## Monthly Reporting

## Report from 01 February 2019 to 28 February 2019

## Report for Resource Pool XC on ARCHER

A total of 1,190,246.397 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 Class | Number of Jobs | Charged kAUs | Charged Utilisation | Used kAUs | Utilisation | Allocated kAUs | Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| e526 | Leadership Awards | 47 | 19,179.3 | 1.61\% | 19,179.3 | 1.61\% | 1,358.4 | 0.11\% |
| e572 | Leadership Awards | 113 | 2,255.1 | 0.19\% | 3,011.5 | 0.25\% | 2,769.9 | 0.23\% |
| c01 | Class1a | 1,115 | 4,515.1 | 0.38\% | 4,515.1 | 0.38\% | 5,724.6 | 0.48\% |
| e341 | Class1a | 1 | 76.0 | 0.01\% | 76.0 | 0.01\% | 1,923.1 | 0.16\% |
| e365 | Class1a | 2 | 170.9 | 0.01\% | 170.9 | 0.01\% | 2,147.5 | 0.18\% |
| e403 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 7,788.1 | 0.65\% |
| e432 | Class1a | 136 | 4,558.3 | 0.38\% | 4,558.3 | 0.38\% | 5,890.6 | 0.49\% |
| e448 | Class1a | 1,948 | 25,774.1 | 2.17\% | 25,780.6 | 2.17\% | 30,319.8 | 2.55\% |
| e451 | Class1a | 49 | 1,672.6 | 0.14\% | 2,637.0 | 0.22\% | 3,420.1 | 0.29\% |
| e514 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 464.0 | 0.04\% |
| e515 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,094.6 | 0.26\% |
| e517 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 123.7 | 0.01\% |
| e518 | Class1a | 6 | 752.3 | 0.06\% | 752.3 | 0.06\% | 1,230.8 | 0.10\% |
| e519 | Class1a | 46 | 4,848.8 | 0.41\% | 5,986.6 | 0.50\% | 13,846.2 | 1.16\% |
| e520 | Class1a | 48 | 5,451.3 | 0.46\% | 9,115.0 | 0.77\% | 2,246.7 | 0.19\% |
| e523 | Class1a | 64 | 8,657.9 | 0.73\% | 12,303.6 | 1.03\% | 4,874.1 | 0.41\% |
| e527 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 1,695.9 | 0.14\% |
| e530 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 1,026.2 | 0.09\% |
| e537 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,489.2 | 0.29\% |
| e558 | Class1a | 21 | 2.6 | 0.00\% | 2.6 | 0.00\% | 690.4 | 0.06\% |
| e569 | Class1a | 73 | 4,329.4 | 0.36\% | 4,329.4 | 0.36\% | 1,795.9 | 0.15\% |
| e571 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 184.7 | 0.02\% |
| e575 | Class1a | 98 | 2,921.3 | 0.25\% | 2,922.0 | 0.25\% | 2,165.2 | 0.18\% |
| e580 | Class1a | 2 | 28.9 | 0.00\% | 28.9 | 0.00\% | 2,247.7 | 0.19\% |
| e584 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 1,257.7 | 0.11\% |
| e588 | Class1a | 8 | 277.1 | 0.02\% | 277.1 | 0.02\% | 1,835.9 | 0.15\% |
| e605 | Class1a | 12 | 287.3 | 0.02\% | 287.3 | 0.02\% | 1,020.8 | 0.09\% |
| e606 | Class1a | 260 | 1,211.5 | 0.10\% | 1,211.5 | 0.10\% | 3,938.3 | 0.33\% |
| e607 | Class1a | 6 | 0.2 | 0.00\% | 0.2 | 0.00\% | 4,615.4 | 0.39\% |
| e608 | Class1a | 162 | 2,280.2 | 0.19\% | 2,280.3 | 0.19\% | 3,847.0 | 0.32\% |
| e609 | Class1a | 60 | 3.3 | 0.00\% | 3.3 | 0.00\% | 8,461.5 | 0.71\% |
| e610 | Class1a | 128 | 153.1 | 0.01\% | 153.1 | 0.01\% | 6,962.9 | 0.58\% |
| e611 | Class1a | 32 | 937.2 | 0.08\% | 937.2 | 0.08\% | 1,005.8 | 0.08\% |
| e613 | Class1a | 35 | 1,624.7 | 0.14\% | 1,624.7 | 0.14\% | 923.3 | 0.08\% |
| e554 | Class1b | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 195.0 | 0.02\% |
| e01 | Consortia | 1,240 | 55,116.2 | 4.63\% | 76,808.1 | 6.45\% | 72,023.8 | 6.05\% |
| e05 | Consortia | 8,947 | 186,057.5 | 15.63\% | 219,887.2 | 18.47\% | 167,962.1 | 14.11\% |
| e89 | Consortia | 4,631 | 113,145.1 | 9.51\% | 124,249.4 | 10.44\% | 109,504.6 | 9.20\% |
| e280 | Consortia | 15,142 | 41,913.1 | 3.52\% | 41,913.5 | 3.52\% | 49,509.7 | 4.16\% |
| e281 | Consortia | 1,044 | 25,994.9 | 2.18\% | 28,399.2 | 2.39\% | 19,486.5 | 1.64\% |


