

# SOFiSTiK company and software products – News

**Frank Deinzer**

Managing Director Marketing & Sales



# SOFiSTiK AG

SOFiSTiK is Europe's leading software developer for analysis, design and detailing of building and infrastructure projects worldwide.

Founded in 1987

- Spin-off of Technical University of Munich
- FEA development since 1973
- Autodesk ADN Member since 1985

Main location: Munich & Nuremberg Germany; Sales branches/offices: Austria, South Africa, UK, Israel, US | Subsidiary: BiMOTiON

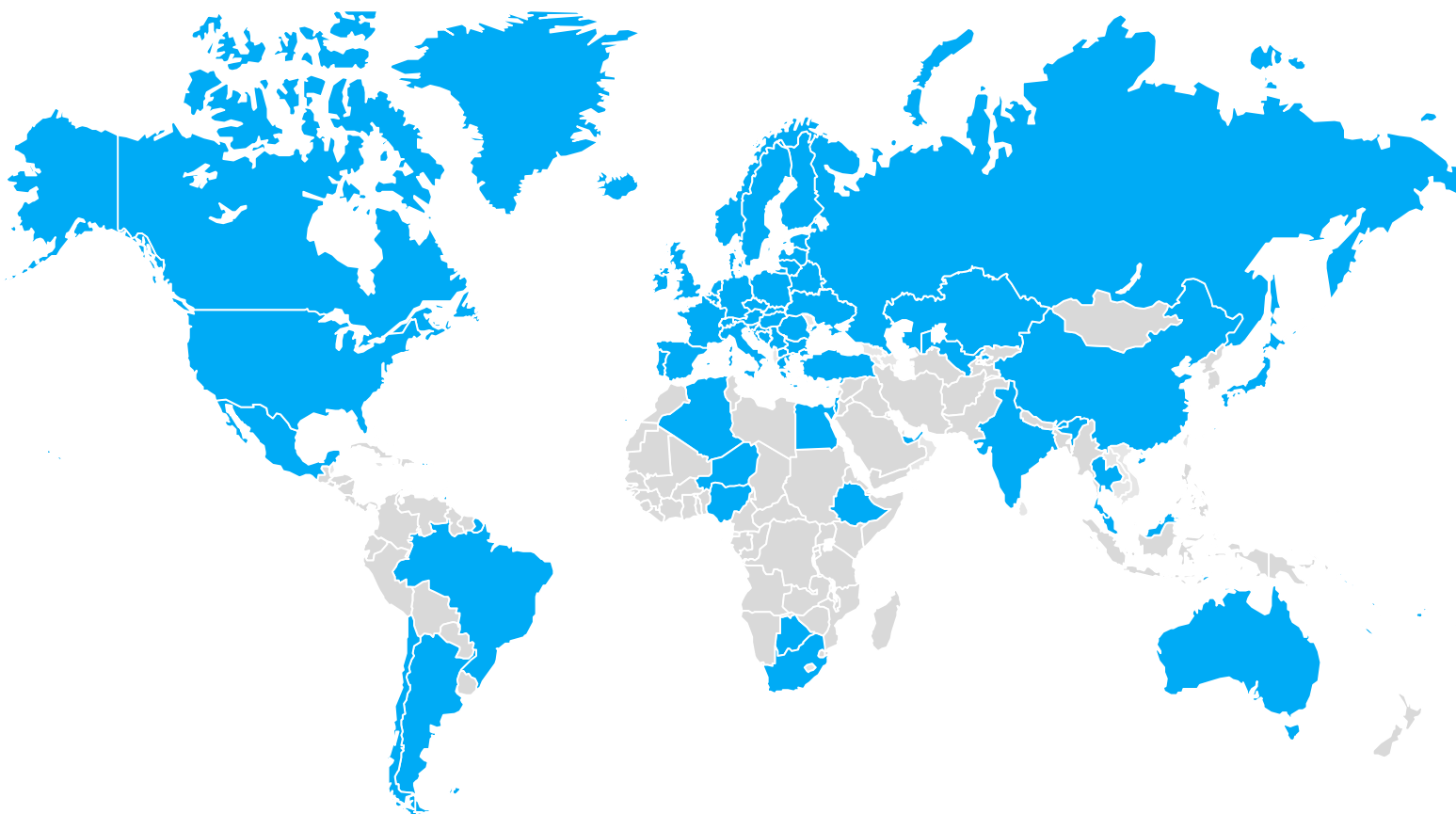
Focus: Professional FE and drafting software solutions for structural and civil engineering

75+ employees + external staff

Autodesk Industry partner



# International Presence



6.000+ customers in 80+ countries

10 competence centers

30 international partners/distributors

## Europe



# Italy



- New approach with our long term colleague Emanuele and his company venmises
- Additionally we want to collaborate with other players in Italy such as Man and Machine Italy



# SOFiSTiK - Productlines



## SOFiSTiK | 2020

This product line contains all structural analysis, dynamics and finite element modules of SOFiSTiK. Graphical pre-processing based on Autodesk AutoCAD and Revit as well as McNeel Rhinoceros are parts of this family. A core component is the SOFiSTiK Structural Desktop (SSD), the central control and input program for all structural computations.

