

Ansys Product Vision & Roadmap

Advancing Design in an AI World

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Director Product Management

Powering Innovation That Drives Human Advancement



2,000+ global experts,
**ready to support
your teams** to help
solve your toughest
challenges

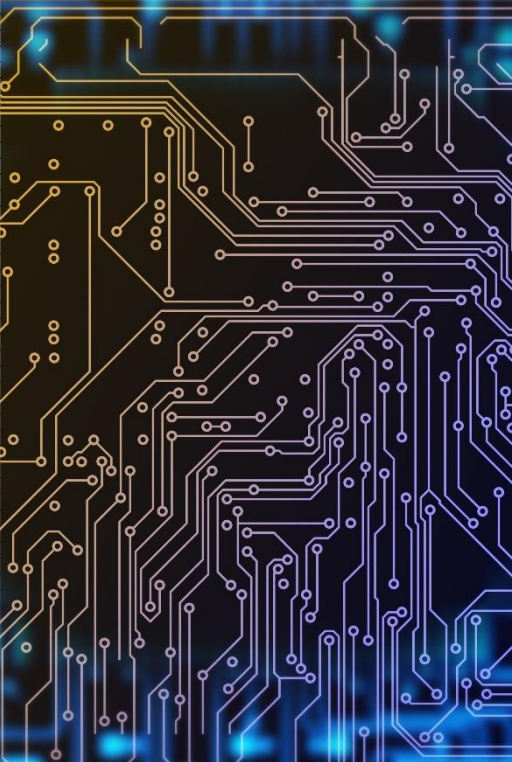


Expanding portfolio
of **Industry-leading
products** helping to
realize your greatest
innovations



Innovating **methods
of delivery and
better experiences**
to continue to deliver
for your transforming
needs

