Vitry manual

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Introduction

Vitry is a programming language and environment for music composition and analysis, primarily in a non-realtime context. It is designed to simplify representation of compund musical structures. The main purpose is generation of music notation, but it can also be used for general procesing of musical structures, or act as as a bridge between notation and other media environments. It performs no graphical rendering of music on its own, but it built for seamless integration with standard score-editing tools, such as Sibelius and LilyPond.

Vitry includes a powerful model of standard musical notation, which may be interactively read and written to the standard score writing applications Sibelius and Lilypond. It also reads and generates standard file formats used for musical representation, such as MusicXML and standard MIDI files.

Vitry shares many traits with the PWGL and OpenMusic environments. However, there are also some differences:

- It is not graphical
- It is not based on CommonLisp/CLOS.
- It emphasizes interaction with scorewriter software

The Vitry language is a simple functional language with an inline syntax.

First steps

Download and install

Prerequirements

Vitry targets the Java Virtual Machine, and thus runs on most operating system.
On OS X, Java is preinstalled by default.

Download

You may download a pre-compiled version of Vitry from http://vitry.github.com/downloads.

To compile the latest version yourself, Git and ANT is required. In this case,
use the following commands to fetch the source code and build:

Using the interpreter

The simplest way to interact with Vitry is through the *interpreter*.

TODO starting a session, using repl

The language

Values and expressions

Like most functional languages, Vitry consists almost solely of expressions. An expression is an abstract thing that we use to

Basic types

Booleans

The boolean values are `true` or `false`.

Numbers

Vitry supports bignum natural, integer and rational numbers, as well as floating-point real and complex numbers.

TODO

Strings

Strings are sequences of 16-bit Unicode characters.

Functions

Sequences

Musical structures

Time

Pitch

The music type

An introduction to notations