ZOOMOSC USER MANUAL

VERSION 4.1.0

Overview

Thank you for downloading ZoomOSC, a program for bidirectional communication with the popular Zoom video conferencing platform. By using Open Sound Control, ZoomOSC is able to act as the bridge between your favorite hardware and software ecosystems and Zoom.

In this document

We have listed several categories of information that should prove useful

- **Installation and Accounts** guides you through the initial setup process and login workflow
- **User Interface Guide** examines the GUI to provide familiarity for the application
- **Platform Comparison** provides an overview of the different behaviors you may encounter depending on the version of ZoomOSC you are using
- **Memory Management Overview** breaks down the different workflows supported by the application
- **Notes on Methods for Remote Control** provides information that you can use to gain remote access to other ZoomOSC Pro instances.
- **Data Usage Information** explains what personal data is used by ZoomOSC and how it is used.

Please also review these additional documents

- **ZoomOSC Command Syntax (API)** where you can find information on all of the commands and outputs of the ZoomOSC application
- **ZoomOSC Quick Start Guide** which contains helpful information for those just getting started with ZoomOSC for the first time

BEFORE WE START, SOME ADVICE

Liminal has created several additional resources for beginners.

Before reading this document, we highly suggest reviewing two additional resources:

- **The ZoomOSC Beginner's Guide** (available from the **resources list**, and present in your ZoomOSC download)
- **Liminal's YouTube channel**
  - Specifically, the video **"How to Read ZoomOSC 4 Documentation"**
  - There are also quick-start videos for QLab, Isadora, Companion, TouchOSC, and more!

You don't have to learn alone!

There is no need to learn ZoomOSC in isolation; **one of the best parts of the product is the community of users built around it.**

- Liminal Power Users has **hundreds of ZoomOSC users** with backgrounds in broadcast, entertainment, live theater, film, and more! You can also engage our support team on this Slack group.

- ZoomOSC Test Kitchen, is a **weekly Zoom meeting** where you can ask questions of our developers directly and learn from seasoned ZoomOSC users.

- Other A/V communities including Office Hours and AV Educate have featured ZoomOSC's team in the past, and many of their **members use ZoomOSC professionally.**

- **Finally, support directly from our team is always one email away;** drop a note to info@liminalet.com and we'll get back to you as soon as possible!

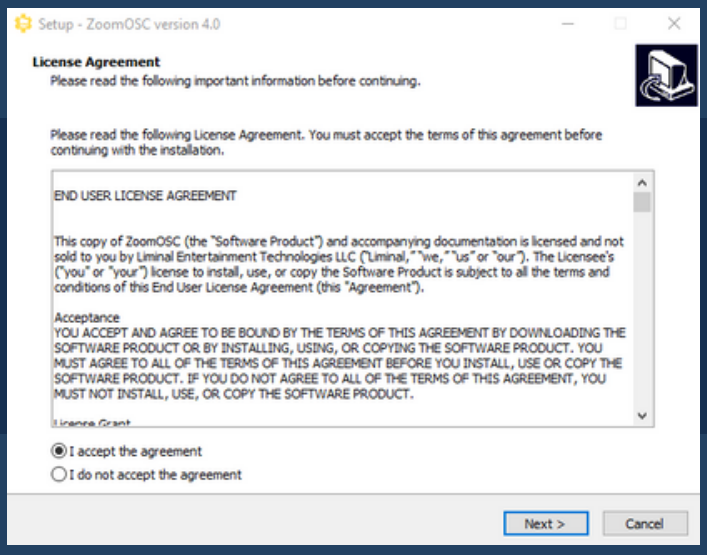
INSTALLATION AND ACCOUNTS

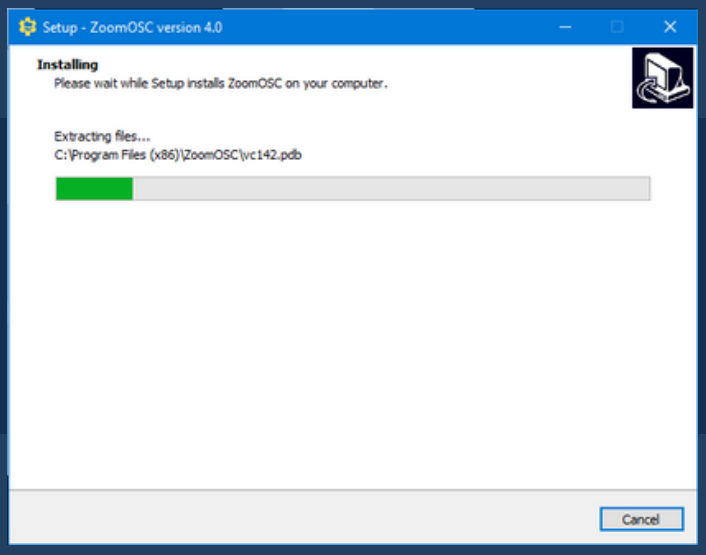
Windows 10

Installation

To install ZoomOSC on Windows 10, download the official installer from www.liminalet.com/zoomosc-downloads.

Run the installer, review the EULA, and follow the remaining prompts.



