Simcenter FLOEFD – Teststellung Formular

Wichtig: * Nur vollständig ausgefüllte Anträge können bearbeitet werden! Es müssen **alle** Felder ausgefüllt sein!
* Damit Ihre Anfrage sofort bearbeitet werden kann, bitten wir Sie diesen Antrag per E-Mail-Anlage (pdf) an elinter@elinter.ch oder elinter@elinter.de zu schicken.

Firma:	
Ansprechperson:	
E-Mail:	
Straße:	
PLZ, Ort:	
Tel.:	

MAC Adresse: (XX-XX-XX-XX-XX-XX)	

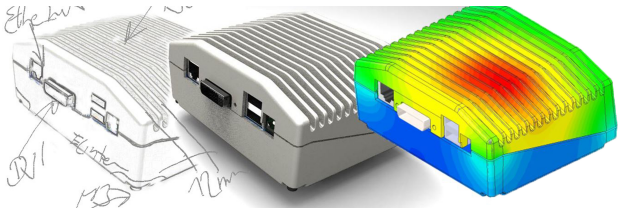
	Kostenloser Tryout	**Professional Tryout**
MCAD	Siehe Auswahlfelder	Siehe Auswahlfelder
Module	Siehe Auswahlfelder	Siehe Auswahlfelder
Schulung	Nein	Ja
Schulungskosten	Keine	1 Tag Online – 2'200.– (CHF/EUR)
Support	Online / Webbasiert	Persönlich
Dauer	30 Tage	30 – (60) Tage
Lizenztyp	Node Locked	Floating
Total Kosten	Kostenlos	2'200.– (CHF/EUR)
Bestellung	☐	☐

MCAD:

☐ FLOEFD for NX ☐ FLOEFD for CREO ☐ FLOEFD for CATIA ☐ FLOEFD for Solid Edge ☐ FLOEFD for Standalone

MODULE:

☐ EDA Bridge
☐ Electronics Cooling
☐ LEDModul
☐ DesignExploration(HEEDS)
☐ Magnetics
☐ Structural Option
☐ HVAC
☐ Advanced Modul



Datum / Unterschrift: Firmenstempel:

Overview Simcenter FLOEFD™

Simcenter FLOEFD comes with additional modules

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This document shows as overview the Simcenter FLOEFD enhancements. FLOEFD is positioned as frontend Engineering CFD Software Simulation tool:

- Standalone (SWX MCAD Kernel)
- Standalone (Solid Edge MCAD Kernel)
- Integration Modul in PTC – CREO
- Integration Modul in CATIA V5
- Integration Modul in NX
- Integration Modul in Solid Edge
- FLEX License (combinations of MCAD above)

Simcenter™ FLOEFD™ software has a specific meshing algorithm which allows on Notebook level very fast results respecting all standard CFD calculations. Steady state or transient calculation can be done. The usability of this tool is unmatched and after a short training, simulation can be executed and validated. Implemented is also a reporting interface to MS Office, which helps to automatically generate a simulation report inside minutes.

The following modules are available:

- LED (light-emitting diode)
- EDA Bridge (electronic design automation, pcb interface)
- Advanced
- Power Electrification
- Extended Design Exploration
- T3STER™ Automatic Calibration,
- BCI-ROM & Package Creator (Boundary Condition Independent - Reduced Order Model)
- Electronics Cooling Center.

Status: Simcenter FLOEFD 2021.2

- HEEDS (Multi Parameter Optimization), launch 2q2021
- ELMAG (Electromagnetic), launch 3q2021
- Thermal FEM (PCB deforming by simulated heat), launch 3q2021

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Feature and physics overview

The table below lists only specific features or physics of the different modules. It does not list all sub features that are part of one of those features or physics.

Features and physics	HVAC module	Electronics Cooling module	Electronics Cooling Center module	BCI-ROM and Package Creator module	EDA Bridge module	LED module	Advanced module	Power Electrification module	T3STER Automatic Calibration module	Extended Design Exploration module	EMAG module	Struc-tural module
T3STER Calibration			•						•			
Battery thermal models								•				
Electrical Element			•					•				
Electrical conditions		•	•					•			•	
• DC Joule heating		•	•					•				
• AC Joule heating											•	
Two-resistor component		•	•									
Heat pipe		•	•									
PCB compact model		•	•	•		•						
BCI-ROM			•	•								
Thermal netlist			•	•								
Package Creator			•	•	•							
PDML Import			•		•							
Network assembly (Delphi)			•		•							
EDA import			•		•							
• PCB import with explicit traces			•		•							
• Import chip properties and power			•		•							
• Thermal territory			•		•							
SmartPCB model			•		•							
HyperLynx co-simulation			•		•							
Tracer	•											
HVAC comfort parameters	•											
DO radiation model	•					•	•					
Monte Carlo radiation model						•						
• Ray spectral model						•						
• Temperature and wave-length-dependent refractive index						•						
• Ray visualization						•						
• Radiation spectrum and pattern definition						•						
• Ultraviolet (UV) germicidal irradiation						•						
• Photoluminescence (Mie Scattering)						•						
• Far- and Near-Field plots						•						
LED model						•						
Film condensation/icing						•	•					
Water absorption in solids						•	•					
Membrane						•		•				
Hypersonic option							•					
Combustion option							•					
NIST advanced fluid properties							•					
Real gas phase change							•					
Orbital radiation							•					
Multi-Parameter Optimiza-tion (HEEDS SHERPA)										•		

