

# ZOOMOSC USER MANUAL

VERSION 4.0.2



## 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.

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

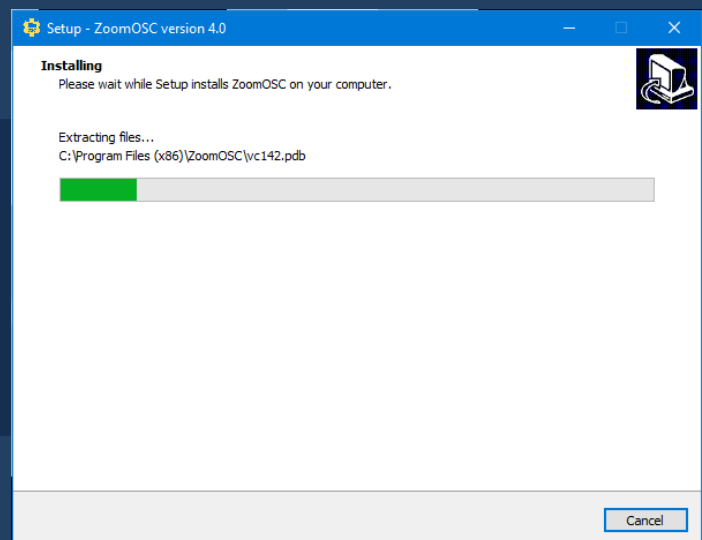
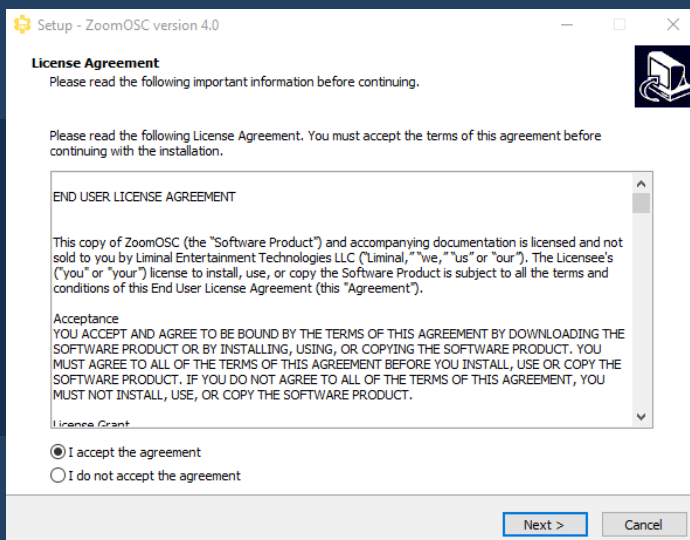
# INSTALLATION AND ACCOUNTS

## Windows 10

### Installation

To install ZoomOSC on Windows 10, download the official installer from [www.liminalet.com/zoomosc-downloads](http://www.liminalet.com/zoomosc-downloads).

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

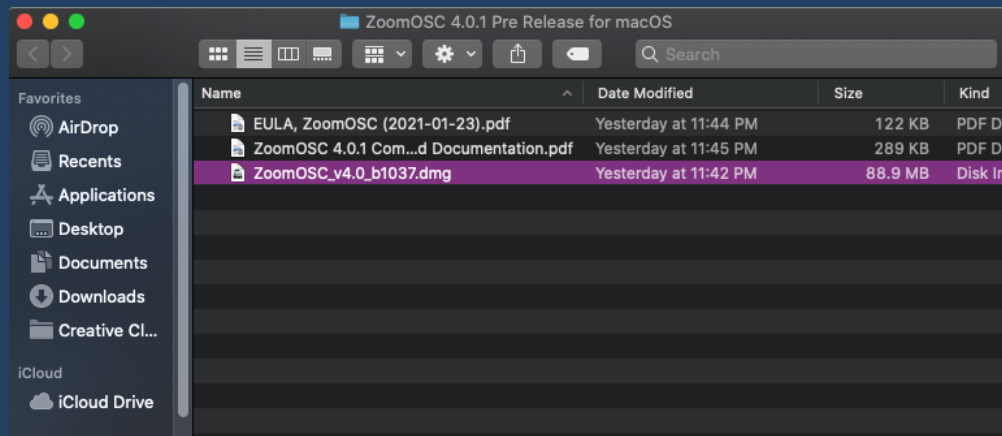


# INSTALLATION AND ACCOUNTS

## macOS Mojave, Catalina, and Big Sur

### Installation

ZoomOSC is installed via a .dmg file on macOS. Download the official installer from [www.liminalet.com/zoomosc-downloads](http://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 be 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](mailto:info@liminalet.com) for support on setting up your management portal.

