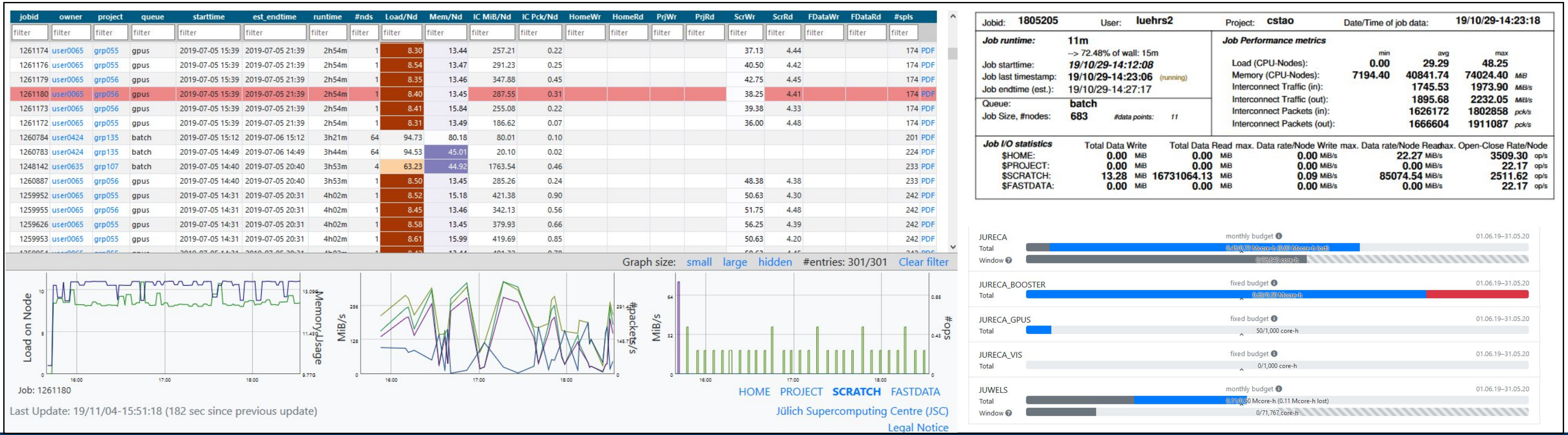


jobid	owner	project	queue	starttime	est_endtime	runtime	#nds	Load/Nd	Mem/Nd	IC MiB/Nd	IC Pck/Nd	HomeWr	HomeRd	PrjWr	PrjRd	ScrWr	ScrRd	FDataWr	FDataRd	#spls	
filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	
1261174	user0065	grp055	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.30	13.44	257.21	0.22					37.13	4.44			174	PDF
1261176	user0065	grp055	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.54	13.47	291.23	0.25					40.50	4.42			174	PDF
1261179	user0065	grp056	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.35	13.46	347.88	0.45					42.75	4.45			174	PDF
1261180	user0065	grp056	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.40	13.45	287.55	0.31					38.25	4.41			174	PDF
1261173	user0065	grp056	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.41	15.84	255.08	0.22					39.38	4.33			174	PDF
1261172	user0065	grp055	gpus	2019-07-05 15:39	2019-07-05 21:39	2h54m	1	8.31	13.49	186.62	0.07					36.00	4.48			174	PDF
1260784	user0424	grp135	batch	2019-07-05 15:12	2019-07-06 15:12	3h21m	64	94.73	80.18	80.01	0.10									201	PDF
1260783	user0424	grp135	batch	2019-07-05 14:49	2019-07-06 14:49	3h44m	64	94.53	45.01	20.10	0.02									224	PDF
1248142	user0635	grp107	batch	2019-07-05 14:40	2019-07-05 20:40	3h53m	4	63.23	44.92	1763.54	0.46									233	PDF
1260887	user0065	grp056	gpus	2019-07-05 14:40	2019-07-05 20:40	3h53m	1	8.50	13.45	285.26	0.24					48.38	4.38			233	PDF
1259952	user0065	grp055	gpus	2019-07-05 14:31	2019-07-05 20:31	4h02m	1	8.52	15.18	421.38	0.90					50.63	4.30			242	PDF
1259955	user0065	grp056	gpus	2019-07-05 14:31	2019-07-05 20:31	4h02m	1	8.45	13.46	342.13	0.56					51.75	4.48			242	PDF
1259626	user0065	grp055	gpus	2019-07-05 14:31	2019-07-05 20:31	4h02m	1	8.58	13.45	379.93	0.66					56.25	4.39			242	PDF
1259953	user0065	grp055	gpus	2019-07-05 14:31	2019-07-05 20:31	4h02m	1	8.61	15.99	419.69	0.85					50.63	4.20			242	PDF

Job: 1261180

Last Update: 19/11/04-15:51:18 (182 sec since previous update)

Jülich Supercomputing Centre (JSC)

Legal Notice

Jobid: **1805205** User: **luehrs2** Project: **cstao** Date/Time of job data: **19/10/29-14:23:18**

Job runtime: **11m**
--> 72.48% of wall: 15m
Job starttime: ***19/10/29-14:12:08***
Job last timestamp: **19/10/29-14:23:06** (running)
Job endtime (est.): 19/10/29-14:27:17
Queue: **batch**
Job Size, #nodes: **683** *#data points:* *11*

Job Performance metrics

	min	avg	max	
Load (CPU-Nodes):	0.00	29.29	48.25	
Memory (CPU-Nodes):	7194.40	40841.74	74024.40	MiB
Interconnect Traffic (in):		1745.53	1973.90	MiB/s
Interconnect Traffic (out):		1895.68	2232.05	MiB/s
Interconnect Packets (in):		1626172	1802858	pck/s
Interconnect Packets (out):		1666604	1911087	pck/s

Job I/O statistics	Total Data Write	Total Data Read	max. Data rate/Node Write	max. Data rate/Node Read	max. Open-Close Rate/Node
$HOME:	0.00 MiB	0.00 MiB	0.00 MiB/s	22.27 MiB/s	3509.30 op/s
$PROJECT:	0.00 MiB	0.00 MiB	0.00 MiB/s	0.00 MiB/s	22.17 op/s
$SCRATCH:	13.28 MiB	16731064.13 MiB	0.09 MiB/s	85074.54 MiB/s	2511.62 op/s
$FASTDATA:	0.00 MiB	0.00 MiB	0.00 MiB/s	0.00 MiB/s	22.17 op/s

JURECA		monthly budget	01.06.19–31.05.20
	Total	0.45/0.73 Mcore-h (0.03 Mcore-h lost)	
	Window	0/36,848 core-h	
JURECA_BOOSTER		fixed budget	01.06.19–31.05.20
	Total	0.63/0.50 Mcore-h	
JURECA_GPUS		fixed budget	01.06.19–31.05.20
	Total	50/1,000 core-h	
JURECA_VIS		fixed budget	01.06.19–31.05.20
	Total	0/1,000 core-h	
JUWELS		monthly budget	01.06.19–31.05.20
	Total	0.11/0.50 Mcore-h (0.11 Mcore-h lost)	
	Window	0/71,767 core-h	

User Portal and Job Monitoring

Webportals and Support-Tools @ JSC

11.11.2024 I Dr. Jolanta Zjupa

Getting access to JSC resources

	Test project	Compute project	Data project
Apply	anytime	twice a year: mid Feb/Aug *next deadline:* **17 February 2025, 17:00 CEST**	anytime
Compute time	~ (5.-20.) 000 core-h	intensive ≥ (5.-10.) Mcore-h	none
Duration	up to 4 months	1 year	1 year
Systems	JUWELS, JURECA, JUSUF, **JUDAC**	JUWELS, JURECA, JUSUF, **JUDAC**	**JUDAC**
Filesystems	PROJECT, SCRATCH	PROJECT, SCRATCH	DATA, FASTDATA, ARCHIVE, OBJECTSTORE, ...

- https://www.fz-juelich.de/en/ias/jsc/systems/supercomputers/call-for-applications-for-test-projects-with-jsc-supercomputing-and-support-resources
- https://www.fz-juelich.de/en/ias/jsc/systems/supercomputers/apply-for-computing-time
- https://www.fz-juelich.de/en/ias/jsc/systems/supercomputers/call-for-proposals
- https://www.fz-juelich.de/en/ias/jsc/services/data-services/data-projects

Community specific access to JSC systems

- **Earth System Modelling** (`ESM`) (call based)

https://www.fz-juelich.de/en/ias/jsc/systems/supercomputers/apply-for-computing-time/esm

Rolling calls

- **AI** - `HAICORE`

https://www.helmholtz.ai/you-helmholtz-ai/computing-resources/

- **Neuroscience** - `EBRAINS`

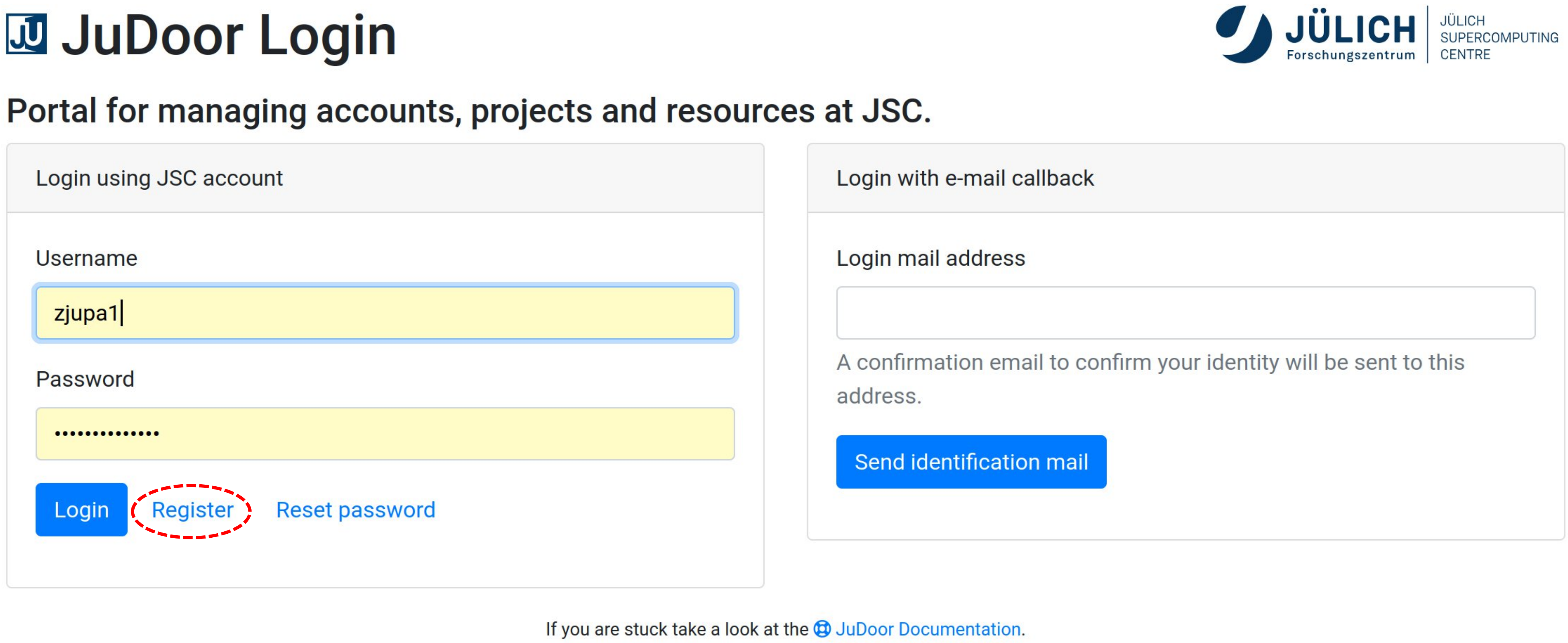
https://wiki.ebrains.eu/bin/view/Collabs/hpc-resources/

- **Astrophysics** - `PUNCH ASTRO`

https://results.punch4nfdi.de/?md=/docs/Compute/Computer_Resources/compute-projects.md

3 Steps to access the HPC systems

Step 1: JuDoor account registration



JuDoor Login

JÜLICH Forschungszentrum | JÜLICH SUPERCOMPUTING CENTRE

Portal for managing accounts, projects and resources at JSC.

Login using JSC account

Username: zjupa1

Password: ••••••••••••••

Login with e-mail callback

Login mail address

A confirmation email to confirm your identity will be sent to this address.

If you are stuck take a look at the JuDoor Documentation.

Login
Register
Reset password
Send identification mail

https://judoor.fz-juelich.de

Step 2: Join a project

Two alternatives

Join a project

in **JuDoor** if you
know the project ID

Follow invitation link send
by PI or PA
https://judoor.fz-juelich.de/projects/join/...

