

Axia® Quasar AoIP Mixing Console



Welcome to Axia Quasar

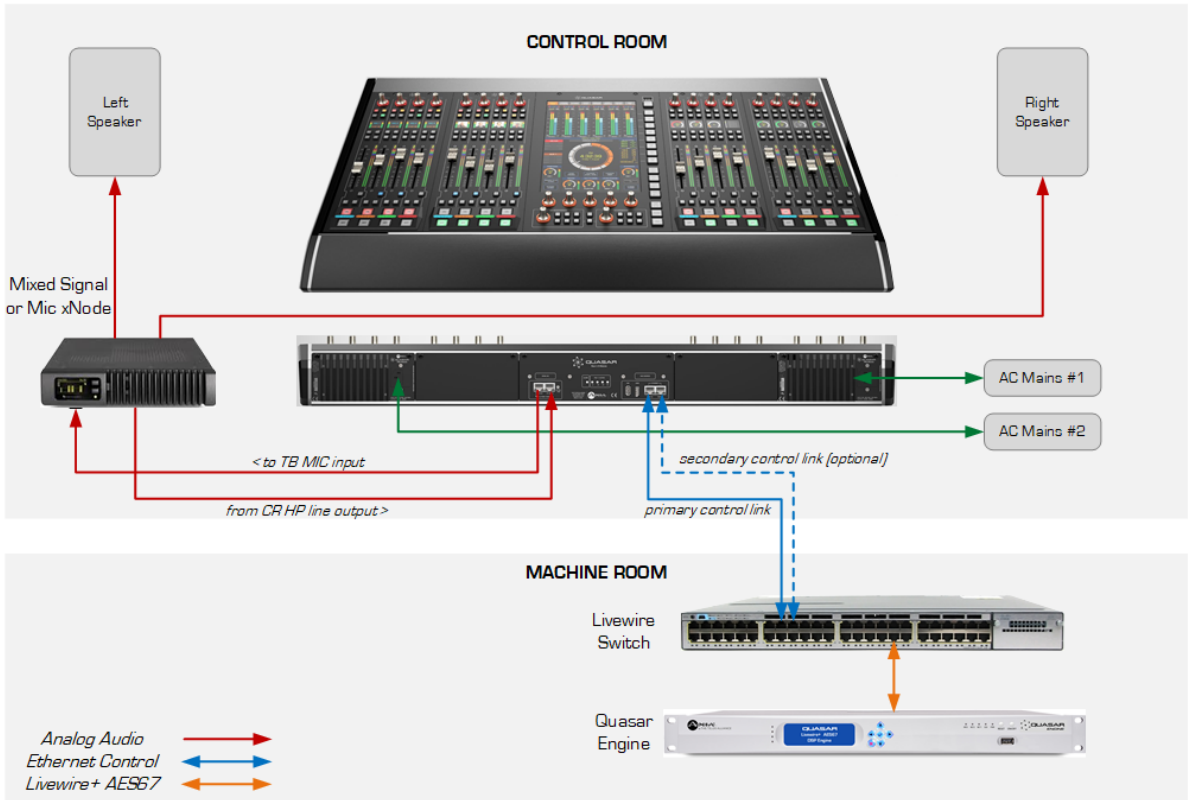
Setup of a networked audio mixing console, though we have made it as easy as possible, is challenging to condense into a few pages. The following material is intended to help the busy engineer get up and running in a few minutes.

This Quickstart Guide assumes a few things:

- That the reader has some knowledge of network basics and terminology
- That the reader is familiar with other Axia Livewire products
- And that the reader has a network switch correctly configured for Livewire

We will take you through the basic steps to configure your new Quasar and have you up and running in no time. But before we get started, let's make sure you are familiar with the Quasar System anatomy.

QUICK-START INSTALLATION GUIDE



Example of simple Studio configuration. Connection of the optional TBP-IO module is included in this drawing.

REQUIRED EQUIPMENT, CABLES, AND ACCESSORIES:

There are a few additional items required for a successful installation. Check the list below and make sure you have what you need.

Included items:	Items you need to supply:
<ul style="list-style-type: none">▪ Quasar Control Surface▪ Quasar Mains Cable(s)▪ CAT5 Ethernet Cable	<ul style="list-style-type: none">▪ A Quasar Engine mixing engine▪ Switch configured for Axia network▪ PC with access to your Axia network

Then, let's check your installation type and make sure you have what you need.

Installation type:

You could be installing a Table-Top or Flush-Mount console, with single or split frame. Only the Quasar Engine can be connected to the Quasar Surface. This consists in an industrial rackmount server platform, with redundant PSU and fans, so it will have to go in a machine room. Other mixing engines such as the fanless Axia Studio Engine, or Axia Powerstation, cannot be used with Quasar.

