



IntelliMix Room

Installation and Deployment Guide

IntelliMix Room install details for system designers and technicians. Learn how to install with mass deployment tools and set up Windows for audio processing.

Version: 5.8 (2024-C)

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IntelliMix Room Installation and Deployment Guide

Overview of Installation and Deployment

You can install IntelliMix[®] Room on one device at a time, or you can use standard software deployment tools to push it to many devices at the same time.

For more about how to use IntelliMix Room and its features, [visit the user guide: pubs.shure.com/guide/IntelliMixRoom](https://pubs.shure.com/guide/IntelliMixRoom).

Important: IntelliMix Room not Supported in Designer 6.0

Shure recently announced the release of Designer 6.0 software. However, IntelliMix Room isn't currently supported in the Designer 6.0 release.

We recommend using Designer 4.7.25 to work with installations of IntelliMix Room. Shure plans to add IntelliMix Room support to a future release of Designer at the 6.x level.

Supported Hardware Systems

These hardware systems are thoroughly tested and supported by Shure to run IntelliMix Room software. For best results, we recommend using a supported system from this table:

IntelliMix Room Supported Systems

Product	Computer	Certifications
Crestron UC-C100-T	ASUS Mini PC PB60-B Dell OptiPlex 7080 XE	Microsoft Teams Rooms
Lenovo ThinkSmart Core	Lenovo ThinkSmart Core	Microsoft Teams Rooms Zoom Rooms
Logitech Teams Rooms for Windows	Lenovo ThinkSmart Core	Microsoft Teams Rooms
Logitech Zoom Rooms for Windows	Lenovo ThinkSmart Core	Zoom Rooms
Poly Studio Large Room Kit	Lenovo ThinkSmart Core	Microsoft Teams Rooms Zoom Rooms

Shure cannot guarantee the performance of IntelliMix Room if you choose to run it on an unsupported system. If you choose to install it on an unsupported system, you should:

- Check that the PC meets all system requirements.
- Validate IntelliMix Room's performance before deploying to many PCs.

System Requirements

Important:

- Do not run IntelliMix Room and Designer on the same PC.
- Performance may vary on unsupported systems even if they meet all of these system requirements. Refer to [Supported Hardware Systems](#) for help choosing a device to run IntelliMix Room.
- Virtual machines are not supported.
- **Processor:**
 - Intel (64 bit)
 - 8th generation Core i5 or better
 - 2.0 GHz or better
 - 4 physical cores or better
 - 6 threads (logical processors) or better
 - AVX2 instruction set
 - FMA instruction set
- **Memory:**
 - 8 GB RAM
- **Storage:**
 - Solid State Drive (SSD) required
- **Supported Windows Editions:**
 - Windows 10 Pro
 - Windows 10 Education
 - Windows 10 Pro Education
 - Windows 10 Enterprise
 - Windows 10 IoT Enterprise
 - Windows 11 Pro
 - Windows 11 Education
 - Windows 11 Pro Education
 - Windows 11 Enterprise
 - Windows 11 IoT Enterprise

Supported Windows Versions

Version	Support until:
Windows 11 22H2	12/31/2025
Windows 10 22H2	12/31/2025
Windows 11 21H2	10/08/2024
Windows 10 21H2	06/11/2024
Windows 10 21H1	12/13/2022
Windows 10 20H2	05/09/2023

- **Internet Connection:**
 - Required for initial license activation

Optimize Windows for Conference Room Audio Processing

These are the recommended Windows settings for conference room audio processing:

- Disable Cortana.

- Disable notifications from Windows and installed programs.
- Use the high performance power plan in Power Options.
 - Make sure this plan uses active cooling in the advanced power options.
- Disable all Sleep and Hibernate settings.

Additionally, follow these system best practices:

- Reboot the computer regularly.
- Disconnect unused USB devices.
- Remove software with high CPU loads, such as games or streaming apps.
- Make sure the computer's BIOS is updated.
- Check that Ethernet, Wi-Fi, and display drivers are updated.

Switch and Cable Recommendations for Dante Networking

Switches and cables determine how well your audio network performs. Use high-quality switches and cables to make your audio network more reliable.

