

Automating Job Accounting Validation Using SSB

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- › **Computer Engineering and Informatics Department, University of Patras, Greece**
- › **Multiple years of experience in system administration**
- › **Contributions to Free Software**
- › **Member of Hellenic Open University working group to add new Tier-2 site**

- › **Originally:**
CMS space monitoring
- › **Currently:**
WLCG job accounting

Project Goals (I)

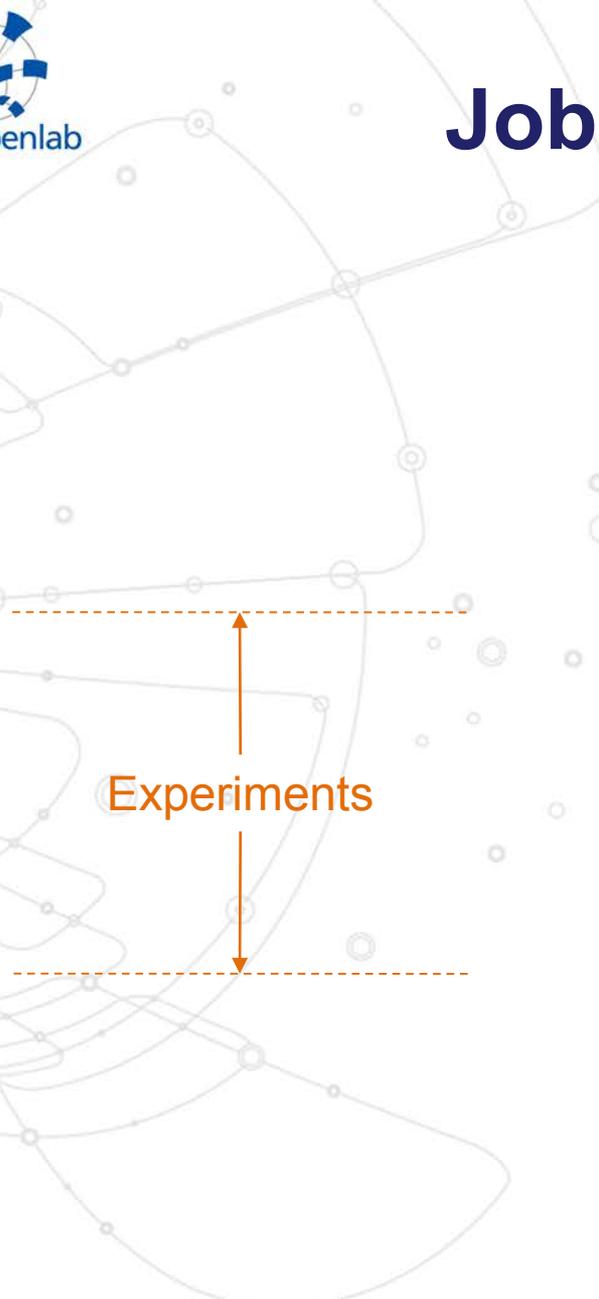
Improve on the work of Olga Kodolova:

- › **Refactor source code**
- › **Publish on Site Status Board (SSB)**
- › **Automate**

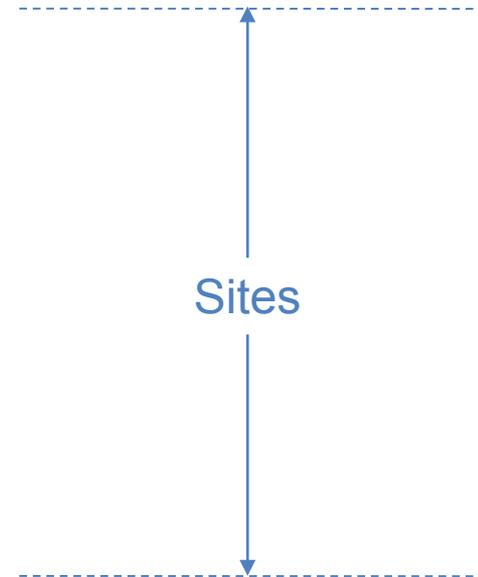
Project Goals (II)

- › **Port from C shell to POSIX**
- › **Gradient colour coding**
- › **Data upload to SSB**
- › **Compatibility with cron**
- › **Fault tolerance**
- › **Learn**

Job Accounting Validation (I)



Pilot Job



Job Accounting Validation (II)

