



Science and
Technology
Facilities Council

Natural
Environment
Research Council





JASMIN

Group Work Space Managers Webinar 08 February 2024



Outline

- Introduction
- Survey feedback
- The need for cleanup
- Benefits of cleaning up GWS
- Tools for Monitoring GWS
- What actions can we take together
- Question and answer session



Introduction

Overview

- Engagement
- Collaboration
- Strategies of resolution
- Information sharing
- The world and its finite resources

Objectives

- Reduce cost
- Optimise storage usage
- Reduce power/energy consumption

JASMIN has finite resources

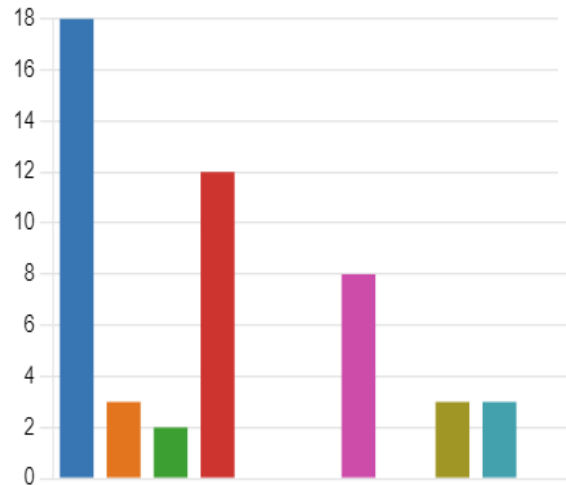
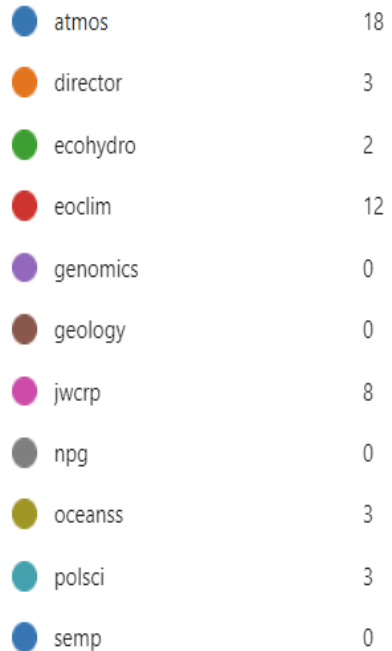
- Storage
- Compute
- Cloud
- Staff
- £££



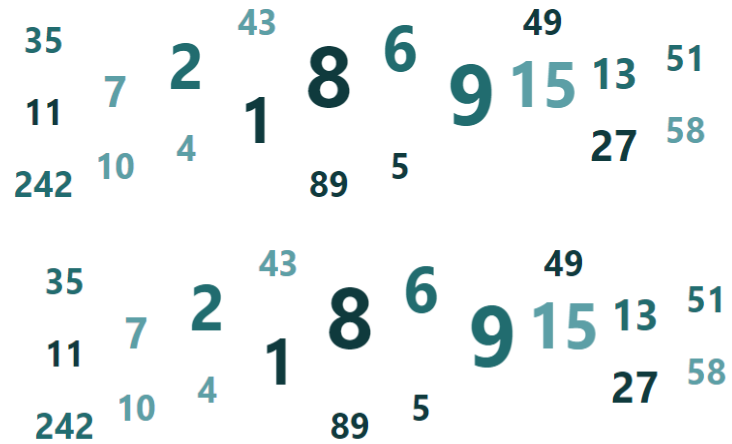
Survey Feedback

Responses so far

Responses Per Consortium



Users per GWS

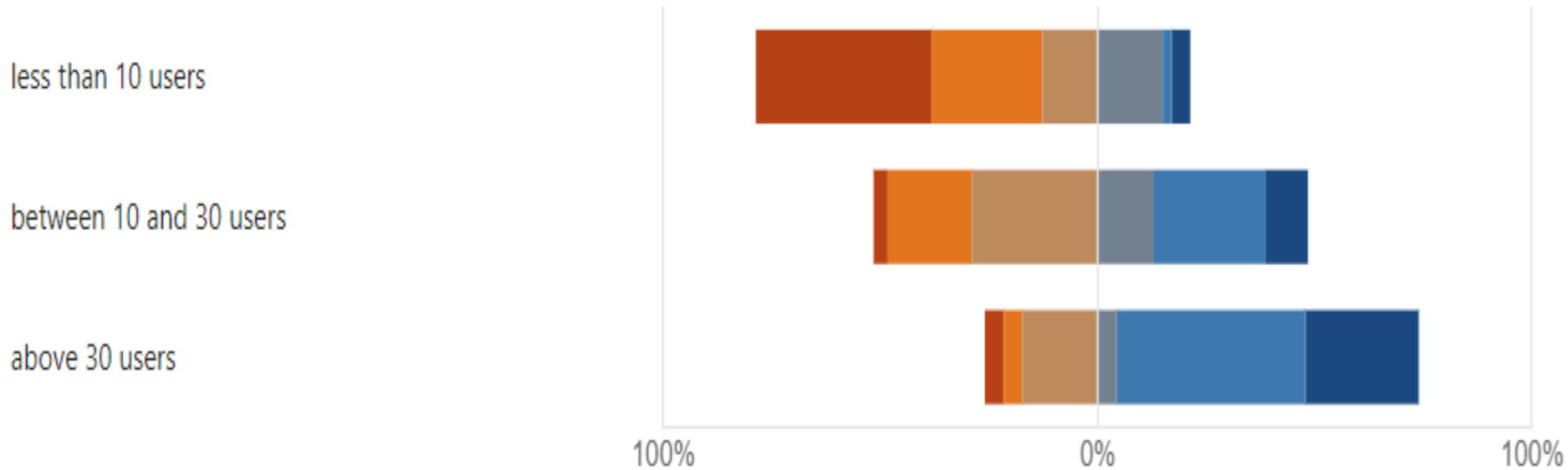


Survey Feedback

Responses so far

- Frequency of user access

■ Access every day ■ Access every week ■ Access every month ■ Access once a year ■ Other ■ Don't know