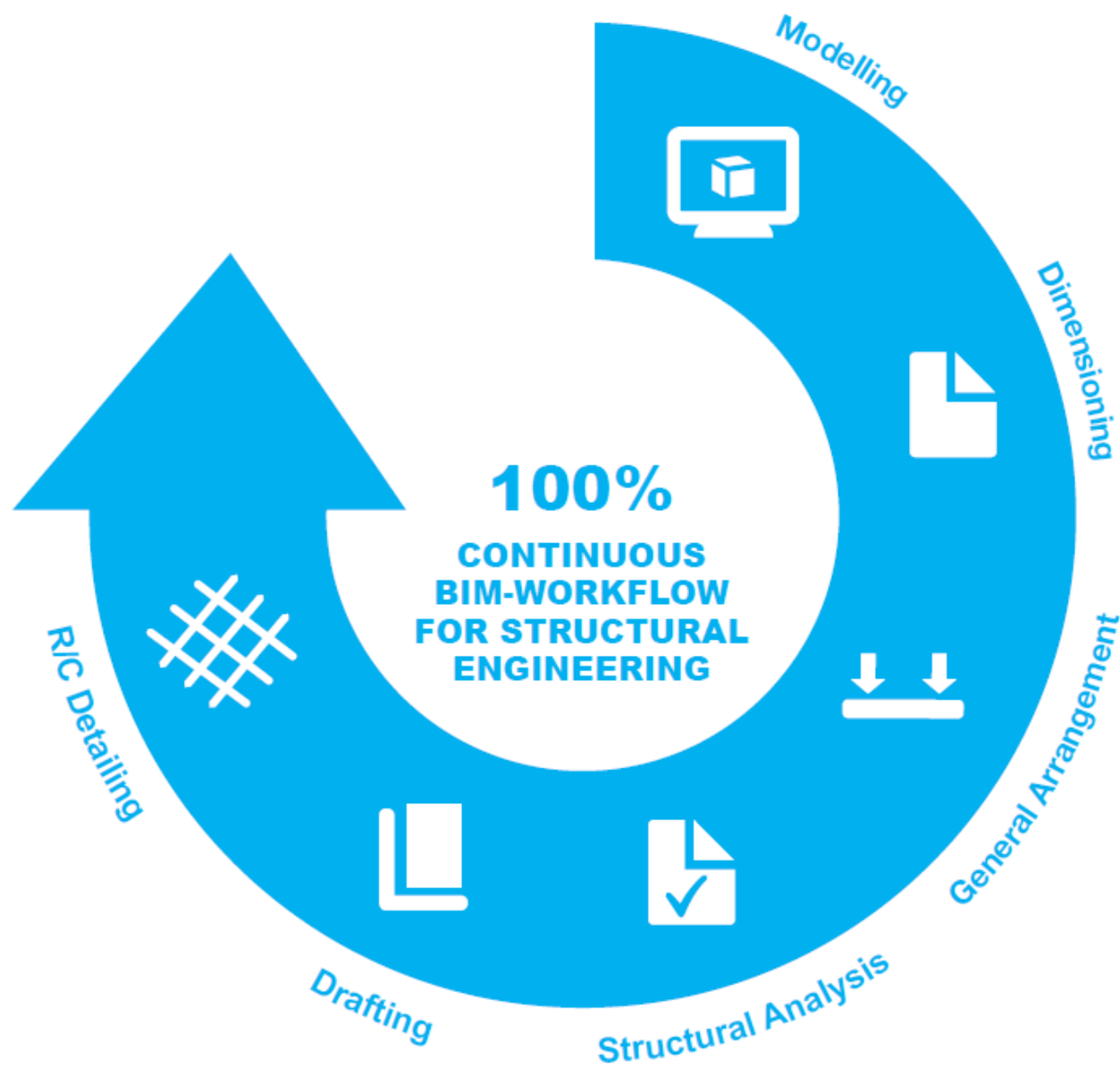
## BIM Apps | 2020

From the Revit BIM model with 3D reinforcement from design results towards structural drafting and R/C detailing in 2D, the BIM-Apps support your BIM workflow. Furthermore, there is an innovative app for Bridge Design and Detailing.