| Project | Project Class | Number of Jobs | Charged kAUs | Charged <br> Utilisation | Used kAUs | Utilisation | Allocated kAUs | Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| e283 | Consortia | 1,227 | 2,626.2 | 0.22\% | 2,651.6 | 0.22\% | 12,032.0 | 1.01\% |
| e305 | Consortia | 871 | 32,019.5 | 2.69\% | 32,784.2 | 2.75\% | 37,505.5 | 3.15\% |
| e585 | Consortia | 470 | 25,852.7 | 2.17\% | 31,603.5 | 2.66\% | 23,076.9 | 1.94\% |
| e348 | Direct Access: ARCHER RAP | 197 | 3,777.2 | 0.32\% | 3,777.2 | 0.32\% | 4,841.6 | 0.41\% |
| e590 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 46 | 1,161.0 | 0.10\% | 1,161.0 | 0.10\% | 3,660.2 | 0.31\% |
| e593 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,481.5 | 0.29\% |
| e595 | $\begin{aligned} & \hline \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,063.2 | 0.26\% |
| e596 | Direct Access: ARCHER RAP | 88 | 1,236.0 | 0.10\% | 1,236.0 | 0.10\% | 1,189.5 | 0.10\% |
| e599 | $\begin{aligned} & \hline \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,036.5 | 0.26\% |
| e601 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 15 | 350.1 | 0.03\% | 350.1 | 0.03\% | 4,268.6 | 0.36\% |
| e602 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 18 | 773.0 | 0.06\% | 773.0 | 0.06\% | 1,696.7 | 0.14\% |
| e603 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 2,827.9 | 0.24\% |
| e614 | Direct Access: ARCHER RAP | 381 | 317.2 | 0.03\% | 317.2 | 0.03\% | 4,616.4 | 0.39\% |
| e616 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 287 | 133.9 | 0.01\% | 133.9 | 0.01\% | 1,203.2 | 0.10\% |
| e617 | Direct Access: ARCHER RAP | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 6,882.9 | 0.58\% |
| e618 | Direct Access: | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 2,120.9 | 0.18\% |
| e619 | $\begin{aligned} & \hline \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 1 | 0.0 | 0.00\% | 0.0 | 0.00\% | 855.0 | 0.07\% |
| e620 | $\begin{aligned} & \text { Direct Access: } \\ & \text { ARCHER RAP } \end{aligned}$ | 81 | 3,853.3 | 0.32\% | 3,863.7 | 0.32\% | 6,022.7 | 0.51\% |
| e622 | Direct Access: ARCHER RAP | 135 | 7,731.9 | 0.65\% | 7,731.9 | 0.65\% | 2,617.8 | 0.22\% |
| e582 | Instant Access | 87 | 43.3 | 0.00\% | 43.3 | 0.00\% | 710.9 | 0.06\% |
| e592 | Instant Access | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 130.7 | 0.01\% |
| e600 | Instant Access | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 84.8 | 0.01\% |
| e624 | Instant Access | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 6.7 | 0.00\% |
| e573 | Training | 17 | 83.0 | 0.01\% | 83.0 | 0.01\% | 1,732.1 | 0.15\% |
| e589 | Training | 1,103 | 1,303.3 | 0.11\% | 1,303.8 | 0.11\% | 2,754.1 | 0.23\% |
| e604 | Training | 826 | 1,591.7 | 0.13\% | 1,597.2 | 0.13\% | 1,724.7 | 0.14\% |
| e612 | Training | 135 | 1,293.0 | 0.11\% | 1,293.0 | 0.11\% | 1,385.7 | 0.12\% |
| y16 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 127.9 | 0.01\% |
| z17 | Service | 82 | 8,632.1 | 0.73\% | 8,632.1 | 0.73\% | 3,094.6 | 0.26\% |
| EPSRC Total |  | 41,543 | 606,973.9 | 51.00\% | 692,736.9 | 58.20\% | 689,818.7 | 57.96\% |
| n01 | Consortia | 5,016 | 83,285.1 | 7.00\% | 99,332.5 | 8.35\% | 98,575.3 | 8.28\% |
| n02 | Consortia | 33,331 | 142,423.9 | 11.97\% | 144,913.1 | 12.18\% | 154,958.9 | 13.02\% |
| n03 | Consortia | 6,749 | 58,301.0 | 4.90\% | 59,308.6 | 4.98\% | 81,315.1 | 6.83\% |
| NERC Total |  | 45,096 | 284,010.0 | 23.86\% | 303,554.3 | 25.50\% | 334,849.3 | 28.13\% |
| e621 | Leadership Awards | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,636.2 | 0.31\% |
| e568 | Research | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3,210.0 | 0.27\% |
| BBSRC Total |  | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 6,846.2 | 0.58\% |
| pr1u0002 | Class1a | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 153.4 | 0.01\% |
| pr1u0001 | DECI: EXEC | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 0.4 | 0.00\% |
| pr1u1455 | DECI: EXEC | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 769.0 | 0.06\% |
| pr1utd02 | DECI: EXEC | 6 | 44.1 | 0.00\% | 73.6 | 0.01\% | 120.9 | 0.01\% |
| PRACE Total |  | 6 | 44.1 | 0.00\% | 73.6 | 0.01\% | 1,043.7 | 0.09\% |
| ecse0910 | eCSE | 2 | 0.0 | 0.00\% | 0.0 | 0.00\% | 46.1 | 0.00\% |
| ecse1012 | eCSE | 1 | 0.2 | 0.00\% | 0.2 | 0.00\% | 36.3 | 0.00\% |
| ecse1303 | eCSE | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 43.2 | 0.00\% |
| ecse1307 | eCSE | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 43.2 | 0.00\% |
| ecse1320 | eCSE | 92 | 0.0 | 0.00\% | 0.0 | 0.00\% | 40.7 | 0.00\% |