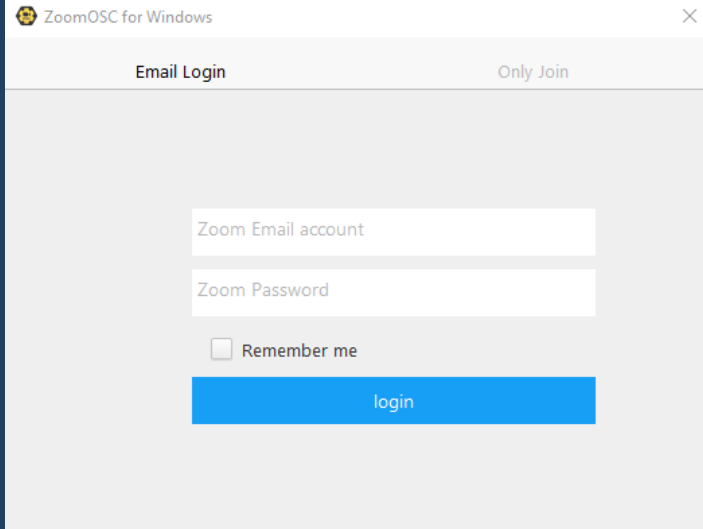


# INSTALLATION AND ACCOUNTS


## Using a Zoom Account with ZoomOSC

### Accounts

ZoomOSC can join meetings that require registration by having the user log into the application with their Zoom account. It is not possible to log into ZoomOSC via Single Sign On (SSO) at this time due to the limitations of the Zoom SDK. However, it is possible to join an SSO provisioned webinar via Only Join, entering the email from the webinar invitation when prompted during the joining process.



The screenshot shows the 'ZoomOSC for Windows' application window. It has a title bar with a close button. Inside, there are two tabs: 'Email Login' (selected) and 'Only Join'. The 'Email Login' tab contains a form with two text input fields labeled 'Zoom Email account' and 'Zoom Password'. Below these fields is a checkbox labeled 'Remember me'. At the bottom of the form is a blue button labeled 'login'.



The screenshot shows the 'ZoomOSC' application window on a macOS system. It has a title bar with standard window controls. Below the title bar are two tabs: 'Email Login' and 'Join Only' (selected). The 'Join Only' tab features a large yellow gear icon with a camera lens in the center and the letters 'OSC' below it. To the right of the icon are three text input fields labeled 'Meeting ID', 'User Name', and 'Meeting Password'. At the bottom right of the form is a button labeled 'Join'.