Survey Feedback

Responses so far

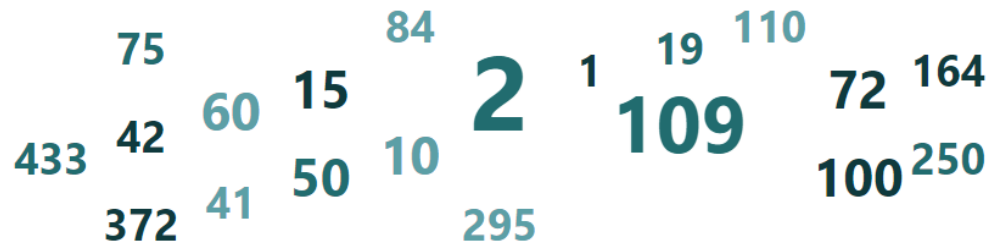
- Collecting user access patterns



Survey Feedback

Responses so far

- Size TB (SOF)



- Size TB (SMF)



- Storage (PFS)



Survey Feedback

Responses so far

- Checking that allocated resource is consistent with what was requested



General comments

current amount corresponds likely
reported incorrectly 500
current use

adhoc MOHC originally requested

TB projects Overall
pan_df

use in collaboration project space right level
WOEST and ICECAPS portal

MOHC projects number
amout larger



GWS Usage scenarios

Domains

Consortium	Name
atmos	Atmospheric Science
director	Director's cross-cutting activities
ecohydro	Ecology & Hydrology
eoclim	Earth Observation & Climate
genomics	Genomics
geology	Geology
jwcrp Programme	Joint Weather & Climate Research Programme
npg	National Public Good
oceanss	Ocean & Shelf Seas
polsci	Polar Science
semp	Solid Earth & Mineral Physics

JASMIN supports

- diverse and complex data
- a variety of workflows



Benefits of cleaning up GWS

- Active management of data
- Ability to share data
- Data security
- Data deduplication
- Long-term preservation*

The need for cleaning up GWS

- Cost
- Energy
- Security
- Time

Solution

Actively manage what data is used & kept
Use colder storage as part of workflow
Move data to the archive if appropriate
Delete obsolete and redundant data
Free up resources to support more projects



Tools for monitoring GWS

From the projects portal:
Navigating to Manage My Projects

From the My Projects -> Go to project

JASMIN My Projects Consortia

JASMIN Projects Portal

Welcome to the JASMIN Projects Portal.

Using this portal, you can request JASMIN resources for your project and track their status.

[Manage my projects](#)

1

JASMIN My Projects Consortia

My Projects

cedaproc

Project is **EDITABLE**.

Project belongs to **archive-eo**.

Project has **4 requirements** in **1 service**.

Project has **3 collaborators**.
You are an **owner**.

Project was created **3 years ago**.

[Go to project](#)

2



In the My Projects overview you can see

- What was provisioned,
- When it was provisioned, and the resource provisioned

cedaproc

Overview Services

Project description 1

cedaproc edit

7 TB QuoByte SOF provisioned on 12 July

Project submitted for review on 11 October by Matthew Jones

Matt Pritchard commented on 11 October

updating to current allocs

Add service

Submit for review

Project is **EDITABLE**. 2

Project belongs to archive-oo.

Project has 3 collaborators.
You are an owner.

Project was created 3 years ago.

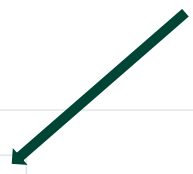
- Project submitted for review on 11 October by Matt Pritchard
- 0 GB Caringo Object Store HPOS provisioned on 13 July
- 2 PB Caringo Object Store HPOS provisioned on 13 July
- Event missing on 10 June
- Event missing on 10 June
- Event missing on 10 June
- Event missing on 10 June
- Project created on 29 April by Matthew Jones



Select the Services Tab

cedaproc

Overview **Services**



Please ensure that you click the **Submit for review** button once you have added your requirements to all services.

Group Workspace / cedaproc

2 PB HPOS-C	0 GB HPOS-QB	0 GB PFS	7 TB SOF
	0 GB SSD	0 GB tape	

Resource	Amount	Status	From	Until	Location
tape	7 TB	REQUESTED	2021-10-11	2027-10-11	TBC
HPOS-C	2 PB	PROVISIONED	2021-07-13	2026-07-13	ceda-archive-o.s3.jc.rl
HPOS-C	0 GB	PROVISIONED	2021-07-13	2026-07-13	cedadev-o.s3.jc.rl.ac.u
SOF	7 TB	PROVISIONED	2021-10-11	2027-10-11	/gws/nopw/j04/cedapr

[New requirement](#)

- View the resource type, location status, and size
 - SOF (Scale-Out File System)
 - HPOS-C (High-Performance Object Store)
 - SMF (Small File Storage)
 - PFS (Parallel File System)



From the accounts portal

- To view JASMIN services and account information

The screenshot shows the JASMIN Accounts Portal website. The browser address bar displays <https://accounts.jasmin.ac.uk>. The page header is green and contains the JASMIN logo, the text "JASMIN Services", and a user profile menu for "mbanj" with a notification count of "1". The main heading is "JASMIN Accounts Portal". Below this, a text box states: "Here, you can manage all aspects of your JASMIN account." Two blue buttons are visible: "My JASMIN account" (with a person icon) and "Manage JASMIN services" (with a gear icon). A red box highlights these two buttons. A red arrow labeled "1" points to the "My JASMIN account" button, and another red arrow labeled "2" points to the "Manage JASMIN services" button.



