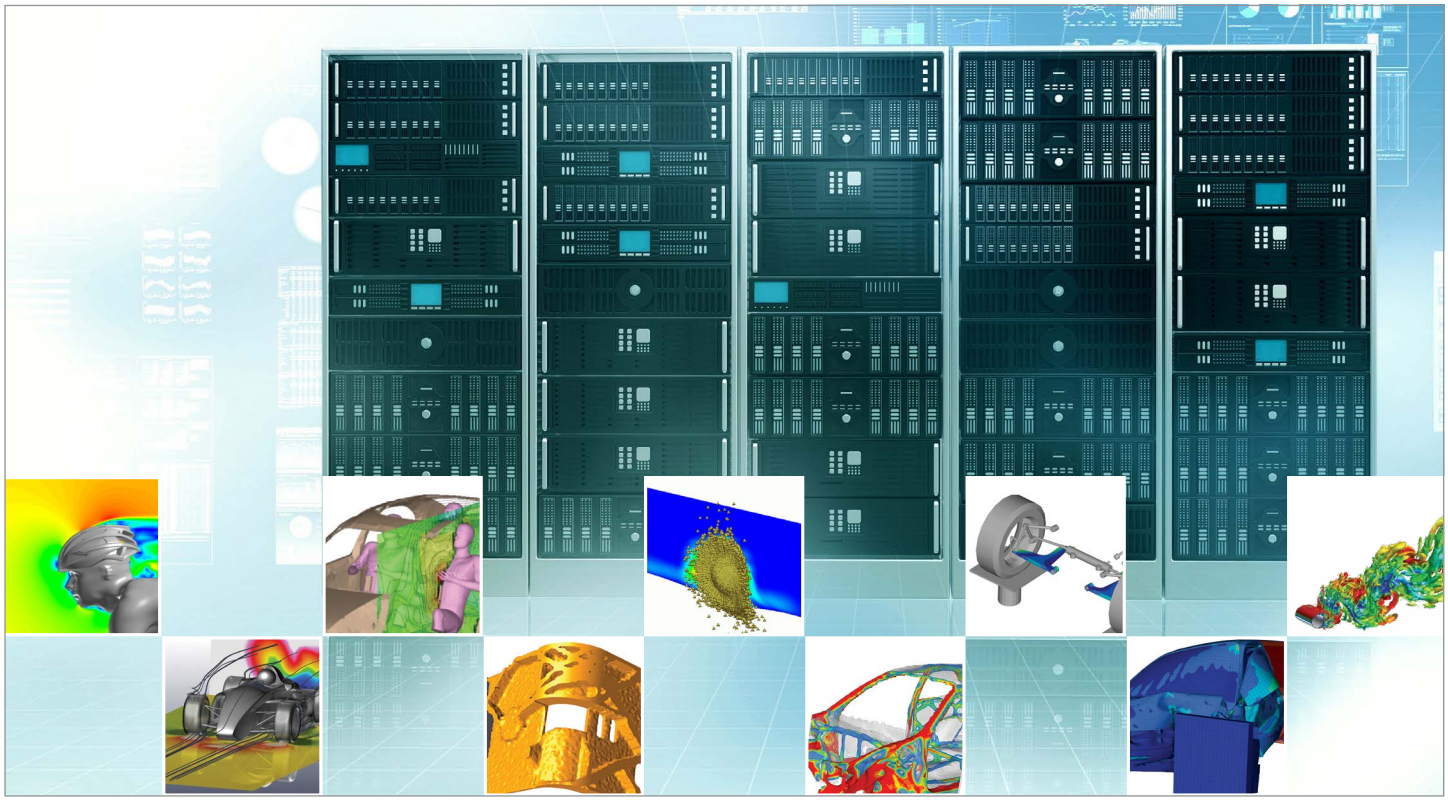
Altair Control™

HPC Administrator's Resource Control Center

Altair | PBS Works



Manage, optimize, and forecast your high-performance computing resources with Altair Control™, an easy-to-use web application for monitoring and managing jobs and nodes in an HPC environment. Control has seamless cloud bursting capabilities, along with advanced analytics and what-if analysis to support data-driven planning and decision-making.

Product Highlights

- **Modern UX:** Drag-and-drop simplicity
- **Configure:** Easily configure your workload scheduling settings
- **Cloud Bursting:** Improve responsiveness, adding capacity exactly when needed
- **Workload Simulator:** Simulate and optimize infrastructure sizing
- **Analyze:** Advanced analytics to support decision-making

Learn more:
pbsworks.com

Benefits

- **Single pane of glass:** Configure, deploy, monitor, burst, manage, troubleshoot, simulate, analyze, tune
- **Real-time monitoring:** Simplify troubleshooting and maintenance
- **Reporting:** Easy-to-use job accounting and reporting
- **Workload simulator:** Simulate and optimize infrastructure sizing
- **Multi-cloud bursting:** Burst to any cloud for peak loads
- **Modern UX:** Drag-and-drop simplicity

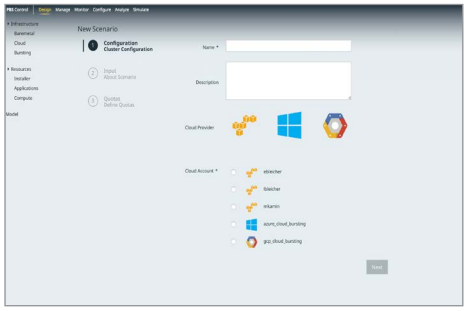
Why Control

The Control portal provides visibility into site resources and gives administrator the control to configure, deploy, monitor, troubleshoot, report, and simulate clusters and clouds. Administrator control includes bursting peak workloads.

