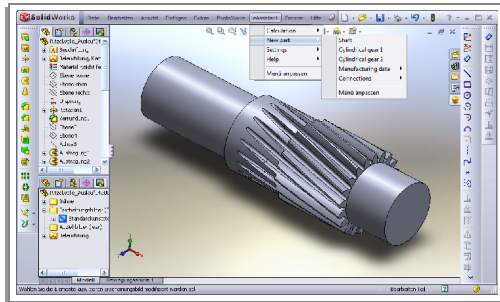


The eAssistant CAD Plugin for SolidWorks

The Intelligent Connection of Calculation and CAD

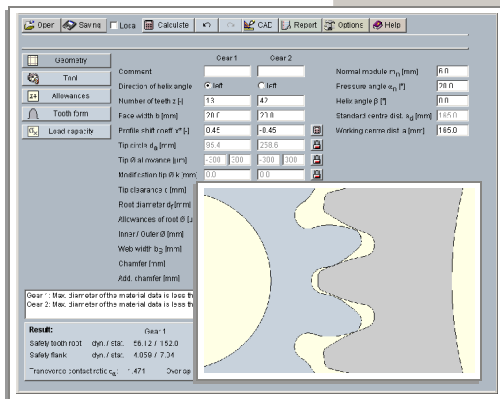


CAD Plugin for SolidWorks

The eAssistant plugin for the CAD system SolidWorks enables to combine calculation and design very easily and intelligent. The plugin allows the

- design,
- calculation as well
- optimization

of a wide range of machine elements directly in SolidWorks.

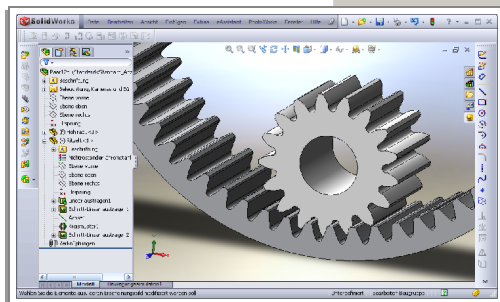


The reports are based on generally accepted calculation methods (e.g., DIN and ISO standards) as well accepted literature.

Detailed reports in HTML and PDF format provide all results and input values for the documentation.

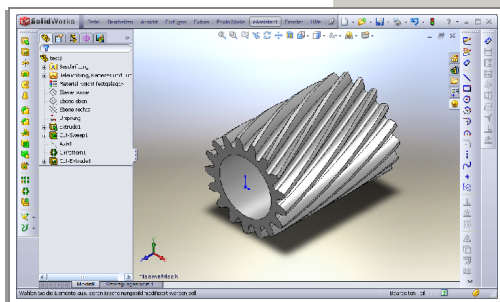
Direct Start

The plugin enables the user to open all eAssistant modules directly through the SolidWorks menu. At the push of the button, the part can be created as a 3D part on the basis of the calculated data.



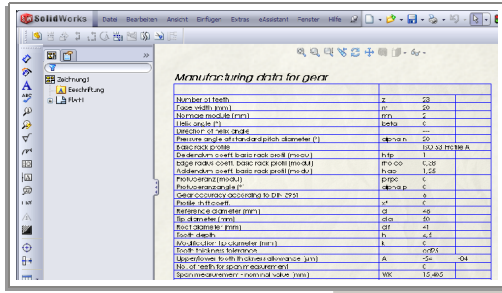
Gearings

Considering tolerances, addendum chamfer and profile modification, the geometry for spur gear pairs and splined shafts can be calculated up to the accurate tooth form. An animation / simulation of the tooth mesh is also possible. For this representation, the user can select the minimum, middle and maximum allowances for the tooth thickness and centre distance.



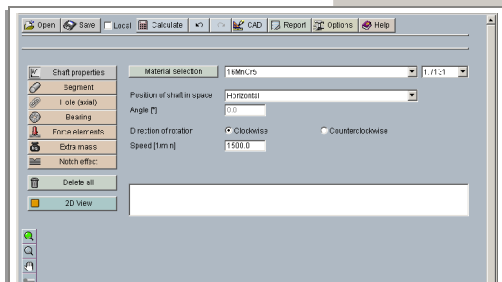
3D Models

External and internal gears as well as cylindrical and helical gears can be created automatically as a 3D part. Addendum chamfer and shaft bore will be considered. In case changes are required after the generation of the 3D model, the model can be easily updated based on the modified calculation.



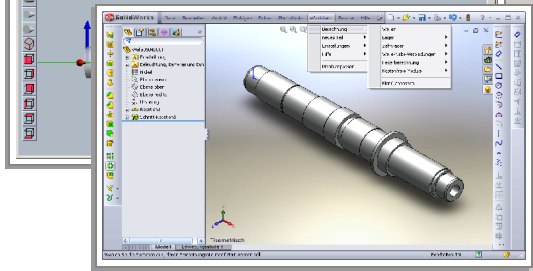
Pinion Shafts

The user can create gearings directly on an existing part. Furthermore a tool runout for pinion shafts can be developed. For this purpose, the user has to specify a radius for the cutter or grinding wheel.



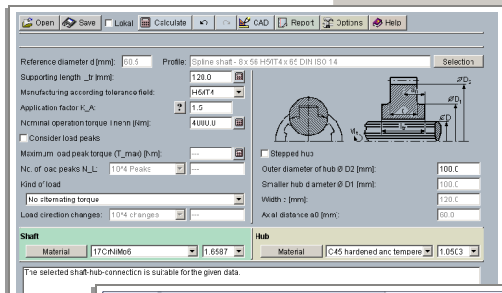
Intelligent Parts

The calculation information is saved in the 3D part. The calculation, which belongs to the 3D model, is available at any time. This is also possible, if there are several different calculations in one part.



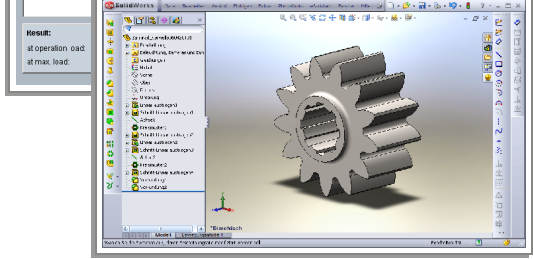
Manufacturing Data in 2D

The user is also supported by the creation of a manufacturing drawing. A simple mouse-click allows to add all necessary manufacturing data of a gear wheel to the drawing. The data is displayed as a table. The appearance and size of that table are individually configurable. In addition, the data will be included in the drawing properties.



Solid and Hollow Shafts

Based on the calculation, shafts with an unlimited number of cylindrical and conical segments can be created as a bidirectional 3D part. Thus, the created 3D model can be updated quickly due to changes in calculation.



Serrated and Splined Shafts

For serrated and splined shafts the user can create both the shaft and the hub profile. The generation of these profiles in an existing gear model is also possible.

A Qualified Team

Extensive knowledge, long experience and high quality standards are important parts of the calculation software eAssistant and its CAD plugins. With the help and suggestions of our users, we are constantly improving and developing new features which will open new horizons for our customers.