



Powering Innovation That Drives Human Advancement

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# On-demand simulation with Ansys Software-as-a-Service.

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EMEA Cloud Business Development Manager - Ansys

# Ansys Cloud Solution



## / CLOUD OFFERS

### Cloud Marketplace – BYOC




**Ansys Gateway powered by AWS™**  
**Ansys Access on Microsoft Azure™**

### Software as a Service (SaaS)

**Ansys SimAI™**  
**Ansys ConceptEV®**  
**Ansys Notebook**

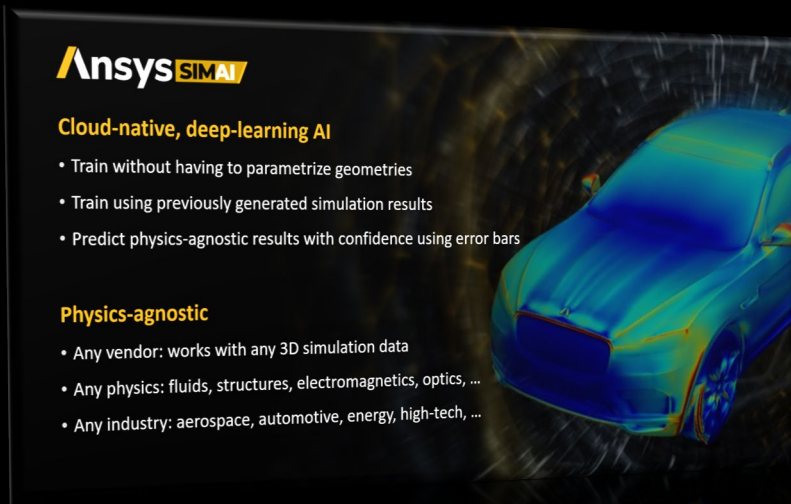
## PRODUCT CAPABILITIES

### Cloud Connected

-  Storage
-  Burst Compute
-  Collaboration

# Ansys Cloud - SaaS Offering and Cloud Connected Capabilities

- Fully **cloud-native offerings** delivered **via web browser**, accessed via a new subscription model. Our SaaS Offering include products like **Ansys ConceptEV<sup>®</sup>** and **Ansys SimAI<sup>™</sup>**.
- Cloud Connected Capabilities such as **Ansys Discovery Burst<sup>™</sup>** allow seamless **cloud compute integrated within Ansys Discovery<sup>™</sup>**.



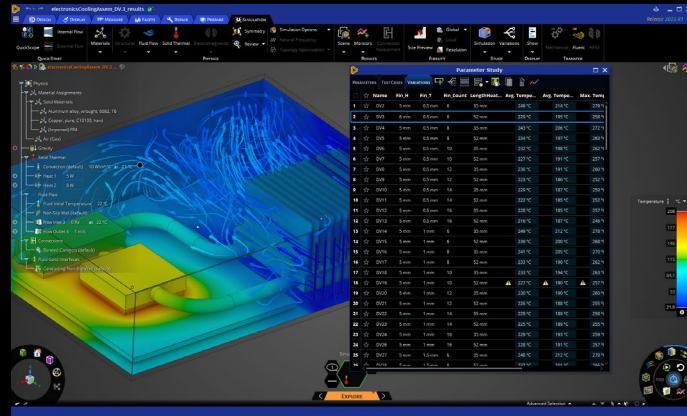
**Ansys SIMAI**

**Cloud-native, deep-learning AI**

- Train without having to parametrize geometries
- Train using previously generated simulation results
- Predict physics-agnostic results with confidence using error bars

**Physics-agnostic**

- Any vendor: works with any 3D simulation data
- Any physics: fluids, structures, electromagnetics, optics, ...
- Any industry: aerospace, automotive, energy, high-tech, ...



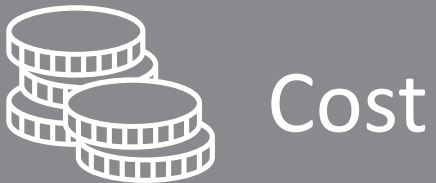
# Why should you care about Ansys SaaS?



Ansys SaaS applications are **100% web applications that can be used anywhere, anytime, and on virtually any device** including Macbooks, ChromeBooks, and PCs. Built on the same UI platform, we've created a **unified and friendly experience** across all applications.



