

ANSYS – Univa Partnership

The Powerful Integrated Solution for Engineering Simulation

An easy-to-use platform that delivers all of the functionality engineers have come to expect from ANSYS simulation software, plus the most-robust workload orchestration suite from Univa. This seamless integration ensures product integrity, reduced costs and proven business success across diverse environments.

Through fast, accurate and reliable engineering simulation across the entire product lifecycle, ANSYS brings clarity and insight to the most complex design challenges. ANSYS is passionate about pushing the limits of simulation technology, so customers can turn their design concepts into successful, innovative products faster.

Univa is the leader in workload optimization solutions and is dedicated to solving the business challenges faced by enterprises. Univa Grid Engine allows organizations to run large quantities of mission-critical, compute-intensive applications faster and more efficiently.

The ANSYS – Univa solution combines the most-advanced engineering simulation software with enterprise-grade workload scheduling and management, ensuring that the correct simulations are running at the right time, providing the most efficient use of applications and tools, and delivering fast workload throughput.

Users can create a single compute pool across distributed resources and more efficiently execute complex simulations, manage workloads automatically, and scale across on-premise, cloud or hybrid infrastructures, thereby reducing costs and time-to-market for new products.

The ultimate endorsement of the ANSYS – Univa solution is ANSYS, who utilizes Univa Grid Engine in its own product development, enjoying increased workload throughput and maximizing its IT infrastructure utilization.

“The Univa – ANSYS technology integration benefits our customers by allowing them to maximize the value of their existing computer resources while conducting system-level simulations, ultimately improving product quality and reducing the time-to-market for new products.”

**- Dr. Wim Slagter, Director,
HPC & Cloud Alliances, ANSYS**



Key Features

- Fully integrated engineering simulation and workload management
- Automated design optimization
- Innovative workflow for beams, shells, and connections
- Advanced workload orchestration and optimization
- Comprehensive suite of add-ons including monitoring, analytics and reporting; container orchestration; license sharing; plus cloud resource management and integration

Key Capabilities

- Optimize chip-level power
- Perform closed-loop simulations
- Validate high-frequency components
- Simulate multiple design ideas concurrently
- Simulate material imperfections and advanced 3D shapes
- Improve workload throughput
- Optimize compute resources and licenses

Complete Workload Optimization for Engineering Simulation

With ANSYS-certified Univa solutions, users enjoy optimized throughput and performance of applications, containers and services, and have the ability to maximize shared resources across on-premise, hybrid and cloud infrastructures.



Monitoring and Reporting

Track and measure resource utilization in workload managed clusters with the most comprehensive monitoring, reporting and analytics tool on the market.



Native Docker Support

Run Docker containers in a Univa Grid Engine cluster at scale and blend containers with other workloads supporting heterogeneous applications and technology environments.



Cloud-native HPC Support

Run HPC workloads and microservices on shared Kubernetes clusters.



License Orchestration

Allocation of licensed applications and application features shared across clusters.

CLUSTER NAME	JOB ID	JOB NAME	JOB STATE	QUEUE
SARGE	7	psack.sh	1	queue-20.q@hpc-105.univa.co
SARGE	9	shp_0_array_submitter.sh	qps	
SARGE	5	array_submitter.sh	qps	
SARGE	13	session.sh	1	queue-25.q@hpc-124.univa.co
SARGE	15	shpnet_submitter.sh	qps	
SARGE	18	shp_0_array_submitter.sh	1	queue-21.q@hpc-34.univa.co
SARGE	17	simple.sh	qps	
SARGE	24	shpnet.sh	1	queue-27.q@hpc-332.univa.co
SARGE	26	worker.sh	1	queue-4.q@hpc-240.univa.co

Univa Unisight provides unmatched visibility into overall performance, efficiency and use of cluster resources.

About ANSYS, Inc.

ANSYS is the global leader in Pervasive Engineering Simulation, helping the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, ANSYS helps them solve the most complex design challenges and create products limited only by imagination. Founded in 1970, ANSYS employs thousands of professionals, many of whom are expert M.S. and Ph.D.-level engineers in finite element analysis, computational fluid dynamics, electronics, semiconductors, embedded software and design optimization. Headquartered south of Pittsburgh, Pennsylvania, U.S.A., ANSYS has more than 75 strategic sales locations throughout the world with a network of channel partners in 40+ countries. Please visit ANSYS.com

Dr. Wim Slagter
 Director, HPC
 and Cloud Alliances
wim.slagter@ansys.com

About Univa

Univa is the leading independent provider of software-defined computing infrastructure and workload orchestration solutions. Univa's intelligent cluster management software increases efficiency while accelerating enterprise migration to hybrid clouds. Millions of compute cores are currently managed by Univa products in industries such as life sciences, manufacturing, oil and gas, transportation and financial services. We help hundreds of companies to manage thousands of applications and run billions of tasks every day. Univa is headquartered in Chicago, with offices in Toronto and Munich. For more information, please visit Univa.com.

John Durfee
 Sales Director, NA East
jdurfee@univa.com

Chris Townend
 Sales Director EMEA
ctownend@univa.com

Mike Sills
 Sales Director,
 NA West APAC
msills@univa.com

Lisa Price
 Sales Support EMEA
lprice@univa.com



univa.com

Univa Corporation 2300 North Barrington Road, Suite 400, Hoffman Estates, IL, 60195 USA | Tel: +1.647.478.5901