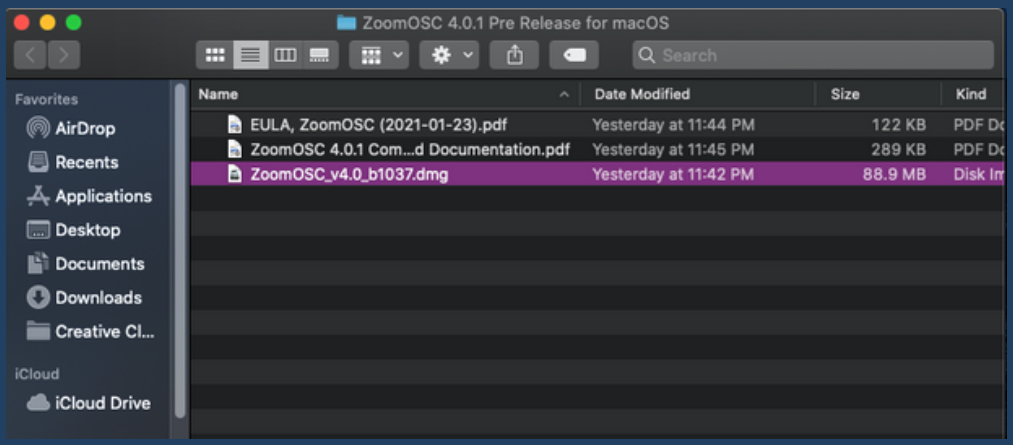


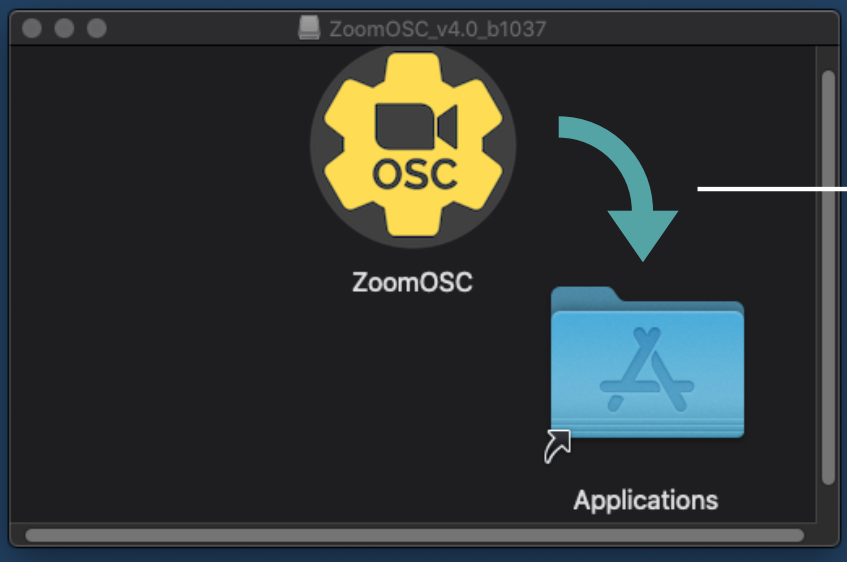
INSTALLATION AND ACCOUNTS

macOS Mojave or later

Installation

ZoomOSC is installed via a .dmg file on macOS. Download the official installer from www.liminalet.com/zoomosc-downloads.





Drag and drop the ZoomOSC app icon into the applications folder.

INSTALLATION AND ACCOUNTS

Managing your Pro License

Licenses

ZoomOSC Essentials can by upgraded to ZoomOSC Pro by entering a license key purchased from Liminal Entertainment Technologies.

Upon request, a web portal can be created to manage activations of ZoomOSC Pro online. Contact info@liminalet.com for support on setting up your management portal.

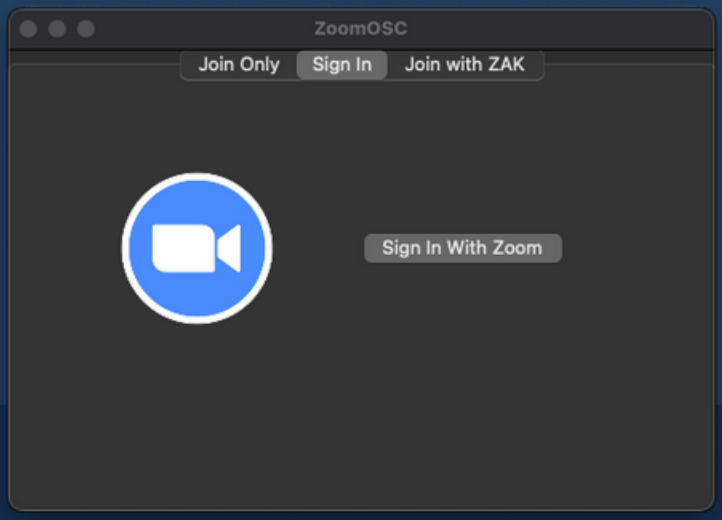
INSTALLATION AND ACCOUNTS

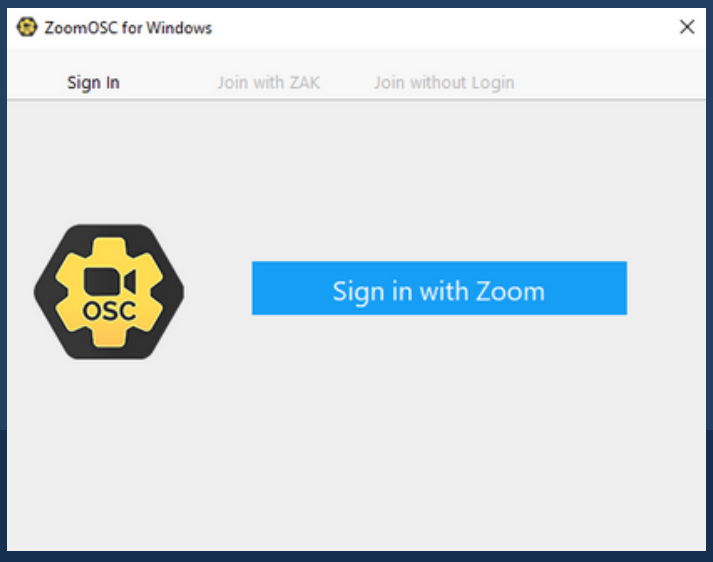
Sign in with Zoom - Adding the App to your Zoom Account

ZoomOSC 4.1.0 introduces a new, online sign-in option called “Sign in with Zoom,” which allows you to use your Zoom account to log into ZoomOSC. Signing in allows ZoomOSC to start and join meetings on behalf of the signed in account.

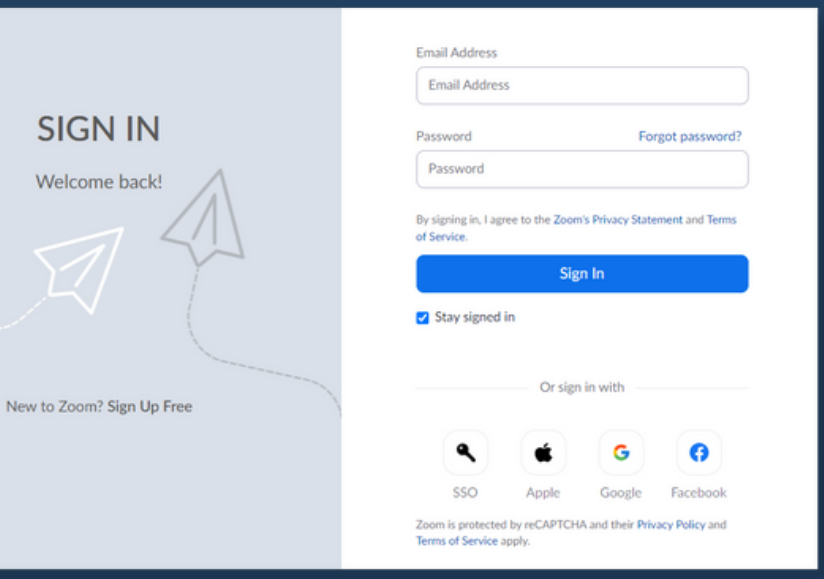
To add ZoomOSC to your account and complete sign in, use the following steps:

1. Launch ZoomOSC
2. Click the “Sign In” tab on this window:





INSTALLATION AND ACCOUNTS



3. Click on the “Sign in with Zoom” button

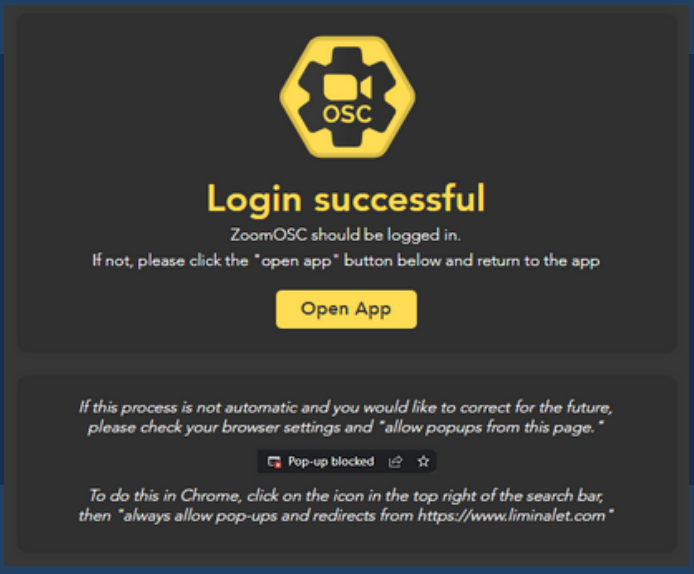
4. You will now be presented with a Zoom website to log into your Zoom account
   - On macOS, this will be inside a pop-up window
   - On Windows, you will be sent to your default browser to complete login
   - During this step, you can optionally select the option to “Stay signed in” for faster access in the future

5. If this is the first time you have logged into ZoomOSC, you will be prompted to add ZoomOSC to your Zoom account. Click Allow.

6. If the above steps are successful, you will be logged into ZoomOSC
   - On macOS, the pop up window will automatically close, and a few seconds later, you will advance to the logged in UI screen of ZoomOSC

   - On Windows, you will be redirected to a success page at liminalet.com, where you should receive a browser prompt to open ZoomOSC

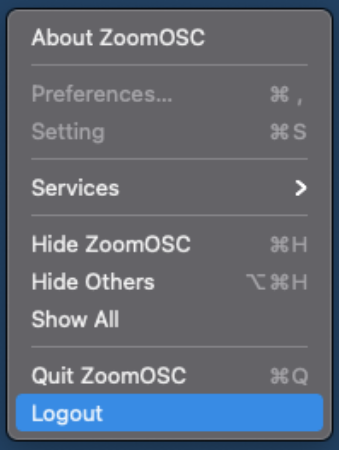
If you do not receive the prompt, you can click the provided button to return to ZoomOSC, at which point, you will advance to the logged in UI



INSTALLATION AND ACCOUNTS

Troubleshooting Login

- The account you are logging in with should be your Zoom account. No special/new account is required for ZoomOSC
- Business/enterprise end-users may need to contact their IT department to allow ZoomOSC to be added to your Zoom account, depending on how the organization is configured
- It is required that ZoomOSC be installed via the official installer in order for Sign in with Zoom to work properly. ZoomOSC is not a portable application.
- If you accidentally click “Stay Signed In” there are a few options to “forget” the account
  - On Windows, you can sign out of zoom.us using the default browser
  - On macOS, you can either click Sign Out at the top right of the pop up window during the authorization process, or you can click “Logout” under the ZoomOSC macOS top menu bar



Removing ZoomOSC from your Zoom Account

Should you decide you no longer need your Zoom Account attached to ZoomOSC:

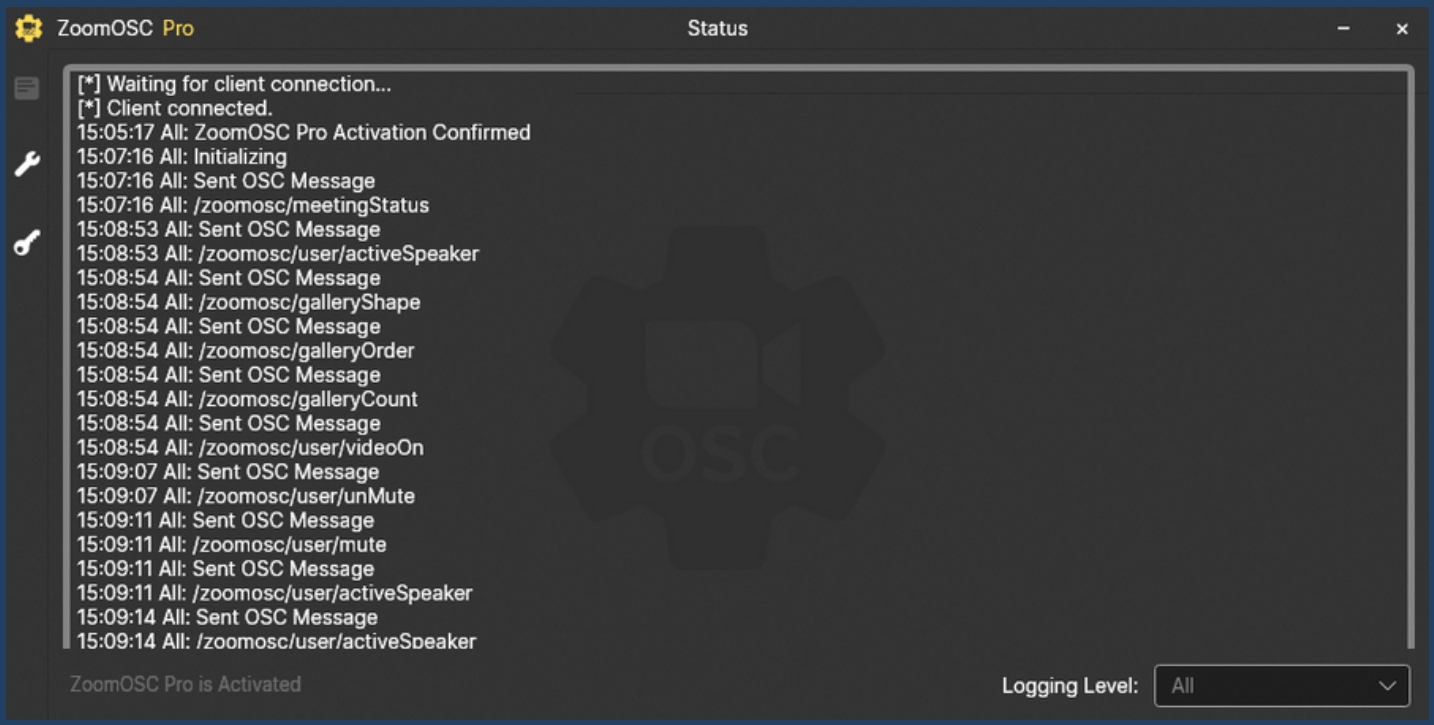
- Login to your Zoom Account and navigate to the Zoom App Marketplace.
- Click Manage >> Added Apps or search for the "ZoomOSC" app.
- Click the "ZoomOSC" app.
- Click “Remove”.

