



*The Next Generation CAE, Democratizing CAE*

**Beijing Internet Based Engineering Co., Ltd.**

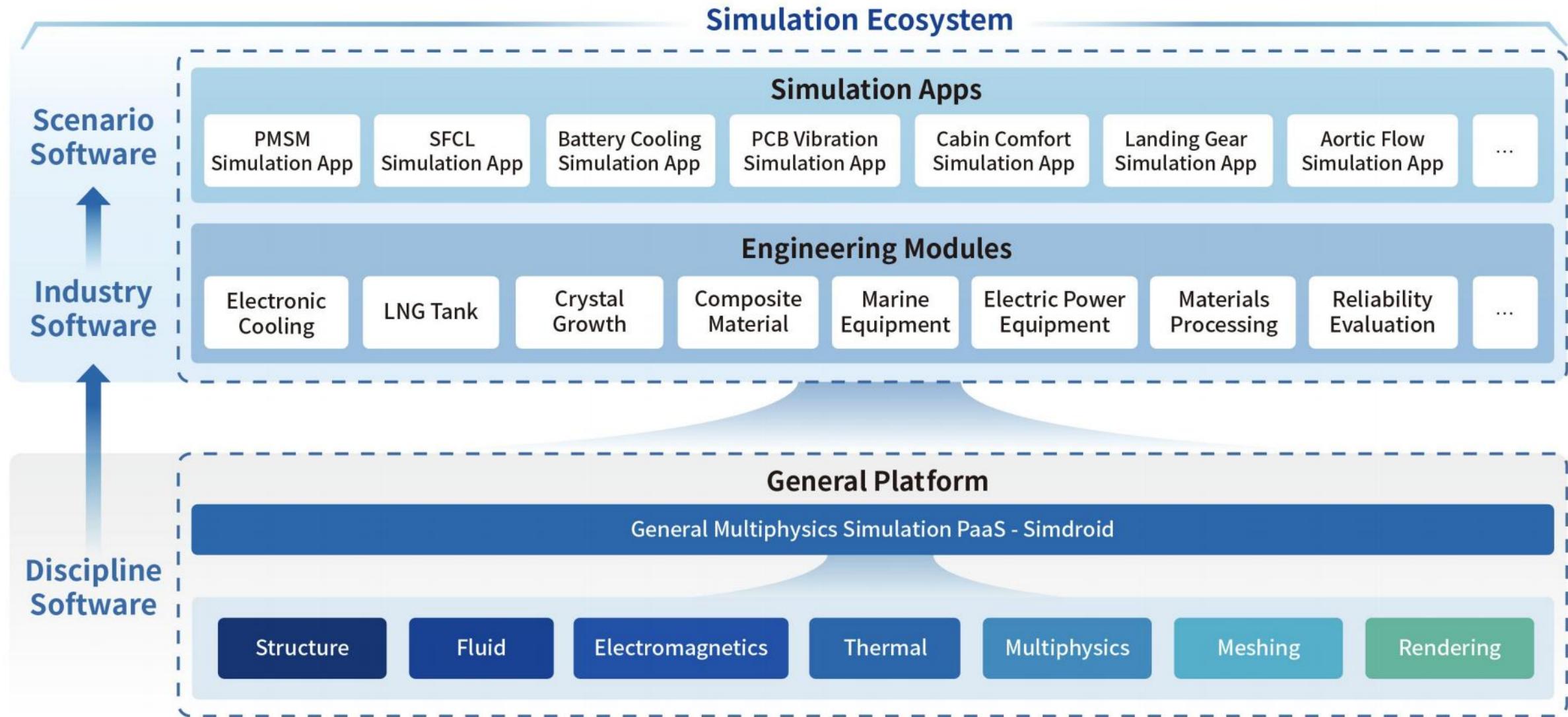
# About IBE



- **Founded in March 7, 2014**
- **The next generation CAE, Democratizing CAE**
- ***Hurun Global Gazelle Company(2022)***