Ansys SaaS solutions easily **grow with your business's needs**. All applications allow **instant provisioning** of new users with just a few clicks. Assign roles, delete users, and transfer accounts within seconds.



Our web applications are **cost-effective** they eliminate upfront hardware and software costs offering **flexible subscriptions** to meet your business's needs. **One subscription** will give you access to a wide range of Ansys technology.



All applications are built on **industry leading cloud providers** which are heavily invested in security technology and expertise. Data is saved in the cloud allowing **flexible storage management**.

# What is SaaS and Cloud Connected ?



## / CLOUD OFFERS

Cloud Marketplace – BYOC

**Ansys Gateway powered by  
AWS™**  
**Ansys Access on Microsoft  
Azure™**

Software as a Service (SaaS)

**Fully cloud-native offerings  
delivered via web browser,  
accessed via a new subscription  
model**

## PRODUCT CAPABILITIES

Cloud Connected

**New features embedded in Ansys  
desktop rich client applications  
which leverage cloud  
technologies so you can easily  
exploit “unlimited” compute,  
storage, and seamless  
collaboration.**

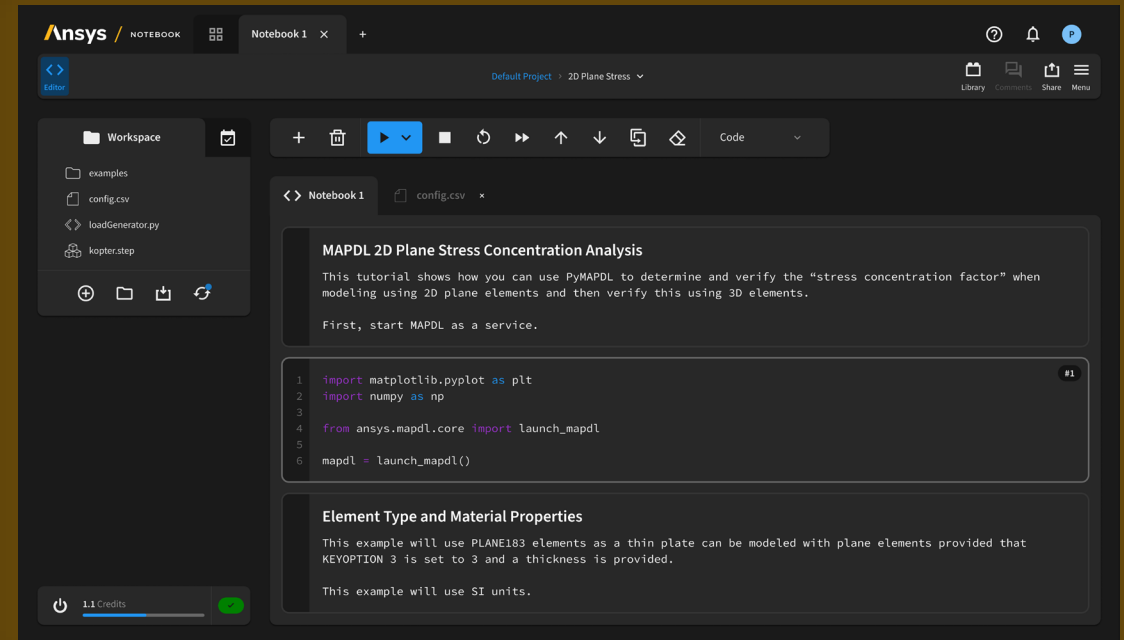
# Introducing Ansys Notebook

Currently in Beta

## Cloud Native Web App with immediate access to Ansys Solvers

An Ansys Design Language-based Experience Familiar to Developers

- Uncluttered and streamlined UX
- Tuned for Simulation
- Preloaded with PyAnsys Client Libraries
- On-demand product instances on right-sized resources
- Access to the complete Python ecosystem



# Ansys Notebook Free Trial?



## Request Your Free Trial Today

Join our Ansys Notebook Limited Preview Beta Program to get access to Ansys Notebook, a cloud-native web development application with immediate access to Ansys solvers.



# SaaS products: ConceptEV®



## Why ?

- ✓ New dedicated cloud-native software tool for concept design of electric powertrains
- ✓ Enables rapid and collaborative electric powertrain systems engineering at the concept stage

## Who is it for?

- ✓ Targeted at auto OEMs and tier one suppliers.

