

PBS Analytics 12 Highlights

- **New Chart Designer:** Provides more flexibility in creating clean, concise charts, including additional chart options (such as XYZ plots), to furnish a deeper understanding of the organization's HPC infrastructure and better root-cause analysis.
- **New Presentation Capabilities:** Create slideshows to display key metrics to support staff (in the operations center) or as a showpiece (in the main lobby). Combine charts, dashboards, and even your own custom content into a continuous, looping display of up-to-date status of your HPC environment.
- **Fast, Snappy, Robust Performance:** Analyze big data quickly and easily leveraging a new, high-performance database and more robust data collectors.
- **New Utilization Charts:** Analyze the utilization adjusted for configuration of the system, accounting for addition or deletion of nodes over time. Improves IT efficiency and justifies IT investments by illuminating actual usage and by uncovering usage hot spots.
- **Fully customizable:** Supports PBS Professional custom resources (software licenses, scratch space, etc.), and even define custom metrics to meet unique requirements.

"PBS Analytics is a trusted tool that we rely on extensively. It's highly customizable and easy to use, enabling us to analyze usage of HPC resources so that we can plan and correctly identify new business opportunities."

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PBS Analytics™

Visualize Usage for Optimized Returns on HPC Investments

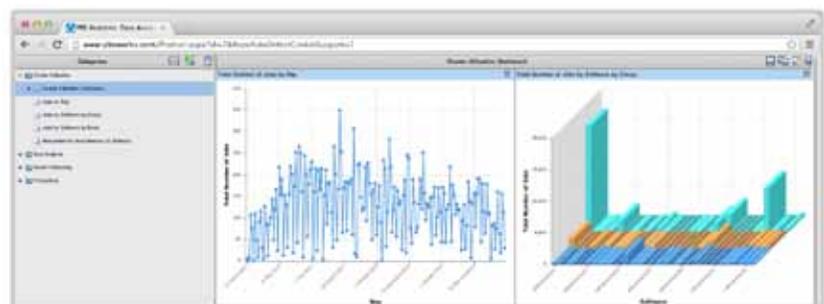
PBS Analytics is an easy to use job accounting and reporting solution that provides PBS Works administrators with advanced analytics to support data-driven planning and decision making. Easily extensible to meet your unique requirements, data from multiple PBS Professional® servers can be consolidated, providing a global view of your HPC usage for chargeback, capacity planning, troubleshooting and project management.

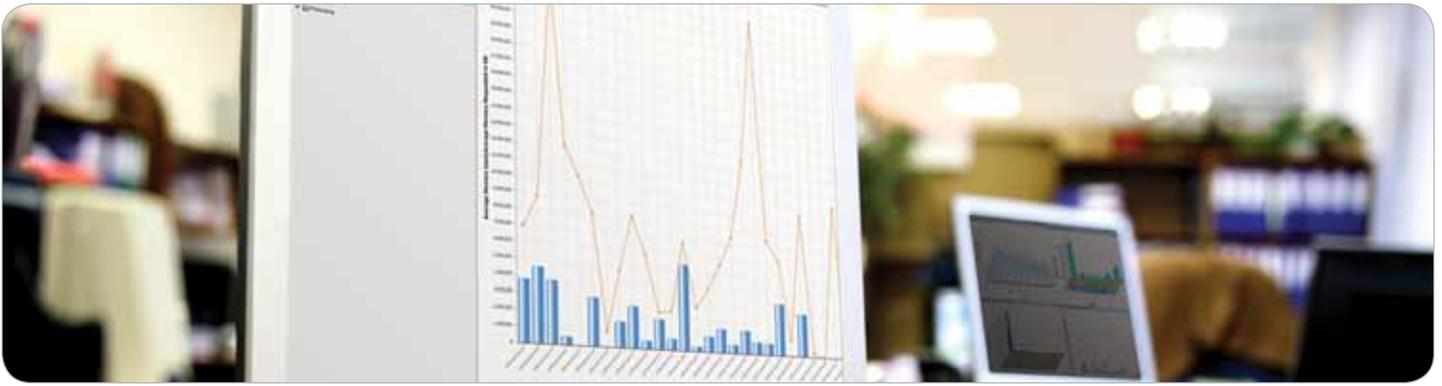
PBS Analytics Meets a Growing Demand for:

- **Cloud Computing:** HPC Software-as-a-Service (SaaS) Clouds are being powered by the full PBS Works suite, including Altair's own HyperWorks On-Demand. Altair offers a full suite of tools for building technical computing clouds:
 - **PBS Professional:** Secure, HPC-focused, workload manager and job scheduler
 - **PBS Analytics:** Reporting and analysis tools
 - **Compute Manager:** Software-as-a-Service (SaaS) gateway portals
 - **Display Manager:** Remote Visualization solution

Ideal for Customers Who Seek to:

- Allocate costs (chargeback) to projects, business units, and regions
- Accurately plan capacity growth of hardware and software licenses by forecasting use based on real historical data
- Reduce spend by sharing expensive licenses and raising utilization
- Meet project deadlines by minimizing IT bottlenecks
- Get more work done (via PBS Professional) without impacting interactive license use by identifying and exploiting valleys in license usage
- Improve contract terms when negotiating the purchase or renewal of software licenses by understanding actual usage





Key Features & Benefits

PBS Analytics provides insight into how well your expensive HPC resources are used, including:

- More flexibility in creating clean, concise charts, including additional chart options (such as XYZ plots), to furnish a deeper understanding of organization's HPC infrastructure and better root-cause analysis with New chart designer
- Visualize multiple different charts on one display with dashboards
- Display statistics within an operations room or headquarters reception with PBS Analytics' slideshow capability
- Track hardware utilization, including accounting for configuration changes over time (i.e. adding/deleting nodes; downtime)
- Track "custom" resources (i.e. node classes, GPUs, licenses, scratch space, etc.)
- Analyze large quantities of usage data quickly and easily with a new, high-performance database and more robust data collectors
- Supports billing for node wall time
- Group membership tracking: tracks membership changes over time (add / delete / move users)
- Analyze job / workload historical usage data
- Track by job, software, hardware, user, project, node class, etc.
- View totals, counts, times, averages, etc.
- Consolidate data by top (or bottom) usage, e.g., "Top 10"
- Filter by user, group, project, queue, host, etc.
- Canned charts out-of-the-box, and customize your own
- Aggregate data from multiple PBS Professional servers
- Numerous chart types, including pie, line, bar, 3D, radar, scatter, etc.
- Customize, save, and share charts or entire dashboards
- Drill-down to underlying data and export to Excel

Supported Platforms

PBS Analytics consists of three components: (a) a browser-based, client-side, user interface, (b) a set of web services and a high-performance database, and (c) one or more data collectors.

Supported web browsers:

- Internet Explorer 9
- Firefox 10 and later
- Chrome 18 and later
- Safari 6 and later

The web services, database, and data collectors are supported on the following 64-bit platforms:

- Red Hat Enterprise Linux 5.4+ and 6.x
- SUSE Linux Enterprise Server 10.4+ and 11.2+
- CentOS 5.5+ and 6.x

Importing data from the following sources is supported:

- PBS Pro 5.3.x through PBS Professional 12.x accounting logs



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For more information about PBS Analytics, visit www.pbsworks.com to request a quote or view a demo.

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