



POLITECNICO
MILANO 1863

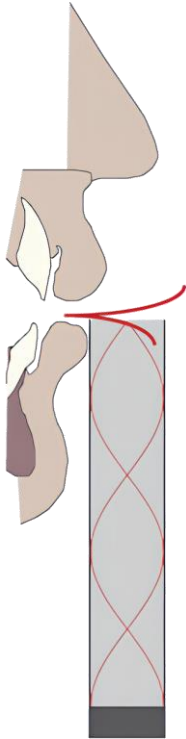
BitWinds: a Subtractive Synthesis Powered Wind Instrument

Computer Music: Languages and Systems - Homework 1

Group 9 – The Sine of The Times

Francesco Colotti, Gioele Fortugno, Matteo Gionfriddo, Emanuele Greco

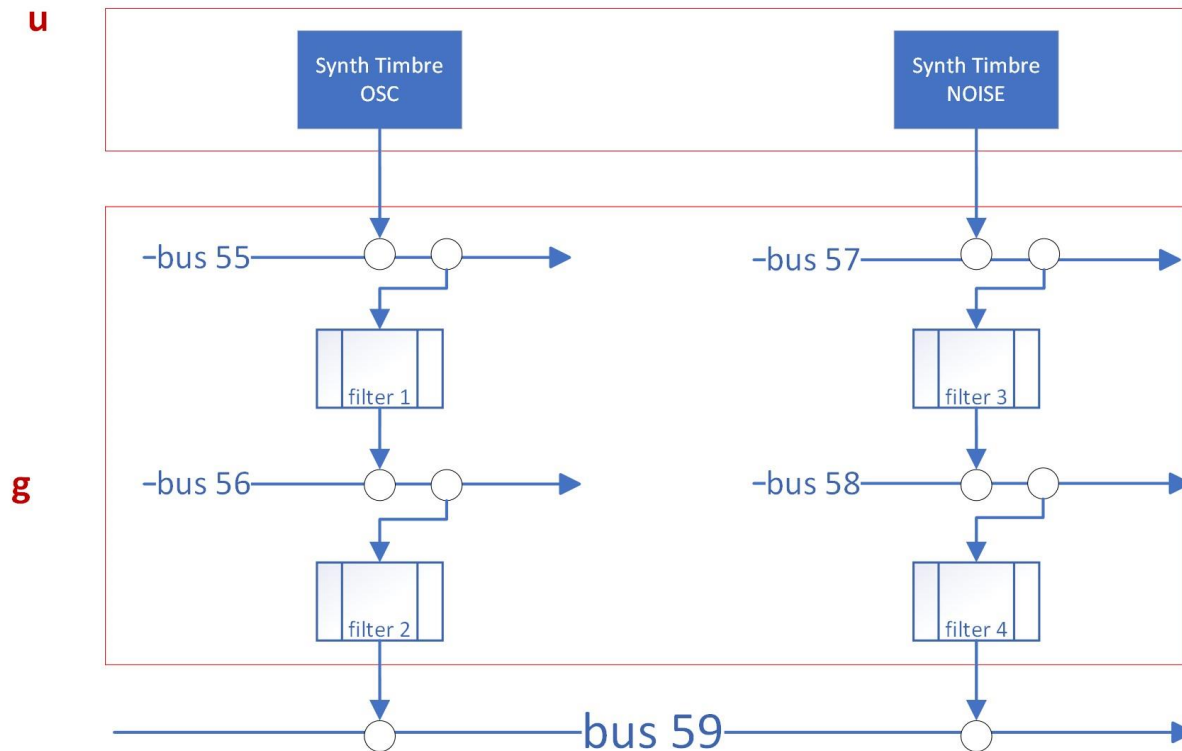
Sound Design



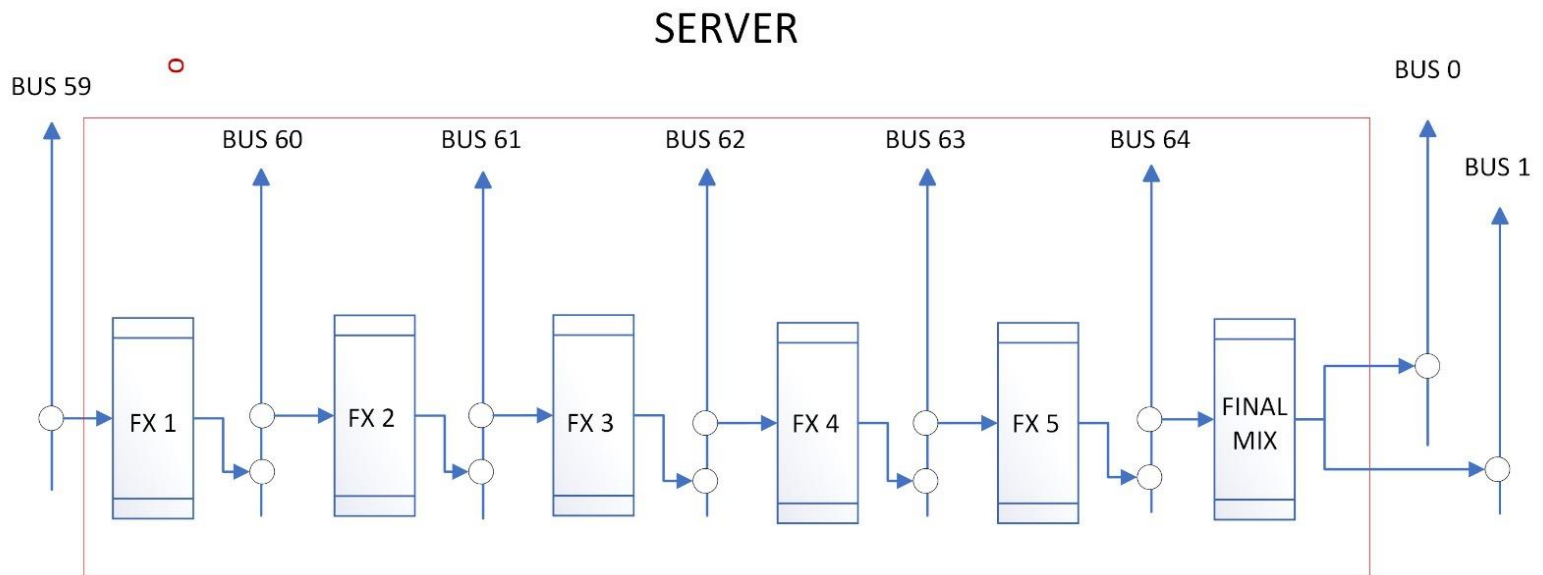
- Sound is generated by the varying pressure inside the instrument
- Noise Component: filtered white noise
- Tonal Component: changes based on the instrument
- Envelopes modulate frequency and amplitude

Signal Flow

SERVER



Signal Flow



GUI: key points

- UserViews on top of each other, basically
- Changing tab = changing visibility of tens of elements
- Piano-roll-style sequencer, using MIDI note numbering



GUI



The end

Thank for your attention!