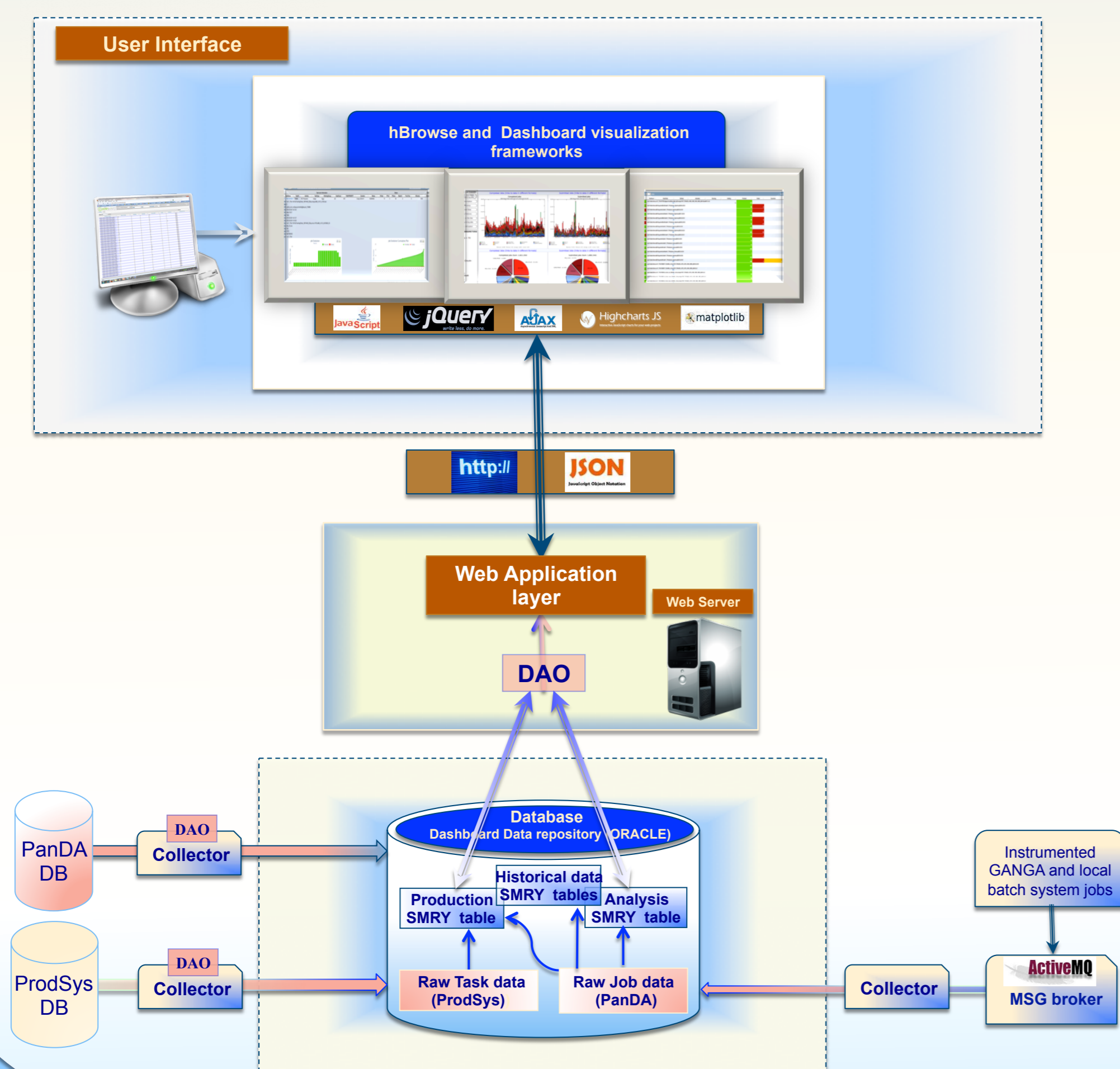


J. Andreeva, S. Campana, E. Karavakis, Ł. Kokoszkiewicz, P. Saiz, L. Sargsyan, J. Schovancova, D. Tuckett on behalf of the ATLAS Collaboration



The ATLAS community runs daily more than 600k jobs on the GRID. The number of ATLAS jobs is growing every year and a scalable, robust monitoring system is required in order to follow distributed job processing and to quickly detect and resolve possible problems. The Experiment Dashboard provides a common job monitoring solution, which is shared by ATLAS and CMS experiments. This includes an accounting portal as well as real-time monitoring of production and user analysis jobs. Usage of Dashboard-based job monitoring applications will decrease load on the PanDA database, which can then be used solely for operations. Aggregation of the task/job metrics from different sources provides complete view of job processing activity in ATLAS scope

