ZOOMOSC COMMAND SYNTAX

ZoomOSC adds a bi-directional Open Sound Control (OSC) interface to Zoom. Commands can be sent to the ZoomOSC app from third party hardware and software devices to control Zoom, and ZoomOSC can communicate back to those products with information about the Zoom meeting.

This document describes the syntax for these OSC commands.

The application's OSC messages can be divided into **3 major categories**

- **User Commands** require targets, which can be either users/participants or groups.
- **Global Commands** do not use targets, and control general meeting or application settings.
- **Outputs** are the OSC messages that come out from ZoomOSC containing useful information. Some outputs are triggered by events of subscribed participants, others are triggered by a User or Global command and thus provide a response.

REFRESHER ON OSC PROTOCOL

ZoomOSC interacts with Open Sound Control as UDP.

Here is an example ZoomOSC message:
/zoom/userName/videoOn "Andy Carluccio"

The address is delimited with "/" (in this case, the address is /zoom/userName/videoOn).

The payloads follow the address and are delimited with whitespace. ZoomOSC payloads can be ints, floats, or strings.

Multi word strings can be enclosed in quotes to pass as a single argument.

Please reference the user manual for the control software you are using to determine how that program constructs and/or parses OSC.

Every ZoomOSC Input starts with /zoom

Constructing User Command to send to ZoomOSC

To send a message to ZoomOSC, you must construct an address. The sections below are appended to /zoom to specify who to call the actions on.

HOW DO YOU TARGET A USER?

After /zoom, you may select a "target type" for the user you want to act on.

The available target types are below.

.../targetID

A single user who is logged by index in the target list file. For this to succeed, you must have loaded/updated users into target memory before referencing.

{int targetIndex}

.../userName

A single zoom username, case sensitive and including spaces. Multiple participants with the same name will revert the target to the first participant it finds with that name

{str userName}

.../galIndex

The zero index position of the participant in the gallery. Note: for best results, self video should be turned off.

{int galleryIndex}

.../zoomID

The zoomID is randomly assigned when a participant joins, and will change if they leave and rejoin.

{int zoomID}

.../galleryPosition [Mac Only]

A single user at a specified gallery position by row and column. If no user is present, then nothing will happen.

{str position in form "row, col" ie "0, 2"}

.../me

Passes self as the target

N/A

TARGET A GROUP OF USERS WITH A MACRO

Instead of calling a target type, you can pass one of the below "group macros" as an alternative

.../all	Everyone in the Zoom call
.../targets	Everyone in the target list
.../panelists	All webinar panelists
.../attendees	All webinar attendees

EXCLUDE USERS FROM A GROUP MACRO

Another type of group macro is "exclusionary" and must be combined with a target type. For example, **/zoom/allExcept/me/...** would call the user action on everyone in the meeting except for the self user.

.../allExcept/[TARGET TYPE]

.../targetsExcept/[TARGET TYPE]

.../panelistsExcept/[TARGET TYPE]

.../attendeesExcept/[TARGET TYPE]

MAKE A CUSTOM GROUP "FROM SCRATCH"

Finally, it is also possible to define a custom group using the "users" keyword followed by the target type that will be used to designate the members of the group.

.../users/[TARGET TYPE]

ZOOMOSC COMMANDS

EVERY ZOOMOSC INPUT STARTS WITH /ZOOM

EXAMPLES

/zoom/userName/chat "Andy" "Hello!"
  Send a "Hello" chat to user Andy

/zoom/targetsExcept/userName/videoOff "Joe"
  Turn off video for everyone on the target list except for Joe

/zoom/users/galleryIndex/addPin 2 6 8 3
  Create a multipin from the persons of gallery indices 2, 6, 8, and 3

How to read the commands:

Command Name	../commandAddress	Mac Only **MAC**
This is a description of the command	{int arg1 | str arg2}	Windows Only **WIN**
		Paid, Pro Feature **PRO**
Here is an additional note which may give a warning or important information		

Please remember that the first arguments of any user action will be the designator for that user.

The arguments listed in the spreadsheet are in addition to the user specification arguments and must be attached at the end of the payload list.