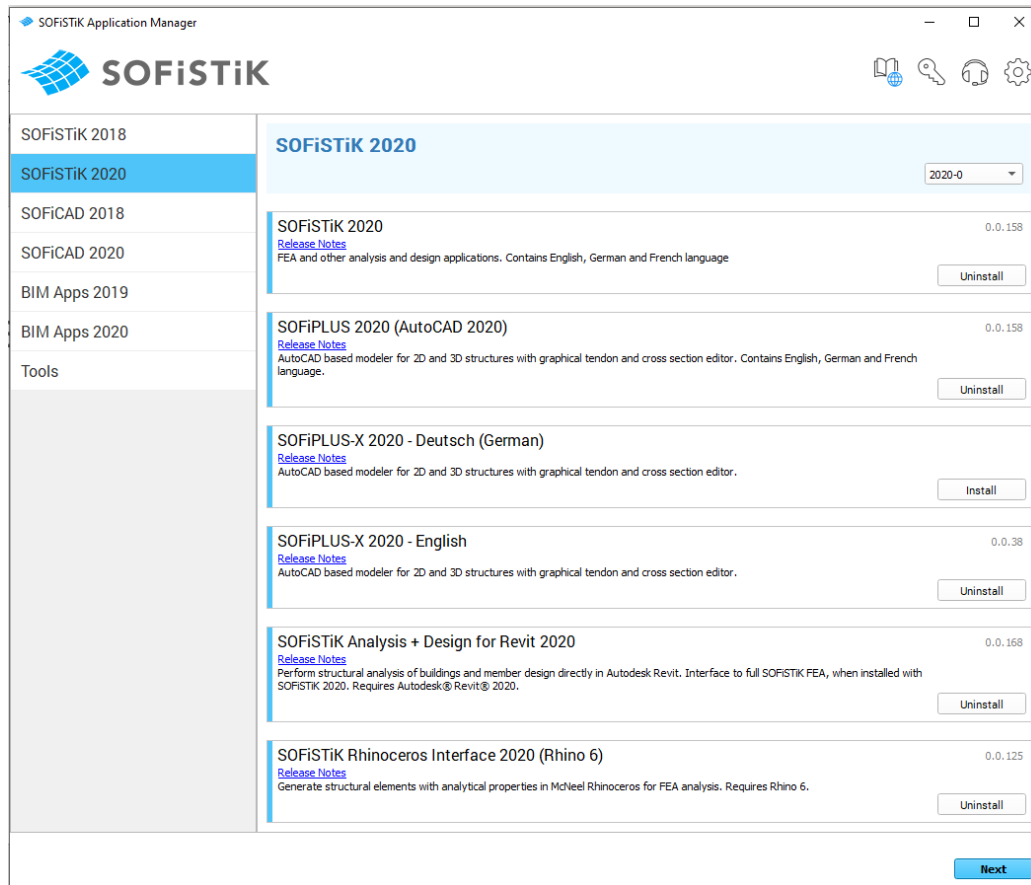
## SOFiCAD | 2020

Reliable 2D drafting and R/C detailing on an AutoCAD platform or using integrated Autodesk Technology as SOFiCAD-OEM (German only).

