# Monthly Reporting

# Report from 01 July 2020 to 30 September 2020

#### **Report for Resource Pool XC on All machines**

A total of 3,910,809.592 kAU were available during this period.

#### Use and Allocations (by Project)

In the following table, Charged refers to usage which was charged against the project Allocation; whereas Used refers to usage including uncharged time. Uncharged time can arise from use of the Low Priority queue and/or during times when charging is disabled on the service.

The (Allocation) column is the time allocated to the project, scaled according to the reporting period and shown as a fraction of the available resources. If this report period is a sub-period of the Allocation period then the SAFE calculates the Allocation for this sub-period based on a linear spend profile of the total Allocation. If the usage for a project is not linear across the full Allocation period the the Use can be larger than the extrapolated Allocation.

Project	Project	Number	Charged		Used kAUs	Utilisation	Allocated	Allocation
	Class	of Jobs	kAUs	Utilisation			kAUs	
E635	Class1a	157	1,912.0			0.05%	10,052.4	
c01	Class1a	1,403	87,719.7				45,630.0	
e432	Class1a	357	26,182.8				23,451.4	
e448	Class1a	3,792	86,055.7		86,055.7	2.20%	104,346.4	
e517	Class1a	0	0.0		0.0	0.00%	161.2	
e519	Class1a	408	36,657.2	0.94%	45,246.3	1.16%	9,410.7	0.24%
e530	Class1a	7	673.4		673.4	0.02%	3,353.2	
e537	Class1a	0	0.0		0.0	0.00%	5,584.8	
e572	Class1a	2,269	5,744.0		6,203.1	0.16%	10,644.0	
e575	Class1a	943	17,549.3		17,555.5		8,546.6	
e584	Class1a	35	8,683.8		8,683.8		4,079.7	
e588	Class1a	13	391.2		391.2	0.01%	9,047.1	0.23%
e606	Class1a	734	7,297.4			0.19%	24,719.1	0.63%
e607	Class1a	1,426	83,826.0				47,759.6	
e608	Class1a	166	6,017.9		11,267.6		10,052.4	
e609	Class1a	607	3,747.9		3,747.9		35,694.0	
e610	Class1a	804	64,614.8		64,779.4	1.66%	21,465.7	0.55%
e613	Class1a	107	3,690.3				2,010.5	
e627	Class1a	1,954	22,082.4				22,239.3	
e630	Class1a	105	56,468.9	1.44%	109,596.1	2.80%	49,988.7	1.28%
e637	Class1a	0	0.0		0.0	0.00%	7,539.3	
e642	Class1a	0	0.0		0.0	0.00%	21,762.2	
e643	Class1a	151	86.1	0.00%	86.1	0.00%	22,429.4	
e645	Class1a	35	1,531.1	0.04%	1,531.1	0.04%	12,104.3	
e647	Class1a	778	13,089.5		13,093.5		15,929.3	
e648	Class1a	48	3,402.0		3,402.0	0.09%	14,421.8	
e649	Class1a	21	3,000.7			0.08%	12,568.3	
e651	Class1a	563	5,695.1	0.15%		0.15%	6,046.6	
e655	Class1a	170	2,380.2		2,531.4	0.06%	5,128.7	0.13%
e663	Class1a	520	5,818.8				5,026.2	
e667	Class1a	8	51.2			0.00%	3,659.0	
e668	Class1a	0	0.0		0.0	0.00%	3,396.0	
e01	Consortia	4,598	256,473.0		296,593.5	7.58%	251,503.0	
e05	Consortia	31,329	779,487.3		957,660.6		700,702.3	
e89	Consortia	10,627	324,108.8		329,214.0	8.42%	355,956.4	
e280	Consortia	2,209	176,163.6		184,550.4	4.72%	149,951.5	
e281	Consortia	1,143	41,477.4		43,709.9		53,595.6	
e283	Consortia	3,649	47,439.2			1.23%	56,141.9	
e305	Consortia	2,827	126,919.1				174,099.5	
e585	Consortia	1,316	96,749.7		118,702.3		87,978.1	
e658	Consortia	2,269	87,276.0	2.23%	89,051.7	2.28%	76,939.5	1.97%

