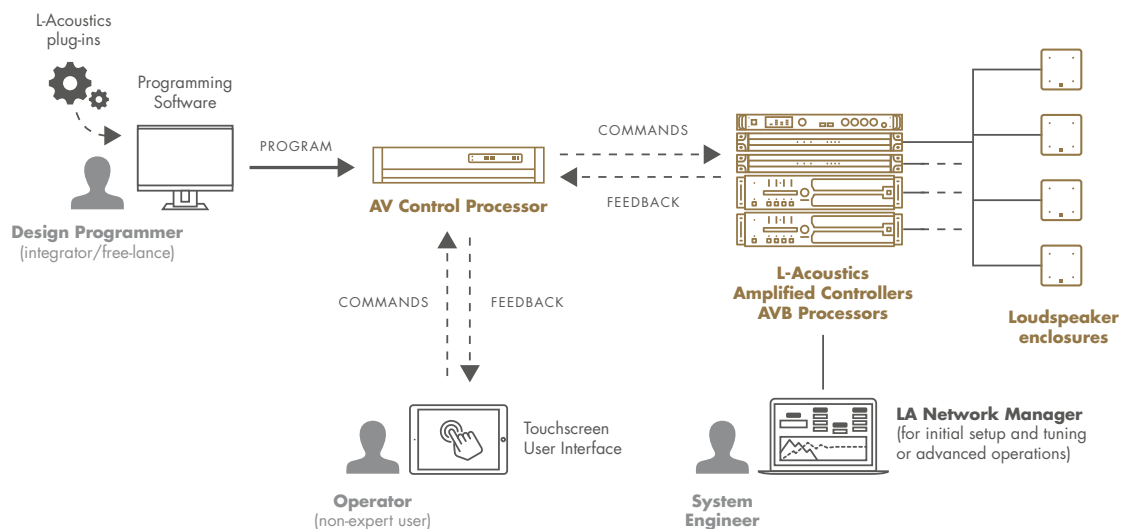
December 2021

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 supports¹ and maintains third-party control solutions from:

- QSC® Q-SYS™: 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
- Crestron®: Popular AV integration solution of Building/Room Automation utilized for controlling various devices and automate enterprise and home environment. www.crestron.com
- Extron®: Worldwide provider of audio, video, control, connection and network equipment. www.extron.com
- Control4®: Leading automation system for homes and businesses. www.control4.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.

¹ Regularly check updates of this document on L-Acoustics website or email avcontrol@l-acoustics.com

FEATURES COMPATIBILITY WITH AMPLIFIED CONTROLLERS

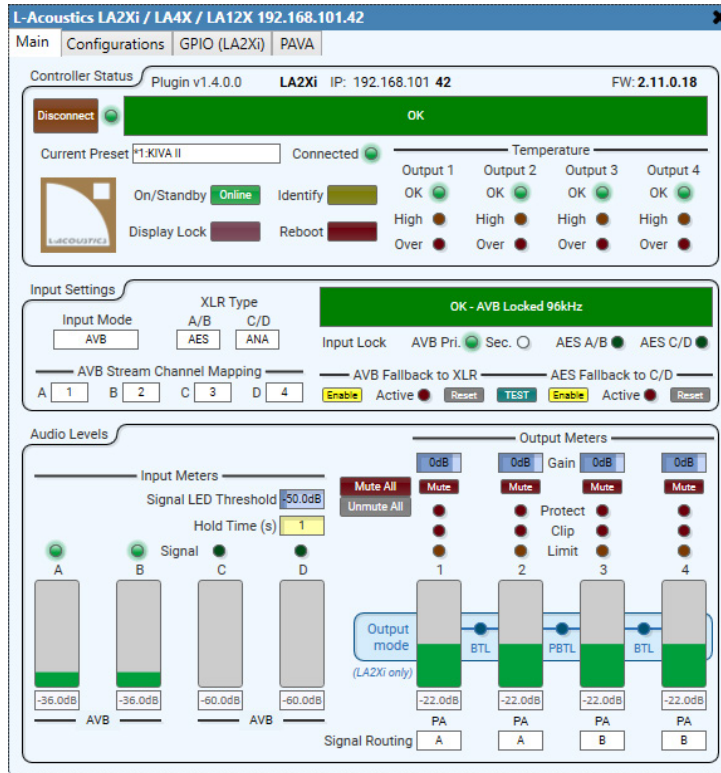
		Q-SYS	Crestron	Extron	Control4	SNMP
Compatibility	LA2Xi	✓	✓	✓	✓	✓
	LA4X	✓	✓	✓	✓	✓
	LA12X	✓	✓	✓	✓	✓
	LA4	✓	✓	✓		✓
	LA8	✓	✓	✓		✓
Power management & monitoring	Standby	✓	✓	✓	✓	✓
	Panel lock	✓	✓			
	LCD/LED brightness				✓	
	Reboot	✓				✓
	Temperature	✓	✓	✓		✓
	Fuse protect	✓	✓			✓
Presets management	Preset 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	✓	✓	✓	✓	✓
	Delay					✓
	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	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 delay			✓
	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