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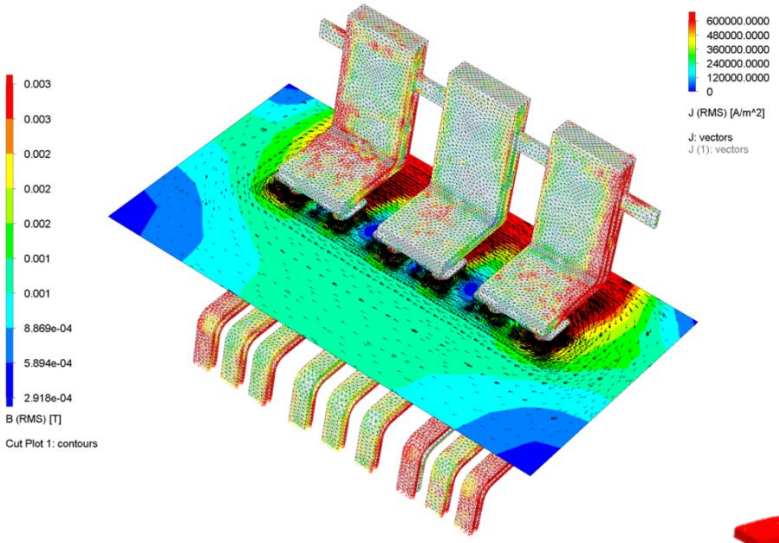
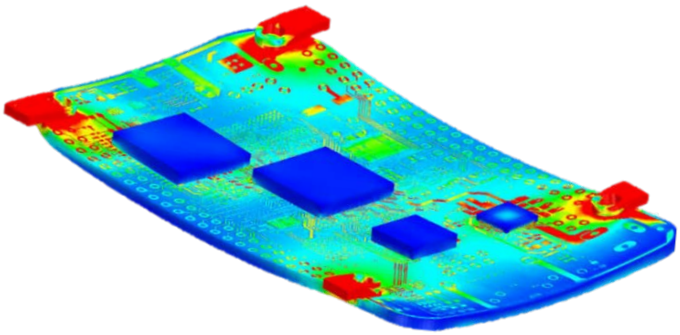
Feature and physics overview

The table below lists only specific features or physics of the different modules. It does not list all sub features that are part of one of those features or physics.

Features and physics	HVAC module	Electronics Cooling module	Electronics Cooling Center module	BCI-ROM and Package Creator module	EDA Bridge module	LED module	Advanced module	Power Electrification module	T3STER Automatic Calibration module	Extended Design Exploration module	EMAG module	Structural module
Electromagnetic Low Frequency											•	
Surface Impedance (Skin Effect)											•	
Iron Losses											•	
Magnets											•	
Demagnetization											•	
CFD-EM co-simulation											•	
Linear structural analysis												•
Modal frequency analysis												•
Export project to Simcenter 3D & Femap												•
SmartPCB FEM model												•
CFD-Structural 1-way co-simulation												•
Linear buckling												•





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Extended engineering database content overview

The engineering database (EDB) contains many predefined materials, fluids and other boundary condition properties such as LED properties and two-resistor components.

The various modules require different properties for materials and boundary conditions, and the table below lists which properties extend the database based on the module that is used.

EDB content	HVAC module	Electronics Cooling module	Electronics Cooling Center module	BCI-ROM and Package Creator module	EDA Bridge module	LED module	Advanced module	Power Electrification module	T3STER Automatic Calibration	EMAG module	Structural module	<no module>
Celestial Bodies							•					
Combustible mixtures							•					
Contact thermal resistances		•	•									○
Fan curves	•	•	•			•						○
NIST real gases							•					
Solid materials	•	•	•			•		•				○
• Alloys	•	•	•			•		•				○
• Building materials	•											
• Electromagnetic materials										•		
• Ceramics	•	•	•			•		•				
• IC packages		•	•									
• Metals	•	•	•			•		•				○
• Polymers	•	•	•			•		•				○
• Electrical properties		•	•					•				
• Electromagnetic properties										•		
• Structural properties											•	
Thermoelectric coolers (TEC)		•	•									
Two-resistor components		•	•									
Tracer	•											