USER COMMANDS

VIDEO/MIC COMMANDS

Request Video On Requests to turn on participant video	**../videoOn**
Set Video Off Turns off participant video	**../videoOff**
Toggle Video Toggles participant video on or off	**../toggleVideo**
Mute Mic Mutes participant mic	**../mute**
Unmute Mic Requests to unmute participant mic, unless pre-approved consent is given in Zoom settings. ZoomOSC will automatically accept requests to unmute.	**../unMute**
Toggle Mic Toggles participant mic on or off	**../toggleMute**

SPOTLIGHT COMMANDS (see global commands for clearSpot command)

Spotlight Replaces current spotlight with a new participant spotlight If called on a group, it will only spotlight the last user in the list.	**../spot**	
Add Spotlight Adds a new participant spotlight to the mutli-spot group	**../addSpot**	**PRO**
Un-Spotlight Removes a spotlight from a participant	**../unSpot**	
Toggle Spotlight Toggles spotlight on or off from a participant	**../toggleSpot**	**PRO**

CHAT COMMANDS

Send Chat Sends chat to a participant Zoom chat is limited to 1024 characters. /chatAll in the "everyone channel" is limited to Windows at the moment.	**../chat** {str chat message}

USER COMMANDS

PIN COMMANDS   (see global commands for clearPin command)

Pin Participant Pins a participant	**../pin**	
Add Pin Adds a new participant pin to the multi-pin group Only Co-Hosts/Hosts. Other participants must be given permission by the host to multi-pin.	**../addPin**	**PRO**
Un-Pin Participant Removes a pin from a participant	**../unPin**	
Pin to Second Screen Pins participant to the second screen	**../pin2**	
Un-Pin from Second Screen Unpins participant from the second screen	**../unPin2**	
Toggle Pin First Screen Toggles pin on or off from the first screen	**../togglePin**	**PRO**
Toggle Pin Second Screen Toggles pin on or off from the second screen	**../togglePin2**	**PRO**

HAND RAISING COMMANDS (see global commands for lowerAllHands command)

Raise Hand Raises Hand IMPORTANT: Raising hands will change the gallery order for Hosts/CoHosts and will break gallery tracking on windows	**../raiseHand**
Lower Hand Lowers Hand	**../lowerHand**
Toggle Hand Toggles the raising or lowering of the hand	**../toggleHand**

VIEW COMMANDS

Set Gallery View Changes screen to gallery view	**../setGalleryView**
Set Speaker View Changes screen to speaker view	**../setSpeakerView**

USER COMMANDS

USER ROLES COMMANDS

Make Host Makes the defined participant the meeting host	**../makeHost**
Make Co-Host Makes the defined participant a meeting co-host	**../makeCoHost**
Reclaim Host Reclaims host role if originally the creator of the meeting Only works if you are the original host of the meeting; must be called on self	**../reclaimHost**
Revoke Co-Host Revokes co-host permission from participant	**../revokeCoHost**
Make Panelist Promotes a webinar attendee to a panelist	**../makePanelist**
Make Attendee Demotes a webinar panelist to an attendee	**../makeAttendee**
Eject from Meeting Kicks participant from meeting	**../eject**

SCREENSHARE COMMANDS

List Screens Lists all screens available for screenshare	**../listScreens**	**PRO**
List Windows Lists all windows available for windowshare	**../listWindows**	**PRO** **MAC**
Start Screenshare Starts a screenshare on defined screen Use the listScreen command first to identify monitor ID or names	**../startScreenShare** {int screenID | str screenName}	**PRO**
Start Windowshare Starts a windowshare on defined window Use the listWindows command first to identify monitor ID or names	**../startWindowShare** {int windowID | str windowName}	**PRO** **MAC**
Stop Share Stops sharing screen or window	**../stopShare**	
Start Screenshare (Primary Display) Starts screenshare on primary display only	**../startScreenSharePrimary**	

USER COMMANDS

SETTINGS COMMANDS

Display Usernames on Videos Displays usernames in the bottom left of participants	**../showUserNames**	
Hide Usernames on Videos Hides usernames in the bottom left of participants	**../hideUserNames**	
Show Non-Video Participants Shows non-video participants in gallery	**../showNonVideoParticipants**	
Hide Non-Video Participants Hides non-video participants in gallery	**../hideNonVideoParticipants**	
Enable "Original Sound" Enables "original sound" for audio The command will work, but it helps to use the "show original audio setting in meeting"	**../enableOriginalSound**	
Disable "Original Sound" Disables "original sound" for audio	**../disableOriginalSound**	
List All Camera Devices Lists all available camera devices	**../listCameraDevices**	**PRO**
List All Mic Devices Lists all available mic devices	**../listMicDevices**	**PRO**
List All Speaker Devices Lists all available speaker devices	**../listSpeakerDevices**	**PRO**
Set Camera Device Changes camera device Use the listCameraDevices or getCameraDevice command to get the deviceID or index	**../setCameraDevice** {string deviceID | int index}	**PRO**
Set Mic Device Changes mic device Use the listMicDevices or getMicDevice command to get the deviceID or index	**../setMicDevice** {string deviceID | int index}	**PRO**
Set Speaker Device Changes speaker device Use the listSpeakerDevices or getSpeakerDevice command to get the deviceID or index	**../setSpeakerDevice** {string deviceID | int index}	**PRO**

