SystemManager

Calculation Software for Complete Systems of Machine Elements

The SystemManager allows for a fast and easy design of complete systems of machine elements, such as multi-stage or manual gearboxes. The individual system elements are linked to the eAssistant / TBK calculation modules.

Complex systems, such as

- multi-shaft systems coupled with gears,
- axially parallel shaft systems for multi-stage cylindrical gears,
- concentric shaft systems for planetary gear trains,
- coaxial shafts,
- perpendicular shaft systems

can be configured and calculated without much effort and with just a few mouse clicks.

Connection to eAssistant / TBK Software

- Integrated shaft calculation for deflection and bearing forces taking nonlinear bearing stiffness of rolling bearings into account
- Strength calculation of shafts via eAssistant / TBK shaft module
- Integrated rolling bearing calculation to determine the nominal and extended rating life according to DIN ISO 281 including rolling bearing database and lubricant database.
- Gear calculation via eAssistant / TBK gear and planetary gear train module
- Load spectra can be defined on system level, bearings and gears will be calculated with the given load spectrum.
SystemManager Overview

- User interface provides overview over gear safety and bearing life.
- Different switch positions can be defined, consideration of switch positions in load spectrum calculation.
- Load distribution along the facewidth gives an indication of required tooth trace corrections.
- Eigenfrequencies can be calculated on system level including coupling of torsional and bending modes.
- Mode shafts are animated in 3-D for easier identification of modes.
- Rolling bearing calculation with consideration of inner bearing geometry to calculate nominal and extended reference life.
- Different result graphics / diagrams, presentation of power flow in 3-D, ...
- Perpendicular shaft systems with connection to bevel gear and worm gear module

A Qualified Team

GWJ Technology GmbH, based in Braunschweig, is specialized in calculation software for the mechanical engineering, e-business and e-engineering for more than 10 years. We have long experience in calculation and software development in the field of mechanical engineering. Extensive knowledge and high quality standards are a part of the eAssistant development process.

In addition to the SystemManager, we would like to support you with our engineering services and workshops. Our focus is on the field of drive technology: from high-speed shafts to optimizing gears.

For more information as well as a detailed feature description, please visit www.gwj.de.

Please click www.gwj.de to find out more about our product range, (e.g., special gear software GearEngineer).