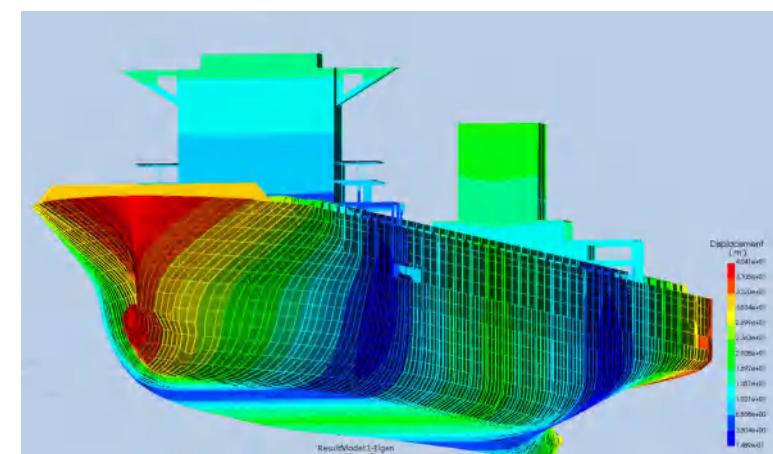
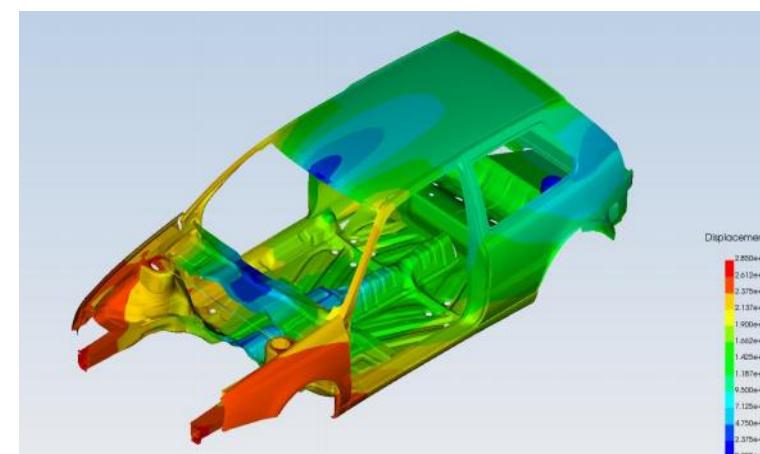
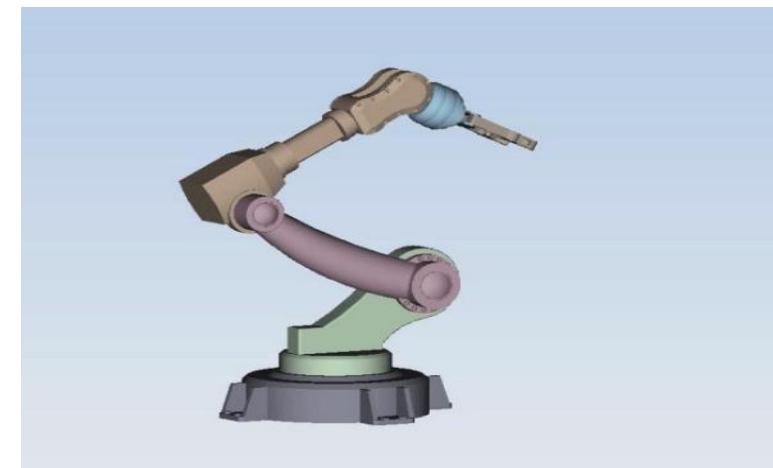
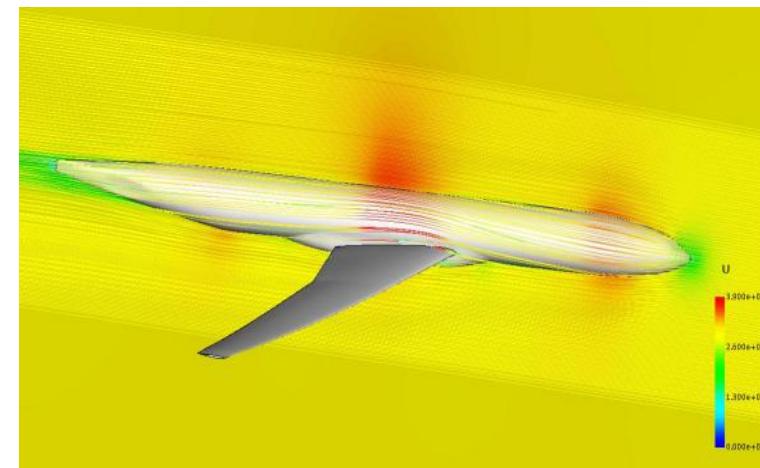
# PaaS System Framework





## ● Simdroid: General Multiphysics Simulation PaaS

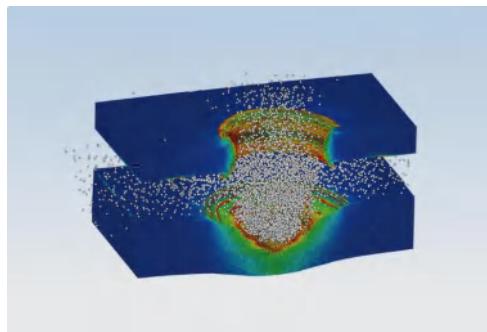
- Simdroid includes general solvers for structure, fluid, electromagnetics, thermal, etc., all independently developed by IBE.
- The Application Builder within Simdroid includes drag-and-drop functionality so that anyone can build simulation apps without programming language.