From My Services

- View all services you have access to

Navigate to more information for a specific service



My Services

JASMIN Services / My Services

- My Services
- Discover Services
- Login Services
- Sci Analysis VMs
- Group Workspaces
- Project VMs
- Cloud Tenancies
- Additional Services
- Object Store

This page shows the services for which you have requested or been granted access.

Login Services : jasmin-login

✓ USER

Access to the JASMIN shared services, i.e. login, transfer, scientific analysis servers, Jupyter notebook and LOTUS.

More information

Group Workspaces : cedapro

✓ USER ✓ MANAGER

CEDAproc group workspace, for CEDA staff only.

More information

Group Workspaces : workshop

✓ USER

A 2TB group workspace that is used for training workshops, hackathons and other short-term events. It is made accessible to event participants on a short-term basis.

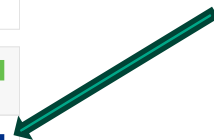
More information

Project VMs : et

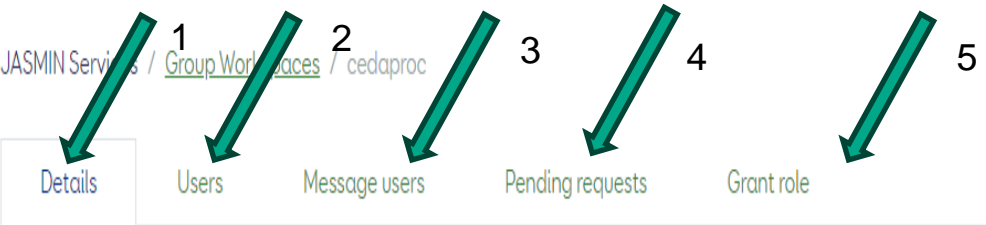
✓ USER

Elastic Tape machines

More information



From the My Services page you can see the following tabs



In order to access a Group Workspace, you must also apply for the [jasmin-login service](#).

CEDAproc group workspace, for CEDA staff only.

Current Access		
Role	Status	Expires
✓ USER	ACTIVE	7 Aug 2026
✓ MANAGER	ACTIVE	3 Nov 2026

Navigate to the Users Tab



Take note of the number of users and the toggle filters switch.

Group Workspaces : cedaproc

JASMIN Services / Group Workspaces / cedaproc

Details Users Manage Users Pending requests Grant role

Toggle filters 1

Username	Name	Institution	Role	Status	Expires	Granted By	
alisonp	Jane Pamment	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	27 Oct 2032	amanning	Revoke
amannin2	Alex Manning	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	12 Jun 2024	amanning	Revoke
amanning	Alex Manning	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	22 Nov 2027	amanning	Revoke
amwaterfall	Alison Waterfall	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	7 Jun 2033	spepler	Revoke
archread	- archread	Independent, United Kingdom	✓ USER	ACTIVE	17 Jun 9999	__IMPORTED__	Revoke
astephen	Ag Stephens	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	20 Oct 2027	astephen	Revoke
astephens	Ag Stephens	Science and Technology Facilities Council (STFC), United Kingdom	✓ USER	ACTIVE	11 Sep 2025	__IMPORTED__	Revoke
coan	Brian Coan	Science and Technology Facilities Council (STFC), United Kingdom	⊘ USER	REVOKED	26 Aug 2025	IMPORTED	

esml		
et_jasmin		
ewilliamson01		
fchami	Fatima Chami	Ce
gparton	Graham Parton	Scienc

74 grants / 67 users
«Page 1 of 4»

Group Workspaces

JASMIN Services

Details

Toggle filters

Filters

- 3
- USER
 - DEPUTY
 - MANAGER
- Status
- ACTIVE
 - EXPIRING
 - EXPIRED
 - REVOKED
- Apply

Group Workspaces

JASMIN Services

Details

Toggle filters

Filters

- 4
- USER
 - DEPUTY
 - MANAGER
- Status
- ACTIVE
 - EXPIRING
 - EXPIRED
 - REVOKED
- Apply



GWS Scanner Introduction

Background

- Need a way to see how space is being used
 - scans run in the background, centrally,



GWS Scanner

- Navigate to: <https://gws-scanner.jasmin.ac.uk/>
- Login using your JASMIN account

Login to JASMIN

JASMIN

JASMIN Group Workspace Scanner

Welcome to the JASMIN Group Workspace Scanner.

Please log in to view your group workspaces.

Log in

3

- From the My GWSs
- Select a GWS to view

JASMIN

JASMIN Group Workspace Scanner

Welcome to the JASMIN Group Workspace Scanner.

Follow the link to view your group workspaces.

My GWSs

All GWSs

5



GWS Scanner Cont ..

- From the list of GWSs select one to view its usage

JASMIN

My Group Workspaces

The group workspaces you have access to are listed below. Click on the location to go to the tree page.

Service Name	Location
cedaproc	/gws/nopw/j04/cedaproc
workshop	/gws/pw/j07/workshop
workshop	/gws/nopw/j04/workshop

