CSAR Service - Management Report

May 2003

This report documents the quality of the CSAR service during the month of May 2003.

A more comprehensive report is provided quarterly, which additionally covers wider aspects of the Service such as information on Training, Application Support and Value-Added services.

This and other such reports are made available through the Web to staff within EPSRC and the other Research Councils, to CfS staff and CSAR Service users. The reports are indexed in a similar way to that which other useful information and news are listed for selection.

1. Introduction

This document gives information on Service Quality and on actual usage of the CSAR Service during the reporting period of May 2003. The information, in particular, covers the availability and usage of the main CSAR Service High Performance Computing (HPC) systems:

- Cray T3E-1200E/776 (Turing)
- SGI Origin2000/128 (Fermat)
- SGI Origin3000/512 (Green)
- SGI Origin300/16 (Wren)

The information is provided in both textual and graphical form, so that it is easier to see trends and variances.

May has seen the workload of the three primary systems at variable levels.

LSF, with CPUsets, is now in full production usage on Fermat and Green, with usage of these systems growing steadily.

CSAR has been granted an 18 month extension of service contract until June 30th 2006. With this extension CfS is implementing a further technology refresh which will introduce a 256 processor Itanium-2 (Madison) based SGI Altix by end September 2003.

2. Service Quality

This section covers overall Customer Performance Assessment Ratings (CPARS), HPC System availability and usage, Service Quality Tokens and other information concerning issues, progress and plans for the CSAR Service.

2.1 CPARS

Table 1 gives the measure by which the quality of the CSAR Service is judged. It identifies the metrics and performance targets, with colour coding so that different levels of achievement against targets can be readily identified. Unsatisfactory actual performance will trigger corrective action.

CSAR Service - Service Quality Report - Performance Targets

Service Quality Measure	Performance Targets					
	White	Blue	Green	Yellow	Orange	Red
HPC Services Availability						
Availability in Core Time (% of time)	> 99.9%	> 99.5%	> 99.2%	> 98.5%	> 95%	95% or less
Availability out of Core Time (% of time)	> 99.8%	> 99.5%	> 99.2%	> 98.5%	> 95%	95% or less
Number of Failures in month	0	1	2 to 3	4	5	> 5
Mean Time between failures in 52 week rolling period (hours)	>750	>500	>300	>200	>150	otherwise
Help Desk						
Non In-depth Queries - Max Time to resolve 50% of all queries	< 1/4	< 1/2	< 1	< 2	< 4	4 or more
Non In-depth Queries - Max Time to resolve 95% of all queries	< 1/2	< 1	< 2	< 3	< 5	5 or more
Administrative Queries - Max Time to resolve 95% of all queries	< 1/2	< 1	< 2	< 3	< 5	5 or more
Help Desk Telephone - % of calls answered within 2 minutes	>98%	> 95%	> 90%	> 85%	> 80%	80% or less
Others						
Normal Media Exchange Requests - average response time	< 1/2	< 1	< 2	< 3	< 5	5 or more
New User Registration Time (working days)	< 1/2	< 1	< 2	< 3	< 4	otherwise
Management Report Delivery Times (working days)	< 1	< 5	< 10	< 12	< 15	otherwise
System Maintenance - no. of sessions taken per system in the month	0	1	2	3	4	otherwise

Table 1

Table 2 gives actual performance information for the period of May 1st to 31st inclusive.
Overall, the CPARS Performance Achievement in May was satisfactory (see Table 3); i.e. Green measured against the CPARS performance targets.

CSAR Service - Service Quality Report - Actual Performance Achievement

Service Quality Measure											2002/3	
	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
HPC Services Availability												
Availability in Core Time (% of time)	97.66%	99.2%	99.75%	98.75%	99.77%	99.25%	99.21%	99.46%	99.73%	100%	99.74%	97.66%
Availability out of Core Time (% of time)	99%	100%	100%	99.42%	99.52%	99.57%	100%	99.89%	100.00%	99.81%	99.81%	99.33%
Number of Failures in month	4	0	1	2	1	1	0	3	1	1	1	4
Mean Time between failures in 52 week rolling period (hours)	313	365	381	381	398	417	515	487	487	515	548	461
Help Desk												
Non In-depth Queries - Max Time to resolve 50% of all queries	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Non In-depth Queries - Max Time to resolve 95% of all queries	<5	<2	<2	<1	<2	<2	<2	<0.5	<1	<2	<3	<1
Administrative Queries - Max Time to resolve 95% of all queries	<5	<2	<0.5	<2	<0.5	<0.5	<0.5	<1	<0.5	<1	<0.5	<0.5
Help Desk Telephone - % of calls answered within 2 minutes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Others												
Normal Media Exchange Requests - average response time	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
New User Registration Time (working days)	0	0	0	0	0	0	0	0	0	0	0	0
Management Report Delivery Times (working days)	10	10	10	10	10	10	10	10	10	10	10	10
System Maintenance - no. of sessions taken per system in the mont	2	2	2	2	2	2	2	2	2	2	2	2

Table 2

Notes:

1. HPC Services Availability has been calculated using the following formulae, based on the relative NPB performance of Turing, Fermat and Green at installation:

   Turing availability x 143/(143+40+233)] + [Fermat availability x 40/ (143+40+233) + Green availability x 233/(143+40+233)]

2 Mean Time between failures for Service Credits is formally calculated based on a rolling 12 month period.

Table 3 gives Service Credit values for the month of May. These will be accounted on a quarterly basis, formally from the Go-Live Date. The values are calculated according to agreed Service Credit Ratings and Weightings.

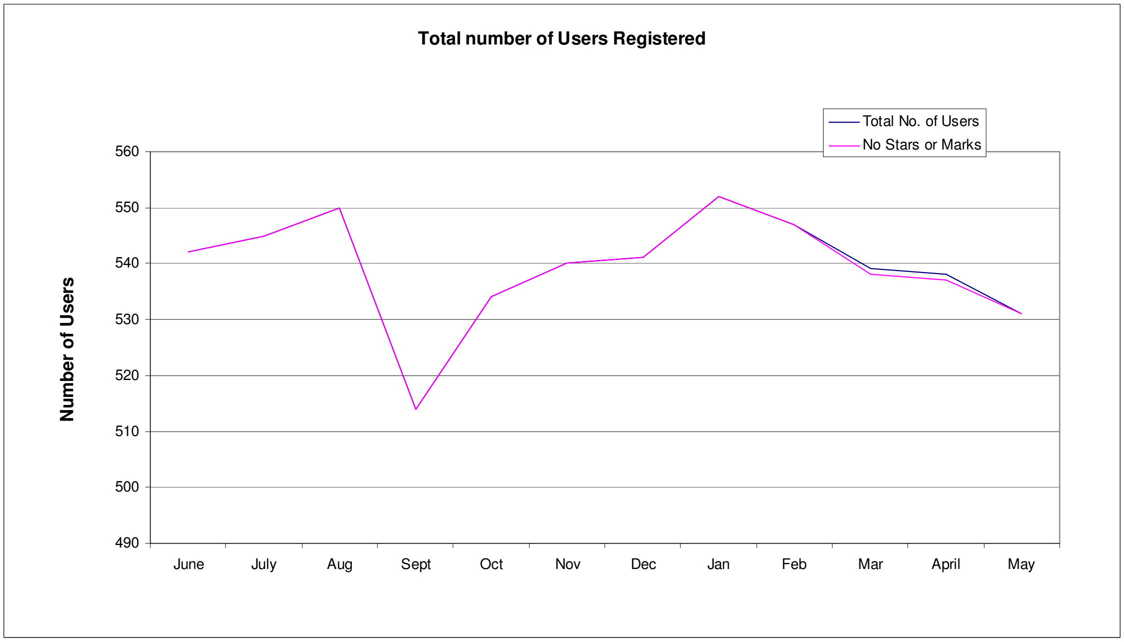
CSAR Service - Service Quality Report - Service Credits

	2002/3											
Service Quality Measure	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May
HPC Services Availability												
Availability in Core Time (% of time)	0.078	0	-0.039	0.039	-0.039	0	0	0	-0.039	-0.058	-0.039	0.078
Availability out of Core Time (% of time)	0	-0.047	-0.047	0	-0.039	-0.039	-0.047	-0.047	-0.047	-0.047	-0.047	0
Number of Failures in month	0	-0.009	-0.008	0	-0.008	-0.008	-0.009	0	-0.008	-0.008	-0.008	0
Mean Time between failures in 52 week rolling period (hours)	0	0	0	0	0	0	-0.008	0	0	-0.008	-0.008	0
Help Desk												
Non In-depth Queries - Max Time to resolve 50% of all queries	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019
Non In-depth Queries - Max Time to resolve 95% of all queries	0.031	0	0	-0.016	0	0	0	-0.019	-0.016	0	0.016	-0.016
Administrative Queries - Max Time to resolve 95% of all queries	0.031	0	-0.019	0	-0.019	-0.019	-0.019	-0.016	-0.019	-0.016	0	-0.019
Help Desk Telephone - % of calls answered within 2 minutes	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004
Others												
Normal Media Exchange Requests - average response time	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
New User Registration Time (working days)	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019
Management Report Delivery Times (working days)	0	0	0	0	0	0	0	0	0	0	0	0
System Maintenance - no. of sessions taken per system in the mont	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Total & overall Service Quality Rating for each period:	0.05	-0.05	-0.08	-0.01	-0.07	-0.05	-0.06	-0.06	-0.09	-0.09	-0.07	0.00

Table 3

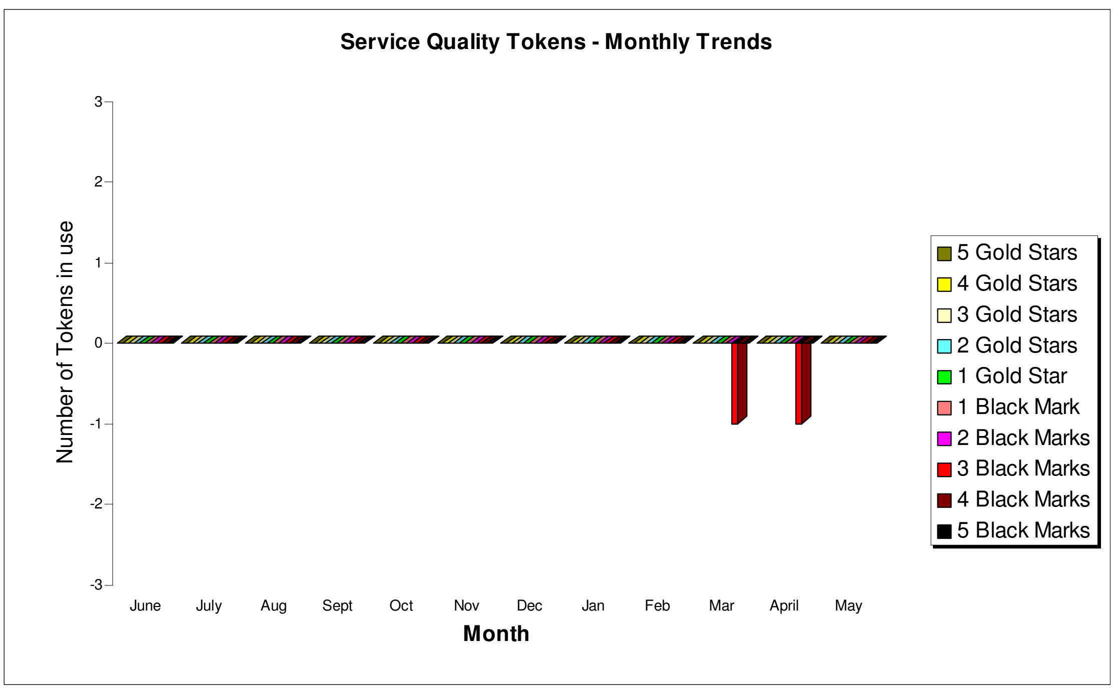
2.2 Service Quality Tokens

The position at the end of May 2003 is that none of the 531 users have awarded any tokens to the service.



The graph above shows the total number of registered users on the CSAR Service and the number of users holding a neutral view of the service.

The graph below illustrates the monthly usage trend of quality tokens:



The current status of the Stendahl tokens is that there are no black marks or gold stars allocated to the service. NERC have removed their black marks since the CfS addition of 4 new tape drives has overcome the previous wait time problems with HSM storage and retrieval.

2.3 Throughput Target against Baseline

The baseline is shown in GFLOP-Years for consistency with the other information contained within this report.

The Baseline Target for throughput was achieved this month. The actual usage figure was 110% of Baseline capacity.