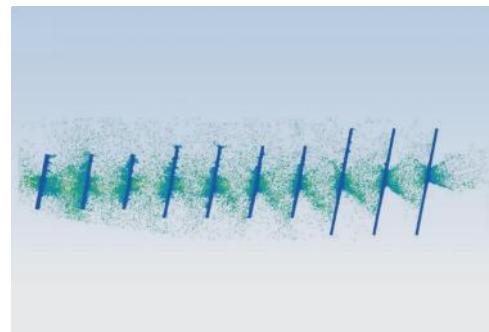


## ● Simdroid-MPM

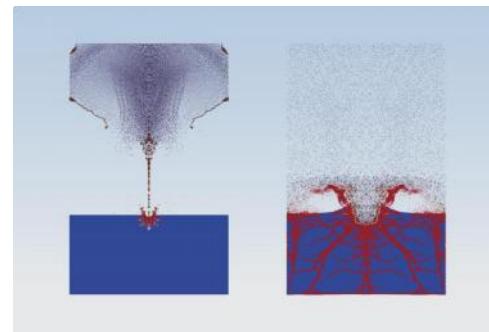
- Simdroid-MPM provides powerful modeling, discretizing, solving, and postprocessing tools in a unified and user-friendly environment. It is widely used for simulation of engineering challenges involving extreme deformations of structures and materials.



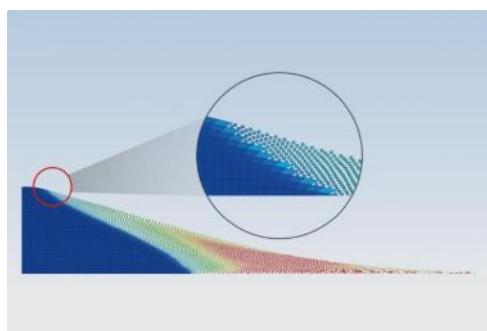
Hypervelocity impact



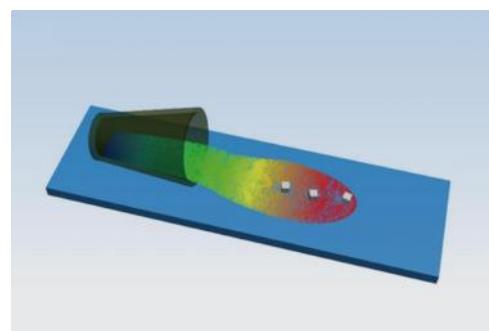
A projectile penetrating into multi-layered targets



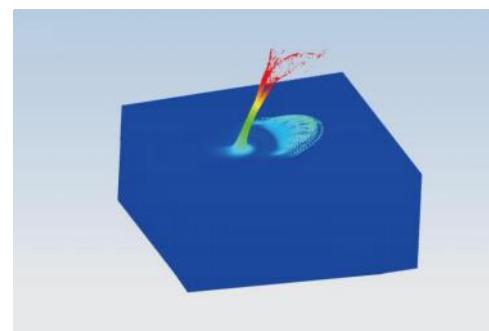
Shape-charged jetting impacts into rocks



Landslide



Overturning of a water-filled container



Shape evolution of Worthington jets

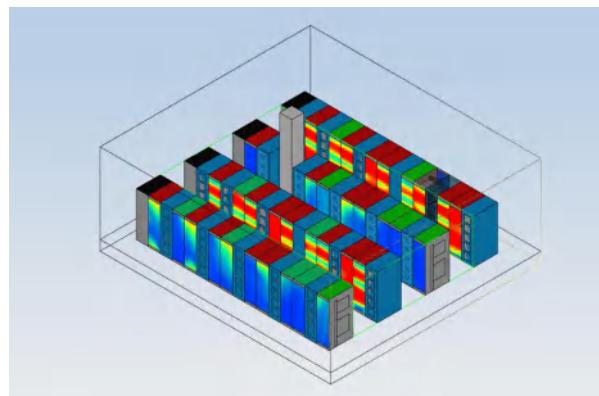
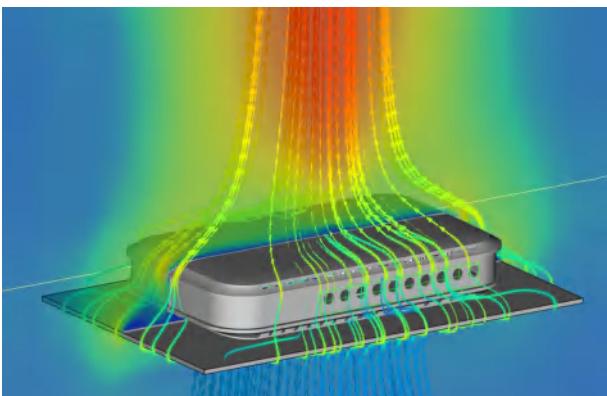
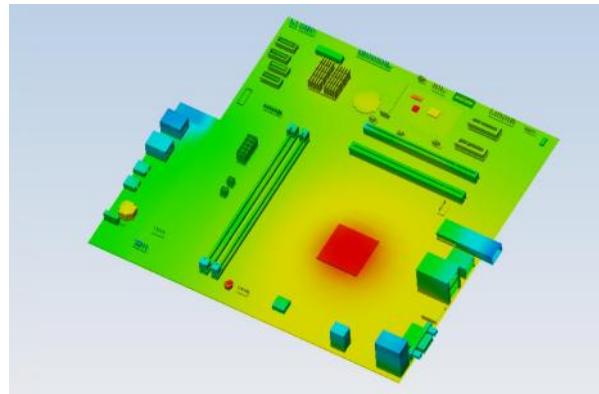
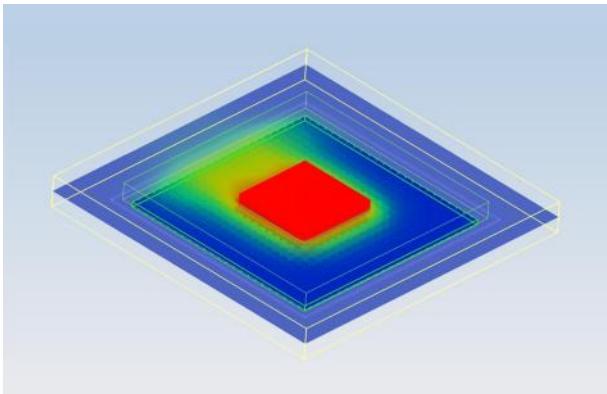
### Applications

