**User Guide: PBS cluster monitoring application**

# Extension of PBS Monitoring Tool

**Project Documentation**

**Project Number**

**I30228**

**Upgraded Web based application for PBS-Cluster**

**By**

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# Information about the document

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| Version: |  | | | | | |

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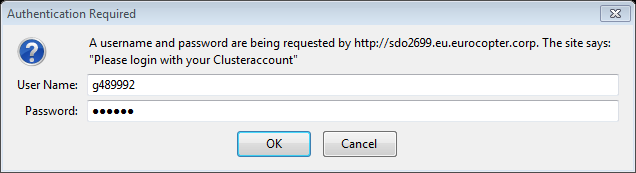
1. **PBS Monitoring Tool perspectives:**

This application is based of the software myJAM, which is a web based monitoring and accounting tool for High Performance Computer Clusters with PBS-like batch-systems, developed by the Zentrum für Informations- und Medientechnologie (ZIM) of the Heinrich Heine-Universität Düsseldorf.

1. **Aim**

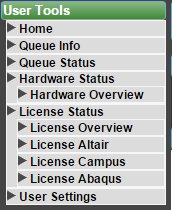
This tool allows the user to monitor the status of the running jobs on sdo2600 PBS Cluster.

1. The user can check the Queues info and Status, the node where the job is running, the requested memory …
2. The user is also able to check the Hardware status and available licenses.
3. The user can sort the jobs as per state i.e if the user wishes only to view the jobs in running state.
4. The user can delete his/her own job.
5. In Hardware Overview page, the option for refreshing the page each 5 seconds or 10 seconds.
6. **How to start the application?**
7. Open the following URL in a **AHD Google Browser** <http://sdo2699.eu.eurocopter.corp/PBSMon>
8. Then login with your **sdo2600 account** (user and password)



1. **Menu User Tool**
2. Note after successful login, the user screen displays the following template header shown below



1. Towards the left-hand side of webpage, you will find the menu options
   1. ****Home
   2. Queue Info
   3. Queue Status (new)
   4. Hardware Status
      1. Hardware Overview(new)
   5. License Status
      1. License Overview
      2. License Altair
      3. License Campus
      4. License Abaqus(new)
   6. User Settings
2. **Section Home**

The home page includes the following information:

1. **Your active jobs**:

Here you will have the status of your active jobs (Running, Queued, Held, Suspended, Waiting) This information are updated every minute

1. **Your HomeDirectory:**

Current size of User-Home folder.

1. **Announcements**

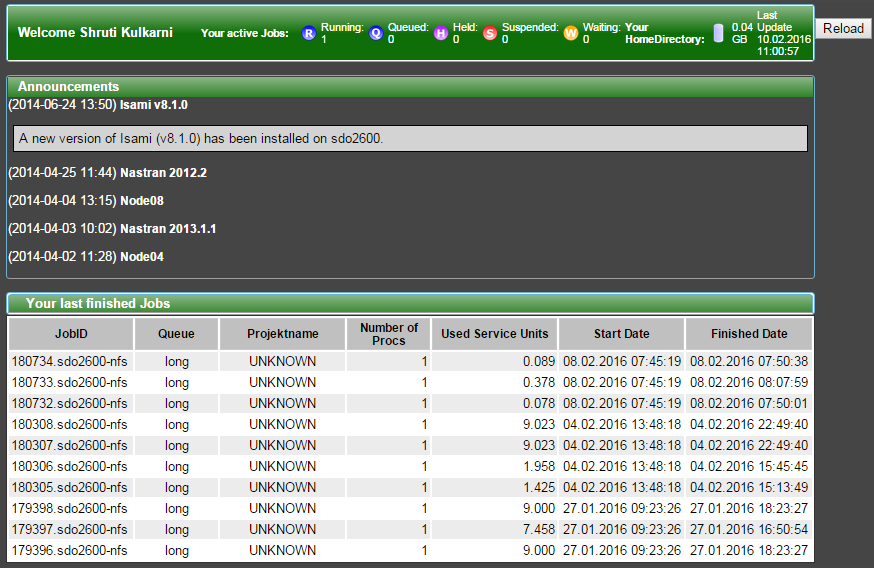
Announcements concerning the server or Information about the latest main activities performed by the server administrator

1. **Your last finished Jobs**

Information about your last completed Job

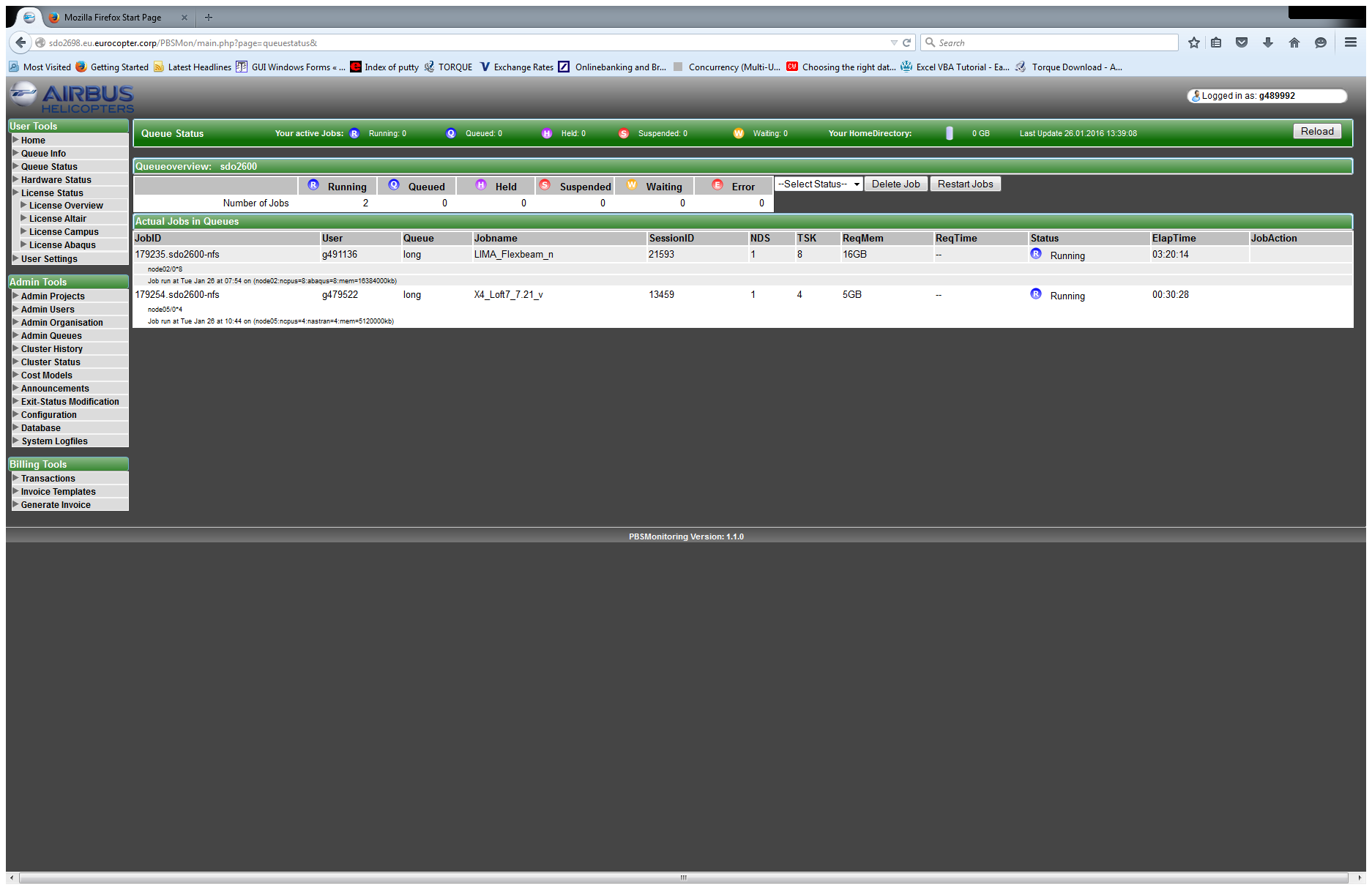
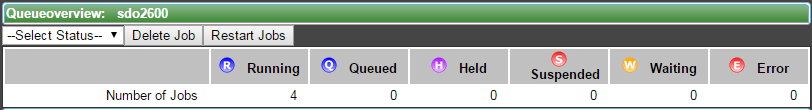
1. **Reload Button**

By clicking on the Reload button, The webpage will be refreshed.

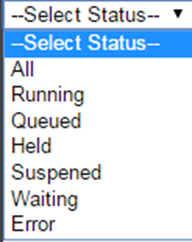
****

1. **Section Queue Info**
2. The Queue Info page is a diagram representing the distribution of the running jobs.
3. The vertical position at the first column (on the link side) illustrates the nodes where running the calculation The second horizontal represents the available Queues (a350, big, fast, long, panic).
4. Below the queue line, the requested memory and number of cores are displayed.
5. The data are updated in the database every minute. However, the new values are not regenerated automatically.

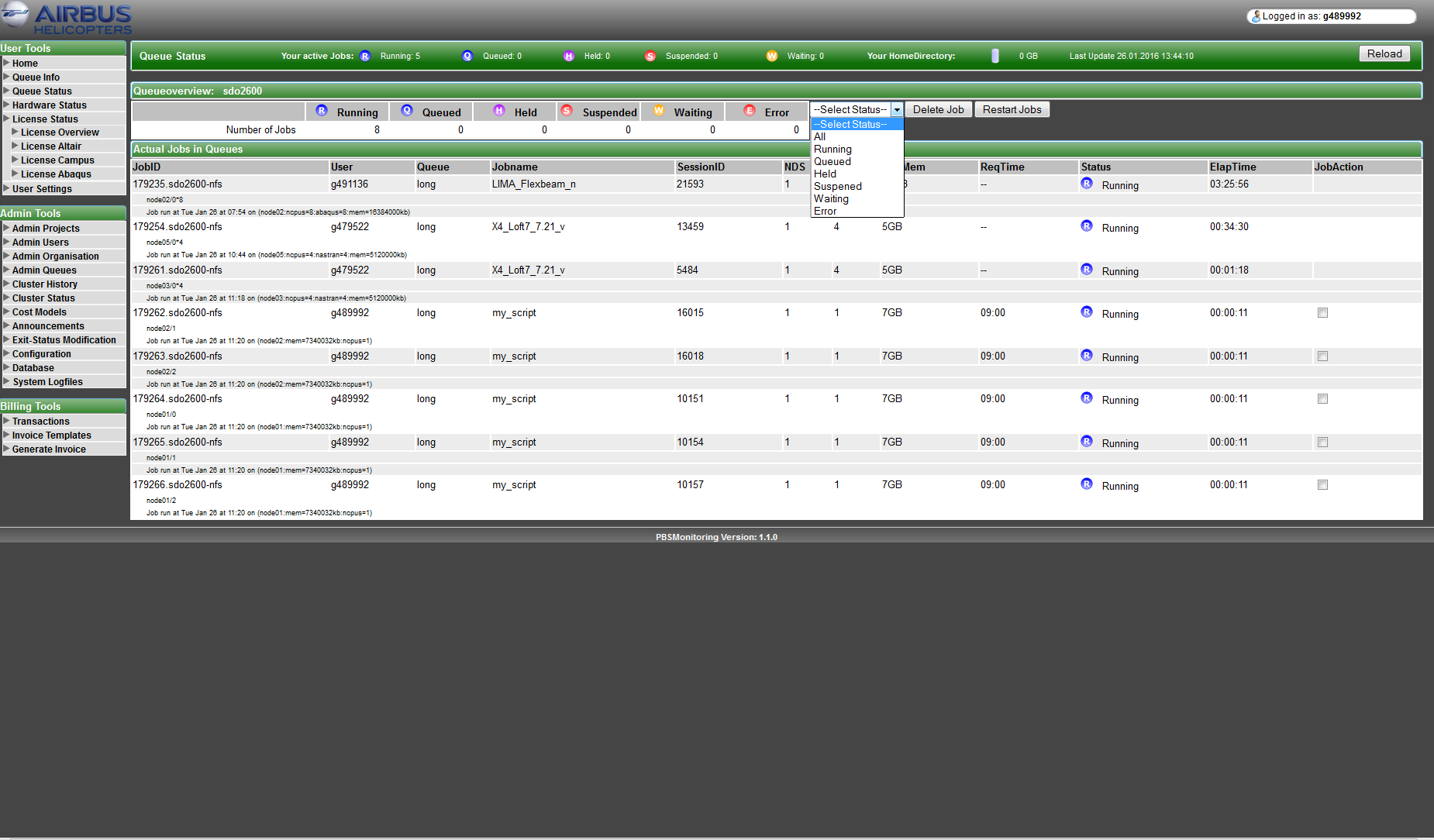
****

1. **Section Queue status**
2. The Queue Status page is divided in 2 parts: The Queue Overview and Actual Jobs in Queues
3. Queue Overview: Summarized the status of all the jobs submit through the Queuing System (PBS-Submit –c...) 
4. Status Dropdown Box:

Sort the Actual jobs by it’s status

Options:-

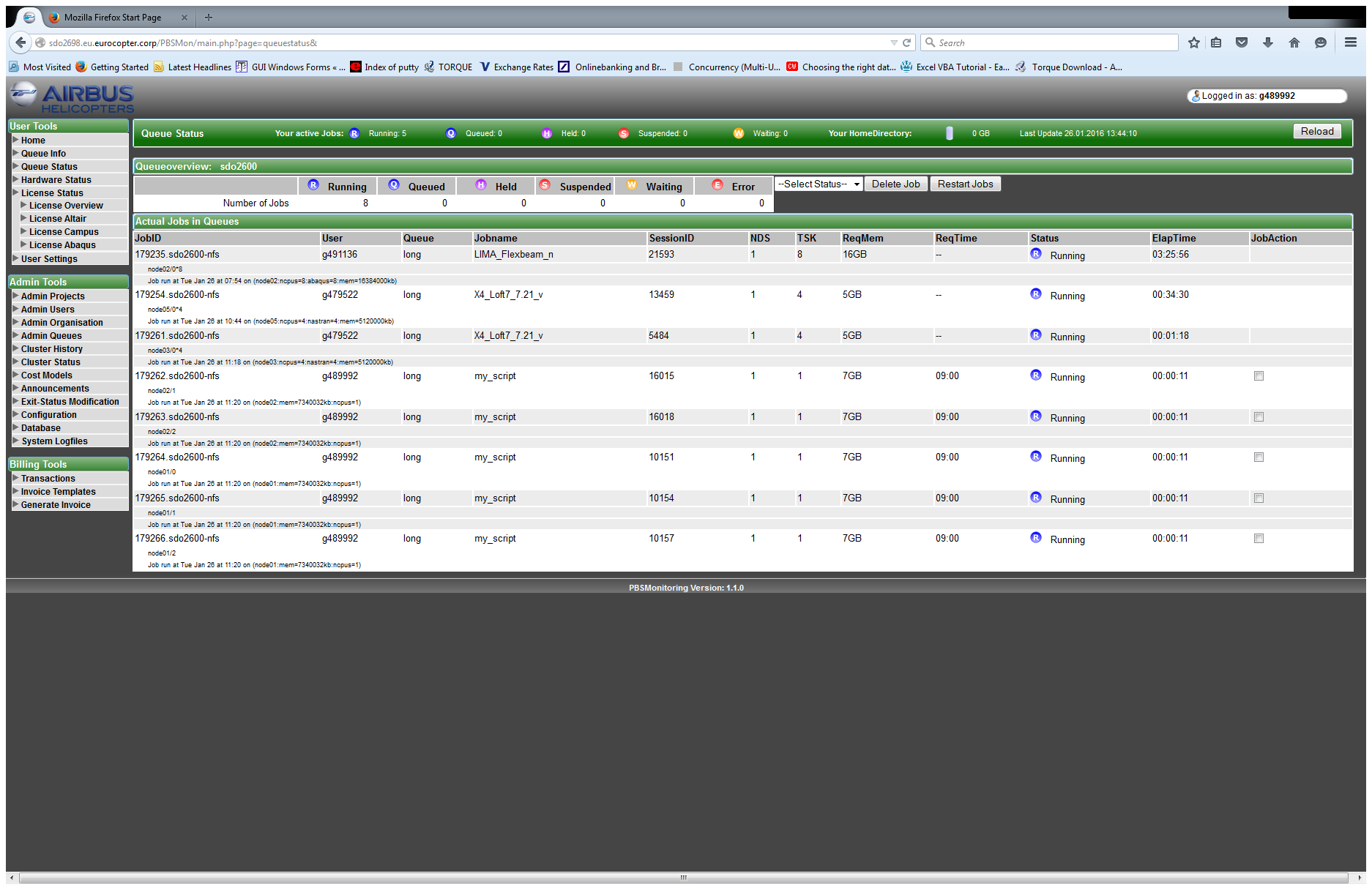
1. All
2. Running
3. Queued
4. Held
5. Suspended
6. Waiting
7. Error



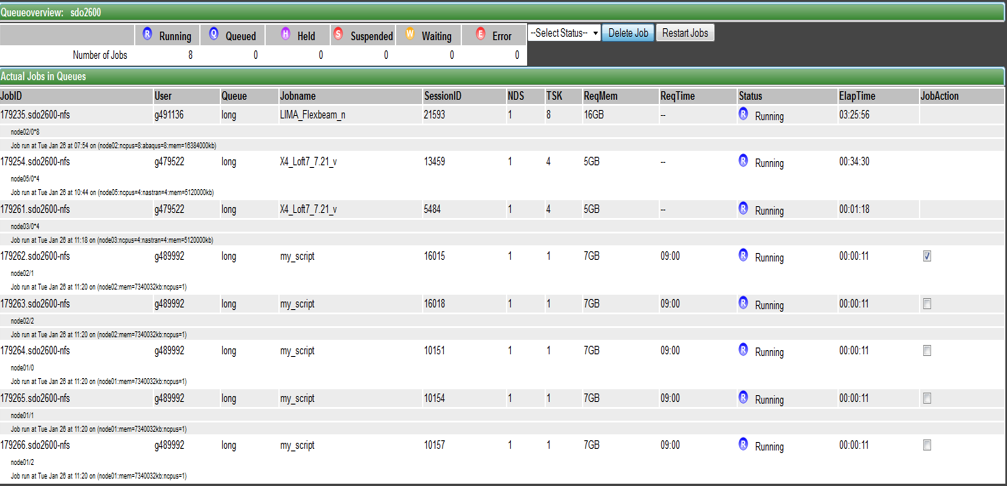
1. Delete Button

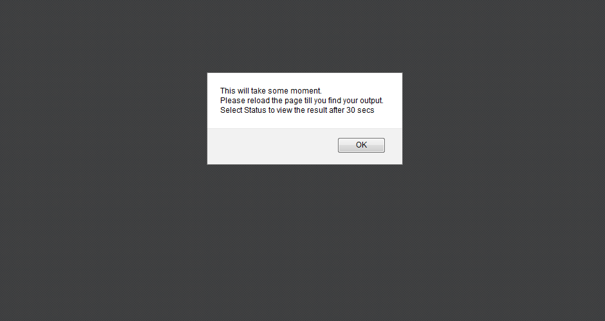
Below here an example, the user submitted 5 jobs using *qsub* my\_script

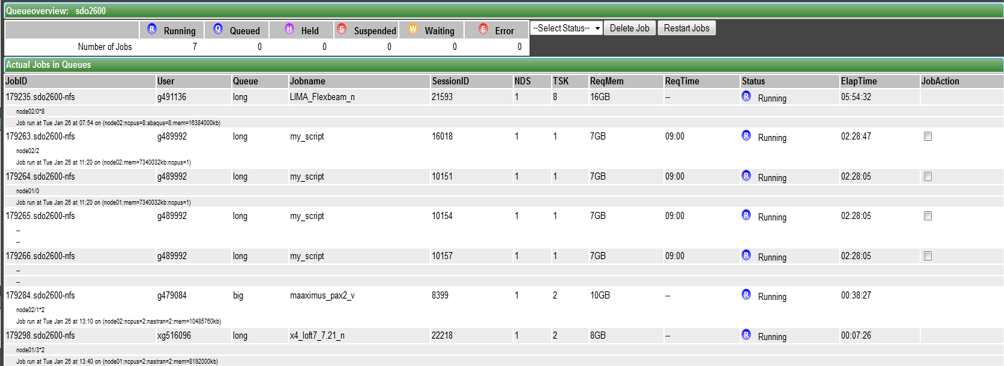
The jobs created by user will have checkbox and can perform operations only user owned jobs.



The user checks the specific job to delete and presses the delete button by which the job gets deleted with a notification of assigning 30 seconds of time to execute the deletion process.

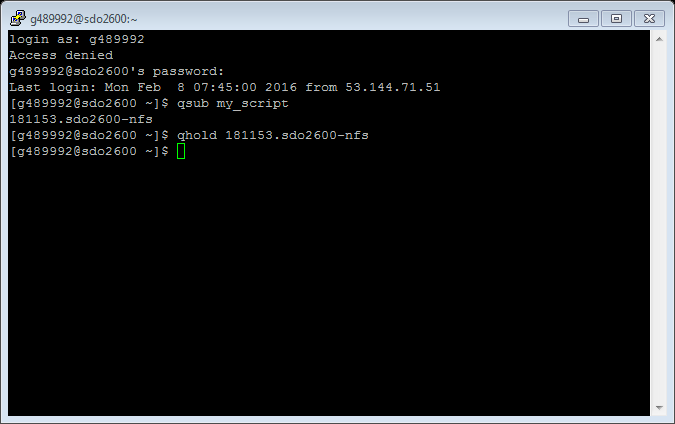


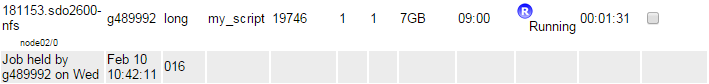


Therefore, the job is deleted and there are 4 jobs running instead of 5. 

1. Restart Button

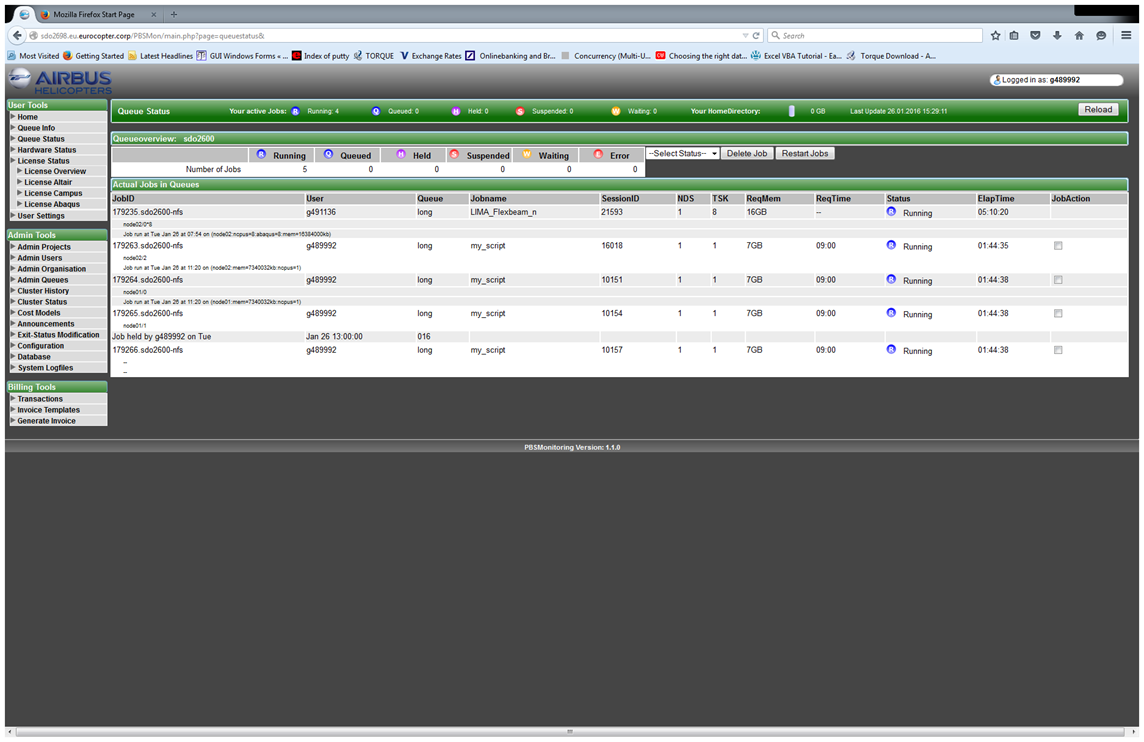
If the user executes the *qhold* command on a job then the job goes into the held state but on the PBS Monitoring ; the job status is still in running . To restart the job use the restart button which provides the *qrls* functionality.





After executing Restart button , the outcome shows two hypen (-).It is an indicator that the job is restarting.



