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optiSLang 21R1/21R2

June, 17th 2021

David Schneider

optiSLang product manager

Ansys

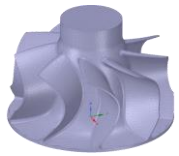
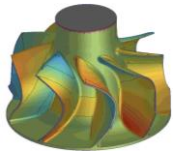
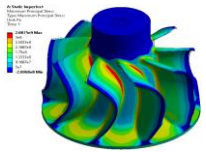
Ansys optiSLang 2021 R1/R2 Release Summary

Premium / Enterprise Licensing including parametric variation & Cloud support

Integration Highlights: Ansys optiSLang in Ansys Electronics Desktop (AEDT)

Orchestrate and Automate

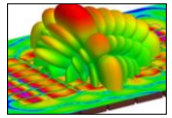
- Better integration nodes of CAD and CAE tools
- Generate Web Apps from optiSLang workflows to be published in Ansys Minerva
- Integrate SoS macros and workflows

Innovate with Automation

Understand and Optimize

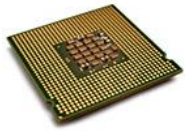
- Automated AI/ML for metamodeling
- Adaptive MOP including more integrated models
- Improved Evolutionary Algorithms
- Combine derivates and metamodeling for novel Antenna optimization workflow



Product Improvement

Evaluate Robustness

- Reverse engineering and Uncertainty Quantification using SoS
- Improved Reliability Analysis for ADAS



Product Reliability

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Orchestrate and Automate

Accelerate innovation by **minimizing non-value add, repetitive tasks** by fully automating and orchestrating the simulation workflows between heterogenous CAX tools across the entire enterprise.

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Integrations

CAESES
COMSOL MULTIPHYSICS
ROCKY
CATIA
OpticStudio
CFturbo
SIMULATION X Powered by ITI
JMAG
WYROWSKI VirtualLab FUSION UNIFIED OPTICAL DESIGN
ABAQUS
ANSYS
GEODICT
VCollab
SUBVERSION
KULI software
MSC Software Adams
PuTTY
Motor Design Limited
GT Gamma Technologies
Flux®
Mentor Graphics FloEFD™
CONCEPTS NREC TurboOpt
Midas Edyson
madymo

+ Many others connected by customer or Ansys Application Engineers – please contact us if your tool is not on this slide

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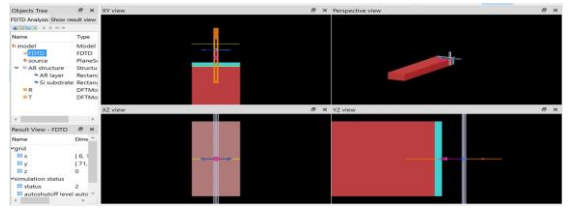
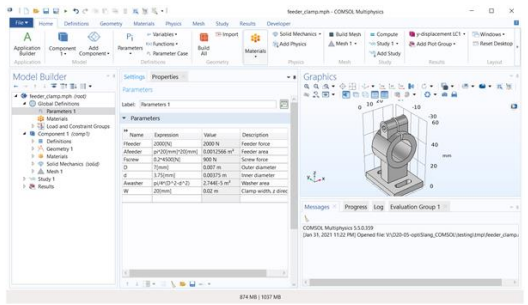
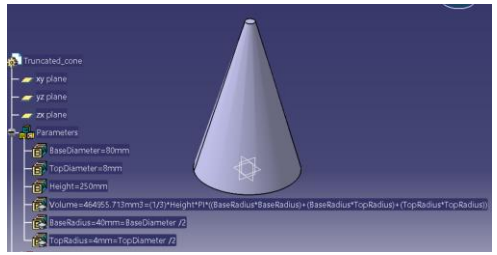
New integration nodes 21R2

New integration nodes with solver wizards are available







Integrations exist for others like NX, Solidworks, Spaceclaim, … → contact e.g. david.schneider@ansys.com