USER INTERFACE GUIDE

Windows 10

Status Tab

This view contains the output messages of the ZoomOSC program. There are three types of messages: General, Warnings, and Errors. You can filter which type of message you may view in the console via the logging level selection tool on the bottom right.

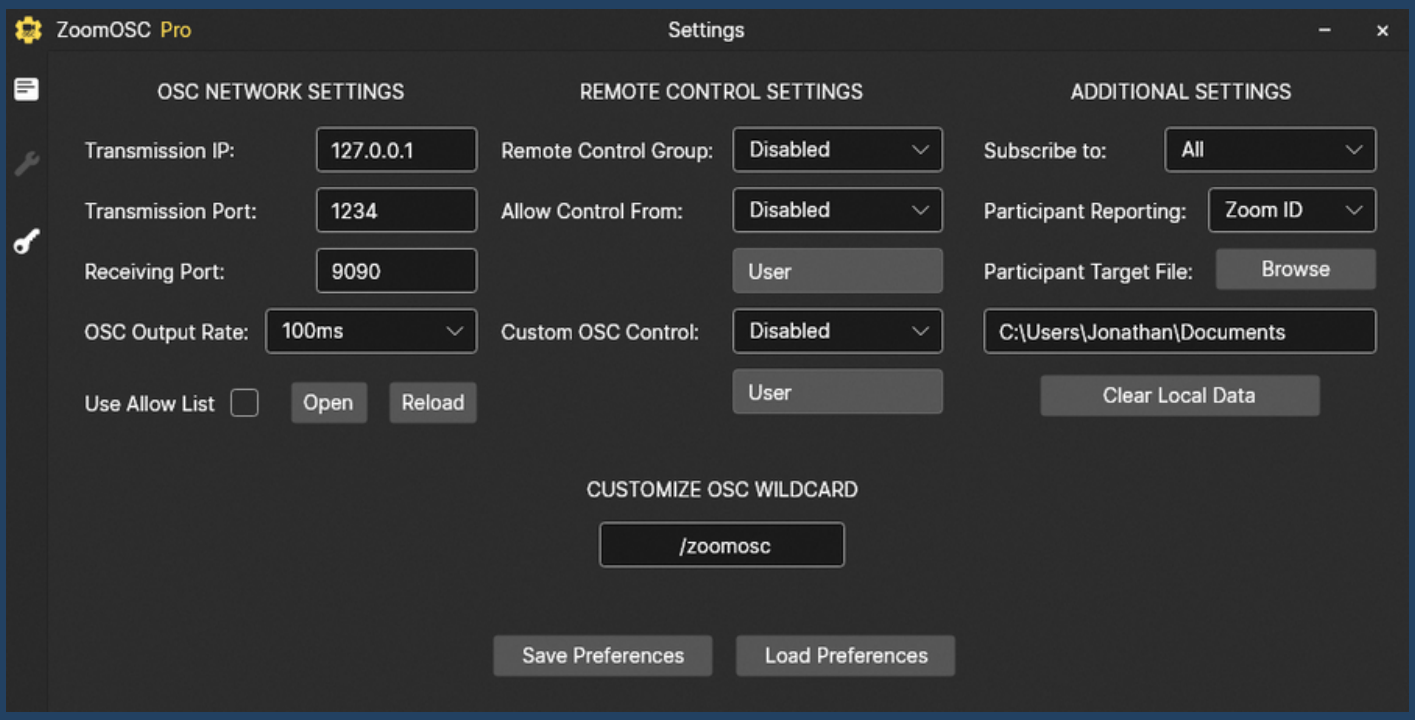


USER INTERFACE GUIDE

Windows 10

Settings Tab

This view contains three classes of Settings: OSC Network Settings, Remote Control Settings, and Additional Settings.



Save and Load Preferences

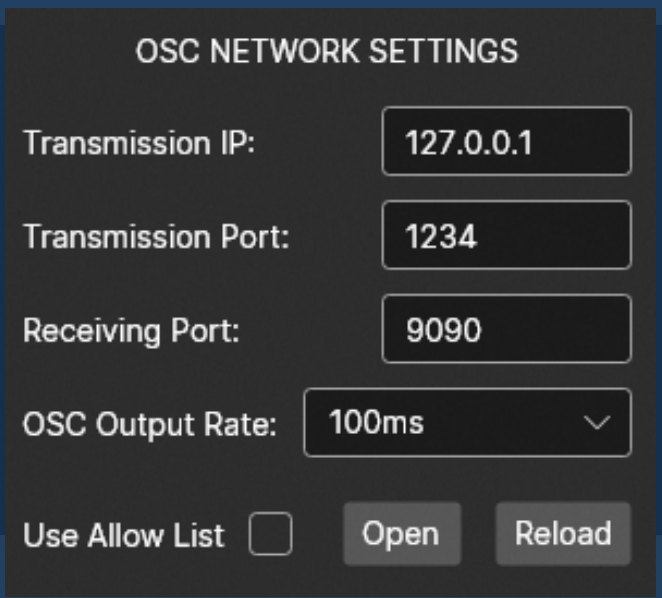
Allows user to select and load a .zosc file, which can be used to preset the interface, or save a .zosc file, which contains the current interface layout for recalling via load in the future.

USER INTERFACE GUIDE

Windows 10

Settings Tab (Cont.)

- **OSC Network Settings**
  - Transmission IP (IP where ZoomOSC will send messages to)
  - Transmission Port (port where ZoomOSC will send messages to)
  - Receiving Port (port where ZoomOSC will listen for messages)
  - OSC Output Rate (delay to introduce to OSC outputs for compatibility with slower programs)
  - Use Allow List
    - If the allow list is enabled, ZoomOSC will check each incoming OSC packet against the entries in the allowlist.txt file associated with the app to determine if the command should be accepted or rejected. The allow list should contain IP addresses, one per line, corresponding to the computers you want to be able to send commands to ZoomOSC

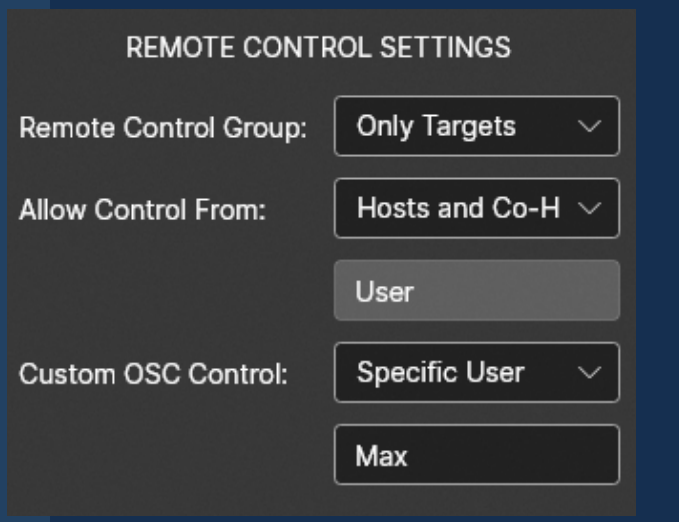


USER INTERFACE GUIDE

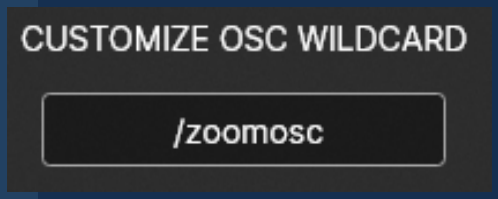
Windows 10

Settings Tab (Cont.)

