

### Why PBS Analytics?

- **Improve visibility:**  
Accurately allocate costs (chargeback) to projects, business units and regions
- **Improve capacity planning:**  
Understand actual usage and forecast future use to make better hardware and software purchase decisions
- **Reduce spending:**  
Share expensive licenses, increase usage, and improve contract terms when negotiating purchases or renewals
- **Get more work done faster:**  
Improve user productivity by identifying error patterns and valleys in usage caused by potential bottlenecks

“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.”

— SelexES SpA

“With PBS Analytics we are able to get the type of reports we were looking for but **couldn’t get with another scheduler.**”

— CHPC

“PBS Analytics provides an **easy-to-use** interface to a large amount of information on cluster usage, which helps us **see clearly** how the system is being used. This gives us the visibility we need to **plan the right developments** in the system.”

— University of Nottingham



## 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.

### Customers choose PBS Analytics to:

- Plan more intelligently by forecasting usage based on real historical data
- Save on electricity by identifying patterns of non-use
- Ensure accurate chargeback to projects, business units, and regions
- Decide on procurements/purchases after visualizing resource demand and supply
- Save money by sharing expensive licenses and raising utilization
- Improve efficiency and utilization rates by identifying and exploiting valleys in usage
- Meet project deadlines by minimizing IT bottlenecks

### New in 13.0:

- Reduced installation and configuration time: Numerous improvements simplify installation and reduce the time required for post-installation configuration
- Improved parsing and caching times: Upto 60% improvement in parsing and caching time of PBS Professional accounting logs
- Stability and scalability: 15x improvement in database size, reduced database size improves scalability; optimized domain aware engine improves query performance; parser runs as a separate, leaner component
- Continuous Node Configuration: Node configuration is no longer necessary before using PBSA. Node information can be supplied at any time without the need to discard and re-parse PBS Professional accounting log data.
- Revamped custom resource hook: Custom resource configuration file has been converted to an XML format, making custom resource definition less error-prone
- Improved logging of error messages, including the reasons for discarding a job data while parsing the PBS Professional accounting logs
- Ease of maintenance: pbsa-data-reset command now automatically resets all Data Collectors, so the process for discarding log data is straightforward and uncomplicated
- Visualization of parsing and caching progress via new indicator screen
- Improved documentation and new videos based on various field and customer inputs
- JDK updates: PBS Analytics 13.0 uses Java 8 improving security
- Improvement in Job Data Export: The PBSA 13.0 Web Application displays all relevant job data used to build a chart when a user clicks the Job Data button
- Users with special privileges can share charts and dashboards using a new chart category called "Shared".



## 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 to furnish a deeper understanding of organization's HPC infrastructure and better root-cause analysis
- Dashboards allows charts to be consolidated and arranged on a single screen so the information can be monitored at a glance.
- Canned out-of-the-box charts, and ability to customize your own.
- Numerous chart types, including pie, line, bar, 3D, radar, scatter, etc.
- Customize, save, and share charts or entire dashboards
- Selective filtering for refining chart data
- Drill-down to underlying data and export to CSV
- 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) to improve IT efficiency and justify IT investments by illuminating actual usage and uncovering usage hot spots
- Track "custom" resources (i.e. node classes, GPUs, licenses, scratch space, etc.)
- Supports billing for node wall time
- Group membership tracking: tracks membership changes over time (add / delete / move users)
- Track by job, software, hardware, user, project, node class, etc.
- Analyze job / workload historical usage data
- View totals, counts, times, averages, etc.
- Aggregate data from multiple PBS Professional servers
- Consolidate data by top (or bottom) usage, e.g., "Top 10"
- Fast, snappy and robust performance allowing analysis of big data quickly and easily leveraging a new, high-performance database and more robust data collectors.

## Supported Platforms

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

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

- SLES 11 SP2, SLES 11 SP3
- RHEL 5.4+ and 6.x
- Cent OS 5.5+ and 6.x

Supported web browsers:

- Internet Explorer 9-11
- Firefox 10.x ESR+
- Chrome 18 and later
- Safari 6 and later

Importing data from the following sources is supported:

- PBS Pro 5.3.x through PBS Professional 13.x accounting logs



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For more information about PBS Analytics, visit [www.pbsworks.com](http://www.pbsworks.com) to request a quote or view a demo.

Compute Manager™ 2007-2015; Display Manager™ 2007-2015; PBS™ 1994-2015; PBS Professional® 1994-2015; PBS Application Services™ 2008-2015; PBS Analytics™ 2007-2015; and PBS Desktop™ 2007-2012; PBS Portal™ 2007-2011; e-BioChem™ 2007-2013; e-Compute™ 2000-2007; e-Render™ 2006-2010; OpenPBS® 1994-2003 and Personal PBS® 2007-2012.