# OSC Open Sound Control

OSC is a communication protocol (like MIDI).
"Open Sound Control is just about the worse possible name for a protocol since I'd thought for a long time that this protocol could only be used to control sounds. Nothing is further from the truth. OSC should be renamed OAC – Open Anything Control - which would be a far better name since it can be used to control *anything* " (Joe Armstrong)

OSC allows devices like digital mixers, light boards, tablet apps, other software to talk to each other. Unlike MIDI, it has an unlimited number of commands it can understand and act upon as long as the device or software you are using understands OSC
Each manufacturer will devise a set of specific OSC commands which their device will understand and respond to. They often publish a document detailing all the available commands that can be utilised.
Unlike MIDI, you don't need an interface. OSC can communicate over wifi and works when all devices are on the same network.


- OSC?
- OSC apps
- Gazebo OSC
- Ableton Live

# OSC?

What is OSC?
Why should you use it?
How can you use it?
Check out this short video

https://www.youtube.com/embed/rf8YNPjVvF4

Dive deeper & see a giant list of apps that use OSC?

Check out the wikipedia page on OSC

and of course https://opensoundcontrol.stanford.edu/

- For a more detailed explanation of how OSC works, please see the specifications: Spec_1.0 & Spec_1.1
- Browse the implementations (as a list of web pages or a huge TSV file) to discover the many kinds of things that can send OSC to each other.

# OSC apps

**On mobile:**



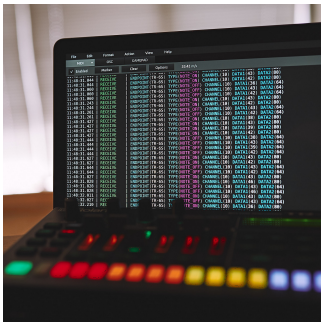
ZIGSIM : the app that allows you to send all the sensor data from your phone to your computer

IOS Only




TouchOSC : draw custom controls (sliders, knobs, buttons etc) on your phone/tablet to send osc to your computer
Not a free app but worth it! There are various templates to connect to specific apps, search online

https://www.youtube.com/watch?v=zJTw8QSul28



Protokol
Protokol is a cross-platform console app for monitoring and logging control protocols like MIDI, OSC, Art-Net, and game controllers. It displays incoming data at 60fps with filtering and timestamps, making it useful for testing, troubleshooting, and development across desktop, mobile, and Raspberry Pi.



Facial motion capture on mobile.

Record your performance and export the result to FBX or TXT.

The FBX export contains mesh, blendshapes and animation data.
The TXT export contains just animation data.

Additional features:
* Import your own custom avatars (From Blender or Maya).
* Calibrate the capture data.
* Video recording for reference.
* Filter and smooth the recorded data.
* **Send blendshape parameter data over Wifi with OSC.**
* Lock the head in place.
* Hide the head during recording.



SeeOSC
OIS only
TD ready met .tox

A powerful app for interactive & experimental digital media artists. Send sensor data, share camera feeds, and control phone hardware utilising OSC, WebRTC/TouchDesigner and NDI®.




oscpilot

a bi-directional control surface application originally built as a performance tool for digital artists and musicians. By DeadMaus

alternative to TouchOSC (paid)

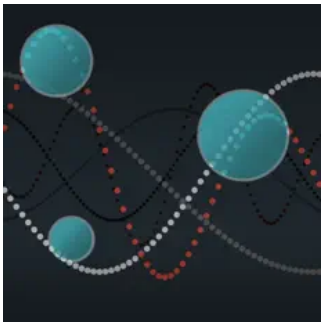
Create UI's
Send & receive OSC
Supports sending MIDI

Windos & MacOS

Demo video




OSC Controller
(android only)
Very worthy alternative to TouchOSC, Free, android Only

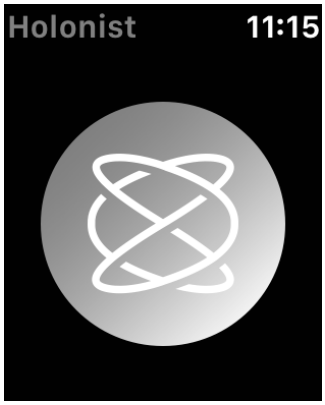


MrMr OSC Controller
(http://ecumedesjours.com/Mrmr/) is an ongoing research project to develop a standardized set of protocols and syntax conventions to control live installations and multimedia performances via mobile devices.



https://sensors2.org/osc/
Android:
This app enables you to selectively send this data as float over OSC to any receiver.

*TB discontinued bc Google Identifier.*




https://holon.ist/

Holon.ist is a system for flexible processing of sensor data into MIDI and OSC. Available for iPhone and iPad as a Universal iOS app.

Connects your AppleWatch to you computer



https://phyosc.gridsystem.jp/
PhyOSC receives the Core Motion data from Apple Watch on the iPhone. iPhone converts it and the 12 machine-learning-trained arm movements into OSC messages and sends them to the your computer: IP address and Port number where the software is connected.

check the how to

**On computer:**
(links below are specifically to info on OSC in these apps)

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| GazeboOSC<br>Gazebo is an node based OSC tool developed by HKU; the Swiss armyknife for OSC data and OSC capable programs. | Chataigne<br>Chataigne is a free, open-source software made with one goal in mind : create a common tool for artists, technicians and developers who wish to use technology and synchronize software for shows, interactive installations or prototyping. It aims to be as simple as possible for basic interactions, but can be easily extended to create complex interactions. | Resolume<br>Resolume Arena is an instrument for VJs, AV performers and video artists.<br>Over OSC you can control every aspect of Resolume. | Pure Data |
| Touchdesigner<br>TouchDesigner supports OSC through four operators: the OSC In CHOP and OSC Out CHOP that receive and send CHOP channels, and the OSC In DAT and OSC Out DAT that receive/send OSC as messages that can be interpreted with python. | Isadora | Max Msp | Open Stage Control<br>Open Stage Control is a desktop OSC bi-directional control surface application. It's built on web technologies and run as an Electron web server that accepts any number of clients.<br>Free Open Source |

# Gazebo OSC

Gazebo OSC is a tool developed bij HKU
Look up info in it's own book here:

https://bookstack.hku.nl/books/gazebosc

# Ableton Live

## LiveGrabber

When you want to control other pieces of software or equipment from Ableton Live, LiveGrabber is what you need. It gives you OSC messages for changes to plugins, tracks, scenes or MIDI notes. It can also communicate audio envelopes and onsets. The reverse is also supported: controlling Live with OSC.

Add this to send OSC from Ableton to any other software

https://www.showsync.com/tools#livegrabber

also check the manual