1



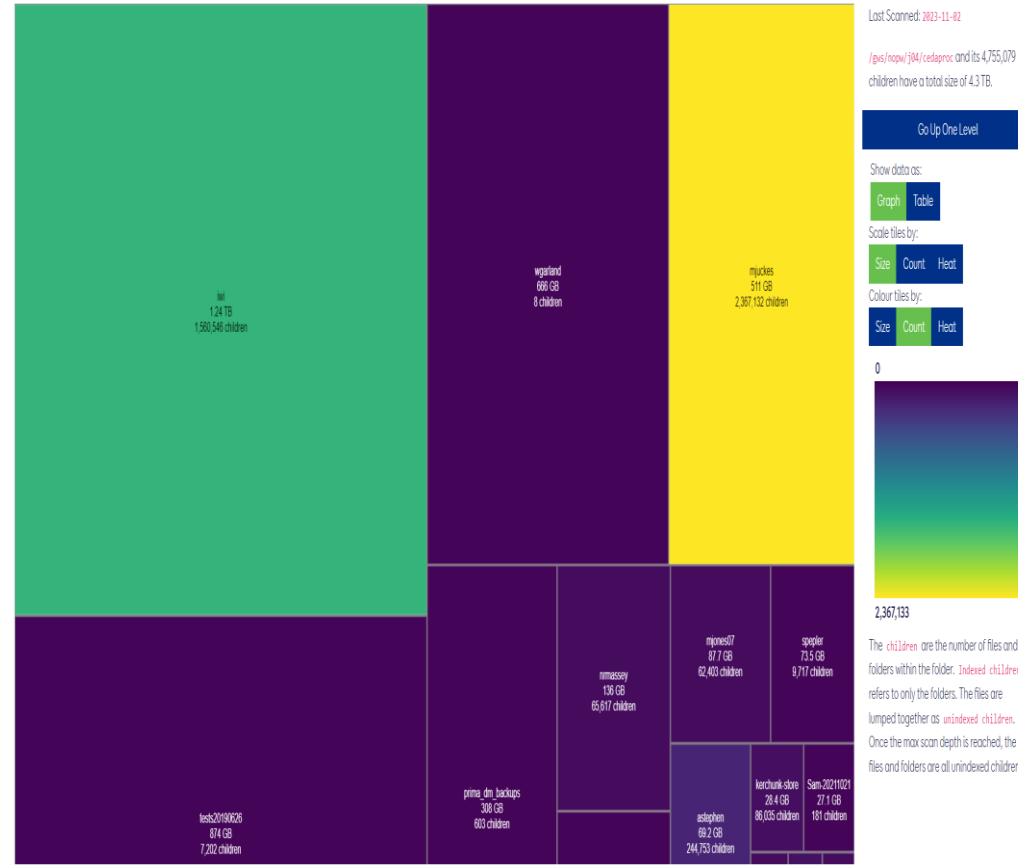
Science and Technology Facilities Council
Natural Environment Research Council

