

Tatsuo Unemi**Installation: A fully automated evolutionary art****Topic: Audio visual installation****Authors:****Tatsuo Unemi**

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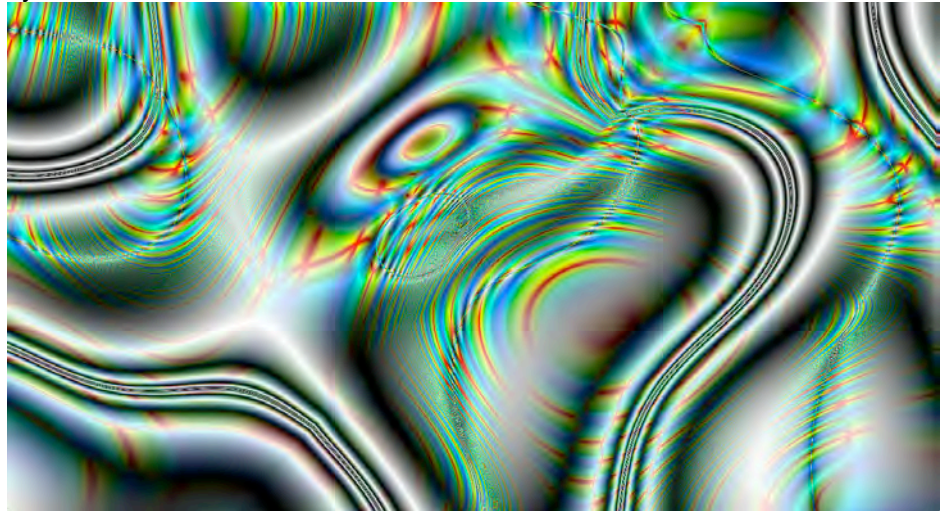
References:

- [1] Tatsuo Unemi, "SBArt4 as Automatic Art and Live Performance Tool", GA 2011 – XIV Generative Art Conference, Rome, 2011.
[2] Karl Sims, "Primordial Dance", Animation Video, MIT, Media Laboratory, 1991.

Abstract:

This is an installation of an automatic art that the computer autonomously produces a sequence of audio-visual effects in real time on site. A custom software, SBArt4 [1], developed by the author is taking a main role of the work based on a genetic algorithm utilizing computational aesthetic measures as the fitness function. It starts from a population of random genotypes, and the evolutionary process proceeds through opening hours. Each of individual genotypes is a mathematical expression that determines a colour of pixels in a frame image of animation, in a similar style of "Primordial Dance" by Karl Sims [2]. A never-ending series of abstract animations are continuously displayed on the screen with synchronized sound effect by picking up individuals of higher fitness from the evolving population. The visitors will notice the recent progress of the power of computer technology and also will possibly be given an occasion to think what the artistic creativity is. These technologies are useful not only to build up a system that makes unpredictable interesting phenomena but also to provide an occasion for people to reconsider how we should relate to the artefacts around us. We know the nature is complex and often unpredictable. However we, people in the modern democratic society, tend to assume that artificial systems should be under our control and there must be some person who takes responsibility on the both intended and unintended effects. The author hopes the visitors will notice that it is difficult to keep some of the complex wild artefacts under our control, and will learn how we can enjoy with them.

The system uses two mac minis, a projector, and a stereo speaker system.

*Sample screen shot.***Contact:**
unemi@t.soka.ac.jp**Keywords:**

Evolutionary computation, abstract animation, automatic art