

Tuesday May 4

Papers & presentations

Supernova - *Tim Blechmann*

SuperCollider [McCartney, 1996] is a modular computer music system, based on an object-oriented real-time scripting language and a standalone synthesis server. supernova is a new implementation of the SuperCollider synthesis server, providing an extension for multi-threaded signal processing. With adding one class to the SuperCollider class library, the parallel signal processing capabilities are exposed to the user.

Work Stealing Scheduler for Automatic Parallelization in Faust - *Stephane Letz*

Faust 0.9.10 introduces an alternative to OpenMP based parallel code generation using on a Work Stealing Scheduler and explicit management of worker threads. This paper explains the new option and presents some benchmarks.

A MusicXML Test Suite and a Discussion of Issues in MusicXML 2.0 - *Reinhold Kainhofer*

MusicXML [Recordare LLC, 2010] has become one of the standard interchange formats for music data. While a specification in the form of some DTD files with comments for each element and equivalently in the form of XML Schemas is available, no representative archive of MusicXML unit test files has been available for testing purposes. Here, we present such an extensive suite of MusicXML unit tests [Kainhofer, 2009]. Although originally intended for regression-testing the musicxml2ly converter, it has turned into a general MusicXML test suite consisting of more than 120 MusicXML test files, each checking one particular aspect of the MusicXML specification. During the creation of the test suite, several shortcomings in the MusicXML specification were detected and are discussed in the second part of this article. We also discuss the obstacles encountered when trying to convert MusicXML data files to the LilyPond [Nienhuys and et al., 2010] format.

3DEV: A tool for the control of multiple directional sound source trajectories in a 3D space - *Esteban Calcagno*

This Paper presents a GNU software (3DEV) developed for the creation, transformation and temporal coordination of multiple directional sound source trajectories in a three- dimensional space. 3DEV was conceived as a general tool to be used in electroacoustic music composition, and the data generated by it may be transmitted on a simple and effective way to several spatialisation programs.

Sense/Stage - low cost, open source wireless sensor and data sharing infrastructure for live performance and interactive realtime environments - *Marije Baalman*

SenseStage is a research-creation project to develop a wireless sensor network infrastructure for live performance and interactive, real-time environments. The project is motivated by the economic and technical constraints of live performance contexts and the lack of existing tools for artistic work with wireless sensing platforms. The development is situated within professional artistic contexts and tested in real world scenarios. In this paper we discuss our choice of wireless platform, the design of the hardware and firmware for the wireless nodes, and the software integration of the wireless platform with popular media programming environments by means of a data sharing network.

Workshops

Live Coding with QuteCsound - *Andr s Cabrera*

This workshop will explore the Live Coding capabilities of QuteCsound for generating score events for a running instance of Csound, through the use of the Live Event Panel and the QuteSheet python API. It will show how the QuteCsound frontend can serve as a python IDE for the processing of note events to be generated, transformed, sent live, or looped for a running Csound process.

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