

FÜR INFORMATIK

Faculty of Informatics

Diplomarbeitspräsentation



# **Interactive Exploration of Architecture Using Exploded Views**

Masterstudium:

Medieninformatik

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## **Exploded Views**

Exploded views have been successfully applied to architecture by illustrators. In exploded views, occluding parts are

## Looking Inside

The goal of this work is to design and implement a visualization system for architecture based on exploded views. The underlying concepts take into account existing illustrations and approaches. The end user gets an insight into the structure and the interior of the building and is empowered to interactively explore the architecture.

## Results

The outcome is the ExVAr-system, a real-time visualization system implementing the presented concepts and requirements by a context-sensitive method. The screenshots of the system demonstrate the resulting visualizations and the user-interface.







## **Space and Hull**

The concept of space and hull is commonly used in architectural theory. The term space refers to no real physical object, it is rather an invisible area which is shaped by its bounding hull.











### **Hierarchical Model**

Segmenting a building hierarchically allows integrating the level-of-detail approach into the resulting visualization system.

> Building - Section Storey

Room

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#### Levels of Detail

A building is a complex structure with many elements which may occlude each other. The scale of the different objects is widely diverging. A valuable visualization of a building has to emphasize important and de-emphasize unimportant information with respect to the different levels of detail and the context of elements.