



Enabling Grids for E-science

Monitoring, Accounting and User Support

Session summary

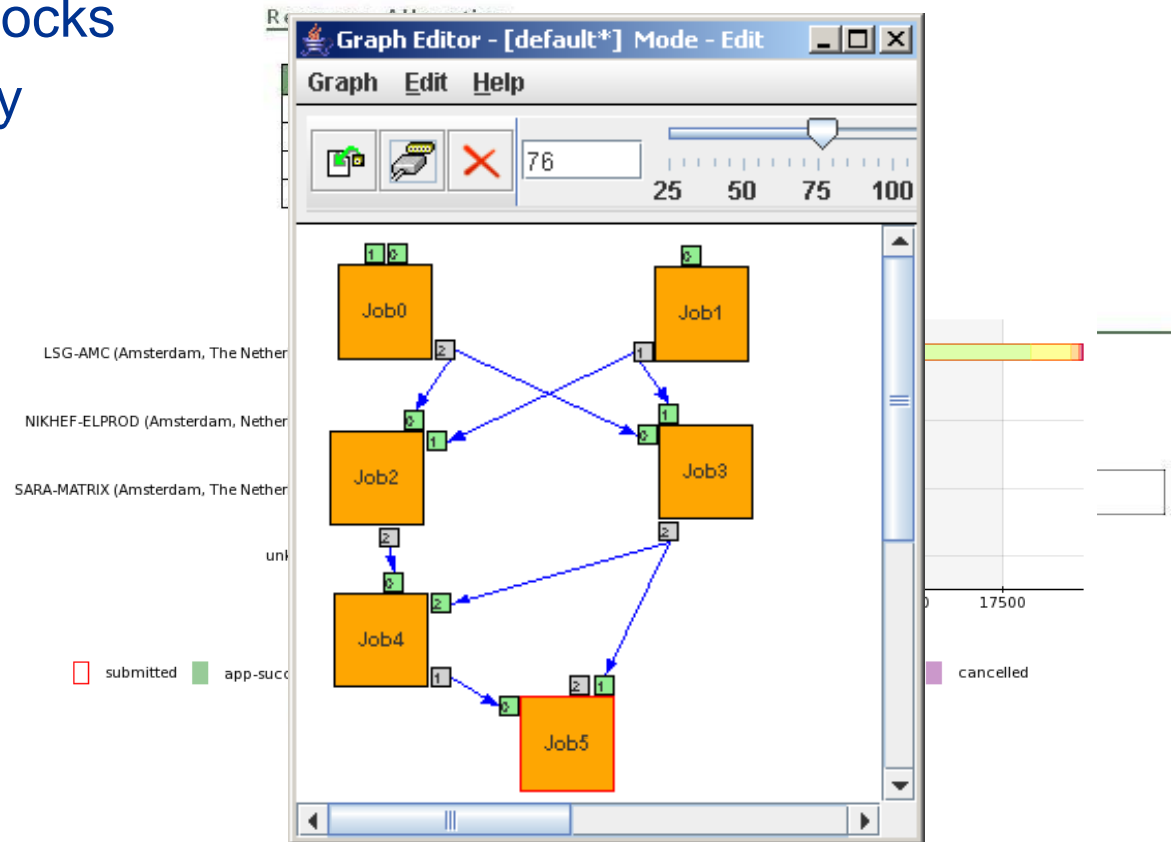
www.eu-egee.org



- **Monitoring :**
 - Applications
 - grid services
 - resources consumption
- **Accounting**
 - resource usage accounting and display
 - policing
- **User support**
 - application porting support
 - transparent grid services
 - communication tools

- **User friendliness**
- **Scalability and Reliability**
- **Active Services**
- **User views**
- **Advanced features**
- **Feedback, communication, improvement**

- GUI/Portal based tools
- Ease of use
 - Ready to customize examples
 - Building blocks
 - interactivity



- **Use of Oracle / Apex**
- **Web Services**
- **Scalability is taken into account**
- **Intensive tests**