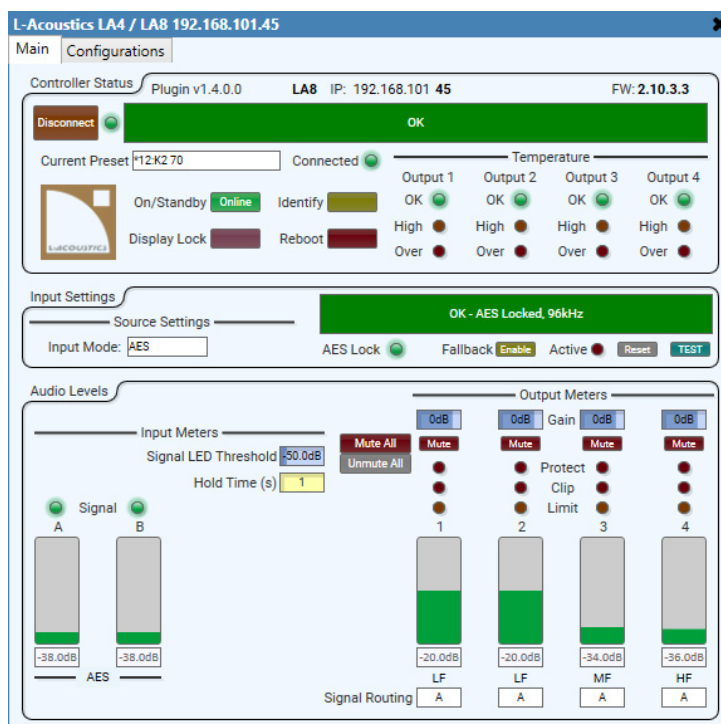
Q-SYS plug-in for LA2Xi/LA4X/LA12X amplified controllers



The screenshot shows the L-Acoustics LA2Xi / LA4X / LA12X 192.168.101.42 interface. It features a top navigation bar with 'Main', 'Configurations', 'GPIO (LA2Xi)', and 'PAVA'. The main area is divided into several sections:

- Controller Status:** Shows 'Plugin v1.4.0.0', 'LA2Xi IP: 192.168.101.42', and 'FW: 2.11.0.18'. It includes a 'Disconnect' button, a green 'OK' status bar, and a 'Current Preset' of '1:KIVA II'. There are also 'On/Standby Online', 'Identify', 'Display Lock', and 'Reboot' buttons. A temperature section shows 'Output 1' through 'Output 4' with 'OK', 'High', and 'Over' indicators.
- Input Settings:** Includes 'Input Mode' (AVB), 'XLR Type' (A/B, C/D), and 'AES A/B', 'AES C/D' options. It also has 'Input Lock', 'AVB Pri.', 'Sec.', and 'AES A/B', 'AES C/D' checkboxes. 'AVB Stream Channel Mapping' shows channels A, B, C, D with 'Enable' and 'Active' buttons. 'AVB Fallback to XLR' and 'AES Fallback to C/D' are also present.
- Audio Levels:** Features 'Input Meters' for channels A, B, C, D with a 'Signal LED Threshold' of -50.0dB and a 'Hold Time (s)' of 1. 'Output Meters' show levels for four outputs (1, 2, 3, 4) with 'Gain' and 'Mute' buttons. 'Signal Routing' is set to 'A' for all outputs.