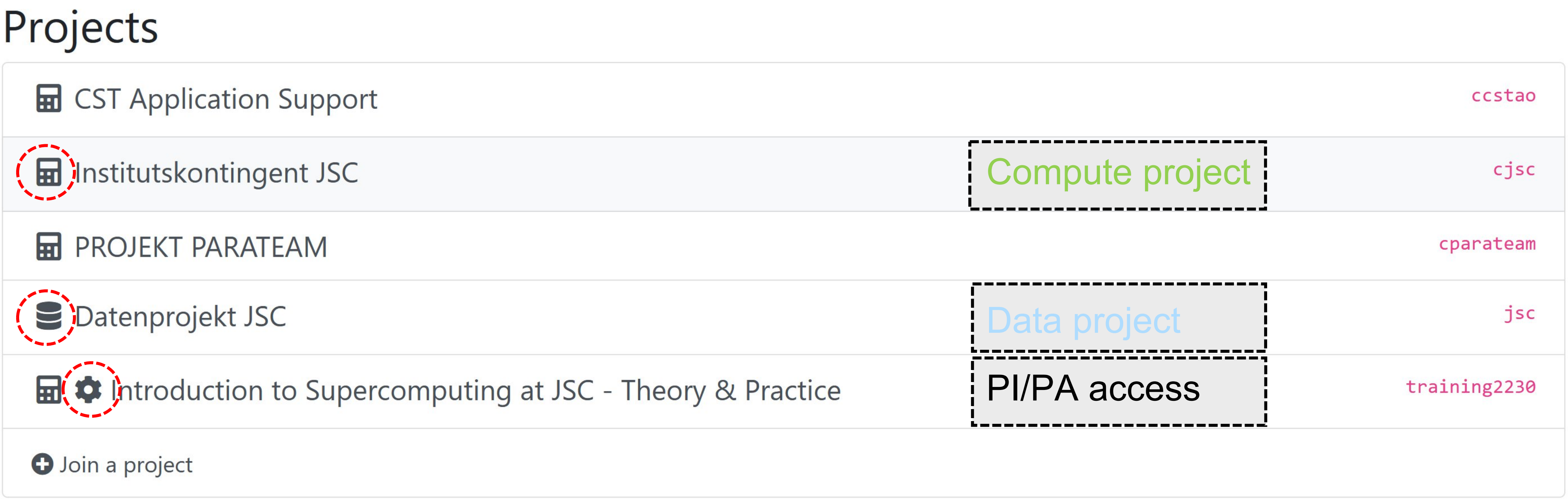
PI/PA receives notification and grants
project resource specific access

If you are already a project member but don't see all
available project systems, you can use

Request access for resources

JuDoor

Project list overview



Projects

CST Application Support	ccstao
Institutskontingent JSC	cjsc
PROJEKT PARATEAM	cparateam
Datenprojekt JSC	jsc
Introduction to Supercomputing at JSC - Theory & Practice	training2230

⊕ Join a project

Compute project

Data project

PI/PA access

A user can be part of multiple compute and data projects

JuDoor

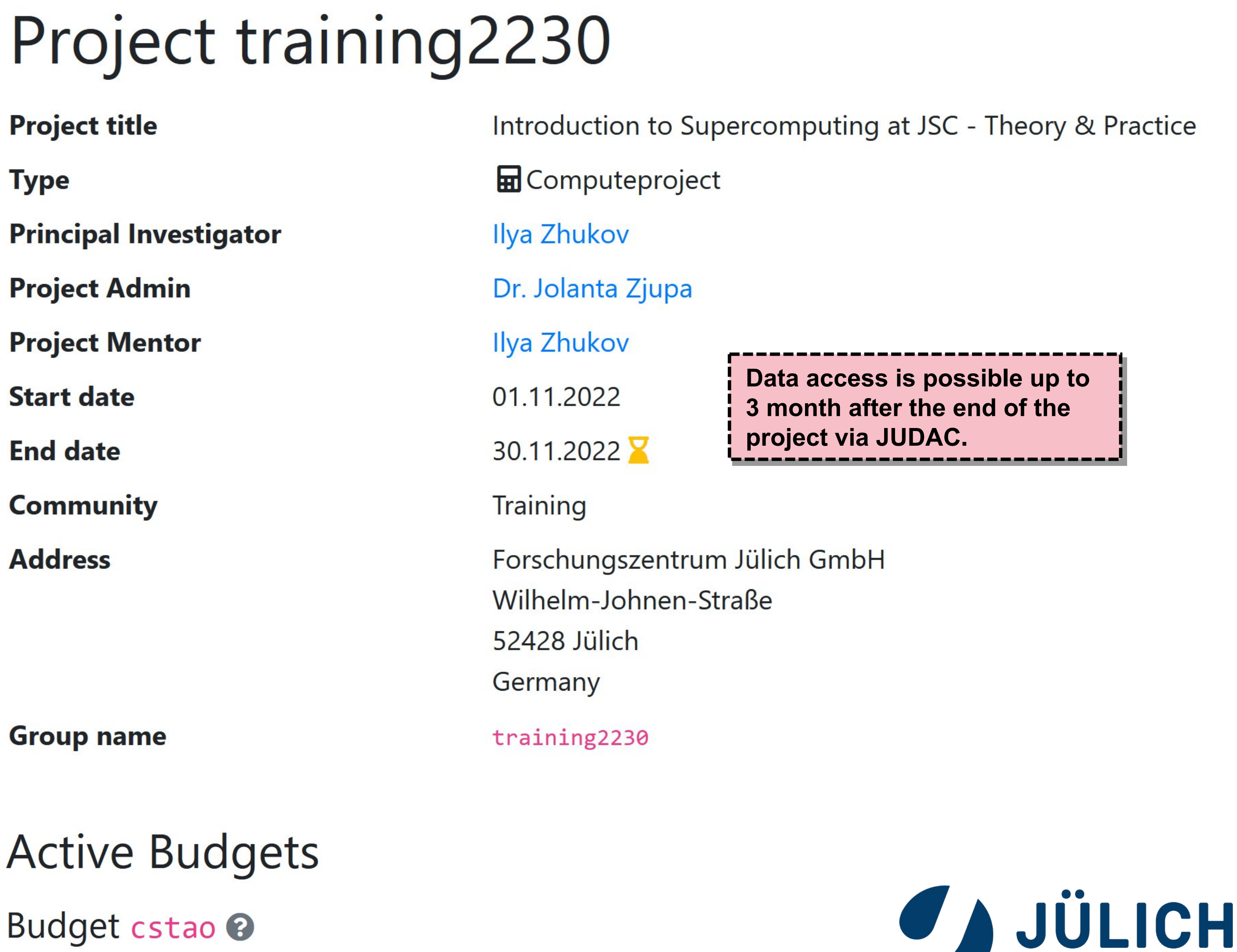
PI/PA

- receives notification
- manages project members
- grants access to specific resources
- manages data inheritance (PI only)
- has access to all project info on LLview and Kontview

PM

- project specific permanent contact point at JSC
- either from a SDL or ATML

https://www.fz-juelich.de/en/ias/jsc/services/user-support/project-mentoring



Project training2230

Project title	Introduction to Supercomputing at JSC - Theory & Practice
Type	🖩 Computeproject
Principal Investigator	Ilya Zhukov
Project Admin	Dr. Jolanta Zjupa
Project Mentor	Ilya Zhukov
Start date	01.11.2022
End date	30.11.2022 ⌛
Community	Training
Address	Forschungszentrum Jülich GmbH Wilhelm-Johnen-Straße 52428 Jülich Germany
Group name	`training2230`

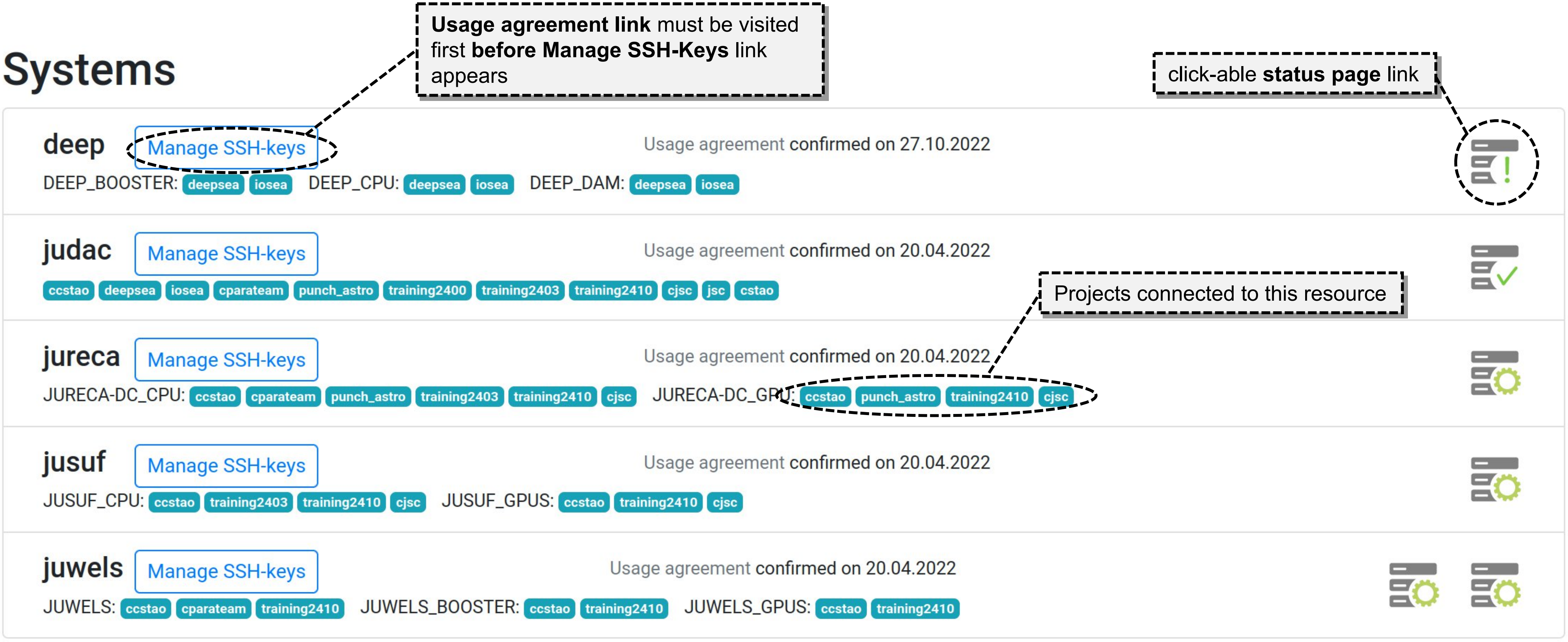
Data access is possible up to 3 month after the end of the project via JUDAC.

Active Budgets

Budget `cstao` ?

JuDoor

Each projects grants access to various systems and partitions.



Usage agreement link must be visited first **before Manage SSH-Keys** link appears

click-able **status page** link

Projects connected to this resource

Systems

deep Manage SSH-keys
Usage agreement confirmed on 27.10.2022
DEEP_BOOSTER: deepsea iosea DEEP_CPU: deepsea iosea DEEP_DAM: deepsea iosea

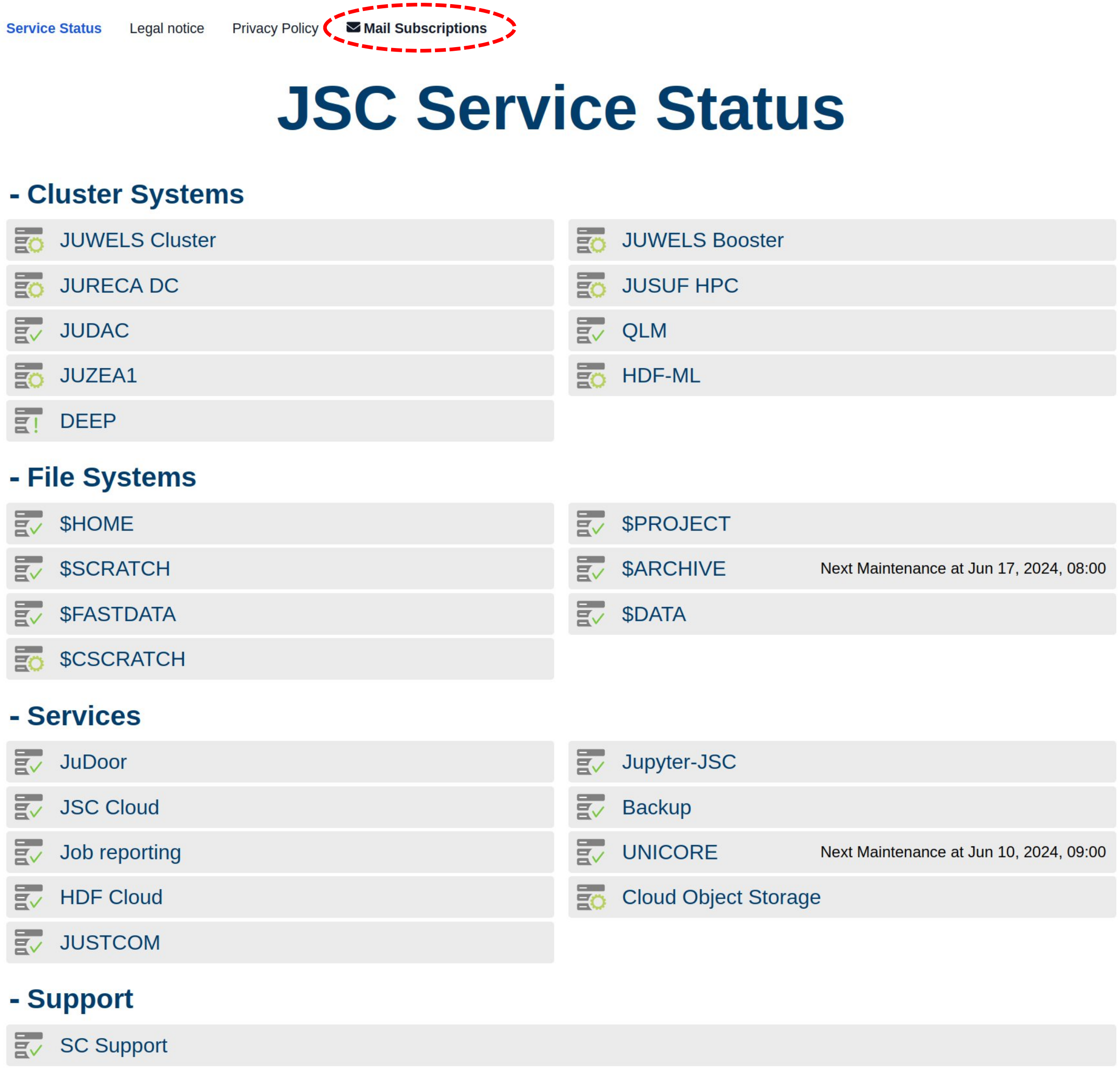
judac Manage SSH-keys
Usage agreement confirmed on 20.04.2022
ccstao deepsea iosea cparateam punch_astro training2400 training2403 training2410 cjsc jsc cstao

jureca Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JURECA-DC_CPU: ccstao cparateam punch_astro training2403 training2410 cjsc JURECA-DC_GPU: ccstao punch_astro training2410 cjsc

jusuf Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JUSUF_CPU: ccstao training2403 training2410 cjsc JUSUF_GPUS: ccstao training2410 cjsc

juwels Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JUWELS: ccstao cparateam training2410 JUWELS_BOOSTER: ccstao training2410 JUWELS_GPUS: ccstao training2410