- From the selected GWS observe some metrics

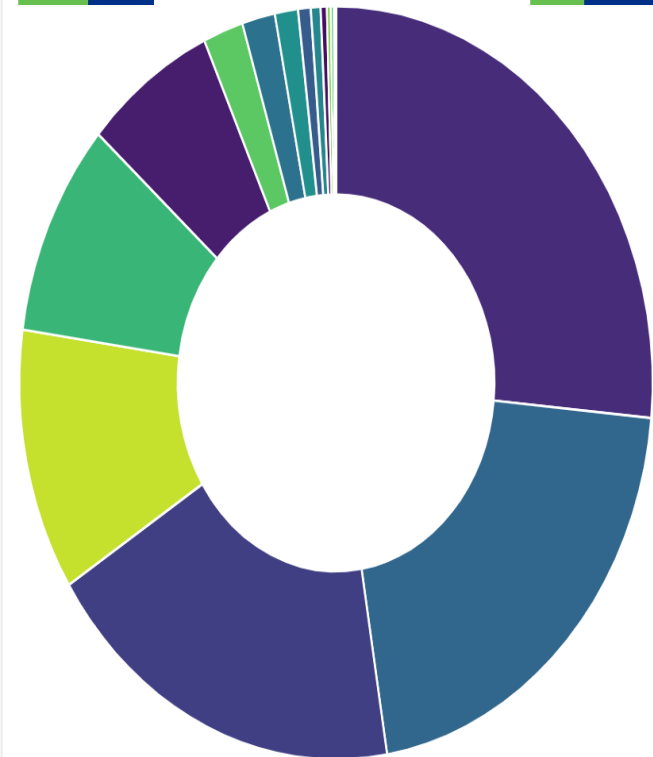
JASMIN

/gws/nopw/j04/cedaproc

2

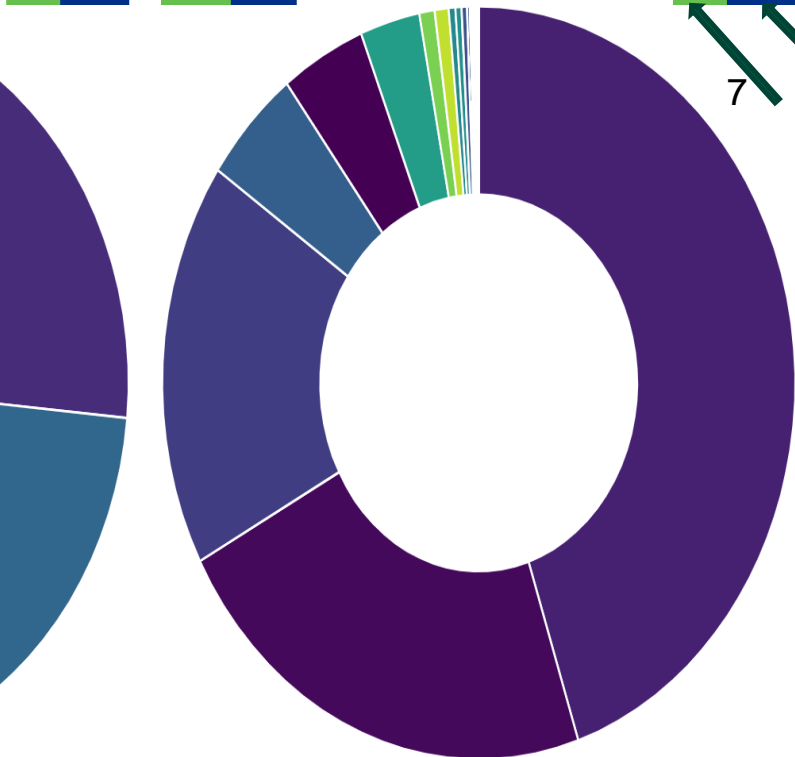


User Breakdown 1



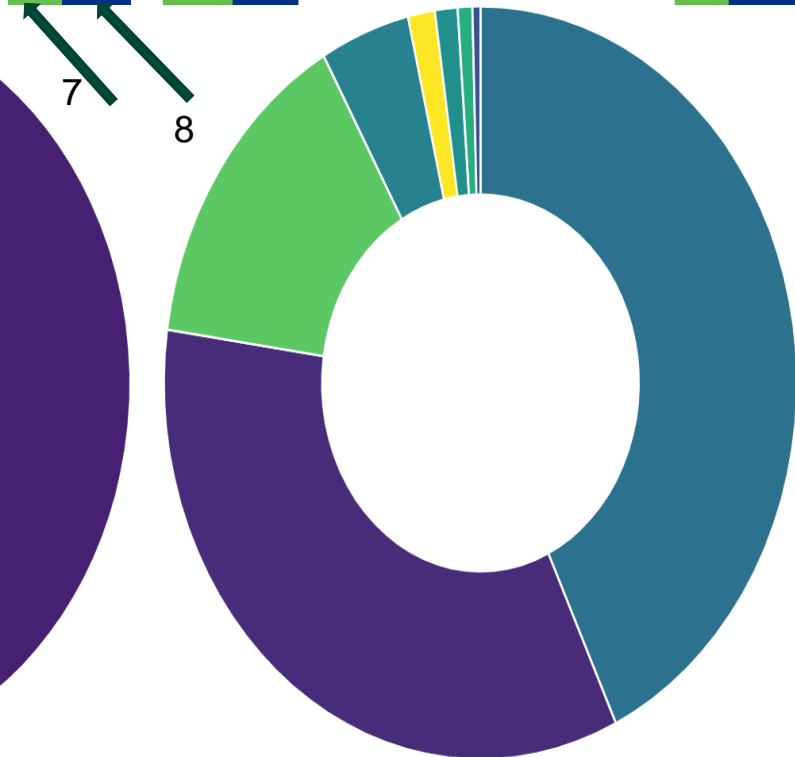
- iwi
- nfnobody
- badc
- mjuckles
- astephen
- root
- mjones07
- nrmassey
- fchami
- astephens
- spepler

Filetype Breakdown 2



- application/x-netcdf
- application/zip
- __unknown_file__
- application/x-tar
- text/plain
- application/json
- application/octet-stream
- application/x-director
- application/x-troff-man
- text/x-python
- application/x-python-code

Heat Breakdown 3

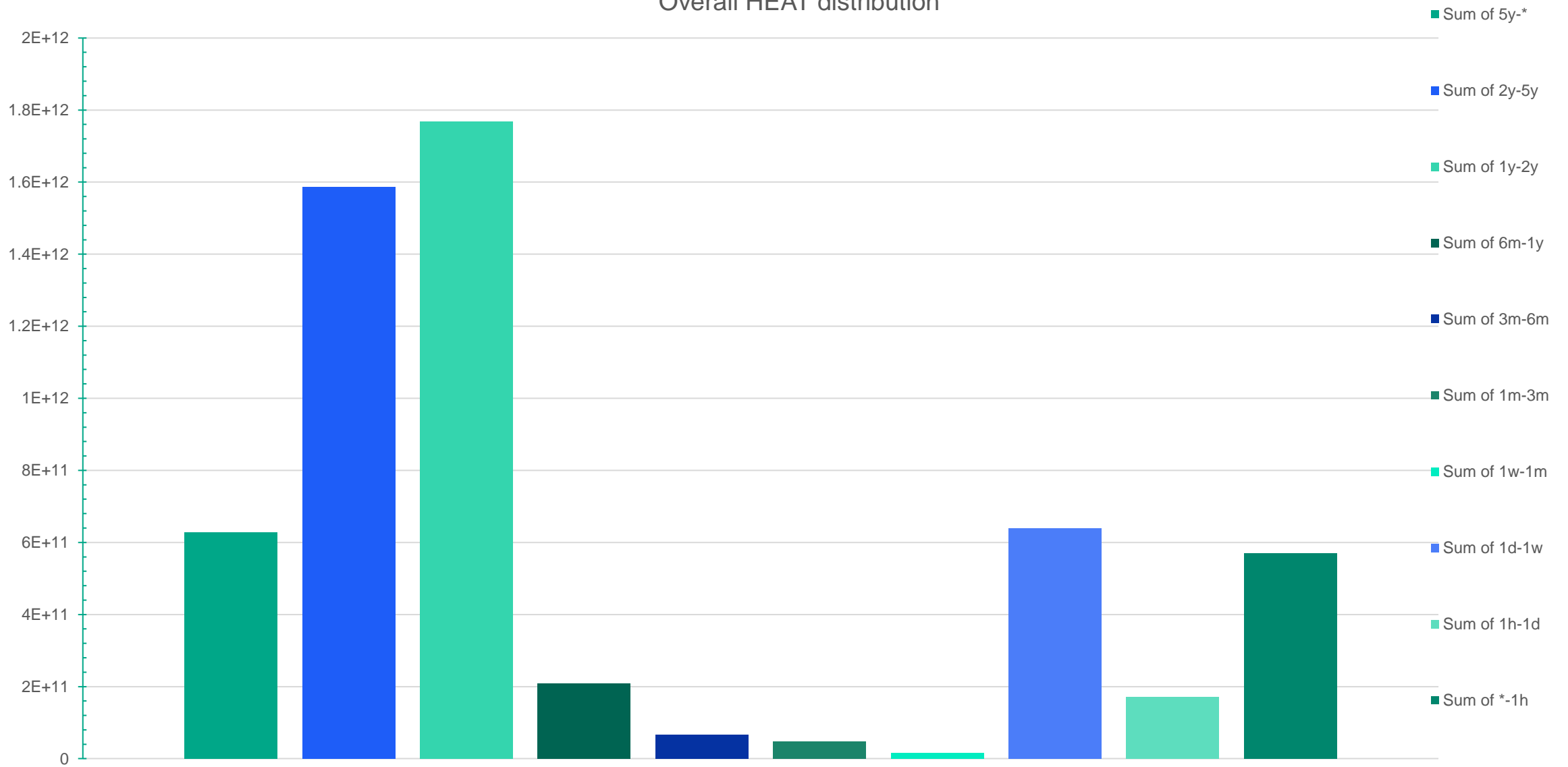


- 1y-2y
- 2y-5y
- 5y-*
- 6m-1y
- 3m-6m
- 1m-3m
- 1h-1d
- 1w-1m
- *-1h

Help ?



