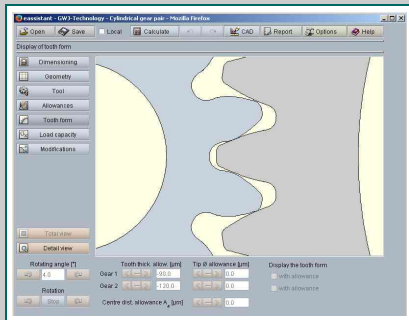


# eAssistant / TBK 2014 CAD Plugin for Solid Edge

## CAD Plugin for Solid Edge

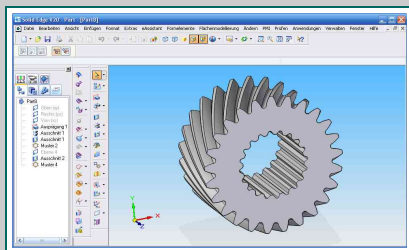
The CAD plugin for Solid Edge offers a great way to connect calculation and design. Together with TBK 2014 or the web-based calculation software eAssistant, the CAD plugin allows to dimension, calculate and optimize various machine elements directly in Solid Edge.

The calculations are based on generally accepted calculation methods (e.g., DIN, ISO, VDI, ...) as well accepted literature. Detailed reports in HTML and PDF format provide all results and input values for the documentation.



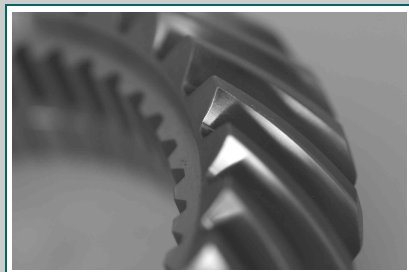
## Direct Start

The plugin enables the user to open all eAssistant/TBK 2014 calculation modules directly through the Solid Edge menu. At the push of the button, the part can be created as a 3D part on the basis of the previously calculated data.



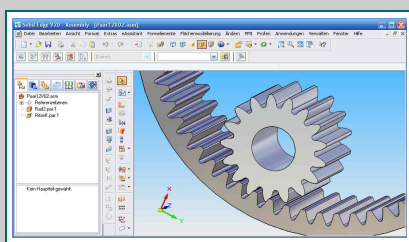
## Gears

The geometry of cylindrical gears and involute splines, including allowances, addendum chamfer, profile shift and accurate gear tooth form, can be easily calculated. Animation/simulation of the gear tooth mesh is also possible. For this representation, the user can select the minimum, mean and maximum allowances for the tooth thickness and centre distance.



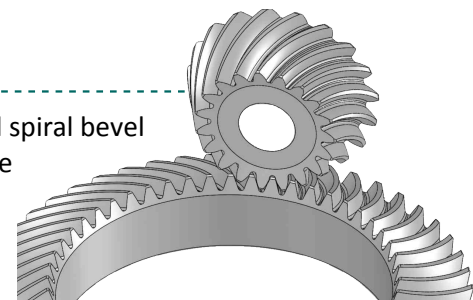
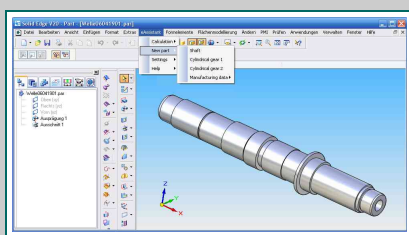
## 3D Models

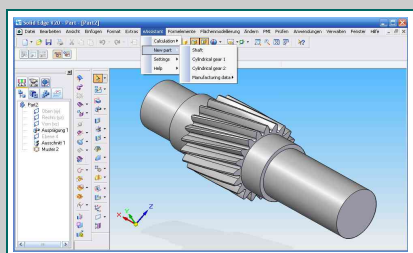
External and internal spur and helical gears can be created as a feature-based 3D part in Solid Edge. This includes addendum chamfer and shaft bore. The attractiveness of this CAD plugin is additionally enhanced by the bidirectional connection between eAssistant/TBK 2014 and Solid Edge. As changes are made to a calculation, the 3D model is updated.



## Bevel Gears

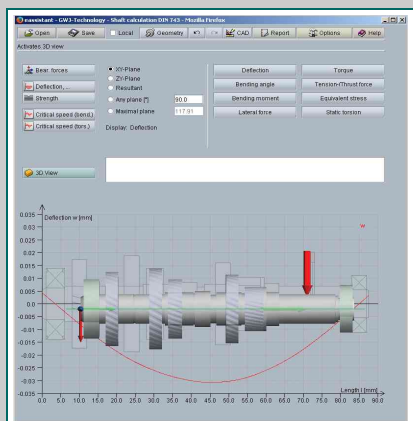
Based on the calculation, straight, helical and spiral bevel gears can be automatically created as a native 3D part in Solid Edge.





## Pinion Shafts

Involute gears can be placed directly on an existing part. Furthermore, a tool runout for pinion shafts can be modeled. For this purpose, the user has to specify an offset (increase of the facewidth) or a radius for the cutter or grinding wheel.



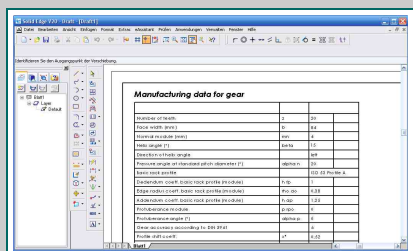
## Intelligent Parts

The calculation information is saved in the 3D model and can be opened at any time throughout the entire design phase.

If a component contains several different calculation elements, it is possible to open the corresponding calculations.

## Manufacturing Data in 2D

With just one click, the design table with all manufacturing details of cylindrical gears, bevel gears and involute splines can be placed on the manufacturing drawing. The appearance and size of that table is individually configurable. The advantage is that there is no need to manually add all design table parameters to the drawing.

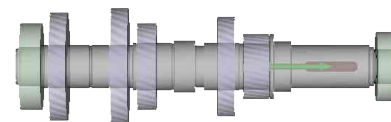


## Solid and Hollow Shafts

The CAD plugin provides a very fast and comfortable generation of 3D shafts. Solid and hollow shafts with an unlimited number of cylindrical and conical shaft segments can be created as a bidirectional 3D part. Changes made to the calculation are reflected in the model.

## Serrated and Splined Shafts

For serrated and splined shaft connections, the shaft and hub profile can be generated as native 3D models based on the calculation. These can be also created in an already existing part.



## A Qualified Team!

Focusing on mechanical engineering, GWJ Technology stands for high quality products and innovative software development. With keen insight and high energy, we put our utmost efforts, skills, knowledge and passion into our work to achieve top quality products. In addition, we also share our knowledge and insights through regular seminars, workshops and engineering services. For further information, please feel free to contact the GWJ team. If you would like to learn more about our products, please do not hesitate to contact us for a free web presentation.

