Additive Synthesis and Resynthesis: A Tentatively Objective Evaluation
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In the past years, additive synthesis and resynthesis became a subject of much expectation and interest within the electronic music community. It even became an almost mythic technique, with the contribution of some very enthusiastic marketing persons and others. In an attempt to separate the facts from the fantasy, this presentation proposes a tentatively objective and factual evaluation of additive synthesis and resynthesis, within the light of "hand-on" experience on the FDSS Studio, an additive synthesizer and a resynthesizer. First, an introduction presents and explains either the strong interest or skepticism amongst the musical audio community about additive synthesis. Then, a description of the main FDSS Studio features will be given. Subsequently, considerations of the possibilities, qualities and also drawbacks of additive synthesis will be presented, along with many audio examples and descriptions of software tools available on the FDSS Studio to circumvent some of these drawbacks. Finally, a description of a new "sound modelling" tool that allows the bending of sections of timbres with each other by interpretation, and which represents an elegant solution to the "data" problem with additive synthesis, will be given. A presentation of future possible development avenues for additive synthesis and the FDSS Studio concludes the presentation.

NOTE: A companion paper on this subject will be published in the preprints of the AES 1st convention.