## Dashboard Job Monitoring data flow



### User interface

- Provides user centric view. Depending on the application the user interface is implemented using either Experiment Dashboard or hBrowse visualization frameworks

### Web Application layer

- Provides HTTP entry point to the data and serves information in different formats (JSON, XML, CSV)
- Data source is fully decoupled from the user interface
- Serialized data could be consumed by third-party clients

### Database

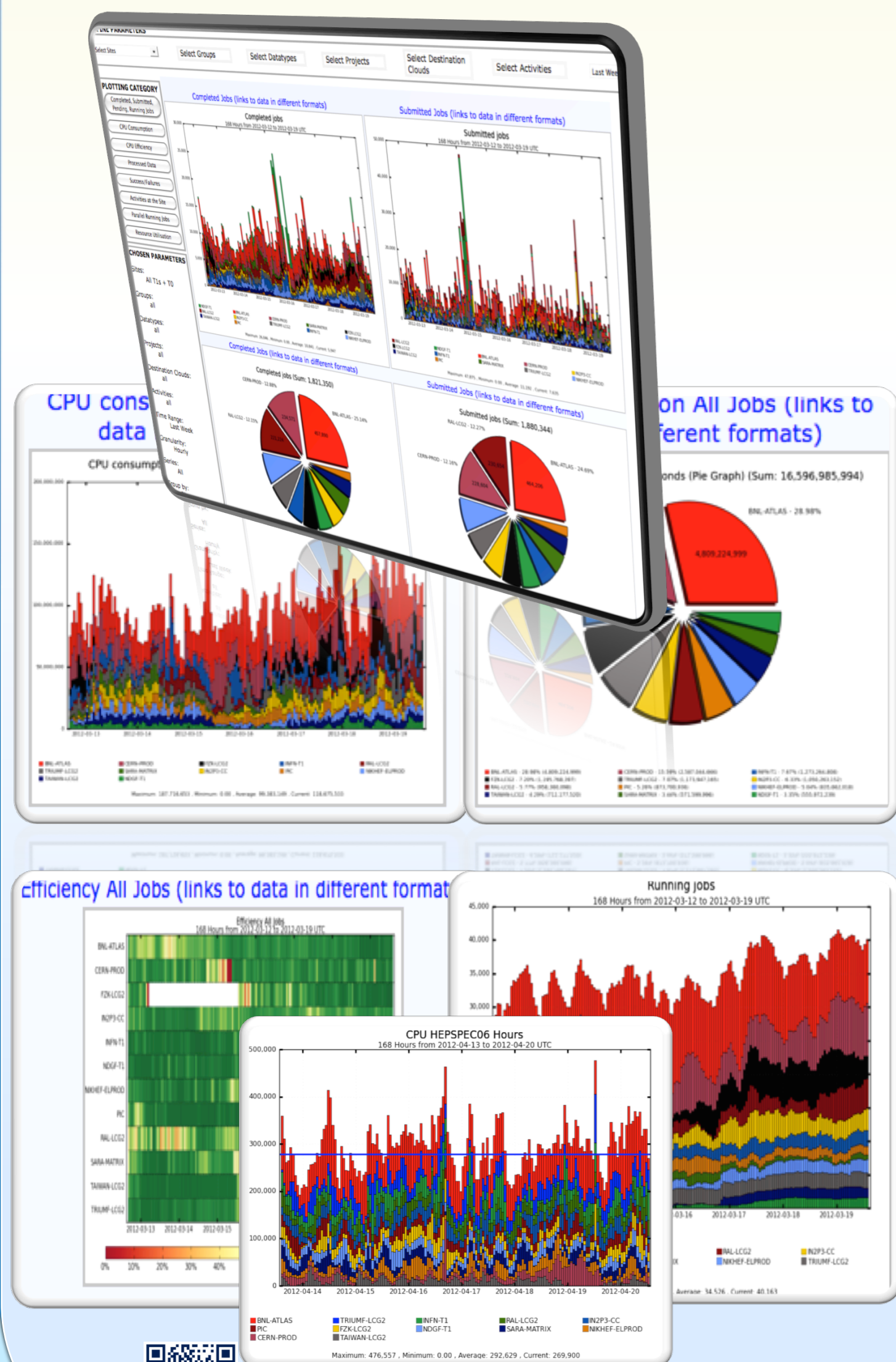
- Combines information from PanDA job processing DB, Production system DB and monitoring information from jobs submitted through GANGA to WMS or local batch systems
- Scheduled procedures aggregate data for high-level overviews
- Both read and write access to the database pass through a data access abstraction method (DAO)

### Collectors

- Fetch data via SQL calls (Prodsys DB, Panda DB) or HTTPS requests, and store it in the central Dashboard Data repository (ORACLE)

