

3D LIVE VIDEO

The 3D live video feed developed within HET presents the objects and surroundings in three dimensions without using special 3D-glasses. A video camera and a distance sensor combine their respective data into 3D images which are then shown in a live 3D video feed.

The service is a great monitoring solution for life critical situations. It gives a better understanding of the observed scene and allows for precise steering of remote machinery, since it yields a better geometric understanding. 3D Live Video has potential for cave exploration and demolition projects, among others.

Additional information, such as volume or distance calculations can be displayed in the 3D video feed as well.

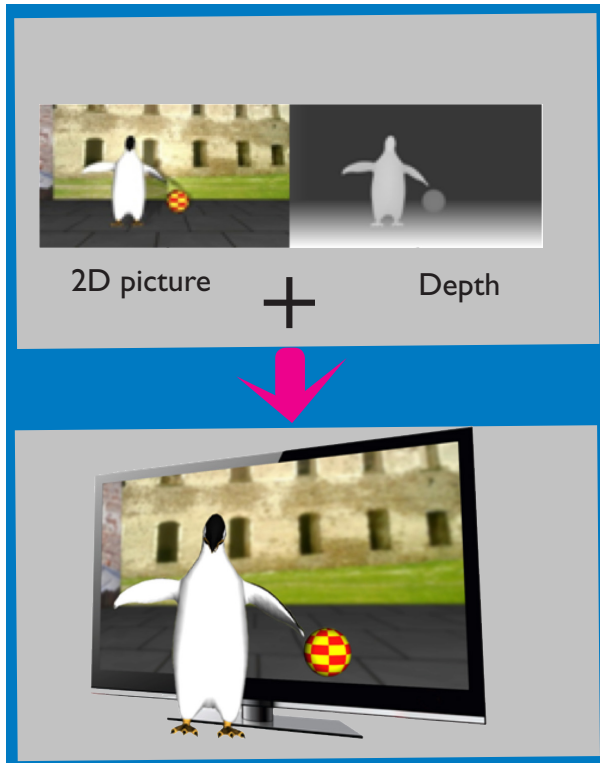


Foto: Muddala, Suryanarayana Murthy. "View Rendering for 3DTV." (2013)

SAMPLE PROJECTS FOR

The development of these services has been conceptualized in discussion with Sundsvall municipality and Sundsvall Energi.



3D VISUALIZATION

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LOOK AROUND WITH US!

The High-Tech E-Services research project (HET) is funded by Mid Sweden University and the EU Regional Development Fund. The project concentrates on development of E-services within the area of 3D visualizations.

3D interactive tours and 3D live video feeds are two services explained in this brochure. These two are also the basis for creating further services. For instance, 360 degree aerial panorama pictures of landscapes are applicable in tourism to illustrate cultural heritage and Swedish nature. The two above mentioned services also permit to digitally create 3D models of objects such as future buildings in a digital landscape. Finally this development within HET allows generating educational, explanatory and promotional 3D videos, for example to show a vision for the development of Sundsvall.

The development has been accomplished during the summer of 2014 by six project members from three different disciplines: Computer Engineering, Industrial Designer and Industrial Engineering and Management.

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3D INTERACTIVE TOURS

3D interactive tours facilitate communication and enhance the user's geometrical understanding, allowing to interpret consequences of construction projects or to grasp designs without ambiguity.

Within the HET project, an interactive 3D tour of the Mid Sweden University campus has been developed. The above image is a screenshot of the 3D model.

Prospective students could wander the campus streets or fly over it in a helicopter perspective. By clicking the yellow balloons information is displayed about the buildings on campus. The user may read and add comments inside the 3D model.

Furthermore, the model has zoom functionality and it is accessible from web browsers.

3D interactive tours are fun to interact with, easy to use and allow users to look at scenes from distinctive angles and zooms.