

CALIPRI®
WHEEL

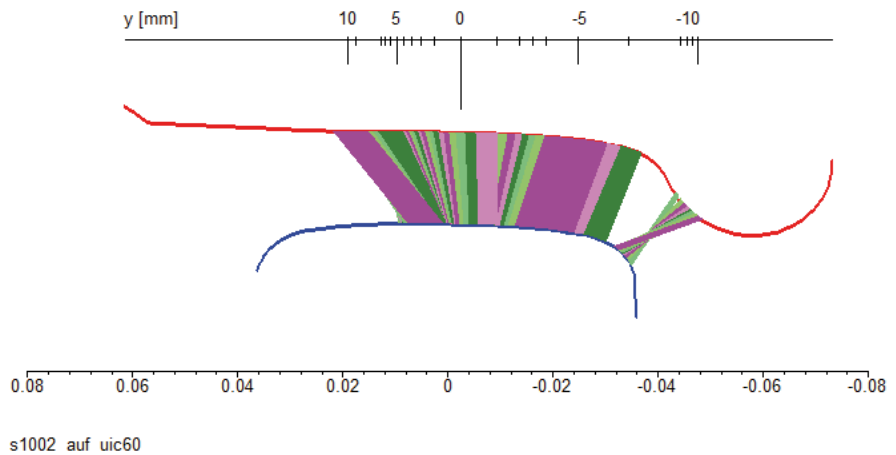
WHEEL-RAIL ANALYSIS SOFTWARE



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The "Wheel-rail analysis software" module is an analysis and synthesis software for the examination of the wheel/rail kinematics and for wear evaluation. For example, the software facilitates the calculation of the equivalent conicity in compliance with UIC 519 and EN 15302.

All entry data, from the wheel profile to the flange gauge up to the wheel diameter, can be measured with the aid of the various modules of the Calipri Wheel. You will not need any other measuring devices. You have the choice, though, of entering the requisite data or employing standard profiles that have been stored.



KEY FEATURES

The software consists of three parts:

RSPROF

- Analytical presentation of the wheel and rail profiles that have been measured.
- Profile generator for different standardized wheel and rail profiles and the generation of any profiles consisting of straight lines, circular arcs and polynomials.
- Graphical presentation of the profiles and an option for processing via an interactive graphical user interface by moving, deleting and adding of profile points.

RSGEO

- Calculation of the contact points for given transverse displacements and turning angles of the wheelset.
- Generation of kinematic tables such as rolling radii/angle difference function, including harmonized linearization for the calculation of equivalent conicity, etc.
- If axle loads are given, calculation of the normal stresses of the non-

elliptical contact surfaces according to Boussinesq and the equivalent contact ellipses.

- Graphical presentation of the rail profiles and wheel envelopes of the projection in the longitudinal direction of the rail and as top view.

RSANAPROF

- Calculation of the difference of two profiles from wear or plastic deformation.
- Alignment of the second profile to the reference profile by dint of the definition of partial profiles; in the case of rail profiles, e.g. parts of the outside and inside face.
- Calculation of the abrasion and buildup, including graphical presentation.

Accuracy

Compliant with UIC 519 and EN 15303

System requirements:

Standard-PC

Languages available:

English

Scope of delivery:

Software module

Recommended modules:

- CWM001 – Wheel profile
- CWM005 – Rail
- CWM003 – Wheel clearance
- CWM006 – Wheel diameter
- etc.

Order information:

CWM010 - Wheel-rail analysis software

nextSENSE

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