

Your Advantages

DYNARDO and CADFEM developed a bi-directional interface between **optiSLang** and ANSYS **workbench** to be able to take over CAD/CAE models comfortably into **optiSLang**.

Within the process chain, all parameterizations can be done in ANSYS **workbench** or other imported CAD geometries and then be exported to **optiSLang** with just a click. During the data export, the solver script for process automatization, all necessary transfer files and the **optiSLang** project file are created. Subsequently, the problem can be completed in **optiSLang** and be applied to a sensitivity analysis, robustness and reliability analysis or optimization.

The process automatization of **optiSLang** guaranties the fully automatic compilation of a new design, the updating of the geometry and the analysis. The **optiSLang** process integration is batchable, offers restart possibilities and can handle failed designs to increase the robustness of the process automatization.

Support


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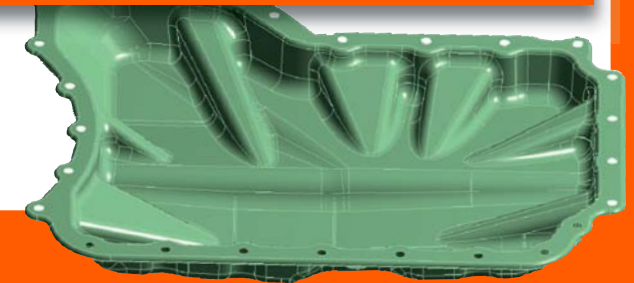
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optiPlug



optiPlug Workbench is a bidirectional interface between ANSYS Workbench and optiSLang



Our Costumers



BOSCH
Invented for life

TIMKEN



brose
Technik für Automobile

SCHUNK

dynardo

ANSYS Workbench

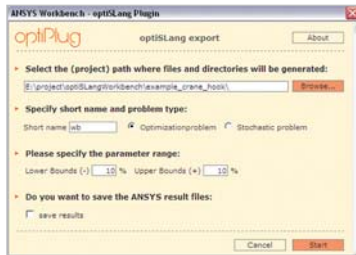
optiSLang

ANSYS software tools offer a wide range of FEM simulation technologies which cover most of the today possible FEM-based simulation applications in the virtual product development spanning various classes of business. With its Workbench, ANSYS created the basis for a continuous and integrated application of simulations.

optiSLang is one of the most efficient software tools for sensitivity analysis, optimization, robustness evaluation and robust design optimization. **optiSLang** offers efficient algorithms for each step of an optimization task. By using predefined, easy-to-use work flows for optimization, robustness evaluation or robust design optimization, even “non-specialists” can perform optimization and stochastic analysis.

optiPlug

optiPlug
export
dialogue



Concept

ANSYS workbench with its excellent possibilities regarding the parameterization of CAE processes, FEM and geometry parameters, offers new horizons of parametric design optimization. The dream of a direct access onto construction parameters becomes reality. The combination of **optiSLang** and workbench creates one of the most efficient toolboxes for parametric sensitivity analysis, optimization, robustness and reliability analysis as well as robust design optimization.

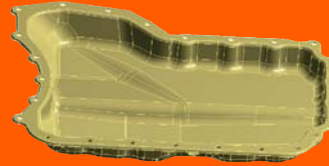
Application

- **Parameterizing** of CAD/CAE models in the **workbench** environment
- **Export** of geometry and simulation parameters to **optiSLang**
- **Editing** and complementation of the exported problem definition
- **Start** of the design assessment with the chosen algorithm and **workbench** as solver
- **Import** of single parameter configurations (designs) into the **workbench** environment

Example I:

Frequency optimization of an oilpan

Basic design



First bead design



Optimized beads
by optiSLang



Practical application

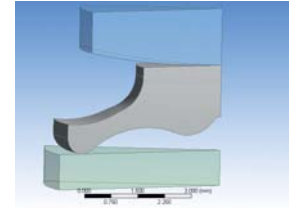


Example from the automotive industry

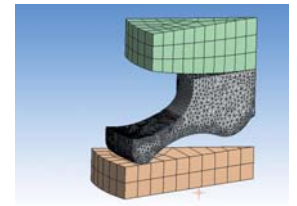
Example II:

Virtual stiffness optimization of an elastic, axial element

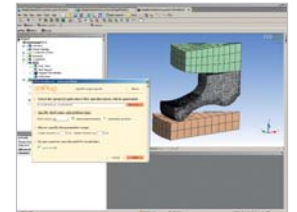
Design and parameterization
of the geometry in workbench
design modeler



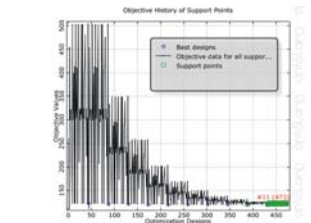
Meshing of the basic design



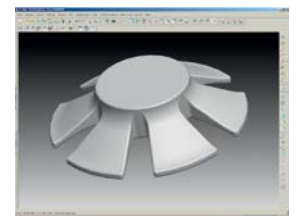
optiPlug dialogue



Optimization with optiSLang



Practical application



By courtesy of Brose GmbH