High-quality support and consulting



# SOFiSTiK – general information (SAM)

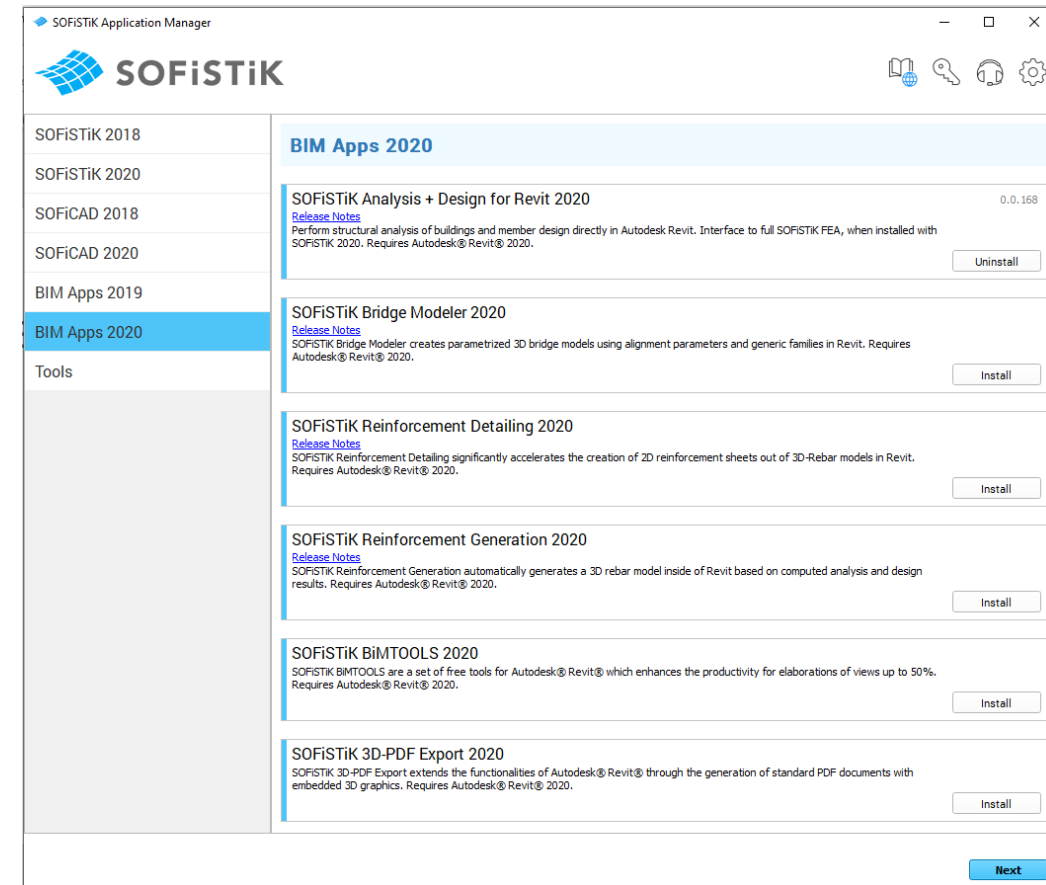


**SOFiSTiK Application Manager**

**SOFiSTiK 2020** (2020-0)

- SOFiSTiK 2020** (0.0.158) [Release Notes](#) Uninstall
- SOFiPLUS 2020 (AutoCAD 2020)** (0.0.158) [Release Notes](#) Uninstall
- SOFiPLUS-X 2020 - Deutsch (German)** [Release Notes](#) Install
- SOFiPLUS-X 2020 - English** (0.0.38) [Release Notes](#) Uninstall
- SOFiSTiK Analysis + Design for Revit 2020** (0.0.168) [Release Notes](#) Uninstall
- SOFiSTiK Rhinoceros Interface 2020 (Rhino 6)** (0.0.125) [Release Notes](#) Uninstall

[Next](#)



**SOFiSTiK Application Manager**

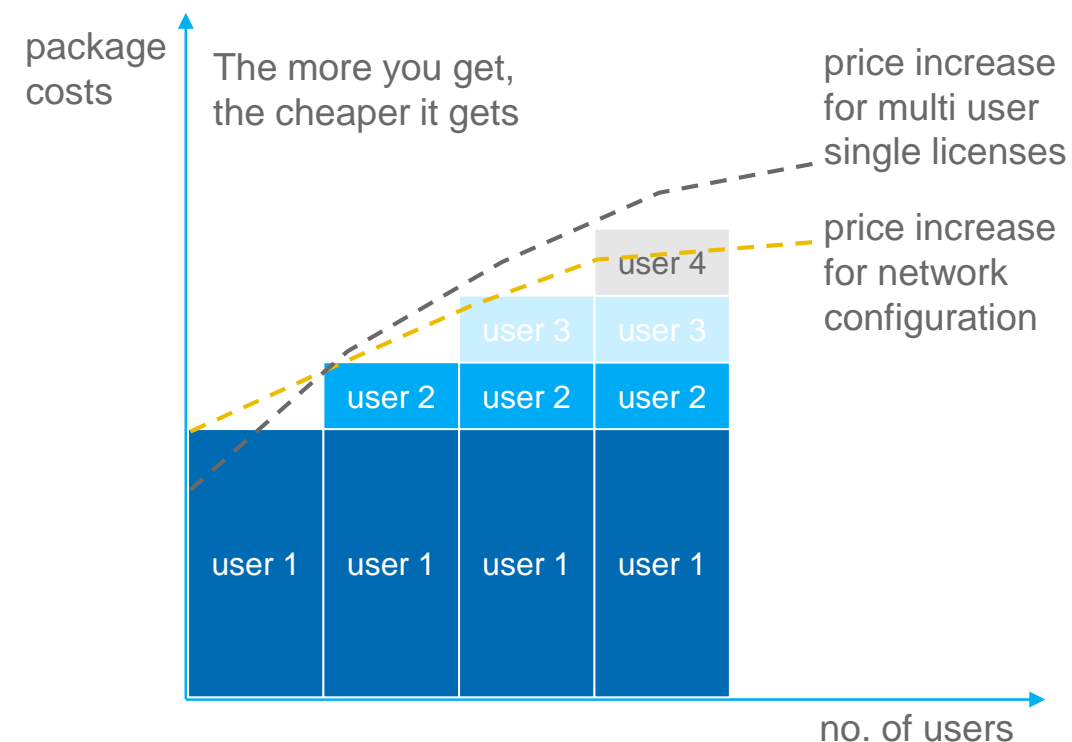
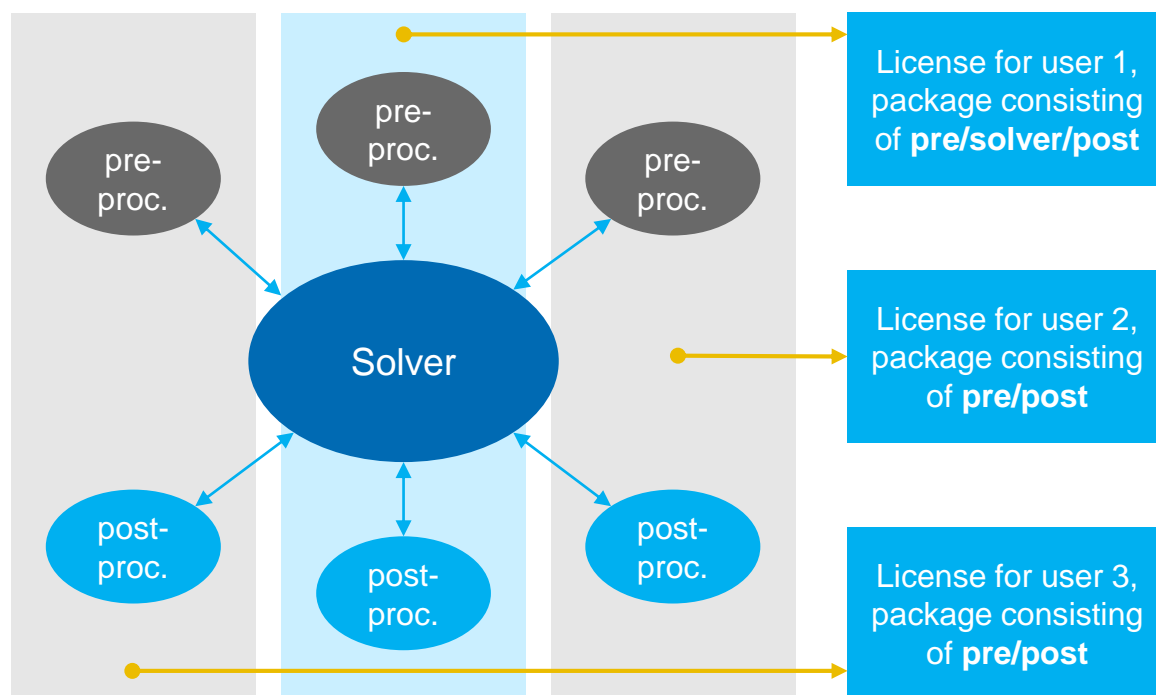
**BIM Apps 2020**