USER COMMANDS

SETTINGS COMMANDS CONTINUED

Get Current Camera Device Lists current camera device in use	**../getCameraDevice**	**PRO**
Get Current Mic Device Lists current mic device in use	**../getMicDevice**	**PRO**
Get Current Speaker Device Lists current speaker device in use	**../getSpeakerDevice**	**PRO**
[BETA] List Virtual Backgrounds Lists all available virtual backgrounds	**../listBackgrounds**	**PRO** **MAC**
Change Virtual Background Changes virtual background Use the listBackgrounds or the getBackground commands first to identify index or bgName	**../setBackground** {int index | str bgName}	**PRO** **MAC**
[BETA] Get Current Virtual Background Lists current virtual background in use	**../getBackground**	**PRO** **MAC**
Get Mic Level Returns the mic level	**../getMicLevel** {int 0> 100}	**PRO**
Set Mic Level Sets the mic level to a value	**../setMicLevel**	**PRO**
Get Speaker Volume Returns the system speaker volume	**../getSpeakerVolume** {int 0> 100}	**PRO**
Set Speaker Volume Sets the system speaker volume to a value	**../setSpeakerVolume**	**PRO**

GLOBAL COMMANDS

GLOBAL COMMANDS

Enable Users Unmuting Enables the meeting setting which allows participants to unmute	**/zoom/enableUsersUnmute**	
Disable User Unmuting Disables the meeting setting which allows participants to unmute	**/zoom/disableUsersUnmute**	
Lower All Raised Hands Lowers all raised hands in the meeting	**/zoom/lowerAllHands**	
Clear Spotlight Clears all spotlights from meeting	**/zoom/clearSpot**	**PRO**
Clear Pin Clears all pins from screen	**/zoom/clearPin**	**PRO**
Join a Meeting Joins a meeting with OSC arguments	**/zoom/joinMeeting** {str meetingID}, {str meetingPass}, {optional str userName}	**PRO** **MAC**
Leave Meeting Leaves current meeting	**/zoom/leaveMeeting**	**PRO** **MAC**
End Meeting Ends current meeting for all	**/zoom/endMeeting**	**PRO** **MAC**
Ping ZoomOSC Sends a ping to ZoomOSC and review a pong response	**/zoom/ping** {optional any argument to reply}	
Subscription Level Sets subscription level for user output data. None = 0, TargetList = 1, All = 2, Panelists = 3, OnlyGallery = 4	**/zoom/subscribe** {int mode}	
Gallery Track Mode Changes gallery tracking mode to participantID or zoomID	**/zoom/galTrackMode** {int participantID = 0, zoomID = 1}	

GLOBAL COMMANDS

MEMORY MANAGEMENT

Update TargetIDs Assigns targetIDs to participants in memory	**/zoom/update**
Include Appends new participants to memory	**/zoom/include**
Load from Target List Loads participants from target list file	**/zoom/load**

Load via OSC
    Loads participants from OSC arguments
	/zoom/load
	    {string userName1} .. {string userNameN}

Save to Target List Saves participants to target list	**/zoom/save**
Reset Resets application memory containers	**/zoom/reset**

List
    Prints memory to console
 	
    Returns list via OSC if subscribed and PRO
	/zoom/list

OUTPUTS

(uses **/zoomosc/me/..** if originates from own self, **/zoomosc/user/..** otherwise)

User Prefix messages (4) output for all as:
{int targetIndex}, {str userName}, {int galleryIndex}, {int zoomID}