- ✓ Aerospace and aviation
- ✓ Automotive industry
- ✓ Mechanical engineering and manufacturing
- ✓ Energy and chemical sectors
- ✓ Construction and civil engineering
- ✓ Geological disaster research and mitigation
- ✓ Visual effects, animation and motion graphics



## ● Simdroid-EC

- Simdroid-EC supports rapid modeling in a "building block" manner, enabling efficient and reliable thermal analysis of electronic products with mature and stable algorithms.



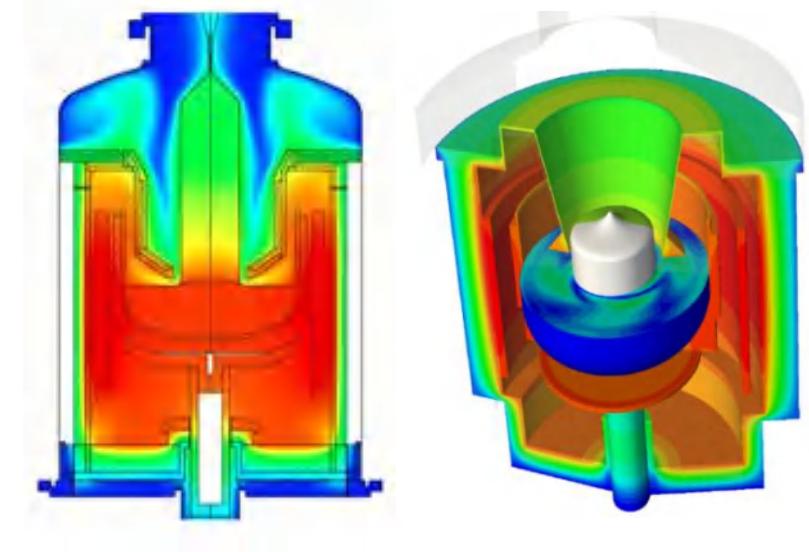
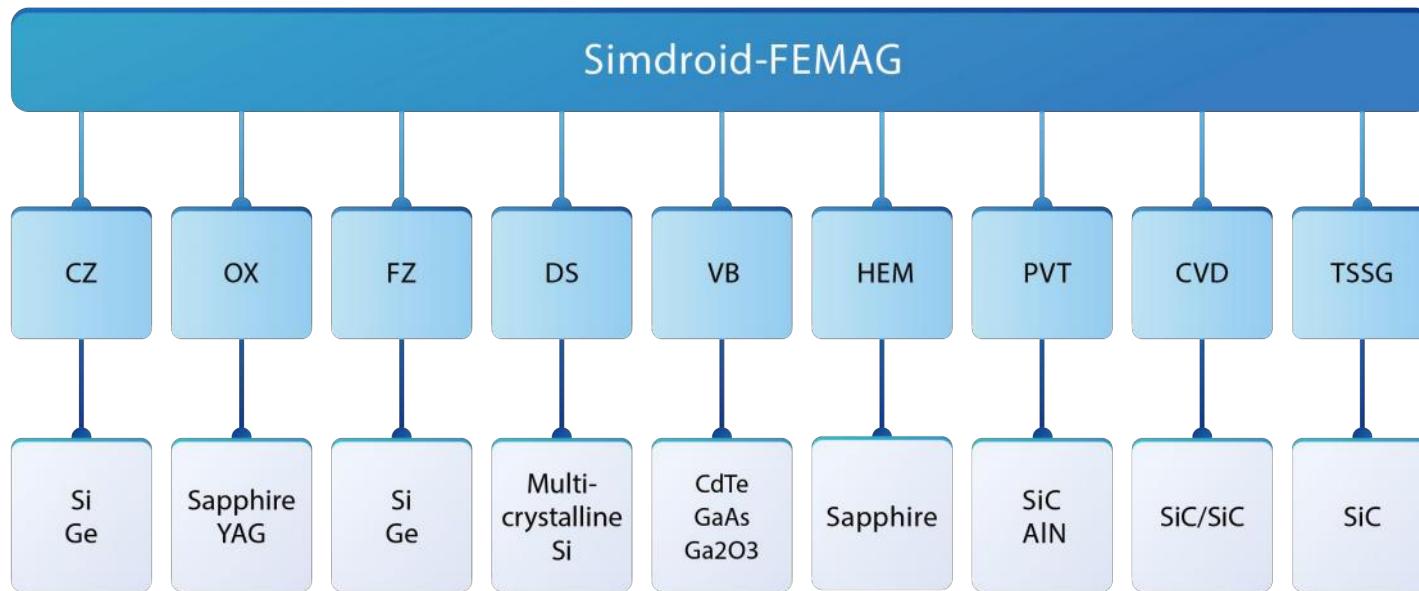
### Application Scenarios

