Tripping through runtime

Computer concrète

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Abstract "*Tripping through*" is an invitation to plunge into the invisible relationships of hard and soft computer matter through sensuous mediation. The projects outlined are designed to provoke and capture the specific behavior of individual computer components through the use of appropriate software fragments. If one approaches a digital apparatus with a transducer that transforms electromagnetic fields into acoustic waves, the analytical sphere is changed into concrete acoustical phenomena and enters the world of sensation (electromagnetic emissions can be picked using induction microphones and output as acoustic signals. A suitable example is a Monacor telephone adapter AC-71/3,5MM). In choreographies for software and computer parts, these become actors in noise pieces for and in computers. Machine noises can be mediated for the public. They reveal the activity of computer programs in the widest sense and the activity of the computers or computer parts they are running on. The time and space of computer processes and memory span different levels of reality during "*runtime.*" Software being processed within this system of coordinates creates its own temporal and spatial dimensions, which are staged for an audience to provide a sensual experience: that of logic encountering the physical world.

Keywords Software · Hardware · Noise · Computer · Electromagnetic emission

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1 Harddisko (2004)

Hard drive orchestra (an installation and vinyl release): Rhythmical noises from sixteen hard drives evolve, orchestrated by the switching on and off of power circuits. By cutting the hard disk's power in varying sequences and amplifying the particular audio characteristics of each drive, the hard drive orchestra creates an acoustic and visual interplay. After the hard drive's casing has been removed, a pickup for electromagnetic fields is mounted on the drive's reading head controller. Upon powering up, a hard drive conducts an initialization procedure involving the reading head. Each drive moves with its own speed and pattern, as determined by its firmware and mechanical constitution. Electromagnetic emissions, transduced as acoustic signals, reveal a hard drive's unique tones, as each drive performs according to its past usage and current state (Fig. 1).

2 Sei Personaggi part 2 (2006)

Experimental play in computers (computer noise installation): The six characters imagined by the Italian playwright Luigi Pirandello (1921) are still in search of a play, a stage and an audience. The original play "Six characters in search of an author" dates back to 1921. In the computer installation—a continuation of Pirandello's play—the six characters occupy the time and space of six outdated computers. Time-keeping processors and working memory define the time and space of their new stage, which extends throughout the electronic insides of the networked machines. Microphones follow the fleeting trails of the characters inside the systems' kernels. Visitors listen to live memory-noise produced by this family of six: a computer