Service status



Service Status Legal notice Privacy Policy ✉ Mail Subscriptions

JSC Service Status

- Cluster Systems

- ⚙ JUWELS Cluster
- ⚙ JUWELS Booster
- ⚙ JURECA DC
- ⚙ JUSUF HPC
- ✓ JUDAC
- ✓ QLM
- ⚙ JUZEA1
- ⚙ HDF-ML
- ! DEEP

- File Systems

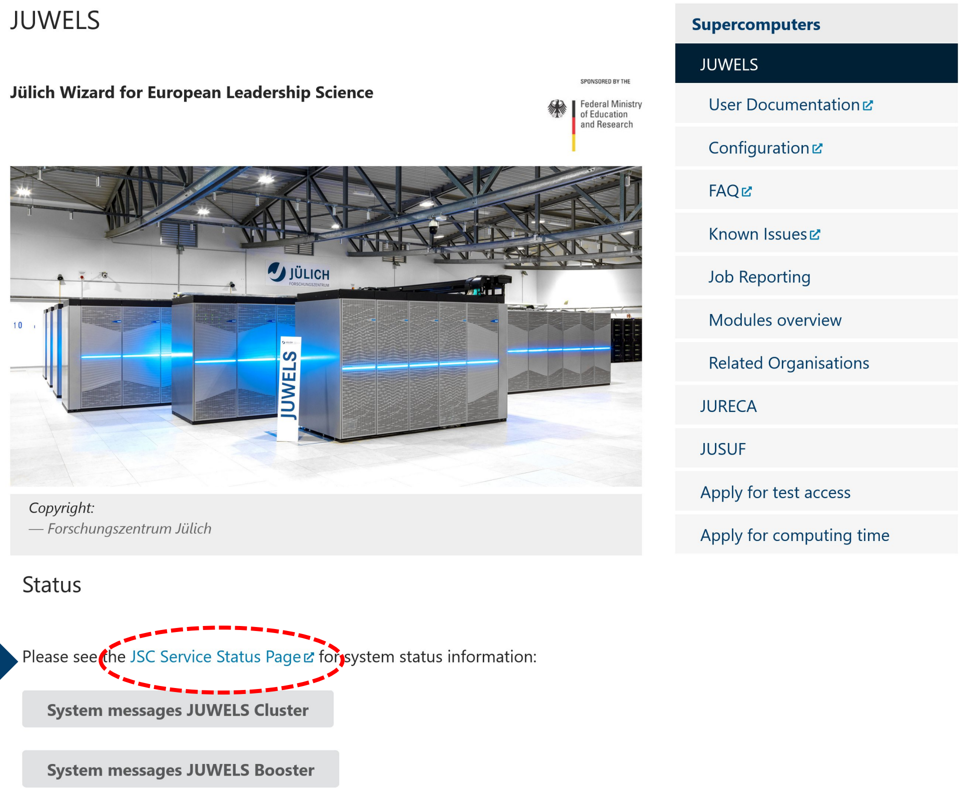
- ✓ $HOME
- ✓ $PROJECT
- ✓ $SCRATCH
- ✓ $ARCHIVE Next Maintenance at Jun 17, 2024, 08:00
- ✓ $FASTDATA
- ✓ $DATA
- ⚙ $CSCRATCH

- Services

- ✓ JuDoor
- ✓ Jupyter-JSC
- ✓ JSC Cloud
- ✓ Backup
- ✓ Job reporting
- ✓ UNICORE Next Maintenance at Jun 10, 2024, 09:00
- ✓ HDF Cloud
- ⚙ Cloud Object Storage
- ✓ JUSTCOM

- Support

- ✓ SC Support



JUWELS

Jülich Wizard for European Leadership Science

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JUWELS

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Status

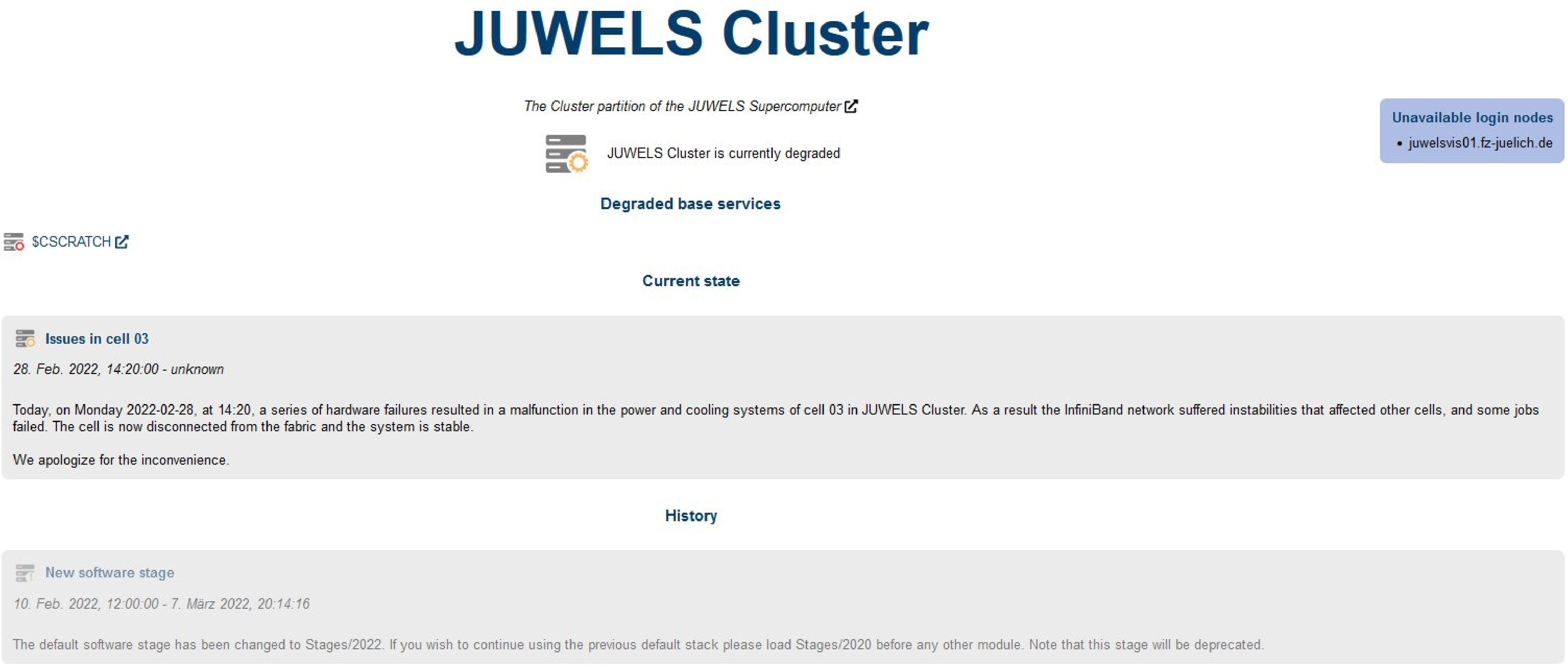
Please see the JSC Service Status Page for system status information:

System messages JUWELS Cluster
System messages JUWELS Booster
Supercomputers
JUWELS
User Documentation
Configuration
FAQ
Known Issues
Job Reporting
Modules overview
Related Organisations
JURECA
JUSUF
Apply for test access
Apply for computing time

https://status.jsc.fz-juelich.de/

Read the MOTD

Service status



JUWELS Cluster

The Cluster partition of the JUWELS Supercomputer

JUWELS Cluster is currently degraded

Unavailable login nodes

- juwelsvis01.fz-juelich.de

Degraded base services

$CSCRATCH

Current state

Issues in cell 03

28. Feb. 2022, 14:20:00 - unknown

Today, on Monday 2022-02-28, at 14:20, a series of hardware failures resulted in a malfunction in the power and cooling systems of cell 03 in JUWELS Cluster. As a result the InfiniBand network suffered instabilities that affected other cells, and some jobs failed. The cell is now disconnected from the fabric and the system is stable.

We apologize for the inconvenience.

History

New software stage

10. Feb. 2022, 12:00:00 - 7. März 2022, 20:14:16

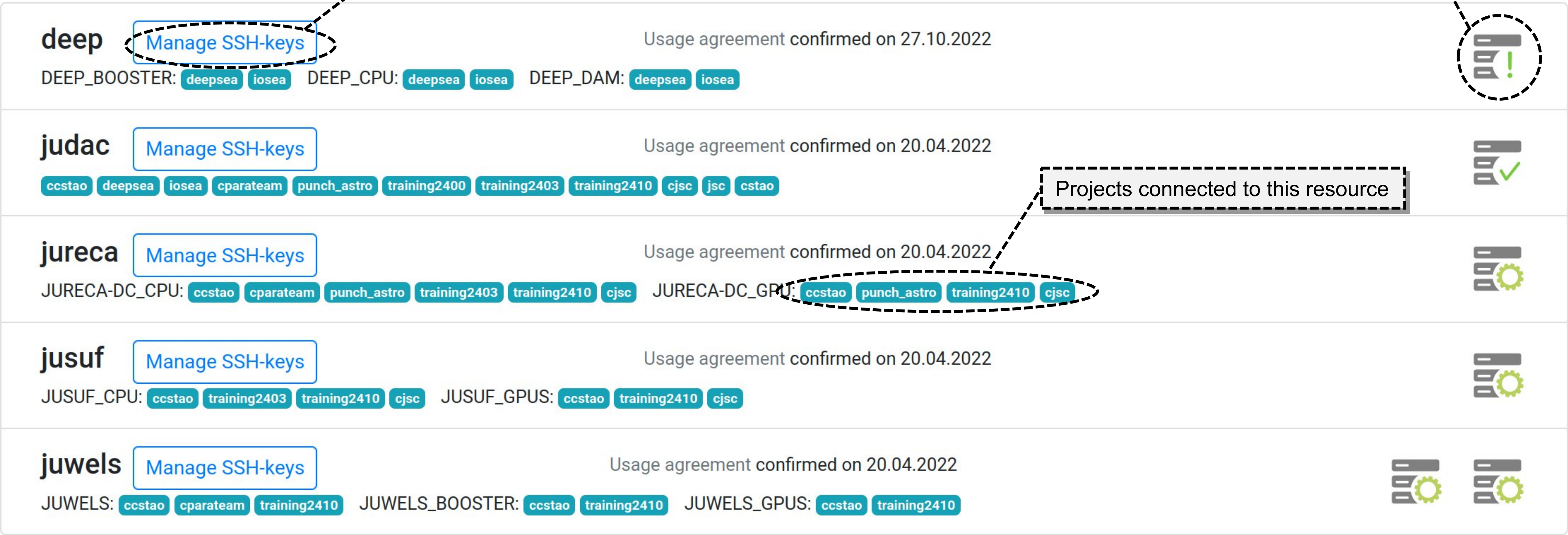
The default software stage has been changed to Stages/2022. If you wish to continue using the previous default stack please load Stages/2020 before any other module. Note that this stage will be deprecated.

JuDoor

Each projects grants access to various systems and partitions.