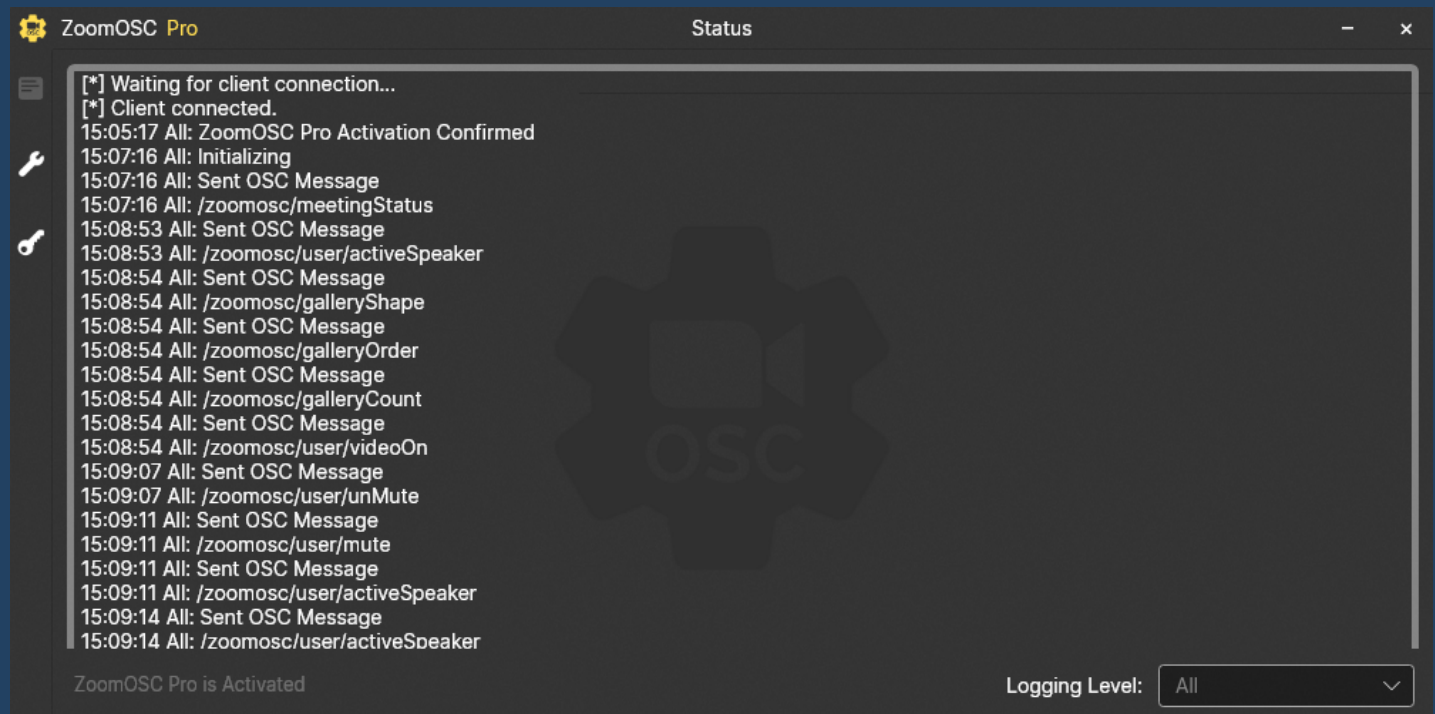


# USER INTERFACE GUIDE

## 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.

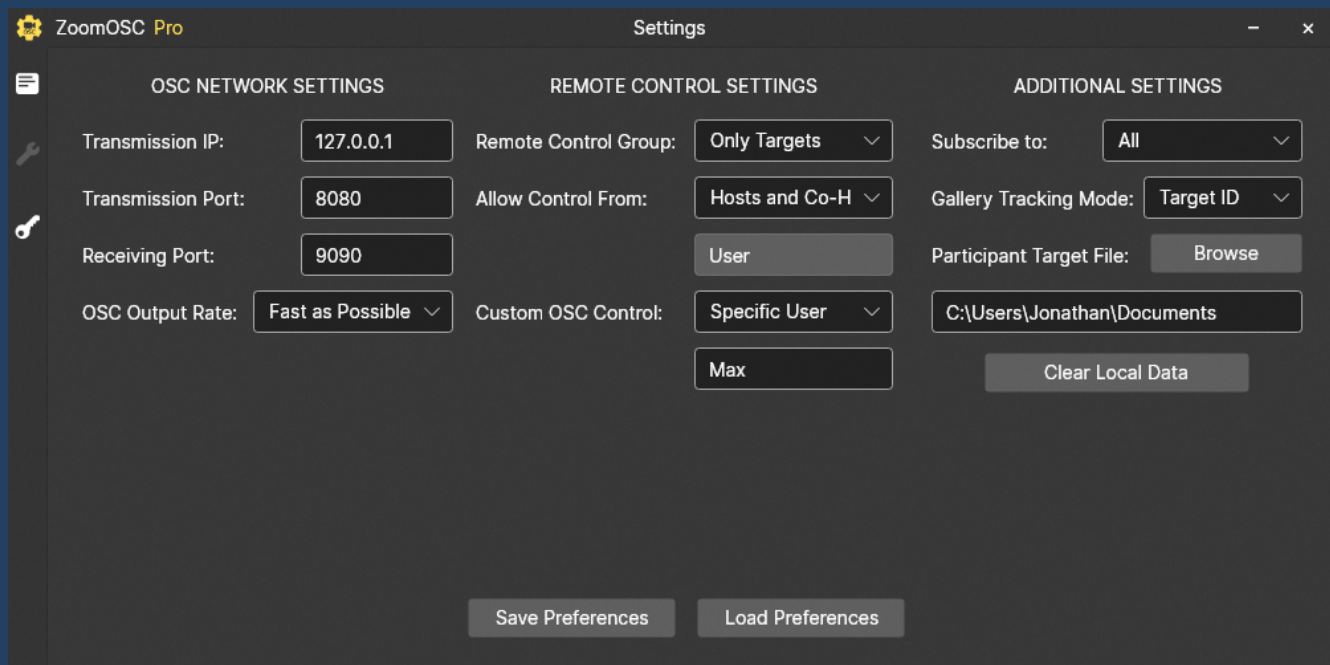


# USER INTERFACE GUIDE

## Windows 10

### Settings Tab

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



The screenshot shows the 'Settings' window of ZoomOSC Pro. The window is divided into three main sections: OSC NETWORK SETTINGS, REMOTE CONTROL SETTINGS, and ADDITIONAL SETTINGS. The OSC NETWORK SETTINGS section includes fields for Transmission IP (127.0.0.1), Transmission Port (8080), Receiving Port (9090), and OSC Output Rate (Fast as Possible). The REMOTE CONTROL SETTINGS section includes fields for Remote Control Group (Only Targets), Allow Control From (Hosts and Co-H), Custom OSC Control (Specific User), and a Max button. The ADDITIONAL SETTINGS section includes fields for Subscribe to (All), Gallery Tracking Mode (Target ID), Participant Target File (Browse), and a file path (C:\Users\Jonathan\Documents). There are also buttons for Save Preferences, Load Preferences, and Clear Local Data.