Project	Project	Number	Charged	Charged	Used kAUs	Utilisation	Allocated	Allocation
	Class	of Jobs	kAUs	Utilisation			kAUs	
e348	Direct Access: ARCHER RAP	58	10,639.6	0.27%	10,639.6	0.27%	17,417.1	0.45%
e664	Direct Access: ARCHER RAP	0	0.0	0.00%	0.0	0.00%	3,779.7	0.10%
e632	Instant Access	4,774	5,535.1	0.14%	5,669.3	0.14%	2,774.6	0.07%
		21	578.1	0.01%	985.0	0.03%	403.0	0.01%
	Instant Access	0	0.0		0.0	0.00%	404.5	0.01%
	Instant Access	0	0.0		0.0	0.00%	270.4	0.01%
e657	Instant Access	0	0.0		0.0	0.00%	550.9	0.01%
	Instant Access	33 0	0.6		0.6		600.9	0.02%
e660 e661	Instant Access Instant Access	3,605	0.0 1,182.1	0.00% 0.03%	0.0 1,182.1	0.00% 0.03%	599.9 599.9	0.02% 0.02%
	Instant Access	0	0.0		0.0	0.00%	603.1	0.02%
	Instant Access	10	0.0	0.00%	0.0	0.00%	603.1	0.02%
e670		0	0.0	0.00%	0.0	0.00%	195.7	0.01%
e631	Training	0	0.0			0.00%	2,030.6	0.05%
e644	Training	349	551.5		581.2	0.01%	6,786.3	0.17%
e654	Training	570	4,271.1	0.11%	6,295.5	0.16%	9,886.6	0.25%
ta002	Training	379	467.8		312.3	0.01%	1,000.0	0.03%
tc011	Training	9	0.1	0.00%		0.00%	129.2	0.00%
e666	COVID-19 HPC Consortium	0	0.0	0.00%	0.0	0.00%	53,000.0	1.36%
EPSRC Total		87,356	2,513,689.2		2,846,595.6		2,586,751.0	66.14%
n01	Consortia	5,157	154,372.2		152,433.7	3.90%	388,208.1	9.93%
n02	Consortia	35,148	355,825.9		362,882.1	9.28%	560,238.8	14.33%
n03	Consortia	6,737	89,218.8		90,587.5		252,656.7	6.46%
NERC Total		47,042	599,416.9		605,903.3	15.49%	1,201,103.6	30.71%
e621	Class1a	110	2,905.0		2,905.0	0.07%		0.34%
e568 BBSRC Total	Research	0 110	0.0 2,905.0			0.00%	11,487.3	0.29% 0.64%
pr1u0001	DECI: EXEC	0	2,905.0		<mark>2,905.0</mark> 0.0	0.07% 0.00%	<mark>24,887.6</mark> 8.4	0.04%
pr1u0001	DECI: EXEC	44	31,823.2		31,823.2	0.81%	15,631.6	0.00%
pr1u1552	DECI: EXEC	526	14,424.5		14,424.5	0.37%	8,843.2	0.23%
pr1u1553	DECI: EXEC	216	14,450.5		14,450.5	0.37%	20,024.8	0.51%
pr1u1554	DECI: EXEC	519	1,402.9		1,742.3	0.04%	1,753.9	0.04%
pr1u1651	DECI: EXEC	4	348.4	0.01%	348.4	0.01%	551.2	0.01%
pr1u1652	DECI: EXEC	0	0.0	0.00%	0.0	0.00%	4,724.6	0.12%
pr1u1653	DECI: EXEC	42	1,476.1	0.04%	1,476.1	0.04%	5,999.5	0.15%
pr1u1654	DECI: EXEC	0	0.0		0.0	0.00%	1,006.3	0.03%
pr1u1655	DECI: EXEC	47	8.9	0.00%	8.9	0.00%	2,536.6	0.06%
pr1u1656	DECI: EXEC	614	2,103.2			0.05%		0.08%
pr1u1657 pr1u1658	DECI: EXEC DECI: EXEC	0	0.0			0.00%		0.02%
pr1u1038	DECI: HOME	0	0.0		0.0	0.00%		0.00%
pr1u1502	DECI: HOME	0	0.0			0.00%		0.00%
pr1u1503	DECI: HOME	8	105.9			0.00%		0.00%
pr1u1504	DECI: HOME	0	0.0			0.00%	0.2	0.00%
pr1u1505	DECI: HOME	39	0.0			0.39%	0.2	0.00%
pr1u1506	DECI: HOME	0	0.0			0.00%	,	0.12%
pr1u1507	DECI: HOME	0	0.0		0.0	0.00%	0.2	0.00%
pr1u1601	DECI: HOME	0	0.0			0.00%	0.2	0.00%
pr1u1602	DECI: HOME	0	0.0			0.00%	0.2	0.00%
pr1u1603	DECI: HOME	0	0.0			0.00%	0.2	0.00%
pr1u1604	DECI: HOME	0	0.0			0.00%		0.00%
pr1u1605 pr1u1606	DECI: HOME DECI: HOME	0	0.0			0.00% 0.00%	0.2	0.00%
pr1u1606 pr1u1607	DECI: HOME	0	0.0		0.0	0.00%	0.2	0.00%
pr1u1608	DECI: HOME	0	0.0		0.0	0.00%	0.4	0.00%
pr1u1609	DECI: HOME	0	0.0			0.00%	0.2	0.00%
pr1u1610	DECI: HOME	0	0.0	0.00%		0.00%	0.2	0.00%
pr1u1611	DECI: HOME	61	1,801.4	0.05%		0.05%		0.01%
pr1uco79	DECI: HOME	87	8,468.1	0.22%		0.22%		
PRACE Total		2,207	76,413.0		91,976.9	2.35%	99,788.5	