Job Throughput Against Baseline CSAR Service Provision

Period: 1st to 31th May 2003

	Baseline Capacity for Period (GFLOP Years)	**Actual Usage in Period (GFLOP Years)**	**Actual % Utilisation c/w Baseline during Period**
1. Has CfS failed to deliver Baseline MPP Computing Capacity for EPSRC?	12.17	13.42	**110.3%**
	Baseline Capacity for Period (GFLOP Years)	**Job Time Demands in Period**	**Job Demand above 110% of Baseline during Period (Yes/No)?**
2. Have Users submitted work demanding > 110% of the Baseline during period?	12.17	18.2	Yes
		Number of Jobs at least 4 days old at end Period	**Number of Jobs at least 4 days old at end Period is not zero (Yes/No)?**
3. Are there User Jobs oustanding at the end of the period over 4 days old?		2	Yes
		Minimum Job Time Demands as % of Baseline during Period	**Minimum Job Time Demand above 90% of Baseline during Period (Yes/No)?**
4. Have Users submitted work demands above 90% of the Baseline during period?		64%	No
	Number of standard Job Queues (ignoring priorities)	**Average % of time each queue contained jobs in the Period**	**Average % of time each queue contained jobs in the Period is > 97%?**
5. Majority of Job Queues contained jobs from Users for more than 97% during period?	4	83%	No

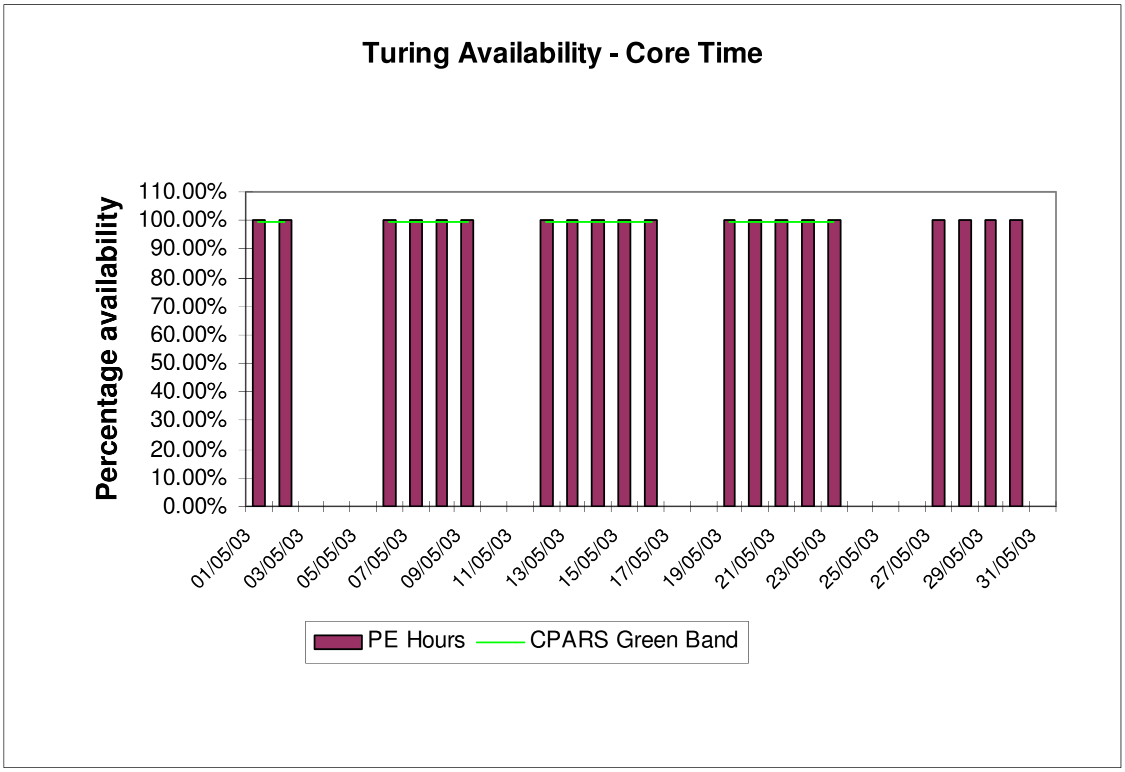
3. System Availability

Service availability each reporting period is calculated as a percentage of actual availability time over theoretical maximum time, after accounting for planned breaks in service for preventative maintenance.

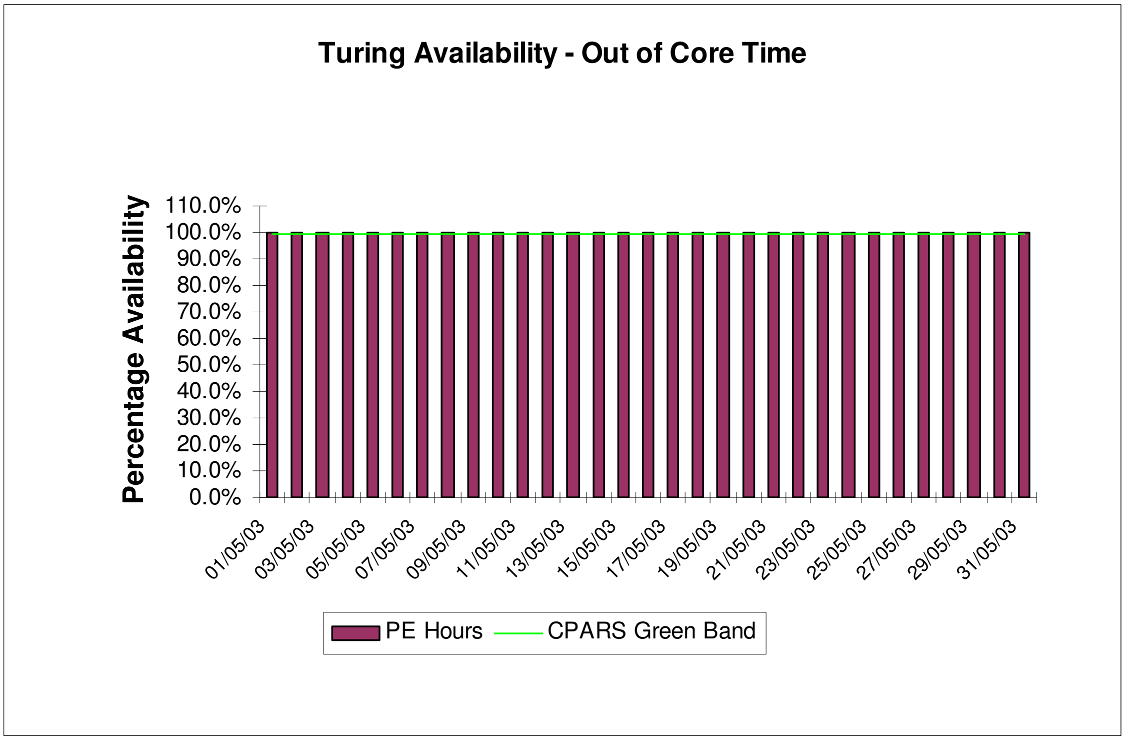
3.1 Cray T3E-1200E System (Turing)

The following graphs show the availability of Turing both in core time and out of core time respectively during the period of 1st to 31st May.

Turing availability for May:



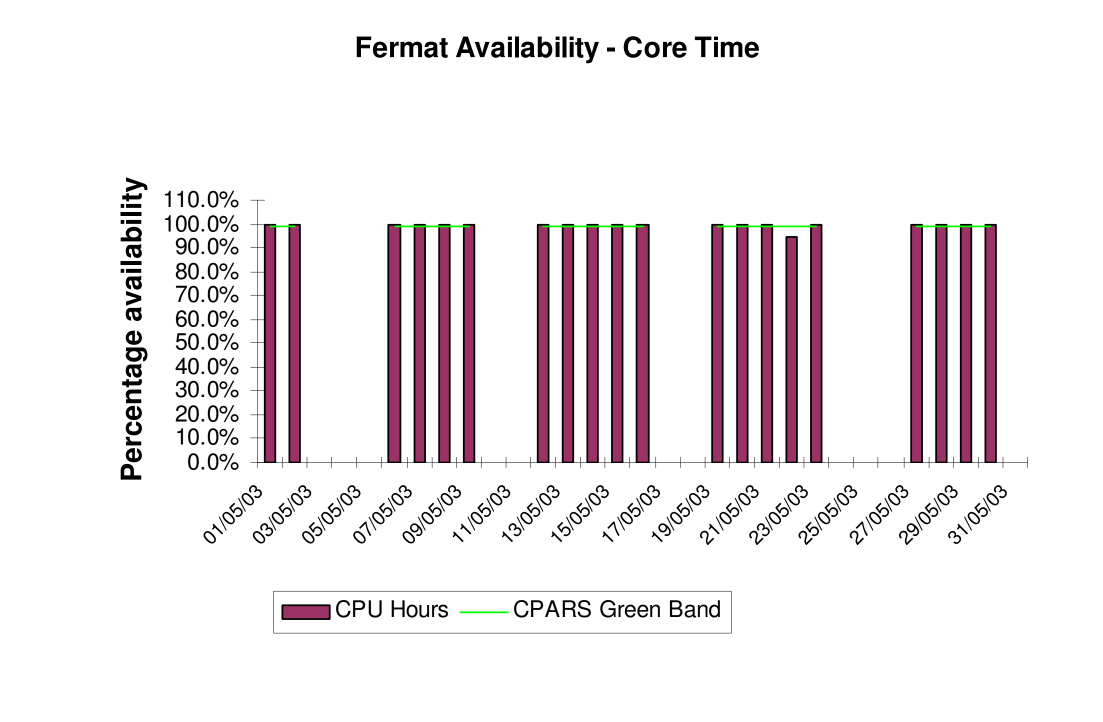
Availability of Turing in core time during May was excellent, with no outages.



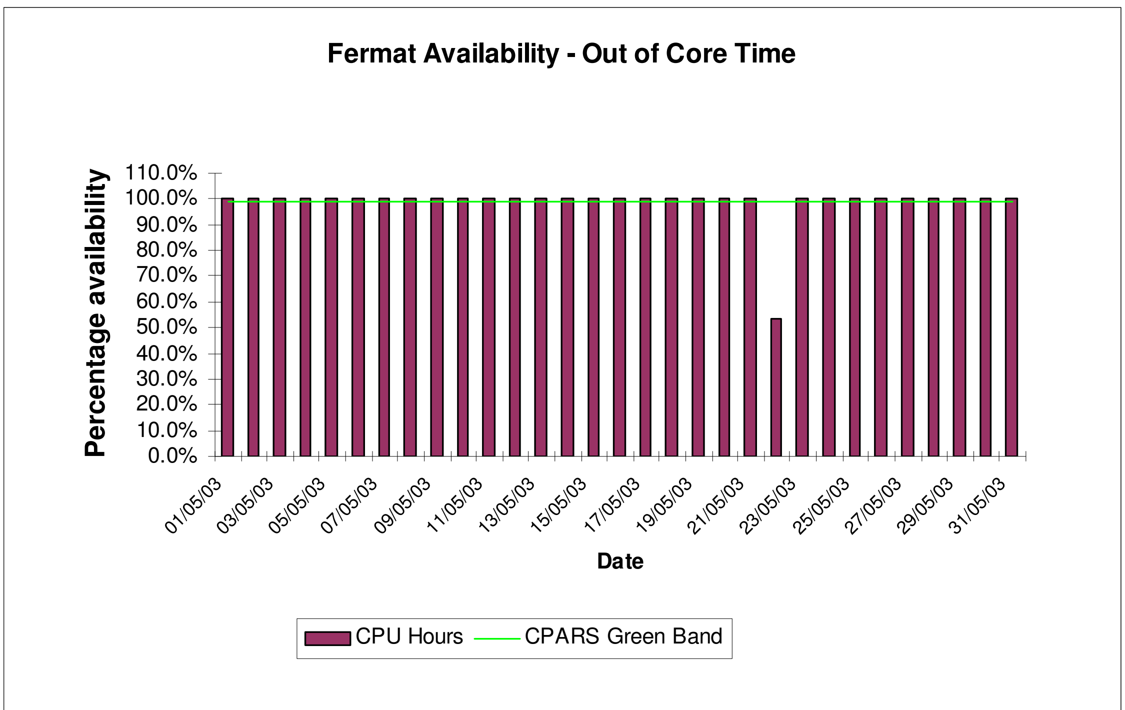
Availability of Turing out of core time during May was excellent, with no outages.

3.2 SGI Origin2000 System (Fermat)

The following graphs show the availability of Fermat both in core time and out of core time respectively.



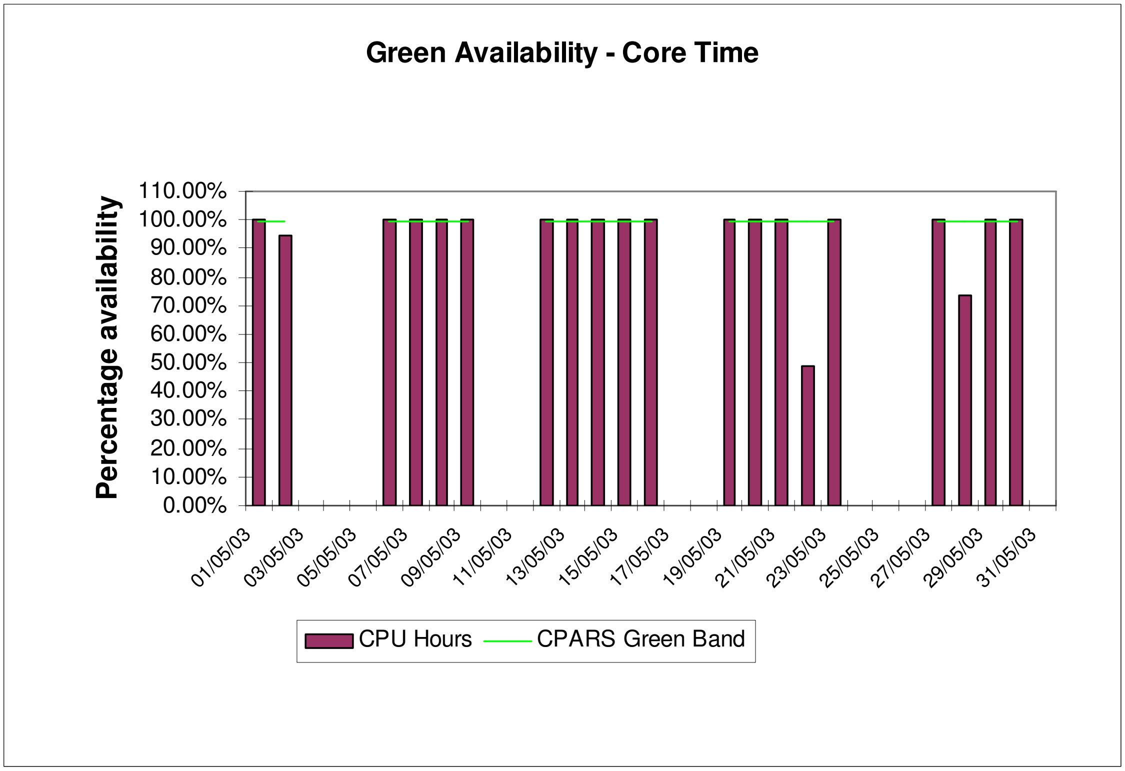
Availability of Fermat in core time during May was very good, with one brief outage on the 22nd



