Audio Programming with Chuck

Session 7: Classes and Object-Oriented Programming

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Mini-course Schedule

- 08/01/2019 Session 1: Basics: Sound, Waves, and ChucK initiation
- 10/01/2019 Session 2: MIDI, Chuck Libraries, and Arrays
- 15/01/2019 Session 3: Sound File Manipulation
- 17/01/2019 Session 4: Functions
- 22/01/2019 Session 5: Unit Generators and Physical Models
- 24/01/2019 Session 6: Multi-Threading and Concurrency
 - Today Session 7: Classes and Object-Oriented Programming

Session 7: Classes and Object-Oriented Programming

Objects and classes

Ex: Simple class

Overloading

Private vs.public => static Member Variables

Basic notion of inheritance

Classes & Objects

An object is an instance of a class

Member variables are data variables that a an object has

Methods are functions for modifying data within the object\

Ex: Simple class

Overloading

It is possible to declare multiple functions that have the same name. But, can do different things depending on the type and number of arguments coming into to that function.

- Ex: SinOsc s => dac;
 - 0.1 **=>** float x;
 - 1::second => now;

Private vs. Public

Classes are by default private => chuck code in the same file

Public classes allows all subsequent programs to use them

static => makes member variables visible to other chuck programs

Inheritance

Is the ability to model a new class after an existing one, adding to it or modifying how it behaves.