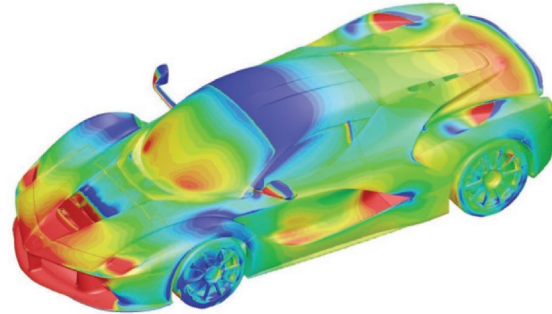


ANSYS brings engineering simulation to students with Xi Frame and Azure



ANSYS is broadly regarded as the industry leader in engineering simulation software. Their tools are used to create and test complete virtual prototypes of complex mechanical and electrical systems within simulations of real-world environments. Whether an engineer wants to test the chassis strength of a race car hitting a wall or see how hot a consumer product gets from the electronics inside, ANSYS tools make it happen.



ANSYS tools take 3D models and subject them to simulations of real-world stresses

ANSYS CLOUD INITIATIVES EXTEND TO EDUCATION

ANSYS has engaged in a number of initiatives that leverage cloud resources for engineering simulation. For example, ANSYS Enterprise Cloud is a complete end-to-end solution for medium-to-large enterprises. ANSYS has also invested in the educational market through programs that offer engineering students free access to simulation tools. Since introducing their free education program, ANSYS has seen over 100k downloads of their software.

However, since ANSYS tools run on Windows, an increasing number of university students cannot run them since they use Macs, Chromebooks, iPads or other mobile devices. In recent ANSYS research, they found that 23% of engineering students work on a Mac. This triggered the team at ANSYS to find a new approach for reaching students on any device without rewriting their software.

XI FRAME AND MICROSOFT AZURE SELECTED FOR MOOC

Since Xi Frame enables running any Windows software in a browser, it was a perfect fit for ANSYS to deliver its tools to any device. While ANSYS evaluated several other alternatives, they chose Frame for their [Massively Open Online Course \(MOOC\)](#) due to its ease of use and ability to scale. Since there's no software to download or install, students save time and can access the service from any device with a browser from anywhere. The MOOC, titled "[A Hands-on Introduction to Engineering Simulations](#)," was put together in partnership with Cornell University and edX with the goal of reaching a broad student audience worldwide. The course represents a step toward "the democratization of simulation," according to Dr. [Rajesh Bhaskaran](#), senior lecturer in the Sibley School of Mechanical and Aerospace Engineering and the Swanson Director of Engineering Simulation, who taught the course. "These used to be tools that specialists with Ph.D.s would run," he said. "The conventional curriculum doesn't prepare you to use this technology. Companies seek to hire students with these skills."

By using Nutanix as the application delivery platform, ANSYS was able to



quickly and easily publish their design apps to Microsoft Azure datacenters which are capable of instantly scaling to support thousands of concurrent users. Microsoft worked closely with Frame and ANSYS to support the MOOC with the most cost-effective cloud infrastructure possible.

“The work done with ANSYS and Xi FRAME on Microsoft Azure is a fantastic illustration of how Microsoft reinvents productivity to empower students around the world to get better engineering simulation and achieve more,” said Jean-Roch Trannoy, Global ISV Alliance Lead at Microsoft Azure.

THE RESULTS

Using Nutanix allowed ANSYS to quickly scale their online education program to offer students worldwide the ability to run ANSYS Student software and the MOOC Coursework in the Microsoft Azure cloud.

“Partnering with Nutanix and Microsoft allowed us to quickly move our engineering simulation tools to the cloud. Through Cornell University’s Engineering Simulation MOOC nearly one thousand students were able to use a Mac or Chromebook and learn how to design better products with ANSYS simulation tools,” said Giovanni Petrone, Senior Manager for Cloud Initiatives at ANSYS.

Students and faculty who participated in the program were delighted that they didn’t need to install any software on their personal computers. Even some users with Windows PCs opted for the cloud delivery option since it was just a click away and required no time to download and install.

“Students loved the immediacy of being able to access simulation tools via browser. By not requiring students to download and install software they were immediately able to sign in and start running the exercises we were covering in the lectures,” said Dr. Bhaskaran.

LEVERAGE XI FRAME AND AZURE FOR YOUR NEXT EDUCATIONAL INITIATIVE

Beyond the MOOC, ANSYS is using Xi Frame and Azure for a variety of other initiatives including [ANSYS Discovery Live](#). To learn more about how Nutanix can help you move your software or educational programs to the cloud let’s [setup a time to talk](#).



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Nutanix makes infrastructure invisible, elevating IT to focus on the applications and services that power their business. The Nutanix enterprise cloud platform leverages web-scale engineering and consumer-grade design to natively converge compute, virtualization and storage into a resilient, software-defined solution with rich machine intelligence. The result is predictable performance, cloud-like infrastructure consumption, robust security, and seamless application mobility for a broad range of enterprise applications.

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