○ *Default set of data*

• *Extended set of data*

Other features	Simcenter FLOEFD
Link to external optimizer	+[1]
Export to FEM tools	+[2]
Export to external postprocessors	+[3]
Simcenter Flomaster characterization, CAD2FM and OneSim	+
FMU import/export	+
Simcenter FLOEFD Viewer	+

1 Includes interface to HEEDS

2 Available for: Abaqus, Nastran, MpCCI, FEA Text, PTC Creo Simulate, Solid Edge Simulation

3 Simcenter FLOEFD Viewer

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Basic versions of Simcenter FLOEFD includes:

Simultaneous solver
Simcenter FLOEFD is able to run unlimited simultaneous solver runs as long as enough solver licenses are available per run. Additional solver licenses can be purchased or rented at any time.

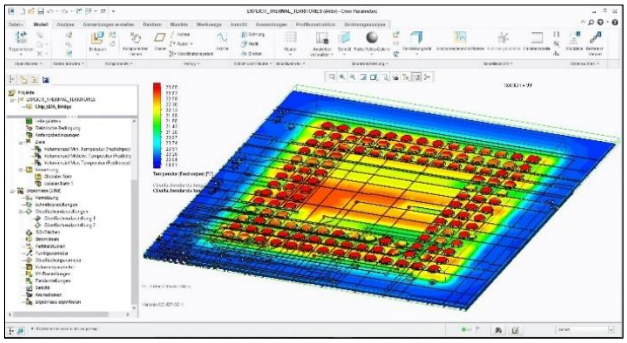
"Closing CAD" function
CAD system can beclosed with Simcenter FLOEFD while the solver is running

Pre/Post license handling
Simulation license as the solver and pre/post licenses are handled separately. This means with two full Simcenter FLOEFD Simulation licenses, there are two pre/post and two solver licenses available.

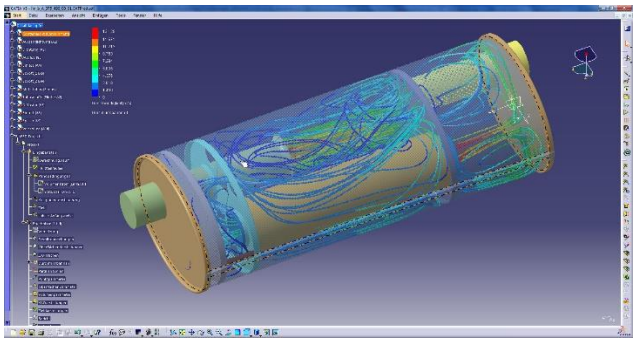
Travel license / borrowing
If running server based (floating lic server) license system, one single license can be borrowed for given time.

Reporting tool
Reporting made easy, FLOEFD is summarizing all boundary conditions to a report in Office Word, which can be easily adjusted or complemented by the user.

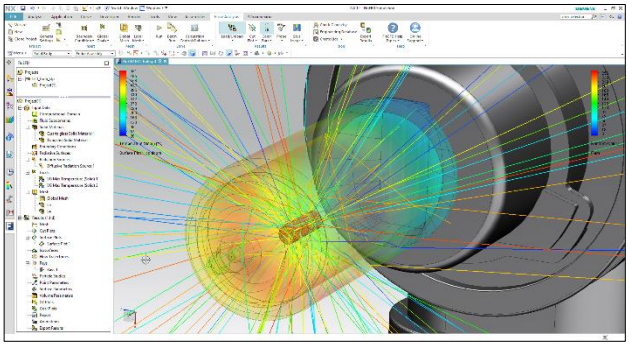
Modul: EDA-Bridge (pcb interface)



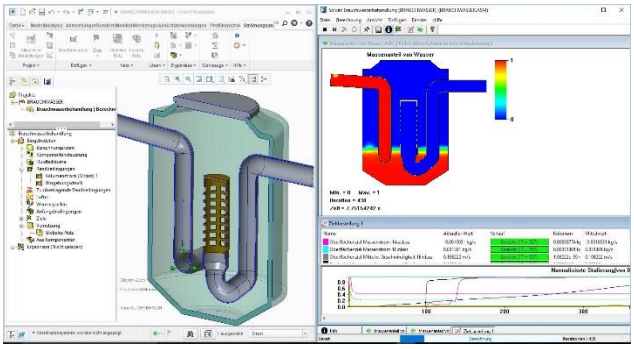
FLOEFD CATIA V5



Modul: LED (NX MCAD)



FLOEFD CREO (PTC)



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