

Apprehending works of computer music through a representation of the code

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At the end of the 20th century Jean-Claude Risset highlighted a novel aspect of computer music composition: sound production through calculation (Risset 1999). Pursuing this line of thought, I view composition as a process that defines the different calculations needed to produce music.

To be effective, these calculations are implemented in one – possibly several - programming languages. Therefore I use the term 'code' in my research to designate all the calculations needed to produce sounds. Since the code permits the creation of the work and its actualization over time - I also consider reconstruction and migration (see Bullock 2005, Dahan 2007) - I suggest that the study of the code can be useful in analysing music.

This approach already exists in musical research (e.g. Meneghini 2007) but is not yet widespread. I am interested in examining how useful the code can be in musical analysis, and how a more systematic use of the code can be integrated in such analysis. I present the essential criteria of the code before examining the main difficulties of using it in musical analysis. I then propose a solution to these problems, arguing that a dynamic representation of the code during the work is helpful for the analysis. Next, I describe how I designed - both theoretically and then technically - this kind of representation, ending with a demonstration of its application to an extract of a piece.

What I aim to show is that the identification of the most salient elements of the code and the representation of their evolution during the work, constitutes another way of apprehending electroacoustic and computer music works.