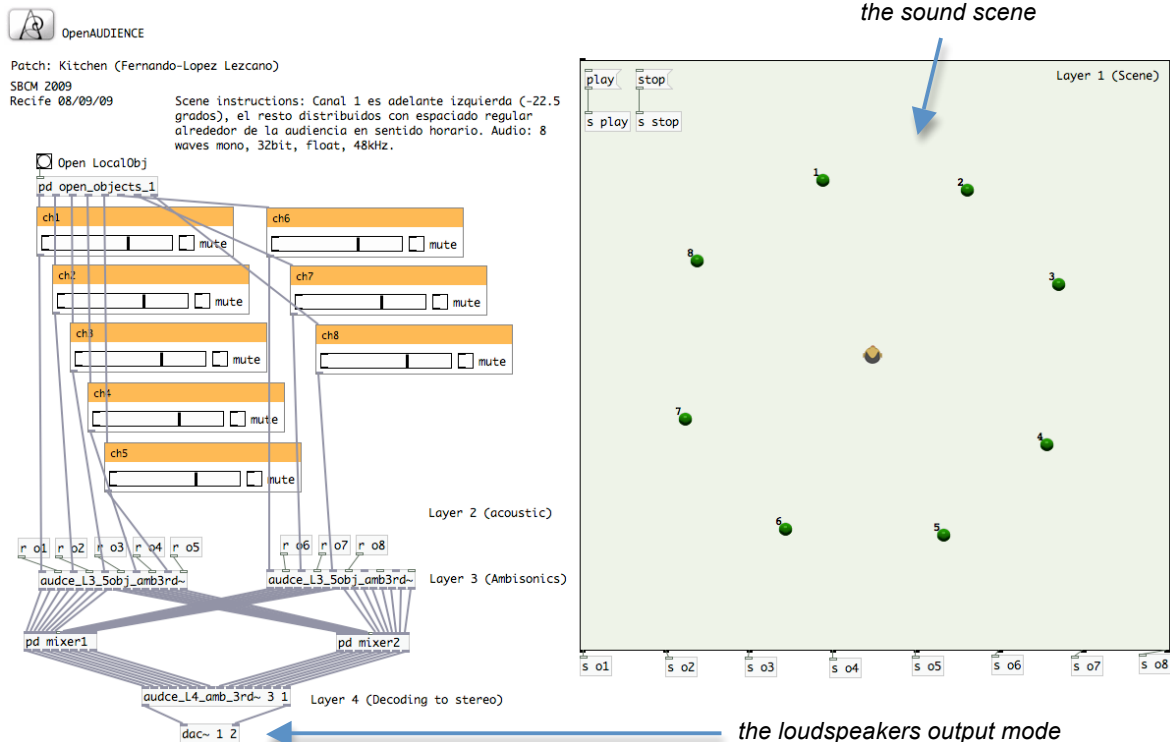




OpenAUDIENCE

Software for Audio Immersion

The OpenAUDIENCE is a free version of the AUDIENCE software for audio immersion, production of sound scenes and auralization¹. Its characteristics include the *orientation to sound scene* and to the *user's role*, providing working modules *oriented to the semantic* of different professionals involved in the chain of music production and reproduction. The software enables to work independently on the composition of a sound scene, its acoustic rendering, encoding it in a suitable distribution format, and finally its interactive reproduction, using 2D/3D sound fields. Among its major differentials is the independence of the sound space conception from how it is physically played (i.e. the final output mode).



The software is a library for the Pure Data (Pd) platform, which allows the production of sound scenes in multichannel support and a spatial interactive reproduction, including live. It was used in 2007 to spatialize the piece *The Unanswered Question* (Charles Ives, 1906) with 9 instruments (a string quartet, a wind quartet and a trumpet), and has been used as *audio engine* in applications for reconfigurable digital music and soundscape design.

The author constructs the sound scenes virtually, regardless of the loudspeaker configuration used for playback. Different ambiances can be assigned individually to each sound source, and their position in space can be changed in real time, even automated. The real sound field can be exported and played back in supports hexa, octal, and other output formats (e.g. 5.1 and stereo).

The software is developed collaboratively on a project by the Audio Engineering and Coding Center (NEAC) of the Laboratory of Integrated Systems, at the University of São Paulo².

¹ Project AUDIENCE in <http://www.lsi.usp.br/interativos/neac/audience>

² Project OpenAUDIENCE in <http://openaudience.incubadora.fapesp.br>