# **HyperWorks Unlimited®**





HyperWorks Unlimited is a state-of-the art cloud appliance available in both physical and virtual formats, offering unlimited use of all Altair software. Altair's CAE cloud appliances address the unique needs of enterprises by simplifying access to an HPC infrastructure at an affordable cost. This allows engineers and scientists access to hardware, software, and HPC support that enables robust product designs.

#### **Product Highlights**

- Pre-configured and ready to use on day one
- · Simplified IT administration
- Unlimited use of all HyperWorks solver applications
- PBS Works suite to create the ideal user experience
- Full global support from Altair

Learn more: altairhyperworks.com/hwul

### **HyperWorks Unlimited**

Today engineering teams need to deliver more robust and innovative products with processes and solutions at an ever increasing pace. This requires the exploration of multiple scenarios and is limited by the ability to mobilize resources quickly. Firms need on-demand access to HPC and data management that can be supported with minimal IT burden.

Powered by Altair's enterprise software, PBS Works, Altair's cloud-based HyperWorks Unlimited appliances provide users with a secure cloud-based platform (either on-premise or off-premise) to run, monitor and manage their simulations and meet their computing needs.

## **HyperWorks Unlimited Physical Appliance:**

A private cloud solution that is optimized for CAE with properly configured hardware and software, offering unlimited use of all Altair software within the appliance. Altair is the only company to offer best-in-class application software and HPC workload

management tools, within an industry leading licensing and business model to fit growing simulation needs.

#### **HyperWorks Unlimited Virtual Appliance:**

A CAE cloud solution, bringing software, platform, and infrastructure as a service to Altair customers within a single and intuitive portal. It leverages Altair's patented licensing system, providing access to a selection of the HyperWorks products and a modern, scalable HPC infrastructure through a secure and efficient web-based platform.

#### **Benefits**

Both HyperWorks Unlimited Virtual Appliance and HyperWorks Unlimited Physical Appliance allows companies to expand CAE computing capacity and quickly utilize HPC so that they can intelligently manage resources efficiently.

HyperWorks Unlimited delivers a unique value to organizations by providing the hardware, off-the-shelf software and support needed to integrate engineering processes.



Achieve robust designs with the innovative HyperWorks licensing model

Essentially, Altair is productizing HPC for any company to leverage so that this type of capability is no longer only possible for large organizations.

- Robust Design Capabilities: Includes unlimited HyperWorks Units for usage within the appliance for massive virtual exploration.
- Productized HPC: Delivered as a turnkey system, loaded with Altair's HyperWorks applications plus PBS Works™ for workload management for simplified deployment. Installation takes hours vs. days or weeks. Only Altair delivers both HPC workload management and simulation applications - nobody understands the needs of HPC users better.
- Powerful HPC Solutions: Integration of the HyperStudy® design exploration engine with the PBS Works suite lets engineers vary designs to perform Design of Experiments (DOE) and stochastic and numerical optimization studies then submit the runs directly to the HPC system. The PBS Works suite provides modern and intuitive framework for:
  - Resource provisioning
  - Workload management and scheduling
  - Security and licensing framework
  - Enabled remote visualization, notification, and collaboration
- Innovative Licensing Model: Leverage Altair's licensing system to access HyperWorks products on a secure HPC infrastructure. Apply the following Altair products in your design processes:
  - RADIOSS®: Complete finite element solver for structural analysis
  - FEKO®: Comprehensive suite for Electromagnetic Analysis
  - AcuSolve®: Leading general-purpose CFD solver



Productized HPC for companies of all sizes

- OptiStruct®: Award-winning design synthesis and structural optimization solver
- MotionSolve®: Comprehensive suite for analysis of Multibody System performance
- BatchMesher™: High-fidelity FE-mesher for large assemblies in one click
- Third Party Solver Support: Open architecture allows for third party solvers to be fully integrated for a monthly fee on a "bring your own license" model.

# Who Needs HyperWorks Unlimited?

Both HyperWorks Unlimited Physical Appliance and HyperWorks Unlimited Virtual Appliance are ideal solutions for companies of all sizes and provide a competitive advantage to users in a broad range of industries.

- · Small firms can now perform engineering and simulation once only available to OEMs without the need for extensive capital and IT. HPC capabilities are democratized so that everyone can engage in DOE and become more competitive in a matter of minutes.
- · Medium businesses can now afford to expand their HPC resources because they are no longer constrained by solver licenses.
- · Larger organizations with dispersed regional engineering centers can quickly add new and additional capacity with local support at the department level who otherwise would have no local HPC compute resources or support.

#### What Users Are Saying

75% of users that employed HyperWorks Unlimited computing resources in a trial found it useful to their project.

100% were able to complete a equal or greater amount of work when compared to their previous computing environment.



Power HPC solutions for massive virtual exploration

"This is the way HPC should be for all CAE engineers - this simple, this powerful, this reliable." - Stanley Black & Decker

100% of users that operated HyperWorks Unlimited in a trial found the computing performance to be the same or faster than their previous computing environment.

"It's an incredible product that gives our engineers access to all the software they need, fully configured and ready to use."

- Mubea

88% of participants in the HyperWorks Unlimited trial rated their experience positive or extremely positive.

"Altair's cloud solutions, namely HyperWorks Unlimited Virtual Appliance, allow us to seamlessly scale our CAE needs through a simple application aware, web browser gateway. We use HyperWorks on the cloud exactly the same way we would use it on our desktops, with the added ability of setting up large runs directly on the HPC infrastructure and post-processing all the runs on the server side, eliminating the need for downloading large result files. - LeanNova

100% of HyperWorks Unlimited trial participants would recommend HyperWorks Unlimited to a colleague or friend.

"For companies like ours looking to do large-scale exploration, the ease of instantaneously accessing CAE and HPC without the massive integration expense and large deployment time is extremely beneficial. Altair is uniquely eliminating the barriers to HPC with its technologies and business model on the cloud." - LeanNova