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1. **Section Hardware Status**

The Hardware overview contains technical information about all available nodes. The displayed values are updated every minute. The Hardware overview is divided into the following groups:

– General

– CPU and Core

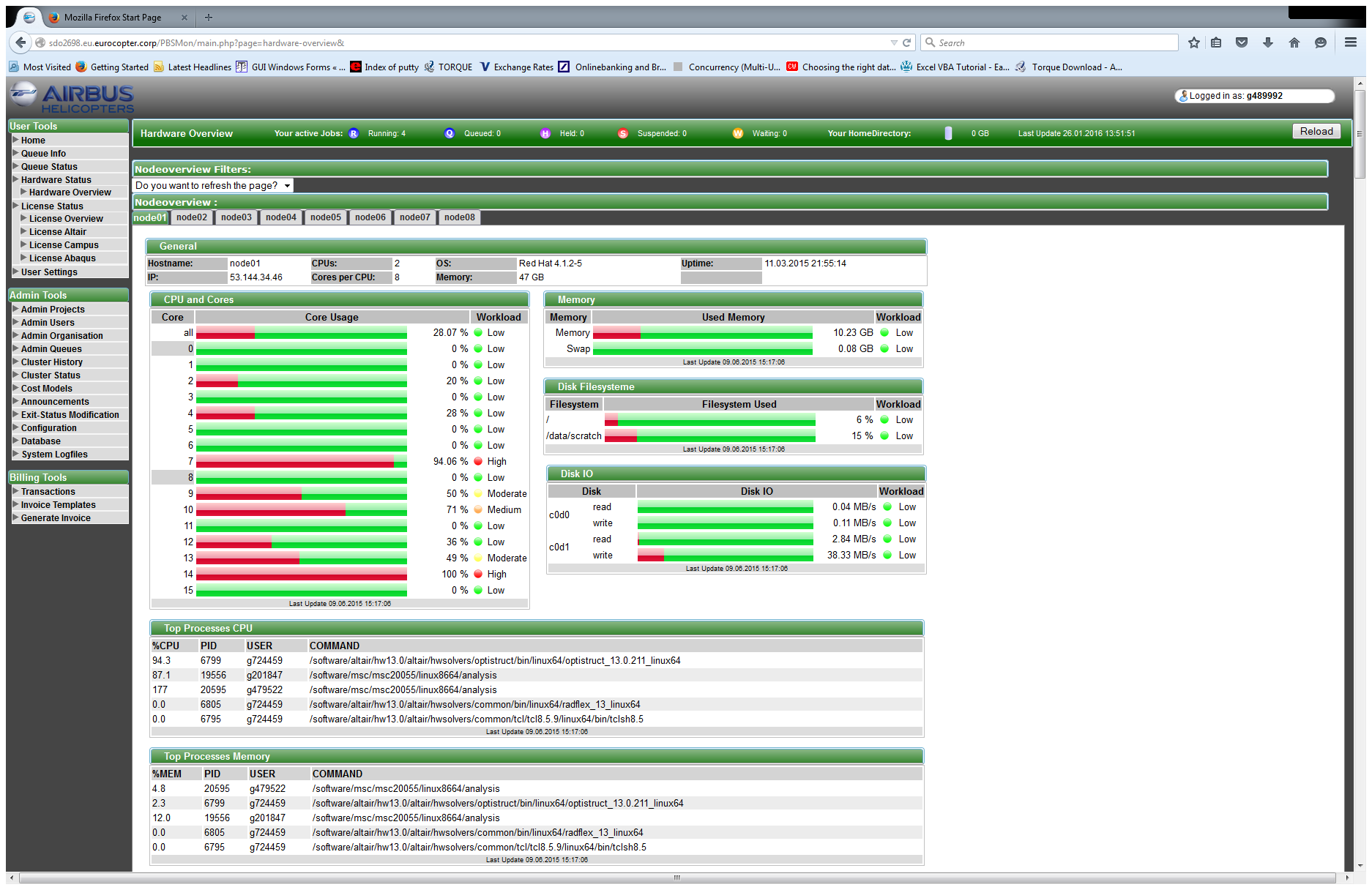
– Memory

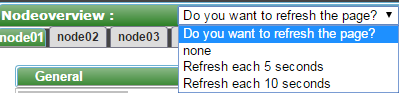
– Disk Filesysteme

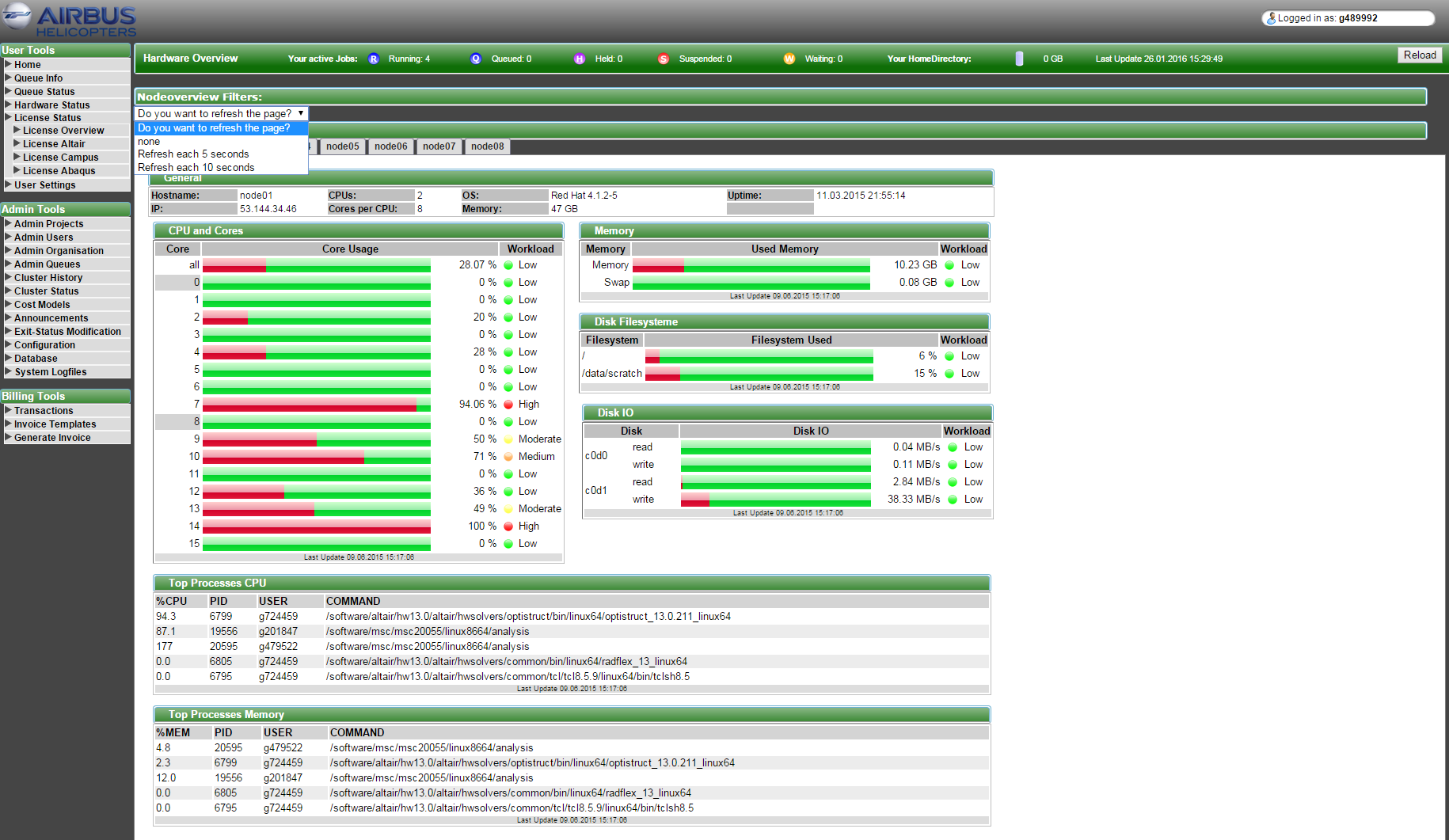
– Disk IO

– TOP Processes CPU and TOP Processes Memory

Select the appropriate node panel (node01, node02, node03, node05, node06, node07) to have an overview of its performance.



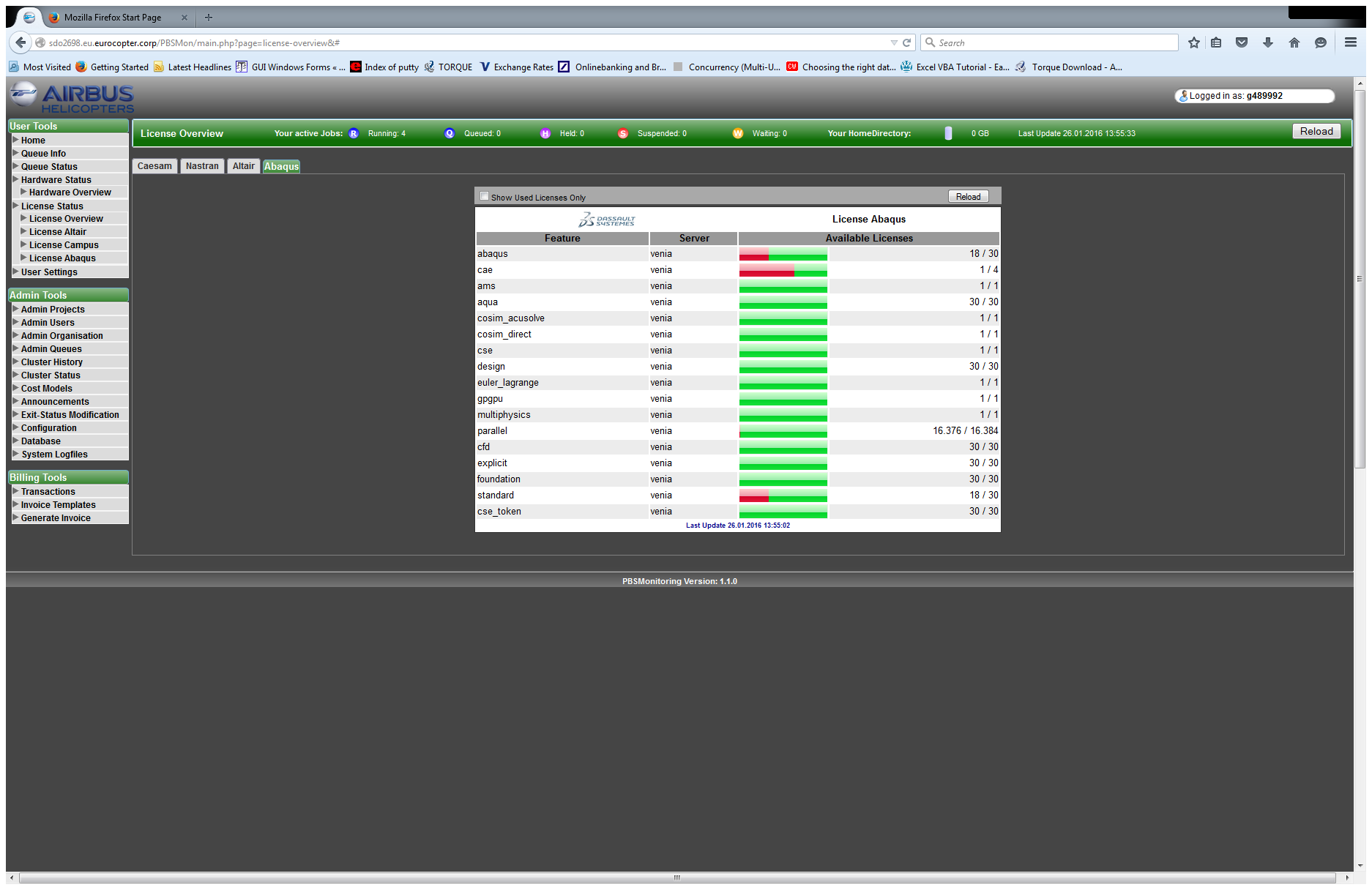
The dropdown box for refreshing page is provided for each 5 seconds or 10 seconds. The option none refreshes after each 30 seconds. Google Chrome is recommended to be used because Mozilla Firefox and IE browsers generate in built pop’s within them. 



1. **Section License Status**

It is divided in 4 sub-sections: License Overview, License Altair, License Campus, License Abaqus. The license overview page provide all information about the most important license servers. This information is updated every minute.By selecting the corresponding panel (Caesam, Nastran, Altair,Abaqus), you will see the available licenses on the server.You also have the possibility to check only the current used licenses by selecting the option Show used Licenses only.

1. License Altair: Provide a graphical representation of the used altair Licenses in a chosen period of time.
2. License Campus: Provide a graphical representation of the used MSC Licenses in a chosen period of time.
3. License Abaqus: Provide a graphical representation of the used Dassault Systems Licenses in a chosen period of time.