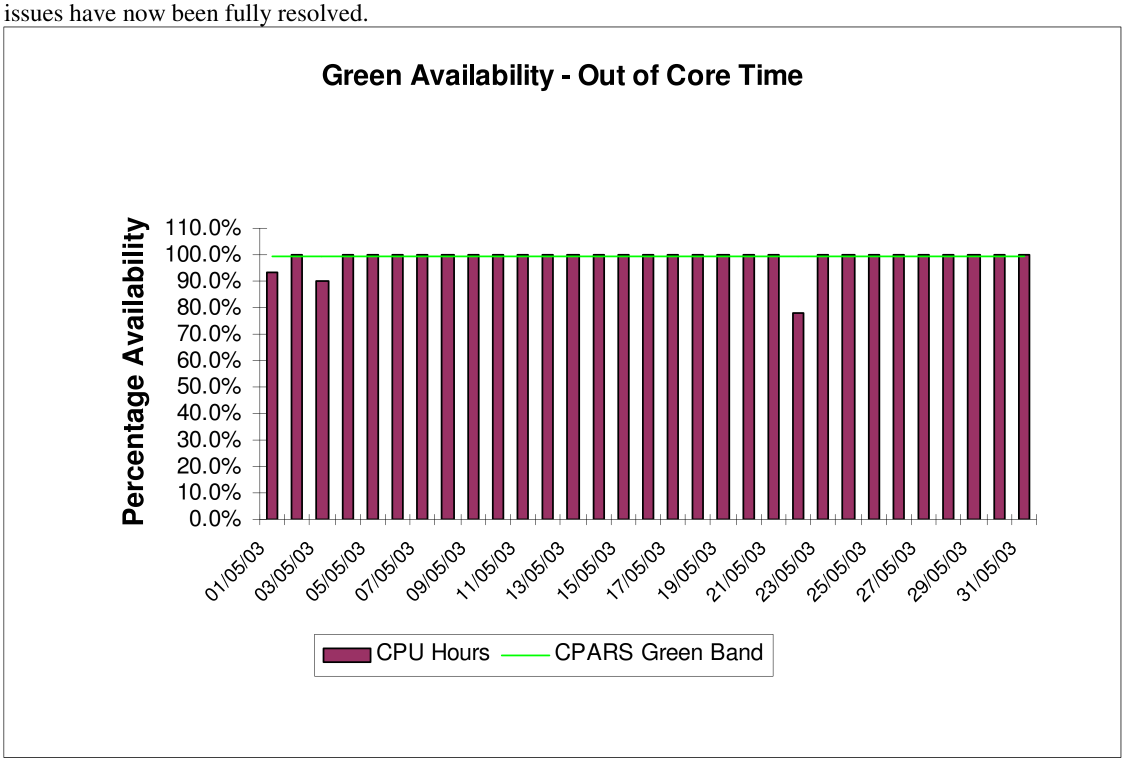
Availability of Fermat out of core time during May was good, with just one outage on the 22nd May caused by a faulty hardware component. The component has now been replaced.

3.3 SGI Origin3000 System (Green)

The following graphs show the availability of Green both in core time and out of core time respectively.



Availability of Green in core time during May was not acceptable, with four outages. The main cause of the outages this month were hardware issues, further compounded by the hardware problem on Fermat on 22nd resulting in all systems on the SAN having to be rebooted to regain full SAN communication. All hardware issues have now been fully resolved.



Availability of Green out of core time during May was acceptable, with three outages. These were all attributable to the previously-mentioned hardware issues.

4. HPC Services Usage

Usage information is given in tabular form, in Appendices, and in graphical format. The system usage information for the period of May 1st to 31st is provided by Project/User Group, totalled by Research Council and overall. This covers:

• CPU usage	Turing:	388409 PE Hours
	Fermat:	28800.45 CPU Hours
	Wren (Batch):	4.84 CPU Hours
	Wren (Interactive):	260.15 CPU Hours
	Green:	55970.07 CPU Hours
• User Disk allocation	Turing:	64.7 GB Years
	Fermat:	106.93 GB Years
	SAN HV:	25.48 GB Years
• HSM/tape usage		4108.83 GB Years

In addition, the following graphs are provided to illustrate usage per month, historically:

a) MPP/SMP (T3E/Origin) Usage by month, showing usage each month of CPU (GFLOP-Years as per NPB), split by Research Council and by system. The overall Capacity are shown by overlaid horizontal lines.

b) SMP (Origin) Usage by month, showing usage each month in CPU Hours, split by Research Council and giving the equivalent GFLOP-Years as per NPB. The Baseline and overall Capacity are shown by overlaid horizontal lines.

c) High Performance Disk (T3E) allocated for User Data by month, showing the allocated space each month in GBytes, split by Research Council. The Baseline Capacity (1 Terabyte) is shown by an overlaid horizontal line.

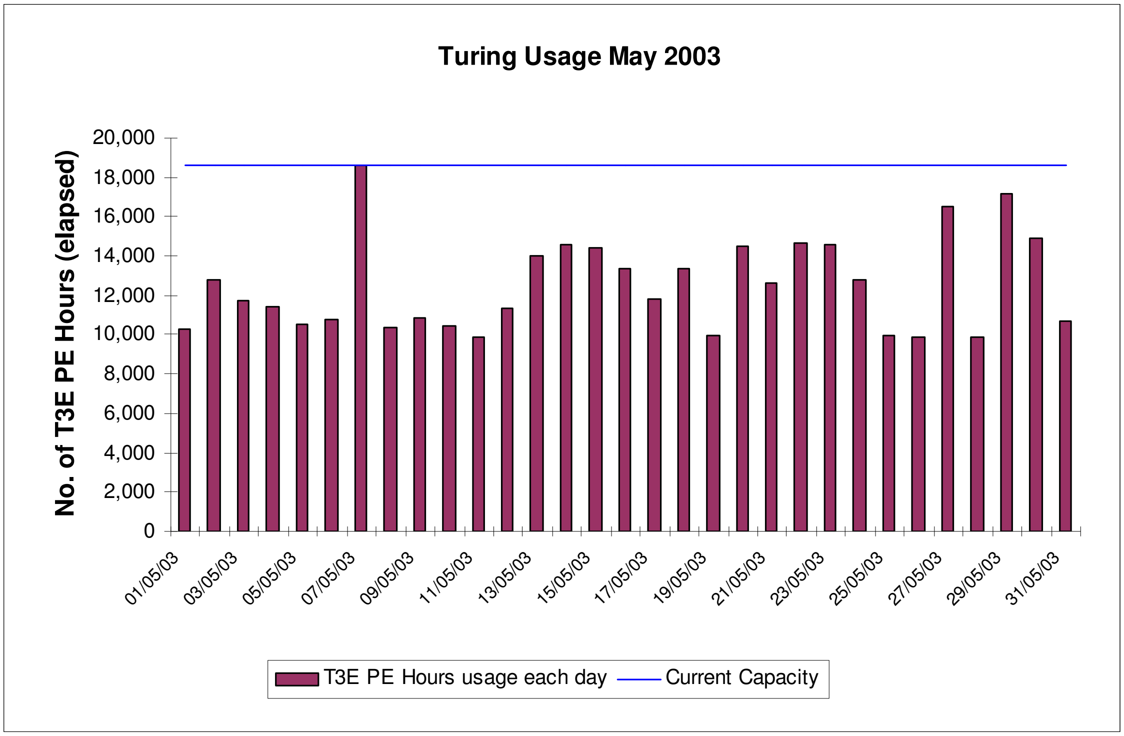
d) Medium Performance Disk (Origin) allocated for User Data by month, showing the allocated space each month in GBytes, split by Research Council. The Baseline Capacity (1.5 Terabytes) is shown by an overlaid horizontal line.

e) HSM/Tape Usage (T3E) by month, showing the volumes held each in GBytes, split by Research Council. The Baseline Capacity (16 Terabytes) available will be shown by an overlaid horizontal line.

4.1 Cray T3E-1200E System (Turing)

The following graph shows the usage of Turing during each day of May 2003. Note that there is some variance on a day-to-day basis as the accounts record job times, and thus CPU usage figures, at the time of job completion which could be the second actual day for large jobs. At present, there is a 24 hour limit on jobs so that they are check-pointed, and computational time lost due to any failure is well managed. Higher limits can be set for individual jobs on request.

Turing usage for May:



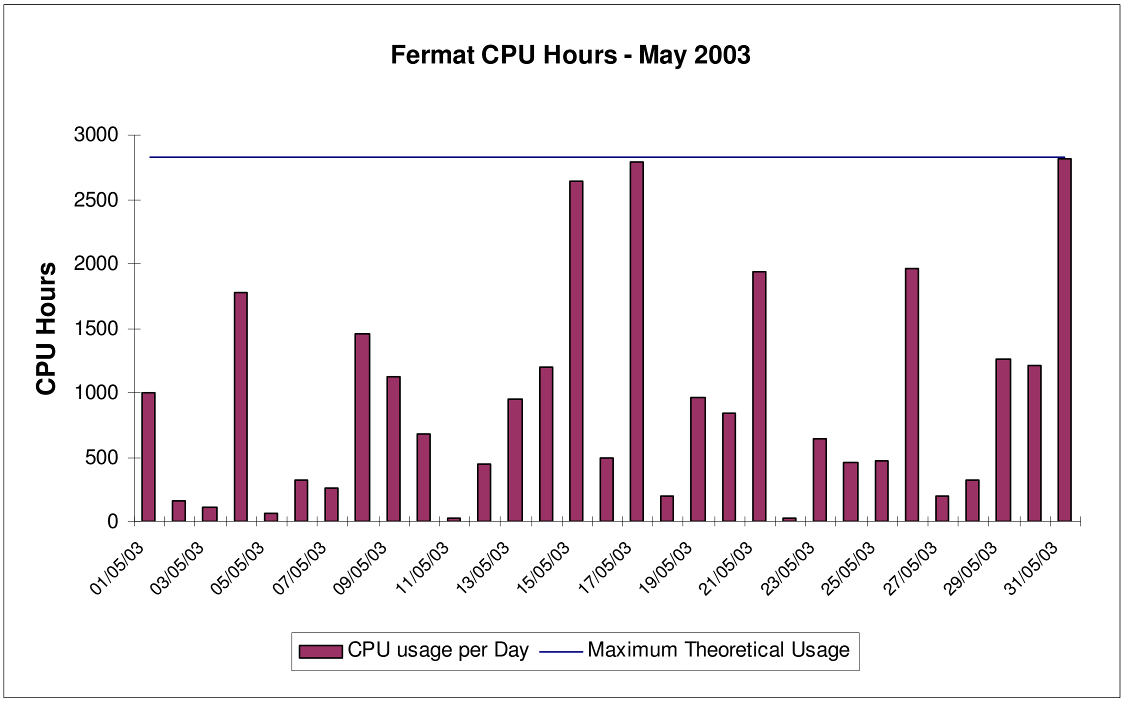
The above usage graph for the Turing system shows that Turing was reasonably utilised during May.

Fine tuning of the CfS scheduling system will continue to ensure minimal wasting of PE resource, in order to fit in a number of different sized jobs (e.g. 32, 64, 128, 256) thus facilitating maximised job throughput.

In particular, Turing will continue to start large jobs above 256 PEs, including 512 PEs, when they are queued subject to the overall workload.

4.2 SGI Origin2000 System (Fermat)

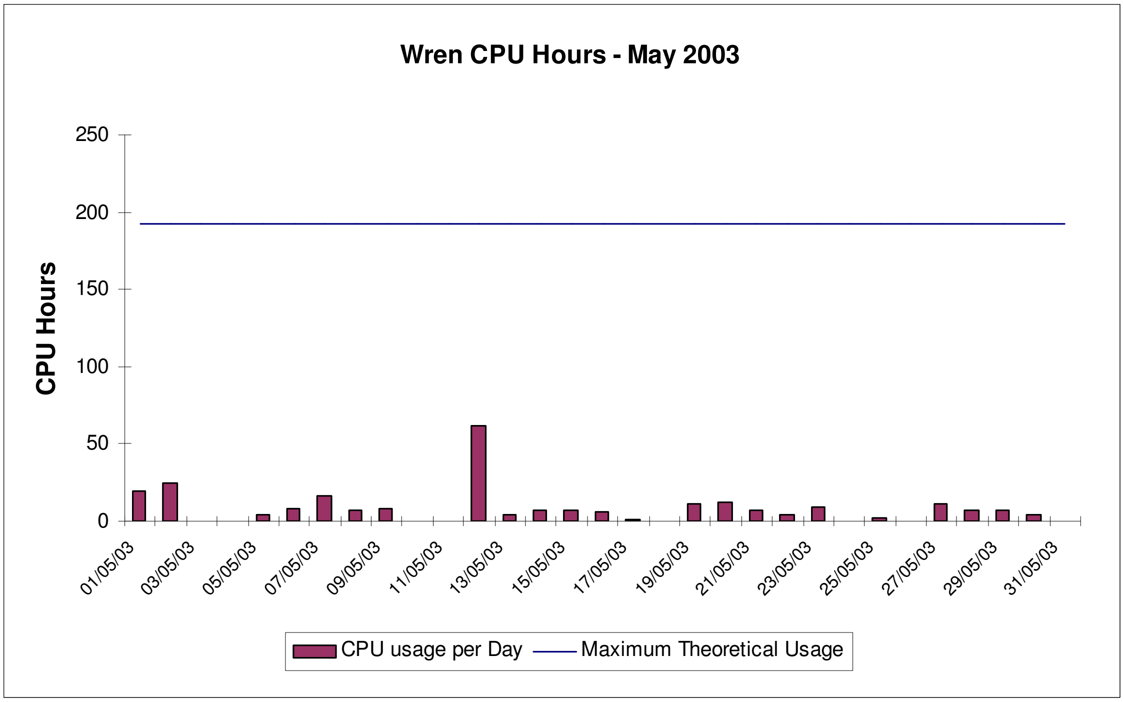
The usage of the Origin system was low. The groups most heavily using the Fermat system are CSE056 (Zheng), CSE082 (Nayyar), CSN001 (De Cuevas) and CSN003 (Steenman-Clark).