Usage agreement link must be visited first **before Manage SSH-Keys** link appears

click-able **status page** link



Systems

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Usage agreement confirmed on 27.10.2022
DEEP_BOOSTER: deepsea iosea DEEP_CPU: deepsea iosea DEEP_DAM: deepsea iosea

judac Manage SSH-keys
Usage agreement confirmed on 20.04.2022
ccstao deepsea iosea cparateam punch_astro training2400 training2403 training2410 cjsc jsc cstao

jureca Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JURECA-DC_CPU: ccstao cparateam punch_astro training2403 training2410 cjsc JURECA-DC_GPU: ccstao punch_astro training2410 cjsc

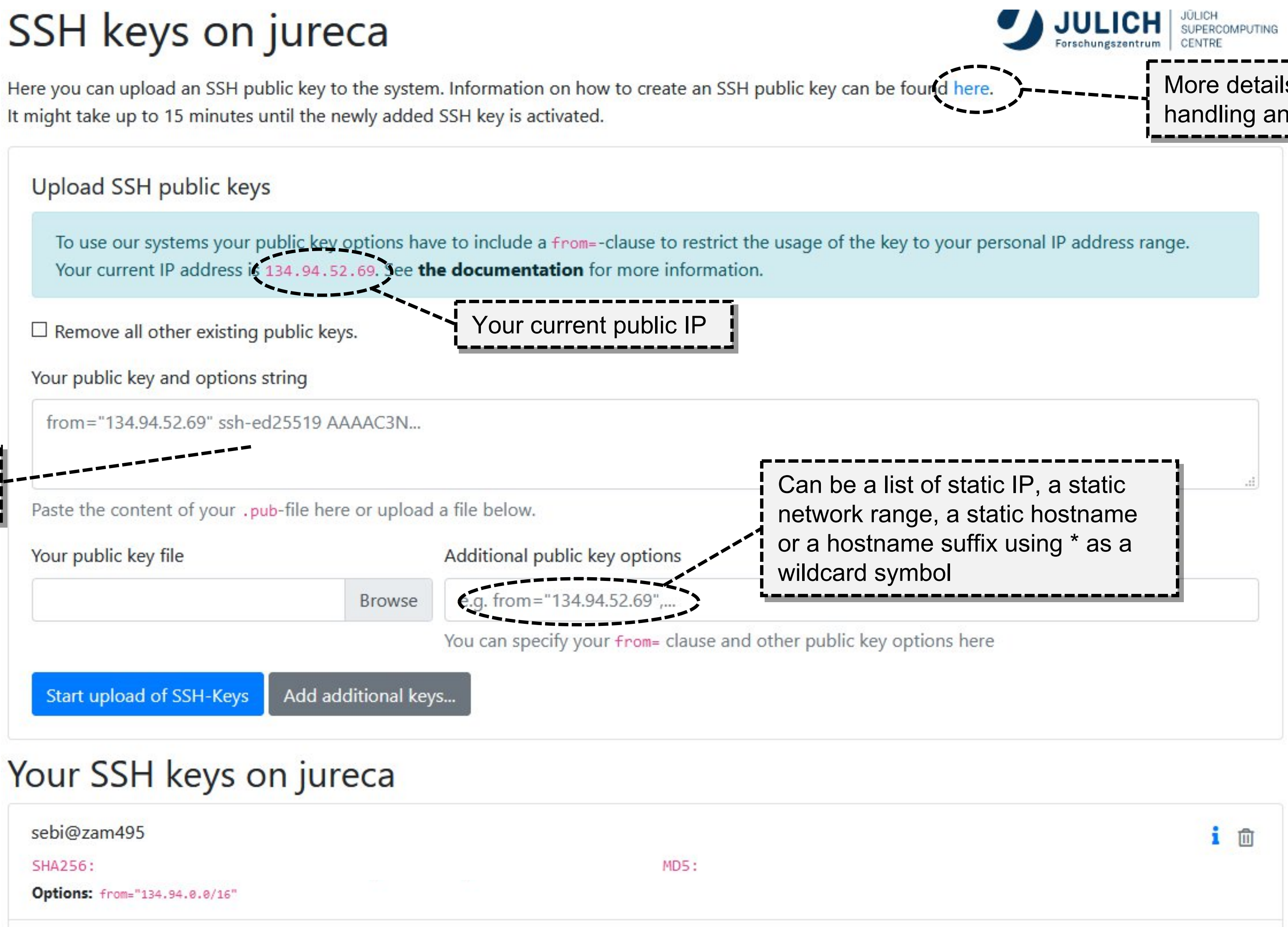
jusuf Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JUSUF_CPU: ccstao training2403 training2410 cjsc JUSUF_GPUS: ccstao training2410 cjsc

juwels Manage SSH-keys
Usage agreement confirmed on 20.04.2022
JUWELS: ccstao cparateam training2410 JUWELS_BOOSTER: ccstao training2410 JUWELS_GPUS: ccstao training2410

Projects connected to this resource

Step 3: Upload your SSH-key

MFA



SSH keys on jureca

Here you can upload an SSH public key to the system. Information on how to create an SSH public key can be found here.
It might take up to 15 minutes until the newly added SSH key is activated.

Upload SSH public keys

To use our systems your public key options have to include a `from=`-clause to restrict the usage of the key to your personal IP address range.
Your current IP address is `134.94.52.69`. See **the documentation** for more information.

☐ Remove all other existing public keys.

Your public key and options string

from="134.94.52.69" ssh-ed25519 AAAAC3N...

Paste the content of your `.pub`-file here or upload a file below.

Your public key file

Additional public key options

e.g. from="134.94.52.69",...

You can specify your `from=` clause and other public key options here

Your SSH keys on jureca

sebi@zam495

`SHA256:` `MD5:`

Options: `from="134.94.0.0/16"`

More details on from-clause handling and key generation

Your current public IP

use ed25519
no RSA ssh keys

Can be a list of static IP, a static network range, a static hostname or a hostname suffix using * as a wildcard symbol

Further steps to get you going

Log in to JSC system of choice, over terminal:

```
ssh [-X] <username>@<system>.fz-juelich.de
```

alternatively you can use **JupyterLab**, favourite editor (upon set up of ssh connection), mount point (sshfs)

Talk tomorrow by
J.-H. Göbbert (JSC)

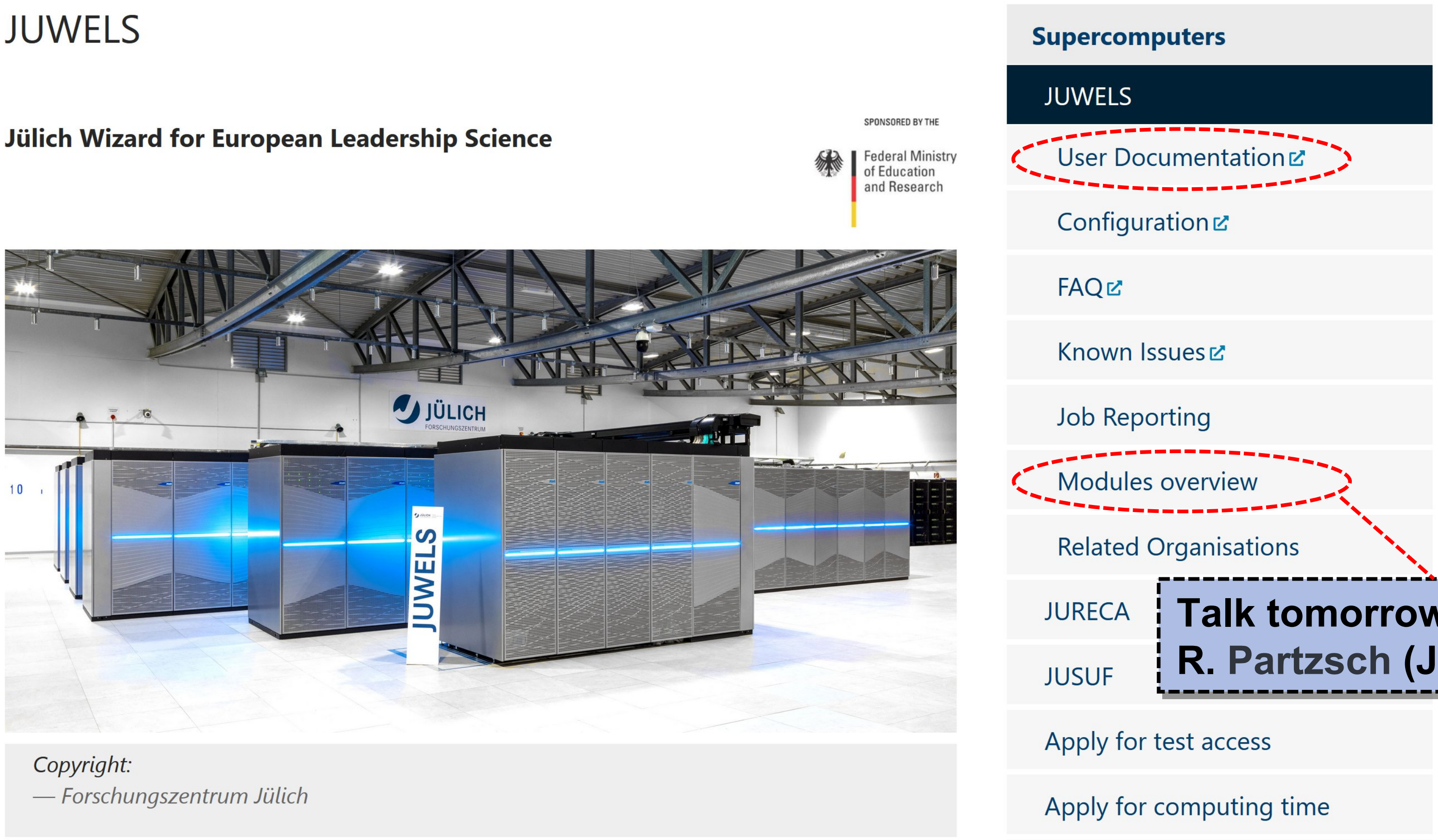
- ➢ This will bring you to $HOME on `<system>` (there is a separate home on each JSC system)

Note: $HOME has only 16GB and is *not* meant for production - go to: $PROJECT or $SCRATCH

Note: $SCRATCH has **no backup** and files that have not been touched 90 days are **automatically deleted**

Documentation

& overview preinstalled software



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Supercomputers

- JUWELS
  - User Documentation
  - Configuration
  - FAQ
  - Known Issues
  - Job Reporting
  - Modules overview
  - Related Organisations
- JURECA
- JUSUF
- Apply for test access
- Apply for computing time

Talk tomorrow by R. Partzsch (JSC)

Supercomputers: https://www.fz-juelich.de/en/ias/jsc/systems/supercomputers(/<system>)

Storage systems: https://www.fz-juelich.de/en/ias/jsc/systems/storage-systems(/<system>)

Further steps to get you going

Log in to JSC system of choice, over terminal:

```
ssh [-X] <username>@<system>.fz-juelich.de
```

- ➢ This will bring you to the **Log in node**:
  - **shared resource**
  - time spend on Log in node is *not* deducted from the budget
  - number of parallel processes limited
  - *not* meant for production but for setup, compilation and submission to:
- ➢ **Compute node**:
  - **exclusive resource**, no node-sharing
  - submit jobs using (PS)Slurm or get an interactive session
  - all time a compute node is allocated for you is deducted from your budget also if no computations are performed!

Talk tomorrow by
C. Paschoulas (JSC)

Quota calculation

`core-h =`

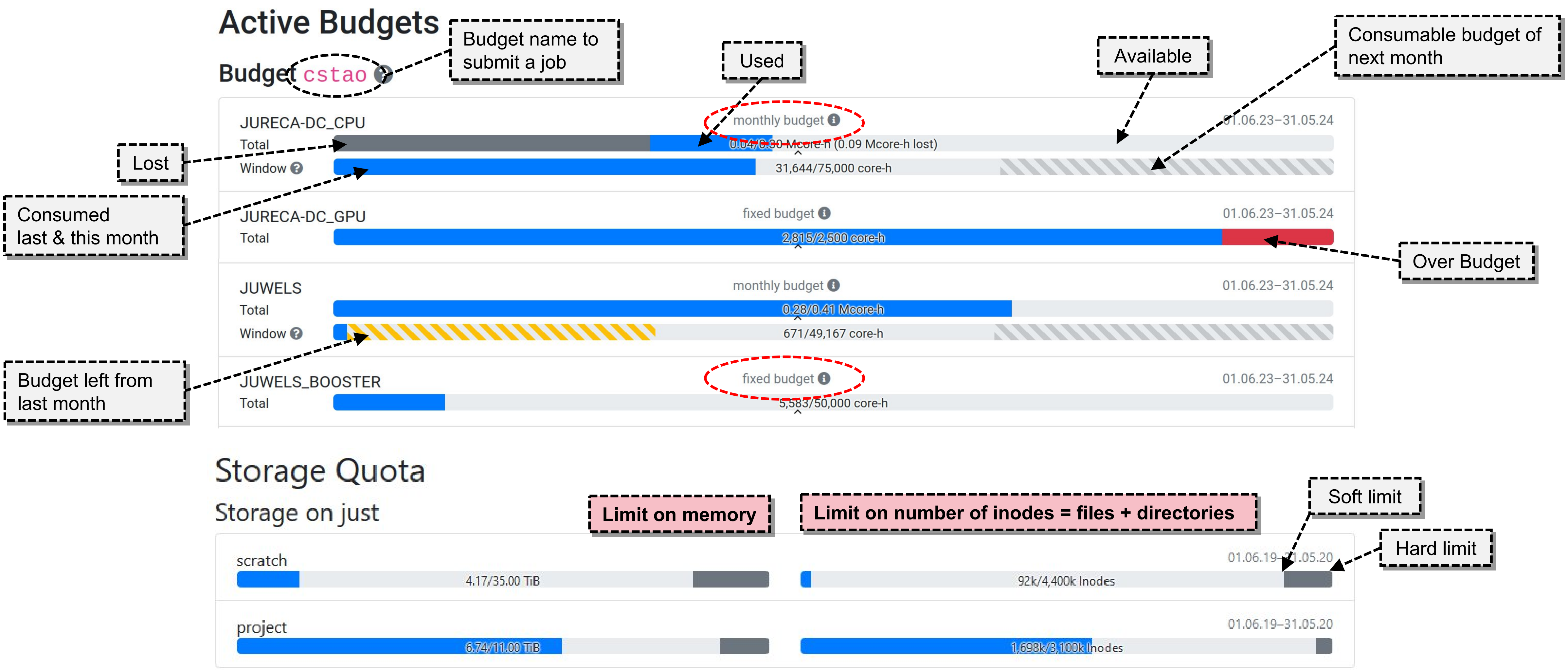
`#nodes x #physical_cores_per_node x runtime`

- **`#physical_cores_per_node`**:
  - `JUWELS` or `JUWELS_BOOSTER`: 48, `JURECA-DC` or `JUSUF`: 128
  - **GPU**s are accounted for through core-h