- **Remote Control Settings**
  - Remote Control Group (remote users ZoomOSC can control)
  - Allow Control From (who can control ZoomOSC remotely)
    - Optional field for the username will appear if Specific User is selected
  - Custom OSC Control (who can pass through genuine OSC)
    - Optional field for the username will appear if Specific User is selected



- **Customize OSC Header**
  - This setting is useful for distinguishing between ZoomOSC clients when they are all reporting back to a central location, and it becomes difficult to determine which client was responsible for sending the message (most programs commonly used with ZoomOSC do not expose the IP address of the sender to the user)

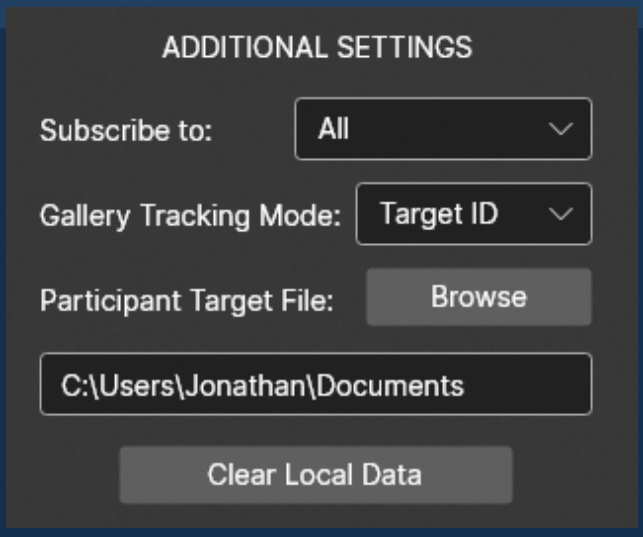


USER INTERFACE GUIDE

Windows 10

Settings Tab (Cont.)

- **Additional Settings**
  - Subscribe to group
    - Determine who ZoomOSC sends OSC status updates about
  - Gallery Tracking Mode
    - Preference on how Gallery Order is reported
  - Participant Target File Browser
    - Browser to set load and save location for target_list.txt
  - Clear Local Data
    - Delete the autosave of the user interface preset, resetting to defaults



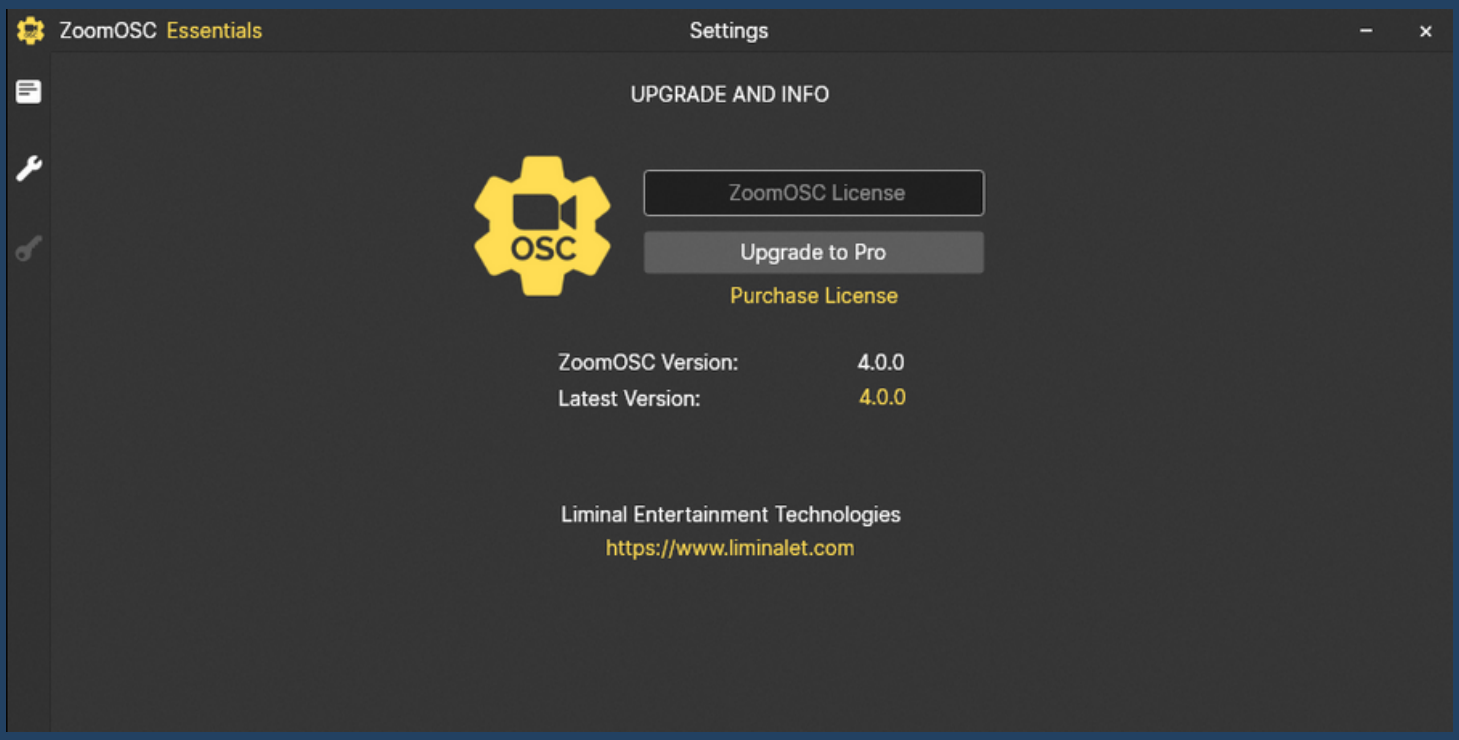
USER INTERFACE GUIDE

Windows 10

Upgrade and Info Tab

In this view, you can manage your license. If ZoomOSC is activated to Pro, you will see your license key displayed and have the ability to deactivate the software to free-up another installation. If you are running ZoomOSC essentials, you can enter and activate a license.

You can also view the latest ZoomOSC version number and click it to go to our download page if it is time to update!