- **VOMS queries accounting and locks users**
- **Job or Service monitoring trigger notifications**
- **Service monitoring excludes failing nodes/clusters**
- **LHCb uses SAM to check AND install software**



- Basic view
- Advanced user view
- Programmer view
- Administrative view

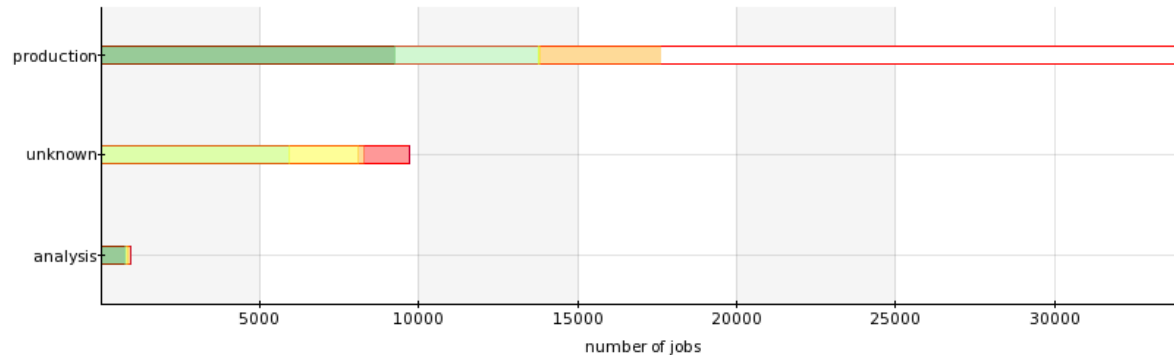
A1 ATLAS Pr

jobs per site

| SchedulerJobId | EventRange | Submission Attempts | Appl Exit Code | Grid End Status | Site | Submitted | Started | Finished |
|---|------------|---------------------|----------------|-----------------|-------------|---------------------|---------------------|---------------------|
| https://rb106.cern.ch:9000/0omR5zGUBEMvKV2c3dw-Mw | 111 | 1 | 134 | DONE | Taiwan-LCG2 | 2008-02-09 23:00:52 | 2008-02-10 05:08:42 | 2008-02-10 05:27:17 |
| https://rb106.cern.ch:9000/W3YsFNM4YSUuwGDhYoWSnw | 113 | 1 | 188 | DONE | Taiwan-LCG2 | 2008-02-09 23:01:14 | 2008-02-10 05:06:43 | 2008-02-10 05:13:20 |
| https://rb121.cern.ch:9000/GbqyvuDn1SBxqEv5UyQ_dw | 119 | 1 | 188 | DONE | Taiwan-LCG2 | 2008-02-09 23:02:31 | 2008-02-10 05:12:34 | 2008-02-10 05:18:54 |
| https://rb106.cern.ch:9000/_PAKgX0t8Ql3mkrwWvjmg | 12 | 1 | 188 | DONE | Taiwan-LCG2 | 2008-02-09 22:43:03 | 2008-02-10 04:00:07 | 2008-02-10 04:06:35 |
| https://rb106.cern.ch:9000/aOGX9_kpRmcoRm_Xv5_g | 120 | 1 | 134 | DONE | Taiwan-LCG2 | 2008-02-09 | 2008-02-10 | 2008-02-10 |

jobs per activity

select executor



submitted
 app-succeeded
 app-failed
 app-unknown
 pending
 running
 aborted
 cancelled

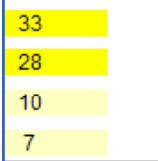

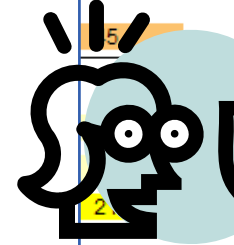
(1)
T_LCGCR (2)

