

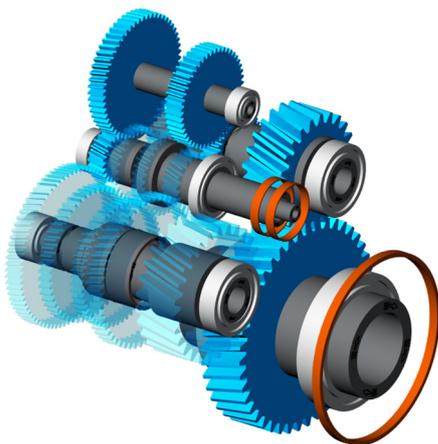
System Design Data Interface

In line with the motto "Two software solutions – one goal", an interface has recently been created between KISSsys and GEMS® Gleason, which exchanges the gear design data. This innovation combines the strengths of both systems to create a highly optimized overall system that meets all requirements in terms of strength, noise and efficiency. A further advantage is the combination of gearbox/drivetrain design with the gear design – by taking into account all manufacturing and production aspects.

KISSsoft KISSsys

- System level evaluations
- Excitation force acc. to FVA Report 487

KISSsoft works on the basis of international calculation standards to provide extensive optimization options for the entire sizing process of machine elements. The software guarantees you can perform quick and accurate strength calculations. It also provides reports containing detailed information about safety factors and service life values. Interfaces to all the standard CAD programs complete the features of this product.



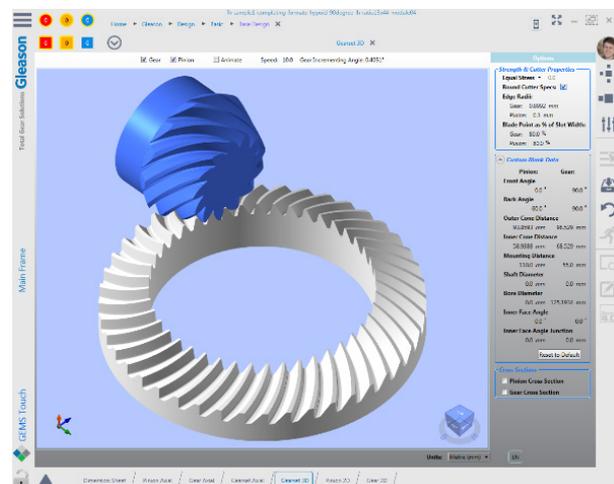
KISSsys is KISSsoft's system add-on that enables you to model complete gear units and drive trains. KISSsoft calculates the service life and strength of the different machine elements, and transfers the results to

KISSsys, where they are displayed in clear overviews. To achieve this, KISSsys brings together kinematic analysis, 3D graphics, and user-defined tables and dialogs.

KISSsys allows the users to perform system level evaluations in one run, while considering the interdependent effects of every single components of the gearbox on one another. System reliability, load spectrum calculation, efficiency and thermal balance evaluation, modal analysis are now available, and more. And all that with consideration of all possible misalignments calculated in KISSsoft, coming from shaft deflections, planet carrier deformations, bearing stiffnesses, thermal effects, and others.

GEMS® Gleason

- Open design, seamless connectivity
- Powerful new features



With GEMS®, Gleason has introduced the next-generation design and manufacturing system for bevel gears. It is a powerful new software platform that provides highly desirable gear design and analysis capabilities, seamlessly connects with all your existing Gleason design software – and helps optimize the complete bevel gear manufacturing process.

The GEMS® architecture is very clear and flexible, because – based on the process sequence – all the necessary work steps are clearly arranged in different "apps". In turn, these apps help you design and analyze gears. They also create manufacturing data for tooling, milling and grinding data, and 3D coordinates for the closed-loop manufacturing process. In addition, this enables prompt implementation "time-to-market" of new functionalities.

GEMS® is the world's first software for gear design that can be operated entirely via its touch screen. It is also fully compatible to keyboard and mouse operation which allows spontaneous changing between an initial touch interaction to the keyboard for example to enter numerical data during a tooth contact optimization. The GEMS® software is also developed to be utilized on a tablet or a Hybrid-Laptops to create a better User Experience (UX).

From a gearbox model in KISSsys, GEMS® supplies the values for the geometry data of a selected bevel gear pair, which is imported and directly set in the corresponding KISSsoft calculation. Thanks to the automatic communication between the bevel set and shaft modules in KISSsys, KISSsoft determines the EPG misalignments of the gears, taking shaft bending values into account.

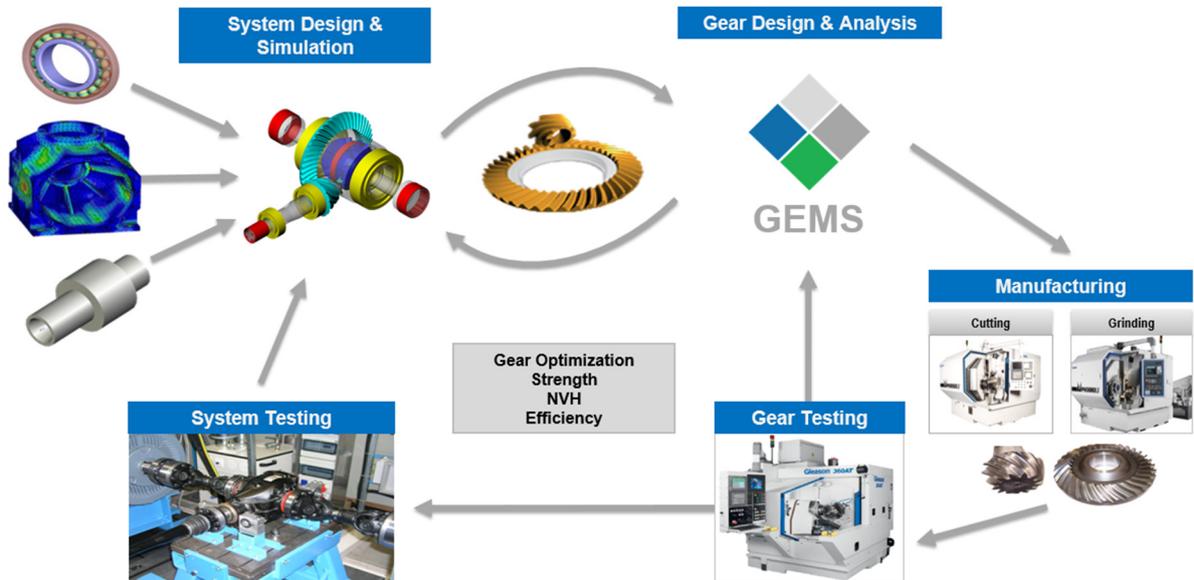
All the important results such as transmission error, meshing stiffness, root stresses, or even contact pressure on the flanks of the pinion and the wheel can finally be displayed in KISSsys after transferring back the result data from GEMS®.

This process allows the user to evaluate and optimize in a more accurate way any type of bevel or hypoid set with a closed loop between the simulation and the manufacturing processes.

Two Software Solutions – One Goal

GEMS® and KISSsys programs are now linked by a direct interface to exchange gear tooth and system design data between the two software packages.

If you are interested in testing and acquiring the interface, contact us at info@KISSsoft.AG or sales@Gleason.com



"System Design Loop" – KISSsys Using GEMS®