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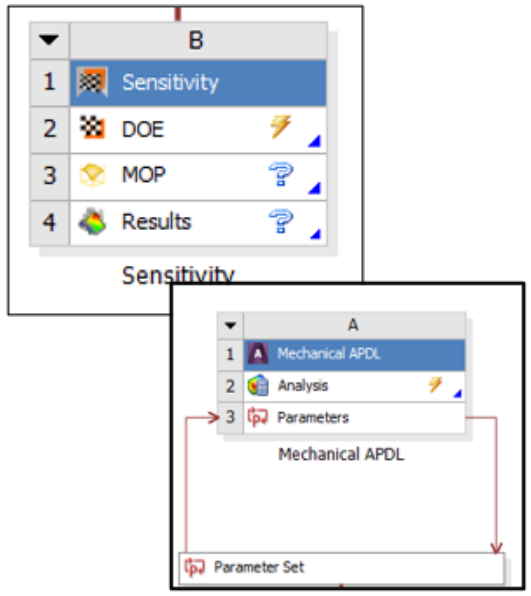
Go to optiSLang from Workbench

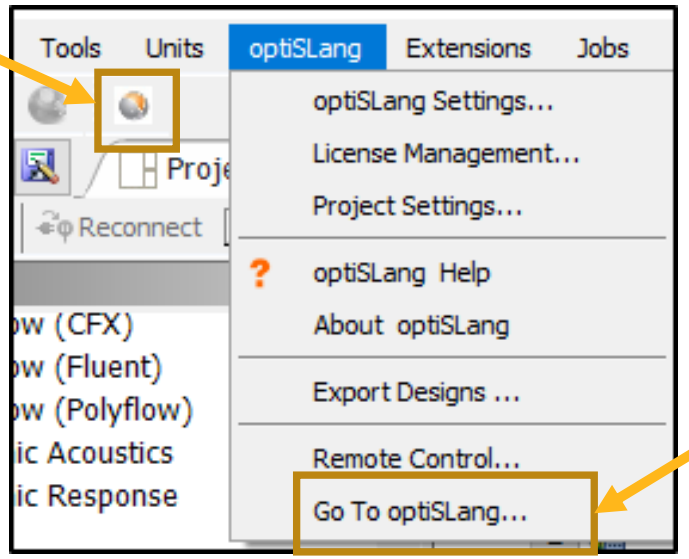
"Go to optiSLang" to take advantage of all optiSLang features

- New option to continue working in optiSLang
- Use optiSLang project and start right where you left "inside Workbench"