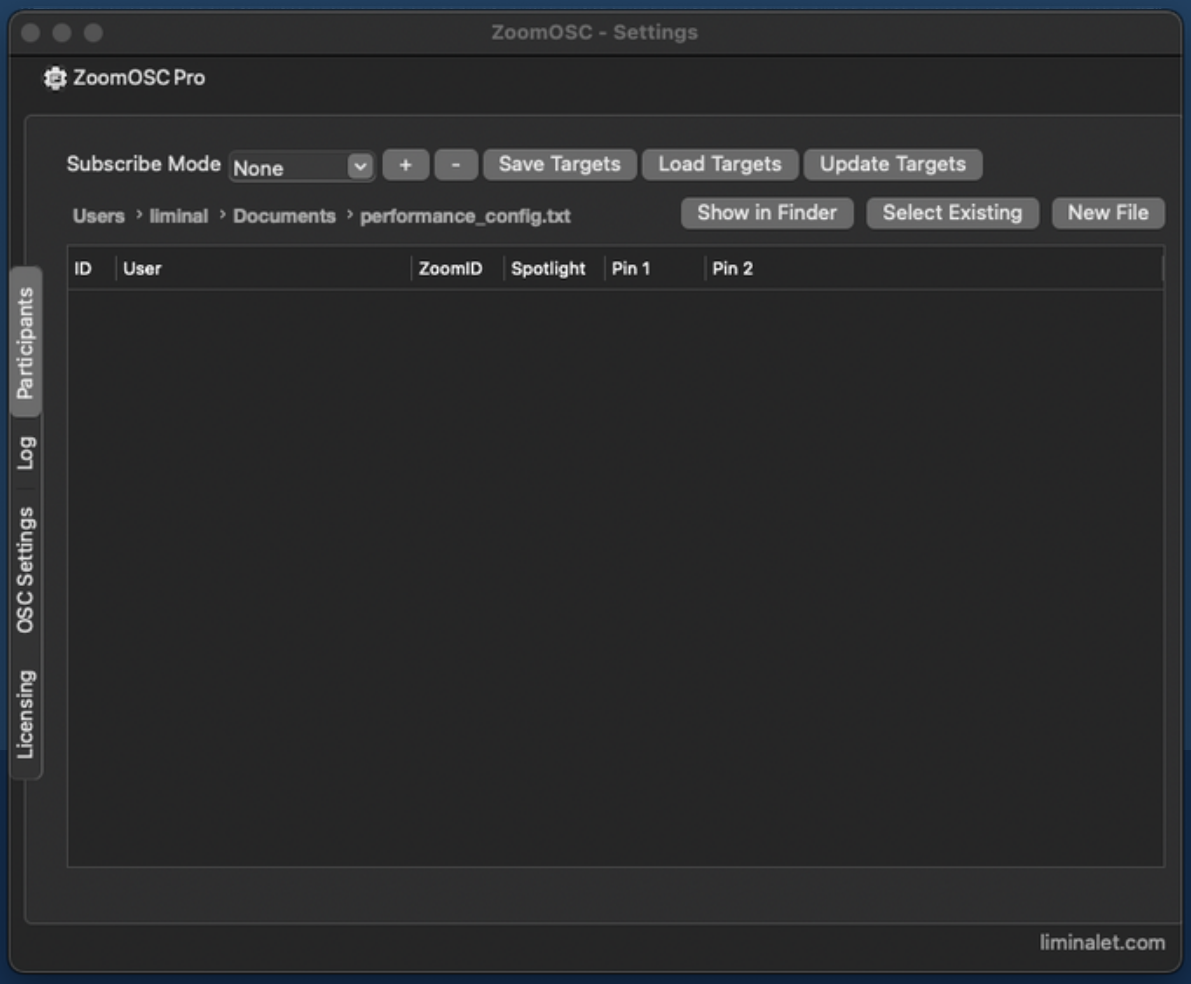


USER INTERFACE GUIDE

macOS

Participant Tab

This view displays a list of subscribed participants and allows you to easily manage pins, spotlights, and your target list.