## How to get In?

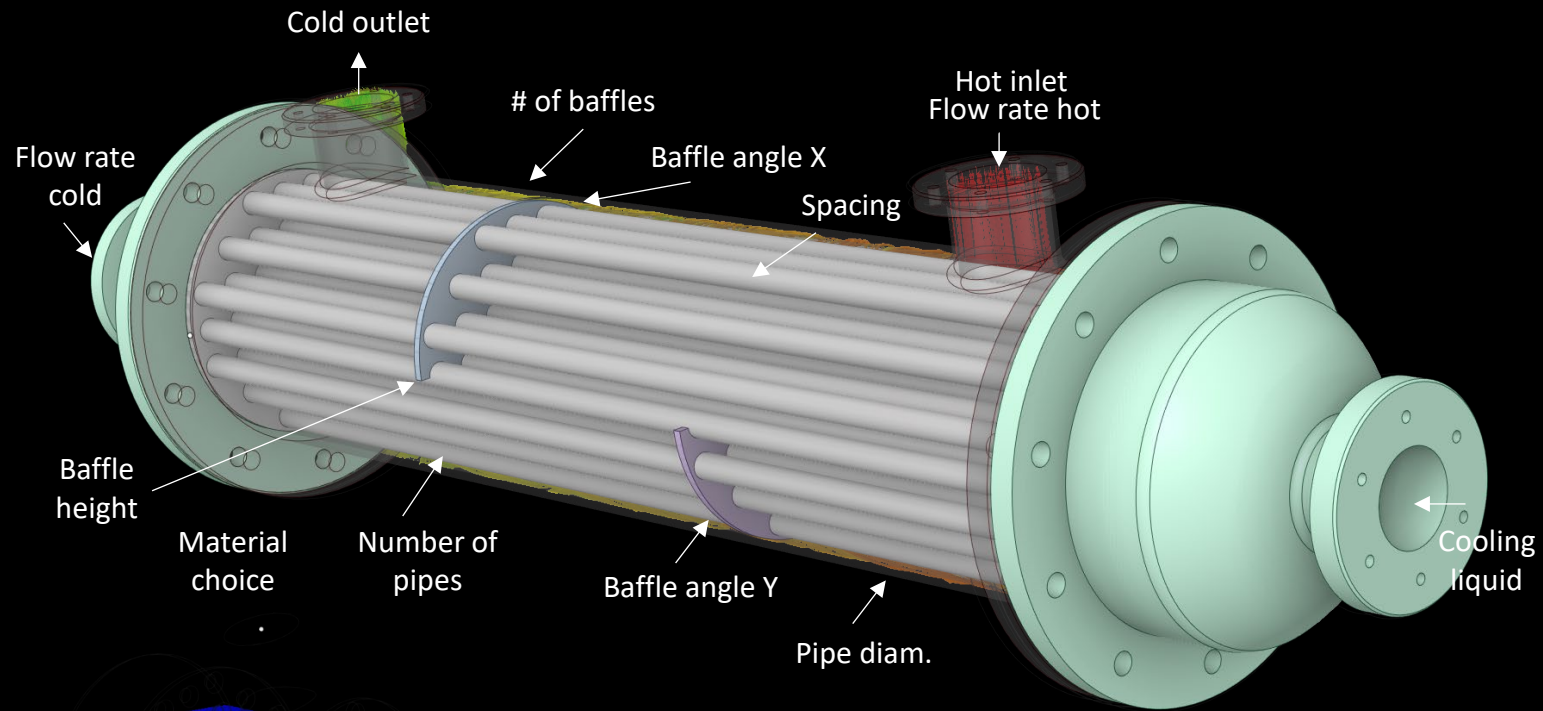
- ✓ New subscriptions with add-ons
- ✓ Zero-install and free trial for low barrier to entry

## What it is ?

- Ansys ConceptEV is a cloud-based design & simulation platform for the concept design of EV powertrain
- System & Component Design engineering teams can collaborate on a shared system simulation connected to requirements from the start of the design process



