

21M.380 MUSIC AND TECHNOLOGY  
SOUND DESIGN

LECTURE N<sup>o</sup>4  
INTRODUCTION TO PURE DATA (PD)

TUESDAY, FEBRUARY 16, 2016

## 1 EX1 presentation

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## 2 Practical Pd exercises

### 2.1 Warming cold inlets

- Concept of hot vs. cold inlets (cf., Farnell [2010](#), fig. 10.1)
- How could you use [trigger] to warm a cold inlet? Try it!
- Always use [trigger] to guarantee non-ambiguous order of events (cf., [ibid.](#), fig. 10.3)
- Use [t b f] to make cold inlets hot if needed (cf., [ibid.](#), fig. 10.4)

### 2.2 Building counters

- Simple counter (cf., [ibid.](#), fig. 10.7)
- Modulo counter with [mod]
- Counter that stops at a specific value
- Modulo counter with [sel]

### 2.3 Building a sequencer

- Using a counter and [select] (cf., [ibid.](#), fig. 10.9)

### 2.4 Building a note event

- Using both [osc~] and [noise~]
- [vline~] and [line~] syntax

### 2.5 Scaling a numeric range to another one

- See Farnell ([ibid.](#), fig. 10.31)

### 3 Pd assignment 1 (PD1)

### 4 Other important Pd concepts<sup>1</sup>

<sup>1</sup> Farnell 2010, chs. 8–10.

- Routing values with the [route] object (cf., Farnell 2010, fig. 10.10)
- Sends and receives (cf., [ibid.](#), figs. 10.13+10.14)
- Broadcast messages (cf., [ibid.](#), fig. 10.15)
- List operations (cf., [ibid.](#), figs. 10.16–10.20)
- Scaling (cf., [ibid.](#), fig. 10.31)

### References and further reading

Farnell, Andy (2010). *Designing Sound*. Cambridge, MA and London: MIT Press. 688 pp. ISBN: 978-0-262-01441-0. MIT LIBRARY: [001782567](#).  
Hardcopy and electronic resource.

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