Steps to complete in order to get audio from the console:

1. Network Switch – Configuration for Livewire
2. Quasar Surface - Physical connections
3. Quasar Surface - Network configuration
4. Quasar Surface – Modules discovery & configuration
5. Quasar Engine – Installation & network configuration
6. Checking Connection to the Quasar Engine



1. Quasar Engine – Audio outputs configuration
2. Surface Layer Configuration
3. Input Source Creation and Configuration
4. Assign Sources to Input Channels
5. Program assignment & monitoring



Network Switch - Configuration for Livewire

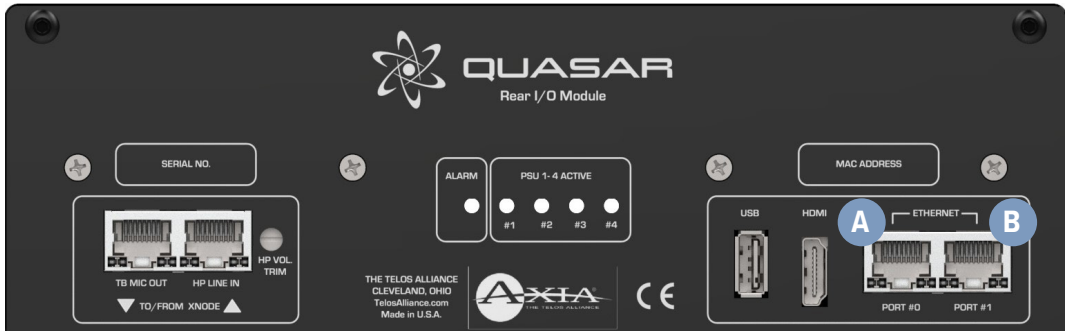
Please do not assume that any network switch will work out of the box, for handling the intense traffic generated by AoIP audio streams. Multicast traffic generated by AoIP streams can “flood” the switch if not properly managed and shaped via a correct configuration of the switch ports.

A list of approved Ethernet switches is published on our website, at this link: <https://www.telosalliance.com/Axia/What-Ethernet-Switches-has-Axia-Approved>. In the *Configuration* section of this webpage, you will find guidelines for specific switch models.

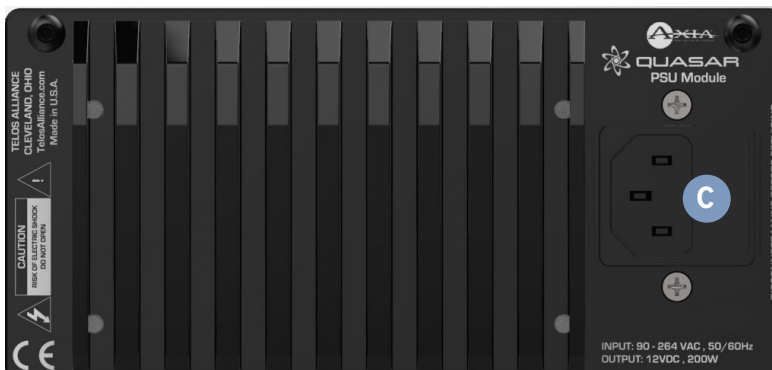
An Axia Applications Engineer will be happy to assist you in determining the correct switch for your application – [please contact us for assistance \(https://www.telosalliance.com/support-request\)](https://www.telosalliance.com/support-request).

Quasar Surface - Physical connections

1. **Connect** one Ethernet cable to the primary network port labeled "PORT #0"(A) on the Quasar Console Rear I/O board, **connect** the other end to a configured Gigabit Ethernet switch.



2. **Optionally**, it is possible to also use the secondary ethernet port, labeled "PORT #1" (B) to create a redundant connection link. This will require a specific configuration of the switch ports. Please refer to the user manual for details about this option.
3. **Connect** an Ethernet cable to the Livewire port (F) on the Quasar Engine, and **connect** the other end to a configured Gigabit Ethernet switch.



4. **Connect** the Quasar surface Power Supply Unit (or Units, if you have more than one installed in your frame) to AC Mains (C) using the Axia Power Supply power cable (or cables) provided. If you have more than one power supply installed and choice of standard and uninterrupted mains in your studio, it is a good idea to connect each PSU to a different type of Mains supply.
5. **Make Sure** your AC Mains are properly grounded! The Quasar (like every other professional device) is grounded through the AC Mains cables, and does not require a separate chassis ground.
6. Continue to Network Configuration with your Axia Quasar surface modules.

Quasar Surface - Network configuration

Once the console is started up, the Quasar Master Touchscreen Module (MTS Module) will present you with its Home page, where a round clock is displayed. Above the clock you will notice a warning message: "No Connection to Engine". This is normal.

Now you need to access the System Setup page: push and hold for 5 seconds the Monitor Options key (labeled "MON OPT" and located between the two Control Room volume pots). Here you will need to assign an IP address to your console, as well as the Network Mask, and bind the surface to the engine.



At the bottom of this page you can associate your Quasar Engine to the surface, by entering the Engine's IP address. Addresses can be entered directly from the touchscreen, or by using the rotary encoders below the display. A configured gateway is optional, and not required for normal console operation in a closed network.

Press the "Save and Reboot" button when done.

Once the Master Module IP address is set, you can now access the console Web UI to configure each fader module's IP address.

Quasar Surface – Modules' discovery & configuration

Using a PC connected to your studio network, **launch** a web browser and **enter** the IP address you previously assigned to the MTS into the browser's address bar. In the left column, click on *Console Discovery* menu. When prompted for authentication **enter** user name "user", and leave the password field blank.

Here you will find all Fader modules connected to the Master, listed by their MAC and IP addresses, which will be pre-assigned at the factory. If the pre-assigned addresses fits your networking scheme, then you can skip to the next step.

#	Hostname	MAC Address	IP Address	Connected to
1	FAD-4	58:50:AB:40:32:1B	192.168.2.114	192.168.2.110
2	FAD-2	58:50:AB:40:32:19	192.168.2.112	192.168.2.110
3	FAD-5	58:50:AB:40:32:1C	192.168.2.115	192.168.2.110
4	FAD-6	58:50:AB:40:32:1D	192.168.2.116	192.168.2.110
5	FAD-1	58:50:AB:40:32:0B	192.168.2.111	192.168.2.110
6	FAD-3	58:50:AB:40:32:1A	192.168.2.113	192.168.2.110

Assign ip address to selected console and connect it.

