Agenda

• Short introduction Contelos GmbH
  • Range of services / customers

• BIM
  • The BIM-platform Revit
  • Added value with database linking
  • The information within building products
  • Set of information (SOI)
  • Lifecycle of Revit families
  • Requirement from the market / users
The Contelos GmbH

- Founding year: 1992
- Employees: 42
- Annual sales: ca. 8 Mio. €
- Service countries: Germany, Austria, Switzerland (D A CH)

Our areas of expertise:
- Mechanical engineering
- Building construction / BIM
- Engineering software
- Geographical information software
- Data management
- Software development
- IT-system engineering
Range of services

Software consulting & software sales
... based on your business model

Needs Analysis / Potential Analysis (NRW)
... to record individual workflows

Implementation & optimization of work processes
... according to the objectives

Individual trainings
... Basics, Methodology, Admin, Special

Creation of process-relevant data
... templates, components, documents, media

Support for BIM processes
... interface definition, BIM execution plan, BIM consulting

Contract work & project support
... content, models and much more
Areas in which we serve our customers

Implementation of a BIM process with Revit®:

- StilX Architektur
- Ingenieurbüro Rehms (TGA)
- Vahjen Architekten
- RRI
- NCC Deutschland GmbH
- pape architekten
- Volkswagen Financial Service
- SWECO (Wasser- und Abwasserwirtschaft)
- PGSJ – Planungsgruppe Skribbe-Janßen GmbH
  ...

Optimization of BIM processes with targeted enhancements:

- ATP
- PORR AG
- Goldbeck
- Wetzel Bauplanung Überwachung
- GTB – Berlin mbH
- Architekturbüro Konrad Wiesenthal
- HENN
- formitas LUK / CARPUS
- HPP Hentrich–Petschnigg & Partner GmbH + Co. KG
- pape architekten
  ...

Switch from 2D to component-oriented 3D work:

- BKSP
- Wesemann GmbH & Co. KG Laboreinrichtungen
- Ingenieurbüro Beck
- Wöhrmann Architekten
- IFB GmbH
- Markus Bau GmbH
  ...

Access to infrastructure planning with Revit®:

- SWECO (Wasser- und Abwasserwirtschaft)
- SWECO (Ingenieurbauwerke)
- ERS Ingenieurbüro für Tragwerksplanung GbR
- BUNG Ingenieure AG
- ifs Ing.-Ges. f. Stadthydrologie mbH
- Obermeyer Planen und Beraten
  ...

Trained ORGADATA Possibilities of the Revit® family technology for a window / door generator
... and much more.
BIM is an intelligent process based on digital models
The building data model

Added value through (database) links

- Internet
- Data Banks
- Building Survey
- Visualisation
- CAD Systems
- HVAC
- Statistic Software
- Statistical Evaluations
- Catalog
- Spreadsheets
- Finance and Accounting
- Simulisation and Analysis
The information in components

Why do I need BIM content?

- The "I" in BIM
- Data / plan(ning) security
- Technical level
  - "Smart" labels
  - Representation of components acc. Specific information
- Handover to public tenders / static planning
- Avoiding double entries
Set of Information (SOI)
Each information recipient requires different information, and a particular set of it, at different stages
Lifecycle of Revit Families

LOD 100  LOD 200  LOD 300  LOD 350  LOD 200

3D modeling  3D Model in use  3D model in operation

Design  Pre-Construction  Construction  Operation
Requirements from the market / users
Experiences of the Revit User Meeting in June 2016

„Picture perfect“-families are:

- Simple + consistent in exchange
- Don’t cause instabilities
- Include material definition
- Offer:
  - Connectors (HVAC)
  - Relevant, specific information (strength class, fire resistance class)

Problem-families

- Level of Detail
- Performance problems (file size)
- Not adapted to plan of work phase = possible exchange for exactly these reasons with a less detailed product of the competitor
- Component handling during placement / exchange

Content considerations on the example of a mounting rail

- When does the planner display a washer on the plan?
- When would a simple geometric representation suffice?
- When would a more detailed model be necessary?
- What are the relevant information for the tender?