

Software Lab:

Modeling: ★★★★★
Mathematics: ★☆☆☆☆
Programming: ★★★★★

Develop a 3D frame model from photographs

Setting

Image processing is able to generate 3D geometrical surface models from a sequence of photographs. Free software is available transforming standard image files into an STL-model. These 3D-models can be used as a starting point for the generation of a 3D frame model to be used in a standard finite element program (e.g. of SOFiSTiK).



Figure 1: <http://www.newdesignworks.com>

Task

- Get familiar with image-to-3D-model software
- Develop a GUI where a user is able to define a 3D frame-model using the STL-file as a template for dimensions and coordinates
- Show the workflow of the frame definition for a practical problem of an exhibition hall.

Supervisors

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References

- [1] <http://graphics.stanford.edu/data/3Dscanrep/>