

Virtual reality of water management in a big town

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ABSTRACT

This paper describes the development and the functions of a virtual reality tool (VRT) for the hydraulics simulation executed on high-performance computing infrastructure. The simulation process collaborates with the geographic information system environment in order to correct and prepare input data and visualize the simulation output. In Slovakia, we are using the system EPANET for the execution process of hydraulics simulation. We are able to port all the execution and simulation processes together with the EPANET system on high-performance computing infrastructure. All the execution results in the storage are visualized by the VRT. The paper describes the developed modules and its functionality.

Keywords: Virtual reality; Water management; Hydraulics simulation; High-performance computing infrastructure

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