- SOFiSTiK Analysis + Design for Revit 2020** (0.0.168) [Release Notes](#) Uninstall
- SOFiSTiK Bridge Modeler 2020** [Release Notes](#) Install
- SOFiSTiK Reinforcement Detailing 2020** [Release Notes](#) Install
- SOFiSTiK Reinforcement Generation 2020** [Release Notes](#) Install
- SOFiSTiK BiMTOOLS 2020** [Release Notes](#) Install
- SOFiSTiK 3D-PDF Export 2020** [Release Notes](#) Install

[Next](#)

# SOFiSTiK Advantages

## Price Model





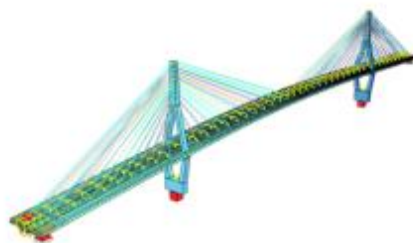
# SOFiSTiK | 2020 – FEA Product Line

## ONE TOOL for ALL

Building



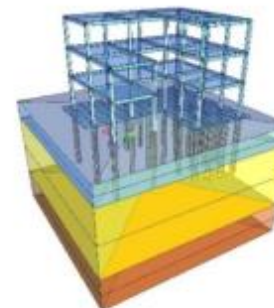
Bridges



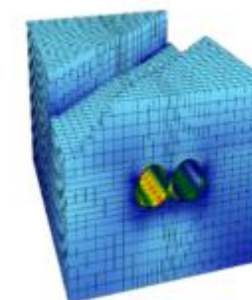
Piles



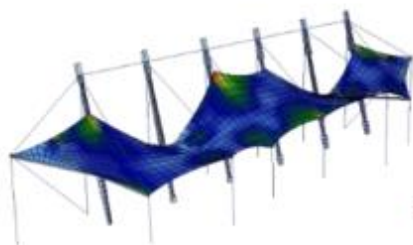
Half-space



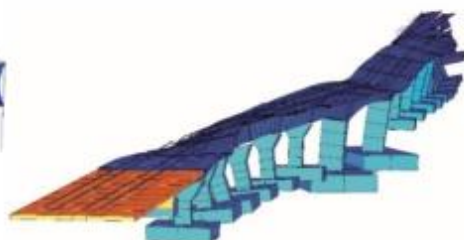
Tunnels



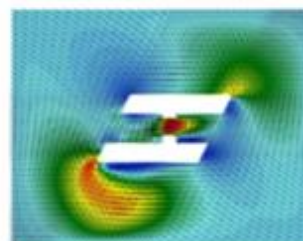
Membranes



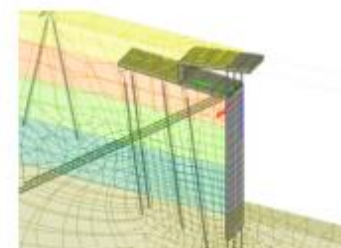
Dynamics



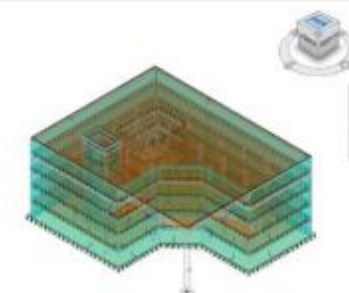
Multi-physics (CFD)



Geotechnics



BIM



## PRE-PROCESSING

### **SOFIPLUS(-X) for Autodesk® AutoCAD®:**

Graphical system-, load- and cross section input  
(incl. AutoCAD OEM)

