Chair of Computational Modeling and Simulation
TUM School of Engineering and Design
Technical University of Munich

A web application for model-based Damage Documentation of Bridges

Project Characteristics

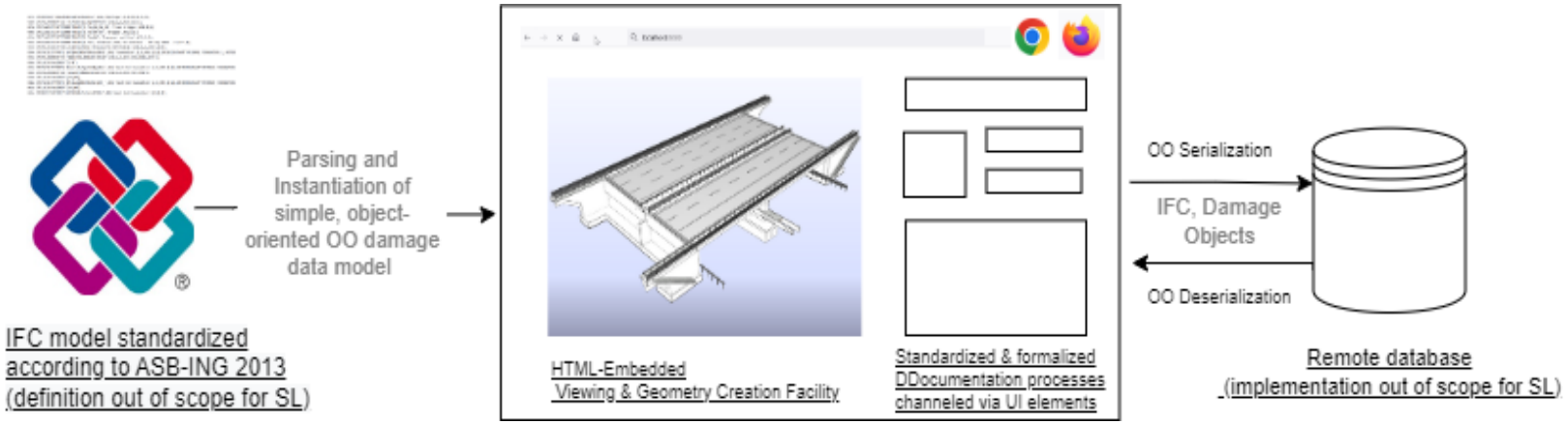
Modeling:
Mathematics:
Programming:
Science:

Task

In order to document and understand damages appearing at a bridge structure, engineers require tools to quickly assess the location and the history of a damage. Model-based approaches can especially support the the visual interaction with the captured information on site. In the scope of this Software Lab, a web-based application will be developed that supports model-based damage tracking and visualization. In order to achieve this, the students are required to:

- Learn and formalize the engineering processes of in-situ damage documentation
- Design and implement an appropriate user interface design for a model-based workflow
- Design and partially implement an object oriented data exchange process for the storage and exchange of once inserted data

Note: *The students should speak decent German as an industry partner uses German normatives and has employees speaking only German.*



[1] Image source: https://ifcinfra.de/ifc-bridge/bridge-abschluss/