

ABSTRACT

Abstract—Visualizing simulations of urban spaces is of significant importance to urban planning, emergency management, and content creation. In this paper, we bring together procedural modeling and urban simulation models in order to improve the visualization of data resulting from simulated changes in urban activities and landscapes over time. Procedural modeling has been successfully used in other areas of Visualization and Computer Graphics. We interactively and automatically generate an urban layout during any time instant of an urban simulation sequence. In addition to standard visualization tools, our method gathers stochastic data of the original urban layout and uses the available simulation parameter values to infer a best-fitting urban layout for the simulation results. We demonstrate our method using a 200 GB database for a 16,300 square kilometer area surrounding Seattle, Washington.