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Visual copy and paste for procedurally modeled buildings by ruleset rewriting

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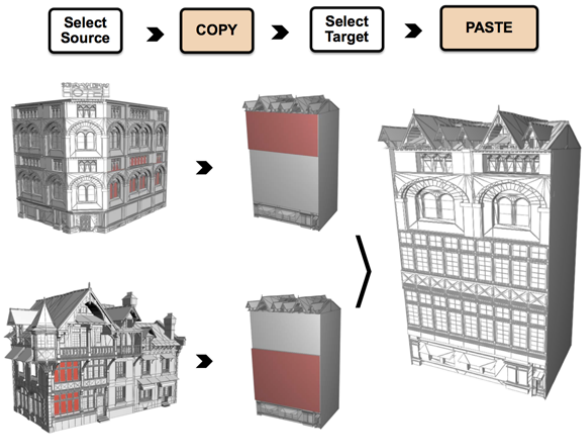

With the increase in popularity of procedural urban modeling for film, TV, and interactive entertainment, an urgent need for editing tools to support procedural content creation has become apparent. In this paper we present an end-to-end system for procedural copy and paste in a rule-based setting to address this need. As we show, no trivial extension exists to perform this action in a way such that the resulting ruleset is ready for production. For procedural copy and paste we need to handle the rulesets in both the source and target graphs to obtain a final consistent ruleset. As one of the main contributions of our system, we introduce a graph-rewriting procedure for seamlessly gluing both graphs and obtaining a consistent new procedural building ruleset. Hence, we focus on intuitive and minimal user interaction, and our editing operations perform interactively to provide immediate feedback.

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