In case you need to change these addresses according to your network scheme, you can assign a new IP address to each module, by selecting it with the radio button, entering the desired address in the box at the bottom and pushing the "Do It!" button.

Tip: We recommend choosing for the Master module an IP address with the fourth octed ending with a 0 (zero), and an address with the fourth octet ending with 1,2,3,...etc for the first, second, third, Fader module in your surface and so on. This will make easier to remember each module's IP address for fast UI access.

Once all addresses have been set, please check access to each fader module by entering its IP address in your browser and by navigating each module's Web UI. You can also click the IP address directly from the list you see in the Console Discovery.

The default access credentials will be the same used for the MTS Module: user – no password.

Quasar Engine – Installation & configuration

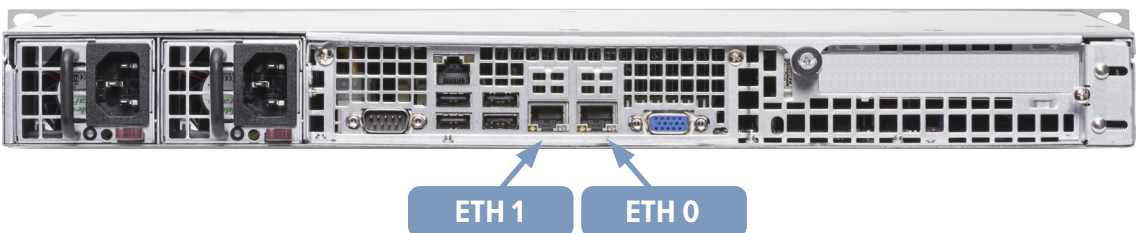


- 1. Install** your Quasar Engine platform in a suitable environment, like an air conditioned machine room. Please make sure there is one empty position in your rack above the engine, and one below, in order to let the air flow inside from the front panel. Please refer to the user manual for details about the engine installation.
- 2. Connect** mains cables to your Quasar Engine. Push the ON/OFF (D) button on the front panel. At the end of the boot process, the four LEDs to the left of the front display could indicate errors due to missing sync, console not yet connected, or connection of a single Power Supply only. This is normal. An IP address is needed.
- 3. Push** the ✓ button (E) on the front panel to access the main menu. Select settings using the arrow buttons, then **Push** again the ✓ button to select.

```
1. Engine IP Settings
2. System Status
3. Console Info
4. Software info
5. Back
```

```
1. ENGINE IP SETTINGS
Net Addr : 192.168.001.001
Net Mask : 255.255.255.000
Gateway : 000.000.000.000
[WAN OFF] [Apply] [Cancel]
```

- 4. Push** the UP/DOWN arrows buttons to select *Net Address* field, and **Push** the ✓ button to enter.
- 5. Use** the LEFT/RIGHT arrow buttons to select each digit, the UP/DOWN arrows buttons to increment or decrement the value, and the ✓ button to enter.
- 6. Move** the cursor to the right and select the ← symbol. **Push** the ✓ button to confirm the setting.
- 7.** Repeat for Netmask as needed.
- 8.** Once on the Engine IP settings are entered, move cursor down to *[Apply]* and **Push** the ✓ button to select.
- 9.** The engine will prompt you with a request to reboot. **Select** OK and **Push** the ✓ button. Confirm your choice in order to reboot the engine with the new settings.
- 10.** Connect the network cable to the ETH 0 port (rightmost port, if looking at the rear panel).



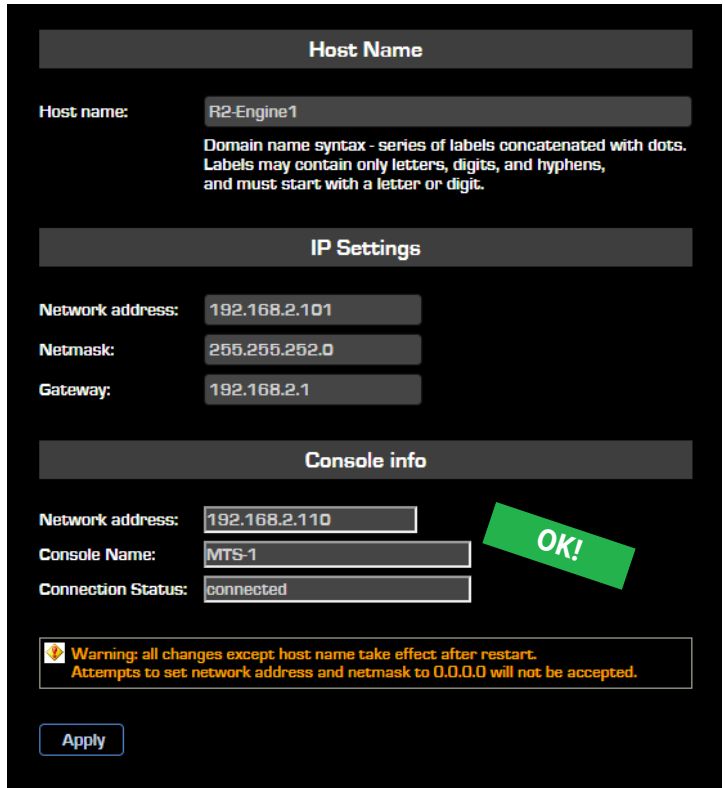
Checking connection to the Quasar Engine

Using a PC connected to your studio network, launch a web browser and enter the IP address assigned to the Engine into the browser's address bar. When prompted for authentication enter user name "user", and leave the password field blank.