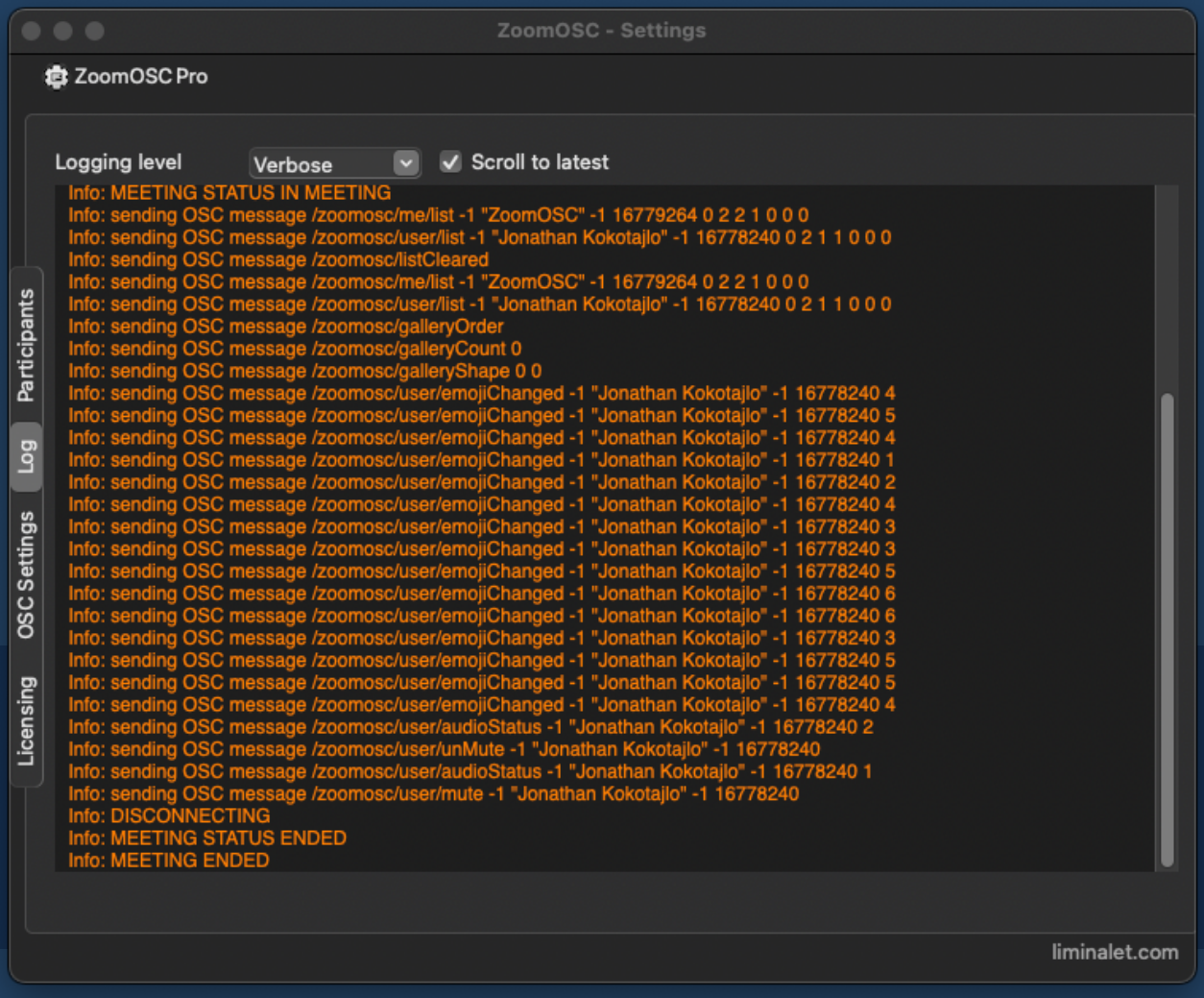


USER INTERFACE GUIDE

macOS

Log Tab

This view contains all outputs of the ZoomOSC Program. There are 5 levels of filtration access through the Logging Level selection menu: None, Errors, Warnings, Info, and Verbose. Reducing the logging level may improve performance at scale.

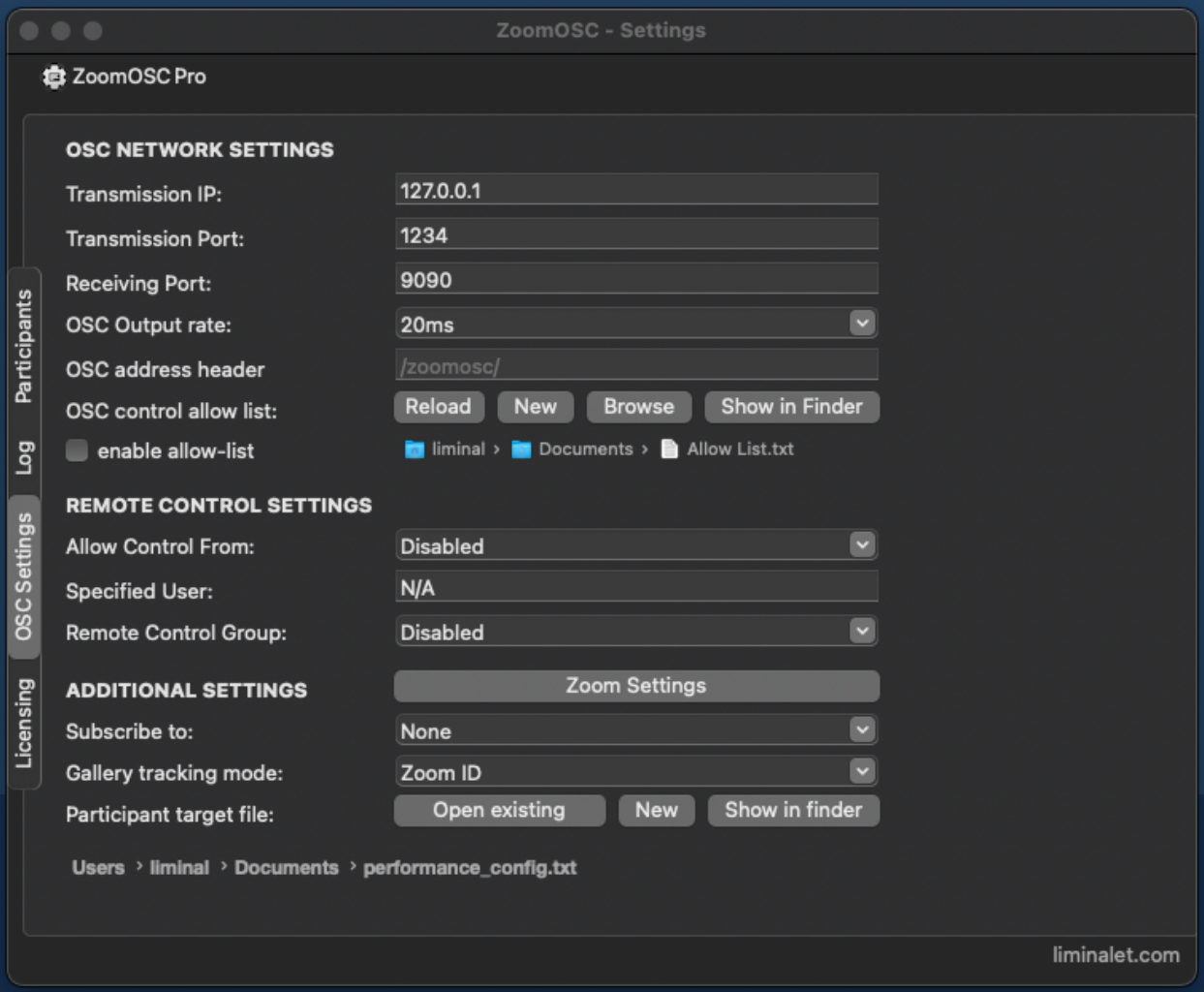


USER INTERFACE GUIDE

macOS

Settings Tab

Please see the Windows documentation, which contains identical information for the function of these buttons.