Ansys Northeast



100+

Experts dedicated to northeast region



1,750+

Live training hours consumed by customers



7,750+

Hours of ALH consumed by customers



5,150+

support hours logged in 2023



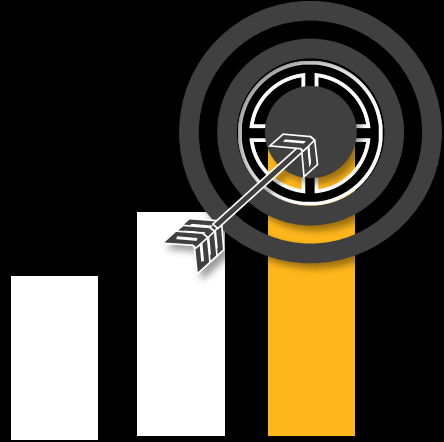
93.5%

Customer satisfaction score 2023



Strategically investing to support your digital engineering needs

Continuing to see investment and growth potential



\$1B+ in R&D spend
\$5B+ in acquisitions

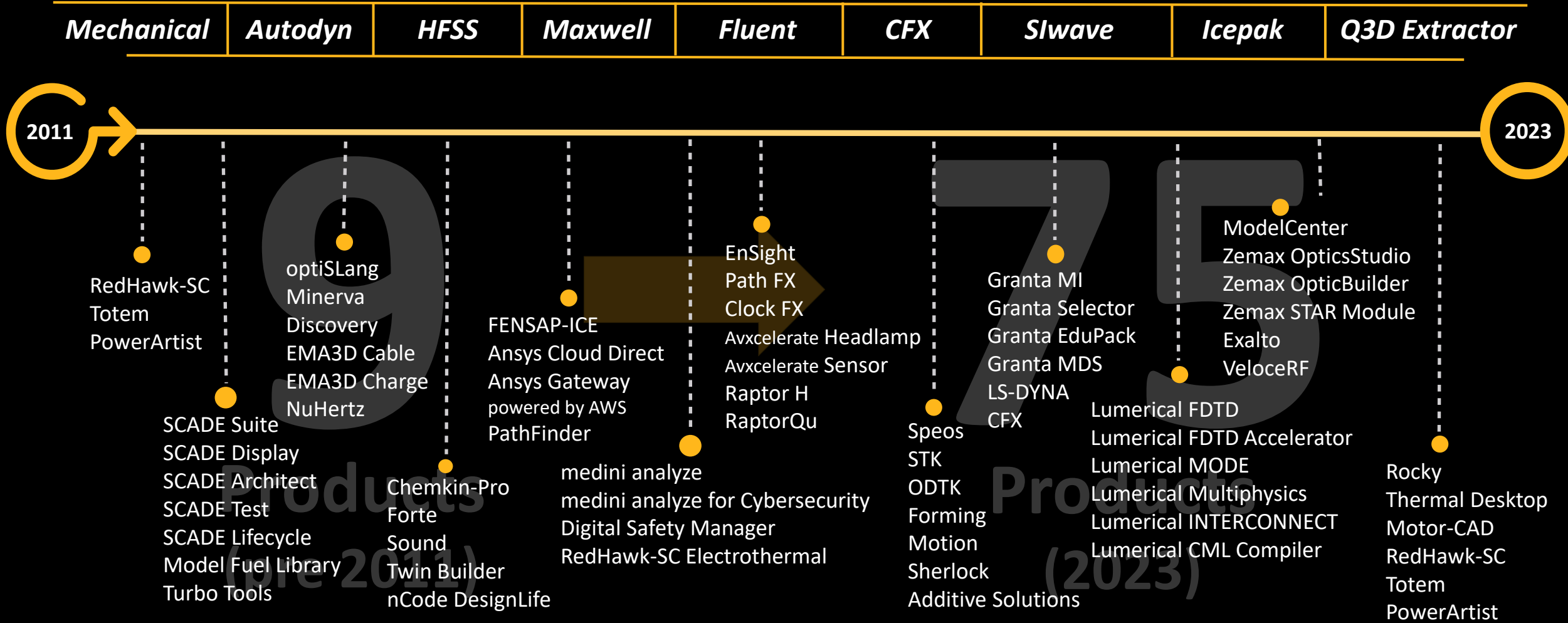
25+ acquisitions

since 2011



Added many capabilities for your teams to leverage for innovation

A view of the Ansys product portfolio growth from 2011

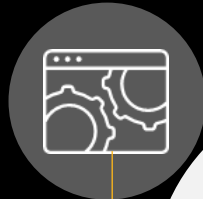


Reimagining the Ansys Experience

Advancing the Ansys user experience will **accelerate** innovation, **improve** productivity, and **increase** agility.

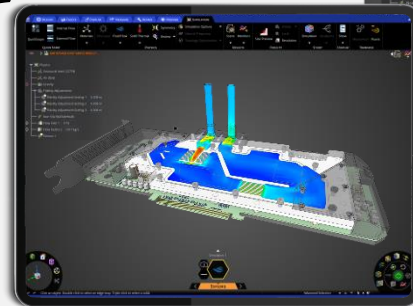
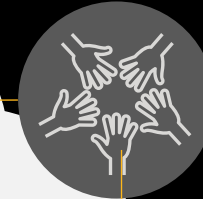
USER INTERFACE

Modern, consistent & componentized



COLLABORATION

Native integration



CLOUD

XaaS: SaaS, IaaS, & PaaS



Data Management
AI/ML driven insights

PLATFORM

ECOSYSTEM

Open APIs using Python



/ A vision for the future of simulation

Pervasive Insights

Anyone can make better decisions faster based on insights delivered through industry specific apps that leverage multiphysics + other computational simulations, AI/ML, and the power of the cloud.

Pervasive Simulation

Any developer or engineer can improve any product design by leveraging integrated multiphysics workflows automated by AI/ML and scaled through cloud based HPC.

Simulation Leadership

Any expert analyst can validate any product design based on insights from multiple physics simulation using separate tools and ad-hoc on-premises solutions.



Introducing Ansys' 5 pillars of innovation

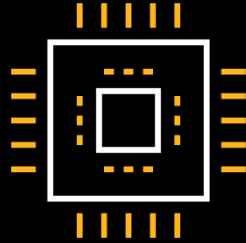
Driving your greatest innovations and solving your toughest challenges

NUMERICS



- Solver methods
- Geometry and meshing
- Shape and topology optimization
- Advanced analysis
- Multi-physics
- Multi-scale

HIGH-PERFORMANCE COMPUTING



- Shared-memory
- Message-passing
- Fine-grained GPUs
- New architectures: FPGAs & AI Hardware
- Quantum computing

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



- Solver acceleration
- Solver settings
- Top-down methods
- Bottom-up methods
- Reduced order models
- Large language models

CLOUD AND EXPERIENCE



- Cloud Enabled
- Cloud Native
- Platform, Collaboration
- Open APIs and developer ecosystem
- Common user experience

DIGITAL ENGINEERING



- MBSE
- Requirements & architecture connections
- Safety, security & software
- Digital twins
- Simulation process & data management

