# **Visdom**

The software tool for simulation, visualization and analysis of floods and heavy rainfall.







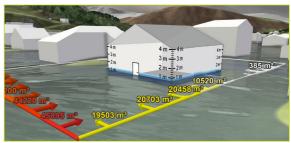
zentrum für virtual reality und visualisierung forschungs-gmbh

### Heavy rainfall and flood simulation as a service

Visdom is a software tool that combines hydrodynamic modeling with fast flood simulation and high-resolution 3D visualization and analysis in one tool. With unprecedented speed, Visdom simulates flooding events for extremely large areas, without loss of accuracy. With Visdom, we put visual computing expertise at the service of sustainability. Visdom makes intelligent flood protection and water-sensitive planning in the context of climate change adaptation possible. Interactive live planning of measures for Sponge Cities or blue-green infrastructure are also easy to implement with Visdom, as well as disaster management in case of emergency. Furthermore, Visdom is very much suitable for public information campaigns, raising awareness for hazards and dangers of floods and heavy rains.

For more than a decade, Visdom has been developed by VRVis and the Institute of Hydraulic Engineering and Water Resources Management at the Vienna University of Technology (Prof. Günter Blöschl): a successful example for a digitization solution from Austria.







Visdom is the basis of Hora 3D, the world's first personalized 3D flood risk visualization for an entire country: www.hora.gv.at
On behalf of the Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML) and the Association of Austrian Insurance
Companies VVO, VRVis, in collaboration with the Vienna University of Technology, calculated detailed, Austria-wide flood risk maps that support
raising public awareness for possible future floods. In a next step, VRVis also integrated the object-related visualizations to feature the hazards
interactively, realistically and intuitively understandable.

#### Strengths of Visdom

- □ Fast simulation: Without any loss of accuracy, live planning with Visdom revolutionizes the state of the art of planning processes
- ☐ Integrated 3D visualization: Important communication tool for both professionals and the general public
- Browser access: A simple link is all that is needed to give stakeholders and users access to a common simulation platform
- Heterogeneous hydro modeling in a single setup: for river floods, (heavy) rain, slope water, coast, sewer network, infiltration
- Management of many different scenarios for large regions or whole countries in a single project setup
- **Extensive portfolio** of measures that can be simulated
- Perfect for public awareness campaigns

#### **Awards for Visdom**





## Selection of VRVis' partners and customers























## **Visdom**



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**About Visdom** www.vrvis.at/visdom

**Videos about Visdom** www.youtube.com/vrvis

#### About VRVis

VRVis is Austria's leading research institute in the field of visual computing, with locations in Vienna and Graz. As a COMET competence center, VRVis operates with around 70 researchers at the intersection of science and industry, strengthening companies in various fields through technological innovation from the areas of artificial intelligence, visual data analytics, XR, and simulation.

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