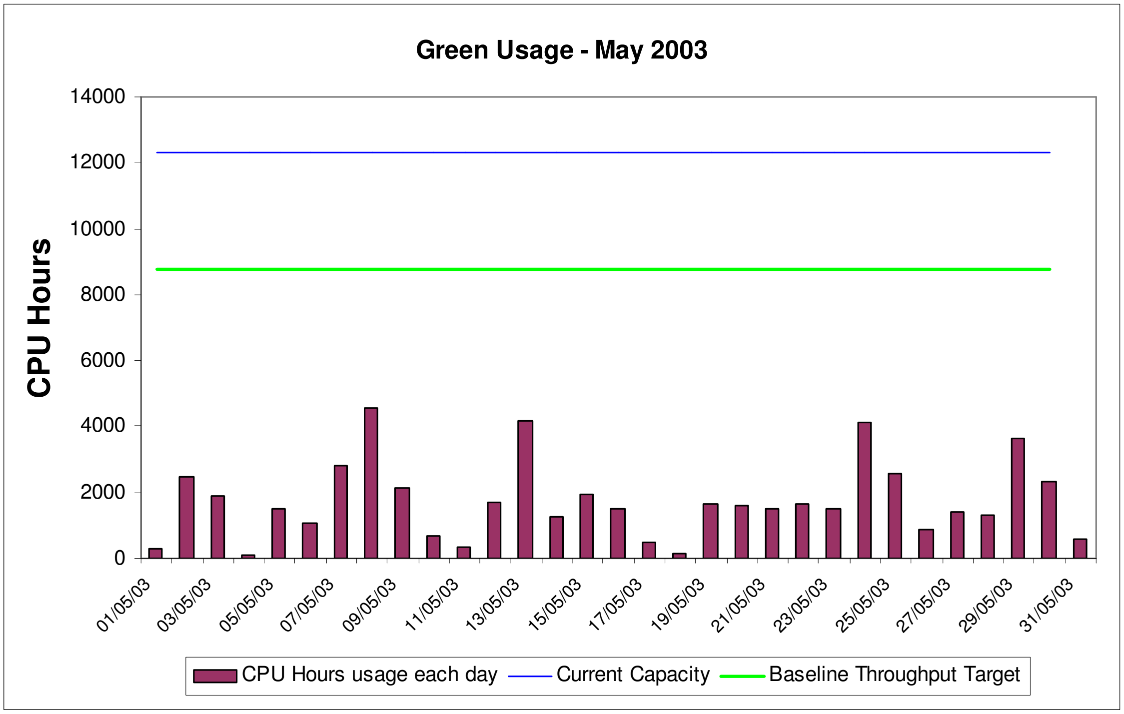
The above graph shows the variable utilisation of the Origin 128. As interactive usage was removed from Fermat at the beginning of March, Fermat is now a dedicated batch system.

4.3 SGI Origin300 System (Wren)

The above graph shows the utilisation of the new SGI system Wren for the month of May. Wren has now taken over from Fermat as the interactive machine.



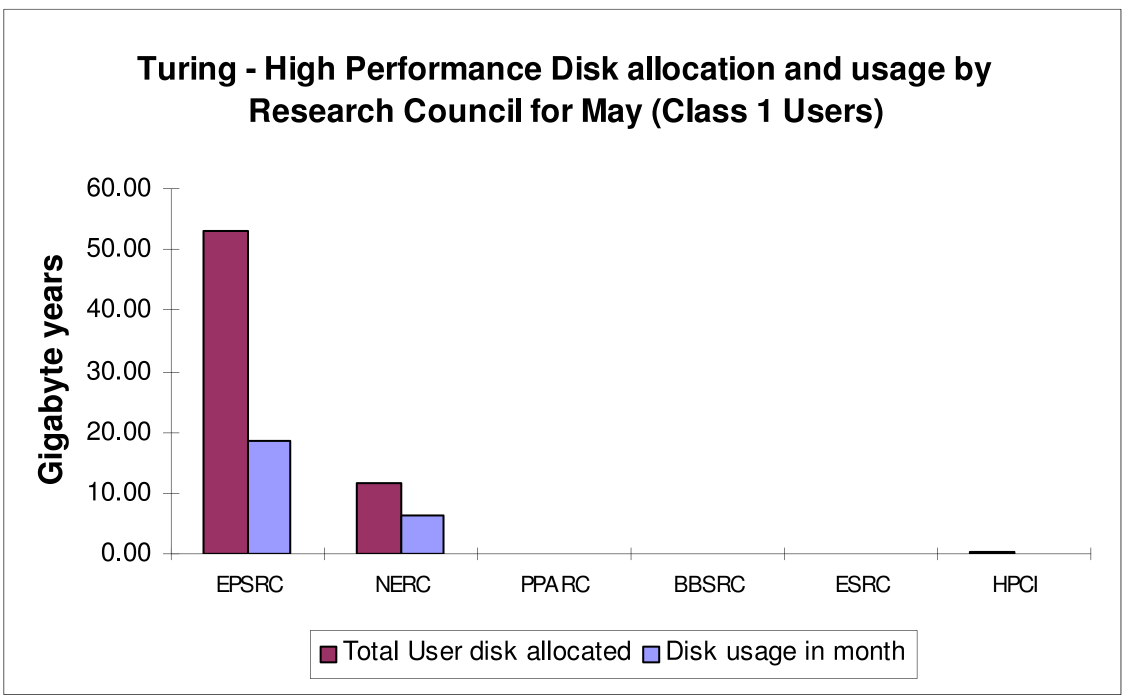
4.4 SGI Origin3000 System (Green)



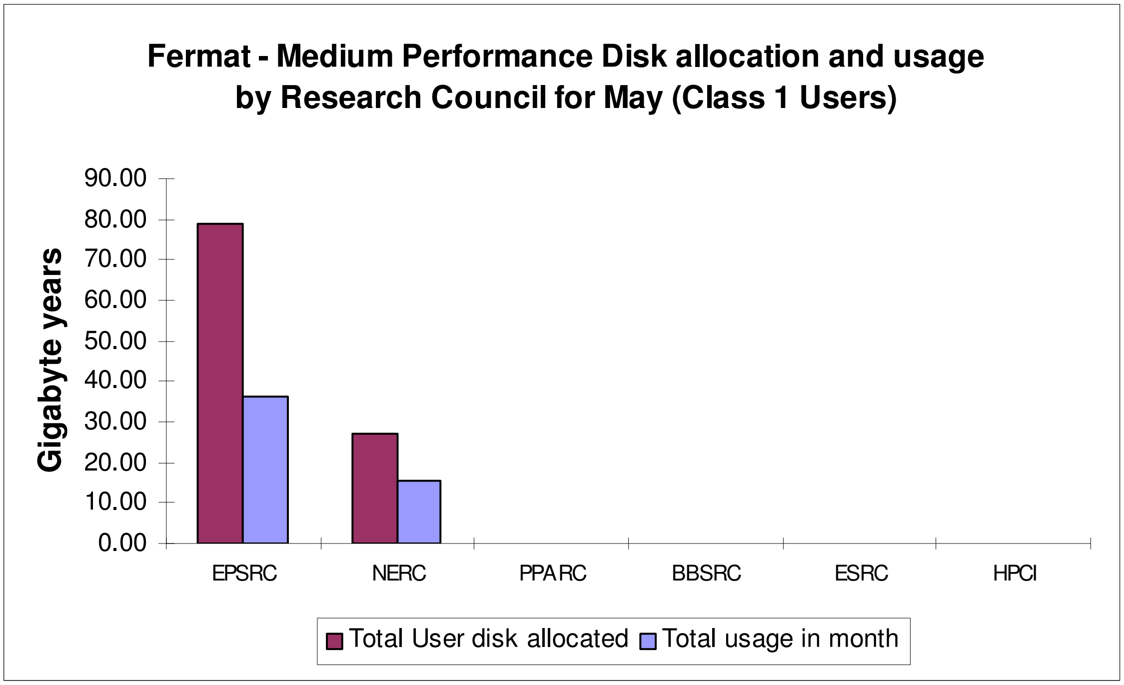
The above graph shows the utilisation of Green for the month of May, well below Baseline.

4.6 Disk/HSM Usage Chart

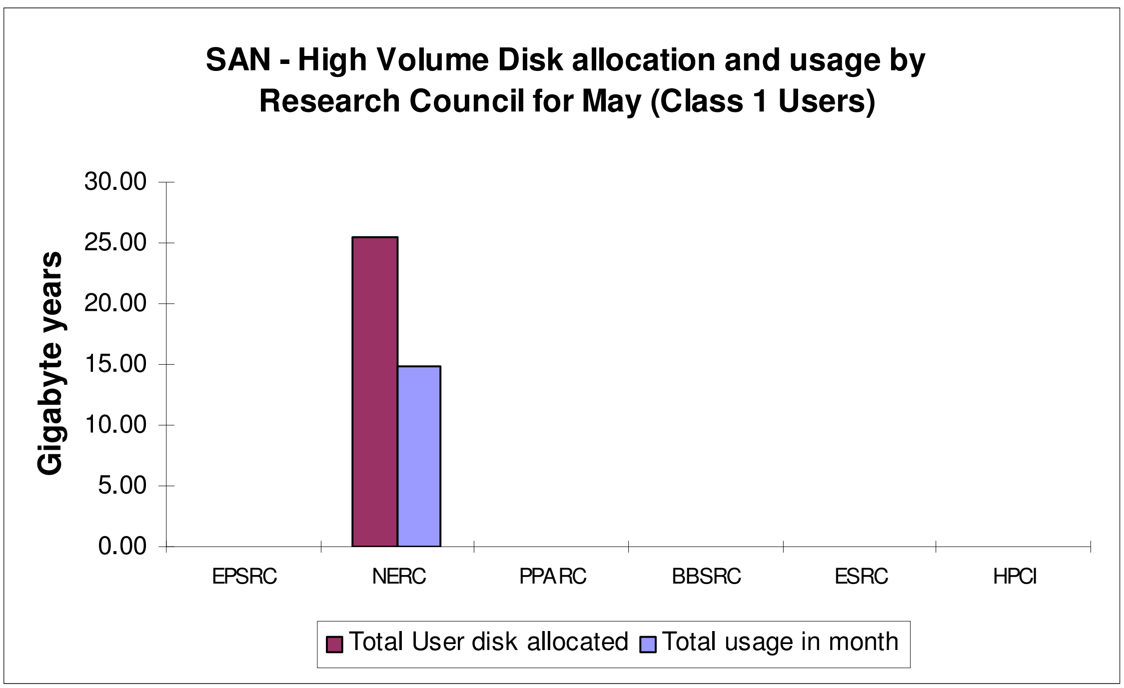
The graphs below show current disk and HSM allocations and usage.



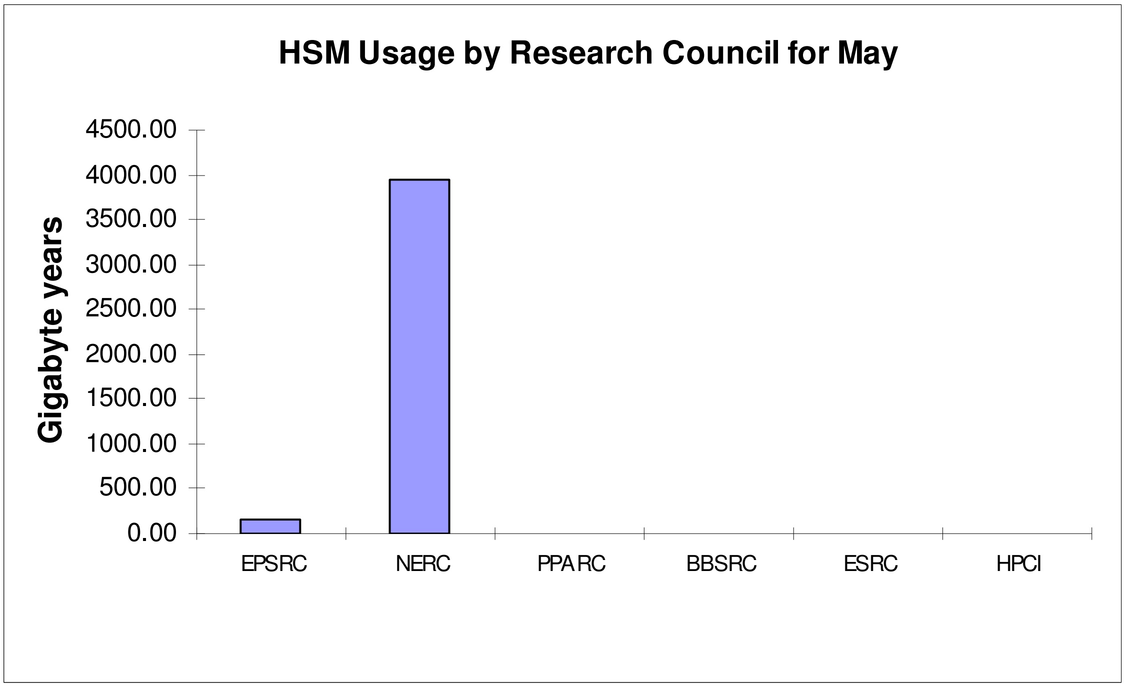
The above graph shows actual usage on average against the current allocation of disk on the Turing system.



Shown above is the disk allocation against usage on average of the disk on Fermat.