Let's double-check the connection to the Surface from the Quasar Engine Web UI, by going to the *Network menu*.

In *Console info*, make sure that the Network Address field shows the IP address of your Quasar Master Touchscreen module and the Connection Status is "connected".

Now please double-check that the warning message above the clock on the MTS Home page is disappeared.



The Quasar Surface is now recognized by the network and linked to the Quasar Engine. Now you can proceed with configuring your System.

Quasar Engine - Output bus configuration

1. Using a PC connected to your studio network, go to the Engine Web UI home page
2. In the left column, **select** *Program and Monitor outputs*.
3. **Enter** the planned channel numbers for Quasar Engine (Livewire Sources) outputs.
4. **Enable** the streams you need to be active on the Engine
5. Click the "Apply" button.

Tip: We recommend choosing a Channel ID which has the first 2 or 3 digits corresponding to the last octet of the Engine IP address.

In this example, the engine has IP address 192.168.2.101

This will make easier to spot the right Engine channels when browsing a large network.

Don't forget to assign the CR Monitor and CR Headphones streams to the Destinations (outputs) of the xNode you connected to your speakers and HP Amp. Or you will hear no Sound!

Host name: R2-Engine1

Main, Auxiliary and Monitor Outputs

	Channel (1..32766):	Mode:	Delay(0..400ms):	Status:	Audio:
Program 1	1011	Live Stereo	0	OK	<input type="checkbox"/>
Program 2	1012	Live Stereo	0	OK	<input type="checkbox"/>
Program 3	1013	Live Stereo	0	OK	<input type="checkbox"/>
Program 4	1014	Live Stereo	0	OK	<input type="checkbox"/>
Program 4 Record	1015	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 1	1021	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 2	1022	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 3	1023	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 4	1024	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 5	1025	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 6	1026	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 7	1027	Live Stereo	0	OK	<input type="checkbox"/>
Aux Send 8	1028	Live Stereo	0	OK	<input type="checkbox"/>
CR Monitor Direc	1040	Live Stereo		OK	<input type="checkbox"/>
CR Monitor	1041	Live Stereo		OK	<input type="checkbox"/>
CR Headphones	1042	Live Stereo		OK	<input type="checkbox"/>
Preview	1043	Live Stereo		OK	<input type="checkbox"/>
Talk to CR	1044	Live Stereo		OK	<input type="checkbox"/>
Guest Headphones	1045	Live Stereo		OK	<input type="checkbox"/>
Studio Monitor	1046	Live Stereo		OK	<input type="checkbox"/>
Talent Hdphones	1047	Live Stereo		OK	<input type="checkbox"/>
Talk to External	1048	Live Stereo		OK	<input type="checkbox"/>

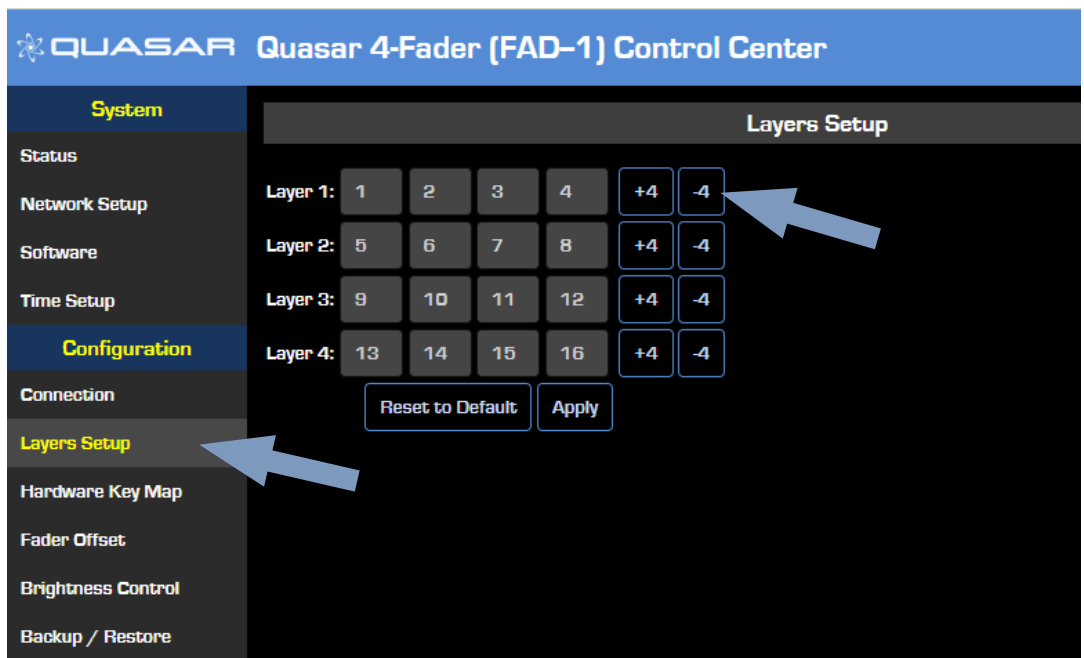
Apply

Surface Layer Configuration

Layers are useful when you need to access a number of DSP input channels on your engine which is larger than the number of faders (or physical channel strips) available on your Quasar surface.

Since any fader on any module could access any input channel on the Quasar Engine, you will need to assign four input channel to each of the 4 layers available, on every Fader Module.