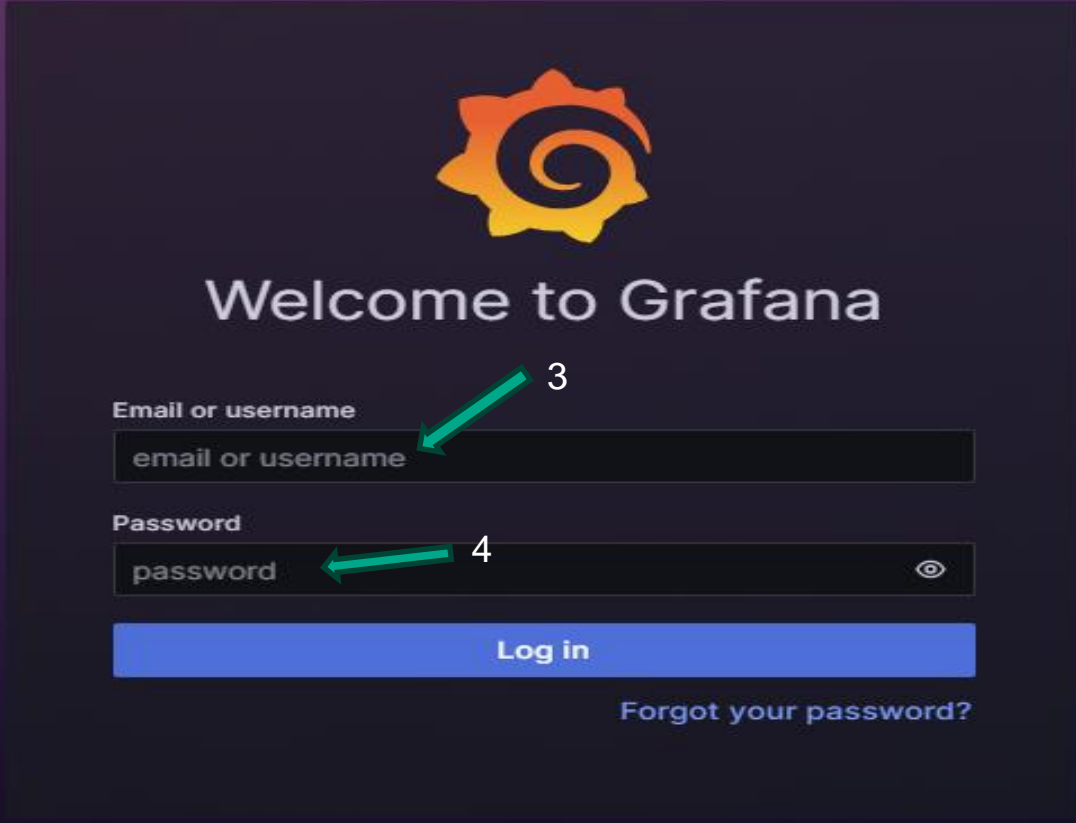
Overall HEAT distribution



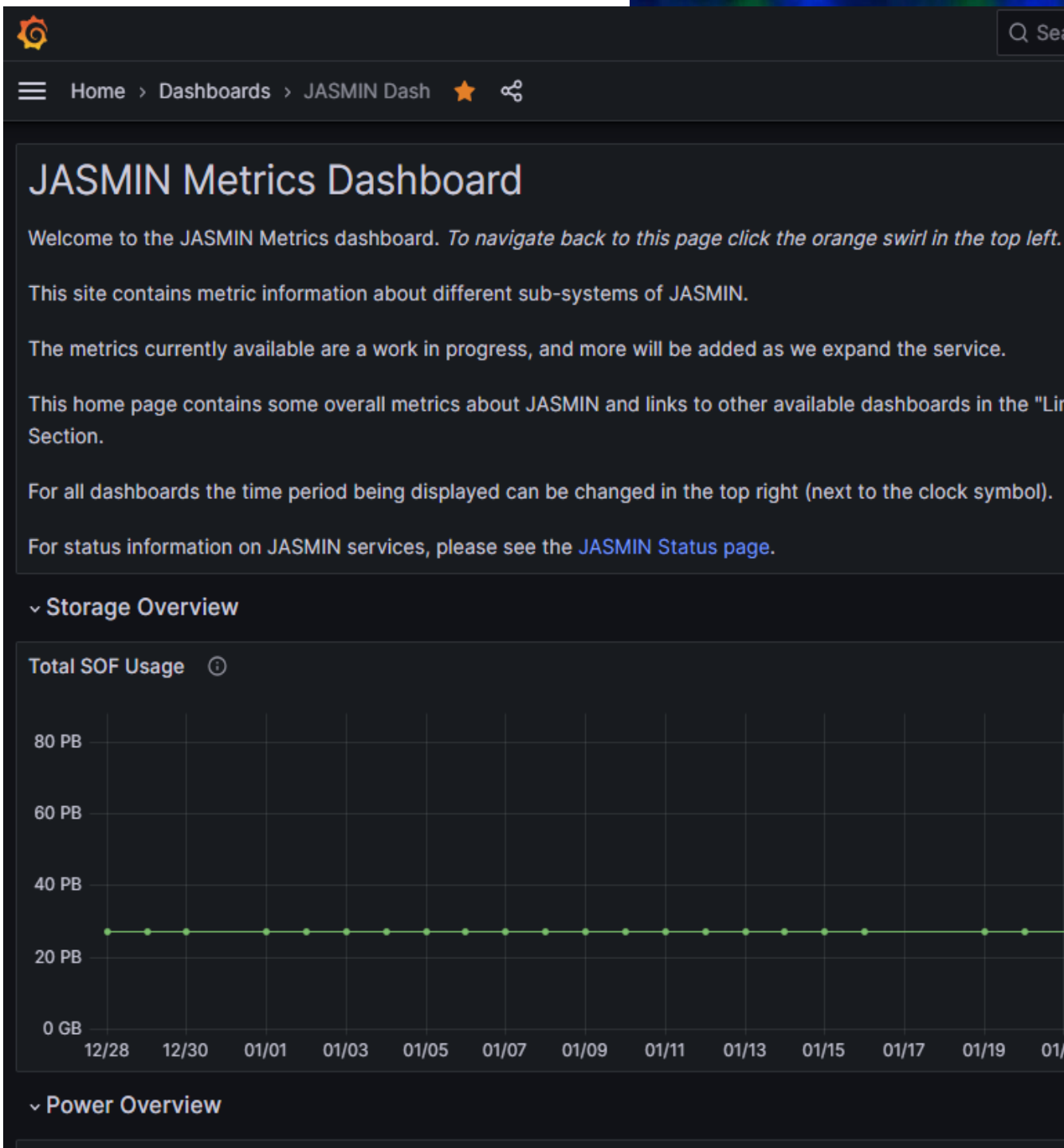
JASMIN Metrics Dashboard

- Navigate to: <https://mon.jasmin.ac.uk/> ← 1
- Login using your JASMIN account ← 2

Login to MON.JASMIN



The image shows the Grafana login interface. At the top center is the Grafana logo, a stylized orange and yellow gear with a spiral. Below the logo, the text "Welcome to Grafana" is displayed in a large, white, sans-serif font. Underneath, there are two input fields: "Email or username" and "Password". The "Email or username" field contains the placeholder text "email or username". The "Password" field contains the placeholder text "password" and has a small eye icon to its right. Below the input fields is a blue "Log in" button. At the bottom right of the login area, there is a link that says "Forgot your password?". Three red arrows with numbers 1, 2, and 3 point to the URL, the login instructions, and the email field respectively. A fourth red arrow with the number 4 points to the password field.



JASMIN Metrics Dashboard - Navigation

The screenshot shows the JASMIN Metrics Dashboard interface. At the top left, there is a gear icon labeled '2' with an arrow pointing to it. The top right features a search bar with the text 'Search or jump to...' and a 'cmd+k' button. Below the search bar is a breadcrumb trail: 'Home > Dashboards > JASMIN Dash', with a star and share icon. The main content area is titled 'JASMIN Metrics Dashboard' and contains several paragraphs of text. A link 