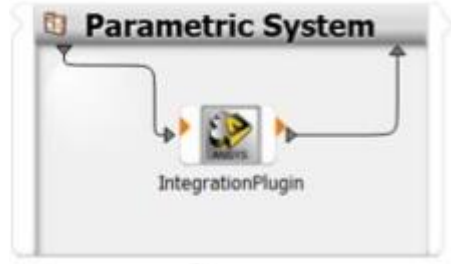


with optiSLang systems

Shortcut Button



Menu



without optiSLang systems

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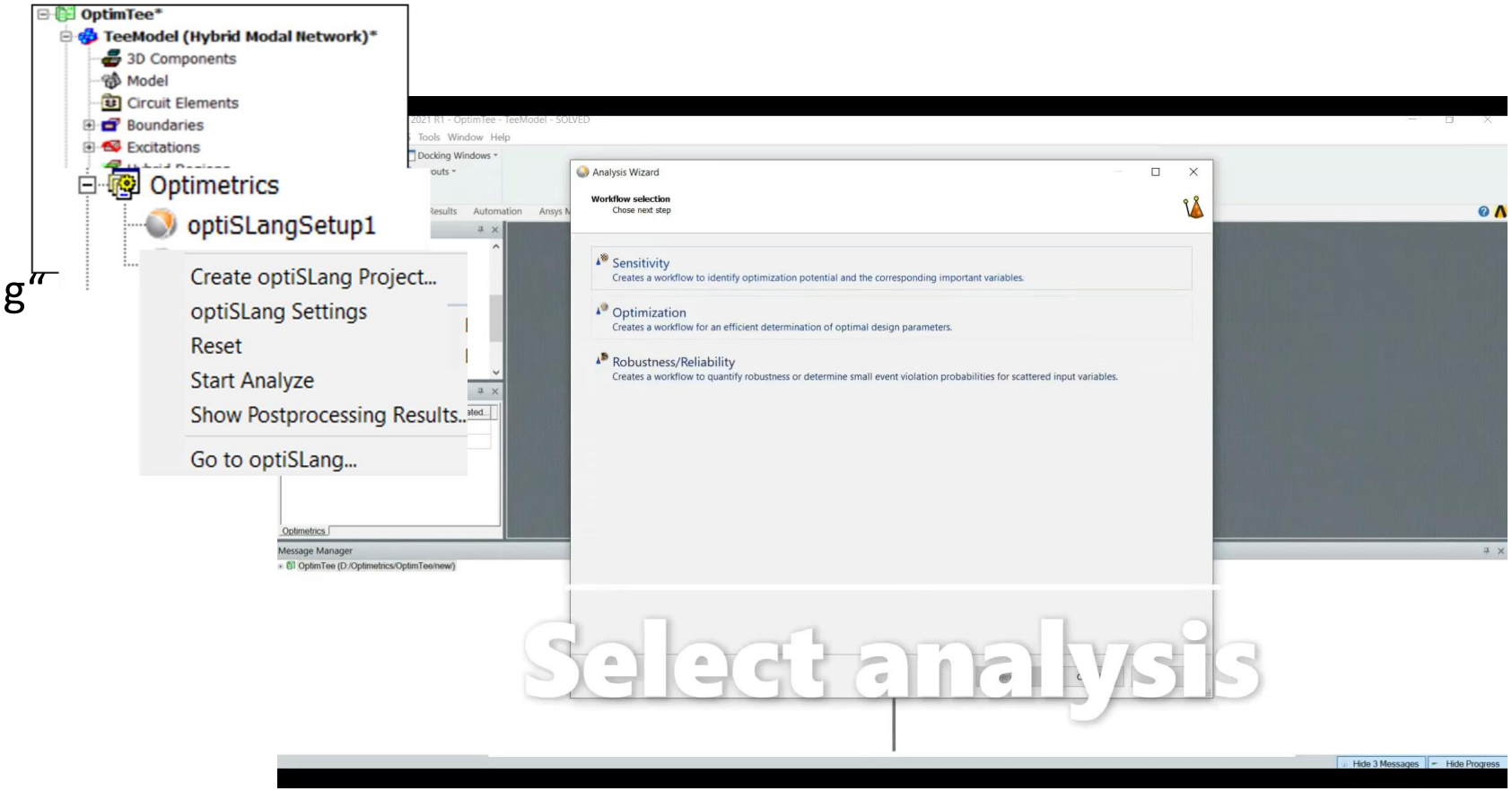
Ansys optiSLang Setup in Ansys Electronics Desktop (AEDT)

Quick access to the power of optiSLang from AEDT for multi-disciplinary workflows.

- Use well known dialogs with optiSLang wizards
- Run design studies in AEDT
- Ability to easily“Go to optiSLang“ from AEDT
  - extend workflow
  - Create web apps
- User scheduler submit *(incl. Ansys cloud)*