- ✓ Chip and package-level thermal design and analysis
- ✓ Optimization of thermal design for PCBs and modules
- ✓ Full-scale thermal simulation analysis for mobile phones, tablet PC, chassis, and cabinets
- ✓ Ventilation and thermal simulation for large data centers and system environments



## ● Simdroid-FEMAG

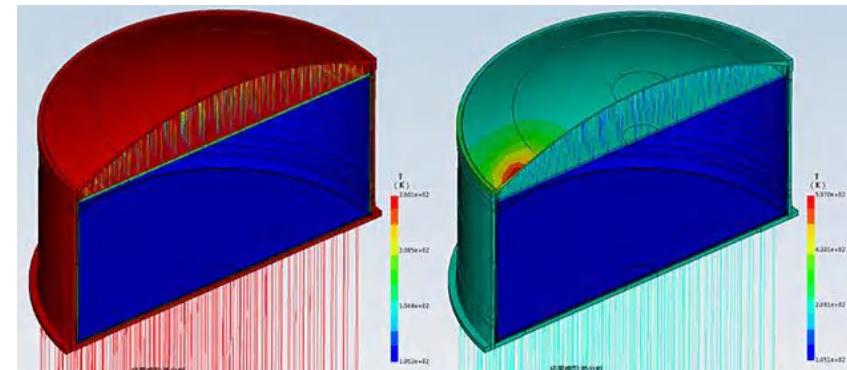
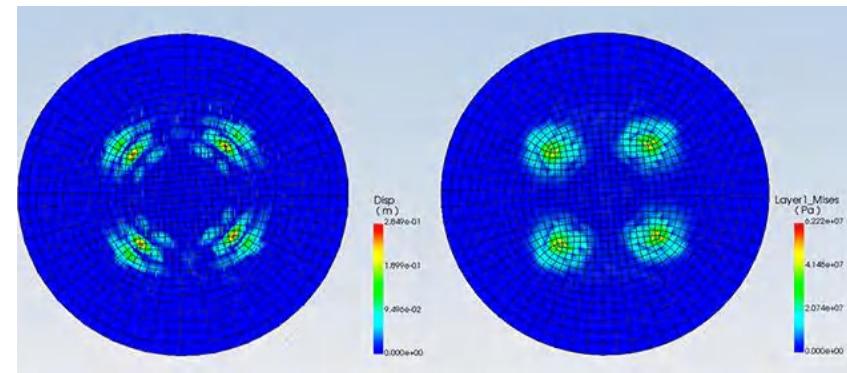
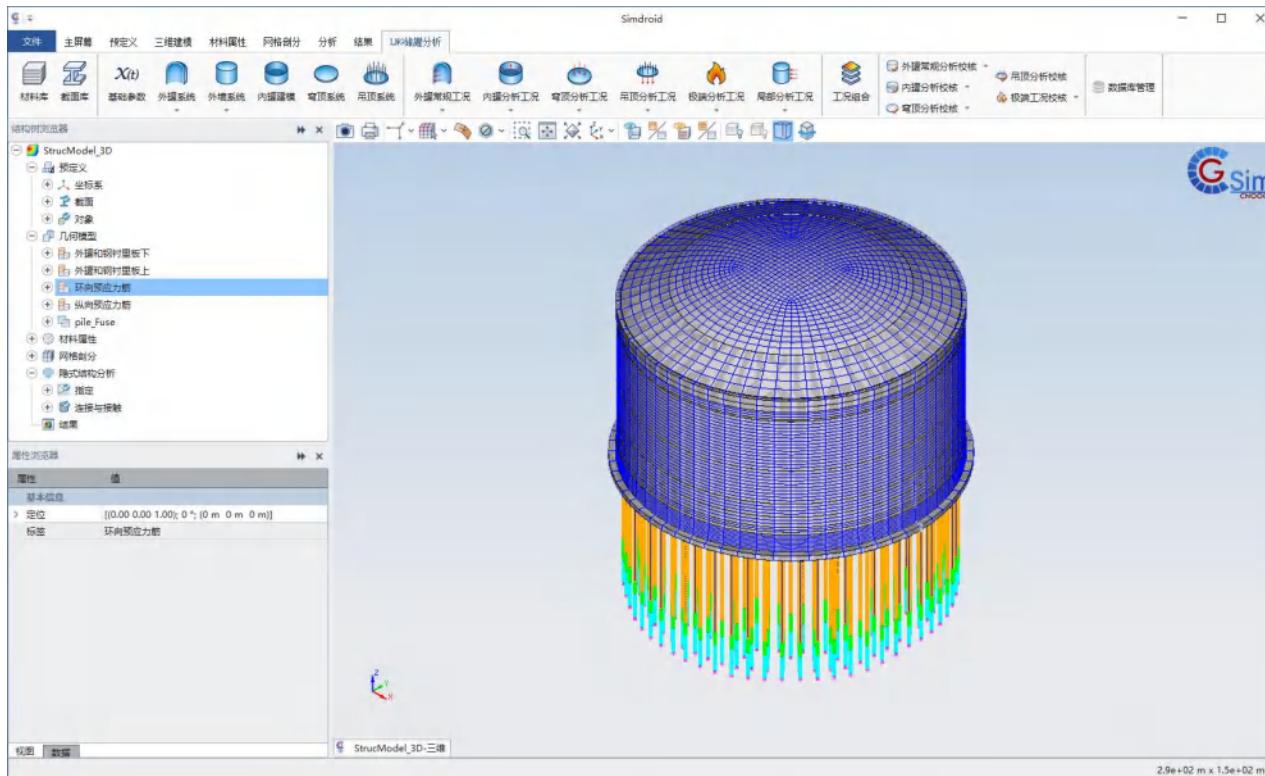
- With internationally advanced, efficient, and comprehensive crystal growth simulation technology and coupled multiphysics simulation capabilities, it can simulate various crystal growth processes.





