Object-oriented concepts for computational design synthesis

The aim of the research in the area of computational design synthesis is to automatically solve design problems. Due to the increasing complexity of products and processes, research in this area faces multiple challenges, such as an extension of scope or an increase of efficiency. This paper draws an analogy to object-oriented programming, identifies concepts and benefits that respond to these requirements and depicts their application and implementation. The beneficial methodological extensions are presented based on a strict separation of definition and application of a formal graph grammar.

Stichworte: computational design synthesis; graph grammars; object-oriented programming; implementation
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