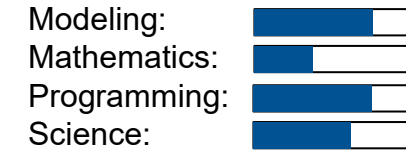


# Smart BIM Customization

## Task

*Seamless BIM workflows require alignment between client-defined information requirements and data produced by engineering tools, yet this alignment is often missing in practice. As a result, engineers must manually adapt BIM exports, a process that is time-consuming, error-prone, and hard to scale. This work assumes that most required information already exists in the BIM model and that the main challenge lies in re-coding and mapping this data to meet client expectations. The goal is to develop an automated framework that compares client and engineer IDS definitions and generates patch specifications to achieve BIM model compliance.*

## Project Characteristics

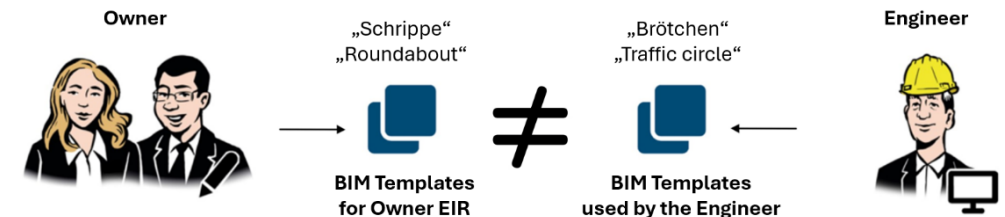


## GENERAL INSTRUCTIONS:

- **Explore Information Requirements**  
Get familiar with client and engineering information requirements by analyzing IDS definitions and understanding the IDS format from buildingSMART.
- **Design a Smart Matching Concept**  
Develop a concept for comparing client and engineering IDS definitions and define a patch specification to capture and store the matching results.
- **Build an Automated Prototype**  
Implement a Python-based prototype that generates patch scripts and applies them automatically to IFC models.
- **Test and Validate with Real Examples**  
Apply and validate the generated patches using different practical examples from real-world BIM scenarios.

## Challenge for BIM authoring

The customer's requirements meet the engineers' optimised workflow



**Task: Tool support for conversion from Engineer BIM to AIA BIM**

Team Bonsai (Krieger, Weise, Gmeiner) – Hackathon zum BIM-Portal des Bundes 2025