- SAM framework allows user defined tests
- Dashboard shows logs for advanced users
- Monitoring results can be re-used
- Reporting tools and graphs

```
[lxlus237] /afs/cern.ch/user/b/bgaidioz > dashb-job-summary -f text/plain
name      | sub | unk | pend | run  | term | done | canc | abort | g-unk | grid% | succ | fail | a-unk | app% | d/s | all-%
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----
production | 45621 | 15577 | 0 | 6130 | 23914 | 0 | 0 | 0 | 23
analysis  | 1443 | 0 | 565 | 70 | 808 | 327 | 9 | 9 | 46
unknown   | 1111 | 0 | 155 | 162 | 794 | 720 | 44 | 27 | 3
[lxlus237] /afs/cern.ch/user/b/bgaidioz > dashb-job-summary -f text/plain --sor
name      | sub | unk | pend | run  | term | done | done | canc
-----|-----|-----|-----|-----|-----|-----|-----|-----
rb01.pic.es      | 452 | 0 | 99 | 100 | 253 | 252 | 0
rb121.cern.ch    | 222 | 0 | 14 | 38 | 170 | 169 | 0
rb106.cern.ch    | 128 | 0 | 4 | 5 | 119 | 114 | 0
lcgrb01.gridpp.rl.ac.uk | 124 | 0 | 15 | 1 | 108 | 52 | 43
lcgrb02.gridpp.rl.ac.uk | 89 | 0 | 19 | 7 | 63 | 62 | 1
lcgrb03.gridpp.rl.ac.uk | 70 | 0 | 1 | 0 | 69 | 69 | 0
lcg005.ihep.ac.cn | 10 | 0 | 0 | 2 | 8 | 1 | 0
lapp-rb01.in2p3.fr | 10 | 0 | 1 | 9 | 0 | 0 | 0
lb103.cern.ch    | 5 | 0 | 2 | 0 | 3 | 0 | 0
rb-fzk.gridka.de | 1 | 0 | 0 | 0 | 1 | 1 | 0
[lxlus237] /afs/cern.ch/user/b/bgaidioz > █
```

```
- <item>
  <terminated>581</terminated>
  <name>SARA-MATRIX (Amsterdam, The Netherlands)</name>
  <unknown>0</unknown>
  <app-failed>0</app-failed>
  <submitted>584</submitted>
  <app-succeeded>0</app-succeeded>
  <running>1</running>
  <done>581</done>
  <aborted>0</aborted>
```


- **GGUS is *NOT* a ticketing system only**
 - GGUS tickets statistics and reviewing
 - Persistent links
- **User feedback is a key to improvements**
 - Monthly GGUS releases
 - Monitoring tools developers took part to production shifts

| List | TPM monitoring reports for the ROC managers meeting | Tickets |
|---------------|--|---|
| | <ul style="list-style-type: none"> • Week 2008/01/15 - 2008/02/06 • Week 2007/12/11 - 2008/01/14 • Week 2007/11/13 - 2007/12/10 • Week 2007/10/30 - 2007/11/12 • Week 2007/10/16 - 2007/10/29 • Week 2007/09/18 - 2007/10/15 • Week 2007/08/21 - 2007/09/17 • Week 2007/08/13 - 2007/08/20 | activity index *** |
| CIC Portal | <ul style="list-style-type: none"> • Weeks 2007/07/09 - 2007/07/23 • Weeks 2007/06/26 - 2007/07/09 • Weeks 2007/06/13 - 2007/06/25 |  |
| Deployment | <ul style="list-style-type: none"> • Weeks 2007/05/22 - 2007/06/12 • Weeks 2007/05/01 - 2007/05/21 • Weeks 2007/04/16 - 2007/04/30 • Weeks 2007/04/02 - 2007/04/15 • Weeks 2007/03/22 - 2007/03/27 |  |
| Documentation | |  |

- **Katie Weeks – NGS accounting system**
- **Patricia Mendez Lorenzo – application support system**
- **Elisa Lanciotti – LHCb bookkeeping**
- **Maria Dimou – Communication tools**
- **Nicolo Magini – experiment specific monitoring**
- **Peter Kacsuk – gUSE/WS-PGRADE**
- **Benjamin Gaidoz – experiments dashboard**
- **Steve Fisher – R-GMA enhancements**