OSC NETWORK SETTINGS	REMOTE CONTROL SETTINGS	ADDITIONAL SETTINGS
Transmission IP: 127.0.0.1	Remote Control Group: Only Targets	Subscribe to: All
Transmission Port: 8080	Allow Control From: Hosts and Co-H	Gallery Tracking Mode: Target ID
Receiving Port: 9090	User	Participant Target File: Browse
OSC Output Rate: Fast as Possible	Custom OSC Control: Specific User	C:\Users\Jonathan\Documents
	Max	Clear Local Data
Save Preferences Load Preferences		

### 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.



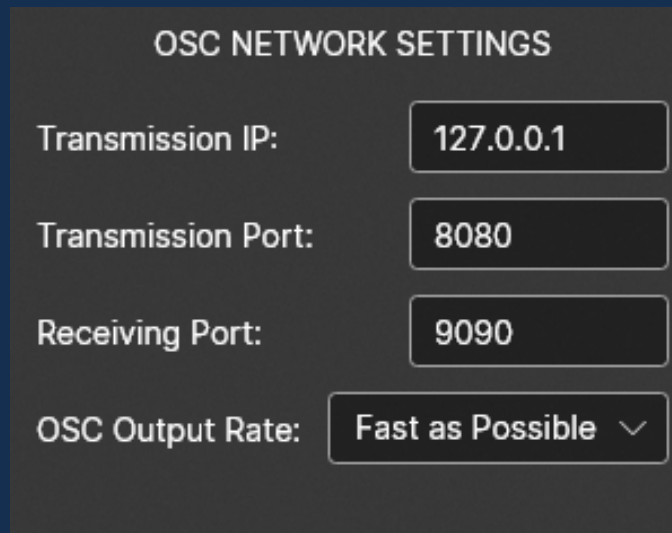
# USER INTERFACE GUIDE

## 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)



The screenshot shows a dark-themed dialog box titled "OSC NETWORK SETTINGS". It contains four configuration fields, each with a label and a corresponding input box:

- Transmission IP:** The input box contains the text "127.0.0.1".
- Transmission Port:** The input box contains the text "8080".
- Receiving Port:** The input box contains the text "9090".
- OSC Output Rate:** The input box contains the text "Fast as Possible" followed by a downward-pointing chevron icon, indicating a dropdown menu.