## ● Simdroid-LNG

- Designed for LNG storage tank, it combines robust general functionalities with advanced specialized modules, facilitating seamless integration of parameterized modeling, automated simulation, and standardized verification protocols.





## ● Simapps: Simulation App Store

- It is a cloud-based simulation App Store.
- It has over 210,000 simulation apps for engineering and teaching.



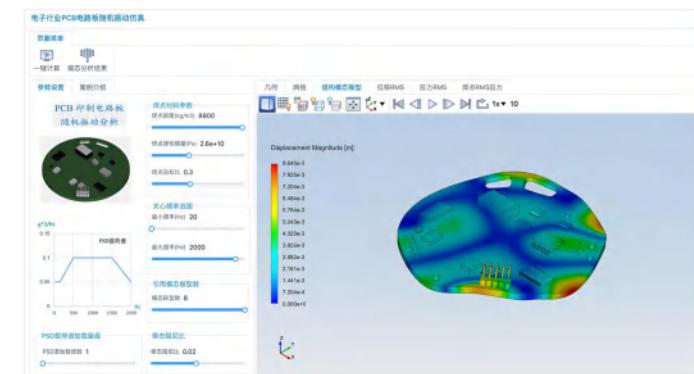
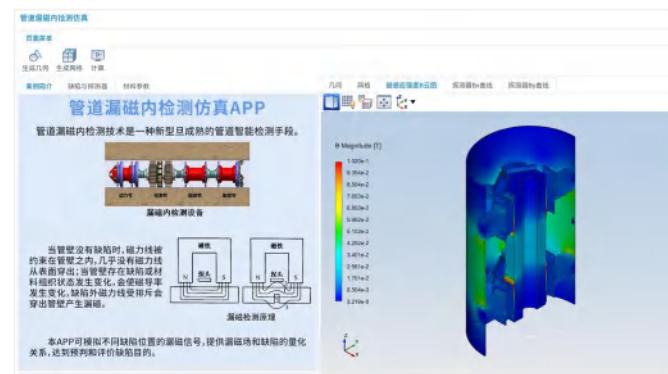
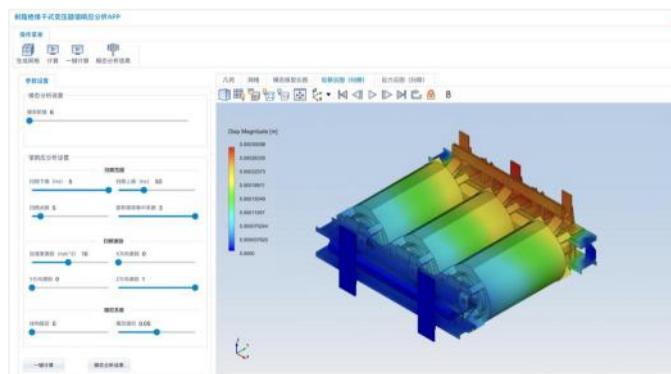
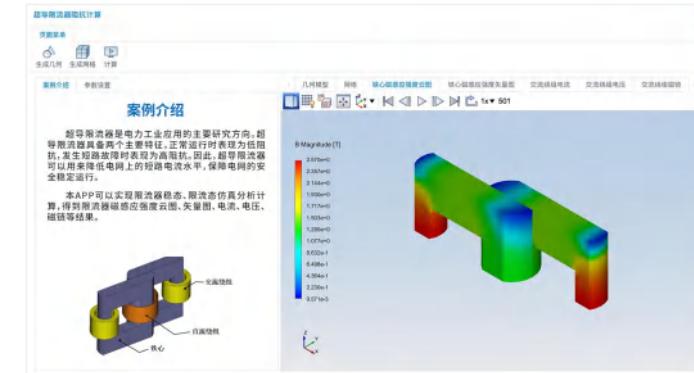
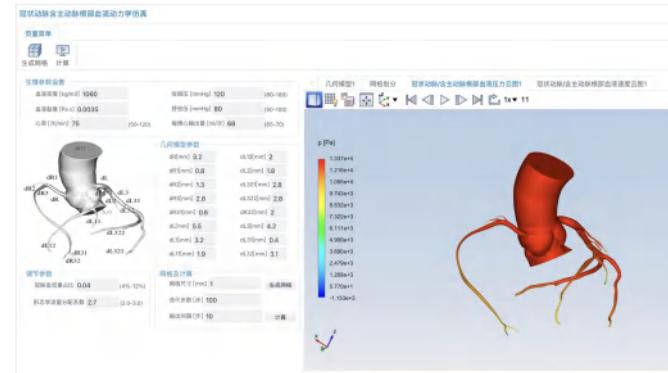
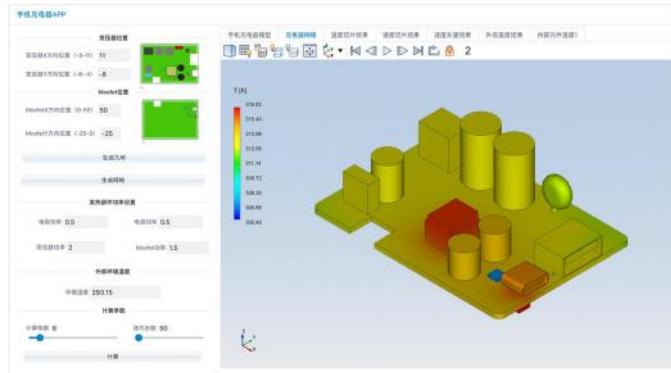
The screenshot shows the Simapps website running on a laptop. The interface is in Chinese. On the left, there's a sidebar with 'APP分类' (App Categories) including '行业类' (Industry), '产品类' (Product), and '科教类' (Education). The main content area features a banner for 'Simapps新版震撼上线' (New Version Launch) with images of a laptop and various engineering simulations. Below the banner is a '搜索APP, 请输入关键字' (Search APP, Enter Keyword) input field. To the right of the search field is a mobile app preview with icons for '我的账号' (My Account), '我的APP' (My APP), and '开发者' (Developer). The main content area is a grid of 20 simulation app icons, each with a small description below it. The icons represent various engineering applications like vibration analysis, motor design, and structural analysis.

