

ANIMATRIX

AKKE WAGENAAR / MASAHIRO MIWA

Animatrix is a computer dancer reminiscent of a Bodhisattva, a Buddhist creature in half-enlightened state.¹

The installation consists of three parts:

1. the graphics program that calculates the movements of the Animatrix, depending on user input
2. the music program that interactively composes the music, depending on user input
3. the user interface.

The user interface is a double joystick consisting of two positioning devices attached to each other. The Animatrix reacts to the movements of the interface and starts to dance; at the same time rhythmical music is triggered.

There is a relation between the movements of the interface, the movements of the Animatrix and the music, but the relation is not straight forward: sometimes the Animatrix seems to be a willing dance partner, at other times it seems to have its own life and to dance its own dance.

By playing the system the user will gradually discover that he/she is not only able to influence the dance of the Animatrix, but also the music and the rhythm that comes along with it. There are two levels of interaction:

1. positioning the interface gives direct control of some of the movements of the Animatrix, and of part of the musical composition.
2. variations in moving, twisting and rotating the interface are measured and analyzed over a long period of time and cause more complex patterns of music and movement.



STRUCTURE OF BOTH PROGRAMS

The graphics program receives the input data and reacts directly to it. It passes the data on to the music program which also reacts directly to it. Both programs analyze the input data over a longer period of time and exchange the results of their analyses continuously.

The music program analyzes and evaluates the timing and rhythm aspects of the user's movements and processes this information in its composition rules. It then sends the results of the analysis to the graphics program. The graphics program analyzes and evaluates the positioning and rotational aspects of the user input and passes it on to all body parts of the Animatrix, each of which has its own set of rules that tell it how to move and how to react to the results of both analyses. The movement information is then passed on to the music program.

AUTHORS AND PRODUCTION

The idea of the work was conceived by Akke Wagenaar. She developed the basic structure of the dancing program and then started the cooperation with Masahiro Miwa. They connected their computers together and from then on worked simultaneously on their respective programs. Akke Wagenaar programmed "In C" on a Silicon Graphics workstation, using the Graphics Library. Masahiro Miwa programmed on a MacIntosh computer using the music programming language MAX.

The work was supported by the following institutions and companies:
Fonds voor Beeldende Kunsten, Vormgeving & Bouwkunst, Amsterdam, NL
Institut für Neue Medien an der Städelschule, Frankfurt/Main, D
Silicon Graphics Computer Systems, Cologne, D
Vienna International Composer Competition, Vienna, A

NOTE

1 Bodhisattva's role is to mediate between Samsara (the world of illusion and suffering) and Nirvana (the state of calm, emotionless salvation). Bodhisattvas can have 1 to 11 heads and 2 to 1000 arms. The Animatrix has no head and seven arms.