- **`runtime`**: actual job runtime, not the provided walltime of the job

- There is no node-sharing on compute nodes
- The quota is fully placed on the day when the job ended
- The quota of a job is not taken into account in advance
- The base priority of a job based on the overall project quota and is updated on a daily basis

JuDoor quota status



Active Budgets

Budget `cstao`

JURECA-DC_CPU — monthly budget — 01.06.23–31.05.24
Total: 0.04/0.30 Mcore-h (0.09 Mcore-h lost)
Window: 31,644/75,000 core-h

JURECA-DC_GPU — fixed budget — 01.06.23–31.05.24
Total: 2,815/2,500 core-h

JUWELS — monthly budget — 01.06.23–31.05.24
Total: 0.28/0.41 Mcore-h
Window: 671/49,167 core-h

JUWELS_BOOSTER — fixed budget — 01.06.23–31.05.24
Total: 5,583/50,000 core-h

Storage Quota

Storage on just

scratch — 01.06.19–31.05.20
4.17/35.00 TiB
92k/4,400k Inodes

project — 01.06.19–31.05.20
6.74/11.00 TiB
1,698k/3,100k Inodes

Budget name to submit a job

Used

Available

Consumable budget of next month

Lost

Consumed last & this month

Over Budget

Budget left from last month

Limit on memory

Limit on number of inodes = files + directories

Soft limit

Hard limit

`Jutil` tool & budget monitoring

- The budget can be monitored using the command line tool **`jutil`** in the terminal
- **`jutil`** can also be used to activate a specific budget by default for a running shell:

https://apps.fz-juelich.de/jsc/hps/just/jutil.html

```
# See your projects
jutil user projects

# See your compute allocation
jutil user cpuquota

# See your disk quota
jutil user dataquota

# Activate environment (and optionally default budget) for a given project
# Sets $PROJECT and $SCRATCH
jutil env activate -p <project> [-A <budget>]
```

complementary to providing the budget on a per job basis (using the `--account` or `-A` option in the batch script)

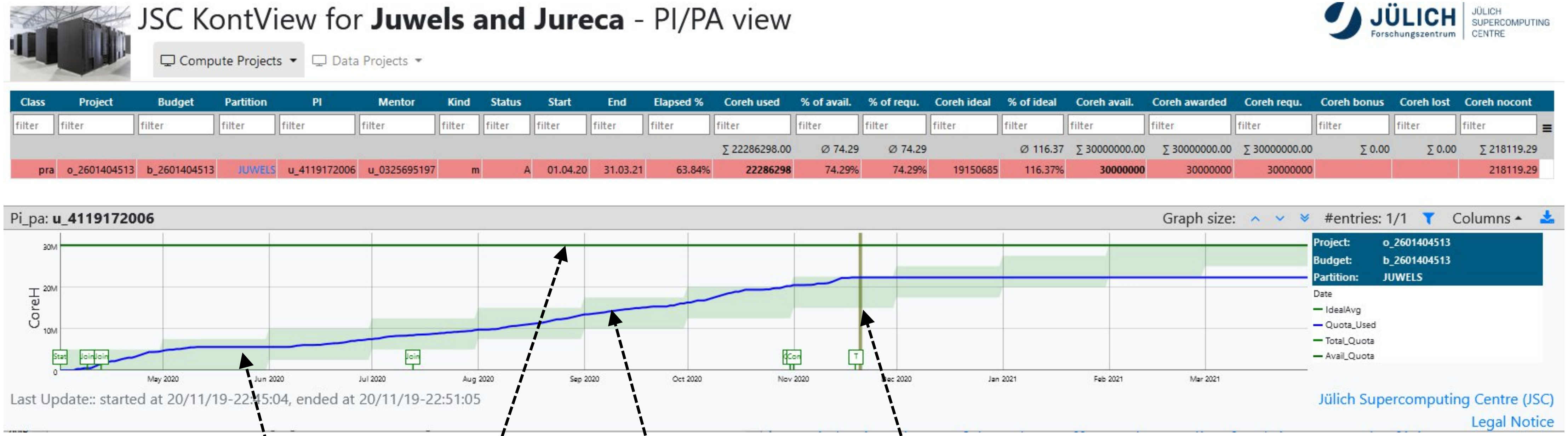
Project quota overview: KontView

Accessible from **JuDoor**:

Show extended statistics
Show extended statistics for PI/PAs

User view

PI/PA view


JÜLICH Forschungszentrum
JÜLICH SUPERCOMPUTING CENTRE
Compute Projects
Data Projects
Graph size:
#entries: 1/1
Columns
30M
20M
10M
0
CoreH
Stat
Join
Join
Join
Con
T
May 2020
Jun 2020
Jul 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Dec 2020
Jan 2021
Feb 2021
Mar 2021
Date
IdealAvg
Quota_Used
Total_Quota
Avail_Quota

JSC KontView for **Juwels and Jureca** - PI/PA view

Class	Project	Budget	Partition	PI	Mentor	Kind	Status	Start	End	Elapsed %	Coreh used	% of avail.	% of requ.	Coreh ideal	% of ideal	Coreh avail.	Coreh awarded	Coreh requ.	Coreh bonus	Coreh lost	Coreh nocont
filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter
											∑ 22286298.00	∅ 74.29	∅ 74.29		∅ 116.37	∑ 30000000.00	∑ 30000000.00	∑ 30000000.00	∑ 0.00	∑ 0.00	∑ 218119.29
pra	o_2601404513	b_2601404513	JUWELS	u_4119172006	u_0325695197	m	A	01.04.20	31.03.21	63.84%	**22286298**	74.29%	74.29%	19150685	116.37%	**30000000**	30000000	30000000			218119.29

Pi_pa: **u_4119172006**

Project: o_2601404513
Budget: b_2601404513
Partition: JUWELS

Last Update:: started at 20/11/19-22:45:04, ended at 20/11/19-22:51:05

Jülich Supercomputing Centre (JSC)
Legal Notice

3-month window

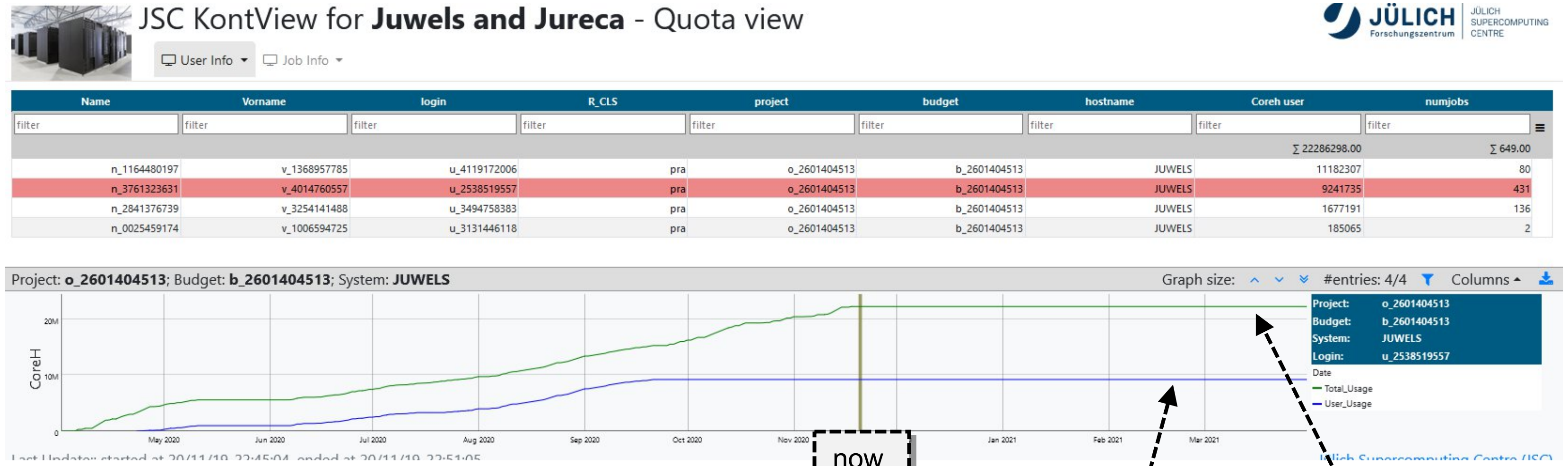
total quota

used quota

now

Project quota overview: KontView

PI/PA view:
display quota per user:

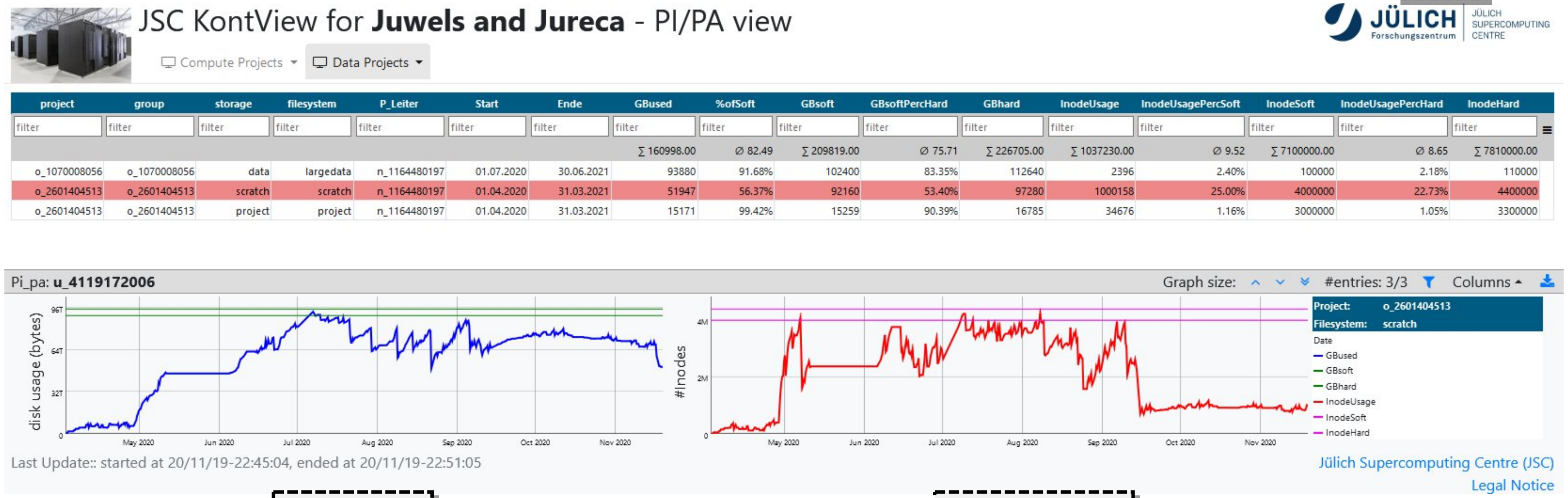

JSC KontView for **Juwels and Jureca** - Quota view
JÜLICH Forschungszentrum
JÜLICH SUPERCOMPUTING CENTRE
User Info
Job Info
Graph size:
#entries: 4/4
Columns
CoreH
20M
10M
0
May 2020
Jun 2020
Jul 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Jan 2021
Feb 2021
Mar 2021
Project: o_2601404513
Budget: b_2601404513
System: JUWELS
Login: u_2538519557
Date
Total_Usage
User_Usage

Name	Vorname	login	R_CLS	project	budget	hostname	Coreh user	numjobs
filter	filter	filter	filter	filter	filter	filter	filter	filter
							∑ 22286298.00	∑ 649.00
n_1164480197	v_1368957785	u_4119172006	pra	o_2601404513	b_2601404513	JUWELS	11182307	80
n_3761323631	v_4014760557	u_2538519557	pra	o_2601404513	b_2601404513	JUWELS	9241735	431
n_2841376739	v_3254141488	u_3494758383	pra	o_2601404513	b_2601404513	JUWELS	1677191	136
n_0025459174	v_1006594725	u_3131446118	pra	o_2601404513	b_2601404513	JUWELS	185065	2

Project: **o_2601404513**; Budget: **b_2601404513**; System: **JUWELS**

now

Storage utilization:


JSC KontView for **Juwels and Jureca** - PI/PA view
JÜLICH Forschungszentrum
JÜLICH SUPERCOMPUTING CENTRE
Compute Projects
Data Projects
Graph size:
#entries: 3/3
Columns
disk usage (bytes)
96T
64T
32T
0
#inodes
4M
2M
0
May 2020
Jun 2020
Jul 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Project: o_2601404513
Filesystem: scratch
Date
GBused
GBsoft
GBhard
InodeUsage
InodeSoft
InodeHard

project	group	storage	filesystem	P_Leiter	Start	Ende	GBused	%ofSoft	GBsoft	GBsoftPercHard	GBhard	InodeUsage	InodeUsagePercSoft	InodeSoft	InodeUsagePercHard	InodeHard
filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter
							∑ 160998.00	⌀ 82.49	∑ 209819.00	⌀ 75.71	∑ 226705.00	∑ 1037230.00	⌀ 9.52	∑ 7100000.00	⌀ 8.65	∑ 7810000.00
o_1070008056	o_1070008056	data	largedata	n_1164480197	01.07.2020	30.06.2021	93880	91.68%	102400	83.35%	112640	2396	2.40%	100000	2.18%	110000
o_2601404513	o_2601404513	scratch	scratch	n_1164480197	01.04.2020	31.03.2021	51947	56.37%	92160	53.40%	97280	1000158	25.00%	4000000	22.73%	4400000
o_2601404513	o_2601404513	project	project	n_1164480197	01.04.2020	31.03.2021	15171	99.42%	15259	90.39%	16785	34676	1.16%	3000000	1.05%	3300000