Network switches should have:

- Gigabit ports. 10/100 switches may work on small networks, but gigabit switches perform better.
- Power over Ethernet (PoE) or PoE+ ports for any devices that require power
- Management features to provide information about port speed, error counters, and bandwidth used
- Ability to switch off Energy Efficient Ethernet (EEE). EEE (also known as "Green Ethernet") may cause audio dropouts and problems with clock synchronization.
- Diffserv (DSCP) Quality of Service (QoS) with strict priority and 4 queues

Ethernet cables should be:

- Cat5e or better
- Shielded

Security Testing

Shure IntelliMix Room underwent penetration testing by a reputable third-party security assessment company. The test results placed IntelliMix Room above the average of all applications tested. Going forward, Shure will continue to internally and externally test the security of IntelliMix Room. For more information on the test results, please contact productsecurity@shure.com.

Install with Mass Deployment Tools

You can deploy IntelliMix Room using standard software deployment tools. See below for available command line and silent install arguments.

Optional CLI Arguments

- `/S` : Silent mode. Installer runs without GUI and implements default options. If there is an existing version installed, the installer uses the existing settings unless parameters listed below are provided.
- `/express`: Installer runs with only a progress bar UI and keeps all previous settings.
- `/nicindex=[integer]`: NIC index to use for both Shure control and Dante audio network capabilities.
 - `/nicindex_control=[integer]`: NIC index to use for Shure control network capabilities.
 - `/nicindex_audio=[integer]`: NIC index to use for Dante audio network capabilities.
- `/nicipaddress=[integer]`: NIC IP address to use for all IntelliMix Room network capabilities.
 - `/nicipaddress_control=[integer]`: NIC IP address to use for Shure control network capabilities.

- `/nicipaddress_audio=[integer]`: NIC IP address to use for Dante audio network capabilities.
- `/nicid=[UUID]`: NIC UUID to use for all IntelliMix Room network capabilities.
 - `/nicid_control=[integer]`: NIC UUID to use for Shure control network capabilities.
 - `/nicid_audio=[integer]`: NIC UUID to use for Dante audio network capabilities.
- `/licindex=[integer]`: NIC index to use for licensing identification. Also used to get MAC address.
- `/licipaddress=[IP ADDRESS]`: NIC IP address to use for licensing identification. Also used to get MAC address.
- `/licid=[UUID]`: NIC UUID to use for licensing identification. Also used to get MAC address.
- `/licmac=[mac address]`: NIC MAC address (without -) to use for licensing identification.

Installation and IntelliMix Room Settings

- `/norestart`: Do not reboot the system after installation. Default behavior of the software is to reboot, and rebooting is required to implement certain Windows optimizations.
- `/analyticsoptout=[true|false]`: Opt out of analytics data collection.
- `/crashreportoptout=[true|false]`: Opt out of crash log file upload.

Windows Optimizations

- `/skipoptimizations`: Skip all optimizations.
- `/disablecortana=[true|false]`
- `/disablepushnotifications=[true|false]`
- `/optimizepowerplan=[true|false]`
- `/neversleep=[true|false]`

Installer Default Settings

Option	Default Value	Notes
NIC index	0	The 0th found NIC using the lookup <code>GetEnabledNetworkAdaptersIds</code>
Analytics opt out	False	Users have data collection enabled by default.
Crash reporting opt out	False	Users have crash reporting enabled by default.
Disable Cortana	True	
Disable push notifications	True	
Optimize power plan	True	
Never sleep	True	

IntelliMix Room Firewall Changes

During installation, the software modifies your firewall to allow access for all Shure .exes. These changes are required to run the software.

- Shure_IntelliMix_Room.exe
- Shure PTP.exe
- Shure mDNSResponder.exe
- common_server.exe
- apec3.exe

IntelliMix Room Firewall Rules

If there's a conflict with the default port, IntelliMix Room automatically selects a port from the specified range.