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



The screenshot shows the L-Acoustics LA4 / LA8 192.168.101.45 interface. It features a top navigation bar with 'Main' and 'Configurations'. The main area is divided into several sections:

- Controller Status:** Shows 'Plugin v1.4.0.0', 'LA8 IP: 192.168.101.45', and 'FW: 2.10.3.3'. It includes a 'Disconnect' button, a green 'OK' status bar, and a 'Current Preset' of '1:K2 70'. There are also 'On/Standby Online', 'Identify', 'Display Lock', and 'Reboot' buttons. A temperature section shows 'Output 1' through 'Output 4' with 'OK', 'High', and 'Over' indicators.
- Input Settings:** Includes 'Source Settings' and 'Input Mode' (AES). It also has 'AES Lock', 'Fallback Enable', 'Active', 'Reset', and 'TEST' buttons.
- Audio Levels:** Features 'Input Meters' for channels A and B with a 'Signal LED Threshold' of -50.0dB and a 'Hold Time (s)' of 1. 'Output Meters' show levels for four outputs (1, 2, 3, 4) with 'Gain' and 'Mute' buttons. 'Signal Routing' is set to 'A' for all outputs.

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. 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

ANA 1-4

Source	BUS 1	BUS 2	BUS 3	BUS 4
Output Gain	0dB	0dB	0dB	0dB
Mute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gain	-34.6dB	-32.2dB	-23.4dB	-33.7dB

AES 1-4

Source	BUS 5	BUS 6	BUS 7	BUS 8
Output Gain	0dB	0dB	0dB	0dB
Mute	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gain	-27.9dB	-43.4dB	-30.9dB	-27.0dB

AVB 1-8

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"/>
Gain	-34.6dB	-32.2dB	-23.4dB	-33.7dB	-27.9dB	-43.4dB	-30.9dB	-27.0dB

MON

Source	CUE	CUE
Output Gain	-12.0dB	-12.0dB
Mute	<input type="checkbox"/>	<input type="checkbox"/>
Gain	-35.4dB	-35.4dB