1. Using a PC connected to your studio network, **launch** a web browser and **enter** the IP address assigned to the first (leftmost) fader module into the browser's address bar. When prompted for authentication **enter** user name "user", and leave the password field blank.
2. In the left column, in the Module Manager section of the menu, **select** *Layer Setup*
3. Enter the number of the Engine input channel you want to assign to each physical fader, for each of the four Layers.



QUASAR Quasar 4-Fader (FAD-1) Control Center

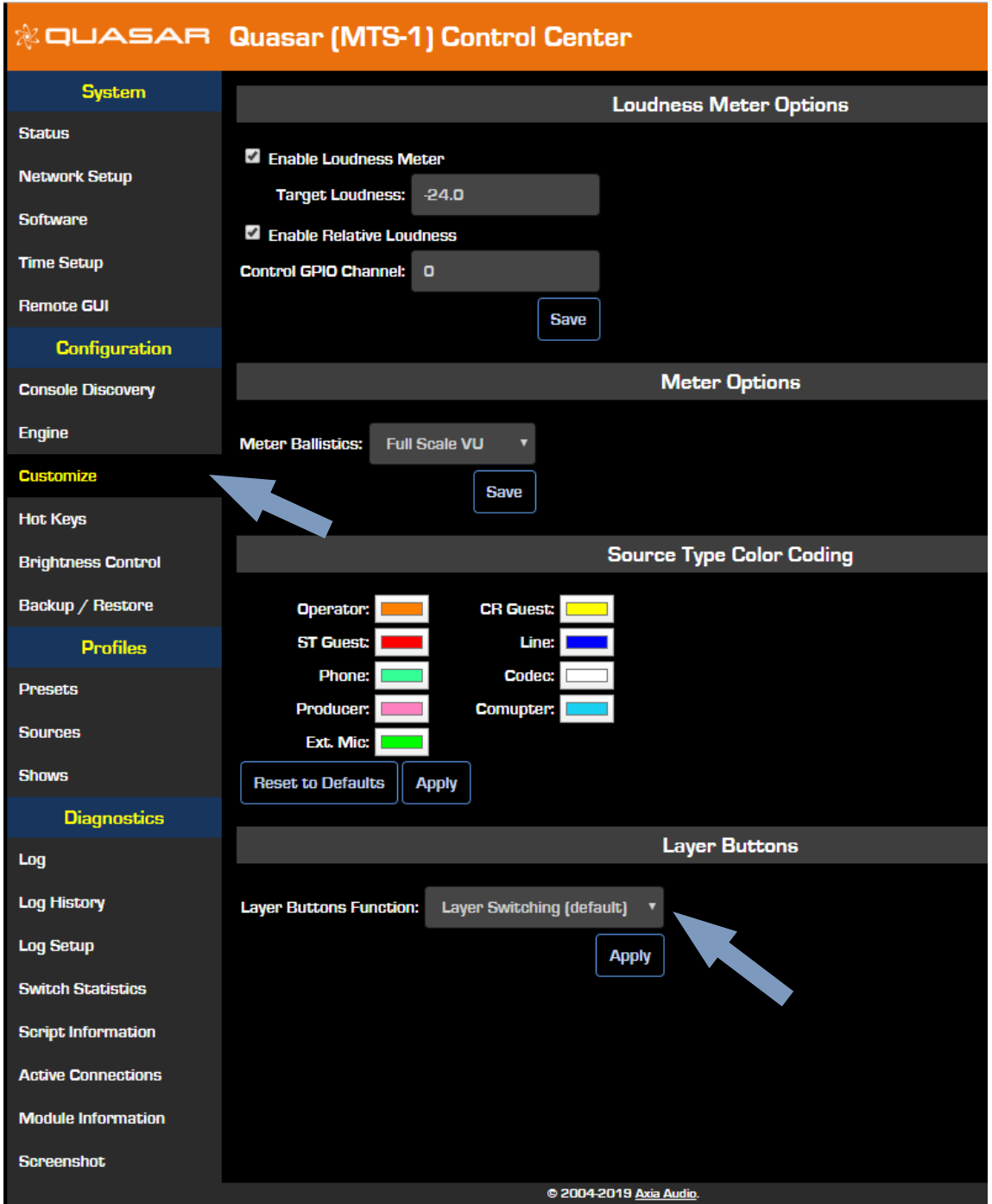
System	Layers Setup						
Status							
Network Setup							
Software							
Time Setup							
Configuration							
Connection							
Layers Setup	Layer 1:	1	2	3	4	+4	-4
Hardware Key Map	Layer 2:	5	6	7	8	+4	-4
Fader Offset	Layer 3:	9	10	11	12	+4	-4
Brightness Control	Layer 4:	13	14	15	16	+4	-4
Backup / Restore	Reset to Default		Apply				

The table shown in the picture above shows which of the 64 input channels available in the Quasar Engine, will be loaded on the four channel strips each time the LAYER 1, 2, 3, 4 buttons will be pushed on the Master Module.

All fader modules default to the channel assignment displayed above. In order to quickly increment or decrement channels, in banks of four, just click on the "+4" or "-4" buttons

In case you don't need to use Layers, just make sure that layers are disabled.

You can disable Layers by navigating the Master Module Web UI and selecting the *Customize* menu. This will switch off the Layer buttons on the Master module.