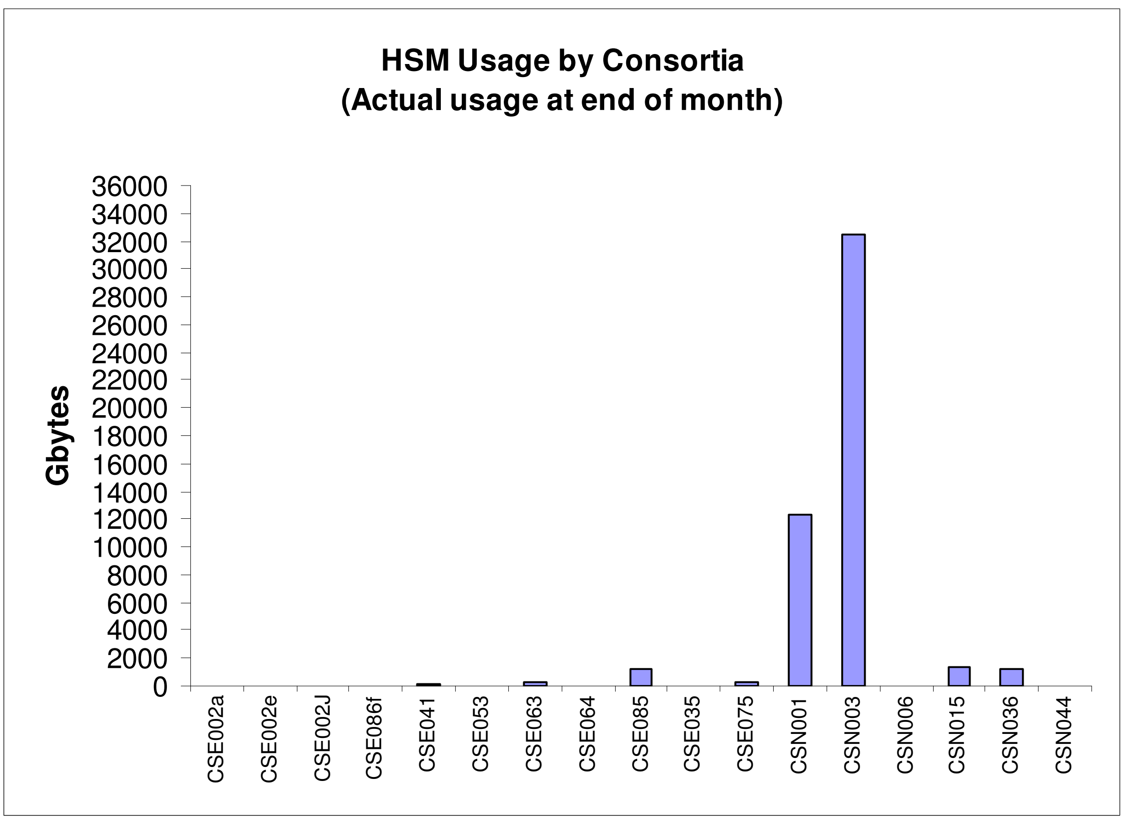


This graph shows the disk allocation against usage on average of the new SAN High Volume (HV) disk.

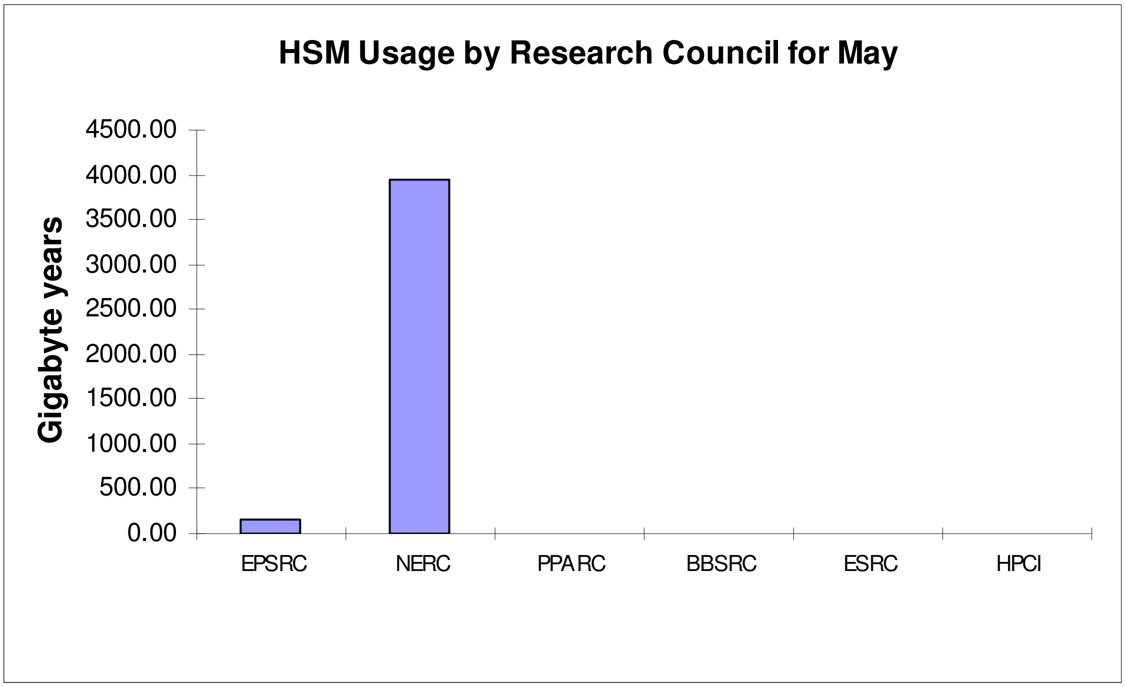


The above graph shows the total usage of the HSM facility by Research Council.

The next two graphs give actual usage of HSM by Consortia and by Research Council.

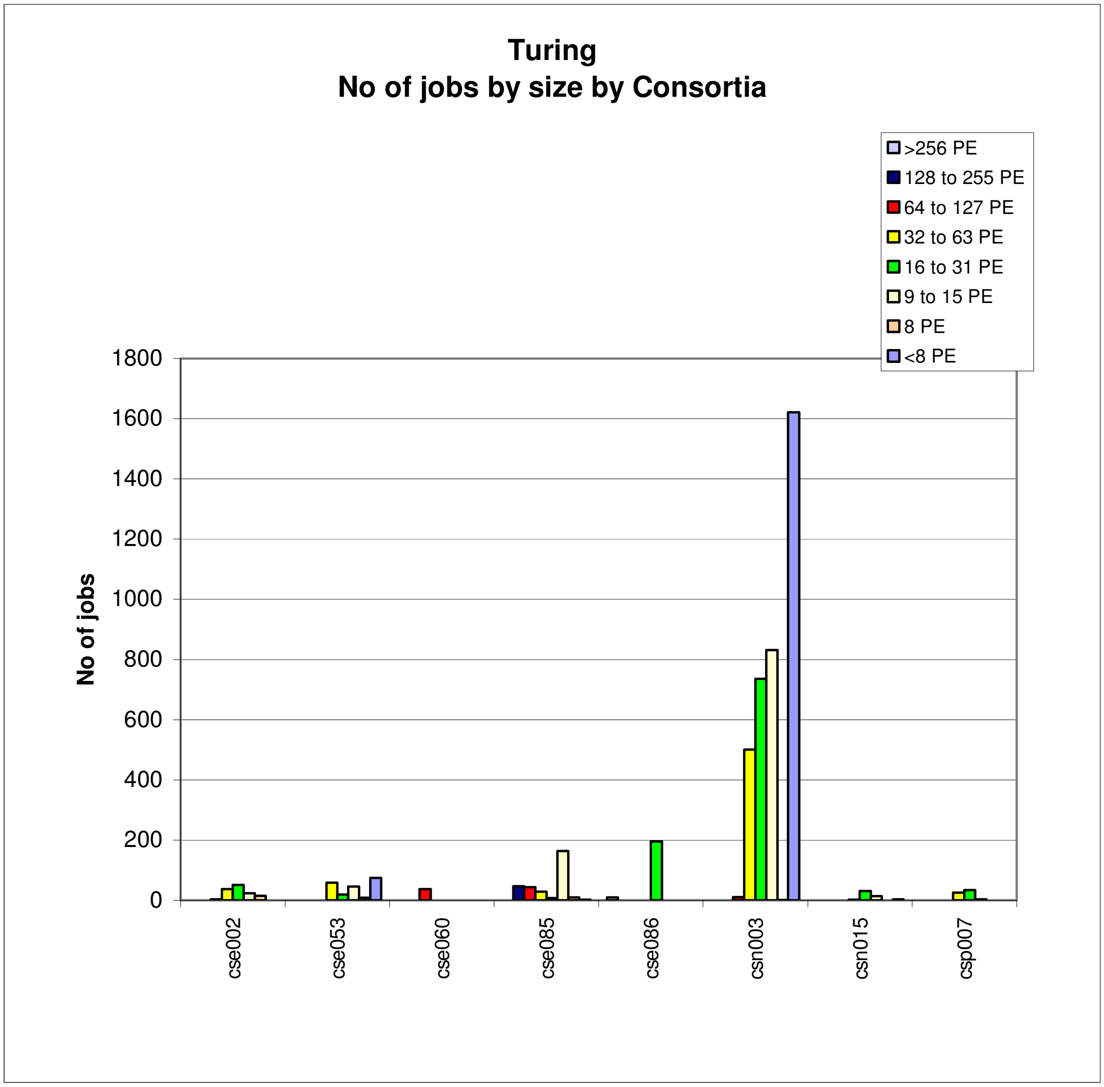


CSE085 (Sandham), CSN001 (De Cuevas), CSN003 (Steenman-Clark), CSN015 (Proctor) & CSN036 (Woolf) were the major users of HSM resource.


HSM Usage by Research Council for May
Gigabyte years
4500.00
4000.00
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
EPSRC
NERC
PPARC
BBSRC
ESRC
HPCI

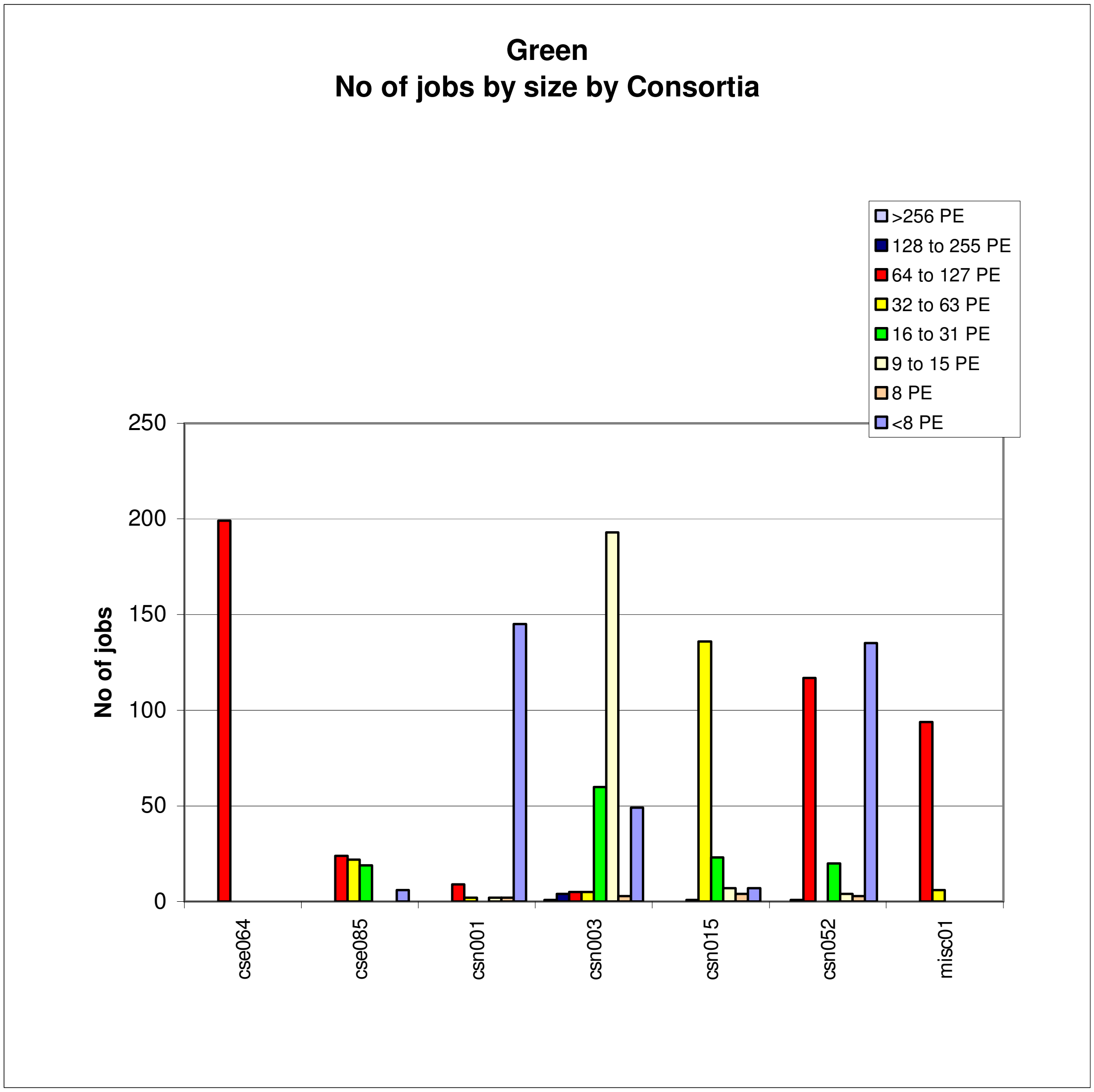
4.7 Processor Usage and Job Statistics Charts

Job statistics for Turing:



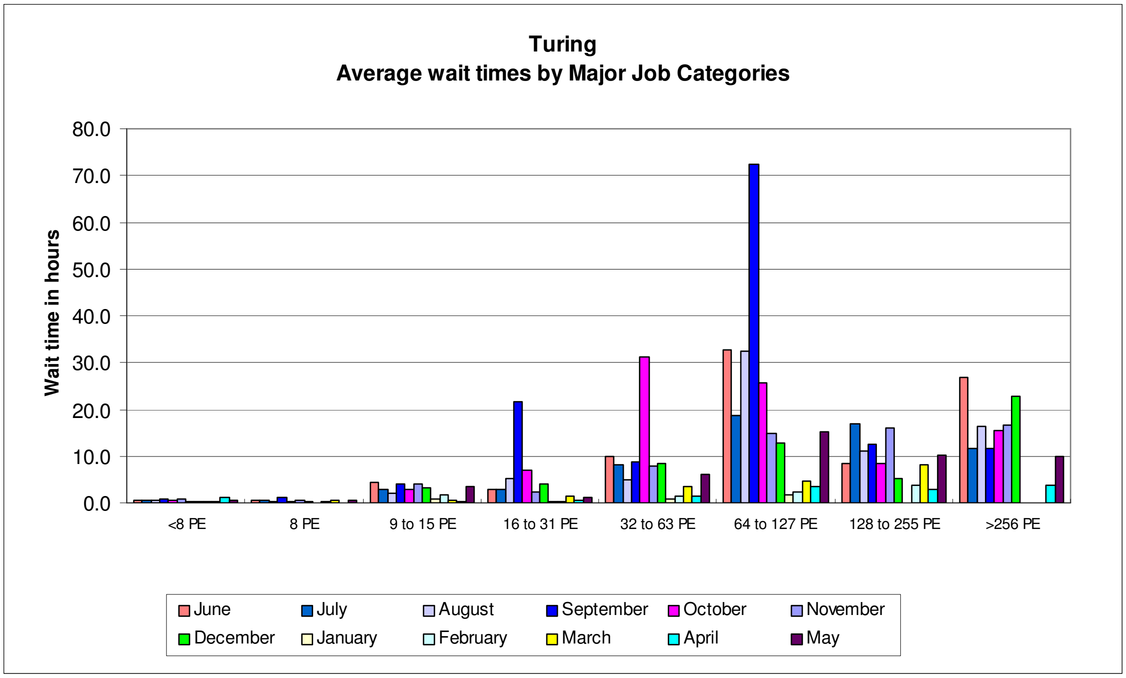
The above graph shows the number of jobs of the major sizes run in the period 1st to 31st May 2003.

