



INTRODUCTION TO COMPUTER MUSIC PROGRAMMING TECHNIQUES

Mastering Nyquist

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Programming Techniques

- Recursive sound sequences
- Matching durations
- Smooth transitions
- Composing control functions
- Global vs Local control functions
- Stretchable behaviors
- Reading Sound Files
- Using Open Sound Control

Recursive Sound Sequences

- SEQ delays evaluation of each behavior (it's *lazy*)
- Infinite sounds can be expressed recursively:

```
define function drum-stroke()  
  return noise() * pwev(1, 0.05, 0.1)  
define function drum-roll()  
  return seq(drum-stroke(), drum-roll())  
define function limited-drum-roll()  
  return const(1, 2) * drum-roll() ; duration=2  
play limited-drum-roll()
```
- Note that multiplying limited sound by an infinite sound gives us a finite computation and result.