

Csound on Android

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Introduction

- ◆ Csound History
- ◆ Csound on Android – Platform Introduction
- ◆ CsoundObj API
- ◆ Demonstration
- ◆ Csound Platform Benefits
- ◆ Future Plans

Csound History

- ◆ Music-N Language
- ◆ Command-line application
- ◆ Csound 5: API created for application development
- ◆ OLPC-XO
- ◆ Mobile Csound Platform

Csound on Android

- ◆ Native Code (compiled using Android NDK)
 - ◆ Core Csound
 - ◆ C code compiled by SWIG
 - ◆ Android-specific C++ code
- ◆ Java Code
 - ◆ SWIG generated wrapper classes
 - ◆ CsoundObj API

CsoundObj API

- ◆ Convenience classes for running Csound
- ◆ Pre-configured to handle audio I/O with OpenSL or AudioTrack
- ◆ CsoundValueCacheable interface for reading/writing values from/to Csound at block boundaries
- ◆ Out of the box wrappers for UI Widgets, Sensors
- ◆ Cross-Platform API (iOS, Java Swing)

Demonstration

- ◆ Library Project
- ◆ Examples Project Walkthrough
- ◆ CSD Player – Premade Channels

Csound Platform Benefits

- ◆ Cross-Platform
 - ◆ Desktop (Mac OSX, Windows, Linux)
 - ◆ Mobile (Android, iOS, OLPC)
- ◆ Csound code as Domain Specific Audio Engine Code
- ◆ 1st class support for supported platforms
- ◆ Advancements Propagate

Future Plans

- ◆ Csound 6
- ◆ Refactoring/clean up of internal code
- ◆ Developments to extend Csound API
 - ◆ Open up classes of applications designed for using Csound
 - ◆ i.e. Realtime instrument modification

Download

- ◆ Binaries:

<https://sourceforge.net/projects/csound/files/csound5/Android/>

- ◆ Source: Available in main Csound GIT repo:

`git://csound.git.sourceforge.net/gitroot/csound/csound`

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Questions?

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