- Monitor and manage an HPC cluster's nodes and jobs
- Configure default WLM server and security settings, and manage queues, resources, resource defaults, and limits
- Run simulations to perform what-if analysis
- View HPC resource usage charts and simulation results
- Use cloud bursting to run jobs in the cloud and dynamically add or remove nodes
- Deploy an HPC appliance in both public and private clouds

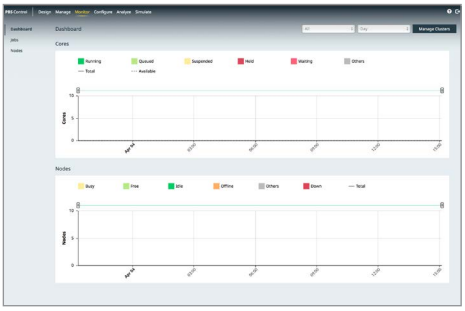
Capabilities

- **Design:** Burst your jobs to the cloud, where you can dynamically add or remove nodes based on demand.
  - Cloud bursting: Cloud bursting is a configuration that is set up between an HPC cluster and a public cloud to deal with peaks in cluster demand. When resource capacity at the HPC cluster reaches a certain point, the



Easily configure cloud bursting and set quotas to manage costs

Monitor and manage an HPC cluster's nodes and jobs

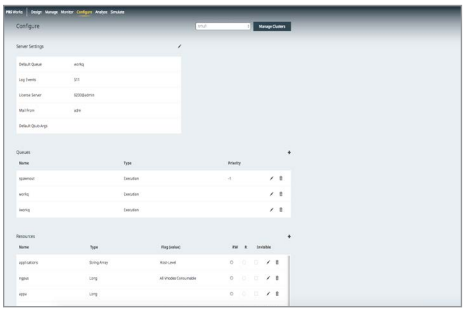


View total core and node usage over a day, week, or month

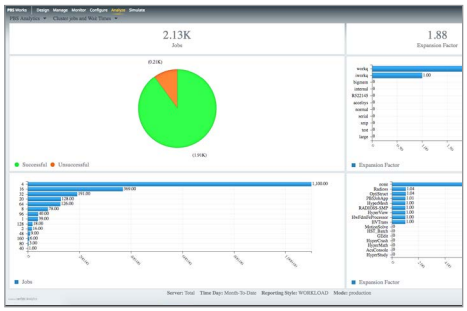
demand is directed to a public cloud so there is no interruption of services.

  - On-demand use of cloud resources to maximize efficiency
  - Improve responsiveness, adding capacity exactly when needed
  - Automatic governance and cost controls via site-defined policy and quotas
  - Understands on-premises utilization, ensuring bursting only when cost-efficient
  - Vendor-agnostic: no lock-in
  - Fast: 1,000+ nodes in minutes

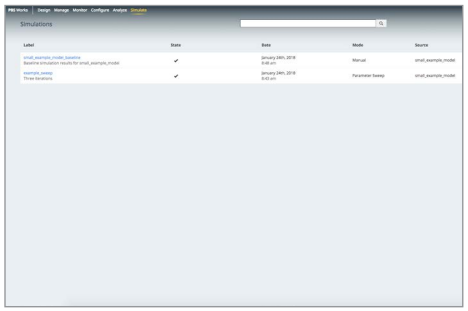
- **Manage:** Manage resources by adding, updating, and deleting.
- **Monitor:** Monitor and manage an HPC cluster's nodes and jobs. Monitoring is divided into sub-tabs for easy viewing.
  - Dashboard – View the total core and node usage over a day, a week, or a month
  - Jobs – Monitor and manage jobs submitted to your HPC clusters
  - Nodes – Monitor and manage your HPC cluster's nodes
- **Configure:** Configure default WLM server and security settings, and manage queues, resources, resource defaults, and limits.
- **Analyze:** Support data-driven planning and decision-making with advanced analytics and easy-to-use job accounting and reporting.
  - Plan more intelligently by forecasting usage based on real historical data
  - Ensure accurate chargeback to projects, business units, and regions
  - Reduce spend by sharing expensive licenses and raising utilization
  - Meet project deadlines by minimizing IT bottlenecks
  - Save on electricity by identifying patterns of non-use
  - Decide on procurements/purchases after visualizing resource demand and supply
  - Get more work done by identifying and exploiting valleys in license usage
- **Simulate:** Run a simulation to perform what-if analysis to determine the most productive way to scale an HPC cluster's resources.
  - Allows evaluation of HPC environment changes without affecting production or requiring dedicated development clusters
  - Supports capacity planning to optimize hardware expansions
  - Simulates scheduler performance under hypothetical configurations using historical job data and the Altair PBS Professional™ scheduler
  - Compares simulated results to current real-world performance



Configure scheduling and workload manager settings



Run advanced analytics to support data-driven planning and decision-making



Simulate and optimize infrastructure sizing