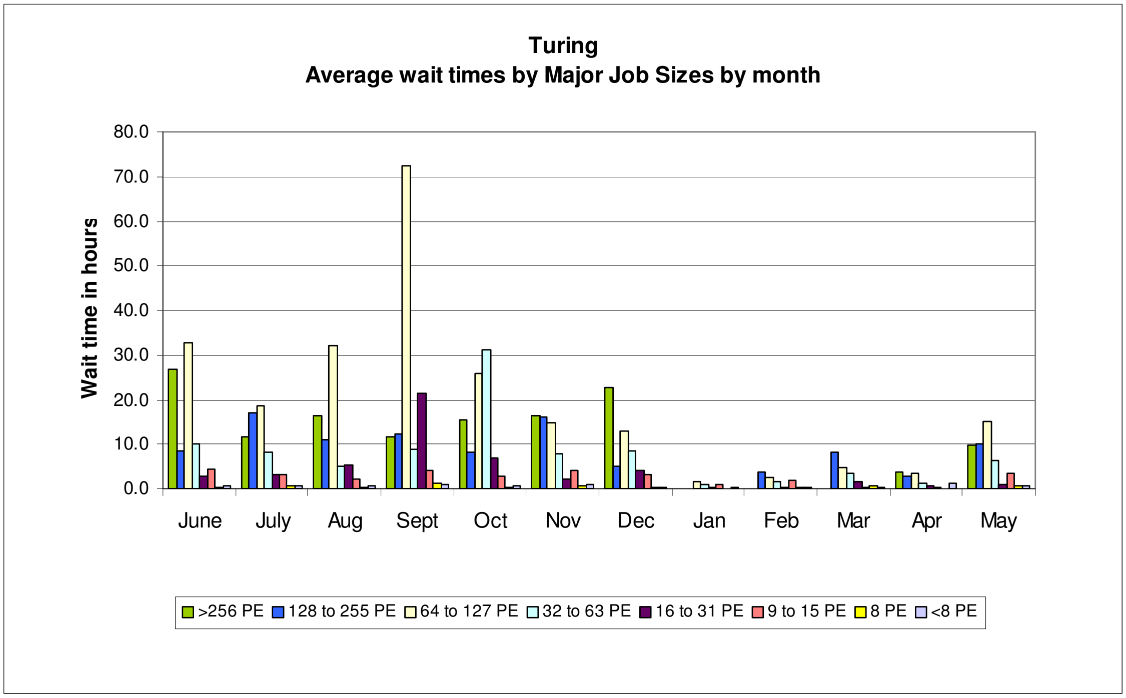
Job statistics for Green:



The above graph shows the number of jobs of the major sizes run in the period 1st to 31st May 2003.

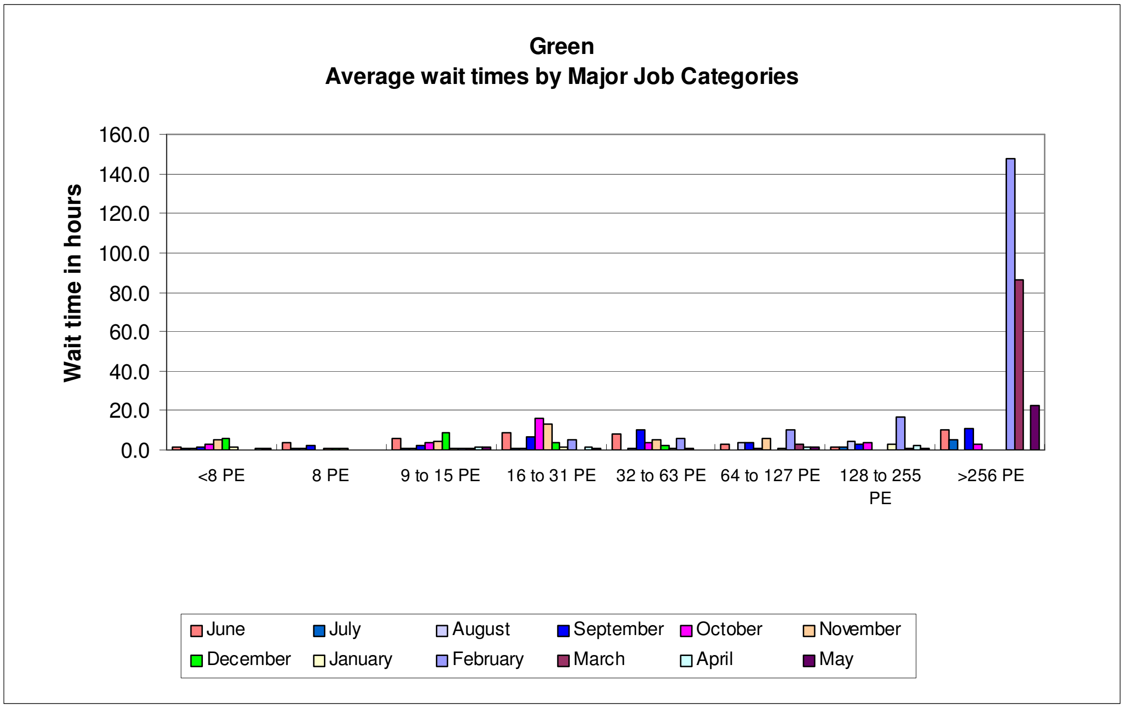
The next graph shows the wait times in hours on Turing for the major categories of jobs.

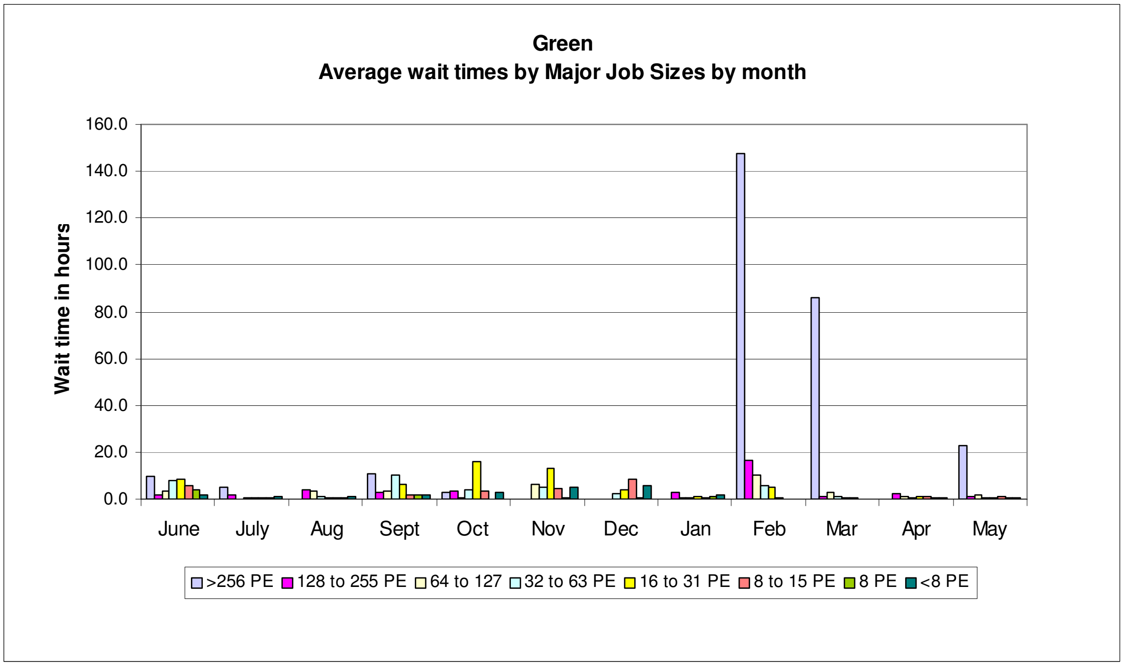




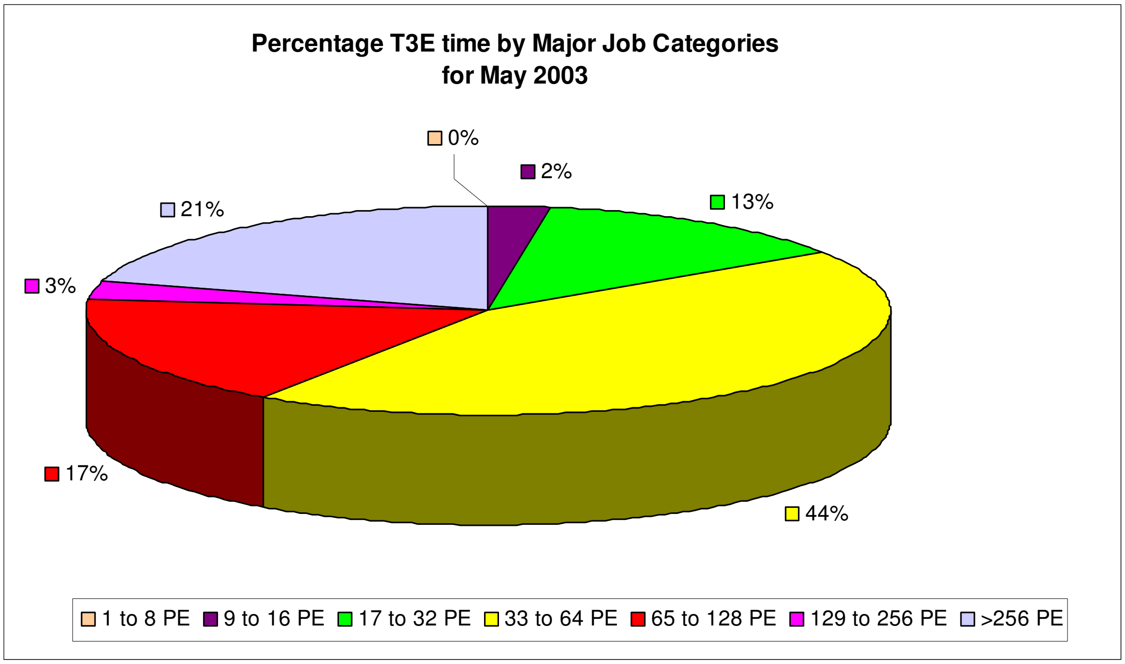
The chart above shows the average wait time trend on Turing over the last 12 months.

The next graph shows the wait times in hours on Green for the major categories of jobs:

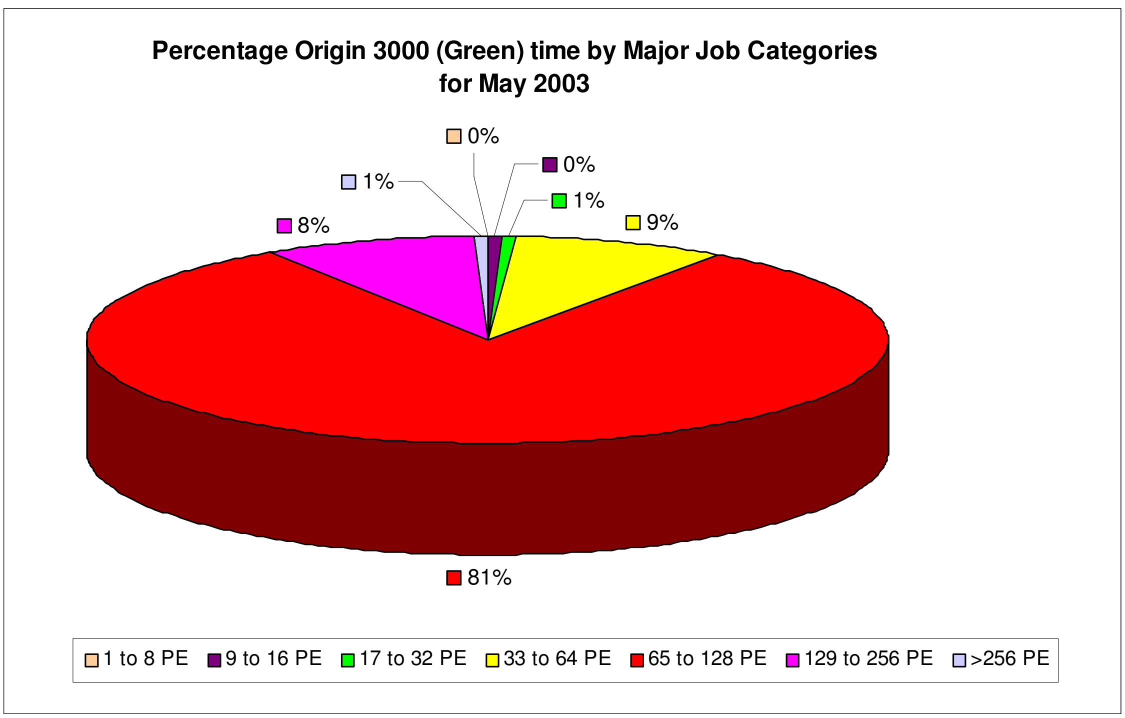




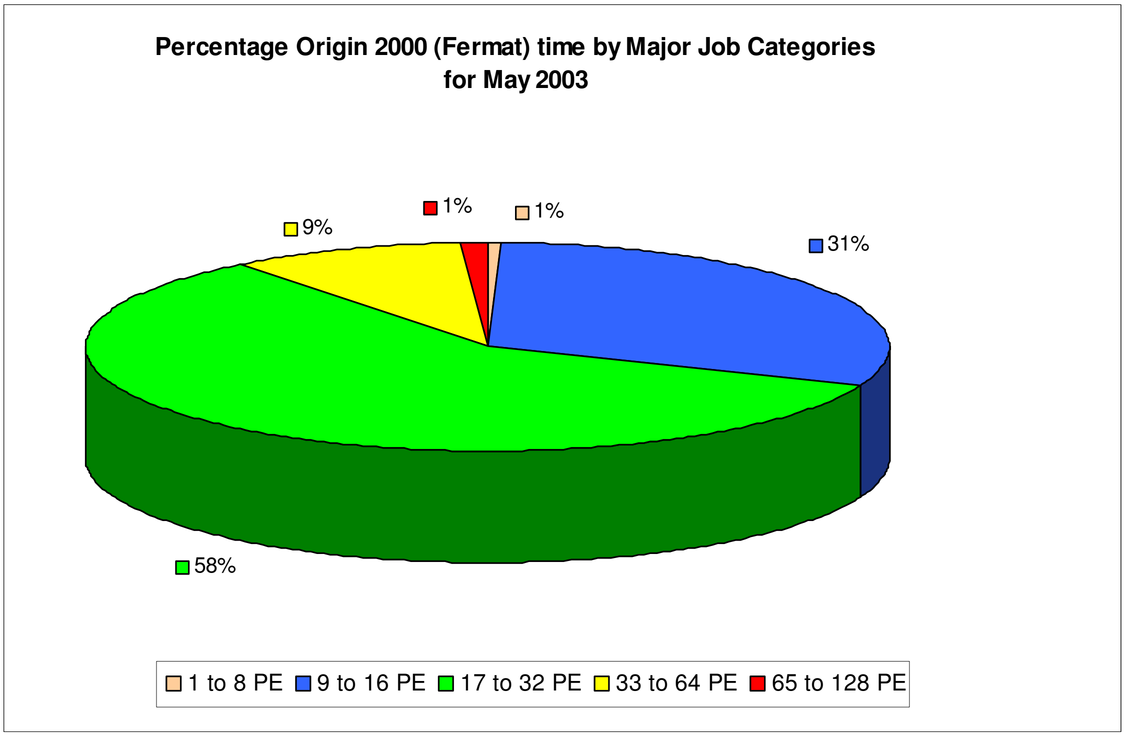
The chart above shows the average wait time trend on Green for the last 12 month period.



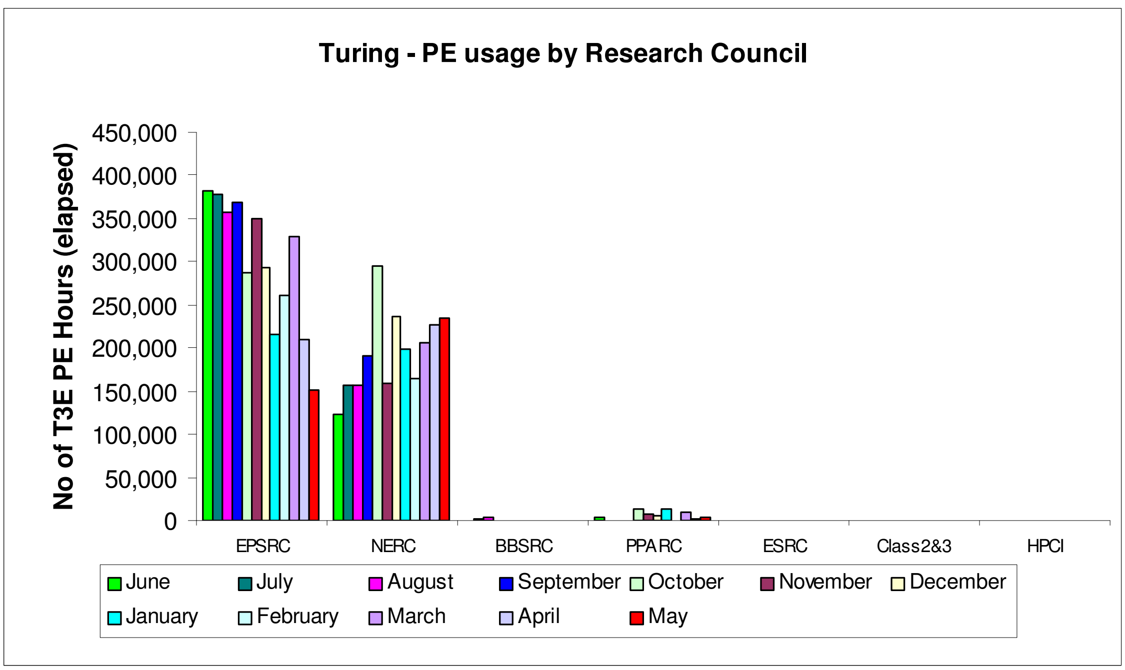
Workload on Turing for May was fairly evenly spread across all ranges of PEs, with the 33 to 64PE range showing a slightly greater concentration at 44% of the month's workload.



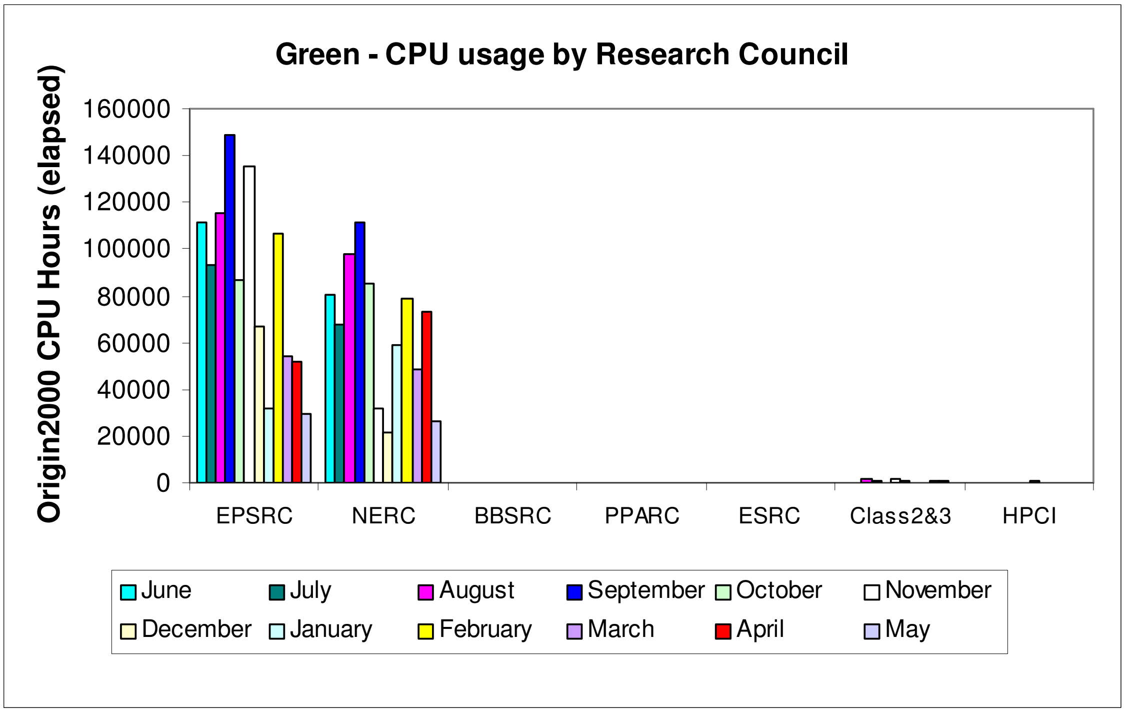
The greatest percentage of workload on Green, 81%, was in the 65 to 128 PE range.



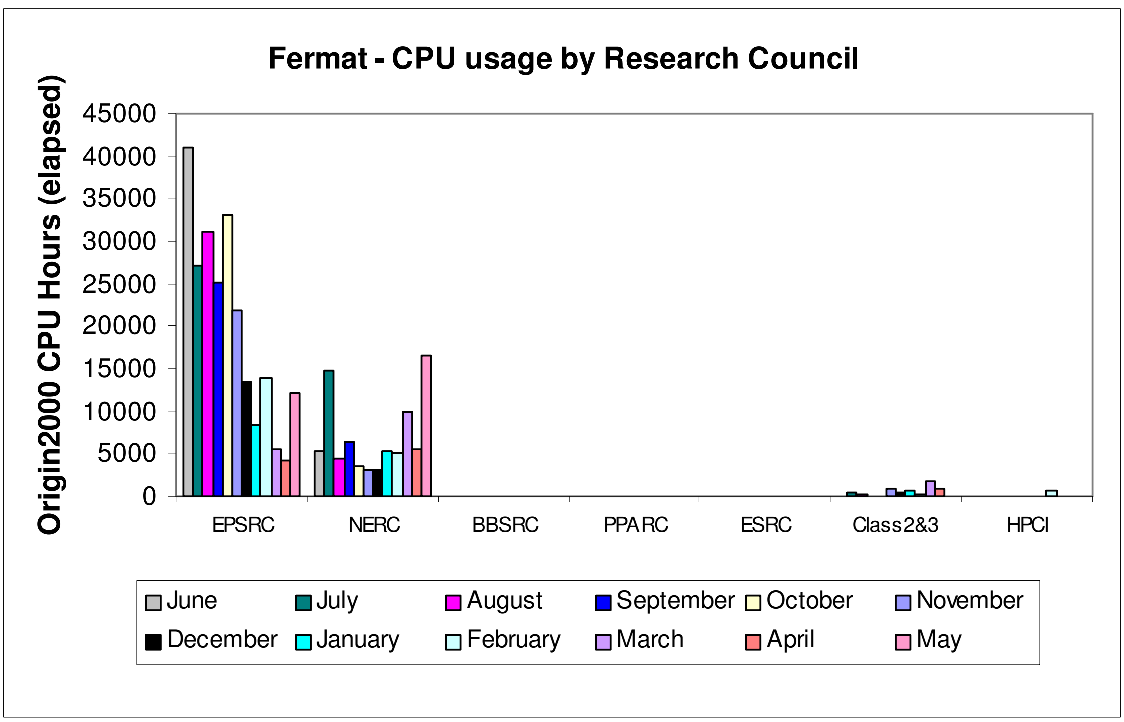
The greatest proportion of work on Fermat for May was in the 17 to 32 PE range, at 58%. There was also a small amount of work in the 65 to 128 PE range on Fermat this month.



Turing PE usage is shown by Research Council during the past 12 months of service in the above chart.



The above chart shows Green CPU usage by Research Council during the past 12 months of service.

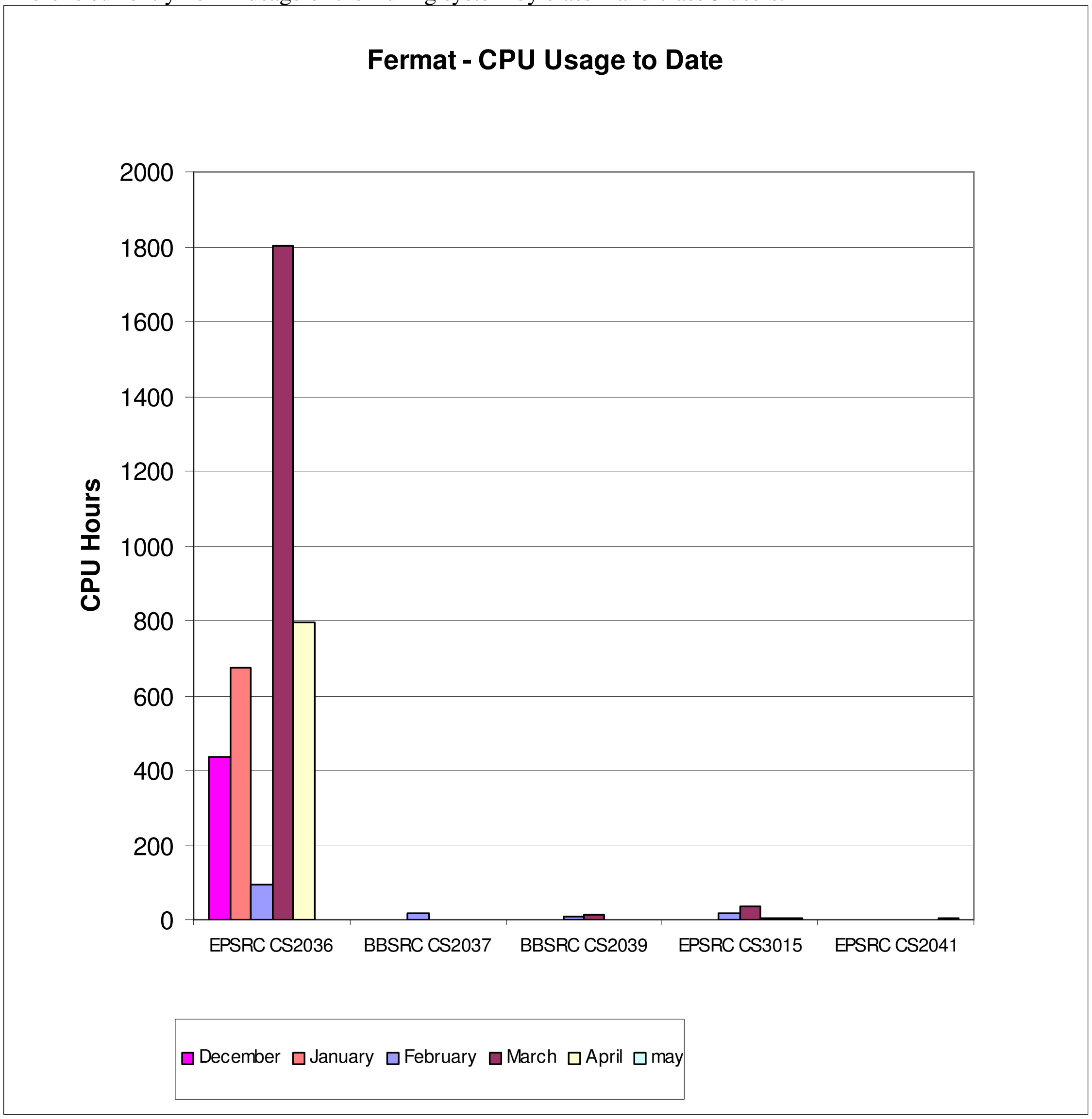


Origin 2000 CPU usage is shown by Research Council during the past 12 months of service in the above chart.

