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FOR APPLIED RESEARCH IN VISUAL COMPUTING

## CONTACT

Prof. Dr. Uwe Freiherr von Lukas  
Head of Competence Center  
"Maritime Graphics"

**Fraunhofer Institute for  
Computer Graphics Research IGD**  
Joachim-Jungius-Strasse 11  
18059 Rostock, Germany

Phone: +49 381 4024-100  
Fax: +49 381 4024-199  
uwe.von.lukas@igd-r.fraunhofer.de

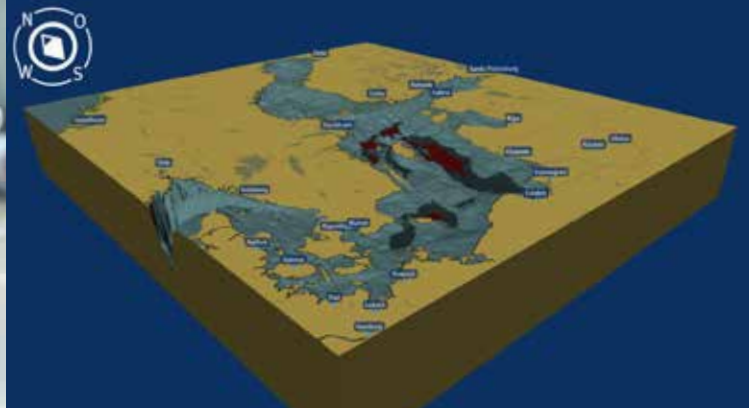
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# OceanView





## EASY AND FAST GENERATION OF INTERACTIVE WEB-BASED DATA VISUALIZATION

OceanView is an easy to use framework which converts gridded bathymetry data and marine sensor data on-the-fly into interactive 3D models using standards like X3D and X3DOM.

The results can be used on different systems, like immersive mixed/virtual reality environments or multi-touch tables.

Thanks to the template-based generation pipeline it is also possible to create interactive 3D models for the web using HTML 5 techniques and without the need for plugins.

Our flexible generation approach allows the integration of interaction elements e.g. for changing the color scale on-the-fly, manipulating the sea surface level, changing the water transparency or taking screenshots.

The interactive 3D models allow a variety of applications such as visual exploration of the consequences of sea level rising.

### FEATURES

- Import of common grid file formats (1D - 4D)
- Supports geo-referenced and multi-variate data
- Isosurface extraction from volume data
- Surface interpolation from sample data
- Template-based data conversion
- Many coloring options and common color scales
- Highly configurable generation process
- Embeddable in data processing workflows

### TARGET PLATFORMS

- Mixed reality environments (i.e. InstantReality)
- Decent web browser (HTML5)
- Mobile devices
- VR glasses

### APPLICATION EXAMPLES

- Time series analysis of marine data
- 3D data set thumbnails on data portals
- Collaborative data exploration in Virtual Reality
- Outreach activities
- Educational purposes