### **FEA Extension for Autodesk® Revit®:**

3D FE models and 2D subsystems for buildings

### **Rhinoceros® Interface:**

3D FE models for complex geometries

### **Teddy / Text Editor:**

Parametric text input language CADINP

## DESIGN / POST-PROCESSING

### **MAXIMA:** Enveloping

**SIR:** Integration of slab- and shell results

**BEMESS:** Design of slabs, shear-walls and shell elements

**AQB(S):** Design for beams (P/T and composite)

**BDK:** Eurocode stability checks for beam members

**COLUMN(-FD):** Eurocode design of R/C columns (fire design)

**FOOTING:** Eurocode design of R/C footings

**ANIMATOR:** System- and deformation visualization

**WinGRAF / WING:** FE results and plots

**RESULT VIEWER / RESULTS:** Tabular and cross section results

**REPORT BROWSER:** Documentation



## PROCESSING / SOLVER

**AQUA:** Materials and cross sections

**SOFILOAD(-V):** Loads and loadfunctions (traffic loads)

**TENDON:** Pre- and Post-tensioning for beams and shells

**CSM:** Construction stages and time dependent effects

**ASE:** Finite element solver

**TALPA:** 2D finite elements in geotechnics

**HASE:** Soil-structure interaction

**HYDRA:** Seepage and thermal simulation

**ELLA:** Influence line evaluation

**DYNA:** Earthquake and dynamics for finite elements

## INTERFACES / BIM

**VBA / Excel®:** CDB export to Excel

**C++, C#, FORTRAN:** Programming interfaces to CDB

**IFC:** Structural Analysis View (2x3)

**AutoCAD / SOFiCAD:** .dwg/.dxf and 2D FE rebar results

**Revit / Reinforcement Generation:** 3D reinforcement from FEA

# SOFiSTiK | 2020 – BIM Apps

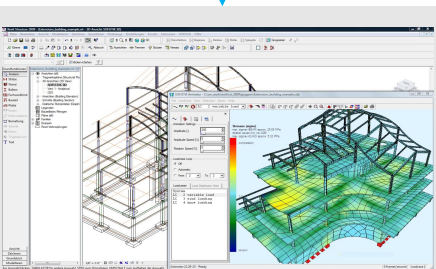


# BIM – Products



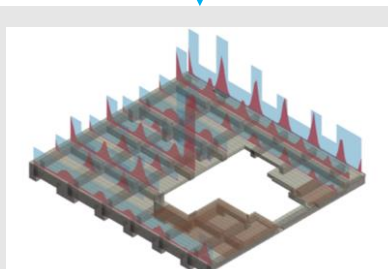
## SOFiSTiK Analysis & Design

Revit interface to SOFiSTiK  
FEA  
3D and 2D Subsystem  
analysis + component design



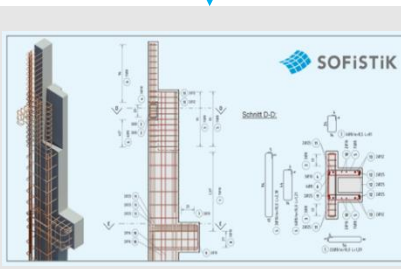
## SOFiSTiK Reinforcement Generation (RCG)

Automatic generation of a  
3D rebar model in  
Autodesk® Revit® based  
on analysis and design  
results



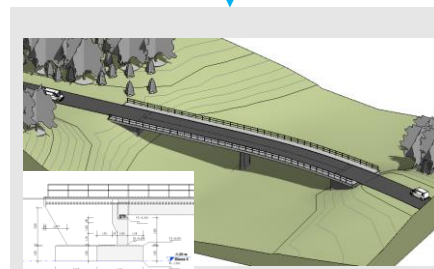
## SOFiSTiK Reinforcement Detailing (RCD)

Creation of  
2D reinforcement sheets  
out of 3D-Rebar models in  
Autodesk® Revit®



## SOFiSTiK Bridge Modeler

Creation of parametrized 3D  
bridge models using  
alignment parameters and  
generic families in  
Autodesk® Revit® 2019