The screenshot displays the Quasar (MTS-1) Control Center web interface. The left sidebar contains a navigation menu with the following sections:

- System**
 - Status
 - Network Setup
 - Software
 - Time Setup
 - Remote GUI
- Configuration**
 - Console Discovery
 - Engine
- Customize** (highlighted with a blue arrow pointing to the 'Customize' menu item)
- Profiles**
 - Presets
 - Sources
 - Shows
- Diagnostics**
 - Log
 - Log History
 - Log Setup
 - Switch Statistics
 - Script Information
 - Active Connections
 - Module Information
 - Screenshot

The main content area is divided into several sections:

- Loudness Meter Options**
 - Enable Loudness Meter
 - Target Loudness:
 - Enable Relative Loudness
 - Control GPIO Channel:
 -
- Meter Options**
 - Meter Ballistics:
 -
- Source Type Color Coding**
 - Operator:
 - CR Guest:
 - ST Guest:
 - Line:
 - Phone:
 - Codec:
 - Producer:
 - Compuiter:
 - Ext. Mic:
 -
- Layer Buttons**
 - Layer Buttons Function:
 - (highlighted with a blue arrow)

At the bottom of the page, the copyright notice reads: © 2004-2019 Axia Audio.

Input Source creation and configuration

You'll use your Web browser to create your first audio source in just a few fast steps:

1. Browse the Quasar MTS module Web UI. In the left column under *Profiles* select *Sources*
2. Click the button labeled "Create New Source Profile"
3. On the Source Profile screen, select *Source Type* from the drop down list (A).
4. Enter the name of the source in the *Source Name* field (B).
5. Click the browse button to the right of the *Primary Source* field (C) and select the desired source from the list.
6. Click *Ok*.
7. Repeat this operation to create more sources. These will then appear in the Channel Input > Sources menu of your Quasar.

QUASAR Quasar (MTS-1) Control Center

Source Profile

Source picture: No file chosen

Source Settings:

Source type: Operator Microphone Input signal phase: Normal

Source name: LUCA Signal mode for Record bus: Stereo

Source name override: Show sourcename Fader trim gain [-25 .. 25 dB]: +0.0 dB Locked

Primary source: 1101 <Mic 1@LLR-MicNo Pan setting [-100 .. 100]: 0

Mic Node physical input: Input 1 Audio delay [0 .. 400 ms]: 0 ms

Fader mode: Normal Auto-start timer: Enabled

PFL switching: Channel ON turns PFL OFF PFL ON turns Channel OFF Logic port: Exclusive mode

Knob function: Mic Gain Adjust

Source availability:

<input checked="" type="checkbox"/> Ch.1	<input checked="" type="checkbox"/> Ch.9	<input checked="" type="checkbox"/> Ch.17	<input checked="" type="checkbox"/> Ch.25	<input checked="" type="checkbox"/> Ch.33	<input checked="" type="checkbox"/> Ch.41	<input checked="" type="checkbox"/> Ch.49	<input checked="" type="checkbox"/> Ch.57	<input type="checkbox"/> All Channels
<input checked="" type="checkbox"/> Ch.2	<input checked="" type="checkbox"/> Ch.10	<input checked="" type="checkbox"/> Ch.18	<input checked="" type="checkbox"/> Ch.26	<input checked="" type="checkbox"/> Ch.34	<input checked="" type="checkbox"/> Ch.42	<input checked="" type="checkbox"/> Ch.50	<input checked="" type="checkbox"/> Ch.58	<input checked="" type="checkbox"/> External
<input checked="" type="checkbox"/> Ch.3	<input checked="" type="checkbox"/> Ch.11	<input checked="" type="checkbox"/> Ch.19	<input checked="" type="checkbox"/> Ch.27	<input checked="" type="checkbox"/> Ch.35	<input checked="" type="checkbox"/> Ch.43	<input checked="" type="checkbox"/> Ch.51	<input checked="" type="checkbox"/> Ch.59	
<input checked="" type="checkbox"/> Ch.4	<input checked="" type="checkbox"/> Ch.12	<input checked="" type="checkbox"/> Ch.20	<input checked="" type="checkbox"/> Ch.28	<input checked="" type="checkbox"/> Ch.36	<input checked="" type="checkbox"/> Ch.44	<input checked="" type="checkbox"/> Ch.52	<input checked="" type="checkbox"/> Ch.60	
<input checked="" type="checkbox"/> Ch.5	<input checked="" type="checkbox"/> Ch.13	<input checked="" type="checkbox"/> Ch.21	<input checked="" type="checkbox"/> Ch.29	<input checked="" type="checkbox"/> Ch.37	<input checked="" type="checkbox"/> Ch.45	<input checked="" type="checkbox"/> Ch.53	<input checked="" type="checkbox"/> Ch.61	
<input checked="" type="checkbox"/> Ch.6	<input checked="" type="checkbox"/> Ch.14	<input checked="" type="checkbox"/> Ch.22	<input checked="" type="checkbox"/> Ch.30	<input checked="" type="checkbox"/> Ch.38	<input checked="" type="checkbox"/> Ch.46	<input checked="" type="checkbox"/> Ch.54	<input checked="" type="checkbox"/> Ch.62	
<input checked="" type="checkbox"/> Ch.7	<input checked="" type="checkbox"/> Ch.15	<input checked="" type="checkbox"/> Ch.23	<input checked="" type="checkbox"/> Ch.31	<input checked="" type="checkbox"/> Ch.39	<input checked="" type="checkbox"/> Ch.47	<input checked="" type="checkbox"/> Ch.55	<input checked="" type="checkbox"/> Ch.63	
<input checked="" type="checkbox"/> Ch.8	<input checked="" type="checkbox"/> Ch.16	<input checked="" type="checkbox"/> Ch.24	<input checked="" type="checkbox"/> Ch.32	<input checked="" type="checkbox"/> Ch.40	<input checked="" type="checkbox"/> Ch.48	<input checked="" type="checkbox"/> Ch.56	<input checked="" type="checkbox"/> Ch.64	

For more detailed information on how to create and configure all your Network sources, please refer to the [Quasar User manual](#).