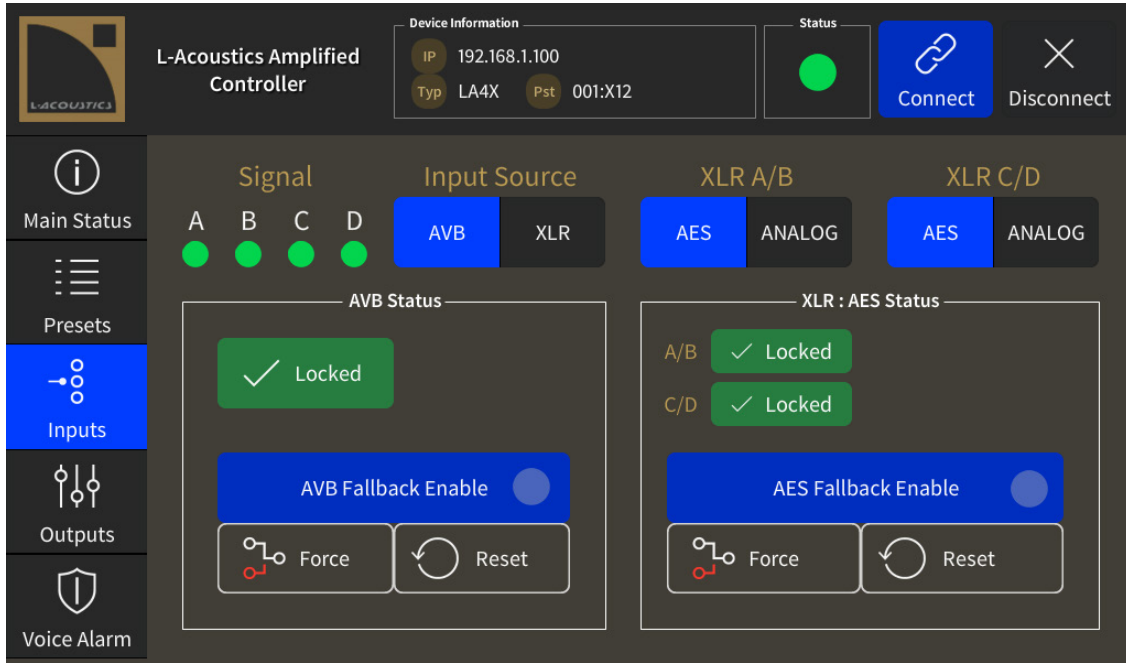
AVB Output Stream Mapping

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

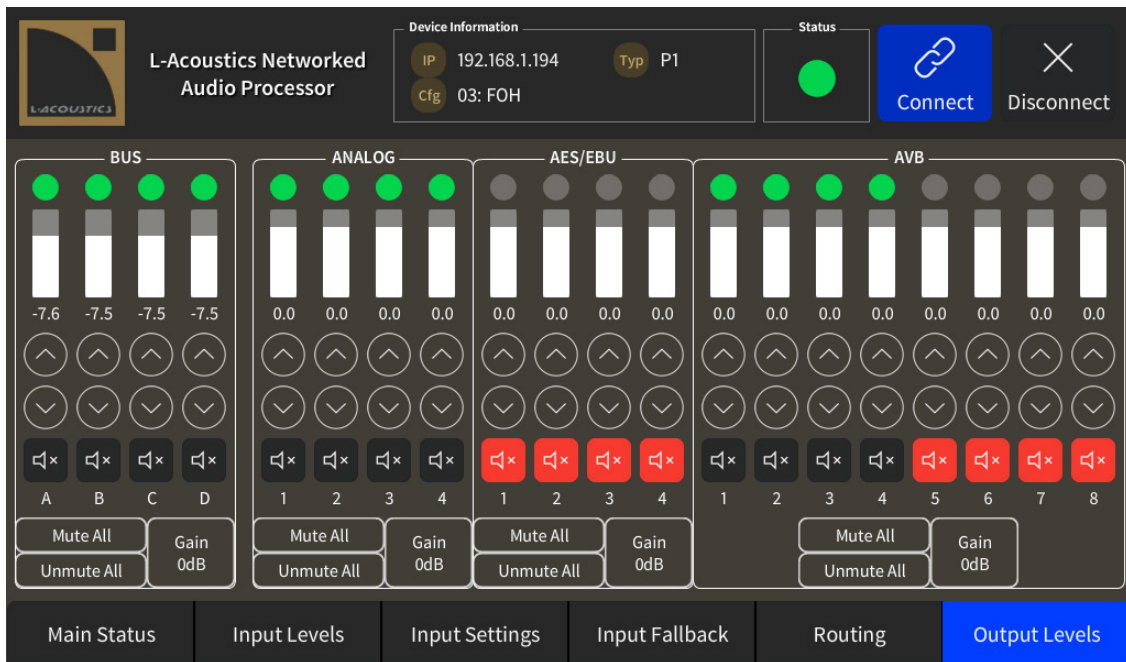


CRESTRON MODULE PROGRAM EXAMPLES

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 (QSC product page)	Core 510i integrated processor (QSC product page)	TSC-116w-G2 touchscreen (QSC product page)
Crestron	SIMPL Windows software (Crestron product page)	4-Series™ PRO4 Control System (Crestron product page)	TSW-1070 touchscreen (Crestron product page)
Extron	Global Configurator Pro (Extron product page)	IPCP Pro 250 (Extron product page)	TLP Pro 725T (Extron product page)
Control4	Composer Pro	EA-3 Controller (Control4 product page)	T4 Series C4-T4T8 (Control4 product page)

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.

CONTACT

For more information, write to avcontrol@l-acoustics.com

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