Pi_pa: **u_4119172006**

Last Update:: started at 20/11/19-22:45:04, ended at 20/11/19-22:51:05

Jülich Supercomputing Centre (JSC)
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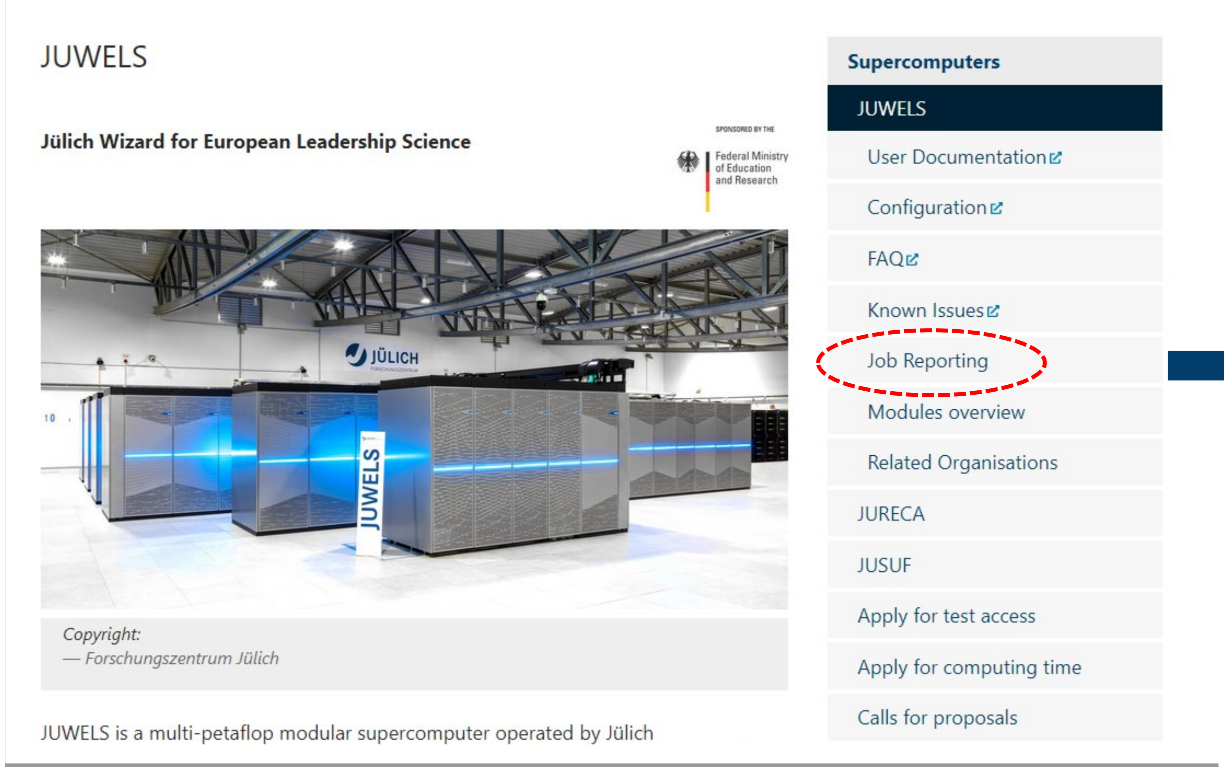
used quota user

used quota total

disc usage

inodes usage

Job monitoring & reports: LLview



JUWELS

Jülich Wizard for European Leadership Science

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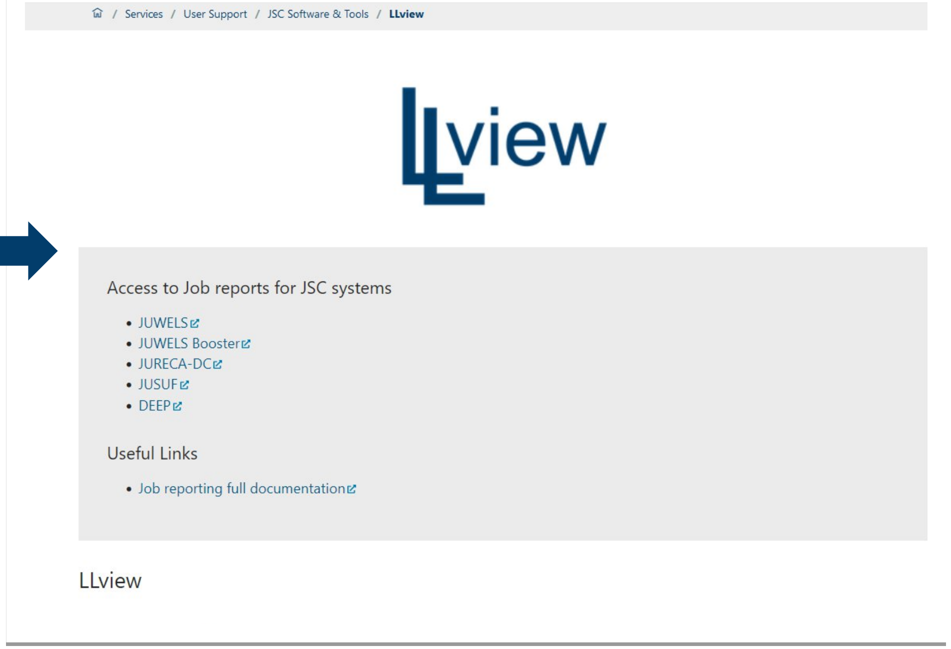
JUWELS is a multi-petaflop modular supercomputer operated by Jülich

Supercomputers
JUWELS
User Documentation
Configuration
FAQ
Known Issues
Job Reporting
Modules overview
Related Organisations
JURECA
JUSUF
Apply for test access
Apply for computing time
Calls for proposals
JÜLICH
JUWELS

https://llview.fz-juelich.de/<system>



/ Services / User Support / JSC Software & Tools / LLview
LLview

Access to Job reports for JSC systems

- JUWELS
- JUWELS Booster
- JURECA-DC
- JUSUF
- DEEP

Useful Links

- Job reporting full documentation

LLview

Logindata: JuDoor username & password

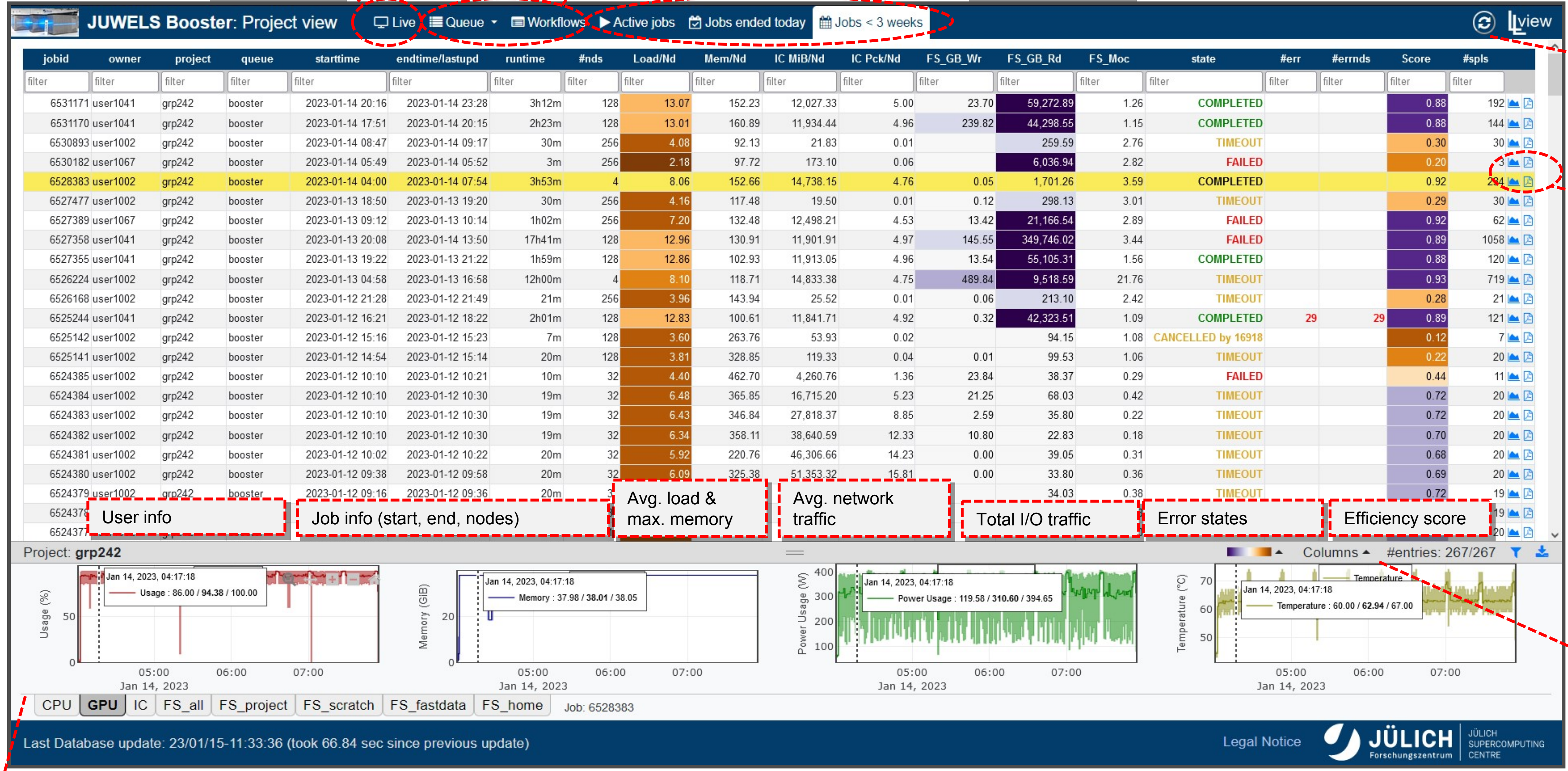
LLview

Live View

Scheduler overview

Job overviews

Auto-Reload



JUWELS Booster: Project view
Live
Queue
Workflows
Active jobs
Jobs ended today
Jobs < 3 weeks
Llview

jobid	owner	project	queue	starttime	endtime/lastupd	runtime	#nds	Load/Nd	Mem/Nd	IC MiB/Nd	IC Pck/Nd	FS_GB_Wr	FS_GB_Rd	FS_Moc	state	#err	#errnds	Score	#spls
filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter	filter
6531171	user1041	grp242	booster	2023-01-14 20:16	2023-01-14 23:28	3h12m	128	13.07	152.23	12,027.33	5.00	23.70	59,272.89	1.26	COMPLETED			0.88	192
6531170	user1041	grp242	booster	2023-01-14 17:51	2023-01-14 20:15	2h23m	128	13.01	160.89	11,934.44	4.96	239.82	44,298.55	1.15	COMPLETED			0.88	144
6530893	user1002	grp242	booster	2023-01-14 08:47	2023-01-14 09:17	30m	256	4.08	92.13	21.83	0.01		259.59	2.76	TIMEOUT			0.30	30
6530182	user1067	grp242	booster	2023-01-14 05:49	2023-01-14 05:52	3m	256	2.18	97.72	173.10	0.06		6,036.94	2.82	FAILED			0.20	3
6528383	user1002	grp242	booster	2023-01-14 04:00	2023-01-14 07:54	3h53m	4	8.06	152.66	14,738.15	4.76	0.05	1,701.26	3.59	COMPLETED			0.92	284
6527477	user1002	grp242	booster	2023-01-13 18:50	2023-01-13 19:20	30m	256	4.16	117.48	19.50	0.01	0.12	298.13	3.01	TIMEOUT			0.29	30
6527389	user1067	grp242	booster	2023-01-13 09:12	2023-01-13 10:14	1h02m	256	7.20	132.48	12,498.21	4.53	13.42	21,166.54	2.89	FAILED			0.92	62
6527358	user1041	grp242	booster	2023-01-13 20:08	2023-01-14 13:50	17h41m	128	12.96	130.91	11,901.91	4.97	145.55	349,746.02	3.44	FAILED			0.89	1058
6527355	user1041	grp242	booster	2023-01-13 19:22	2023-01-13 21:22	1h59m	128	12.86	102.93	11,913.05	4.96	13.54	55,105.31	1.56	COMPLETED			0.88	120
6526224	user1002	grp242	booster	2023-01-13 04:58	2023-01-13 16:58	12h00m	4	8.10	118.71	14,833.38	4.75	489.84	9,518.59	21.76	TIMEOUT			0.93	719
6526168	user1002	grp242	booster	2023-01-12 21:28	2023-01-12 21:49	21m	256	3.96	143.94	25.52	0.01	0.06	213.10	2.42	TIMEOUT			0.28	21
6525244	user1041	grp242	booster	2023-01-12 16:21	2023-01-12 18:22	2h01m	128	12.83	100.61	11,841.71	4.92	0.32	42,323.51	1.09	COMPLETED	29	29	0.89	121
6525142	user1002	grp242	booster	2023-01-12 15:16	2023-01-12 15:23	7m	128	3.60	263.76	53.93	0.02		94.15	1.08	CANCELLED by 16918			0.12	7
6525141	user1002	grp242	booster	2023-01-12 14:54	2023-01-12 15:14	20m	128	3.81	328.85	119.33	0.04	0.01	99.53	1.06	TIMEOUT			0.22	20
6524385	user1002	grp242	booster	2023-01-12 10:10	2023-01-12 10:21	10m	32	4.40	462.70	4,260.76	1.36	23.84	38.37	0.29	FAILED			0.44	11
6524384	user1002	grp242	booster	2023-01-12 10:10	2023-01-12 10:30	19m	32	6.48	365.85	16,715.20	5.23	21.25	68.03	0.42	TIMEOUT			0.72	20
6524383	user1002	grp242	booster	2023-01-12 10:10	2023-01-12 10:30	19m	32	6.43	346.84	27,818.37	8.85	2.59	35.80	0.22	TIMEOUT			0.72	20
6524382	user1002	grp242	booster	2023-01-12 10:10	2023-01-12 10:30	19m	32	6.34	358.11	38,640.59	12.33	10.80	22.83	0.18	TIMEOUT			0.70	20
6524381	user1002	grp242	booster	2023-01-12 10:02	2023-01-12 10:22	20m	32	5.92	220.76	46,306.66	14.23	0.00	39.05	0.31	TIMEOUT			0.68	20
6524380	user1002	grp242	booster	2023-01-12 09:38	2023-01-12 09:58	20m	32	6.09	325.38	51,353.32	15.81	0.00	33.80	0.36	TIMEOUT			0.69	20
6524379	user1002	grp242	booster	2023-01-12 09:16	2023-01-12 09:36	20m	3						34.03	0.38	TIMEOUT			0.72	19
6524378																			19
6524377																			20