1. **Section User Settings**
   1. On this page, the user can modify his name and E-mail address
2. **File System distribution via Linux**

PBSMon Essentials

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[root@sdo2698 tmp]# pwd

/var/www/html/PBSMon

[root@sdo2698 PBSMon]# ls

access.php  CloseWindow.php     css             gstat.out        index.php         member-popup\_2.php    PBS.tar           rstest.php          tmp

AJAX        ColorGradient.php   DB\_model        gstat.php        InvoiceGenerator  messages.php          php-ofc-library   scripts             tools.php

base.php    ColorGrd2.php       Doc             header.php       js                msie.html             ProjectInfo.php   ShowJobs.php        UserInfo.php

bootstrap   ColorGrd.php        ECD             helper           LICENSE           MultiGradient.php     QueueDetails.php  ssh-aufrufe.txt     version\_control.php

charts      config              empty.php       HTMLCreator.php  LogIn.php         MultiGrd.php          ReCalcSUs.php     templateheader.php

classes     cookiesplease.html  fxn             images           main.php          NewTrans.php          RegisterUser.php  test.php

CLIhelper   cpuiframe.php       GenInvoice.php  includes         maintest.php      open-flash-chart.swf  rs.html           title.php

[root@sdo2698 PBSMon]#

Database Essentials

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[root@sdo2698 PBSMon]# cd config/

[root@sdo2698 config]# ls

CFG\_auth.php  CFG\_batchsystem.php  CFG\_database.php  CFG\_mail.php  CFG\_modules.php  PBS\_LDAP

[root@sdo2698 config]# more CFG\_database.php

<?php

$\_CFG\_DATABASE\_USER      = 'myjamd';

$\_CFG\_DATABASE\_PASSWORD  = 'eurocopter';

$\_CFG\_DATABASE\_SERVER    = 'localhost';

$\_CFG\_DATABASE\_NAME      = 'myJAM';

Server & MySQL Essentials

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[root@sdo2698 config]# cat CFG\_batchsystem.php

<?php

$\_CFG\_BATCHSYSTEM\_TYPE = 'TORQUE';

$\_CFG\_BATCHSYSTEM\_SERVER = 'sdo2600-nfs';

$\_CFG\_BATCHSYSTEM\_BINDIR = '/opt/pbs/default/bin';

$\_CFG\_DEFAULT\_PROJECT = 'UNKNOWN';

[root@sdo2698 config]# cat CFG\_auth.php

<?php

//$\_CFG\_AUTH\_METHOD = 'DB';

$\_CFG\_AUTH\_METHOD = 'HTACCESS';

$\_CFG\_AUTH\_DEFAULT\_PROJECT = '';

[root@sdo2698 config]# cat CFG\_database.php

<?php

$\_CFG\_DATABASE\_USER      = 'myjamd';

$\_CFG\_DATABASE\_PASSWORD  = 'eurocopter';

$\_CFG\_DATABASE\_SERVER    = 'localhost';

$\_CFG\_DATABASE\_NAME      = 'myJAM';

[root@sdo2698 config]# cat CFG\_mail.php

<?php

$\_CFG\_MAIL\_FROM            = 'myJAM <[myjam@example.com](mailto:myjam@example.com)>';

$\_CFG\_MAIL\_REPLY\_TO        = 'myjam@example.com';

$\_CFG\_MAIL\_ENVELOPE\_SENDER = 'myjam@example.com';

$\_CFG\_MAIL\_SIGNATURE       = "\n---------------------------------------------------------------------------------------------------------\n"

                            ."This mail was automatically generated by <myJAM/> - The Sophisticated Job Accounting and Monitoring Tool\n\n"

                            ."If you think, you have received this email by mistake, pleases contact [webmaster@example.com\n](mailto:webmaster@example.com\n)";

[root@sdo2698 config]# cat CFG\_modules.php

<?php

//if you are using a php-version older than 5.2.x you need the upgrad.php-library

//define('\_UPGRADEPHP', \_FULLPATH.'/upgradephp/upgrade.php');

define('\_UPGRADEPHP', false);

[root@sdo2698 config]# cd ..

Css Scripts[Epilogue & Prologue] Essentials

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[root@sdo2698 PBSMon]# ls

access.php  CloseWindow.php     css             gstat.out        index.php         member-popup\_2.php    PBS.tar           rstest.php          tmp

AJAX        ColorGradient.php   DB\_model        gstat.php        InvoiceGenerator  messages.php          php-ofc-library   scripts             tools.php

base.php    ColorGrd2.php       Doc             header.php       js                msie.html             ProjectInfo.php   ShowJobs.php        UserInfo.php

bootstrap   ColorGrd.php        ECD             helper           LICENSE           MultiGradient.php     QueueDetails.php  ssh-aufrufe.txt     version\_control.php

charts      config              empty.php       HTMLCreator.php  LogIn.php         MultiGrd.php          ReCalcSUs.php     templateheader.php

classes     cookiesplease.html  fxn             images           main.php          NewTrans.php          RegisterUser.php  test.php

CLIhelper   cpuiframe.php       GenInvoice.php  includes         maintest.php      open-flash-chart.swf  rs.html           title.php

[root@sdo2698 PBSMon]# cd scripts/

[root@sdo2698 scripts]# ls

myJAM\_Discover.php  myJAM\_epilogue.php  myJAM\_GenInvoice.php  myJAM\_prologue.php  TORQUE

[root@sdo2698 scripts]# ls -ltr

total 28

-rwxr--r--. 1 apache apache 7830 Oct 26  2012 myJAM\_GenInvoice.php

-rwxr--r--. 1 apache apache 2488 Oct 26  2012 myJAM\_epilogue.php

-rwxr--r--. 1 apache apache 2457 Oct 26  2012 myJAM\_Discover.php

drwxr-xr-x. 3 apache apache 4096 Nov 19  2013 TORQUE

-rwxr--r--. 1 apache apache 6662 Nov 20  2013 myJAM\_prologue.php

[root@sdo2698 scripts]# cd ..

[root@sdo2698 PBSMon]# cd css

[[root@sdo2698 css]# ls -ltr

total 60

-rw-r--r--. 1 apache apache  1381 Dec 20  2013 tabcontent.css

-rw-r--r--. 2 apache apache  7105 Jan  7  2014 PBSMon-v1.0.css

-rw-r--r--. 2 apache apache  7105 Jan  7  2014 PBSMon.css

-rw-r--r--. 2 apache apache 20271 Jan  9  2014 style-v1.0.css

-rw-r--r--. 2 apache apache 20271 Jan  9  2014 style.css

[root@sdo2698 css]# ls -li

total 60

729 -rw-r--r--. 2 apache apache  7105 Jan  7  2014 PBSMon.css

729 -rw-r--r--. 2 apache apache  7105 Jan  7  2014 PBSMon-v1.0.css

993 -rw-r--r--. 2 apache apache 20271 Jan  9  2014 style.css

993 -rw-r--r--. 2 apache apache 20271 Jan  9  2014 style-v1.0.css

564 -rw-r--r--. 1 apache apache  1381 Dec 20  2013 tabcontent.css

[root@sdo2698 css]# cd ..

Database[Tables & How to run mysql in myJAM\_QuickStart.pdf] Essentials

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[root@sdo2698 PBSMon]# ls

access.php  CloseWindow.php     css             gstat.out        index.php         member-popup\_2.php    PBS.tar           rstest.php          tmp

AJAX        ColorGradient.php   DB\_model        gstat.php        InvoiceGenerator  messages.php          php-ofc-library   scripts             tools.php

base.php    ColorGrd2.php       Doc             header.php       js                msie.html             ProjectInfo.php   ShowJobs.php        UserInfo.php

bootstrap   ColorGrd.php        ECD             helper           LICENSE           MultiGradient.php     QueueDetails.php  ssh-aufrufe.txt     version\_control.php

charts      config              empty.php       HTMLCreator.php  LogIn.php         MultiGrd.php          ReCalcSUs.php     templateheader.php

classes     cookiesplease.html  fxn             images           main.php          NewTrans.php          RegisterUser.php  test.php

CLIhelper   cpuiframe.php       GenInvoice.php  includes         maintest.php      open-flash-chart.swf  rs.html           title.php

[root@sdo2698 PBSMon]# cd DB\_model

[root@sdo2698 DB\_model]# ls

myJAM\_DB2.4.sql

[root@sdo2698 DB\_model]# ls -la

total 36

drwxr-xr-x.  2 apache apache  4096 Nov 28  2013 .

drwxrwxrwx. 21 apache apache  4096 Apr 11  2014 ..

-rw-r--r--.  1 apache apache 28655 Oct 26  2012 myJAM\_DB2.4.sql

[root@sdo2698 DB\_model]# cd ..

[root@sdo2698 PBSMon]# ls

access.php  CloseWindow.php     css             gstat.out        index.php         member-popup\_2.php    PBS.tar           rstest.php          tmp

AJAX        ColorGradient.php   DB\_model        gstat.php        InvoiceGenerator  messages.php          php-ofc-library   scripts             tools.php

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charts      config              empty.php       HTMLCreator.php  LogIn.php         MultiGrd.php          ReCalcSUs.php     templateheader.php

classes     cookiesplease.html  fxn             images           main.php          NewTrans.php          RegisterUser.php  test.php

CLIhelper   cpuiframe.php       GenInvoice.php  includes         maintest.php      open-flash-chart.swf  rs.html           title.php

[root@sdo2698 PBSMon]# cd Doc

[root@sdo2698 Doc]# ls

myJAM\_QuickStart.pdf

[root@sdo2698 Doc]# ls -la

total 460

drwxr-xr-x.  2 apache apache   4096 Oct 26  2012 .

drwxrwxrwx. 21 apache apache   4096 Apr 11  2014 ..

-rw-r--r--.  1 apache apache 459033 Oct 26  2012 myJAM\_QuickStart.pdf

[root@sdo2698 Doc]# cd ..

Important Essentials

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[root@sdo2698 PBSMon]# ls

access.php  CloseWindow.php     css             gstat.out        index.php         member-popup\_2.php    PBS.tar           rstest.php          tmp

AJAX        ColorGradient.php   DB\_model        gstat.php        InvoiceGenerator  messages.php          php-ofc-library   scripts             tools.php

base.php    ColorGrd2.php       Doc             header.php       js                msie.html             ProjectInfo.php   ShowJobs.php        UserInfo.php

bootstrap   ColorGrd.php        ECD             helper           LICENSE           MultiGradient.php     QueueDetails.php  ssh-aufrufe.txt     version\_control.php

charts      config              empty.php       HTMLCreator.php  LogIn.php         MultiGrd.php          ReCalcSUs.php     templateheader.php

classes     cookiesplease.html  fxn             images           main.php          NewTrans.php          RegisterUser.php  test.php

CLIhelper   cpuiframe.php       GenInvoice.php  includes         maintest.php      open-flash-chart.swf  rs.html           title.php

License Essentials

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hardware.node01  hardware.node04  hardware.node07           license.Altair      license.Nastran  messages.node02  messages.node05  messages.sdo2600      rs.php license.Abaqus

hardware.node02  hardware.node05  in\_hardware-overview.php  license.Caesam      messages         messages.node03  messages.node06  messages.sdo2600-nfs  xxxxx

hardware.node03  hardware.node06  in\_license-overview.php   license\_Caesam.out  messages.node01  messages.node04  messages.node07  PBSMon.css

Changed files Essentials

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1. in\_hardware-overview.php
2. in\_license-overview.php
3. in\_varmessages.php
4. PBSMon.css
5. DB\_model:
   1. myJAM\_DB2.4.sql  PBSMon.sql

1. main.php
2. includes/in\_queuestatus.php
3. includes/in\_licence-overview.php
4. includes/in\_hardware-overview.php
5. includes/in\_licence-overview.php
6. tools.php
7. main.php
8. License/licence.Abaqus
9. /usr/bin/qdel
10. /usr/bin/qrls

./20131220:

access.php         ColorGrd2.php  DB\_model        HTMLCreator.php  main.php            PBSMon.tar        rs1.php             title.php

base.php           ColorGrd.php   empty.php       images           member-popup\_2.php  ProjectInfo.php   rs.php              tools.php

CFG\_database.php   config         fxn             includes         MultiGradient.php   QueueDetails.php  scripts             UserInfo.php

CloseWindow.php    cpuiframe.php  GenInvoice.php  index.php        MultiGrd.php        ReCalcSUs.php     ShowJobs.php        version\_control.php

ColorGradient.php  css            header.php      LogIn.php        NewTrans.php        RegisterUser.php  templateheader.php

To find Essentials

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

./20131220/images:

Altair.png               Caesam.png                    exe-32x32.png          LogInShell.png               PBSHeldButton.png           ReDetect\_Appl.png

Aqua-Ball-8x8.png        check-mark-copy-32x32.png     favicon.ico            LogoECD.png                  PBSQueButton.png            ReDetect\_Appl\_press.png