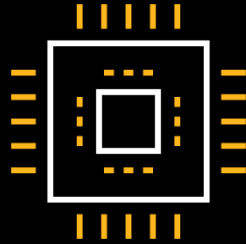
ANSYS' 5 pillars of innovation advancements

Developing new capabilities with every release

NUMERICS



HIGH-PERFORMANCE COMPUTING



ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



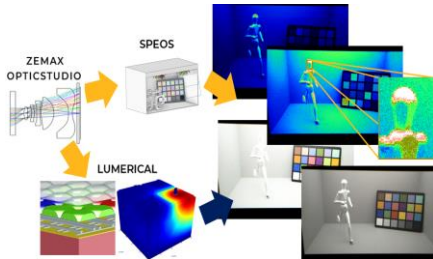
CLOUD AND EXPERIENCE



DIGITAL ENGINEERING



2023 R2 Updates



Nano-scale to macro-scale optics enhancement



5 products now leveraging GPU for solver acceleration



More than a half-dozen products leveraging AI/ML



Continuing to deliver on PyAnsys acceleration




Digital safety manager & safety platform launch

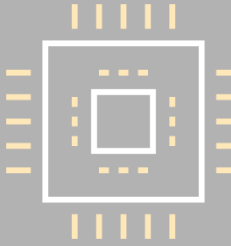
ANSYS AI powering advanced innovation

AI insights


NUMERICS




HIGH-PERFORMANCE COMPUTING




ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



CLOUD AND EXPERIENCE



DIGITAL ENGINEERING

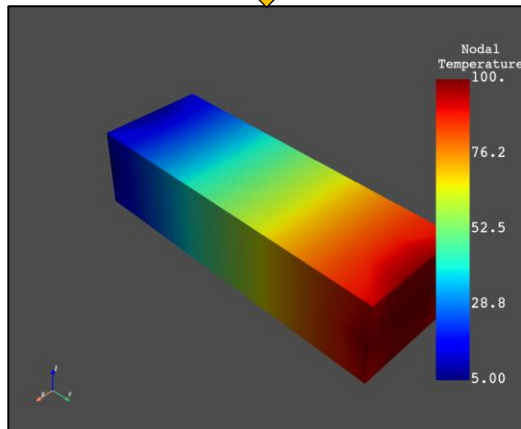


Ansyes Notebook – PyAnsyes large language model code creation

Simple case

Prompt

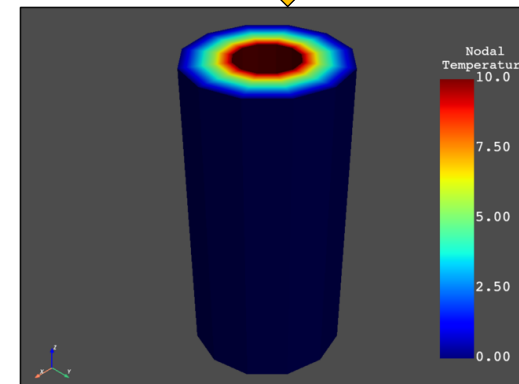
Generate a thermal 3d plate example using PyMAPDL. Show the post processing.