APP Category	App Name	Description
Industry	振动试验夹具疲劳性能虚拟仿真	APP行业化展示
	弹簧设计工具	专业开发者入驻
	桥梁桥结构受力仿真分析	供需双方对接
	BJ 5B 圆形波导射频加热模型	仿真APP
	麦弗逊悬架KC特性分析	电机
Product	相控阵天线发热分析	汽车行业系列直播
	发动机曲轴频应力模态仿真分析	仿真APP合集
	发动机曲轴的模态仿真分析	汽车零部件
	轴向磁通电机仿真计算	压力容器
	第17届全国三维数字化创新设计大赛“云设计”CAE仿真应用工程设计专项赛	第17届全国三维数字化创新设计大赛“云设计”CAE仿真应用工程设计专项赛
Education	中国大学生创新创业大赛 (2024)	中国大学生创新创业大赛 (2024)
	电磁学	仿真实验
	材料力学	仿真实验
	传热学	仿真实验
	工程力学	仿真实验



## ● Simapps: Simulation App Store

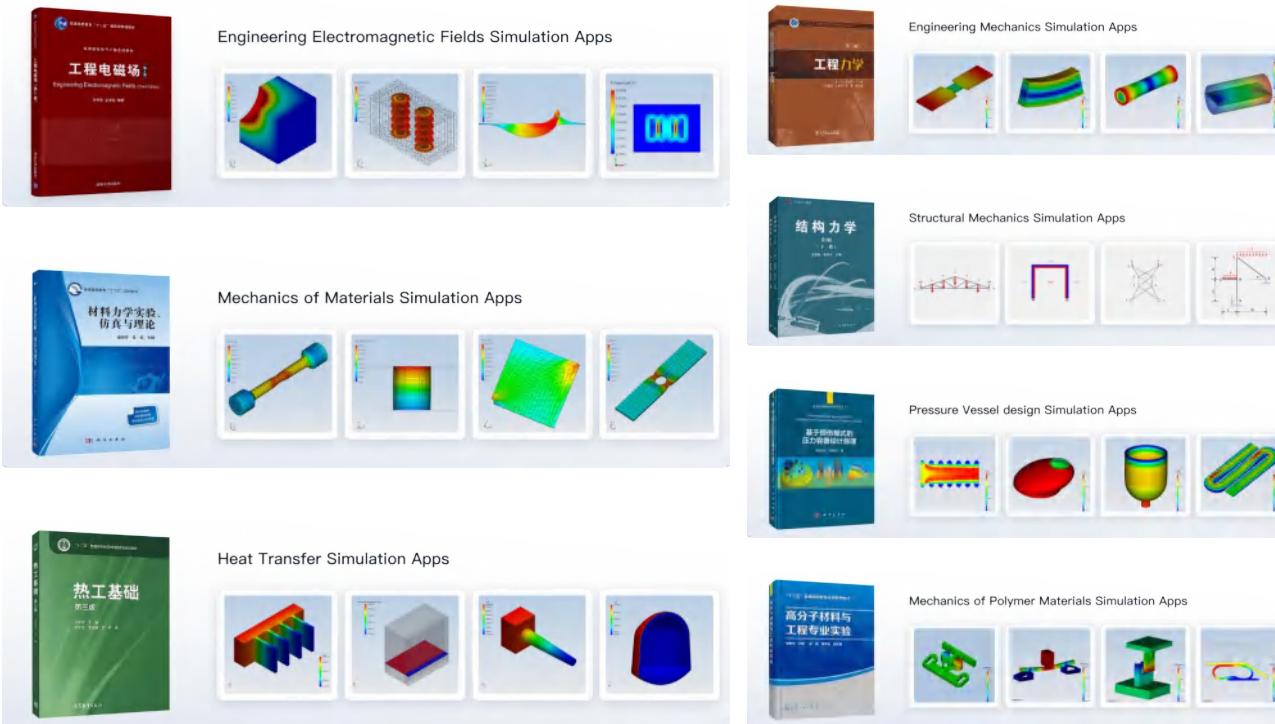
- Engineering Apps: Digital Twins





## ● Simapps: Simulation App Store

- Teaching Apps: Digital Teaching Materials





# Cloud Platform



## ● Simhub

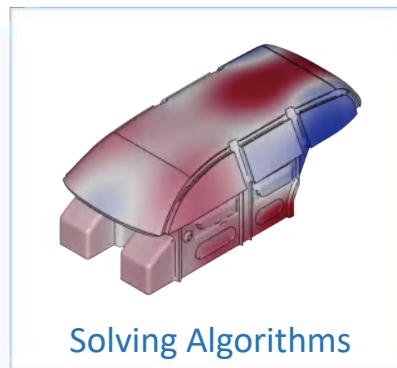