Aqua-Ball-Green-8x8.png  Clock-32x32.png               Footer.png             lowergradientgrey.png        PBSRunButton.png            server.png

arrowdown.png            Column-Chart-24x24.png        gradient\_slice\_1.png   memory.png                   PBSSuspButton.png           Symbols-Error-16x16.png

arrow.png                Column-Chart-32x32.png        gradient\_slice\_2.png   multigradient\_left.png       PBSWaitButton.png           Trash-Empty-icon\_16x16.png

arrowup.png              construction-firm-32x32.png   GreenButton.png        multigradient\_middle.png     Picard.png                  uppergradientgrey37.png

bar\_bg.png               cpu.png                       H1-long.png            multigradient\_right.png      play-icon\_16x16.png         user-16x16.png

bar\_green.png            delete-icon\_16x16\_active.png  H1.png                 myJAM-icon.png               play-icon\_active\_16x16.png  user-32x32.png

bar\_red.png              delete-icon\_16x16.png         H1-short.png           myjamlogo.png                play-icon\_press\_16x16.png   Utilities-Cut.png

Button\_left\_active.png   delete-icon\_16x16\_press.png   H2.png                 Nastran.png                  Project-16x16.png           YellowButton.png

Button\_left\_norm.png     disk.png                      Hardware-Chip-Cut.png  OrangeButton.png             Project-24x24.png

Button\_right\_active.png  Disk.png                      Header.png             pause-icon\_16x16.png         Project-32x32.png

Button\_right\_norm.png    Edit-Document-icon\_16x16.png  Hourglass\_cut.png      pause-icon\_active\_16x16.png  RedButton.png

Button\_Slice.png         emptyArrow.png                Jpceq8\_24x24.png       pause-icon\_press\_16x16.png   ReDetect\_Appl\_active.png

./20131220/includes:

admin-config.php  fpdf.php                  in\_admin-finances.php    in\_clusterstatus.php      in\_history.php           in\_queues.php         in\_varmessages.php

cmn\_header.php    in\_admin-costs.php        in\_admin-institutes.php  in\_credits.php            in\_license-overview.php  in\_queuestatus.php    in\_voice.php

Colors.php        in\_admin-departments.php  in\_announcements.php     in\_db-details.php         in\_projectlist.php       in\_userlist.php       in\_voice\_templates.php

delete\_host.php   in\_admin-exit-status.php  in\_cluster-history.php   in\_hardware-overview.php  in\_projects.php          in\_user-settings.php  in\_welcome.php

./20131220/scripts:

myJAM\_Discover.php  myJAM\_epilogue.php  myJAM\_GenInvoice.php  myJAM\_prologue.php  PBSMon\_Hardware.php  PBSMon\_ReadDB.php  TORQUE  update\_db\_home

./20131220/scripts/TORQUE:

epilogue  prologue

./20140110:

PBS.tar

[root@sdo2698 ECD]# pwd

/var/www/html/PBSMon/ECD

[root@sdo2698 ECD]# pwd

[root@sdo2698 ECD]# pwd

/var/www/html/PBSMon/ECD

[root@sdo2698 ECD]# ls -lR

.:

total 2072

drwxr-xr-x. 2 root root    4096 Dec  2  2013 20131202

drwxr-xr-x. 2 root root    4096 Dec  2  2013 20131203

drwxr-xr-x. 2 root root    4096 Dec  6  2013 20131206

drwxr-xr-x. 9 root root    4096 Dec 20  2013 20131220

drwxr-xr-x. 2 root root    4096 Jan 10  2014 20140110

-rw-r--r--. 1 root root 2099200 Dec  2  2013 PBS.tar

./20131202:

total 176

-rwxr--r--. 1 nobody nobody  1689 Dec  1  2013 Altair.png

-rwxr--r--. 1 nobody nobody  9102 Dec  1  2013 Caesam.png

-rwxr--r--. 1 nobody nobody  2168 Dec  1  2013 cpu.png

-rwxr--r--. 1 nobody nobody  3826 Dec  1  2013 disk.png

-rwxr--r--. 1 root   root    1150 Dec  1  2013 favicon.ico

-rw-r--r--. 1 root   root    7252 Dec  2  2013 in\_hardware-overview.php

-rw-r--r--. 1 root   root    5851 Dec  2  2013 in\_license-overview.php

-rw-r--r--. 1 root   root    5087 Dec  1  2013 LogoECD.png

-rw-r--r--. 1 root   root    6675 Dec  1  2013 main.php

-rwxr--r--. 1 nobody nobody  2029 Dec  1  2013 memory.png

-rwxr--r--. 1 nobody nobody  4506 Dec  1  2013 Nastran.png

-rw-r--r--. 1 root   root    2880 Dec  1  2013 PBSMon.css

-rwxr--r--. 1 root   root   81920 Dec  2  2013 PBSMon.tar

-rwxr--r--. 1 nobody nobody  4938 Dec  1  2013 server.png

-rw-r--r--. 1 root   root   11738 Dec  1  2013 tools.php

./20131203:

total 2084

-rw-r--r--. 1 root root   4032 Dec  2  2013 hardware.node01

-rw-r--r--. 1 root root   2070 Dec  2  2013 hardware.node02

-rw-r--r--. 1 root root   1710 Dec  2  2013 hardware.node03

-rw-r--r--. 1 root root   1022 Dec  2  2013 hardware.node04

-rw-r--r--. 1 root root    811 Dec  2  2013 hardware.node05

-rw-r--r--. 1 root root   1451 Dec  2  2013 hardware.node06

-rw-r--r--. 1 root root   2068 Dec  2  2013 hardware.node07

-rw-r--r--. 1 root root  17141 Dec  2  2013 in\_hardware-overview.php

-rw-r--r--. 1 root root   5851 Dec  2  2013 in\_license-overview.php

-rw-r--r--. 1 root root     31 Dec  2  2013 license.Altair

-rw-r--r--. 1 root root    120 Dec  2  2013 license.Caesam

-rw-r--r--. 1 root root     91 Dec  2  2013 license\_Caesam.out

-rw-r--r--. 1 root root    198 Dec  2  2013 license.Nastran

-rw-r--r--. 1 root root   1720 Dec  2  2013 messages

-rw-r--r--. 1 root root 501867 Dec  2  2013 messages.node01

-rw-r--r--. 1 root root 263364 Dec  2  2013 messages.node02

-rw-r--r--. 1 root root 506408 Dec  2  2013 messages.node03

-rw-r--r--. 1 root root      0 Dec  2  2013 messages.node04

-rw-r--r--. 1 root root    256 Dec  2  2013 messages.node05

-rw-r--r--. 1 root root 243770 Dec  2  2013 messages.node06

-rw-r--r--. 1 root root 242450 Dec  2  2013 messages.node07

-rw-r--r--. 1 root root   2978 Dec  2  2013 messages.sdo2600

-rw-r--r--. 1 root root 264260 Dec  2  2013 messages.sdo2600-nfs

-rw-r--r--. 1 root root   2923 Dec  2  2013 PBSMon.css

-rwxr-xr-x. 1 root root    241 Dec  2  2013 rs.php

-rw-r--r--. 1 root root   1720 Dec  2  2013 xxxxx

./20131206:

total 40

-rwxr--r--. 1 root root 17418 Dec  6  2013 in\_hardware-overview.php

-rwxr--r--. 1 root root  5917 Dec  6  2013 in\_license-overview.php

-rwxr--r--. 1 root root  5538 Dec  6  2013 in\_varmessages.php

-rwxr--r--. 1 root root  3619 Dec  6  2013 PBSMon.css

./20131220:

total 1156

-rw-r--r--. 1 12494 users   4188 Oct 26  2012 access.php

-rw-r--r--. 1 12494 users   2177 Nov 18  2013 base.php

-rw-r--r--. 1 root  root     139 Nov  8  2013 CFG\_database.php

-rw-r--r--. 1 12494 users   2139 Oct 26  2012 CloseWindow.php

-rw-r--r--. 1 12494 users   2700 Oct 26  2012 ColorGradient.php

-rw-r--r--. 1 12494 users   2821 Oct 26  2012 ColorGrd2.php

-rw-r--r--. 1 12494 users   2889 Oct 26  2012 ColorGrd.php

drwxr-xr-x. 2 root  root    4096 Dec 20  2013 config

-rw-r--r--. 1 12494 users   2550 Oct 26  2012 cpuiframe.php

drwxr-xr-x. 2 root  root    4096 Dec 20  2013 css

drwxr-xr-x. 2 12494 users   4096 Dec 19  2013 DB\_model

-rw-r--r--. 1 12494 users   1782 Oct 26  2012 empty.php

drwxr-xr-x. 2 root  root    4096 Dec 20  2013 fxn

-rw-r--r--. 1 12494 users   3760 Oct 26  2012 GenInvoice.php

-rw-r--r--. 1 root  root    2059 Nov 18  2013 header.php

-rw-r--r--. 1 12494 users  16040 Oct 26  2012 HTMLCreator.php

drwxrwxrwx. 2 12494 users   4096 Dec 18  2013 images

drwxr-xr-x. 2 root  root    4096 Jan  7  2014 includes

-rw-r--r--. 1 12494 users   9198 Nov 18  2013 index.php

-rw-r--r--. 1 12494 users   1890 Oct 26  2012 LogIn.php

-rw-r--r--. 1 12494 users   6675 Dec 19  2013 main.php

-rw-r--r--. 1 12494 users   7077 Oct 26  2012 member-popup\_2.php

-rw-r--r--. 1 12494 users   3217 Oct 26  2012 MultiGradient.php

-rw-r--r--. 1 12494 users   2755 Oct 26  2012 MultiGrd.php

-rw-r--r--. 1 12494 users  18284 Dec 16  2013 NewTrans.php

-rw-r--r--. 1 root  root  942080 Dec 20  2013 PBSMon.tar

-rw-r--r--. 1 12494 users   5683 Dec 16  2013 ProjectInfo.php

-rw-r--r--. 1 12494 users   5481 Dec 16  2013 QueueDetails.php

-rw-r--r--. 1 12494 users   8927 Dec 16  2013 ReCalcSUs.php

-rw-r--r--. 1 12494 users   6055 Dec 16  2013 RegisterUser.php

-rw-r--r--. 1 root  root    1256 Dec  9  2013 rs1.php

-rwxr-xr-x. 1 root  root    1817 Dec  7  2013 rs.php

drwxr-xr-x. 3 12494 users   4096 Dec 19  2013 scripts

-rw-r--r--. 1 12494 users   4473 Dec 16  2013 ShowJobs.php

-rw-r--r--. 1 12494 users   2059 Oct 26  2012 templateheader.php

-rw-r--r--. 1 12494 users   3914 Nov 18  2013 title.php

-rw-r--r--. 1 12494 users  13316 Dec 19  2013 tools.php

-rw-r--r--. 1 12494 users   4081 Dec 16  2013 UserInfo.php

-rw-r--r--. 1 12494 users   1863 Oct 26  2012 version\_control.php

./20131220/config:

total 4

-rw-r--r--. 1 root root 49 Dec  5  2013 CFG\_PBSMon.php

./20131220/css:

total 52

-rw-r--r--. 1 root  root   7950 Dec 19  2013 PBSMon.css

-rw-r--r--. 1 root  root  20176 Dec 18  2013 style.css

-rw-rw-rw-. 1 12494 users 18753 Dec 16  2013 styleng.css

-rw-rw-rw-. 1 12494 users  1381 Dec 18  2013 tabcontent.css

./20131220/DB\_model:

total 32

-rw-r--r--. 1 12494 users 28655 Oct 26  2012 myJAM\_DB2.4.sql

-rw-r--r--. 1 root  root   1214 Dec 19  2013 PBSMon.sql

./20131220/fxn:

total 8

-rw-r--r--. 1 root root 4564 Dec 19  2013 class\_PBSMon.php

./20131220/images:

total 448

-rwxr--r--. 1 apache apache  1689 Dec  1  2013 Altair.png

-rw-r--r--. 1 apache apache  2996 Oct 26  2012 Aqua-Ball-8x8.png

-rw-r--r--. 1 apache apache  3011 Oct 26  2012 Aqua-Ball-Green-8x8.png

-rw-r--r--. 1 apache apache  2963 Oct 26  2012 arrowdown.png

-rw-r--r--. 1 apache apache  1031 Oct 26  2012 arrow.png

-rw-r--r--. 1 apache apache  2963 Oct 26  2012 arrowup.png

-rw-r--r--. 1 apache apache  2803 Oct 26  2012 bar\_bg.png

-rw-r--r--. 1 apache apache  2869 Oct 26  2012 bar\_green.png

-rw-r--r--. 1 apache apache  2878 Oct 26  2012 bar\_red.png

-rw-r--r--. 1 apache apache  3523 Oct 26  2012 Button\_left\_active.png

-rw-r--r--. 1 apache apache  3482 Oct 26  2012 Button\_left\_norm.png

-rw-r--r--. 1 apache apache  3579 Oct 26  2012 Button\_right\_active.png

-rw-r--r--. 1 apache apache  3552 Oct 26  2012 Button\_right\_norm.png

-rw-r--r--. 1 apache apache  2838 Oct 26  2012 Button\_Slice.png

-rwxr--r--. 1 apache apache  9102 Dec  1  2013 Caesam.png

-rw-r--r--. 1 apache apache  1787 Oct 26  2012 check-mark-copy-32x32.png

-rw-r--r--. 1 apache apache  1845 Oct 26  2012 Clock-32x32.png

-rw-r--r--. 1 apache apache  1294 Oct 26  2012 Column-Chart-24x24.png

-rw-r--r--. 1 apache apache  2028 Oct 26  2012 Column-Chart-32x32.png

-rw-r--r--. 1 apache apache  2893 Oct 26  2012 construction-firm-32x32.png

-rwxr--r--. 1 apache apache  2168 Dec  1  2013 cpu.png

-rw-r--r--. 1 apache apache  3649 Oct 26  2012 delete-icon\_16x16\_active.png

-rw-r--r--. 1 apache apache   893 Oct 26  2012 delete-icon\_16x16.png

-rw-r--r--. 1 apache apache  3573 Oct 26  2012 delete-icon\_16x16\_press.png

-rwxr--r--. 1 apache apache  3826 Dec  1  2013 disk.png

-rwxr--r--. 1 apache apache  5238 Dec 18  2013 Disk.png

-rw-r--r--. 1 apache apache   724 Oct 26  2012 Edit-Document-icon\_16x16.png

-rw-r--r--. 1 apache apache   949 Oct 26  2012 emptyArrow.png

-rw-r--r--. 1 apache apache  1564 Oct 26  2012 exe-32x32.png

-rwxr--r--. 1 apache apache  1150 Nov 18  2013 favicon.ico

-rwxr--r--. 1 apache apache   173 Dec 16  2013 Footer.png

-rw-r--r--. 1 apache apache  2840 Oct 26  2012 gradient\_slice\_1.png

-rw-r--r--. 1 apache apache  2815 Oct 26  2012 gradient\_slice\_2.png

-rwxr--r--. 1 apache apache 11207 Dec 17  2013 GreenButton.png

-rwxr--r--. 1 apache apache   215 Dec 18  2013 H1-long.png

-rwxr--r--. 1 apache apache   238 Dec 18  2013 H1.png

-rwxr--r--. 1 apache apache   220 Dec 18  2013 H1-short.png

-rwxr--r--. 1 apache apache   161 Dec 16  2013 H2.png

-rw-r--r--. 1 apache apache  4154 Oct 26  2012 Hardware-Chip-Cut.png

-rwxr--r--. 1 apache apache   167 Dec 16  2013 Header.png

-rw-r--r--. 1 apache apache  4768 Oct 26  2012 Hourglass\_cut.png

-rw-r--r--. 1 apache apache  4077 Oct 26  2012 Jpceq8\_24x24.png

-rw-r--r--. 1 apache apache  3492 Oct 26  2012 LogInShell.png

-rw-r--r--. 1 apache apache  5087 Nov 18  2013 LogoECD.png

-rw-r--r--. 1 apache apache   171 Oct 26  2012 lowergradientgrey.png

-rwxr--r--. 1 apache apache  2029 Dec  1  2013 memory.png

-rw-r--r--. 1 apache apache   884 Oct 26  2012 multigradient\_left.png

-rw-r--r--. 1 apache apache   784 Oct 26  2012 multigradient\_middle.png

-rw-r--r--. 1 apache apache   205 Oct 26  2012 multigradient\_right.png

-rw-r--r--. 1 apache apache  1795 Oct 26  2012 myJAM-icon.png

-rw-r--r--. 1 apache apache  8608 Oct 26  2012 myjamlogo.png

-rw-r--r--. 1 apache apache  4506 Dec  1  2013 Nastran.png

-rwxr--r--. 1 apache apache 13074 Dec 17  2013 OrangeButton.png

-rw-r--r--. 1 apache apache   878 Oct 26  2012 pause-icon\_16x16.png

-rw-r--r--. 1 apache apache  3613 Oct 26  2012 pause-icon\_active\_16x16.png

-rw-r--r--. 1 apache apache  3551 Oct 26  2012 pause-icon\_press\_16x16.png

-rwxr--r--. 1 apache apache  8851 Dec 16  2013 PBSHeldButton.png

-rwxr--r--. 1 apache apache 10787 Dec 16  2013 PBSQueButton.png

-rwxr--r--. 1 apache apache 10043 Dec 16  2013 PBSRunButton.png

-rwxr--r--. 1 apache apache 11142 Dec 16  2013 PBSSuspButton.png

-rwxr--r--. 1 apache apache 10883 Dec 16  2013 PBSWaitButton.png

-rw-r--r--. 1 apache apache  1106 Oct 26  2012 Picard.png

-rw-r--r--. 1 apache apache   884 Oct 26  2012 play-icon\_16x16.png

-rw-r--r--. 1 apache apache  3762 Oct 26  2012 play-icon\_active\_16x16.png

-rw-r--r--. 1 apache apache  3587 Oct 26  2012 play-icon\_press\_16x16.png

-rw-r--r--. 1 apache apache  1049 Oct 26  2012 Project-16x16.png

-rw-r--r--. 1 apache apache  1461 Oct 26  2012 Project-24x24.png

-rw-r--r--. 1 apache apache  2167 Oct 26  2012 Project-32x32.png

-rwxr--r--. 1 apache apache 10690 Dec 17  2013 RedButton.png

-rw-r--r--. 1 apache apache  5211 Oct 26  2012 ReDetect\_Appl\_active.png

-rw-r--r--. 1 apache apache  1564 Oct 26  2012 ReDetect\_Appl.png

-rw-r--r--. 1 apache apache  5285 Oct 26  2012 ReDetect\_Appl\_press.png

-rwxr--r--. 1 apache apache  4938 Dec  1  2013 server.png

-rw-r--r--. 1 apache apache   927 Oct 26  2012 Symbols-Error-16x16.png

-rw-r--r--. 1 apache apache   860 Oct 26  2012 Trash-Empty-icon\_16x16.png

-rw-r--r--. 1 apache apache    75 Oct 26  2012 uppergradientgrey37.png

-rw-r--r--. 1 apache apache   996 Oct 26  2012 user-16x16.png

-rw-r--r--. 1 apache apache  2329 Oct 26  2012 user-32x32.png

-rw-r--r--. 1 apache apache  4525 Oct 26  2012 Utilities-Cut.png

-rwxr--r--. 1 apache apache 10172 Dec 17  2013 YellowButton.png

./20131220/includes:

total 328

-rw-r--r--. 1 12494 users  4500 Oct 26  2012 admin-config.php

-rw-r--r--. 1 12494 users  2059 Oct 26  2012 cmn\_header.php

-rw-r--r--. 1 12494 users  2209 Oct 26  2012 Colors.php

-rw-r--r--. 1 12494 users  7362 Oct 26  2012 delete\_host.php

-rw-r--r--. 1 12494 users 42711 Oct 26  2012 fpdf.php

-rw-r--r--. 1 12494 users 10148 Oct 26  2012 in\_admin-costs.php

-rw-r--r--. 1 12494 users  7874 Oct 26  2012 in\_admin-departments.php

-rw-r--r--. 1 12494 users  8243 Oct 26  2012 in\_admin-exit-status.php

-rw-r--r--. 1 12494 users  5626 Oct 26  2012 in\_admin-finances.php

-rw-r--r--. 1 12494 users  9634 Oct 26  2012 in\_admin-institutes.php

-rw-r--r--. 1 12494 users  8329 Oct 26  2012 in\_announcements.php

-rw-r--r--. 1 12494 users 24012 Oct 26  2012 in\_cluster-history.php

-rw-r--r--. 1 12494 users  8452 Oct 26  2012 in\_clusterstatus.php

-rw-r--r--. 1 12494 users  7198 Oct 26  2012 in\_credits.php

-rw-r--r--. 1 12494 users  3109 Oct 26  2012 in\_db-details.php

-rw-r--r--. 1 root  root  20887 Dec 19  2013 in\_hardware-overview.php

-rw-r--r--. 1 12494 users  2375 Oct 26  2012 in\_history.php

-rw-r--r--. 1 root  root   9411 Dec 19  2013 in\_license-overview.php

-rw-r--r--. 1 12494 users  2362 Oct 26  2012 in\_projectlist.php

-rw-r--r--. 1 12494 users 28841 Oct 26  2012 in\_projects.php

-rw-r--r--. 1 12494 users  6984 Dec 19  2013 in\_queues.php

-rw-r--r--. 1 root  root  10473 Dec 19  2013 in\_queuestatus.php

-rw-r--r--. 1 12494 users  2365 Oct 26  2012 in\_userlist.php

-rw-r--r--. 1 12494 users 18249 Oct 26  2012 in\_user-settings.php

-rw-r--r--. 1 root  root   5496 Dec 18  2013 in\_varmessages.php

-rw-r--r--. 1 12494 users  3174 Oct 26  2012 in\_voice.php

-rw-r--r--. 1 12494 users  5529 Oct 26  2012 in\_voice\_templates.php

-rw-r--r--. 1 12494 users  7829 Dec 19  2013 in\_welcome.php

./20131220/scripts:

total 44

-rwxr--r--. 1 12494 users 2457 Oct 26  2012 myJAM\_Discover.php

-rwxr--r--. 1 12494 users 2488 Oct 26  2012 myJAM\_epilogue.php

-rwxr--r--. 1 12494 users 7830 Oct 26  2012 myJAM\_GenInvoice.php

-rwxr--r--. 1 12494 users 6095 Oct 26  2012 myJAM\_prologue.php

-rwxr-xr-x. 1 root  root  5188 Dec  5  2013 PBSMon\_Hardware.php

-rwxr-xr-x. 1 root  root  1298 Dec 17  2013 PBSMon\_ReadDB.php

drwxr-xr-x. 2 12494 users 4096 Oct 26  2012 TORQUE

-rwxr-xr-x. 1 root  root   821 Dec 19  2013 update\_db\_home

./20131220/scripts/TORQUE:

total 8

-rw-r--r--. 1 12494 users 599 Oct 26  2012 epilogue

-rw-r--r--. 1 12494 users 493 Oct 26  2012 prologue

./20140110:

total 960

-rw-r--r--. 1 root root 983040 Jan 10  2014 PBS.tar

**Directory fxn**

[root@sdo2698 fxn]# pwd

/var/www/html/PBSMon/fxn

[root@sdo2698 fxn]# ls -lt

total 88

-rw-r--r--. 1 apache apache 4300 Jan  7  2014 class\_PBSMon.php

**Directory images:**

[root@sdo2698 images]# ls -ltr

total 488

-rw-r--r--. 1 apache apache  1564 Oct 26  2012 ReDetect\_Appl.png

-rw-r--r--. 1 root   root    4306 Nov 21  2013 ECDLogo.gif

-rwxr--r--. 1 root   root    1689 Dec 20  2013 Altair.png

-rw-r--r--. 1 apache apache  2996 Dec 20  2013 Aqua-Ball-8x8.png

-rw-r--r--. 1 apache apache  3011 Dec 20  2013 Aqua-Ball-Green-8x8.png

-rw-r--r--. 1 apache apache  2963 Dec 20  2013 arrowdown.png

-rw-r--r--. 1 apache apache  1031 Dec 20  2013 arrow.png

-rw-r--r--. 1 apache apache  2963 Dec 20  2013 arrowup.png

-rw-r--r--. 1 apache apache  2803 Dec 20  2013 bar\_bg.png

-rw-r--r--. 1 apache apache  2869 Dec 20  2013 bar\_green.png

-rw-r--r--. 1 apache apache  2878 Dec 20  2013 bar\_red.png

-rw-r--r--. 1 apache apache  3523 Dec 20  2013 Button\_left\_active.png

-rw-r--r--. 1 apache apache  3482 Dec 20  2013 Button\_left\_norm.png

-rw-r--r--. 1 apache apache  3579 Dec 20  2013 Button\_right\_active.png

-rw-r--r--. 1 apache apache  3552 Dec 20  2013 Button\_right\_norm.png

-rw-r--r--. 1 apache apache  2838 Dec 20  2013 Button\_Slice.png

-rwxr--r--. 1 root   root    9102 Dec 20  2013 Caesam.png

-rw-r--r--. 1 apache apache  1787 Dec 20  2013 check-mark-copy-32x32.png

-rw-r--r--. 1 apache apache  1845 Dec 20  2013 Clock-32x32.png

-rw-r--r--. 1 apache apache  1294 Dec 20  2013 Column-Chart-24x24.png

-rw-r--r--. 1 apache apache  2028 Dec 20  2013 Column-Chart-32x32.png

-rw-r--r--. 1 apache apache  2893 Dec 20  2013 construction-firm-32x32.png

-rwxr--r--. 1 root   root    2168 Dec 20  2013 cpu.png

-rw-r--r--. 1 apache apache  3649 Dec 20  2013 delete-icon\_16x16\_active.png

-rw-r--r--. 1 apache apache   893 Dec 20  2013 delete-icon\_16x16.png

-rw-r--r--. 1 apache apache  3573 Dec 20  2013 delete-icon\_16x16\_press.png

-rwxr--r--. 1 root   root    5238 Dec 20  2013 Disk.png

-rwxr--r--. 1 root   root    3826 Dec 20  2013 disk.png

-rw-r--r--. 1 apache apache   724 Dec 20  2013 Edit-Document-icon\_16x16.png

-rw-r--r--. 1 apache apache   949 Dec 20  2013 emptyArrow.png

-rw-r--r--. 1 apache apache  1564 Dec 20  2013 exe-32x32.png

-rwxr--r--. 1 root   root     173 Dec 20  2013 Footer.png

-rwxr--r--. 1 root   root    1150 Dec 20  2013 favicon.ico

-rw-r--r--. 1 apache apache  2840 Dec 20  2013 gradient\_slice\_1.png

-rwxr--r--. 1 root   root     161 Dec 20  2013 H2.png

-rwxr--r--. 1 root   root     220 Dec 20  2013 H1-short.png

-rwxr--r--. 1 root   root     238 Dec 20  2013 H1.png

-rwxr--r--. 1 root   root     215 Dec 20  2013 H1-long.png

-rwxr--r--. 1 root   root   11207 Dec 20  2013 GreenButton.png

-rw-r--r--. 1 apache apache  2815 Dec 20  2013 gradient\_slice\_2.png

-rwxr--r--. 1 root   root     167 Dec 20  2013 Header.png

-rw-r--r--. 1 apache apache  4154 Dec 20  2013 Hardware-Chip-Cut.png

-rw-r--r--. 1 apache apache  4768 Dec 20  2013 Hourglass\_cut.png

-rw-r--r--. 1 apache apache  4077 Dec 20  2013 Jpceq8\_24x24.png

-rw-r--r--. 1 apache apache  3492 Dec 20  2013 LogInShell.png

-rw-r--r--. 1 root   root    5087 Dec 20  2013 LogoECD.png

-rw-r--r--. 1 apache apache   171 Dec 20  2013 lowergradientgrey.png

-rwxr--r--. 1 root   root    2029 Dec 20  2013 memory.png

-rw-r--r--. 1 apache apache   884 Dec 20  2013 multigradient\_left.png

-rw-r--r--. 1 apache apache   784 Dec 20  2013 multigradient\_middle.png

-rw-r--r--. 1 apache apache   205 Dec 20  2013 multigradient\_right.png

-rw-r--r--. 1 apache apache  1795 Dec 20  2013 myJAM-icon.png

-rw-r--r--. 1 apache apache  8608 Dec 20  2013 myjamlogo.png

-rwxr--r--. 1 root   root   13074 Dec 20  2013 OrangeButton.png

-rwxr--r--. 1 root   root    4506 Dec 20  2013 Nastran.png

-rw-r--r--. 1 apache apache   878 Dec 20  2013 pause-icon\_16x16.png

-rw-r--r--. 1 apache apache  3613 Dec 20  2013 pause-icon\_active\_16x16.png

-rwxr--r--. 1 root   root   10883 Dec 20  2013 PBSWaitButton.png

-rwxr--r--. 1 root   root   11142 Dec 20  2013 PBSSuspButton.png

-rwxr--r--. 1 root   root   10043 Dec 20  2013 PBSRunButton.png

-rwxr--r--. 1 root   root   10787 Dec 20  2013 PBSQueButton.png

-rwxr--r--. 1 root   root    8851 Dec 20  2013 PBSHeldButton.png

-rw-r--r--. 1 apache apache  3551 Dec 20  2013 pause-icon\_press\_16x16.png

-rw-r--r--. 1 apache apache  1106 Dec 20  2013 Picard.png

-rw-r--r--. 1 apache apache   884 Dec 20  2013 play-icon\_16x16.png

-rw-r--r--. 1 apache apache  3762 Dec 20  2013 play-icon\_active\_16x16.png

-rw-r--r--. 1 apache apache  3587 Dec 20  2013 play-icon\_press\_16x16.png

-rw-r--r--. 1 apache apache  1049 Dec 20  2013 Project-16x16.png

-rw-r--r--. 1 apache apache  1461 Dec 20  2013 Project-24x24.png

-rwxr--r--. 1 root   root   10690 Dec 20  2013 RedButton.png

-rw-r--r--. 1 apache apache  2167 Dec 20  2013 Project-32x32.png

-rw-r--r--. 1 apache apache  5211 Dec 20  2013 ReDetect\_Appl\_active.png

-rw-r--r--. 1 apache apache  5285 Dec 20  2013 ReDetect\_Appl\_press.png

-rwxr--r--. 1 root   root    4938 Dec 20  2013 server.png

-rw-r--r--. 1 apache apache   927 Dec 20  2013 Symbols-Error-16x16.png

-rw-r--r--. 1 apache apache   860 Dec 20  2013 Trash-Empty-icon\_16x16.png

-rw-r--r--. 1 apache apache    75 Dec 20  2013 uppergradientgrey37.png

-rw-r--r--. 1 apache apache   996 Dec 20  2013 user-16x16.png

-rw-r--r--. 1 apache apache  2329 Dec 20  2013 user-32x32.png

-rwxr--r--. 1 root   root   10172 Dec 20  2013 YellowButton.png

-rw-r--r--. 1 apache apache  4525 Dec 20  2013 Utilities-Cut.png

-rw-r--r--. 1 root   root   17371 Jan  9  2014 LogoAB.png

-rw-r--r--. 1 root   root    9850 Mar 11  2014 PBSErrButton.png

**Directory includes:**

-rw-r--r--. 1 apache apache  2271 Nov 21  2013 in\_license.php

-rw-r--r--. 1 root   root    5395 Nov 29  2013 in\_varmessages.php.20131129

-rw-r--r--. 1 root   root    5545 Dec  2  2013 in\_license-overview.php.20131202

-rw-r--r--. 1 root   root   16997 Dec  2  2013 in\_hardware-overview.php.rs

-rw-r--r--. 1 root   root   17085 Dec  6  2013 in\_hardware-overview.php.20131206

-rw-r--r--. 1 root   root    5851 Dec  6  2013 in\_license-overview.php.20131206

-rw-r--r--. 1 root   root    5416 Dec  6  2013 in\_varmessages.php.20131206

-rw-r--r--. 1 apache apache  5496 Dec 20  2013 in\_varmessages.php

-rw-r--r--. 1 apache apache  2296 Dec 20  2013 in\_license-altair.php

-rw-r--r--. 1 apache apache  2278 Dec 20  2013 in\_license-campus.php

-rw-r--r--. 1 root   root    4596 Jan  7  2014 class\_PBSMon.php

-rw-r--r--. 1 root   root    9436 Jan  9  2014 in\_license-overview.php

-rw-r--r--. 1 root   root   12805 Jan  9  2014 in\_queuestatus.php.rs

-rw-r--r--. 1 root   root   13080 Jan  9  2014 in\_queuestatus.php.xxxxx

-rw-r--r--. 1 root   root   21180 Mar 10  2014 in\_hardware-overview.php.20140310

-rw-r--r--. 1 root   root   21273 Mar 10  2014 in\_hardware-overview.php

-rw-r--r--. 1 apache apache  7782 Mar 10  2014 in\_queues.php

-rw-r--r--. 1 root   root   12811 Mar 11  2014 in\_queuestatus.php

-rw-r--r--. 1 root   root    8003 Apr 11  2014 in\_announcements.php.20140411

-rw-r--r--. 1 apache apache  8016 Apr 11  2014 in\_announcements.php

-rw-r--r--. 1 apache apache  8019 Apr 11  2014 in\_welcome.php

Prologue and Epilogue:

* Prologue when a job starts
* All Job information are put in MySQL database (ssh connection from sdo2600 to PBSMON server is needed)
* Epilogue when a job ends
* All Job information are put in MySQL database (ssh connection from sdo2600 to PBSMON server is needed)

**Main directory PBSMon:**

-rw-r--r--. 1 apache apache   10507 Nov 27  2013 gstat.php

drwxr-xr-x. 2 apache apache    4096 Nov 28  2013 DB\_model

-rw-r--r--. 1 root   root      4619 Nov 28  2013 messages.php

-rw-r--r--. 1 root   root   2590720 Nov 29  2013 PBS.tar

-rw-r--r--. 1 root   root      6675 Dec  2  2013 maintest.php

-rw-r--r--. 1 root   root      2059 Dec 20  2013 header.php

-rw-r--r--. 1 apache apache    4081 Dec 20  2013 UserInfo.php

-rw-r--r--. 1 apache apache    4473 Dec 20  2013 ShowJobs.php

-rw-r--r--. 1 apache apache    6055 Dec 20  2013 RegisterUser.php

-rw-r--r--. 1 apache apache    8927 Dec 20  2013 ReCalcSUs.php

-rw-r--r--. 1 apache apache    5481 Dec 20  2013 QueueDetails.php

-rw-r--r--. 1 apache apache    5683 Dec 20  2013 ProjectInfo.php

-rw-r--r--. 1 apache apache   18284 Dec 20  2013 NewTrans.php

drwxr-xr-x. 2 apache apache    4096 Jan  7  2014 fxn

-rw-r--r--. 1 apache apache    9197 Jan  9  2014 index.php

-rw-r--r--. 1 apache apache    6676 Jan  9  2014 main.php

-rw-r--r--. 1 apache apache   13216 Jan  9  2014 tools.php

drwxr-xr-x. 2 apache apache    4096 Jan  9  2014 css

-rw-r--r--. 1 apache apache    3934 Jan  9  2014 title.php

-rw-r--r--. 1 apache apache    2181 Jan  9  2014 base.php

drwxr-xr-x. 7 root   root      4096 Jan 10  2014 ECD

drwxr-xr-x. 2 apache apache    4096 Mar 11  2014 images

drwxr-xr-x. 3 apache apache    4096 Apr  2  2014 scripts

drwxr-xr-x. 2 apache apache    4096 Apr  2  2014 classes

drwxr-xr-x. 3 apache apache    4096 Apr 12  2014 includes

drwxr-xr-x. 2 apache apache    4096 Jun  9 14:15 tmp

**Hardware (location: PBSMon/tmp/hardware.<nodename> -> example: hardware.node01):**

[root@sdo2698 tmp]# more hardware.node01

Date:1433855826

Node:node01

UpTime:1426107314

CPUStat:all:26.82:1.19:0.00:71.93

CPUStat:0:0.00:0.00:0.00:100.00

CPUStat:1:0.00:0.00:0.00:100.00

CPUStat:2:17.00:2.00:0.00:80.00

CPUStat:3:0.00:0.00:0.00:100.00

CPUStat:4:28.00:0.00:0.00:72.00

CPUStat:5:0.00:0.00:0.00:100.00

DiskIO:c0d0:5.94:38.39:108.54

DiskIO:c0d1:187.20:2912.22:39246.93

DiskFS:/:3062956:45101876

DiskFS:/data/scratch:50259592:272708360

MemTotal:49454000

MemFree:4531584

Cached:34188808

SwapTotal:41945704

SwapFree:41858292

PidMem:%MEM PID USER COMMAND

PidMem:4.8 20595 g479522 /software/msc/msc20055/linux8664/analysis

PidMem:2.3 6799 g724459 /software/altair/hw13.0/altair/hwsolvers/optistruct/bin/linux64/optistruct\_13.0.211\_linux64 LocalStructure\_5.02\_v29\_RearBrckCfittV4\_latest\_geo\_v031\_O

LvA04.fem -maxram=4096 -nproc=1 -TMPDIR=/scratch/node01/g724459/LocalStructure\_-153726

PidMem:12.0 19556 g201847 /software/msc/msc20055/linux8664/analysis

PidMem:0.0 6805 g724459 /software/altair/hw13.0/altair/hwsolvers/common/bin/linux64/radflex\_13\_linux64 5 13

PidMem:0.0 6795 g724459 /software/altair/hw13.0/altair/hwsolvers/common/tcl/tcl8.5.9/linux64/bin/tclsh8.5 /software/altair/hw13.0/altair/hwsolvers/scripts/hwsolver.tcl -solv

er OS LocalStructure\_5.02\_v29\_RearBrckCfittV4\_latest\_geo\_v031\_OLvA04.fem -maxlen 4096 -scr /scratch/node01/g724459/LocalStructure\_-153726 -nt 1 -v 13.0.211

PidCPU:%CPU PID USER COMMAND

PidCPU:94.3 6799 g724459 /software/altair/hw13.0/altair/hwsolvers/optistruct/bin/linux64/optistruct\_13.0.211\_linux64 LocalStructure\_5.02\_v29\_RearBrckCfittV4\_latest\_geo\_v031\_