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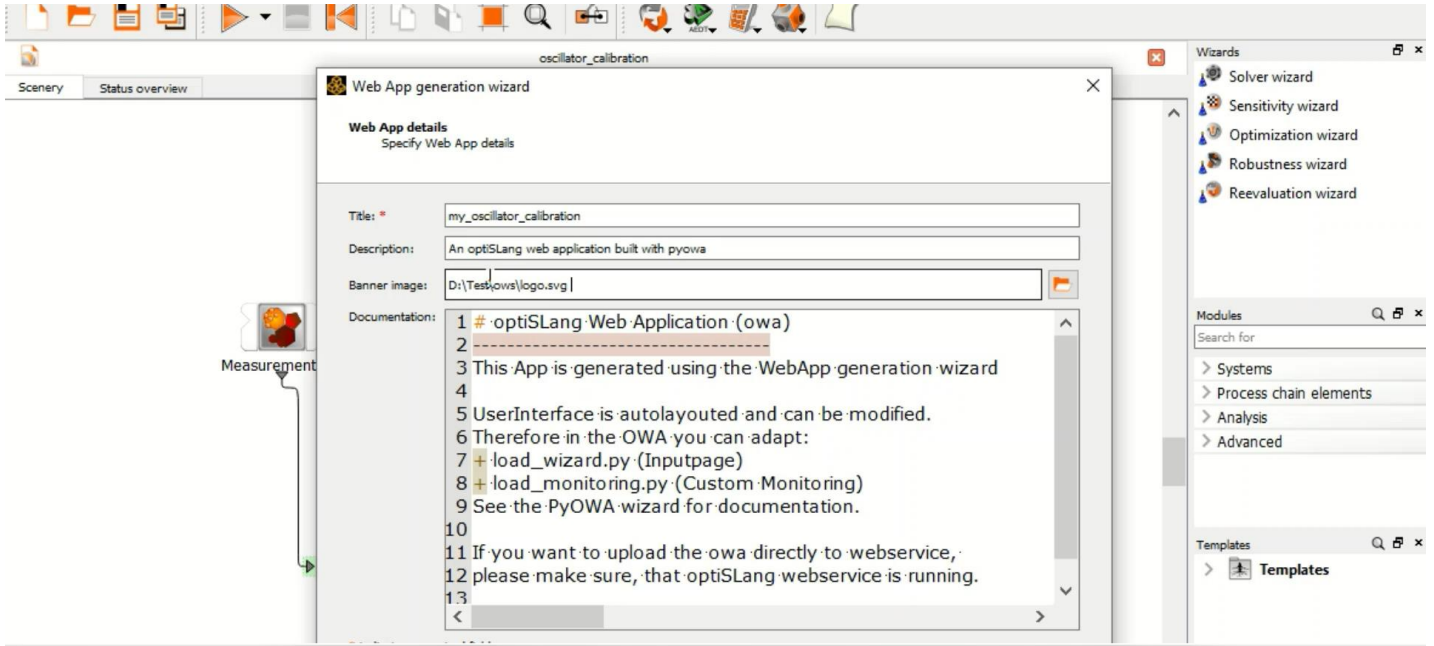
Web App Generation Wizard [Enterprise]

Easily generate and publish optiSLang workflows as web apps

- Part of optiSLang Enterprise license
- Use wizard-based step-by-step guidance for
  - Web app building
  - Project clean up
  - Registered files
  - Project placeholder
  - OWA Packaging
- Generate optiSLang Web Apps (.owa extension) along with
  - Placeholder optiSLang Project
  - Autolayout Web Dialogs
  - Publish to Ansys Minerva



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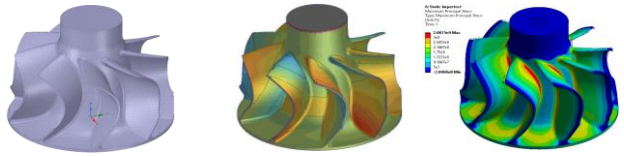

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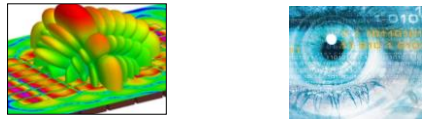

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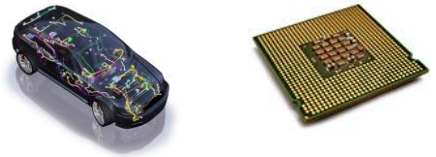

Product Reliability

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Why Ansys optiSLang?

Innovate with Automation

Accelerate innovation by **minimizing non-value add, repetitive tasks** by fully automating and orchestrating the simulation workflows between heterogenous CAX tools across the entire enterprise.

Product Improvement

Equip your engineers with tools that help **improve product designs beyond what human brain can perceive**. This could mean tweaking several hundred design parameters, figuring out the parameter subset that make a huge impact on product performance and optimizing the design.

Product Reliability

Quantify and minimize the uncertainty of risk going from simulation to real-world production when it comes to unexpected manufacturing tolerances and other real-world environmental factors.

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Ansys OPTISLANG

Enables Pervasive Simulation

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Ansys optiSLang - Optimize and orchestrate

Orchestrate and Automate

Increase productivity

Tools Agnostic Process Integration
Simulation workflows building
Openness for Plugins and Extension
Web app generation

Understand and Optimize

Reduce complexity and make better product decisions

Workflows for
Sensitivity Analysis
Metamodeling including AI/ML
Efficient optimization algorithms

Evaluate Product Reliability

Manufacture with confidence

Workflows for
Robustness evaluation
Reliability analysis
Robust Design Optimization

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