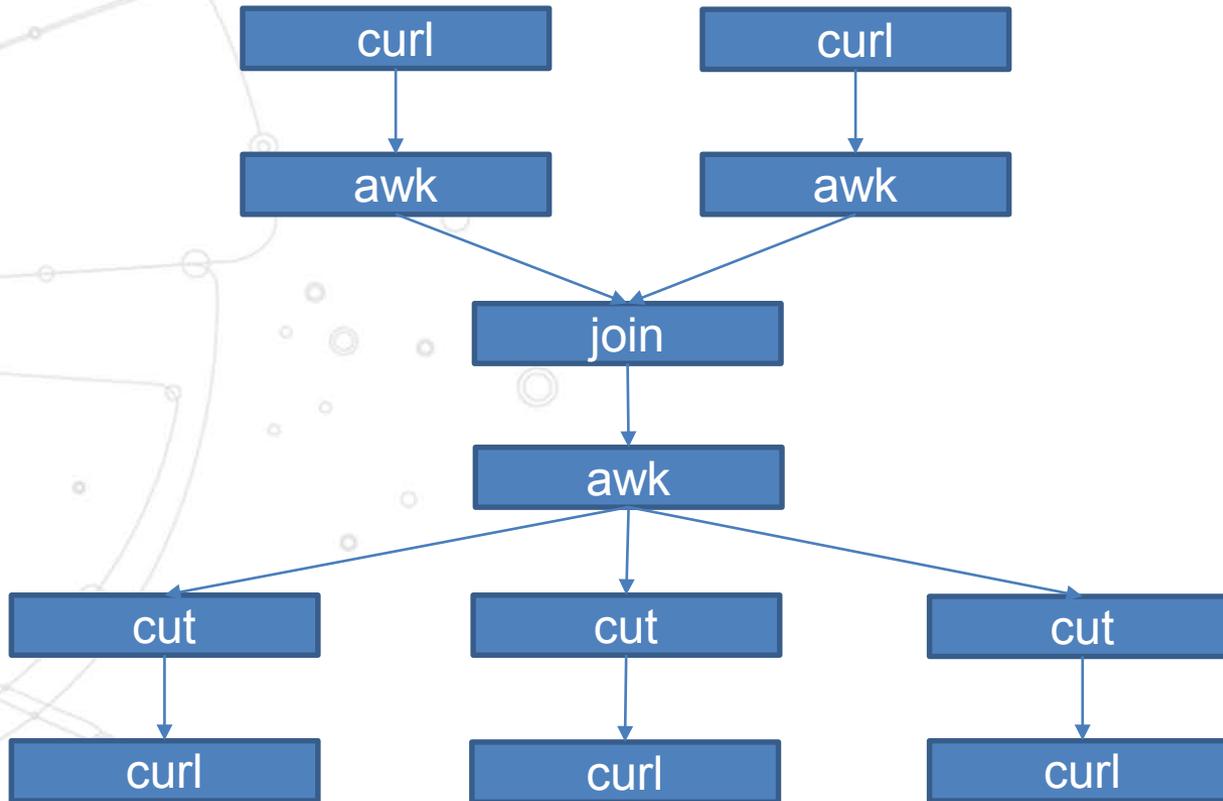
- › **Efficiency**
- › **Pledges**

› **Raw wall clock**

Time multiplied by the number of cores

› **HEP-SPEC06 wall clock**

Time normalized by benchmark strength,
multiplied by the number of cores



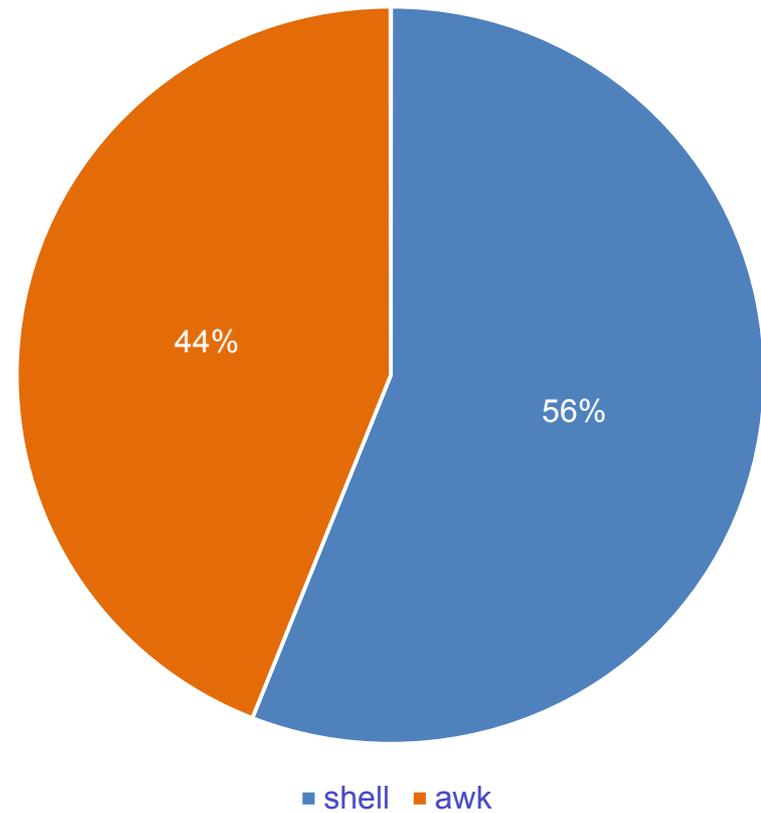
Source Code Analysis

719 physical lines

- › **200 lines of code***
 - › **134 comment lines**
 - › **100 empty lines**
 - › **285 lines of embedded scripts**
- 157 lines of code*

* without subtracting duplicates

Lines of code



Live Demonstration

Current Status

- › **All requested functionality**
- › **ATLAS and CMS data for Tier-2 sites**

Challenges

- › **Lack of documentation**
- › **Limitations of SSB**

Future Work

- › **Tier-1 sites**
- › **Documentation**
- › **Virtual machine**
- › **Git repository**
- › **ALICE and LHCb**

Thank You

Questions or comments?