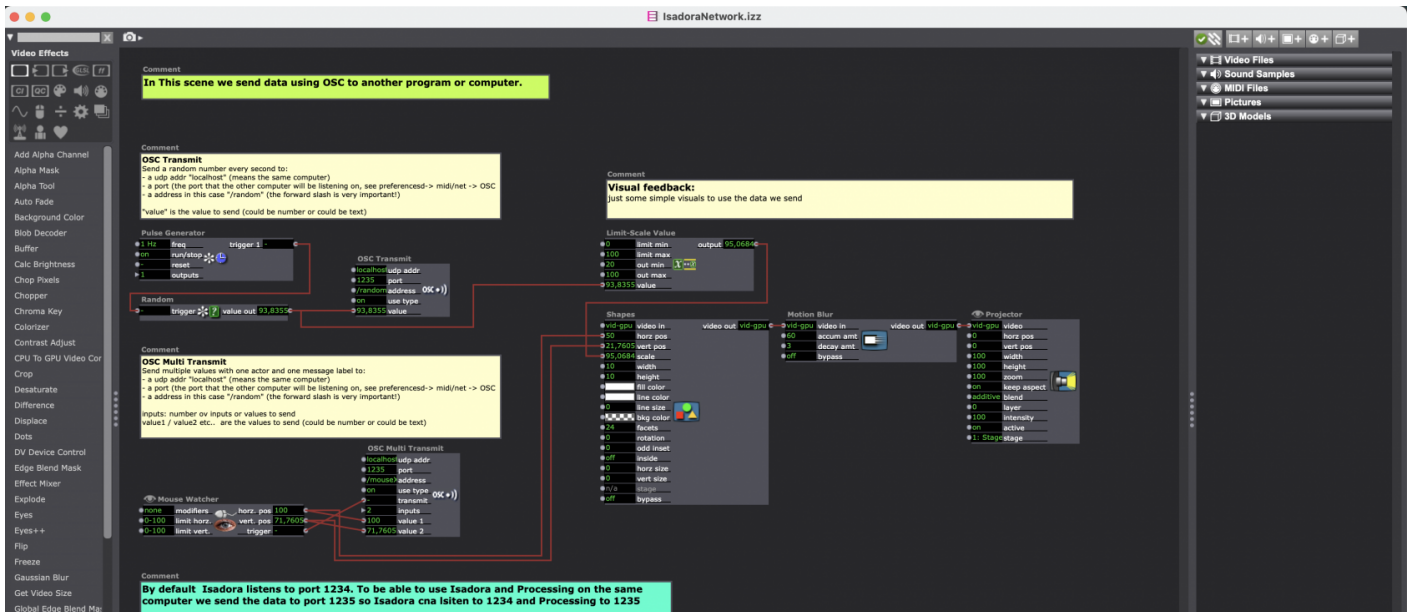


# Serial OSC NDI



## Tutorials

### Serial data / Arduino

- [Arduino Frimata](#)
- [Very old Wiring tutorial](#)
- [Github using BareConductive with Isadora](#)
- [Simple Arduino-ISadora tutorial](#)

### OSC

- [Isadora Guru session #9 Interaction using OSC](#)
- [Using Isadora with touch OSC](#)
- [Isadora Gurusession #9 Interaction using OSC](#)
- [Using accelerometer data with Isadora](#)

### NDI

- [The Isadora NDI addon](#)
- [Isadora Guru session #10 Facilitating remote Performances](#)

- [Small NDI example to Unreal](#)

# Wat is Serial / OSC / NDI?

One of the many features of Isadora is that it can communicate using many protocols. Communication over the Serial port is handy for a wide range of devices (even DMX), but mostly it is used to communicate with Arduino or other micro controller boards. OSC (Open Sound Control) is a high bandwidth follow protocol from MIDI. With this protocol you can send data between different devices and programs. This gives you the possibility to use many different software together. ([OSC background info, Wikipedia](#)) NDI is a communication protocol for sending video over the network. Like OSC you can use NDI to send a video stream from one computer to another computer or one program to another program ([What is NDI?](#)).

For serial/Arduino: 9 in 1 [multi function expansion board](#)

## Tips & Tricks

- For OSC and NDI make sure the computers are on the same network and within the same IP range. Be on the lookout for networks that have closed ports as a security measure. If possible create your own network with fixed IP addresses.
- For data intensive applications a wired network is always better and more stable than Wifi.
- An OSC port can be opened only ONCE. So you can not listen on the same port on the same computer with different programs!
- When starting with Isadora an Arduino start with the most simple exercise! Check the Serial Monitor in the Arduino IDE first to see if the data is sent correctly before figuring out how to receive the data in Isadora.
- A serial Port can be opened only ONCE! If the port is open in Arduino Serial Monitor) then it cannot be opened in Isadora

## Practice Assignment

Create visuals using images/movies and other elements that you control with your phone. Use the theme: "Walking A Storm"

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