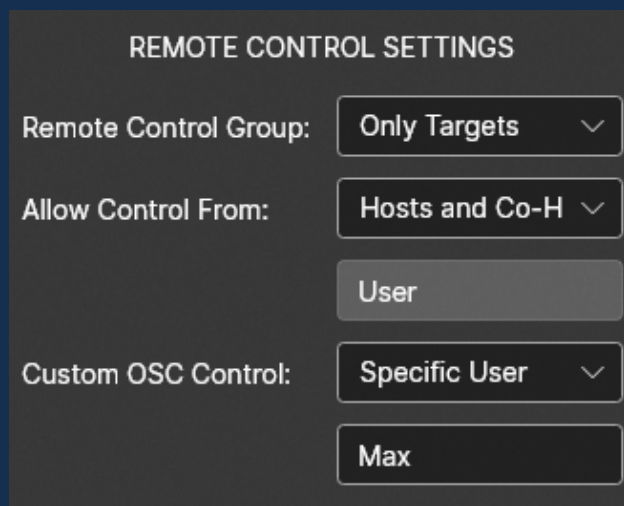


# USER INTERFACE GUIDE

## Windows 10

### Settings Tab (Cont.)

- **Remote Control Settings (For ZoomOSC Pro)**
  - 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



A screenshot of the 'REMOTE CONTROL SETTINGS' dialog box. The dialog has a dark gray background with white text. It contains three main sections, each with a label and a dropdown menu. The first section is 'Remote Control Group' with a dropdown showing 'Only Targets'. The second section is 'Allow Control From' with a dropdown showing 'Hosts and Co-H'. Below this dropdown is a text input field containing the word 'User'. The third section is 'Custom OSC Control' with a dropdown showing 'Specific User'. Below this dropdown is a text input field containing the word 'Max'.

REMOTE CONTROL SETTINGS	
Remote Control Group:	Only Targets ▼
Allow Control From:	Hosts and Co-H ▼
	User
Custom OSC Control:	Specific User ▼
	Max



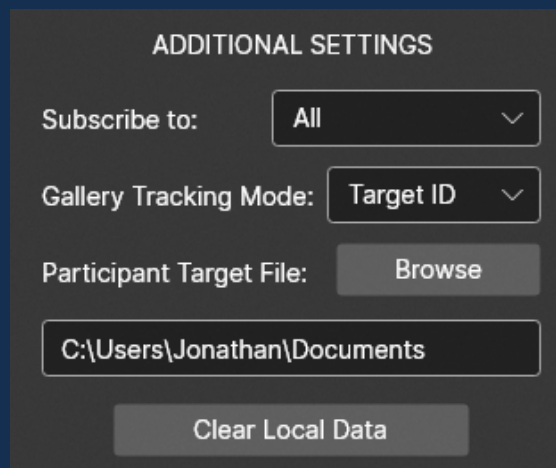
# USER INTERFACE GUIDE

## 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



The screenshot shows a dark-themed dialog box titled "ADDITIONAL SETTINGS". It contains four settings:

- Subscribe to:** A dropdown menu with "All" selected.
- Gallery Tracking Mode:** A dropdown menu with "Target ID" selected.
- Participant Target File:** A text field showing "C:\Users\Jonathan\Documents" with a "Browse" button next to it.
- Clear Local Data:** A button at the bottom of the dialog.