IntelliMix Room Version 4.0 and Newer

In-bound or out-bound?	Display name	Program	Protocol	Local port	Local address
Both	Shure Connon Server MCAST	C:\Program Files\Shure\IntelliMixRoom\dal\exe\connon_server.exe	UDP	8700 - 8708	Any
Both	Shure IntelliMix Room	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	UDP	34336 - 34439	Any
Both	Shure IntelliMix Room Audio	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	UDP	38001 - 38800	Any
Both	Shure IntelliMix Room Audio MCAST	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	UDP	4321	239.255.0.0/16
Both	Shure IntelliMix Room SLP	Any	UDP	8427	Any
Both	Shure IntelliMix Room SDT	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	UDP	5568	Any
Both	Shure IntelliMix Room ACN Dynamic	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	UDP	49152-65535	Any
In-bound	Shure IntelliMix Room TCP	C:\Program Files\Shure\IntelliMixRoom\Shure_IntelliMix_Room.exe	TCP	1025-65535	Any
Both	Shure APEC3	C:\Program Files\Shure\IntelliMixRoom\dal\exe\appec3.exe	UDP	34440 - 38000	Any

In-bound or out-bound?	Display name	Program	Protocol	Local port	Local address
Both	Shure Conmon Server	C:\Program Files\Shure\IntelliMixRoom\dalexe\conmon_server.exe	UDP	38801 - 45000	Any
Both	Shure PTP	C:\Program Files\Shure\IntelliMixRoom\dalexe\ptp.exe	UDP	319-320	Any
Both	Shure mD-NSResponder	C:\Program Files (x86)\Audinate\Shared Files\mDNSResponder.exe	UDP	5353	Any

Allowing FlexNet Operations

If a device can't connect with the Flexera Cloud License Server after allowing the process through the firewall, allow this domain on your network: flexnetoperations.com.

Alternatively, you can [manually allow blocks of IP addresses](#).

Shure Control and Dante Audio NICs

This software sends 2 types of data over the network: Shure control data and Dante audio data. You can use the same NIC (network interface card) for both, or use 2 different NICs to separate the traffic.

During installation, you will be asked to choose a network for each one.

Shure control NIC:

- Choose the network that Designer uses.
- Used for device discovery and control

Dante audio NIC:

- Choose the same network as other Dante devices to send audio between devices.
- Cannot use Wi-Fi
- Used to carry Dante digital audio

To change the NICs after installation, click the IntelliMix Room icon in the system tray of the computer running IntelliMix Room.

To change Designer's NIC, go to Settings.

How to Choose a Licensing NIC

During installation, the software prompts you to choose a NIC (network interface card) to use for licensing identification. Licensing NIC requirements:

- The NIC must be permanent and not removable. Do not use NICs that could be removed, such as a USB-to-Ethernet adapter or a docking station.
- The NIC doesn't need an internet connection. It is used as a unique identifier for licensing identification.

During license activation, IntelliMix Room uses any available path to the internet. That path can be separate from the licensing, control, and Dante NICs.

To see the current licensing NIC, click the IntelliMix Room icon in the system tray of the PC running IntelliMix Room. Go to Settings > Licensing.

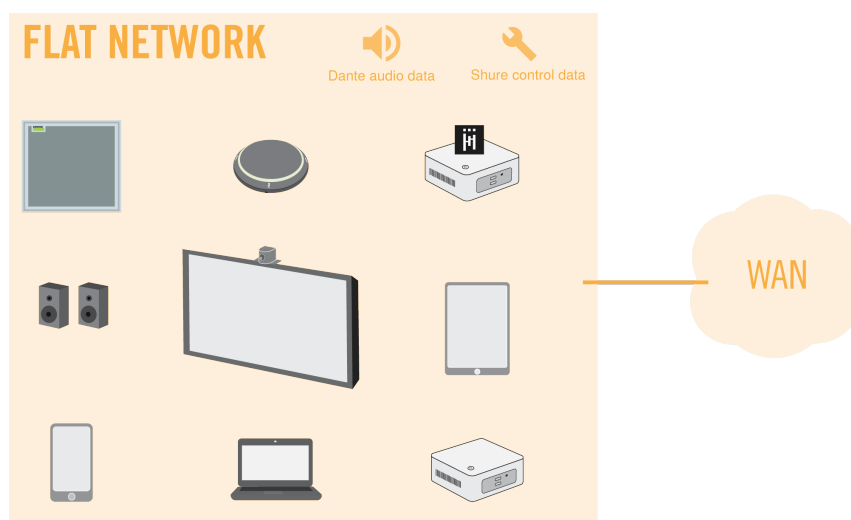
This setting cannot be changed after installation.

