CU Research Computing Cheatsheet

Summit partitions

Partition name	Description	# of nodes	cores/node	RAM/core (GB)	Max Walltime	Billing weight
`shas`	General Compute with Haswell CPUs (default)	380	24	5.25	24H	1
`sgpu`	GPU-enabled	10	24	5.25	24H	2.5
`smem`	High-memory	5	48	42	7D	6
`sknl`	Phi (Knights Landing) CPU	20	64	TBD	24H	0.1

Summit QOS-types

QOS name	Description	Max walltime	Max jobs/user	Node limits	Priority boost
`normal`	default	Derived from partition	n/a	256/user	0
`debug`	For quicker turnaround when testing	1H	1	32/job	Equiv. of 3-day queue wait time
`long`	For jobs needing longer wall times	7 D	n/a	22/user; 40 nodes total	0
`condo`	For groups who have purchased Summit nodes	7D	n/a	n/a	Equiv. of 1 day queue wait time

Blanca node specifications

Node name	High-prio QoS	cores/node	freq	RAM/core	local disk	Features
`bnode010[1-5]`	blanca-ics	32	2.6 GHz	256 GB	1 TB	sandybridge, avx, rhel6
`bnode010[6-7]`	blanca-igg	24	2.5 GHz	128 GB	1 TB	haswell, avx2, rhel6
`bnode01[08-11]`	blanca-ibgc1	48	2.5 GHz	256 GB	1 TB	haswell, avx2, rhel6
`bnode01[12-14]`	blanca-mrg	24	2.5 GHz	128 GB	1 TB	haswell, avx2, rhel6
`bnode01[15-16]`	blanca-el	56	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`bnode02[01-36]`	blanca-ccn	16	3.3 GHz	64 GB	1 TB	ivybridge, Quadro, k2000, avx, fdr, rhel7
`bnode0301`	blanca-ics	32	2.4 GHz	256 GB	1 TB	broadwell, avx2, rhel6
`bnode030[2-9]`	blanca-sha	28	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`bnode0310`	blanca-ics	32	2.4 GHz	256 GB	1 TB	broadwell, avx2, rhel6
`bnode0311`	blanca-ceae	28	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`bgpu-dhl1`	blanca-dhl	56	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7, Tesla, P100
`bnode03[12-15]`	blanca-pccs	28	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`bnode0316,bnode0401`	blanca-csdms	56	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`bnode04[02-03]`	blanca-sol	56	2.4 GHz	128 GB	1 TB	broadwell, avx2, rhel7
`himem04`	blanca-ibg	80	2.1 GHz	1024 GB	10 TB	westmere-ex, localraid, rhel6

Useful links

- Batch scheduling and Summit specifications
- Blanca resources