OLvA04.fem -maxram=4096 -nproc=1 -TMPDIR=/scratch/node01/g724459/LocalStructure\_-153726

PidCPU:87.1 19556 g201847 /software/msc/msc20055/linux8664/analysis

PidCPU:177 20595 g479522 /software/msc/msc20055/linux8664/analysis

PidCPU:0.0 6805 g724459 /software/altair/hw13.0/altair/hwsolvers/common/bin/linux64/radflex\_13\_linux64 5 13

PidCPU:0.0 6795 g724459 /software/altair/hw13.0/altair/hwsolvers/common/tcl/tcl8.5.9/linux64/bin/tclsh8.5 /software/altair/hw13.0/altair/hwsolvers/scripts/hwsolver.tcl -solv

er OS LocalStructure\_5.02\_v29\_RearBrckCfittV4\_latest\_geo\_v031\_OLvA04.fem -maxlen 4096 -scr /scratch/node01/g724459/LocalStructure\_-153726 -nt 1 -v 13.0.211

**License information:**

[root@sdo2698 tmp]# ls -l license\*

-rw-r--r--. 1 apache apache  3457 Dec 20  2013 license.Altair

-rw-r--r--. 1 apache apache   449 Jul 15 16:30 license.Caesam

-rw-r--r--. 1 apache apache 23729 Jul 15 16:30 license.Nastran

**Information gstat:**

Crontab on sdo2699 and sdo2698: \* \* \* \* \* /opt/pbs/default/bin/qstat -wans > /var/www/html/PBSMon/tmp/gstat.out

sdo2600-nfs:

                                                                                                   Req'd  Req'd   Elap

Job ID                         Username        Queue           Jobname         SessID   NDS  TSK   Memory Time  S Time

------------------------------ --------------- --------------- --------------- -------- ---- ----- ------ ----- - -----

160287.sdo2600-nfs             g476628         long            optistruct         31899    1     4   16gb   --  R 166:47:26

   node07/2\*4

   Job run at Wed Jul 08 at 15:28 on (node07:ncpus=4:optistruct=4:mem=16777216kb)

160294.sdo2600-nfs             g476628         long            optistruct           --     1     4   16gb   --  H  --

    --

    --

License files Essentials

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

/var/www/html/PBSMon/includes/in\_license-overview.php:

Line: 275

$productlist=array("Caesam","Nastran","Altair",”Abaqus”);

Needs:

/var/www/html/PBSMon/tmp/license.Caesam

/var/www/html/PBSMon/tmp/license.Nastran

/var/www/html/PBSMon/tmp/license.Altair

/var/www/html/PBSMon/tmp/license.Abaqus

For new license button:

- Type of license server (FlexLM, LUM)???

- How can we communicate with License server to get information???

Example (Nastran): /opt/pbs/default/bin/lmutil lmstat -c 40003@venia -a –f

lmutil - Copyright (c) 1989-2003 by Macrovision Corporation. All rights reserved.

Flexible License Manager status on Thu 9/17/2015 14:31

License server status: 40003@venia

License file(s) on venia: /srv/license/FLEXnet/msc/license.dat:

venia: license server UP (MASTER) v11.9

Vendor daemon status (on venia):

MSC: UP v11.9

Feature usage info:

Users of CAMPUS: (Total of 3708 licenses issued; Total of 2181 licenses in use)

"CAMPUS" v2014.0930, vendor: MSC

floating license

G485020 DOC04371 DOC04371 CAMPUS:PATRAN (v2011.1231) (venia/40003 1264), start Thu 9/17 14:20, 77 licenses

g477920 node01 CAMPUS:NASTRAN (v2006.0315) (venia/40003 2219), start Thu 9/17 9:55, 250 licenses

….

Change script /opt/pbs/default/bin/licensestat (Linux Script):

Queue:

/var/www/html/PBSMon/includes/in\_queuestatus.php

1. **PHP Essentials**

Element/Code Description

$\_SERVER['PHP\_SELF'] Returns the filename of the currently executing script

$\_SERVER['GATEWAY\_INTERFACE'] Returns the version of the Common Gateway Interface (CGI) the server is using

$\_SERVER['SERVER\_ADDR'] Returns the IP address of the host server

$\_SERVER['SERVER\_NAME'] Returns the name of the host server (such as www.w3schools.com)

$\_SERVER['SERVER\_SOFTWARE'] Returns the server identification string (such as Apache/2.2.24)

$\_SERVER['SERVER\_PROTOCOL'] Returns the name and revision of the information protocol (such as HTTP/1.1)

$\_SERVER['REQUEST\_METHOD'] Returns the request method used to access the page (such as POST)

$\_SERVER['REQUEST\_TIME'] Returns the timestamp of the start of the request (such as 1377687496)

$\_SERVER['QUERY\_STRING'] Returns the query string if the page is accessed via a query string

$\_SERVER['HTTP\_ACCEPT'] Returns the Accept header from the current request

$\_SERVER['HTTP\_ACCEPT\_CHARSET']Returns the Accept\_Charset header from the current request (such as utf-8,ISO-8859-1)

$\_SERVER['HTTP\_HOST'] Returns the Host header from the current request

$\_SERVER['HTTP\_REFERER'] Returns the complete URL of the current page (not reliable because not all user-agents support it)

$\_SERVER['HTTPS'] Is the script queried through a secure HTTP protocol

$\_SERVER['REMOTE\_ADDR'] Returns the IP address from where the user is viewing the current page

$\_SERVER['REMOTE\_HOST'] Returns the Host name from where the user is viewing the current page

$\_SERVER['REMOTE\_PORT'] Returns the port being used on the user's machine to communicate with the web server

$\_SERVER['SCRIPT\_FILENAME'] Returns the absolute pathname of the currently executing script

$\_SERVER['SERVER\_ADMIN'] Returns the value given to the SERVER\_ADMIN directive in the web server configuration file (if your script runs on a virtual host, it will be the value defined for that virtual host) (such as someone@w3schools.com)

$\_SERVER['SERVER\_PORT'] Returns the port on the server machine being used by the web server for communication (such as 80)

$\_SERVER['SERVER\_SIGNATURE'] Returns the server version and virtual host name which are added to server-generated pages

$\_SERVER['PATH\_TRANSLATED'] Returns the file system based path to the current script

$\_SERVER['SCRIPT\_NAME'] Returns the path of the current script

$\_SERVER['SCRIPT\_URI'] Returns the URI of the current page

1. **Code for Select Status dropdownbox**

$nodes=GetNodes();

$queues=GetQueues();

$JobMatrix=array();

for ($i = 0; $i < count($nodes); $i++) {

for ($j = 0; $j < count($queues); $j++) {

$JobMatrix[$nodes[$i]][$queues[$j]]="";

}

$MaxJobs[$nodes[$i]]=0;

}

$numofjobs=array();

$numofjobs["R"]=0;

$numofjobs["Q"]=0;

$numofjobs["H"]=0;

$numofjobs["S"]=0;

$numofjobs["W"]=0;

$numofjobs["E"]=0;

$j=0;

$jobs=array();

for($i = 5; $i < count($output); ++$i) {

$dummy=trim(substr($output[$i],0,30));

if (strstr($dummy,"node")!="") {

$rstr1[$jid]=rtrim($output[$i]);

foreach (explode("+",$rstr1[$jid]) as $nodestr) {

$node=trim(preg\_replace("/([a-zA-Z0-9]\*)\/[0-9].\*/","$1",$nodestr));

$JobMatrix[$node][$queue[$jid]].=" $jobid[$jid]";

$MaxJobs[$node]++;

}

continue;

}

if (strstr($dummy,"Job run")!="" || strstr($dummy,"Not Run")!="") {

$jobstring[$jid]=rtrim($output[$i]);

continue;

}

if (strstr($dummy,"--")!="") {

$rstr1[$jid]=rtrim($output[$i]);

$jobstring[$jid]=rtrim($output[$i]);

continue;

}

$j++;

$jid=trim(substr($output[$i],0,30));

$jobid[$jid]=trim(substr($output[$i],0,30));

$username[$jid]=trim(substr($output[$i],30,15));

$queue[$jid]=trim(substr($output[$i],47,15));

$jobname[$jid]=trim(substr($output[$i],63,15));

$sessionid[$jid]=trim(substr($output[$i],79,8));

$nds[$jid]=trim(substr($output[$i],88,4));

$tsk[$jid]=trim(substr($output[$i],93,5));

$reqmem[$jid]=trim(substr($output[$i],99,6));

$reqtime[$jid]=trim(substr($output[$i],106,5));

$state[$jid]=trim(substr($output[$i],112,2));

$elaptime[$jid]=trim(substr($output[$i],114,8));

//html

echo '<form action="main.php?page=queuestatus&';

echo '" method="POST">';

echo '<table class="tabhead">';

echo '<tr><td>';

echo '<table class="tabhead1" style="width:100%;">';

echo '<tr><th colspan="1" align="left">Actual Jobs in Queues</td></tr>';

echo '</table>';

echo '</td></tr>';

echo '</table>';

echo '<table class="full" width="100%"><tr>';

$headerstuff = array(

'1' => 'JobID'

,'2' => 'User'

,'3' => 'Queue'

,'4' => 'Jobname'

,'5' => 'SessionID'

,'6' => 'NDS'

,'7' => 'TSK'

,'8' => 'ReqMem'

,'9' => 'ReqTime'

,'10' => 'Status'

,'11' => 'ElapTime'

,'12'=> 'JobAction'

);

$stuffs = array(

'1' => ' title="header=[JobID]'

.' body=['

.'The job unique indentifier'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'2' => ' title="header=[User]'

.' body=['

.'User that owns the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'3' => ' title="header=[Queue]'

.' body=['

.'The queue the job is in'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'4' => ' title="header=[Jobname]'

.' body=['

.'The name of the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'5' => ' title="header=[SessionID]'

.' body=['

.'The session id (if the job is running)'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'6' => ' title="header=[NDS]'

.' body=['

.'The number of compute nodes the job is using'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

.' cssbody=[toollower]"'

,'7' => ' title="header=[TSK]'

.' body=['

.'The number of Cores requested by the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'8' => ' title="header=[ReqMem]'

.' body=['

.'The memory requested for the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'9' => ' title="header=[ReqTime]'

.' body=['

.'The walltime requested for the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'10' => ' title="header=[Status]'

.' body=['

.'The state of the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'11' => ' title="header=[ElapTime]'

.' body=['

.'The elapsed walltime for the job'

.']'

.' windowlock=[on]'

.' cssheader=[toolupper]'

.' cssbody=[toollower]"'

,'12' =>'title="header=[JobAction]'

.'body=[The action on the job]'

.'windowlock=[on]'

.'cssheader=[toolupper]'

.'cssbody=[toollower]"'

);

//GenHeader('State', '', '');

#foreach ($headerstuff as $key => $val)

for ($m = 1; $m <= count($headerstuff); ++$m) {

GenHeader($headerstuff[$m],$stuffs[$m], '');

}

echo '</tr>';

//o-------------------------------------------------------------------------------o

//o-------------------------------------------------------------------------------o

//o-------------------------------------------------------------------------------o

$line=0;

$row=0;

foreach($jobs as $job)

{

$line++;

if ($row == 0)

{

$row = 1;

$trstr='<tr id="PBSField1">';

}

else

{

$row = 0;

$trstr='<tr id="PBSField2">';

}

// Farbe definieren

echo $trstr;

//echo '<td id="state\_'.$line.'">';

$stuffstate='';

switch($state[$job])

{

case 'F':

$stuffstate='<span><img src="images/PBSWaitButton.png" alt="FinishedButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Finished';

break;

case 'Q':

$stuffstate='<span><img src="images/PBSQueButton.png" alt="QueueButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Queued';

break;

case 'S':

$stuffstate='<span><img src="images/PBSSuspButton.png" alt="SuspendButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Suspend';

break;

case 'R':

$stuffstate='<span><img src="images/PBSRunButton.png" alt="RunButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Running';

break;

case 'H':

$stuffstate='<span><img src="images/PBSHeldButton.png" alt="HeldButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Held';

break;

case 'W':

$stuffstate='<span><img src="images/PBSWaitButton.png" alt="WaitButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Waiting';

break;

case 'E':

$stuffstate='<span><img src="images/PBSErrButton.png" alt="ErrButton" height="16px"></img></span>&nbsp;&nbsp;&nbsp;Error';

break;

}

$jobaction='';

$jobaction='<button type="button" name='.$jobid[$job].' ><img src="images/delete-icon\_16x16.png" alt="DeleteButton" height="16px"></button>';

echo $jobid[$job];

//function jobDelete(){}

//echo '</td>';

1. **Code for delete & Restart**

Refer to following files

1. /usr/bin/qdel
2. /usr/bin/qrls
3. /PBSMon/includes/in\_queuestatus.php