## Historical Views

- Accounting-style UI. Job processing monitoring metrics as a function of time, resource utilization information
- Users: site admins, VO computing managers. Management perspective
- Serves to understand the nature of the infrastructure inefficiencies, reasons of failures
- Helps to resolve and predict problems



<http://dashb-atlas-job.cern.ch/>

## Production Task Monitor

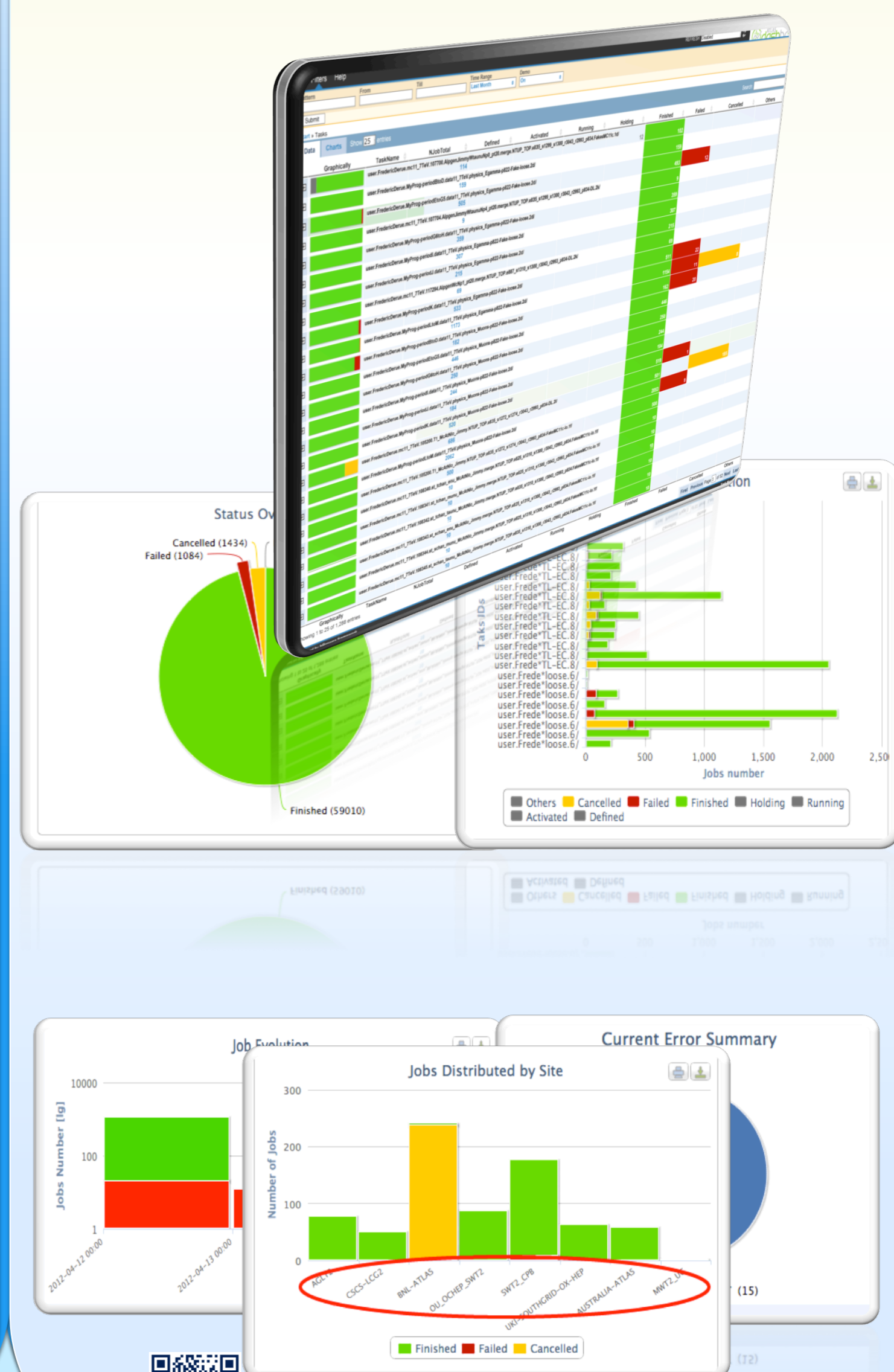
- Interface to monitor production tasks
- Users: production managers, shifters. Shifters perspective
- Task-oriented view of a production activity
- Provides an easily way to detect inefficiencies and/or delays in executing production tasks



<http://dashb-atlas-job.cern.ch/templates/task-prod/>

## Analysis Task Monitor

- Monitoring tool for analysis users. Collects and exposes a user-centric set of the information to the user regarding submitted tasks
- Users: analysis users and user support
- Monitoring on the task and individual job level



<https://dashb-atlas-task.cern.ch>