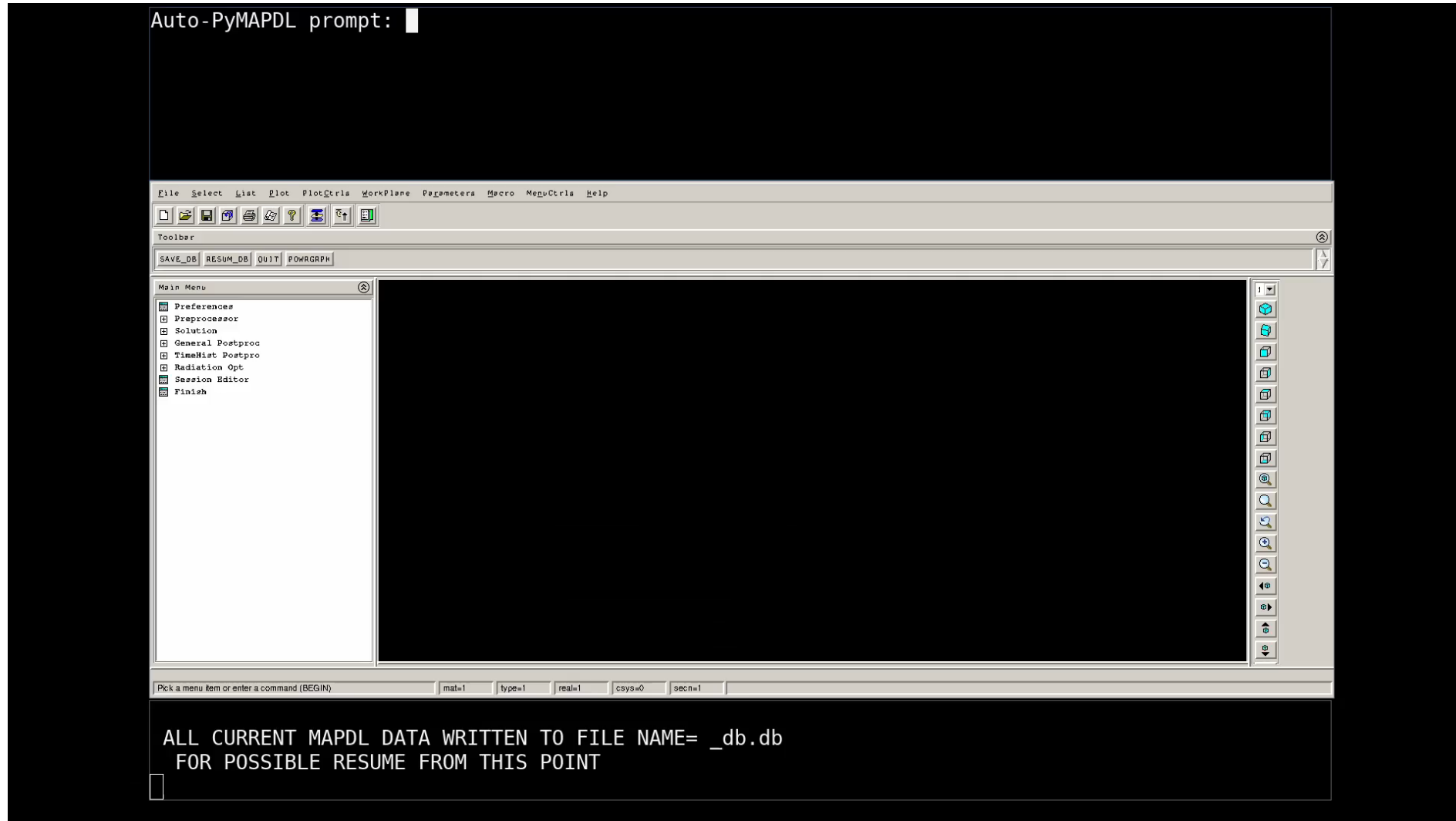
More complex case

Prompt

Generate a PyMAPDL script to create a cylindrical geometry with a radius of 0.05 m and a height of 0.2 m. The cylinder should have a hollow region with a radius of 0.02 m and a height of 0.1 m. Create a heat transfer simulation in which a constant heat flux of 1000 W/m² is applied to the inner surface of the cylinder, and the outer surface is assumed to be insulated. The cylinder material has a thermal conductivity of 50 W/mK and a specific heat of 500 J/kgK. The simulation should run for 1000 seconds.



ANSYS Notebook – PyANSYS large language model code creation



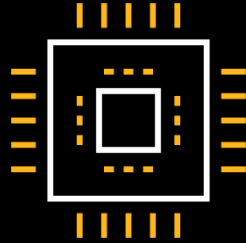
Multi-GPUs that greatly accelerate your simulations

CFD GPU acceleration

NUMERICS



HIGH-PERFORMANCE
COMPUTING



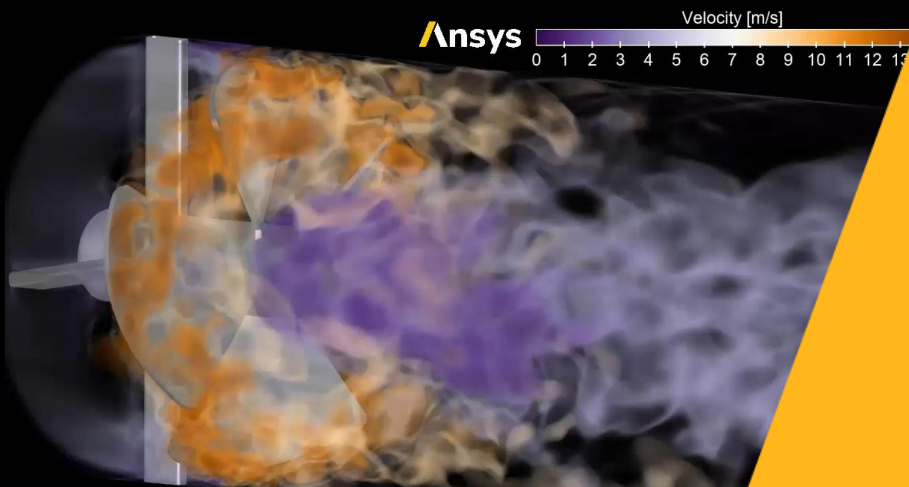
ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING



CLOUD AND
EXPERIENCE



DIGITAL
ENGINEERING



6 high-end GPUs \approx 2,000+ CPUs



Faster solve times than CPU with reduced power consumption, and is now extended to support:

- Compressible flows
- Rotating components with sliding mesh
- EDM combustion

Run complex applications natively on GPUs **substantially reducing solve time and total power consumption**

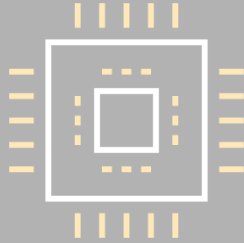


PyAnsys acceleration across the portfolio

NUMERICS



HIGH-PERFORMANCE
COMPUTING



ARTIFICIAL INTELLIGENCE
AND MACHINE LEARNING



CLOUD AND
EXPERIENCE



DIGITAL
ENGINEERING



PyAnsys allows Ansys users to interface Ansys Technologies through APIs with the Python ecosystem

- Democratize powerful capabilities through scripting
- Seamlessly connect Ansys and open-source tech
- Easily integrate Ansys physics capabilities with AI/ML



Available products through Python

Mechanical

LS-DYNA

Sherlock

RedHawkSC

TotemSC

Fluent

EnSight



optiSLang

Granta MI

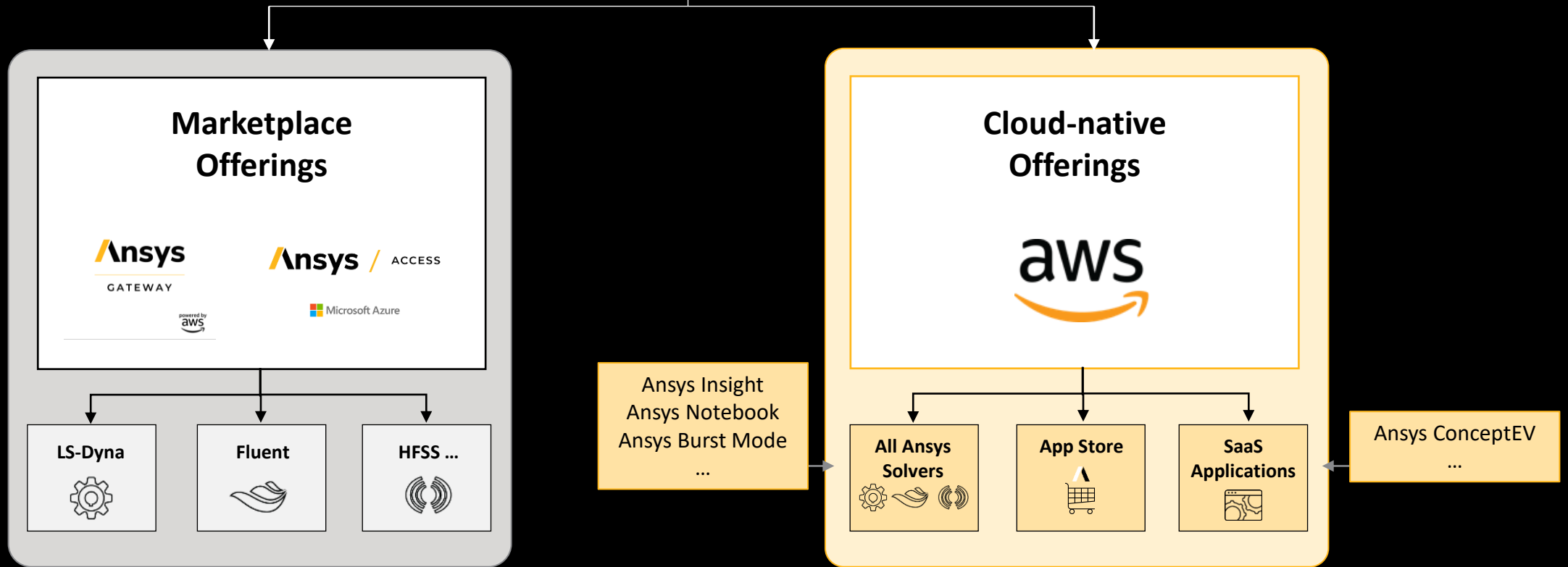
Electronics Desktop

MotorCAD



Twin Builder

Ansys



HPC intensive workloads
Bring your own licenses to your own cloud

Cloud-native experiences with
Ansys and 3rd party solvers

Introducing Ansys ConceptEV

ConceptEV **Ansys**

Welcome back!

Log in

Email Address

Password

 [Forgot password?](#)

LOG IN


Don't have an account? [Sign up](#)

or

Continue with Google

Continue with Microsoft

Log in with SAML SSO



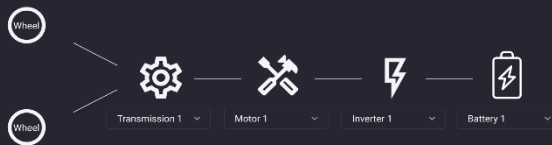
The EV Cloud Design Solution

Description Goes Here

ConceptEV Test Vehicle 1 x Test Vehicle...

Architecture

Template: Single Motor - 4 Wheels



ConceptEV Test Vehicle 1 x Test Vehicle...

Requirements

Static

- Standing Start
- Motorway Acceleration
- Top Speed

+ Add Requirement


Update All Static Requirements

Motorway Acceleration Data

Torque (Nm)	85.3
Power (kW)	561.2
Optimised Gear Ratio	
Gear Ratio 1	

Capability Plot

Tractive Torque



Motorway Acceleration

Vehicle Speed (km/h)	100
Acceleration (m/s ²)	3.2
Voltage	350V (Low Charge)
Mass	3000kg (Fully Loaded)
Aero	Standard
Wheel	19 inch
Gradient (degrees)	0
Deceleration Limit	EMEA Regs

CANCEL UPDATE DELETE

The Ansys experience

- Enhancing collaboration
- Modern UIs
- Web UIs
- ...

Introducing Ansys Innovation Space