# Scenario: Industrial Heat Exchanger



## Goals:

- Maximize heat transfer
- Minimize pressure losses
- Increase sustainability

## How to explore this design space?

10 parameters to study  
5 values each

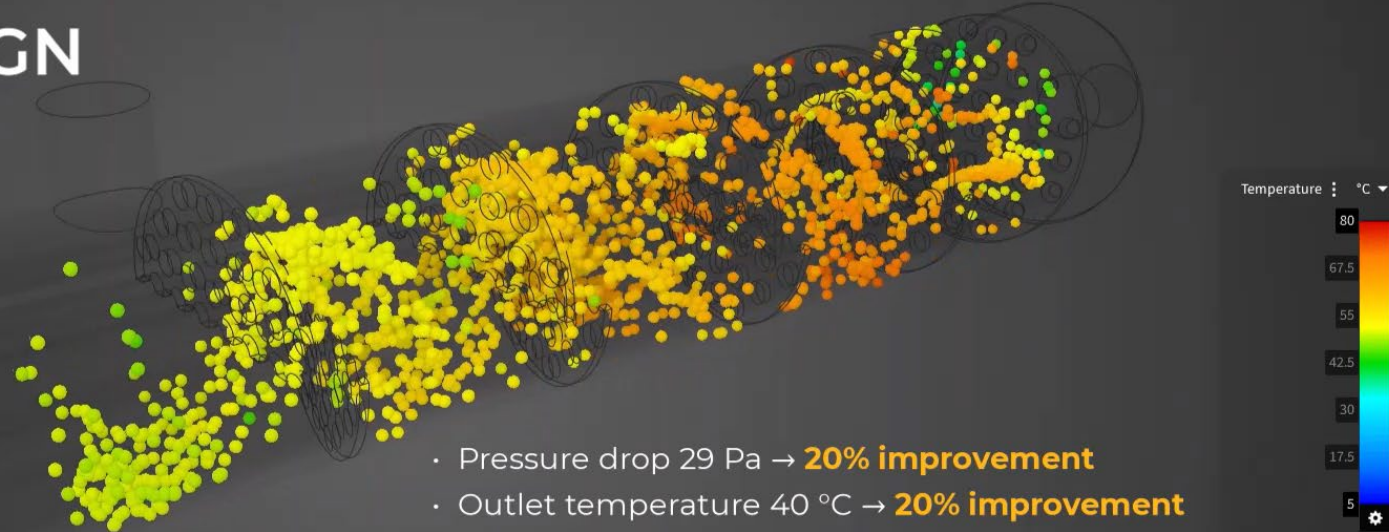
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9.77 million simulations

