

## Visualization of the flood simulation applying Google Earth

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Dynamic hazard maps are expected to be an effective tool for understanding various dynamic situations of real hazard. As a prototype, we developed a technical method to visualize the flood simulation applying Google Earth, which is one of popular digital platforms for visualizing, exploring, and sharing of various geographic informations across the world.

Recently in Japan, flood hazard maps have been distributed by local governments as one of the educational tools for residents. These maps describe a representative situation of floods, but they may not inform the dynamics of real floods enough. The purpose of this study is to show a new approach to realize a dynamic hazard map.

The flood simulation data of the Shinkawa River Basin in Aichi Prefecture were used. The region is famous as widely damaged by Tokai-Storm in September 2000. A GIS-based process was adopted to convert the original simulation data into Shapefile, one of the general formats of spatial data, and to KML, a standard format for Google Earth.

The visual contents we created on Google Earth make it possible to recognize the changing spatial pattern of rapid water flows, and to watch the 3D-scene of flooded buildings.