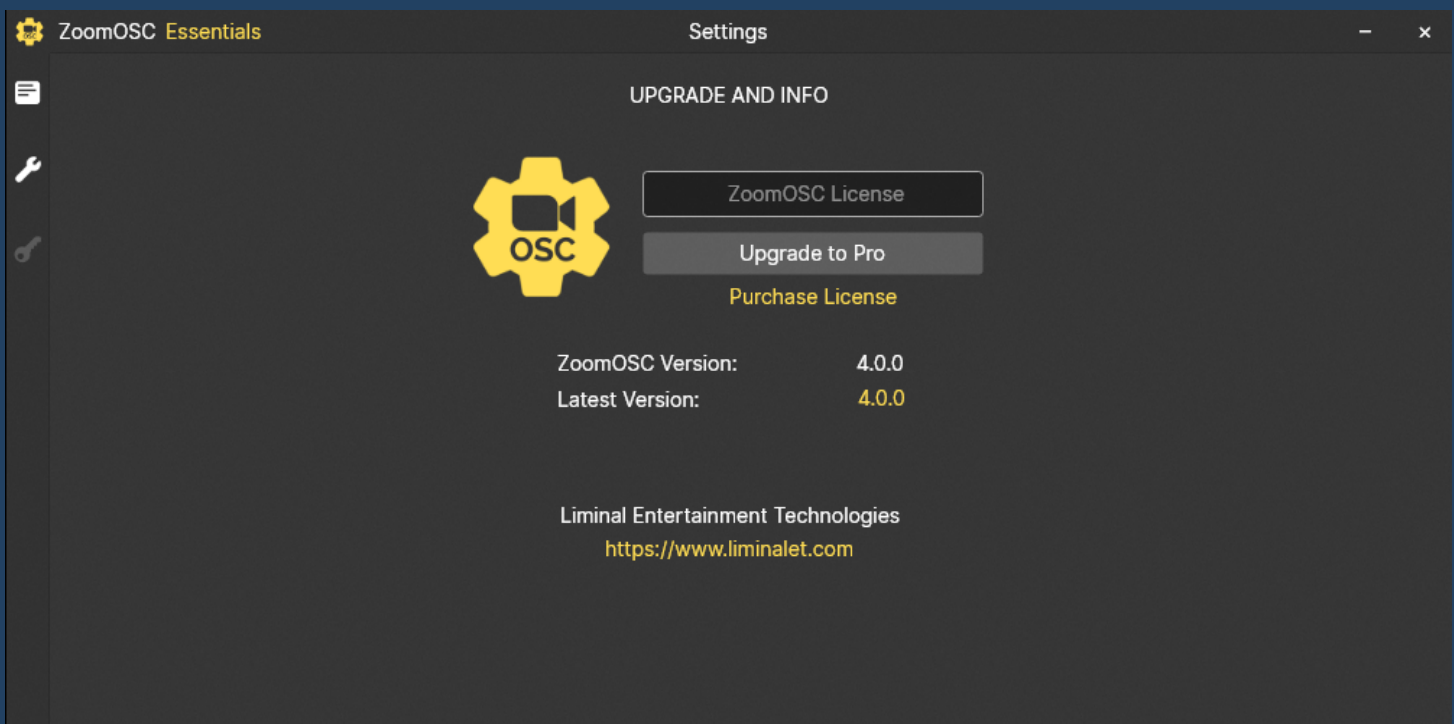
# USER INTERFACE GUIDE

## 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!

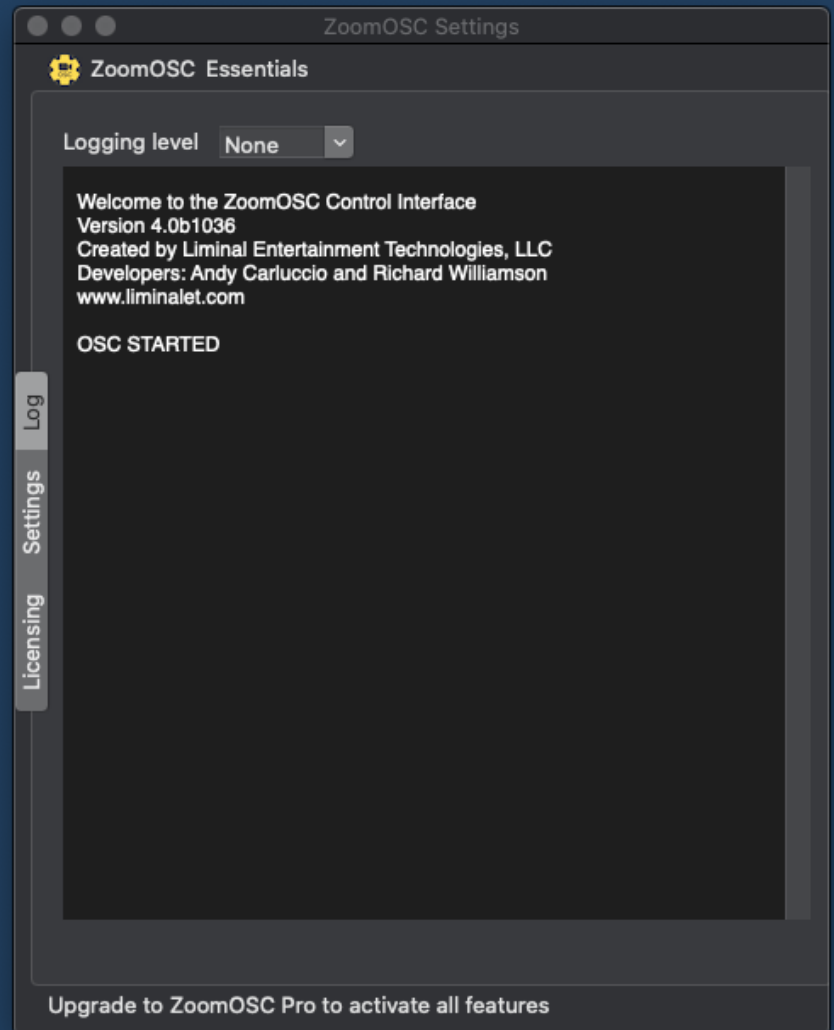


# USER INTERFACE GUIDE

## macOS

### 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.

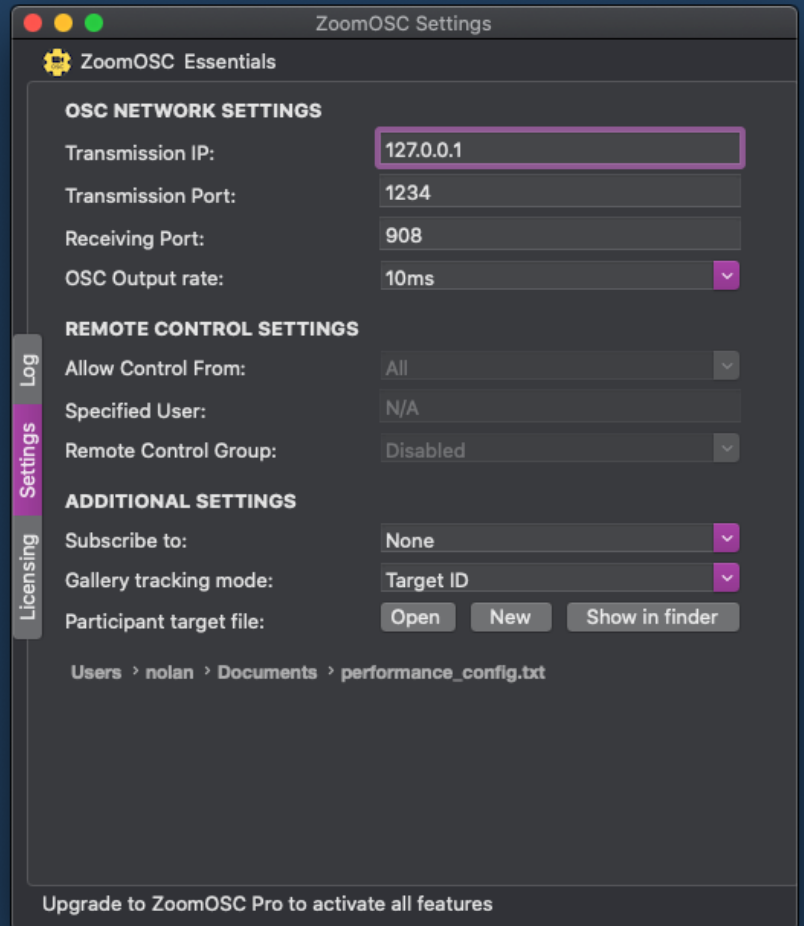


# USER INTERFACE GUIDE

## macOS

### Settings Tab

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

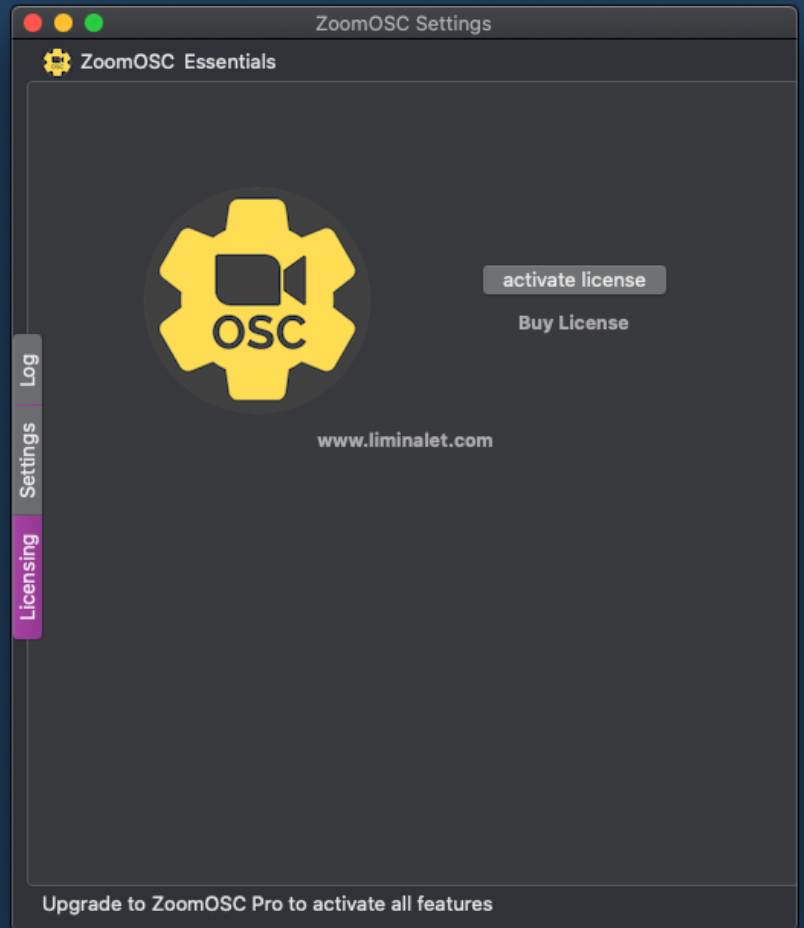


# USER INTERFACE GUIDE

## macOS

### Licensing Tab

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




# ZoomOSC PLATFORM COMPARISON



## 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.
- **Gallery Indexing and Tracking are much more fragile in Windows than on macOS.** The Mac version is highly suggested for workflows that depend on the gallery shape and order.
  - To use Gallery Indexing or Tracking (including Gallery Count, Shape, and Order), **ZoomOSC must either be the first video user to join the call, or all other users must turn their video off and back on after ZoomOSC for Windows joins**
  - Pinning, Spotlighting, and raising a hand will all cause the gallery tracking and indexing to become disordered

## Notes on macOS

- At the time of writing, the Zoom SDK for macOS has more errors than Windows. This is not in Liminal's control but we are working with Zoom to improve their backend. That said, we have tried to accurately note features that may not be functional on macOS.
  - It has been reported that legacy or beta virtual webcam drivers are crashing many production applications, including ZoomOSC on the Mac.
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# 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, maintenance, 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](http://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**

## Please Note

The ability to decode \$\$ chat macros is presently only available in the Windows version of ZoomOSC Pro but will be coming to macOS soon.





# 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