- Based on cloud-native technology, it is an integrated system for online development, operation, and promotion of specialized simulation software in subdivision industries, supporting one-click deployment on private clouds.



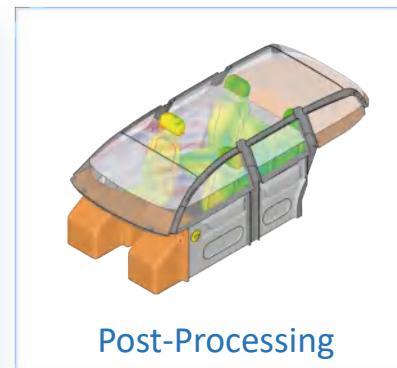
CAD Import & Edit



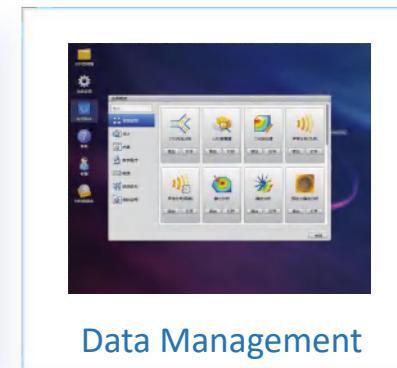
Mesh Generation



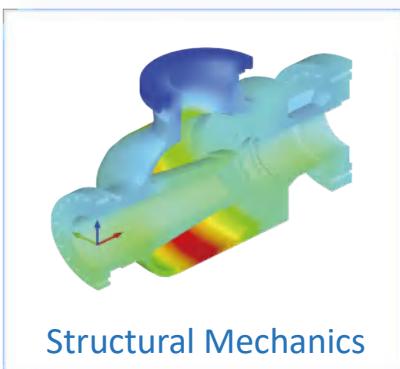
Solving Algorithms



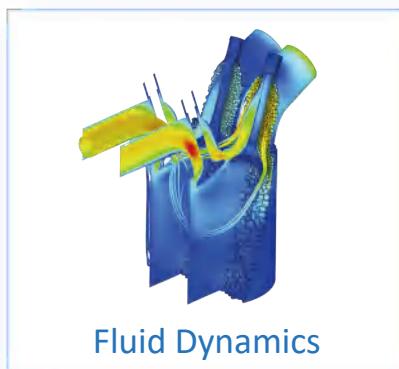
Post-Processing



Data Management



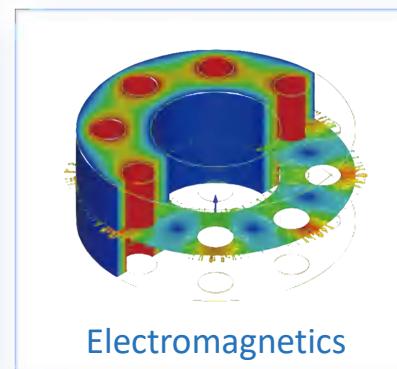
Structural Mechanics



Fluid Dynamics



Vibroacoustics



Electromagnetics



Multi-Body Dynamics



Platform: **Simdroid** — General Multiphysics Simulation PaaS

Product: **Simapps** — Scientific Computing Center