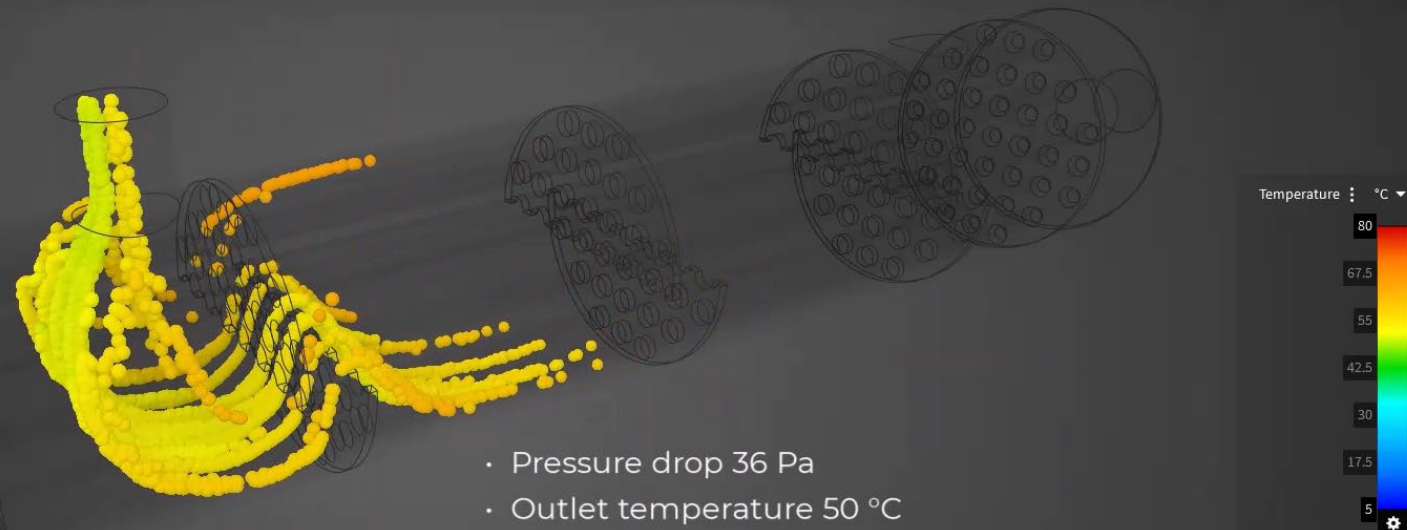
**Not Feasible**

# Demonstration

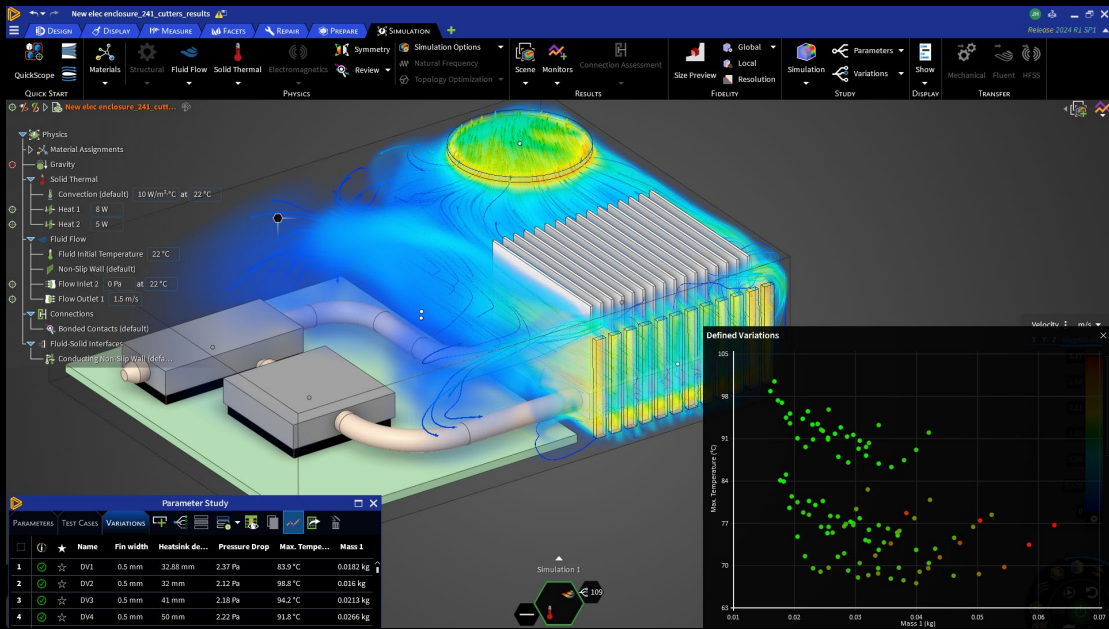
## OPTIMIZED DESIGN

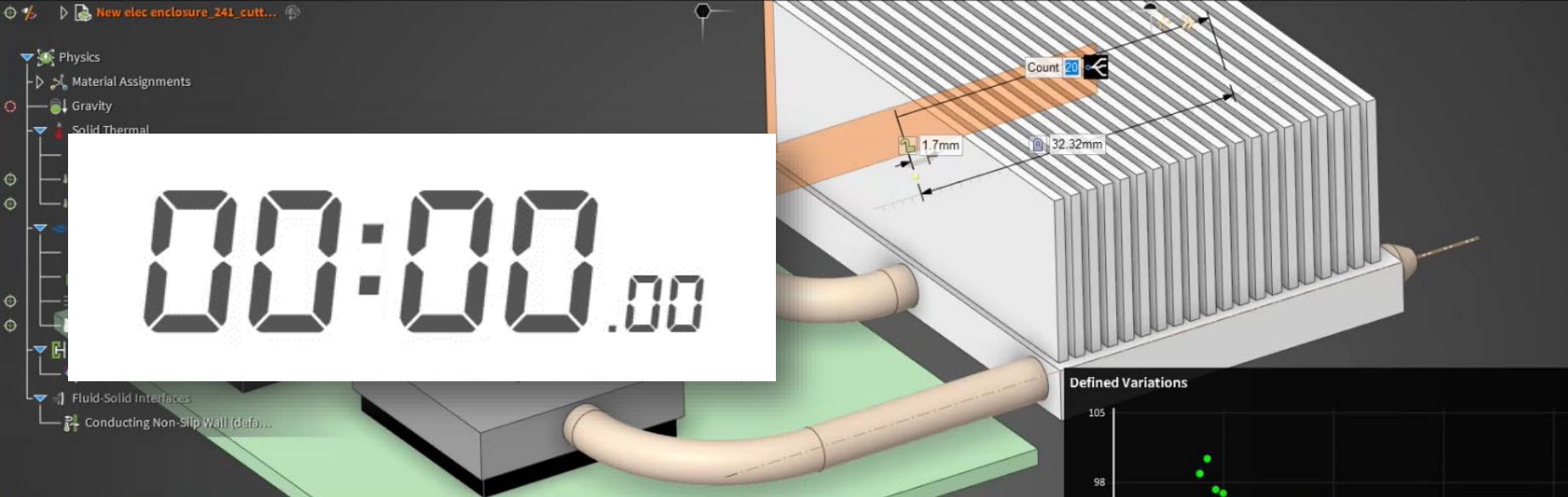


## INITIAL DESIGN



# Let's see that again



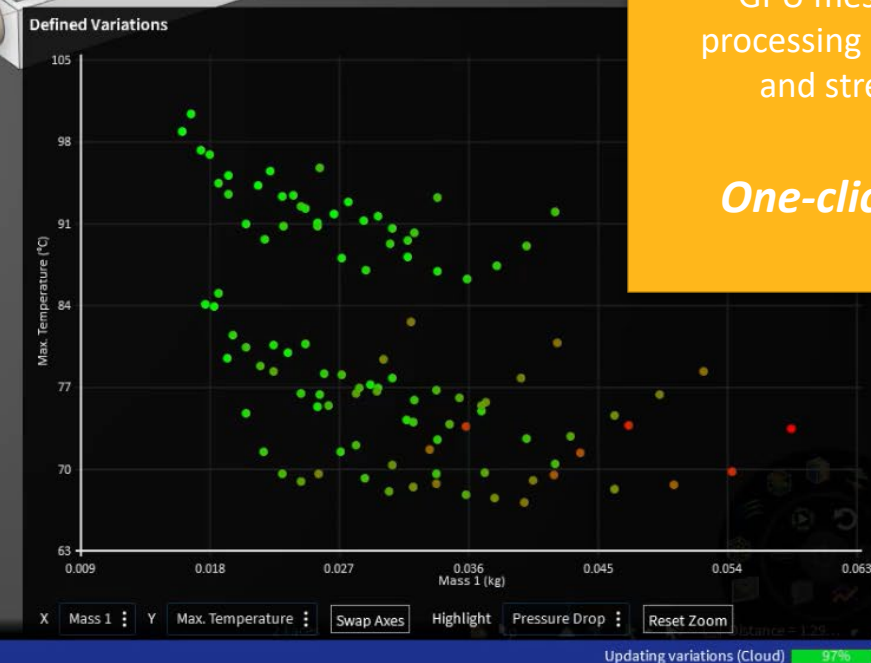


# 90 Seconds

- 109 CFD simulations
- Run simultaneously across 25 GPUs
- Desktop client generates simulation setups & sends to Ansys cloud
- GPU meshing, solving, and post-processing occurs on the Ansys Cloud and streams to desktop client

*One-click design insights*

Parameter Study							
	PARAMETERS	TEST CASES	VARIATIONS				
	Name	Fin width	Heatsink de...	Pressure Drop	Max. Tempe...	Mass 1	
1	DV1	0.5 mm	32.88 mm	2.37 Pa	83.9 °C	0.0182 kg	
2	DV2	0.5 mm	32 mm	2.12 Pa	98.8 °C	0.016 kg	
3	DV3	0.5 mm	41 mm	2.18 Pa	94.2 °C	0.0213 kg	
4	DV4	0.5 mm	50 mm	2.22 Pa	91.8 °C	0.0266 kg	
5	DV5	1 mm	32 mm	2.27 Pa	95.1 °C	0.0192 kg	
6	DV6	1 mm	41 mm	2.34 Pa	91.1 °C	0.0255 kg	
7	DV7	1 mm	50 mm	2.41 Pa	88.2 °C	0.0317 kg	
8	DV8	0.5 mm	32 mm	2.34 Pa	84.1 °C	0.0176 kg	
9	DV9	0.5 mm	41 mm	2.45 Pa	80 °C	0.0234 kg	
10	DV10	0.5 mm	50 mm	2.57 Pa	77.2 °C	0.0291 kg	



