

Romax CAD Fusion

Seamless, streamlined
integration of CAD design and
CAE analysis



Romax CAD Fusion enables designers and analysts to collaborate effectively by facilitating the transfer of 2D and 3D geometry between Romax CAE software and all major CAD packages. This streamlined and integrated process saves time in model building, reducing the chance of errors in data re-entry.

As well as process improvement, Romax CAD Fusion can enable you to include more detail in your CAE models earlier, for example by importing housings or creating them directly. With links to Romax CAE software, you can perform upfront analysis to improve the development of these novel designs and improve product quality.

“With CAD Fusion as an integral part of our design process for clients, we’ve achieved significant time savings whilst still increasing quality. It enables a far more collaborative approach, with more robust data exchange enabling informed decisions to be taken far earlier.”

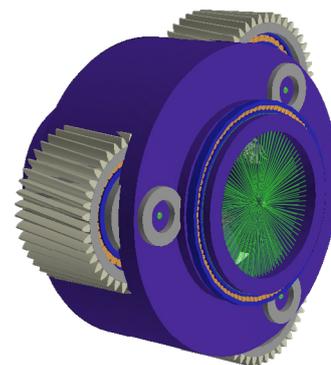
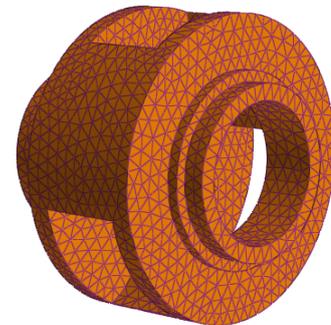
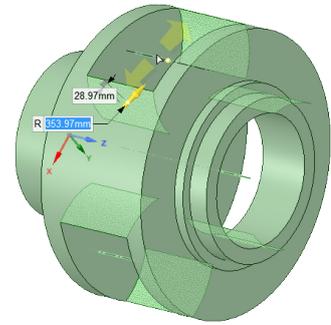
Romax Technology Consultant

Benefits

- Fast, reliable, repeatable: Robust process to transfer data between CAD and CAE, and communicate changes as the design evolves
- Reduce time: Save time rebuilding models in different environments with fast and accurate data transfer
- Reduce errors: Minimise risk of errors in data re-entry
- Improve quality: Make design changes and understand their effect on performance, accessing upfront analysis to improve the development of novel designs e.g. electric vehicles
- Effective, streamlined collaboration: Between designers and analysts for improved cross-departmental processes and efficient development
- Include more detail earlier: Create and edit FE components to improve understanding of design behaviour, without needing to rely on FEA programs for minor changes

From concept to detailed design, CAD Fusion facilitates a fast, reliable, repeatable process to transfer 2D and 3D geometry between Romax CAE software and CAD packages for faster modelling, reduced errors and improved quality.

- Import from CAD: Import gears, shafts, housings and complex rotating components from 2D or 3D CAD geometry (STEP/IGES and all major CAD packages) into Romax products
- Free Edit/Create Geometry: Work with 2D or 3D geometry to edit as required, or draw from scratch
- Intelligent Feature Recognition and Model Healing: Automated repair and defeaturing of over-complex or poor quality models; conversion of shaft features into stress concentration factors
- 3D Meshing: Create, edit, repair, defeature and automatically mesh complex 3D CAD geometry such as 3D planet carriers, differential shafts, gear blanks, housings etc.
- Export to CAD: Create CAD models (single components to whole gearboxes) from Romax geometry, with a configurable level of CAD model detail
- Manufacturing Drawings: Create 2D component engineering drawings for manufacturing purposes
- Model Comparison: Detailed report of all component positions, relative to gearbox and shaft datums, for easy comparison with master CAD model
- Gear Data: Import detailed gear macro geometry from third party tools into Romax products and export gear data for manufacturing



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. 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 and follow us [@HexagonAB](https://twitter.com/HexagonAB).