Network Setup Examples

IntelliMix Room works with many different types of networks. Here are some of the most common network setups:

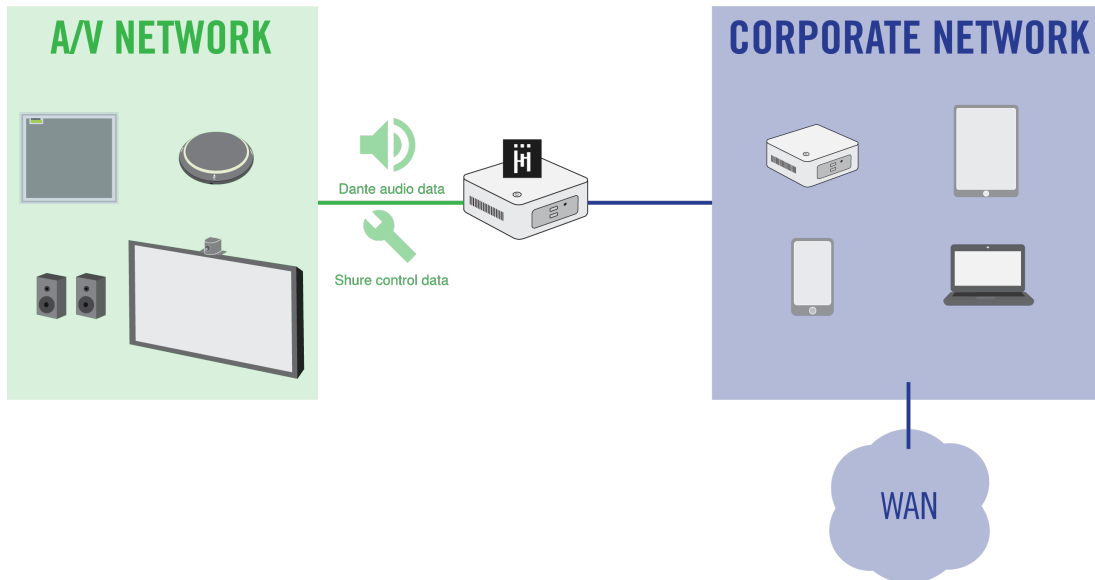
- **Flat Network**

- All A/V and corporate devices are on the same network.
- Use one network for Shure control and Dante audio data.