## SOFiSTiK 3D-PDF export





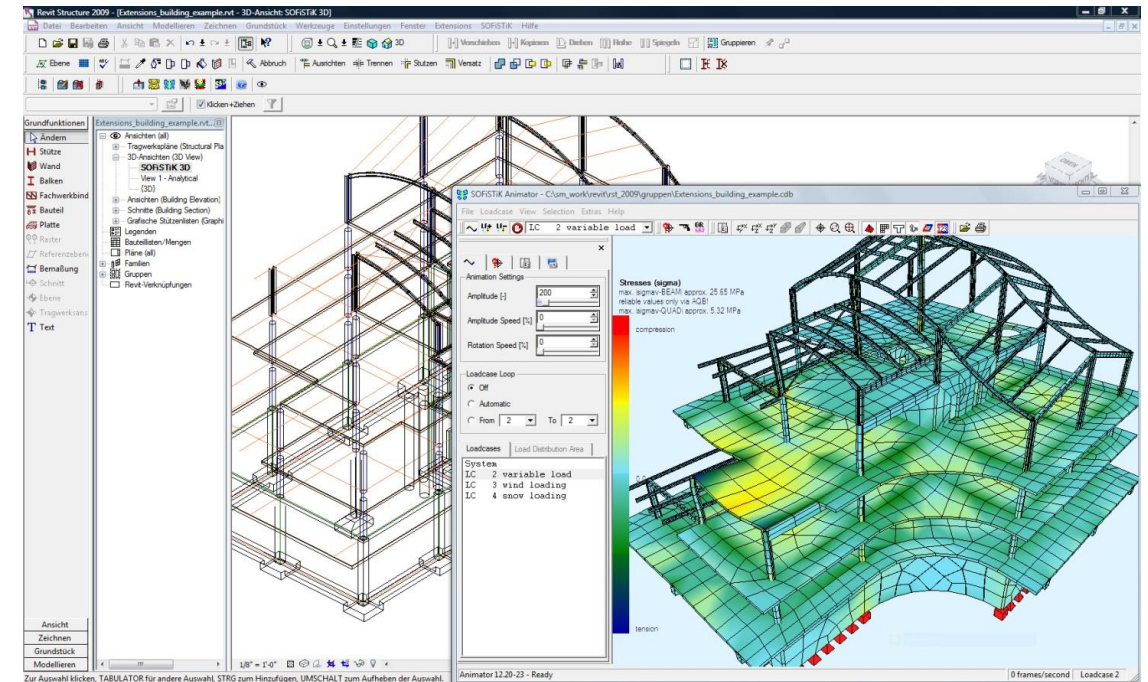
# SOFiSTiK Analysis and Design

Mapping tables for Materials, Cross Sections & Actions

Exports and meshes the analytical model and all Revit objects with analytical information

Creation of Subsystems

Component design for Columns, Beams and Slabs within Revit



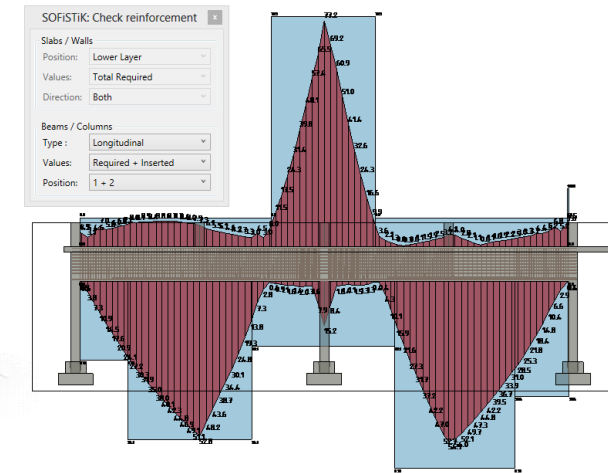
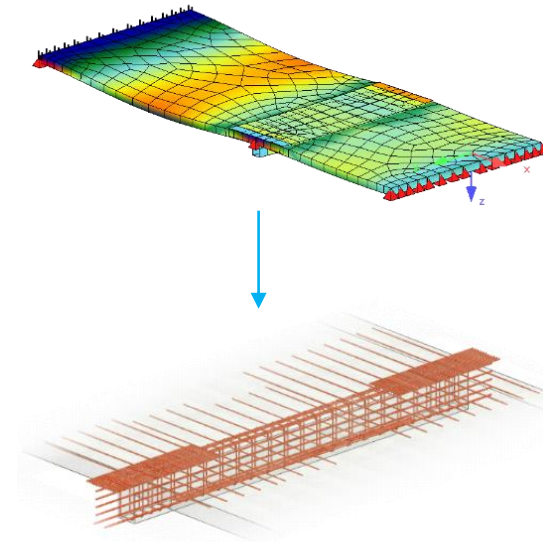
# SOFiSTiK Reinforcement Generation (RCG)

Creates 3D RC models from design results

Generation of RC model can be controlled

Contrasts existing with required reinforcement

Slabs, walls, beams and columns supported



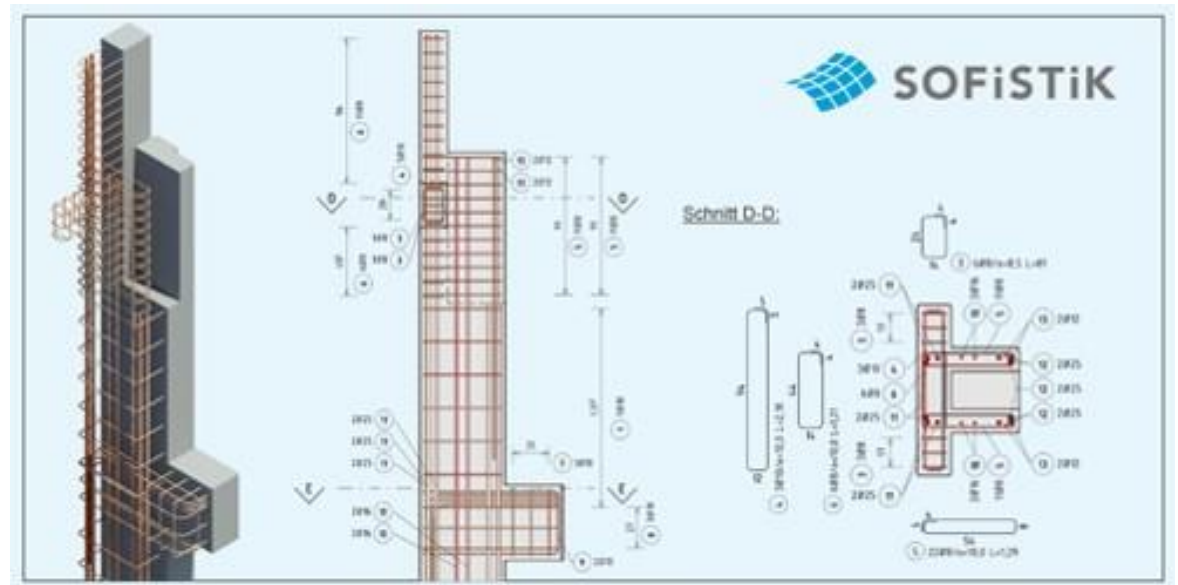
# SOFiSTiK Reinforcement Detailing (RCD)