Assign Sources to Input Channels

Once all the required Sources are created, you need to assign them to the input channels of your Quasar Engine, and save this configuration in what we call “Show Profile”.

You can do so in two ways:

1. Assigning Sources directly **from the console**, and capturing your configuration into a Show
2. Creating a Show Profile **from the Web UI** and assigning sources to your channels from within this page

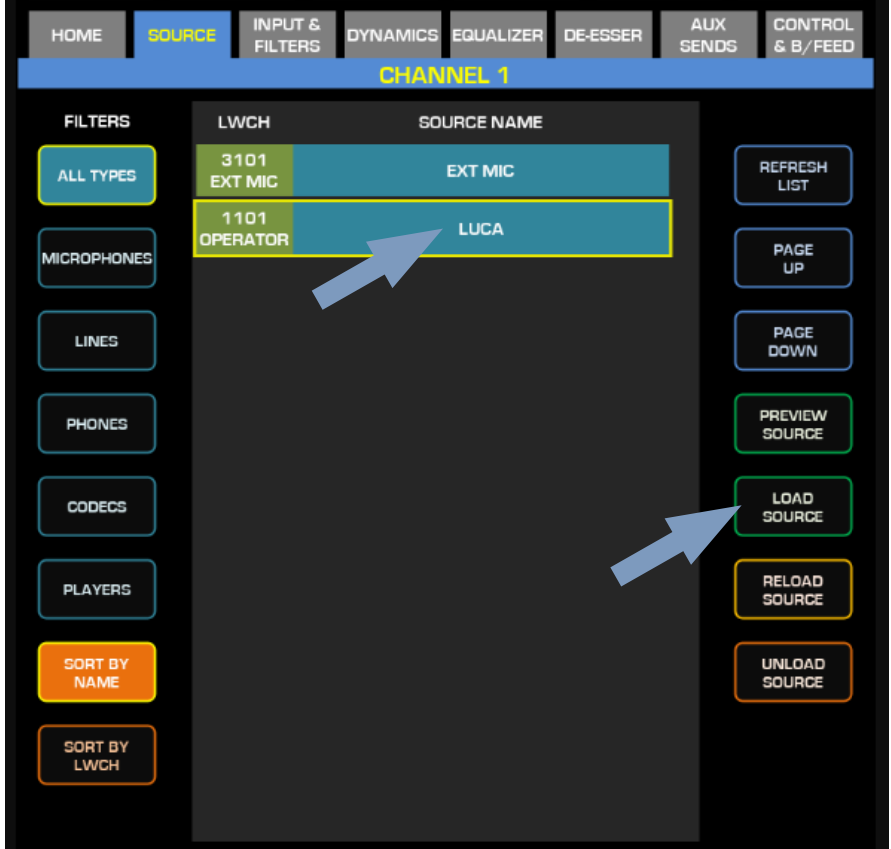
From The Console:

Push the top encoder of the channel strip you want to load with a source, and select the *Source* tab in the Master Touchscreen module.

Here you will be presented with a list of all the sources that have been configured on your console, and are active onto the network, and you will be able to select one by scrolling the touchscreen and pushing the *Load Source* button on the right.

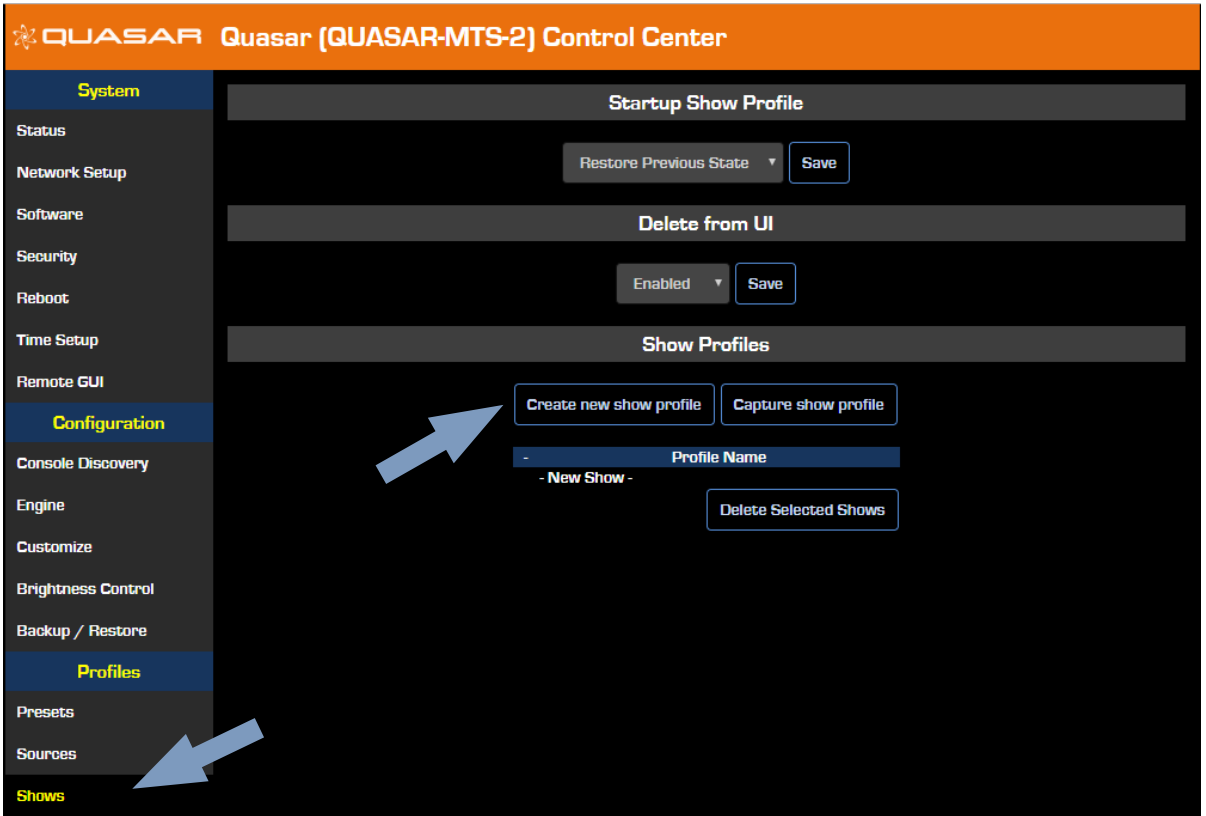
Note:

Inactive sources – those generated by devices which are disconnected from the network, or switched off – will not be detected by the Quasar and therefore will not show up on the above list.



From the Web UI:

From your PC, navigate the "Shows" main page, and create a New Show Profile



The screenshot displays the Quasar (QUASAR-MTS-2) Control Center web interface. The top navigation bar is orange and contains the text "QUASAR Quasar (QUASAR-MTS-2) Control Center". On the left, a dark sidebar menu lists various system categories: System, Configuration, Profiles, and Shows. The "Shows" category is highlighted in yellow. The main content area is dark and divided into sections: "Startup Show Profile" with a "Restore Previous State" dropdown and a "Save" button; "Delete from UI" with an "Enabled" dropdown and a "Save" button; and "Show Profiles" which includes a "Create new show profile" button, a "Capture show profile" button, a table with a "Profile Name" header and a row containing "- New Show -", and a "Delete Selected Shows" button. Two blue arrows are overlaid on the image: one points from the "Create new show profile" button to the "Shows" menu item, and the other points from the "Shows" menu item to the "Shows" menu item.

QUICK-START INSTALLATION GUIDE



After clicking on "Create new show profile" button, a dialog will appear, to let you type in the new profile name, and confirm. Then the following page will appear, and here you will be able to assign sources to each channel.

QUASAR Quasar (MTS-1) Control Center

Show Profile

Show Name:

Monitor Section Aux Masters Record Mode Phone Control

Channel 01:	LUCA	Automix OFF	No Group	Channel 17:	- not found -	Automix OFF	No Group
Channel 02:	- not found -	Automix OFF	No Group	Channel 18:	- not found -	Automix OFF	No Group
Channel 03:	- not found -	Automix OFF	No Group	Channel 19:	- not found -	Automix OFF	No Group
Channel 04:	- not found -	Automix OFF	No Group	Channel 20:	- not found -	Automix OFF	No Group
Channel 05:	- not found -	Automix OFF	No Group	Channel 21:	- not found -	Automix OFF	No Group
Channel 06:	- not found -	Automix OFF	No Group	Channel 22:	- not found -	Automix OFF	No Group
Channel 07:	- not found -	Automix OFF	No Group	Channel 23:	- not found -	Automix OFF	No Group
Channel 08:	- not found -	Automix OFF	No Group	Channel 24:	- not found -	Automix OFF	No Group
Channel 09:	- not found -	Automix OFF	No Group	Channel 25:	- not found -	Automix OFF	No Group
Channel 10:	- not found -	Automix OFF	No Group	Channel 26:	- not found -	Automix OFF	No Group
Channel 11:	- not found -	Automix OFF	No Group	Channel 27:	- not found -	Automix OFF	No Group
Channel 12:	- not found -	Automix OFF	No Group	Channel 28:	- not found -	Automix OFF	No Group
Channel 13:	- not found -	Automix OFF	No Group	Channel 29:	- not found -	Automix OFF	No Group
Channel 14:	- not found -	Automix OFF	No Group	Channel 30:	- not found -	Automix OFF	No Group
Channel 15:	- not found -	Automix OFF	No Group	Channel 31:	- not found -	Automix OFF	No Group
Channel 16:	- not found -	Automix OFF	No Group	Channel 32:	- not found -	Automix OFF	No Group

Note: A blue arrow points to the 'LUCA' dropdown menu for Channel 01.

Program assignment & monitoring

Press the Program 1 key on the fader strip; it will illuminate to show you've assigned that fader to PGM-1. Press the ON key at the bottom of the fader strip and move the fader up.

Congratulations: you've got audio! The meters on your display should be active, as shown below.



To hear the audio, make sure you have selected Program 1 as source to your CR Headphones or Speakers, using the controls on your Monitor module, and that the volume is at an appropriate level (the level meters onscreen will show the relative volume you've set). Also, make sure the xNode feeding your speaker has been configured to the CR Monitor source channel number.

Your setup is complete!

That's it! You're ready to Rock with Quasar!!! Now, sit back and enjoy some music. Try exploring the intuitive UI of the Quasar channel strip.... And have fun!

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