Project	Project Class	Number of Jobs	Charged kAUs	Charged Utilisation	Used kAUs	Utilisation	Allocated kAUs	Allocation
d43	ECDF	0	0.0	0.00%	0.0	0.00%	904.9	0.02%
d35	Research	21	19.9	0.00%	19.9	0.00%	499.9	0.01%
d56	Research	586	4,376.1	0.11%	4,460.1	0.11%	15,082.0	0.39%
d88	Research	0	0.0	0.00%	0.0	0.00%	1.7	0.00%
d114	Research	1,691	19,970.3	0.51%	19,996.1	0.51%	38,019.2	0.97%
d118	Research	484	648.9	0.02%	648.9	0.02%	1,005.5	
d137	Research	110	7,939.2	0.20%	7,939.2	0.20%	7,553.4	0.19%
d142	Research	450	1,243.5	0.03%	1,243.5	0.03%	1,633.9	0.04%
d143	Research	108	3,597.7	0.09%	3,597.7	0.09%	3,770.5	0.10%
d155	Research	57	1,181.7	0.03%	1,181.7	0.03%	6,284.2	0.16%
d170	Research	581	0.0	0.00%	0.0	0.00%	2.5	0.00%
d428	Research	6	184.5	0.00%	184.5		1,053.3	0.03%
d429	Research	0	0.0	0.00%	0.0	0.00%	744.0	0.02%
d430	Research	0	0.0	0.00%	0.0	0.00%	16,275.1	0.42%
W22	Industrial	0	0.0	0.00%	0.0		1,507.9	0.04%
d153	Industrial	288	448.8	0.01%	449.0		502.7	0.01%
i01	Industrial	7	1,176.1	0.03%	1,176.1	0.03%	1,847.0	0.05%
i21	Industrial	13	1,088.6	0.03%	725.8		50,273.2	1.29%
i236	Industrial	11	171.6	0.00%	171.6		391.4	0.01%
w21	Industrial	7	852.4	0.02%	1,591.2		1,507.9	0.04%
w23	Industrial	0	0.0	0.00%	0.0	0.00%	1,507.9	0.04%
w24	Industrial	10	1,715.4	0.04%	1,715.4	0.04%	1,507.9	0.04%
d171	Training	1,012	295.4	0.01%	295.5		3,358.2	0.09%
DirectorsTime Total		5,442	44,910.2	1.15%	45,396.1	1.16%	155,233.9	3.97%
y14	Training	51	0.0	0.00%	0.0	0.00%	502.7	0.01%
y02	Service	0	0.0	0.00%	0.0	0.00%	125.7	0.00%
y07	Service	0	0.0	0.00%	0.0	0.00%	273.8	0.01%
z01	Service	31	0.0	0.00%	0.0	0.00%	37.5	0.00%
z02	Service	0	0.0	0.00%	0.0		12.6	
z19	Service	621	3,511.1	0.09%	3,511.5		6,571.4	0.17%
CSE Total		703	3,511.2	0.09%	3,511.6		7,523.8	
Total		142,860	3,240,845.3	82.87%	3,596,288.5	91.96%	4,075,288.3	104.21%



Use by Project



#### Jobs by Project



# kAUs (by Size)

Size	kAUs	Number of Jobs
17-32	17,958.445	50,745
33-64	29,371.591	10,929
65-128	174,217.868	15,644
129-256	481,694.53	38,093
257-512	572,965.644	14,536
513-1024	517,378.675	
1025-2048	441,869.131	3,977
2049-4096	336,264.062	1,394
4097-8192	231,438.516	970
8193-16384	171,027.828	434
16385-32768	106,762.513	176

Size	kAUs	Number of Jobs
32769-65536	107,994.301	47
65537-131072	27,675.681	15





Percentage load on machine



Jobs by Size



kAUs used by Size



Jobs grouped by wall-clock-hours



kAUs used grouped by wall-clock-hours



Jobs grouped by core-hours



kAUs used grouped by core-hours

# Disk usage

# Disk usage for rdf ( epsrc )

This is a plot of Disk Use on epsrc against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for rdf (general)

This is a plot of Disk Use on general against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for work (fs2)

This is a plot of Disk Use on fs2 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for work (fs3)

This is a plot of Disk Use on fs3 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for work (fs4)

This is a plot of Disk Use on fs4 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (home1)

This is a plot of Disk Use on home1 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (home2)

This is a plot of Disk Use on home2 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (home3)

This is a plot of Disk Use on home3 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (home4)

This is a plot of Disk Use on home4 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for tdswork (fs1)

This is a plot of Disk Use on fs1 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for ( indy2fs )

This is a plot of Disk Use on indy2fs against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (a2fs-home1)

This is a plot of Disk Use on a2fs-home1 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (a2fs-home2)

This is a plot of Disk Use on a2fs-home2 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for home (a2fs-home3)

This is a plot of Disk Use on a2fs-home3 against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



## Disk usage for work (archer2-4c-work)

This is a plot of Disk Use on archer2-4c-work against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.



# Disk usage for work ( archer2-tds-work )

This is a plot of Disk Use on archer2-tds-work against time. The plot is divided into a number of classes according to Project. This is a stacked plot so the top of the plot represents the total usage at a given time.

