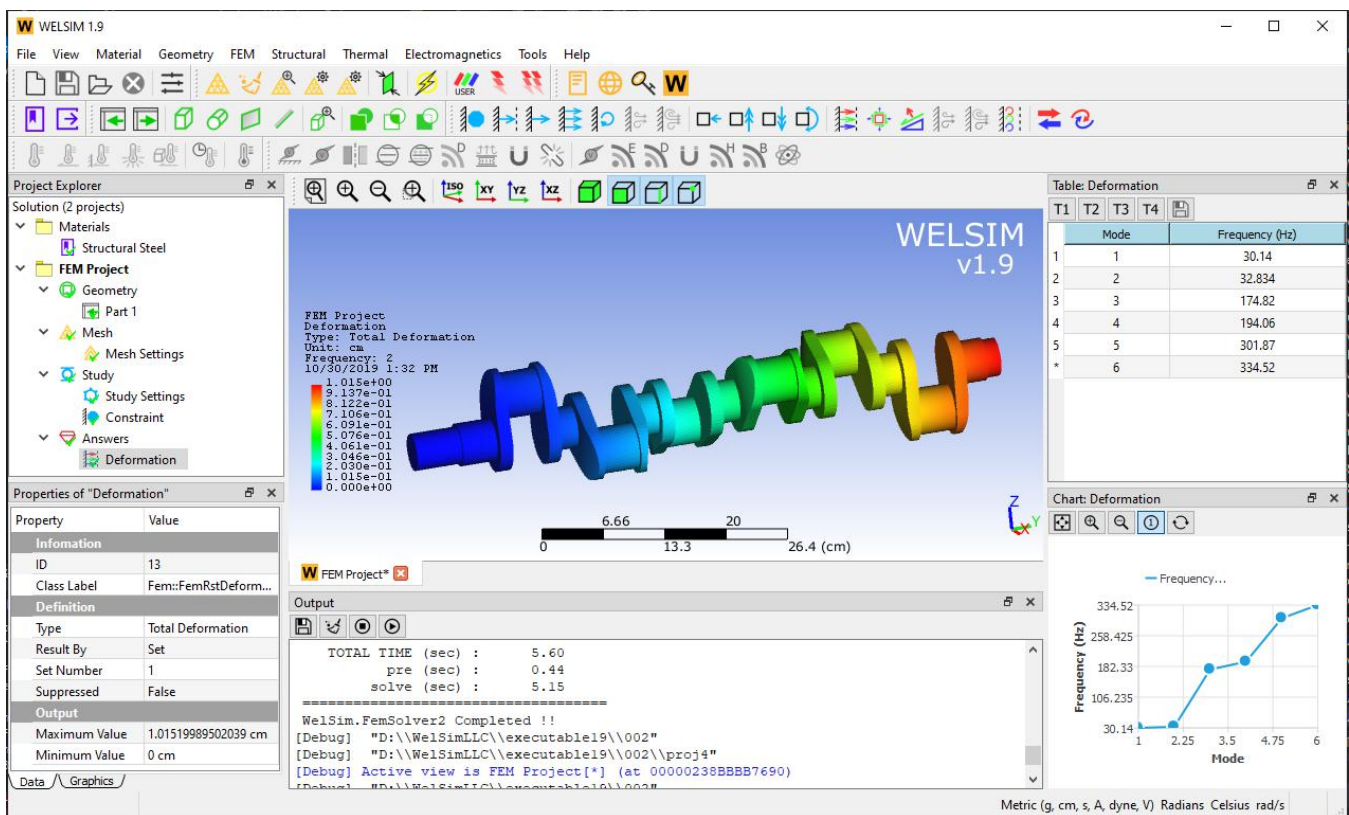


WELSIM

Fast, affordable, & secure engineering simulation solutions

WELSIM was born out of a vision to create simulation software that could successfully enable you to conduct simulation studies with more confidence and less cost. Customers use our software to help ensure the integrity of their innovations.



An overview of WELSIM graphical user interface in simulating a 3D finite element analysis model to gain design and troubleshooting insights

Simulate multiple aspects of your products

- ✓ 3D structural, thermal, and electromagnetic analyses reveal physics-based results.

Combine high speed with high accuracy

- ✓ The fast-solving technique enables you to obtain solutions promptly.

Process simulation with no learning curves

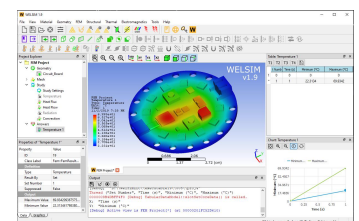
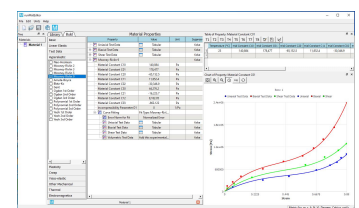
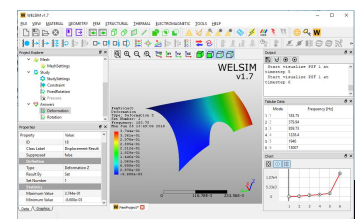
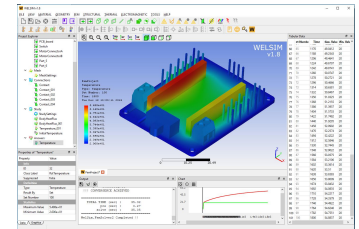
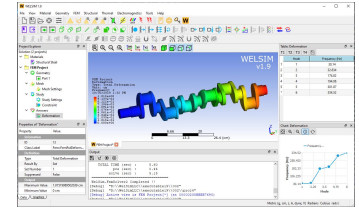
- ✓ An intuitive user interface allows you to conduct analyses easily.

Choose your preferred license option

- ✓ Available monthly/yearly subscriptions, and perpetual fallback license; free trial; no hidden fees; no commitments; Cancel anytime.

The WELSIM v1.9 capabilities

- An all-in-one simulation user interface enables the user to efficiently optimize and validate each design step using fast-solving, CAD-integrated, simulations to ensure quality, performance, and safety within one single platform.
- The application contains ease-of-use pre/post-processing and advanced finite element method solvers.
- Material module: defines arbitrary linear and nonlinear materials with structural, thermal, and electromagnetic properties. Supports curve fitting for hyperelastic and core loss material models. Table and chart windows enable you easily edit and exam property data.
- Geometry Modeling: imports geometries from external STEP/IGES/STL geometry files; creates primitive shapes using the built-in modeler.
- Meshing: generates qualified finite element mesh (Tet10, Tet4, Tri6, and Tri3) to deliver user-specified accuracy.
- Structural analysis: supports static, transient, and modal analyses; contacts; nonlinear materials; constraint, displacement, force, pressure, velocity, acceleration, and fixed rotation boundary conditions; body force, acceleration, earth gravity, and rotational velocity body conditions; deformation, strain, stress, velocity, acceleration, and reaction results.
- Thermal analysis: supports static, and transient studies; temperature, heat flux, convection, and radiation boundary conditions; initial temperature condition; temperature result.
- Electromagnetic analysis: supports electrostatic, and magnetostatic studies.
- Miscellaneous: available for both Windows and Linux operation systems. Users can export mesh and result data to external files.



About us

The WelSimulation LLC is a unique engineering simulation technology provider, founded in the Pittsburgh, Pennsylvania, USA in 2017 by innovators. Our products, finite element analysis software WELSIM, material editing application MatEditor, and unit conversion tool UnitConverter are available to download now.

WELSIM

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<https://welsim.com>