| Project | Project Class | Number of Jobs | Charged kAUs | Charged Utilisation | Used kAUs | Utilisation | Allocated kAUs | Allocation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| eCSE Total |  | 95 | 0.2 | 0.00\% | 0.2 | 0.00\% | 209.5 | 0.02\% |
| d43 | ECDF | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 767.1 | 0.06\% |
| d56 | Research | 975 | 3,190.6 | 0.27\% | 3,190.6 | 0.27\% | 6,189.3 | 0.52\% |
| d67 | Research | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 153.4 | 0.01\% |
| d87 | Research | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 0.1 | 0.00\% |
| d114 | Research | 523 | 11,287.2 | 0.95\% | 12,547.8 | 1.05\% | 10,219.2 | 0.86\% |
| d118 | Research | 123 | 183.6 | 0.02\% | 183.6 | 0.02\% | 76.7 | 0.01\% |
| d137 | Research | 11 | 0.1 | 0.00\% | 0.1 | 0.00\% | 2,301.4 | 0.19\% |
| d142 | Research | 94 | 218.4 | 0.02\% | 333.7 | 0.03\% | 1,304.1 | 0.11\% |
| d143 | Research | 13 | 366.9 | 0.03\% | 366.9 | 0.03\% | 2,307.7 | 0.19\% |
| d149 | Research | 272 | 1,674.5 | 0.14\% | 1,674.5 | 0.14\% | 354.4 | 0.03\% |
| d150 | Research | 53 | 6,752.8 | 0.57\% | 6,752.8 | 0.57\% | 7,427.1 | 0.62\% |
| d155 | Research | 555 | 3,886.1 | 0.33\% | 3,886.1 | 0.33\% | 1,278.5 | 0.11\% |
| d166 | Research | 64 | 1,345.1 | 0.11\% | 1,345.1 | 0.11\% | 625.2 | 0.05\% |
| d170 | Research | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 0.1 | 0.00\% |
| d426 | Research | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 76.7 | 0.01\% |
| d153 | Industrial | 577 | 822.5 | 0.07\% | 823.5 | 0.07\% | 920.5 | 0.08\% |
| d156 | Industrial | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 20.5 | 0.00\% |
| d168 | Industrial | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 76.7 | 0.01\% |
| i01 | Industrial | 13 | 208.6 | 0.02\% | 208.6 | 0.02\% | 43.8 | 0.00\% |
| i18 | Industrial | 2 | 8.8 | 0.00\% | 8.8 | 0.00\% | 2,648.9 | 0.22\% |
| 121 | Industrial | 5 | 362.9 | 0.03\% | 241.9 | 0.02\% | 7,671.2 | 0.64\% |
| i228 | Industrial | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 63.2 | 0.01\% |
| i232 | Industrial | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 115.1 | 0.01\% |
| i234 | Industrial | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 83.6 | 0.01\% |
| $\times 08$ | Industrial | 11 | 79.5 | 0.01\% | 79.5 | 0.01\% | 767.1 | 0.06\% |
