

choose your *input*



on-track testing

Use wheel force transducers and slip angle sensors to measure tire forces and moments on real road surfaces.



lab tire testing

Measure tire forces and moments using traditional flat belt or drum machines.



tire model import

Enter existing coefficients or import from TYDEX files.



how OptimumT can work *for you*



import tire data

Easily import tire data from CSV/ASCII files using the import wizard and directly read TYDEX files.

data processing

Data reduction for faster model fitting. Easily remove test hysteresis and correct for vertical load fluctuations.

model fitting

Robust model fitting tool allows you to quickly and easily fit tire models to raw data.

tire model

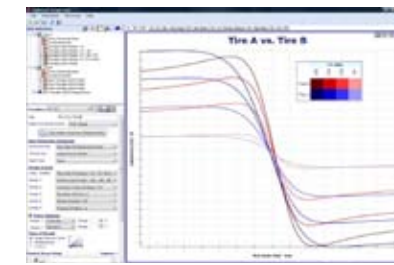
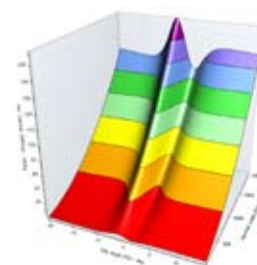
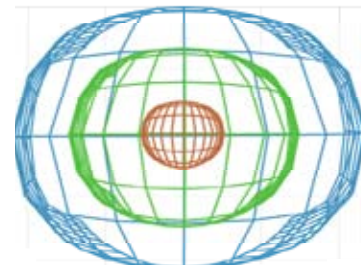
Supports fitting and analysis of many tire models:

- Pacejka Magic Formula '96, 2002, 2002 with pressure effects, and 2006
- Fiala
- Brush

visualization

Graph tire data and models in 2D and 3D. Quickly produce any type of tire graph from the numerous predefined templates, or create your own. Plot basic force and moment data, or many other derived quantities, such as coefficient of friction, pneumatic trail or cornering stiffness.

- graph quantities**
- forces & moments
 - cornering & slip stiffness
 - force offsets
 - peak slip angle & slip ratio
 - coefficient of friction
 - moment arms
 - many more...



gain knowledge with *custom outputs*

simulation

Develop a car for a tire or a tire for a car through vehicle dynamics simulation. OptimumT is compatible with all major simulation codes and has direct integration into CVD, our vehicle dynamic simulation software.

calculations

Incorporate OptimumT into Excel spreadsheets and Matlab calculations to perform advanced calculations using tire models created with OptimumT.

export

Directly export processed data, model coefficients and graph data to Excel and TYDEX files.

reports

Easily incorporate graphs into reports for customers and colleagues, and gain a better understanding of the tire to be more confident in design changes.

flexibility

Don't be stuck with one coordinate system and one set of units. Quickly change between coordinate systems and units at any time. Enter values in one unit and display in another.

- coordinates**
- SAE J670e / Adapted SAE
 - ISO / Adapted ISO
- units**
- N, kN, lb, kgf,...
 - m, cm, ft, in,...
 - Pa, kPa, bar, psi, ...