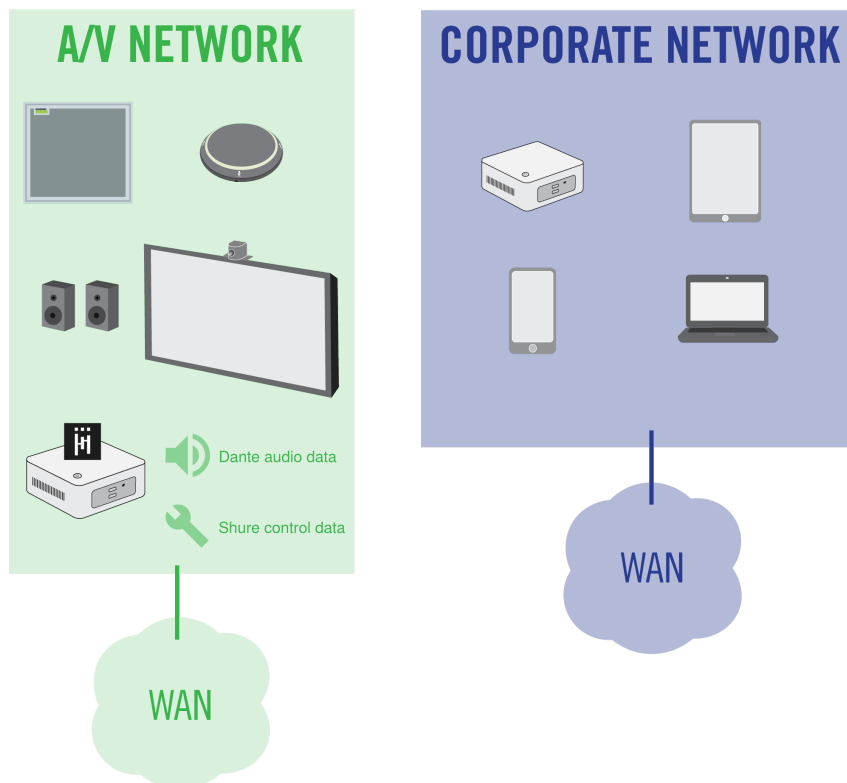
- **Corporate and AV Network**

- All A/V devices are on a separate network from the corporate network.
- The computer running IntelliMix Room uses the A/V network for Dante audio and Shure control data.
- The computer uses a wired connection to the corporate network for internet. USB 3.0 to gigabit Ethernet adapters are a common way to connect to 2 NICs.
- [Crestron's USB-to-Ethernet adapter for audio isolation](#) is designed for UC-C100 kits and IntelliMix Room.



- **Corporate and AV Network with Separate Internet Connections**

- IntelliMix Room and all other A/V devices are on a separate network that has its own internet connection, which is completely separate from the corporate network.
- Use the A/V network for both Dante audio and Shure control data.



Licensing

Activate IntelliMix Room

There are 2 ways to activate IntelliMix Room:

- Use Designer to activate many installations
- Use the [room setup feature](#) to activate 1 installation at a time

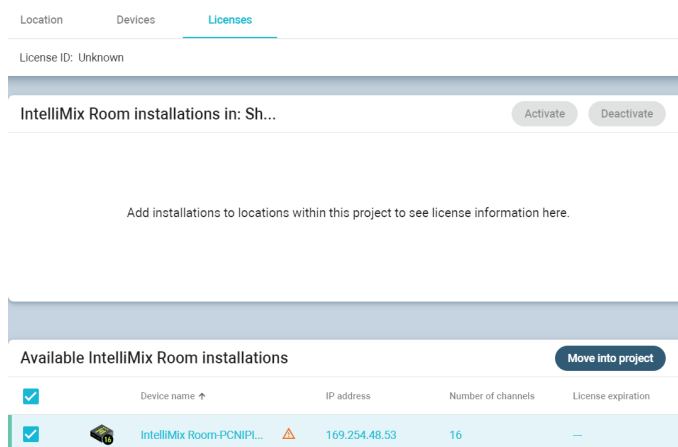
IntelliMix Room must be installed on a device before you can activate that license.

To activate the software, you need:

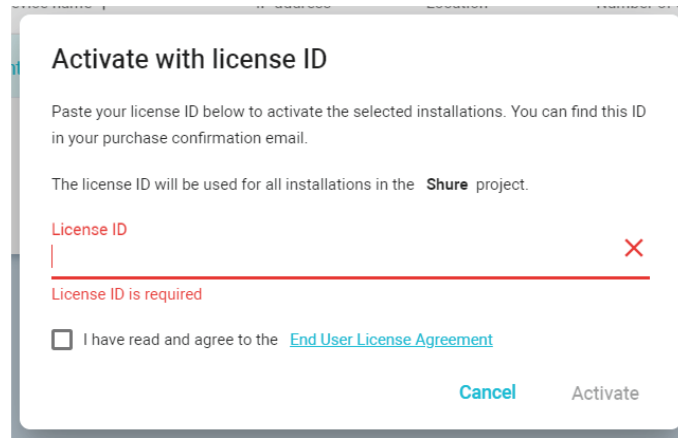
- A license for each installation
 - Licenses are based on the channel count (8 or 16 channels) for each installation of the software.
- Your license ID
 - A license ID activates all licenses in your account.
 - Find in your purchase confirmation email, or in your account at software.shure.com.
- Internet connection for all devices running IntelliMix Room

Activate Using Designer

1. In Designer, go to Online devices. Check that you can discover all installations.
 - Each installation appears as a separate device. The device name matches the PC's name.
 - If you don't see all installations, check the Shure control NIC settings on the computer running IntelliMix Room. Use the same network as Designer.
2. Create a new project in Designer.
 - If you have many license IDs to manage, create a separate project for each license ID.
3. Go to the project's Licenses page. From the list of available installations, select one to move into the project. Click Move into project.
 - If you add multiple installations to a project at the same time, choose installations that all use the same license type. For example, move all 8-channel licenses into the project first, and then repeat the process for your 16-channel licenses.



