

5:OSC

Interactive Installations F07

Dan Wilcox

C:Art:Media
Valand

Open Sound Control

- Designed to replace MIDI
 - much faster
 - greater resolution
- Works over the ethernet protocol
 - IP and port number
- XML-style addressing:
 - you define your own address like html
 - /address/synthesizer/osc1/frequency

Open Sound Control

- User specific message variables
 - ints, floats, chars, strings, rgb values, MIDI, etc
 - package is put together from various variables:
 - send to: /addr/test1/laa i i f f s -> 3 ints, 2 floats, 1 string
- Open sourced from UC Berkley
 - Used in various commercial products and software
 - Libraries available for use in Processing, PD, C/C++, Java, etc

OSC Resources

- OSC headquarters : info, implementations, reviews, forums, etc
 - <http://opensoundcontrol.org/>
- Original OSC specification page from UC Berkley
 - <http://www.cnmat.berkeley.edu/OpenSoundControl/>
- OSCP5 : OSC library for Processing
 - <http://www.sojamo.de/iv/index.php?n=11>
- FLOSC : OSC for Flash
 - <http://www.benchun.net/flosc/>
- Wikipedia entry for OSC
 - http://en.wikipedia.org/wiki/OpenSound_Control

PD -> OSC -> Processing

- A simple example:
 - Move a square in processing via PD messages
 - Run the PD patch: OSC_send_square
 - Run the Processing sketch: OSC_recv_square
 - Hit the connect message in PD and mess with the number boxes

Connection Notes

- Getting the right IP to send to:
 - if you want to connect 2 programs on one computer together
 - use “localhost” or “127.0.0.1”
 - if you want to connect 2 programs in different computers together
 - receiving computer: “localhost” aka “127.0.0.1”
 - sending computer: the IP address of the receiving computer
- To find out the IP address of your computer:
 - Your “worldwide” Internet address: <http://whatismyip.com>
 - Your local network address (in Windows):
 - Start Menu -> Run -> Type “cmd” and hit enter -> Type “ipconfig” and hit enter