User info

Job info (start, end, nodes)

Avg. load & max. memory

Avg. network traffic

Total I/O traffic

Error states

Efficiency score

Job report (interactive HTML view, or PDF download)

Project: **grp242**

Columns ▲ #entries: 267/267

Usage (%)
50
0
Jan 14, 2023, 04:17:18
Usage : 86.00 / 94.38 / 100.00
05:00
06:00
07:00
Jan 14, 2023
Memory (GiB)
20
0
Jan 14, 2023, 04:17:18
Memory : 37.98 / 38.01 / 38.05
05:00
06:00
07:00
Jan 14, 2023
Power Usage (W)
400
300
200
100
Jan 14, 2023, 04:17:18
Power Usage : 119.58 / 310.60 / 394.65
05:00
06:00
07:00
Jan 14, 2023
Temperature (°C)
70
60
50
Temperature
Jan 14, 2023, 04:17:18
Temperature : 60.00 / 62.94 / 67.00
05:00
06:00
07:00
Jan 14, 2023
CPU
GPU
IC
FS_all
FS_project
FS_scratch
FS_fastdata
FS_home

Job: 6528383

Last Database update: 23/01/15-11:33:36 (took 66.84 sec since previous update)

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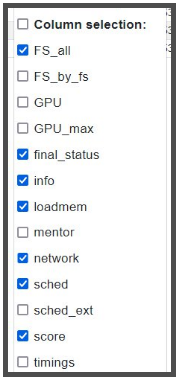


☐ **Column selection:**
☑ FS_all
☐ FS_by_fs
☐ GPU
☐ GPU_max
☑ final_status
☑ info
☑ loadmem
☐ mentor
☑ network
☑ sched
☐ sched_ext
☑ score
☐ timings

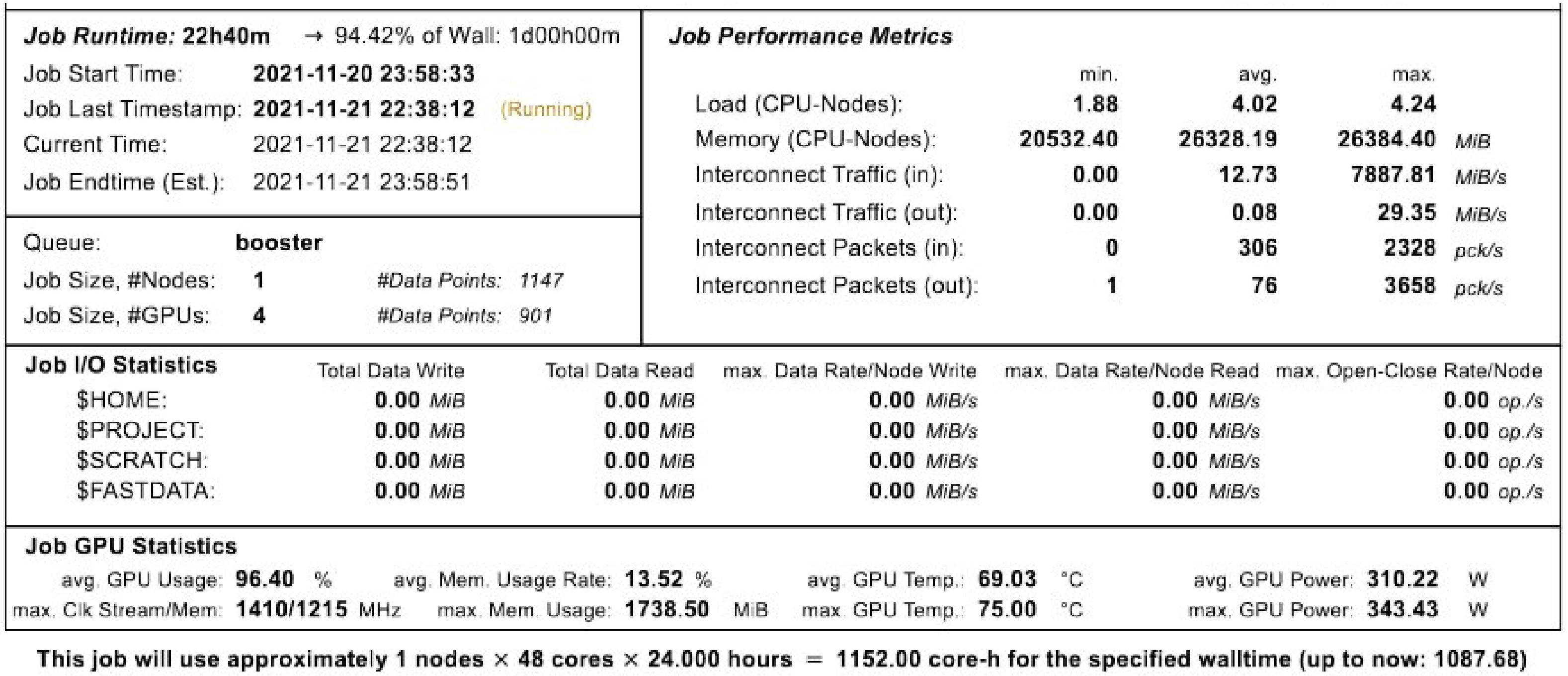
Job specific metric history for CPU, GPU, …

LLview version 2.2.4
April 2024

Job reports

- receive link to job report per email:

```
#!/bin/bash -x
#SBATCH --mail-type=BEGIN,END,FAIL
#SBATCH --mail-user=<email>
```



***Job Runtime:* 22h40m** → 94.42% of Wall: 1d00h00m

Job Start Time:	**2021-11-20 23:58:33**	
Job Last Timestamp:	**2021-11-21 22:38:12**	(Running)
Current Time:	2021-11-21 22:38:12	
Job Endtime (Est.):	2021-11-21 23:58:51	

Queue:	**booster**		
Job Size, #Nodes:	**1**	*#Data Points:*	*1147*
Job Size, #GPUs:	**4**	*#Data Points:*	*901*

Job Performance Metrics

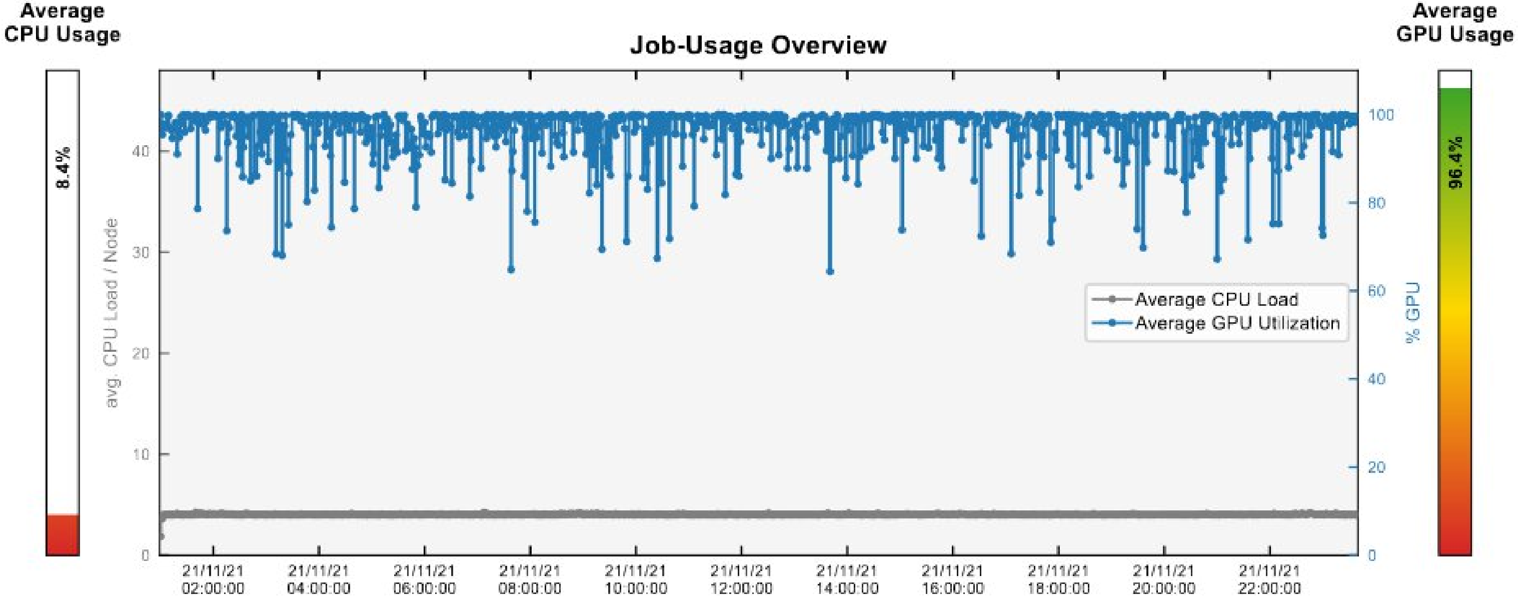
	min.	avg.	max.	
Load (CPU-Nodes):	**1.88**	**4.02**	**4.24**	
Memory (CPU-Nodes):	**20532.40**	**26328.19**	**26384.40**	*MiB*
Interconnect Traffic (in):	**0.00**	**12.73**	**7887.81**	*MiB/s*
Interconnect Traffic (out):	**0.00**	**0.08**	**29.35**	*MiB/s*
Interconnect Packets (in):	**0**	**306**	**2328**	*pck/s*
Interconnect Packets (out):	**1**	**76**	**3658**	*pck/s*

Job I/O Statistics	Total Data Write	Total Data Read	max. Data Rate/Node Write	max. Data Rate/Node Read	max. Open-Close Rate/Node
$HOME:	**0.00** *MiB*	**0.00** *MiB*	**0.00** *MiB/s*	**0.00** *MiB/s*	**0.00** *op./s*
$PROJECT:	**0.00** *MiB*	**0.00** *MiB*	**0.00** *MiB/s*	**0.00** *MiB/s*	**0.00** *op./s*
$SCRATCH:	**0.00** *MiB*	**0.00** *MiB*	**0.00** *MiB/s*	**0.00** *MiB/s*	**0.00** *op./s*
$FASTDATA:	**0.00** *MiB*	**0.00** *MiB*	**0.00** *MiB/s*	**0.00** *MiB/s*	**0.00** *op./s*

Job GPU Statistics

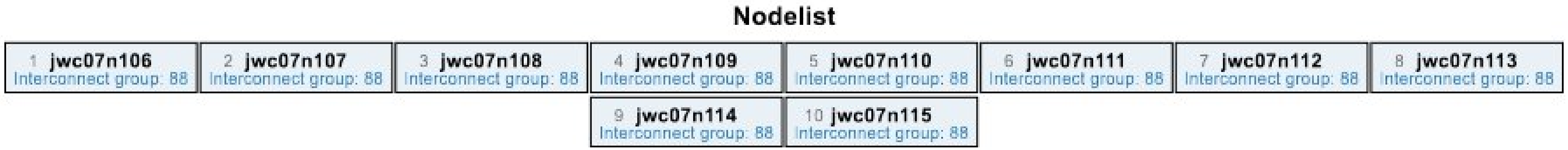
avg. GPU Usage:	**96.40**	%	avg. Mem. Usage Rate:	**13.52**	%	avg. GPU Temp.:	**69.03**	°C	avg. GPU Power:	**310.22**	W
max. Clk Stream/Mem:	**1410/1215**	MHz	max. Mem. Usage:	**1738.50**	MiB	max. GPU Temp.:	**75.00**	°C	max. GPU Power:	**343.43**	W

This job will use approximately 1 nodes × 48 cores × 24.000 hours = 1152.00 core-h for the specified walltime (up to now: 1087.68)