Additional arguments are listed below

Participant Video Turned On Output message when subscribed participant turns video on	**/zoomosc/user|me/videoOn** usual user messages (4)
Participant Video Turned Off Output message when subscribed participant turns video off	**/zoomosc/user|me/videoOff** usual user messages (4)
Participant Muted Output message when subscribed participant mutes audio	**/zoomosc/user|me/mute** usual user messages (4)
Participant Unmuted Output message when subscribed participant unmutes audio	**/zoomosc/user|me/unMute** usual user messages (4)
Active Speaker Changed Output message whenever active speaker changes	**/zoomosc/user|me/activeSpeaker** **WIN** usual user messages (4)
Spotlight Started Output message when subscribed participant is spotlit	**/zoomosc/user|me/spotlightOn** usual user messages (4)
Chat Message Received (From) Output message when chat message is received with the message content as an argument	**/zoomosc/user|me/chat** usual user messages (4), {str message}
User Role Updates Output message when user roles have been changed	**/zoomosc/user|me/roleChanged** usual user messages (4), {int role}
User Online Output message when subscribed participant becomes online	**/zoomosc/user|me/online** usual user messages (4)
User Offline Output message when subscribed participant becomes offline	**/zoomosc/user|me/offline** usual user messages (4)
User's Hand Raised Output message when subscribed participant raises hand	**/zoomosc/user|me/handRaised** usual user messages (4), {str message}
User's Hand Lowered Output message when subscribed participant lowers hand	**/zoomosc/user|me/handLowered** usual user messages (4)

OUTPUTS

List Output
Output message containing all user data as arguments

- **int targetCount:** The number of users in the target
- **listint listCount:** The number of users in the sent
- **listint userRole:** The role of the user
- **int onlineStatus:** Whether the user is online (0 - offline, 1 = online)
- **int videoStatus:** Whether the user's video is on (0 = off, 1 = on)
- **int audioStatus:** Whether the user's mic is on (0 = off, 1 = on)
- **int handRaised:** Whether the user's hand is raised (0 = off, 1 = on)

/zoomosc/user|me/list
usual user messages (4)

{int targetCount}
{int listCount}
{int userRole}
{int onlineStatus}
{in videoStatus}
{int audioStatus}
{int handRaised}

PRO

Meeting Status
Output message when meeting online or offline status changes

/zoomosc/meetingStatus
{int offline = 0, online = 1}

Ping Reply (Pong)
Output reply to a ping command containing information about the ZoomOSC application version and status

/zoomosc/pong
{any pingArg (zero if none sent)}
{str zoomOSCversion}
{int subscribeMode}
{int galTrackMode}
{int callStatus 0 or 1}
{int number of targets}
{int number of users in call}

[BETA ON WINDOWS] Gallery Order
Output message with order of gallery view by participant, starting from top left

/zoomosc/galleryOrder
{int item0} ... {int itemN}

[BETA ON WINDOWS] Gallery Count
Output message with number of participants in the gallery with video on

/zoomosc/galleryCount
{int count}

[BETA ON WINDOWS] Gallery Shape
Output message with the shape of the gallery in rows and columns

/zoomosc/galleryShape
{int rows} {int cols}

OUTPUTS

Mic Devices List Output message containing mic devices information	**/zoomosc/user|me/micDevices** {int itemIndex}, {int listSize}, {str deviceID}, {str deviceName}, {int isSelected}	**PRO**
Speaker Devices List Output message containing speaker devices information	**/zoomosc/user|me/speakerDevices** {int itemIndex}, {int listSize}, {str deviceID}, {str deviceName}, {int isSelected}	**PRO**
Camera Devices List Output message containing camera devices information	**/zoomosc/user|me/cameraDevices** {int itemIndex}, {int listSize}, {str deviceID}, {str deviceName}, {int isSelected}	**PRO**
Virtual Background List Output message containing virtual background information	**/zoomosc/user|me/backgrounds** {int itemIndex}, {int listSize}, {str backgroundName}	**PRO** **MAC**
Current Mic Device Output message containing current mic device	**/zoomosc/user|me/micDevice** {str deviceID} {str deviceName}	**PRO**
Current Speaker Device Output message containing current speaker device	**/zoomosc/user|me/speakerDevice** {str deviceID} {str deviceName}	**PRO**
Current Camera Device Output message containing current camera device	**/zoomosc/user|me/cameraDevice** {str deviceID} {str deviceName}	**PRO**
Mic Level Output message with mic level	**/zoomosc/micLevel** {int 0..100 level}	**PRO**
Speaker Volume Output message with speaker volume	**/zoomosc/speakerVolume** {int 0..100 volume}	**PRO**

RESOURCES

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

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https://tinyurl.com/liminalpowerusers

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