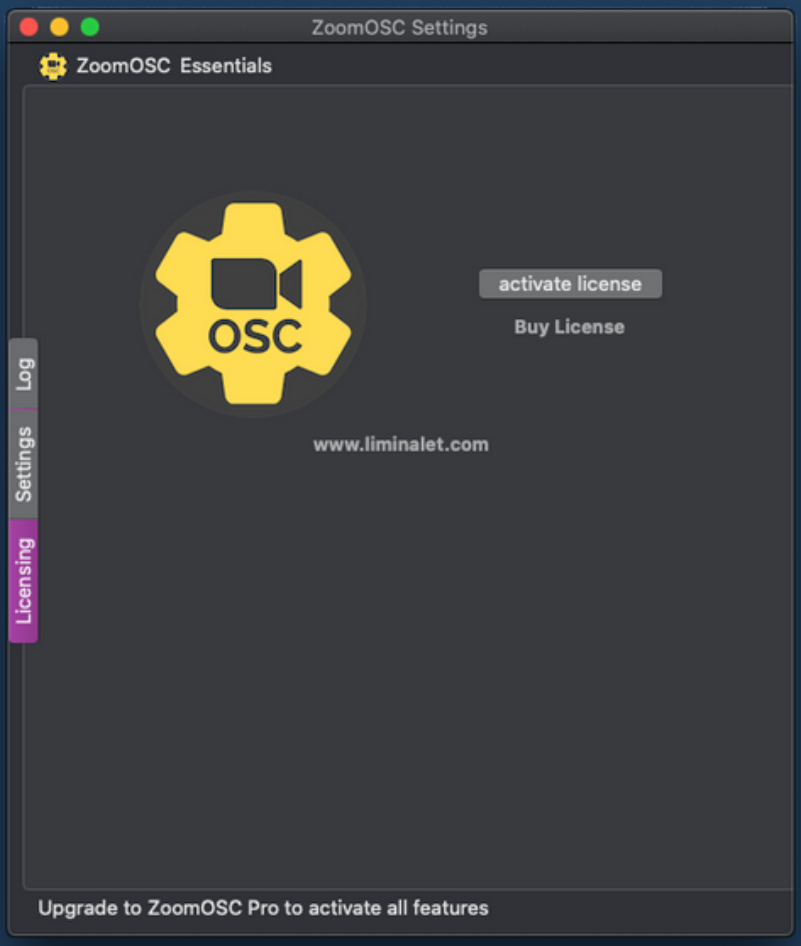


USER INTERFACE GUIDE

macOS

Licensing Tab

In this view, the user can activate ZoomOSC Pro or deactivate back to ZoomOSC Essentials as needed.



ZOOMOSC PLATFORM NOTES

Notes on Windows

- The User Interface for ZoomOSC on Windows is technically its own application. The main ZoomOSC.exe and ZoomOSCSidecar.exe should launch and exit together, but in the event of a forced quit, it may be necessary to manually exit the remaining application before launching again.

- Multiple instances of ZoomOSC on Windows cannot be launched.

MEMORY MANAGEMENT OVERVIEW

Many ways to build an address

ZoomOSC 4 introduces many new workflows for interacting with and getting data from Zoom participants via OSC. Please refer to the Command Syntax (API) Document for the full details.

Understanding Target IDs

Among the many ways to interface with Zoom call participants in ZoomOSC is the Target ID system. This is a method of defining a custom set of numeric controls for users. ZoomOSC's memory management functions facilitate the initialization, mantainance, loading, and saving of these Target IDs.

Target IDs function like a tag (and are, in fact, the only way of using ZoomOSC in previous versions!). When a user is tagged with a Target ID, they are placed in a zero-indexed list and can be interacted with through their Target ID, which locates them in the list.

Generally, Target IDs are now a legacy workflow in ZoomOSC thanks to all of the new interfacing options. This feature will remain in ZoomOSC for the foreseeable future to ensure compatibility with previous integrations and the logic they rely on.

The lasting power of Target IDs, even in the context of the new interfacing options, is the ability to build controllers and patches that are agnostic to the actual identities of the people the interface is designed to function upon. A few memory management calls are all that are required to bring your interface up to speed on what is happening in Zoom!

The List Reply

One of the most important features of ZoomOSC Pro is the list output that is requested by the /zoom/list command. This output provides full frames of data on every participant in the subscription list. This feature has many potential uses, but it is especially helpful for creating custom integrations with ZoomOSC from 3rd party software, including switcher and broadcaster products.

NOTES ON METHODS FOR REMOTE CONTROL

Using StreamWeaver Lite

Liminal's StreamWeaver Lite technology is the recommend method for gaining access to remote instances of ZoomOSC and other applications that rely on OSC, ArtNet, sACN, VISCA-IP, and many other UDP-based protocols. Because StreamWeaver Lite genuinely transports the OSC packets over the public internet, **you can act on remote instances of ZoomOSC as though they were local.** Please see more information on StreamWeaver Lite at www.liminalet.com/streamweaver-lite

Using ZoomOSC User Actions

ZoomOSC Pro includes an alternative to genuine OSC transport for remote control: sending OSC command via chat macros. These macros can be automatically generated by ZoomOSC when a type of user action is called on a target for which there is no corresponding Zoom API call.

For example, **/zoom/userName/startScreenShare "Tucker" 2** will send a chat macro that ZoomOSC on Tucker's computer will interpret as a command to begin a screen share on his second display.

The requirements for using User Actions remotely are:

- Both the sender and receiver are running ZoomOSC Pro
- The Zoom meeting has open chat enabled
- The sender has selected a Remote Control Group that includes the receiver
- The receiver has selected an Allow Remote Control By group that includes the sender
- The receiver is qualified to use the requested action

Manual Chat Macros

Both ZoomOSC and vanilla-Zoom users can use Chat Macros for remote control via manual entry into a chat message. The commands follow the same syntax as OSC with the prefix ## applied, and are to be formatted as though they are appearing on the local network of the receiver. The same requirements for the receiver apply as before.

For example, if Lucie wants to send Garth a remote control message to start a screen share on display 2, she would send the following chat message to Garth:

##/zoom/me/startScreenShare 2

NOTES ON METHODS FOR REMOTE CONTROL

Custom OSC Transport via Zoom Chat

It is possible to send a custom OSC message via a chat macro. This allows an OSC command to be constructed in the Zoom chat and be reconstructed by the receiver as a **genuine OSC message to be sent to a specific IP address and port**. These chat macros only require the decoder instance to be ZoomOSC Pro (the sender can be a vanilla-Zoom or any level of ZoomOSC user). This method is helpful for remotely triggering application functions for a Zoom participant (like the GO cue in QLab, for example), though StreamWeaver Lite remains our recommended solution for this type of problem.

Usage

To utilize this functionality, begin the chat message with $$ and follow it with the IP address on the network of the receiving party where the OSC message should be sent, then type ":" (no quotes), then the port number, and finally add the OSC message. For example, the chat message:

$$127.0.0.1:53000/qlab/go

would advance QLab to the next cue, if it were set up to expect this message. You can also pass along arguments in your OSC:

$$192.168.1.49:1234/isadora/modifyImageXYPercent "Mona Lisa" 32 55.34

DATA USAGE

How Your Data is Used by ZoomOSC

The purpose of ZoomOSC is to accept and transmit control data via the network using a UDP native network protocol known as Open Sound Control. ZoomOSC will send information / events as callbacks via this protocol to third party systems on the local network in facilitation of its role as a plugin enablement platform for controlling the provided client. You can manage which systems can send requests to ZoomOSC using the “allow list” feature. To learn more about what information can be sent and received from ZoomOSC, check out the API Syntax Guide.

In addition, if you opt to Sign in with Zoom, ZoomOSC will be able to start and join meetings using the account you logged in with. The act of logging in with your Zoom account enables ZoomOSC to request your ZAK token from the Zoom API and leverage it to offer these services and capabilities in conjunction with the brokering service in the liminalet.com web server, which is owned and operated by Zoom.

RESOURCES

SIGN UP FOR LIMINAL'S NEWSLETTER TO STAY UP TO DATE ON UPDATES AND NEW RELEASES

JOIN LIMINAL'S PUBLIC SLACK GROUP FOR COMMUNITY-GENERATED SUPPORT

SUBSCRIBE TO LIMINAL ON YOUTUBE FOR TRAININGS AND TUTORIALS