4. Click Activate. Choose the license type for the installation and click Next.
5. Add your license ID and click Activate. This license ID is used for all installations in the project. If the device running IntelliMix Room has an internet connection, the installation activates and is ready to use.



Activate with license ID

Paste your license ID below to activate the selected installations. You can find this ID in your purchase confirmation email.

The license ID will be used for all installations in the **Shure** project.

License ID X

License ID is required

☐ I have read and agree to the [End User License Agreement](#)

Cancel Activate

Next Steps:

- Create rooms in Designer and add IntelliMix Room installations to them.
- [Set up and connect other devices](#) to IntelliMix Room.
- [Set IntelliMix Room as the speaker and microphone source](#) in your videoconferencing software.

License Server Details

To see information about available licenses and your account, sign in at software.shure.com. Use the username and password you set up during purchase.

IntelliMix Room initially requires an internet connection to activate your license, but it doesn't require one after activation.

When you receive an IntelliMix Room license from Shure, some of your information is collected and stored.

The information stored includes the following:

- User ID
- First name
- Last name
- Email address
- Contact information (phone number, fax number)

This information is stored in data centers that are in Santa Clara, CA and Elk Grove Village, IL.

Renew a License

To renew your IntelliMix Room licenses, [contact your Shure sales representative](#).

When you renew, your license ID stays the same. You won't need to make any changes and all installations continue running normally.

What Happens When My License Expires?

After an initial grace period, you will hear periodic audio interruptions that remind you to renew your license.

You will receive email reminders to renew your license near the expiration date.

Move a License to a New PC

After purchasing, you might need to install IntelliMix Room on a new PC. Make sure all devices have an internet connection before attempting to move a license.

Important: Before decommissioning the old PC, follow the steps below to deactivate the IntelliMix Room license.

To move a license to a new PC:

1. In Designer, find the installation you plan to move in Online devices. Go to [Your project] > Licenses. This page shows all IntelliMix Room installations in the project.
2. Select the old PC with the license that you want to move.
3. Click Deactivate. The old PC must have an internet connection to release the license.
4. Install IntelliMix Room on the new PC.
5. In Designer, find the new installation of IntelliMix Room. Add it to the same project as the old installation.
6. When prompted, choose the channel count that matches the old installation. Your license is now reassigned to the new PC.

Deactivating Licenses

Deactivating the license for an IntelliMix Room installation causes that installation to stop passing audio. Make sure the device has an internet connection before deactivating.

After deactivation, the license is available to be used again on another installation of IntelliMix Room.

To deactivate licenses:

1. In your project, go to Licenses. This page shows all IntelliMix Room installations in the project.
2. Select the installations you want to deactivate.
3. Click Deactivate. Devices must have an internet connection to release their licenses.
4. Deactivated licenses are now available to be assigned to other installations.

In some situations, you will need to [contact Shure support](#) to deactivate a license. These include:

- PC isn't accessible anymore
- NIC has been replaced
- SSD is installed on a different PC

Using Command Strings with IntelliMix Room

To control IntelliMix Room with third-party control systems, turn on command strings in Designer. You must choose an open port on the computer running IntelliMix Room to send and receive command strings.

Default port: 2202

Port range: 1025-65534

1. In Designer, open the installation of IntelliMix Room you want to control and go to Settings > Command strings.
2. Turn on command strings.
3. Enter an available port to send and receive the command strings. Make sure that the port isn't being used by any other programs installed on the computer.

To test if the port is available:

- Send a command to IntelliMix Room. Make sure you are targeting IntelliMix Room's control IP address.
- If you don't receive a response, the port is being used by another program.
- Try a different port number and send the command until you receive a response.
- For best results, install all software on the computer before choosing a port for command strings. Adding new software after setting up command strings can change how the computer's ports are used, which can affect command strings.

A complete list of command strings is available at pubs.shure.com/command-strings/IntelliMixRoom.

Submit Software Logs to Get Help

If you need help with IntelliMix Room, submit the software logs to Shure.

1. On the PC with IntelliMix Room, right-click the IntelliMix Room icon in the system tray.
2. Select Report a problem. Follow the steps to submit the software logs to Shure.

There is also an event log in Designer, but it collects high-level information for all devices and software controlled by Designer. To access, select Event log from Designer's main menu.