The screenshot displays the Ansys Innovation Space website. At the top, there is a navigation bar with the Ansys logo, the text "Ansys Innovation Space", and a dropdown arrow. To the right are two search bars: "Search AIS" with a dropdown arrow and "Search..." with a magnifying glass icon. Further right are two buttons: "FREE STUDENT SOFTWARE" in a yellow box and "LOGIN" in a white box with a black border. Below the navigation bar is a secondary menu with links for "Learning Tracks", "Certification", "Knowledge" (highlighted in yellow), "Streaming", "Ansys Learning Hub", and "Events". A help icon (?) is on the far right of this menu.

A left-hand sidebar contains a vertical list of icons and labels: "Community", "Learning" (highlighted in yellow), "Support", "Educator", "Market", "Career", and "Maker".

The main content area is organized into sections:

- Preprocessing:** Contains two video thumbnails. The first is labeled "General" and shows a 3D model of a race car. The second is labeled "3D Design" and shows a detailed 3D mechanical assembly.
- Fluids:** Contains six video thumbnails: "General" (airplane), "Reacting Flows" (flame), "Heat Transfer" (industrial furnace), "Postprocessing" (3D car model with color-coded stress/temperature), and "Multiphase Flows" (water splash).
- Structures:** Contains three video thumbnails showing structural analysis of a dome, a mechanical part, and a building interior.

On the right side of the main content area, there are two article cards:

- Featured Articles:** The first card is titled "Postprocessing on Ansys EnSight" and features a 3D car model with a color-coded stress field. The text below reads: "This [video](#) demonstrates exporting data from Fluent in EnSight Case Gold format, and it reviews the basic post-processing capabilities of EnSight." Below the text are navigation icons: a left arrow, a right arrow, and four circles, with the last one filled.
- Trending Articles:** This section is currently empty.

At the bottom of the page, there is a footer with links for "Legal Notices", "Privacy Notice", "Cookie Policy", "Export Compliance", "Terms & Conditions", and "Data Subject Rights Policy". Below these links is the copyright notice: "© 2023 Copyright ANSYS, Inc. All rights reserved." In the bottom right corner, there is a small orange icon of a person and the Ansys logo.

Introducing Ansys Innovation Space



Ansys Innovation Space