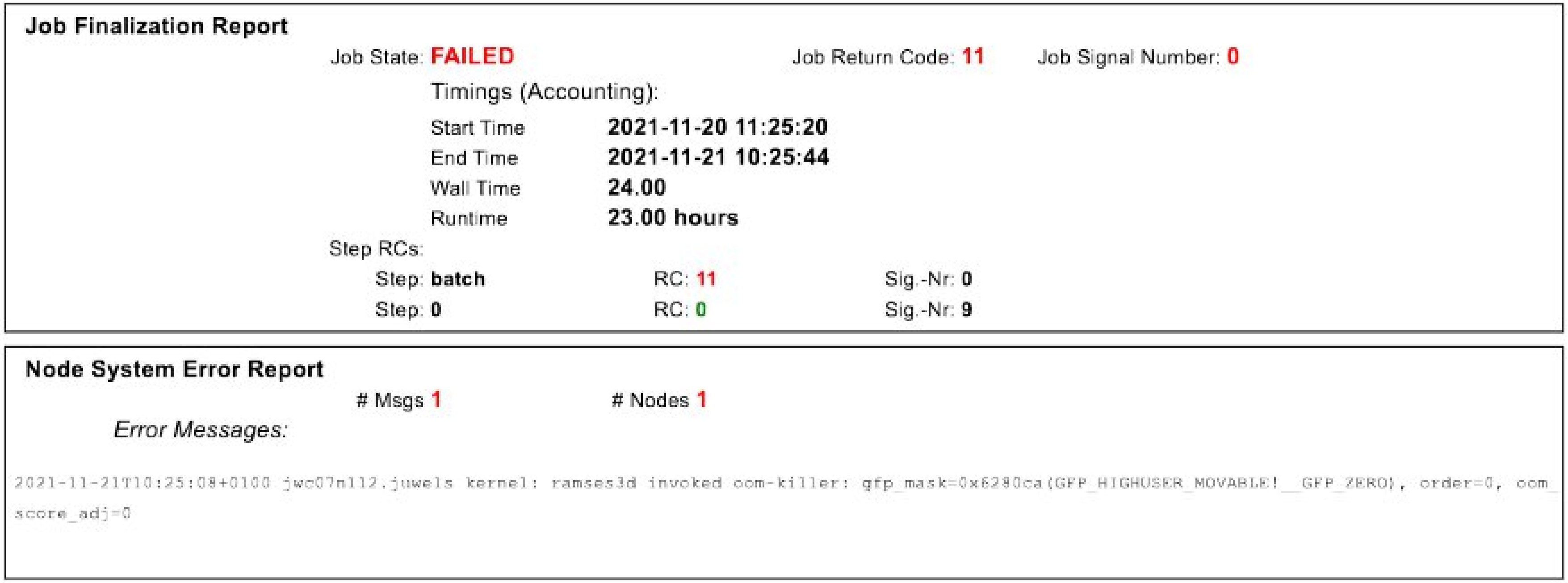
- job reports are available for 3 weeks
- job reports can be downloaded as .pdf

Job reports – further job stats



Nodelist

1 **jwc07n106** Interconnect group: 88	2 **jwc07n107** Interconnect group: 88	3 **jwc07n108** Interconnect group: 88	4 **jwc07n109** Interconnect group: 88	5 **jwc07n110** Interconnect group: 88	6 **jwc07n111** Interconnect group: 88	7 **jwc07n112** Interconnect group: 88	8 **jwc07n113** Interconnect group: 88
			9 **jwc07n114** Interconnect group: 88	10 **jwc07n115** Interconnect group: 88			



Job Finalization Report

Job State: **FAILED** Job Return Code: **11** Job Signal Number: **0**

Timings (Accounting):

Start Time	**2021-11-20 11:25:20**
End Time	**2021-11-21 10:25:44**
Wall Time	**24.00**
Runtime	**23.00 hours**

Step RCs:

Step: **batch**	RC: **11**	Sig.-Nr: **0**
Step: **0**	RC: **0**	Sig.-Nr: **9**

Node System Error Report

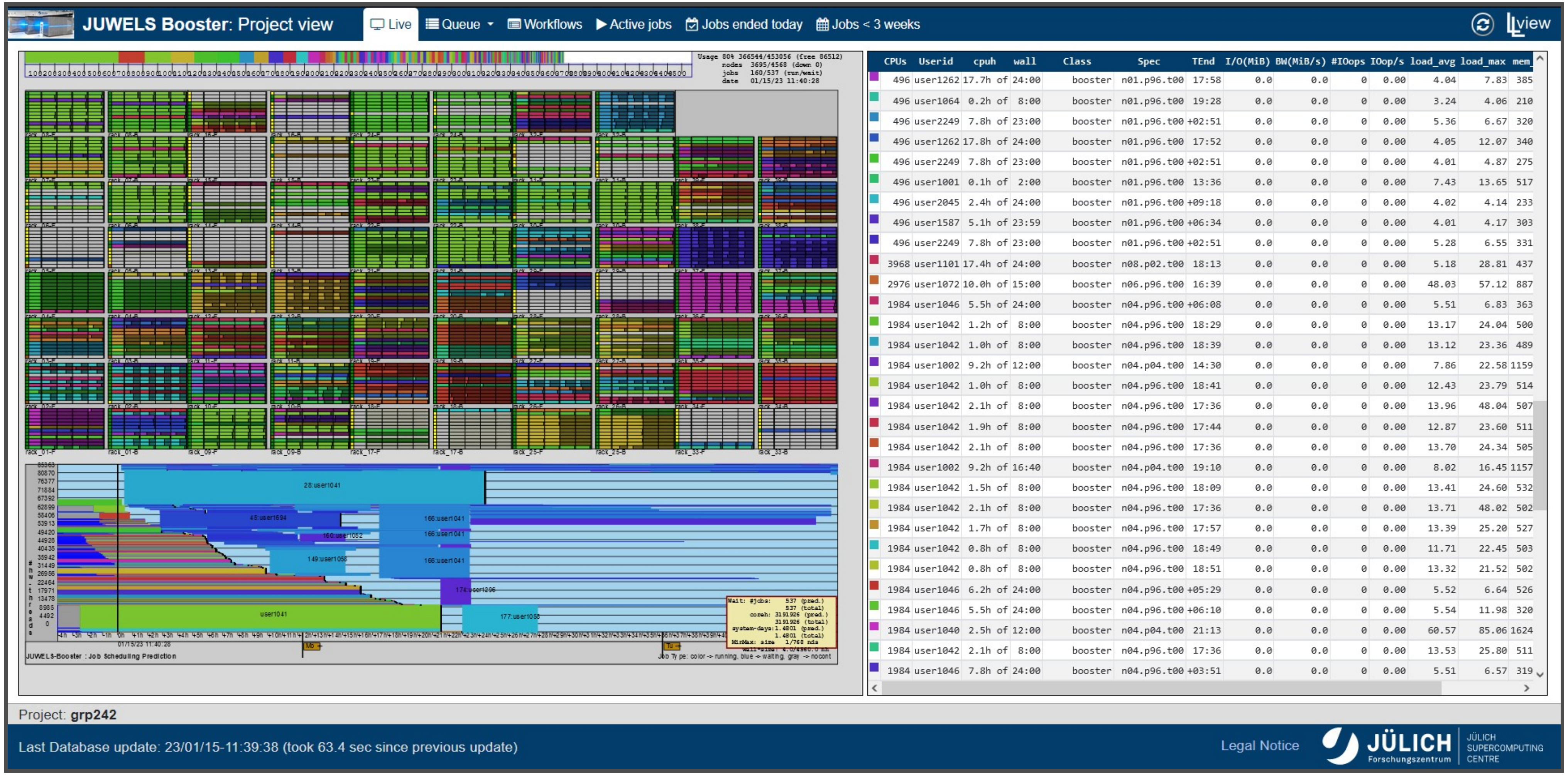
Msgs **1** # Nodes **1**

Error Messages:

```
2021-11-21T10:25:08+0100 jwc07n112.juwels kernel: ramses3d invoked oom-killer: gfp_mask=0x6280ca(GFP_HIGHUSER_MOVABLE|__GFP_ZERO), order=0, oom_
score_adj=0
```

Scheduler overview

- Current usage of system:
  - clickable
  - update 1min
- Mapping of jobs to nodes
- Prediction of system usage using JuFo


JUWELS Booster: Project view
Live
Queue
Workflows
Active jobs
Jobs ended today
Jobs < 3 weeks
LLview
28:user1041
45:user1694
166:user1041
160:user1052
149:user1056
174:user1206
user1041
177:user1058
JUWELS-Booster : Job Scheduling Prediction
Job Type: color -> running, blue -> waiting, gray -> nocont
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```
Usage 80% 366544/453056 (free 86512)
      nodes  3695/4568 (down 0)
      jobs   160/537 (run/wait)
      date   01/15/23 11:40:28
```

```
Wait: #jobs:      537 (pred.)
                  537 (total)
       coreh: 3191926 (pred.)
              3191926 (total)
 system-days:1.4801 (pred.)
             1.4801 (total)
 MinMax: size   1/768 nds
```

	CPUs	Userid	cpuh	wall	Class	Spec	TEnd	I/O(MiB)	BW(MiB/s)	#IOops	IOop/s	load_avg	load_max	mem_
🟪	496	user1262	17.7h of	24:00	booster	n01.p96.t00	17:58	0.0	0.0	0	0.00	4.04	7.83	385
🟩	496	user1064	0.2h of	8:00	booster	n01.p96.t00	19:28	0.0	0.0	0	0.00	3.24	4.06	210
🟦	496	user2249	7.8h of	23:00	booster	n01.p96.t00	+02:51	0.0	0.0	0	0.00	5.36	6.67	320
🟦	496	user1262	17.8h of	24:00	booster	n01.p96.t00	17:52	0.0	0.0	0	0.00	4.05	12.07	340
🟩	496	user2249	7.8h of	23:00	booster	n01.p96.t00	+02:51	0.0	0.0	0	0.00	4.01	4.87	275
🟩	496	user1001	0.1h of	2:00	booster	n01.p96.t00	13:36	0.0	0.0	0	0.00	7.43	13.65	517
🟦	496	user2045	2.4h of	24:00	booster	n01.p96.t00	+09:18	0.0	0.0	0	0.00	4.02	4.14	233
🟪	496	user1587	5.1h of	23:59	booster	n01.p96.t00	+06:34	0.0	0.0	0	0.00	4.01	4.17	303
🟪	496	user2249	7.8h of	23:00	booster	n01.p96.t00	+02:51	0.0	0.0	0	0.00	5.28	6.55	331
🟥	3968	user1101	17.4h of	24:00	booster	n08.p02.t00	18:13	0.0	0.0	0	0.00	5.18	28.81	437
🟧	2976	user1072	10.0h of	15:00	booster	n06.p96.t00	16:39	0.0	0.0	0	0.00	48.03	57.12	887
🟥	1984	user1046	5.5h of	24:00	booster	n04.p96.t00	+06:08	0.0	0.0	0	0.00	5.51	6.83	363
🟩	1984	user1042	1.2h of	8:00	booster	n04.p96.t00	18:29	0.0	0.0	0	0.00	13.17	24.04	500
🟦	1984	user1042	1.0h of	8:00	booster	n04.p96.t00	18:39	0.0	0.0	0	0.00	13.12	23.36	489
🟪	1984	user1002	9.2h of	12:00	booster	n04.p04.t00	14:30	0.0	0.0	0	0.00	7.86	22.58	1159
🟩	1984	user1042	1.0h of	8:00	booster	n04.p96.t00	18:41	0.0	0.0	0	0.00	12.43	23.79	514
🟪	1984	user1042	2.1h of	8:00	booster	n04.p96.t00	17:36	0.0	0.0	0	0.00	13.96	48.04	507
🟥	1984	user1042	1.9h of	8:00	booster	n04.p96.t00	17:44	0.0	0.0	0	0.00	12.87	23.60	511
🟧	1984	user1042	2.1h of	8:00	booster	n04.p96.t00	17:36	0.0	0.0	0	0.00	13.70	24.34	505
🟪	1984	user1002	9.2h of	16:40	booster	n04.p04.t00	19:10	0.0	0.0	0	0.00	8.02	16.45	1157
🟩	1984	user1042	1.5h of	8:00	booster	n04.p96.t00	18:09	0.0	0.0	0	0.00	13.41	24.60	532
🟨	1984	user1042	2.1h of	8:00	booster	n04.p96.t00	17:36	0.0	0.0	0	0.00	13.71	48.02	502
🟧	1984	user1042	1.7h of	8:00	booster	n04.p96.t00	17:57	0.0	0.0	0	0.00	13.39	25.20	527
🟦	1984	user1042	0.8h of	8:00	booster	n04.p96.t00	18:49	0.0	0.0	0	0.00	11.71	22.45	503
🟨	1984	user1042	0.8h of	8:00	booster	n04.p96.t00	18:51	0.0	0.0	0	0.00	13.32	21.52	502
🟥	1984	user1046	6.2h of	24:00	booster	n04.p96.t00	+05:29	0.0	0.0	0	0.00	5.52	6.64	526
🟩	1984	user1046	5.5h of	24:00	booster	n04.p96.t00	+06:10	0.0	0.0	0	0.00	5.54	11.98	320
🟪	1984	user1040	2.5h of	12:00	booster	n04.p04.t00	21:13	0.0	0.0	0	0.00	60.57	85.06	1624
🟩	1984	user1042	2.1h of	8:00	booster	n04.p96.t00	17:36	0.0	0.0	0	0.00	13.53	25.80	511
🟪	1984	user1046	7.8h of	24:00	booster	n04.p96.t00	+03:51	0.0	0.0	0	0.00	5.51	6.57	319

Project: **grp242**

Last Database update: 23/01/15-11:39:38 (took 63.4 sec since previous update)

JuFo: Simulator for Job Schedulers on HPC Systems, C.Karbach, T.Bauer, JSC

HELP

For *general* questions and inquiries, contact SC support at **sc@fz-juelich.de**.

- *What is your **user ID**? What is the **project ID**?*
- *Which **system** did you use?*
- *If there was an error, what is the **error message**?*
- *Is the error **reproducible**?*
- *If related to a job, what was the **job ID**?*
- *Which **module environment** did you use?*

For *project specific* questions and inquiries, contact your **Mentor**.