Ansys 2024 R1 Reimagines the User Experience while Expanding Multiphysics Superiority Boosted by AI

February 6, 2024

New user experience enhances collaborative engineering environments, making powerful multiphysics solutions more accessible while simultaneously amplifying the benefits of AI-driven digital engineering solutions

/ Key Highlights

- Modern Ansys Design Language elevates the user experience (UX) to create a new user interface (UI) paradigm across the Ansys multiphysics portfolio and increases accessibility
- Native Ansys software integration, an open architecture, and scalability via high-performance computing (HPC) or the cloud facilitate seamless collaboration across distributed engineering teams
- Artificial intelligence (AI) amplifies advanced numerics with increased speed and more predictive accuracy across physics

PITTSBURGH, Feb. 6, 2024 /PRNewswire/ -- The latest release from Ansys (NASDAQ: ANSS), 2024 R1, introduces an elevated user experience designed to increase digital engineering productivity with AI. Combined with an open architecture, 2024 R1 streamlines engineering workflows, facilitates stronger collaboration, fosters real-time interactions, and elevates project outcomes.

Next-generation products are becoming increasingly complex systems that include integrated electronics, embedded software, and ubiquitous connectivity. To ensure the various components of these systems work together requires the predictive power of integrated multiphysics simulation solutions. Access to powerful engineering tools that can solve multiphysics challenges must be easy and intuitive to keep up with customer requirements for high-quality, reliable, and more sustainable products. Ansys 2024 R1 improves accessibility and the user experience with new, customizable interfaces.

"Increased engineering complexity is a challenge for every industry, from software-defined electric vehicles, or electric vertical take-off and landing aircraft, to bespoke silicon and in-silico healthcare trials," said Shane Emswiler, senior vice president of products at Ansys. "Ansys 2024 R1 turns challenges into opportunities by improving access to advanced digital engineering. Removing barriers enables users to harness the technology necessary for making sense of those complexities and leverage AI to augment simulation."

The addition of more AI-enabled solutions in 2024 R1 further accelerates product development and fosters creative design exploration. The new Ansys SimAI™ solution is industry- and physics-neutral, enabling users to leverage multiphysics simulation results to train the AI for increased performance.

Seamless, Intuitive UX Enhances Productivity and Collaboration

The latest release draws from an updated Ansys Design Language that defines the look and feel of Ansys software to promote productivity across all Ansys applications. The flexible design language provides three design mode choices: Classic Mode for the same look and feel as previous releases, Light Mode for improved visibility and aesthetics, and Dark Mode for reduced eyestrain in low-light environments. Native integration capabilities also provide in-application access to other Ansys products with one click.

For example, the model-based design environment of Ansys Scade One ™ for embedded software was built referencing the new design language, making it both easy to learn and use. It is designed to integrate seamlessly with cloud computing models and the many advanced technologies that systems and software engineers are using today.

Visual Brilliance on top of Multiphysics Excellence and Increased Compute Power

Ansys 2024 R1 ushers in improvements that go well beyond an elevated UX. The latest release provides easy access to Ansys' advanced numerics-based solutions, including world-class multiphysics models and methods. It also supports massive HPC scalability to tackle today's complex product design and development challenges, as well as the flexibility needed to tap into compute resources when and where they are needed, via on-premises HPC, bursting to the cloud, or cloud-native applications.

New features in Ansys Discovery™ 3D simulation software support cloud-connected burst compute capabilities directly from the Discovery UI. Testing shows 1,000 simulations can be run in 10 minutes without tying up a local workstation, which massively accelerates design space exploration and innovation while providing data sets that can be used to train AI. This phenomenal speed increase, coupled with AI training, enables engineers to simulate more product design options earlier in the engineering process.

"Ansys uniquely makes it possible and user-friendly at the same time to master the multiphysics tasks, which inevitably come together when developing complex systems such as wind turbines," said Dr. Paul Köster, lead R&D engineer, at siWING, which is developing innovative wind turbines for private use.

Cutting-edge Solutions Enhanced with Artificial Intelligence

The expansion of AI integration across Ansys products and services is another example of function following form. The Ansys SimAI solution and the beta version of AnsysGPT ™ were recently announced. SimAI is a cloud-enabled generative AI offering that uses previous simulation results to reliably

predict the performance of a new design within minutes. AnsysGPT is an Ansys-trained AI virtual assistant for 24/7 customer support.

New AI-enabled products launching with 2024 R1 also include Ansys AI+ ™ add-ons that augment simulation with a rich set of multiphysics capabilities using AI. Ansys optiSLang AI+ ™, Granta MI AI+ ™, and CFD AI+™ solutions are now available, enabling users to enhance the core functionality of Ansys software. With the new UI, these add-on capabilities are a click away.

Other 2024 R1 improvements also focus on integration and efficient user experiences:

- Performance improvements of 5-50X thanks to more efficient memory use, faster solve time, and disk space optimization for noise, vibration, and harshness (NVH) multiphysics simulation workflows.
- A dedicated acoustics meshing workflow reduces the time it takes to prepare complex geometries for simulation by up to 12X.
- Application-specific multiphysics enhancements improve post-processing times for virtual blade models, which are critical in urban air mobility applications.
- A single simulation platform and workflow for Ansys Icepak™, Ansys Mechanical™, Ansys HFSS™, Ansys RaptorX™ and Ansys Q3D Extractor™ solver engines optimize multiphysics-based electromagnetic simulation workflows.
- A new Ansys Digital Safety Manager web application enables centralized planning, monitoring, and validation of Ansys medini analyze™ safety and cybersecurity projects.

To learn more about Ansys 2024 R1, please visit: ansys.com/products/release-highlights.

Multimedia: Ansys 2024 R1: Elevating Interface and Experience (vidyard.com)

/ About Ansys

Our Mission: Powering Innovation that Drives Human Advancement ™

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.
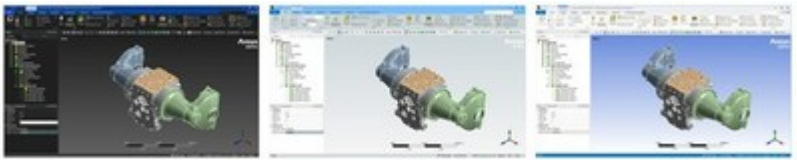
ANSS–T

/ Contacts

Media	Mary Kate Joyce
	724.820.4368
	marykate.joyce@ansys.com
Investors	Kelsey DeBriyn
	724.820.3927
	kelsey.debriyn@ansys.com

POWERING INNOVATION THAT DRIVES HUMAN ADVANCEMENT ™

C View original content to download multimedia:https://www.prnewswire.com/news-releases/ansys-2024-r1-reimagines-the-user-experience-while-expanding-multiphysics-superiority-boosted-by-ai-302053948.html