'JASMIN Status page.' is highlighted with an arrow labeled '3'. On the right side, there is a sidebar titled 'Links to Dashboards' with an arrow labeled '1' pointing to it. The sidebar contains three links: 'GWS Dashboard', 'LOTUS Status Dashboard', and 'Power Dashboard'. At the bottom, there are two sections: 'Storage Overview' and 'Total SOF Usage' (with an info icon) on the left, and 'Total PFS Usage' on the right.

Group Workspace Dashboard

1: Search bar (Search or jump to...)

2: GWS dropdown menu (cedaproc)

3: PathSOF dropdown menu (All)

4: PathPFS dropdown menu (All)

5: Used SOF bar chart (5.76 TB)

6: Quota SOF bar chart (6.70 TB)

7: Used PFS bar chart (0 GB)

8: Quota PFS bar chart (0 GB)

9: Tape Used bar chart (0 GB)

10: Tape Quota bar chart (0 GB)

WELCOME TO THE GWS (group workspace) DASHBOARD.

Here you will be able to view information about metrics for a specific GWS. These are:

- SOF (scale-out filesystem) volume usage and quota
- PFS (parallel filesystem) volume usage and quota
- Tape usage and quota
- Number of GWS used

The dropdown boxes in the top left allow you to select one GWS to view for the above metrics. You can also filter this by specific SOF or PFS.



Home > Dashboards > GWS Dashboard

GWS: Enter variable value

- GW acci_climate
- GW acclim
- GW accord
- GW acix
- GW acpc
- GW acrg
- GW acsis
- GW acure
- GW aerchemmip
- GW aerosol_cci
- GW ai4er
- GW ai4netzero
- GW ales
- GW amoc_rapidwatch



Power Dashboard

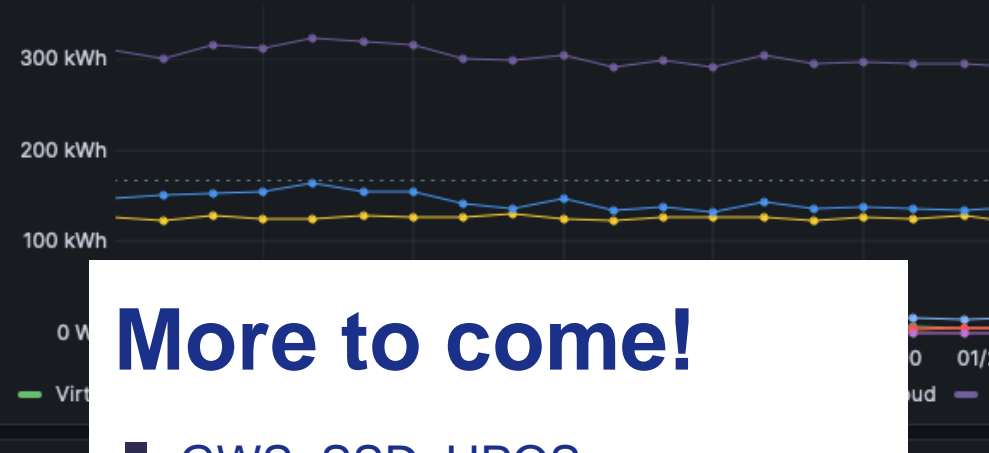
Welcome to the Power Dashboard.

