



# BIBS Condo

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# BIBS Condo



- <https://ccv.brown.edu>
- [CCV's FAQ](#)
- [HELP: support@ccv.brown.edu](mailto:support@ccv.brown.edu)
- <https://ccv.brown.edu/education/workshops>



# Hardware

- 48 nodes ivy bridge 2.5 GHz processors, 128 GBytes
- 20 cores each (total 960 cores)
- 4 “FAT” nodes, AMD 2.8 GHz, 64 cores each, 512 GBytes RAM, 256 cores
- Total condo: 1216 cores
- TOTAL ALLOCATION: 1519 cores (1.25X)
- 56 GBit/sec connectivity



# Hardware (2)

- GPU condo:
- 16 nodes, 128 GTX-780 GPUs (March 2014)
- 75 Terabytes storage



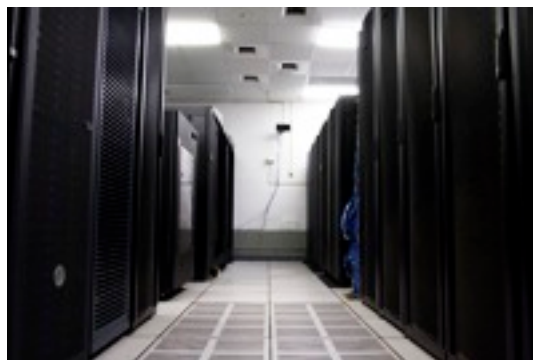
# Condo Membership

- Each group will have access to 200 cores
- Shared by all members of the group
- QoS (Quality of Service): bibs-'PI-userid'-condo
  - e.g., bibs-jsanes-condo
- Space as requested and approved (myquota)



# Resources per group

- 200 cores
- Waltime 200 x 5 days
- Memory 1.3 TB per group
- Fairshare: will manage fair access



# Fairshare

- Scenario: user1 submits 1000 jobs 2 hrs long
- 200 jobs will be running at one time, 800 jobs in the queue waiting for resources
- Priority for user1 is **decreasing** as jobs finish execution
- After 60 minutes user2 submits a 40 core parallel job (2 nodes) requesting 5 days
- User2 priority is set to 1.0. This job will bypass all other 800 queued-jobs and will run next as resources become available

# Access to Condo Resources



- via qos:
  - #SBATCH --qos=bibs-jsanes-condo
  - #SBATCH --partition=batch (recommended)
- via partition (queue)
  - #SBATCH --partition=ivy-batch (if needed)
    - » May take some time for job to start
- via feature
  - #SBATCH --constraint="amd-ibm" (to access the fat nodes)





# + Premium Accounts

- Default qos (access to 192-256 cores)
- Use bibs-qos (access to 200 additional cores)
- Premium plus ivy-batch == bibs-qos
  
- `$ qsub -u jaimeco`
- `3275898 ivy-batch myjob jaimeco R 0:17 1 node604 bibs-ccvdiv-condo`
- `3264651 batch gpaw jaimeco R 3-01:25:23 10 node[] pri-jaimeco`

# Scripts

```
#!/bin/bash -l
#SBATCH --job-name=BIBS-job
#SBATCH --time=10:0:0
#SBATCH --nodes=1
#SBATCH --ntasks-per-node=20
#SBATCH --mem=100GB
#SBATCH --qos=bibs-jsanes-condo
#SBATCH --partition=ivy-batch
#SBATCH --constraint="e5-2670"
```

# New users

- Request account:
- <https://ccv.brown.edu/start/accounts>
- Connect:
  - VNC: <https://ccv.brown.edu/technologies/vnc>
  - SSH: <https://ccv.brown.edu/start/connect>

# Interactive use

- `interact -t 2:0:0 -X -q batch`
- `mycores` (Find out how many cores in use)
  - 208
- `myquota2 jaimeco`

Type	Filesys	Used	Quota	Grace	Files	Quota	Grace
USR	home	1.324G	10G	none	44994	204800	none
USR	scratch	8.813G	512G	none	26953	8000000	none
USR	data	0	50T	none	1	0	none
GRP	data	0	256G	none	2	262144	none

# Useful Commands

- **condo** (find out what jobs are running under your condo)

– `condo bibs-xl6-condo`

Running:

ID	USER	NAME	CPU	WALLTIME	REMAIN
3269941	xl6	Simu31SRs5	1	10-00:00:00	2-00:14:35
3269952	xl6	Simu31Qs5	1	10-00:00:00	2-00:34:38
3270162	xl6	Simu31Qs1	1	10-00:00:00	2-05:47:34
3277825	xl6	M24SRs2	1	10-00:00:00	5-09:11:58
3277829	xl6	M24SRs5	1	10-00:00:00	5-09:21:35
3280076	xl6	M2.1SRs1	1	10-00:00:00	6-05:05:13

Pending:

(none)

# myq xl1

## Running:

ID	NAME	PART.	QOS	CPU	WTIM	REMAIN	NODES
3294248	mouse_auto_pipeline	batch	bibs-kbath-condo	16	30:00	19:36	node553
3294249	mouse_auto_pipeline	batch	bibs-kbath-condo	16	30:00	19:44	node472
3294250	10day_pos_tserre	batch	bibs-tserre-condo	16	4:00:00	3:52:23	node549
3294103	10day_c2	gpu	pri-xl1	8	4:00:00	3:52:36	gpu330
.....							
3294255	mouse_auto_pipeline	batch	bibs-jfallonp-condo	16	30:00	29:49	node431
3294256	mouse_auto_pipeline	batch	bibs-jfallonp-condo	16	30:00	29:49	node439
3294111	10day_c2	gpu	pri-xl1	8	4:00:00	3:58:37	gpu315
3294112	10day_c2	gpu	pri-xl1	8	4:00:00	3:58:37	gpu316
3294254	10day_pos_tserre	batch	bibs-tserre-condo	16	4:00:00	3:59:18	node520

## Pending:

ID	NAME	PART.	QOS	CPU	WALLTIME	EST.START	REASON
3294257	mouse_auto_pipeline	batch	bibs-jfallonp-condo	1	30:00	2014-03-06T13:40:04	(Resources)
3294258	mouse_auto_pipeline	batch	bibs-jfallonp-condo	1	30:00	2014-03-06T13:40:12	(Resources)
3294113	10day_c2	gpu	pri-xl1	2	4:00:00	N/A	(Resources)
3294114	10day_c2	gpu	pri-xl1	2	4:00:00	N/A	(Priority)
3294115	10day_c2	gpu	pri-xl1	2	4:00:00	N/A	(Priority)

# Reset QOS

- `setqos qos-name job-id [job-id . . .]`
- `setqos bibs-jfallonp-condo 3294113 3294114`

# HELP

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