

Notating algorithms

Abstract

Notation is a central issue in modern western music. Composers have often sought ways of expanding and refining the functionality of notation and in doing so they have re-shaped the very music they were originally aiming to describe. Many other musical traditions have used notation very differently, or have used no notation at all and in the process have created highly differing musical experiences.

The developing role of electronics and computers in music has both questioned and influenced the nature of notation and its function. More traditional 'live' notation of note/pitch-based music generated algorithmically has proved particularly problematic: musical notation is itself a very complex subject. Instead composers and technologists have used libraries of images, algorithms for the pre-generation of material or simplified notations that can be used as the basis of a more improvisatory performance.

This paper, which will include practical demonstrations, presents work involving the live presentation via (computer) screen of 'traditionally precise' music notation created from algorithmically generated musical material. This notation can then be performed by a human musician alongside the same computer generated material (or indeed other 'real' musicians). Technologies used include the SuperCollider audio programming environment, OSC and the INScore notation project. As well as providing a fascinating and creative musical experience, the process highlights a number of issues concerning performance practice, instrumental technique, rehearsal, time and timing, as well as the nature of notation itself and its relationship to improvisation.

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