Why Do We Still Resist Using Revit Structure for Reinforcement Detailing?

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Key learning objectives

At the end of this class, you will be able to:

- Consider using Revit Structure for rebar detailing
- Learn about the benefits of a BIM-centric workflow
- Learn about different workflows used for RC detailing around the world
- Tell possible missing features to software developers

Introducing Thomas Fink

- Studied Structural Engineering at Technical University Munich (TUM)
- 3 years research assistant at TUM
- 1983 - 1999: Self employed as chartered structural engineer
- 1983 - today: Software developments in structural engineering, Co-founder of SOFiSTiK
- 1999 - today: CEO of SOFiSTiK AG
- … and …

- Loves to fly balloons and to sail ☺ (time permitting ☹)

Please quickly introduce yourself

- Name
- Company
- Job Description
- Location

Short Introduction

Traditional Workflow

- Geometric Model from Architect
- Analytical Model in Analysis Software
- Design/Code checking
  - Analysis Software
  - Separate Software
  - Spreadsheets
- Design Intent documented with Sketches
- Symbolic presentation of Rebars in 2-D

Suggested Workflow

- One (Revit-)Model with
  - Geometry
  - Analytical Model
  - 3-D Rebars
  - 2-D symbolic representation
  - Bills of material
  - Production data

Benefits

- Reduced risk of inconsistencies
- Semi-automatic generation of rebar cages
- Checking reinforcement required vs. Reinforcement in the model
- Increased efficiency allows to stop outsourcing
- 3-D-Rebar Model can be used for clash detection and automatic fabrication

Discussion

Topics to discuss

- Will the suggested workflow work?
- Is it desired?
- Shall/can traditional workflows be changed?
- Does the software work?
- Is third party software a barrier for entry?
- Is it really more efficient?
- Other reasons?