

Sisyphé: the Sound Program.

The sound engine in Sisyphé is written in Supercollider (SC). The software defines a Composer, Instruments, and Scores. Reference: <http://en.wikipedia.org/wiki/Supercollider>

It communicates with the Python (PY) script that drives the motors through Open Sound Control (OSC). Everything is real time of course. Reference: [http://en.wikipedia.org/wiki/Python_\(programming_language\)](http://en.wikipedia.org/wiki/Python_(programming_language)), <http://www.python.org/> and http://en.wikipedia.org/wiki/Open_Sound_Control, <http://opensoundcontrol.org/>

OSC receives from Python and transmit to Supercollider the information on the Whereabouts of the ball over the sand tracing its Path.

The Whereabouts are the current time and geometry data related to the status, position, speed, acceleration, direction, etc, of the ball at and from the current vertex along its Path.

The virtual Composer uses the Whereabouts to prompt the Instruments into action, following the rules in his and their Scores.

Use of the sound engine is optional: Sisyphé can perform quietly. Sisyphé is meant to be a peaceful meditation piece. It moves slowly. Ambient light should be dim, with only a low, grazing light casting long shadows. The ambient sound volume should remain low and discreet, never overwhelming.

If sound is used SC must be started prior to starting PY. The sound produced is available at the audio output interface of a MacMini. From there it can be wired to and controlled from an appropriate external sound system (not provided).

Sisyphé in its current state comes with one Composer, three Instruments, eight Scores and one one-hundred-and-one Paths. Scores and Paths are called through chance operations, and then combine, creating a wide variety of performances.

The Sound Program premiered at the Kavli Institute for Theoretical Physics at UCSB in 2004, and was performed at the Art Gallery of the 2005 Siggraph Conference in Los Angeles.

Jean-Pierre Hébert and Iannis Zannos would accept a commission to develop and extend the existing Sound Program with new Composers, Instruments and Scores, including an interactive interface that would allow the user to create interactive performances and play recorded sounds. Their goal is to enrich and polish the aural components of Sisyphé to match its existing visual components.