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BUILT BY ALGORITHMS – STATE OF THE ART REPORT ON PROCEDURAL MODELING –

C. Schinko[1,2], U. Krispel[1,2], T. Ullrich[1,2], and D. Fellner[2,3]
[1]Fraunhofer Austria Research GmbH, Visual Computing, Austria
[2]Institute of ComputerGraphics and KnowledgeVisualization (CGV), TU Graz, Austria
[3]GRIS, TU Darmstadt & Fraunhofer IGD, Darmstadt, Germany

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Abstract. The idea of generative modeling is to allow the generation of highly complex objects based on a set of formal construction rules. Using these construction rules, a shape is described by a sequence of processing steps, rather than just by the result of all applied operations: Shape design becomes rule design. Due to its very general nature, this approach can be applied to any domain and to any shape representation that provides a set of generating functions. The aim of this report is to give an overview of the concepts and techniques of procedural and generative modeling as well as their applications with a special focus on Archaeology and Architecture.

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