Technische Universität München
Fachgebiet Computergestützte Modellierung und Simulation

Preparator 2.0

Project Characteristics			
Mathematical Modeling:	low	★★☆☆☆	high
Programming Skills:	basic	★★★☆☆	advanced
Self-Reliance:	independent	★★★★☆	supervised

The preparator [1] is one of our construction-site simulation program-package. This tool is used to define all the input data needed for the start of a detailed simulation. In our concept, this process is based on a dummy 3D model and in order to create an intelligent 3D model Preparator assigns the components of the model with construction methods, resources and different dependencies. If this model is detailed enough, all these important construction methods and dependencies can be assigned to an element of the model, and the model can be transferred to the simulation.
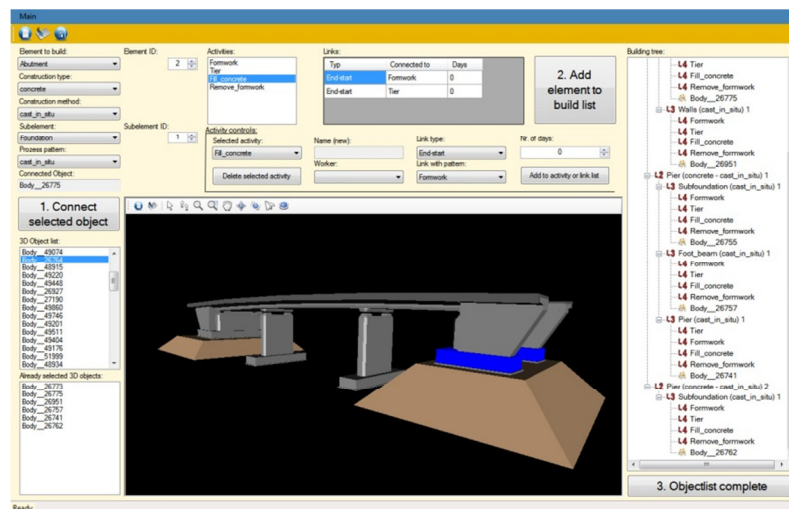
In this software-lab project a new Preparator (2.0) should be designed based on the version 1.0 using Java and Java 3D for the visualisation. The assignment of construction methods should be created interactively using the 3D visualisation and predefined construction-method-packages. The second job is to create a graphical user interface (GUI) to define technological dependencies between construction methods and single processes. As third step a resource management should be implemented, where the workers, materials and machines can be defined. At last all the data should be exported to the simulation using an XML-schema.

Supervisor

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References

[1] www.cms.bv.tum.de/en/component/content/article/198