| d74 | Training | 1,954 | 17.0 | 0.00\% | 17.0 | 0.00\% | 153.4 | 0.01\% |
| d104 | Training | 413 | 31.7 | 0.00\% | 31.7 | 0.00\% | 102.6 | 0.01\% |
| d167 | Training | 142 | 75.9 | 0.01\% | 58.6 | 0.00\% | 153.4 | 0.01\% |
| d131 | Service | 61 | 28.1 | 0.00\% | 28.5 | 0.00\% | 230.1 | 0.02\% |
| d134 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 7.7 | 0.00\% |
| d425 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 102.6 | 0.01\% |
| y01 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 7.7 | 0.00\% |
| y02 | Service | 8 | 20.7 | 0.00\% | 20.7 | 0.00\% | 76.7 | 0.01\% |
| y07 | Service | 44 | 0.0 | 0.00\% | 2.3 | 0.00\% | 7.7 | 0.00\% |
| y21 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 383.6 | 0.03\% |
| z02 | Service | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 3.8 | 0.00\% |
| z99 | Service | 22 | 0.2 | 0.00\% | 0.2 | 0.00\% | 7.7 | 0.00\% |
| d169 | UoE Access | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 2,301.4 | 0.19\% |
| DirectorsTime Total |  | 5,935 | 30,561.4 | 2.57\% | 31,802.8 | 2.67\% | 49,030.0 | 4.12\% |
| y14 | Training | 0 | 0.0 | 0.00\% | 0.0 | 0.00\% | 537.0 | 0.05\% |
| z19 | Service | 201 | 212.1 | 0.02\% | 213.1 | 0.02\% | 3,835.6 | 0.32\% |
| CSE Total |  | 201 | 212.1 | 0.02\% | 213.1 | 0.02\% | 4,372.6 | 0.37\% |
| Total |  | 92,876 | 921,801.7 | 77.45\% | 1,028,380.9 | 86.40\% | 1,086,170.0 | 91.26\% |

## Use by Project



Uncharged Use by Project
(

Jobs by Project

kAUs (by Size)

| Size | kAUs |  |
| ---: | ---: | ---: |
|  | $17-32$ | $8,692.454$ |
| $33-64$ | $11,348.036$ | Number of Jobs |
| $65-128$ | $54,608.632$ | 5,425 |
| $129-256$ | $154,509.946$ | 13,552 |
| $257-512$ | $203,410.832$ | 10,877 |
| $513-1024$ | $120,730.607$ | 20,467 |
| $1025-2048$ | $115,690.435$ | 1,366 |
| $2049-4096$ | $94,024.693$ | 4,223 |
| $4097-8192$ | $71,331.165$ | 476 |
| $8193-16384$ | $84,475.429$ | 423 |
| $16385-32768$ | 268.985 | 160 |
| $32769-65536$ | 254.566 | 12 |

## Load plots



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 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.
fs 3


## 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.
home1


## 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.
home3


## 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.