Enables the creation of 2D reinforcement sheets by direct extraction from the 3D model

Bar Marks, Tagging, Rebar Shape Detail functionalities

Steel- and Bending Lists can be generated and placed on sheets

Support of all RC components in Revit models



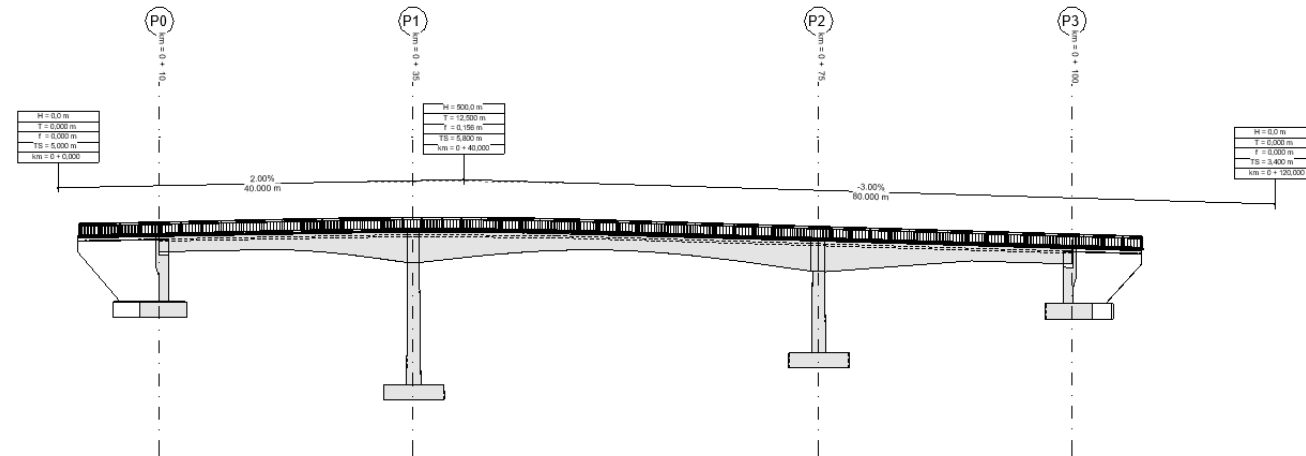
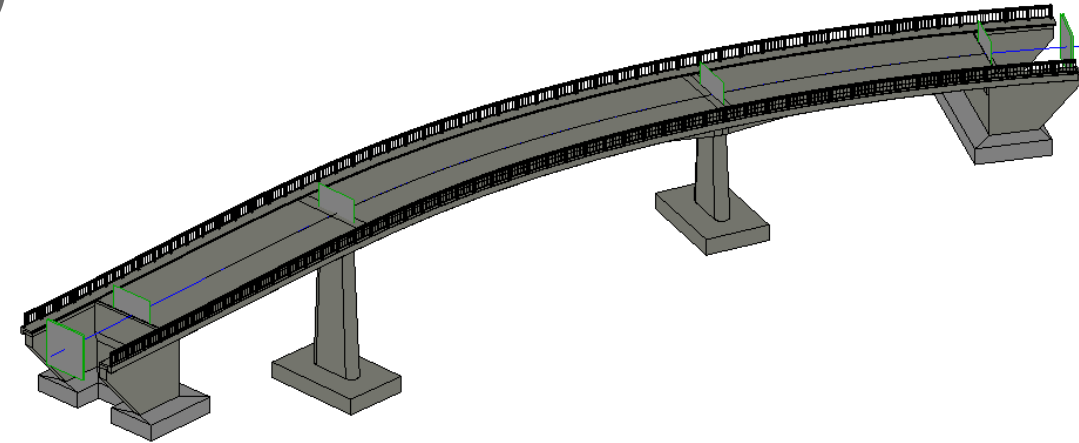
# SOFiSTiK Bridge Modeler (SBM)

Parametrical axis-based modeling of bridges in Revit

Adaptive component families for different cross sections

Automatic generation of section views with dimensions and top view with alignment information

Automatic generation of longitudinal section representation with vertical alignment information





# Thank you for your attention

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