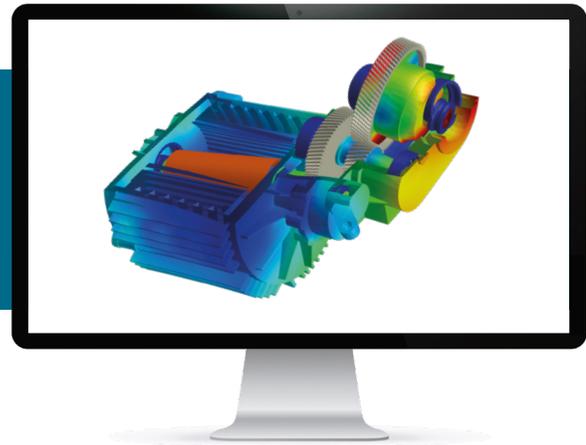


# Romax Enduro

## Structural design, analysis & optimisation of electro-mechanical drive systems



Design for durability is a cornerstone of driveline development. For many years Romax Technology have delivered CAE tools which enable simulation-led design. Today the shift towards electric drivetrains has created unprecedented demand for new transmission architectures across numerous vehicle platforms, at a time when subject matter expertise is at a premium.

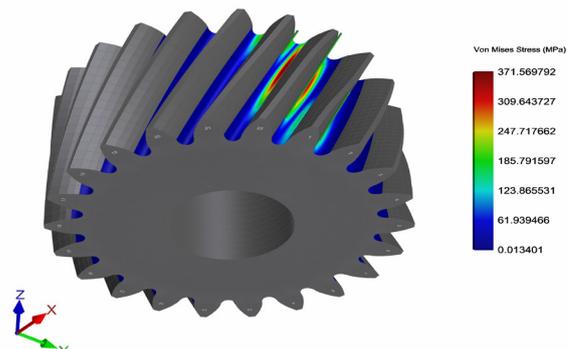
Building on our existing industry standard CAE software, Romax Enduro is a sophisticated, yet easy to use structural design, analysis and optimisation solution for the development of Right First Time, durable electro-mechanical drivetrain systems. Validated time and again by customers and research projects, Romax Enduro is the trusted solution for durability analysis across multiple industries.

### Benefits

- Unparalleled accuracy - full system structural analysis, state of the art component contact simulation and the latest standards and stress-based life calculations
- CAE-led design - accurate, easy to learn parametric modelling; fast simulation and post-processing for engineering insight from first concept through to final optimised design
- Process automation, optimisation and integration - works seamlessly with other Romax products and partner software to offer true multi-attribute optimisation via a repeatable, automatable process

**Using Romax’s unique set of software tools, we’ve been able to create a seamless design process with the Romax software suite at its core. We have been taking our ideas to market in record time, testing and incorporating new technology easily, as well as ensuring targets are met for durability, efficiency, and compliance.”**

Tümosan



## Romax Enduro: the industry standard for electro-mechanical drivetrain systems

Dedicated, component-level modelling within a whole system:

- Rapid, accurate & parametric component models
- Comprehensive bearing catalogues
- Gear design & optimisation tools considering manufacturing
- Import/create and condense FE components
- Import/export geometry with CAD tools
- Batch running capability
- Support for Reusable Engineering Exchange Standard (REXS)

### Reporting:

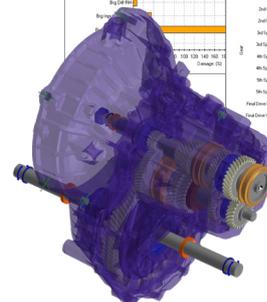
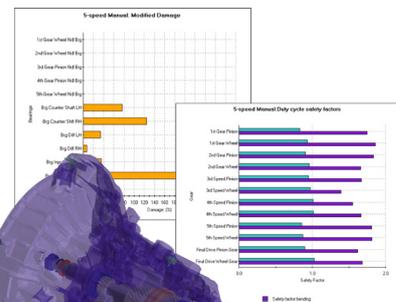
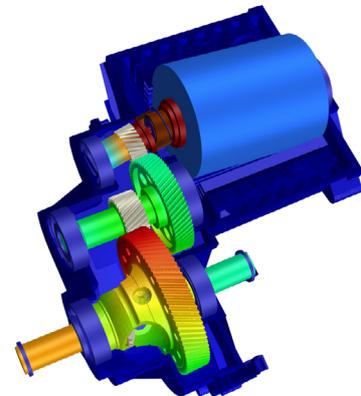
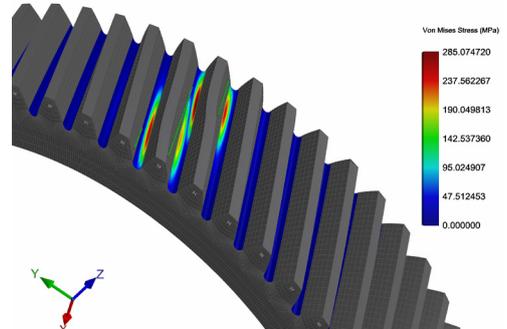
- Full system and component static results including deflections, loads and stresses
- Detailed gear and spline contact results
- Load case and duty cycle durability reports
- Customised reporting

### Component and system-level structural analysis:

- Fast, parallelised static analysis of full driveline
- World-class gear and bearing contact models
- Flexible FE bearings & gear blanks
- Gear root stress analysis
- Batch running and parametric study
- Electric machine unbalanced magnetic pull

### Durability analysis:

- DIN, ISO and AGMA rating
  - Gear safety factors
  - Bearing life
  - Shaft fatigue
  - Splines
- Synchroniser sizing
- Duty cycles generation from measured data
- Effect of manufacturing tolerances



Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Romax, part of Hexagon's Manufacturing Intelligence division, provides world-leading solutions for the design, analysis, testing and manufacture of gearboxes, drivetrains and bearings. Learn more at [romaxtech.com](http://romaxtech.com). Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at [hexagon.com](http://hexagon.com) and follow us [@HexagonAB](https://twitter.com/HexagonAB).