This dashboard contains information about the power consumption of different server racks.

The groupings by "rack role" are not exact but done as correctly as possible.

Note that these graphs can break if the time selected is too long and show "No data".

Hourly Average power grouped by rack role



More to come!

- GWS: SSD, HPOS
- Scratch use
- JASMIN Notebook metrics
- LOTUS, JASMIN Users, Cloud, and more...

Power metrics

- Power consumption grouped by server type, and procurement phase



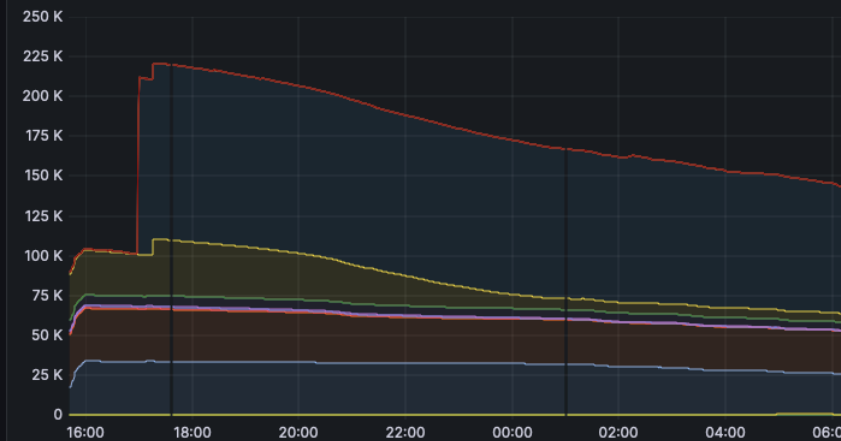
LOTUS Status

- Stats on the status of LOTUS incl. Running/pending/completed jobs

LOTUS Status Dashboard

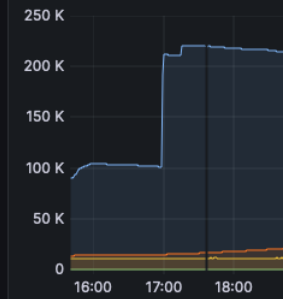
Welcome to the LOTUS Status Dashboard. Here you will find near real time information about LOTUS.

Pending Jobs per Partition

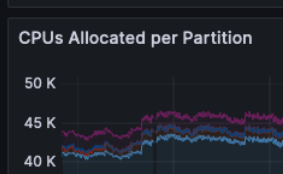


Running Jobs per Account

RUNNING/COMPL/PEND Jobs



CPU's Allocated per Partition



What actions to Take and take away

User Breakdown

User	Size
iwi	1.33 TB
mollymac	1.16 TB
nfsnobody	900 GB
badc	799 GB
mjuckes	485 GB
astephen	445 GB
root	288 GB
mjones07	87.7 GB
nrmassey	72.4 GB
fchami	51 GB
astephens	27.5 GB
spepler	21.6 GB
wcross	16.1 GB
mpritch	10.4 GB
gpardon	8.39 GB
mbanjec	4.15 GB
amwaterfall	1.27 GB
marcello	1.17 GB
amanning	913 MB
dwest77	869 MB
nlds	84.7 MB
jleland	67 MB
mpyor	138 kB

Filetype Breakdown

Filetype	Size
__unknown_file__	2.14 TB
application/x-netcdf	1.94 TB
application/zip	965 GB
application/x-tar	218 GB
text/plain	185 GB
application/json	131 GB
application/octet-stream	33.8 GB
application/x-director	30.5 GB
application/x-troff-man	14.5 GB
text/x-python	13.4 GB
application/x-python-code	12.1 GB
application/x-java-pack200	5.96 GB
text/tab-separated-values	4.13 GB
text/html	2.91 GB
application/x-hdf	2.5 GB

Heat Breakdown

Heat	Size
1y-2y	1.77 TB
2y-5y	1.59 TB
1d-1w	639 GB
5y-*	628 GB
*-1h	571 GB
6m-1y	208 GB
1h-1d	171 GB
3m-6m	66.8 GB
1m-3m	48.7 GB
1w-1m	17.1 GB

Abbreviation	Name
atmos	Atmospheric Science
director	Director's cross-cutting activities
ecohydro	Ecology & Hydrology
eoclim	Earth Observation & Climate
genomics	Genomics
geology	Geology
jwcrp	Joint Weather & Climate Research Programme
npq	National Public Good
oceanss	Ocean & Shelf Seas
polsci	Polar Science
semp	Solid Earth & Mineral Physics



1. Identify the locations of your files
2. Identify usage per user
3. Identify the file type and path
4. Identify HEAT and used storage
5. Plan ahead for the end of your project. Archive requirements need to be identified at the START of a project so CEDA Archive team can ensure data is curated properly.

Some useful links to documentation

- GWS Scanner:
 - <https://help.jasmin.ac.uk/article/4499-gws-scanner>
- GWS Scanner User Interface
 - <https://help.jasmin.ac.uk/article/5101-gws-scanner-ui>
- JASMIN STATUS page
 - <https://www.ceda.ac.uk/status/>
- JASMIN Documentation
 - <https://help.jasmin.ac.uk/>





Question and Answer Session



Thank You



JASMIN

UK
RI



Science and
Technology
Facilities Council

Natural
Environment
Research Council