# Ansys Discovery Burst™ to Ansys Cloud

## What

High performance scalable cloud compute service tightly integrated to Ansys Discovery desktop application

## Value Proposition

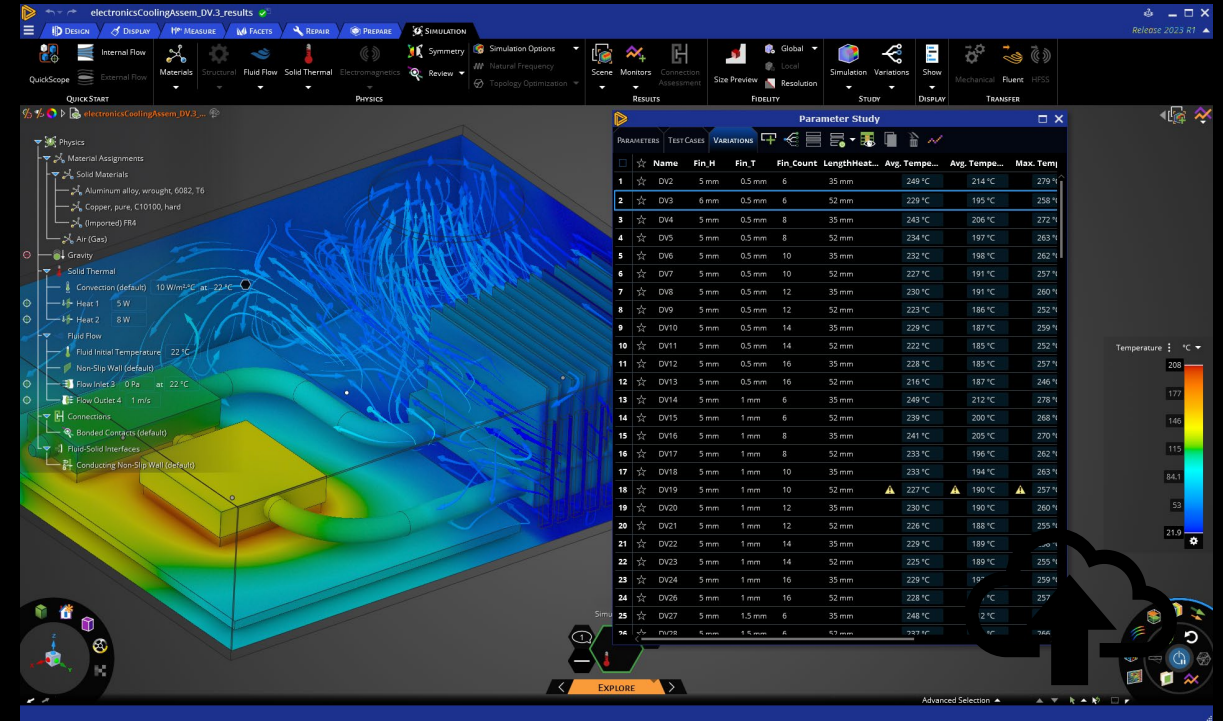
Run 1000 simulations in 10 minutes

## Target Use Cases

Existing Discovery customers looking to accelerate workloads, increase innovation, & reduce complexity. DoE, optimization, sensitivity studies, AI/ROM

## Critical Features

Zero IT deployment or overhead  
Available whenever you need it  
Flexible consumption-based pricing  
Supports all Discovery GPU physics



**Cloud-connected Discovery**  
*Seamless cloud compute integrated within  
Ansys Discovery™*

The image features the Ansys logo on the left, which consists of a yellow slanted bar followed by the word "Ansys" in white. To the right is a large, stylized letter 'A' composed of a yellow slanted bar and a white slanted bar. The background is black.

**Ansys**