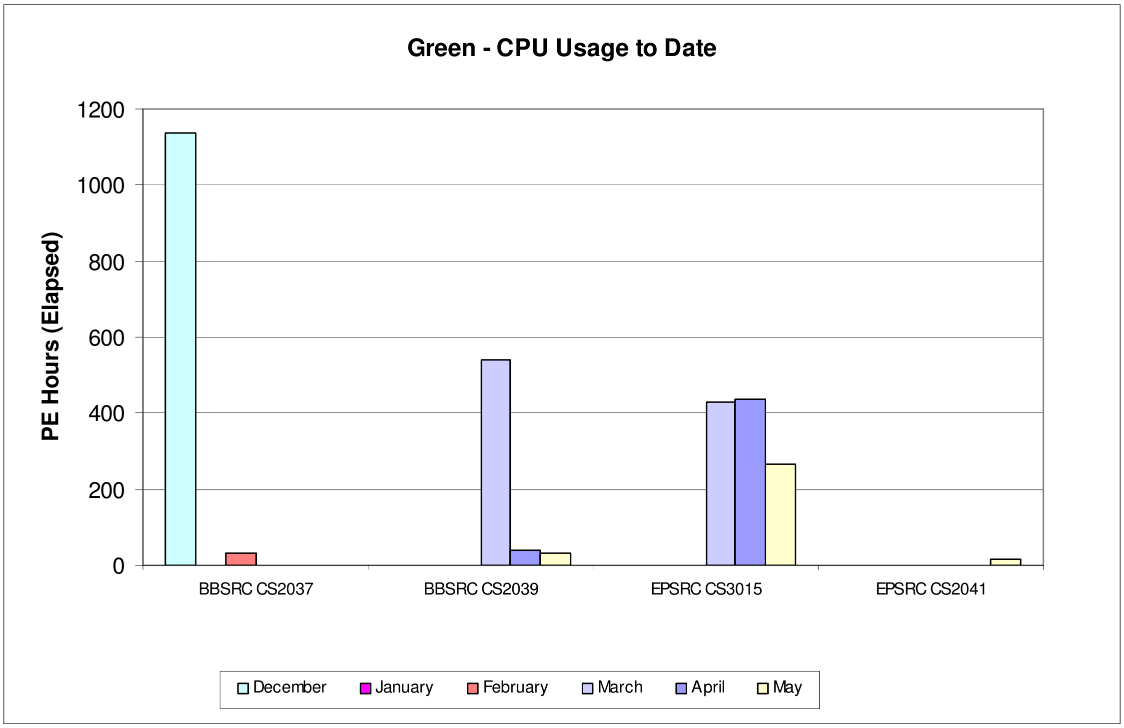
4.8 Class 2 & 3 Usage Charts

The next series of charts show the usage of the system by the class 2 & class 3 users. The usage is shown by project and identifies the Research Council of the individual projects.

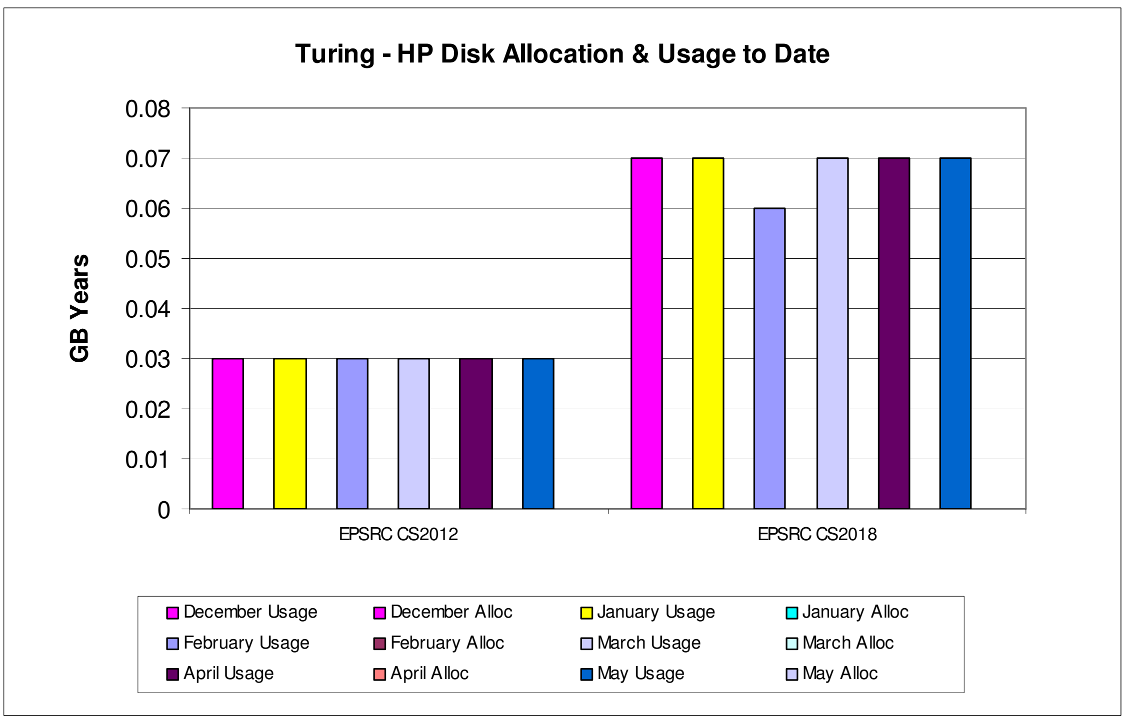
There is currently no PE usage of the Turing system by class 2 and class 3 users.



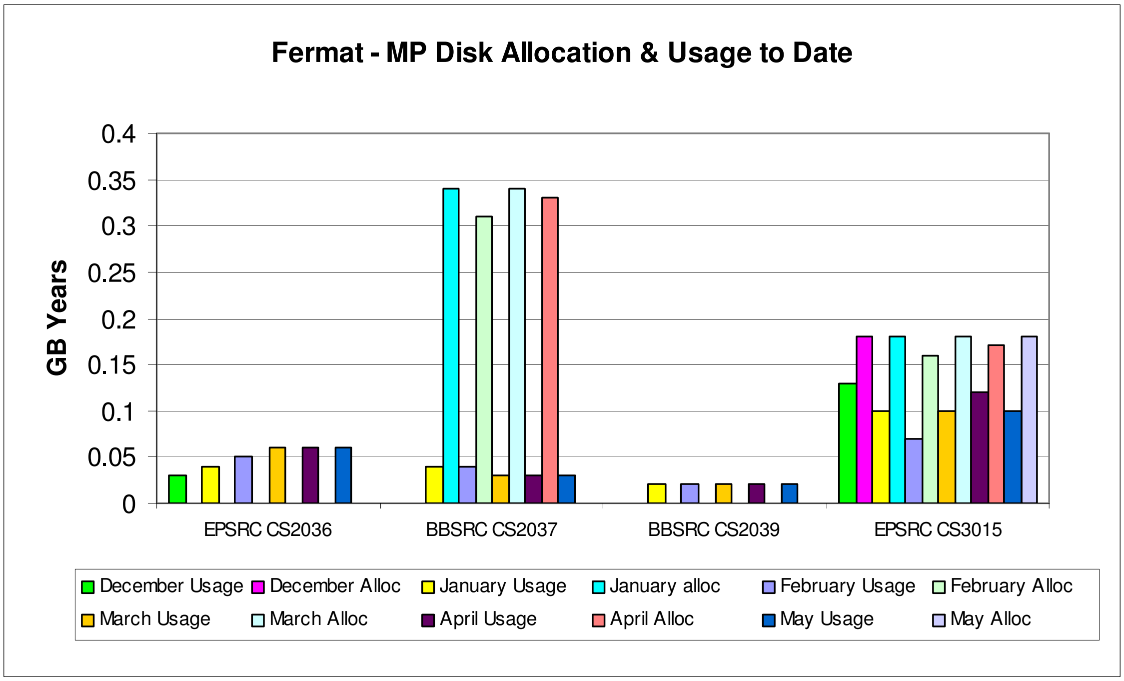
The above chart shows the CPU usage of the Fermat system by class 2 and class 3 users.



The above chart shows the CPU usage of Green by class 2 and class 3 users.



The above chart shows the most significant disk allocations on the Turing system for class 2 and class 3 users.

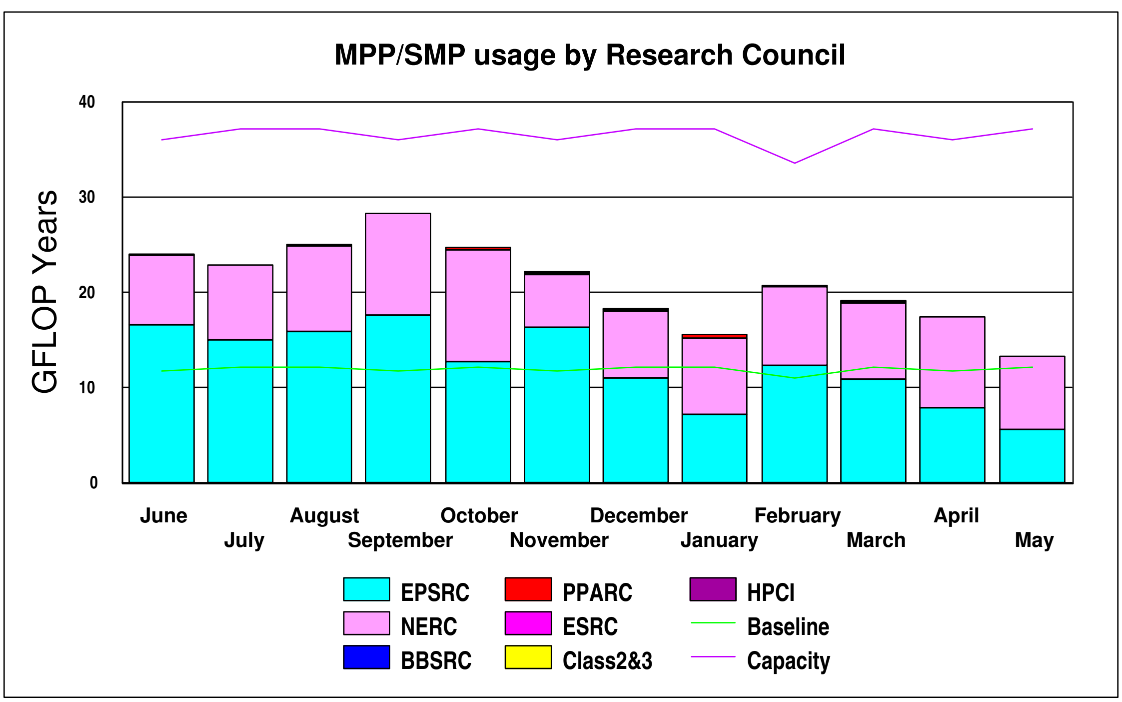


The above chart shows the most significant disk allocations on the Fermat system for class 2 and class 3 users. There is currently no HSM usage by class 2 and class 3 users.

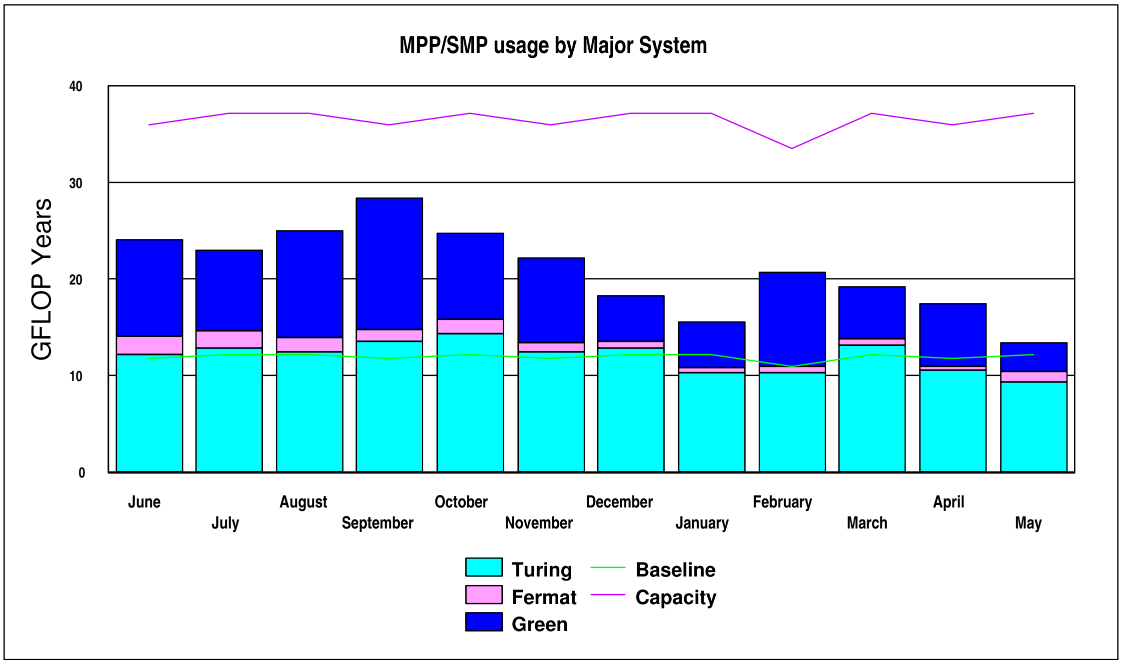
4.9 Charts of Historical Usage

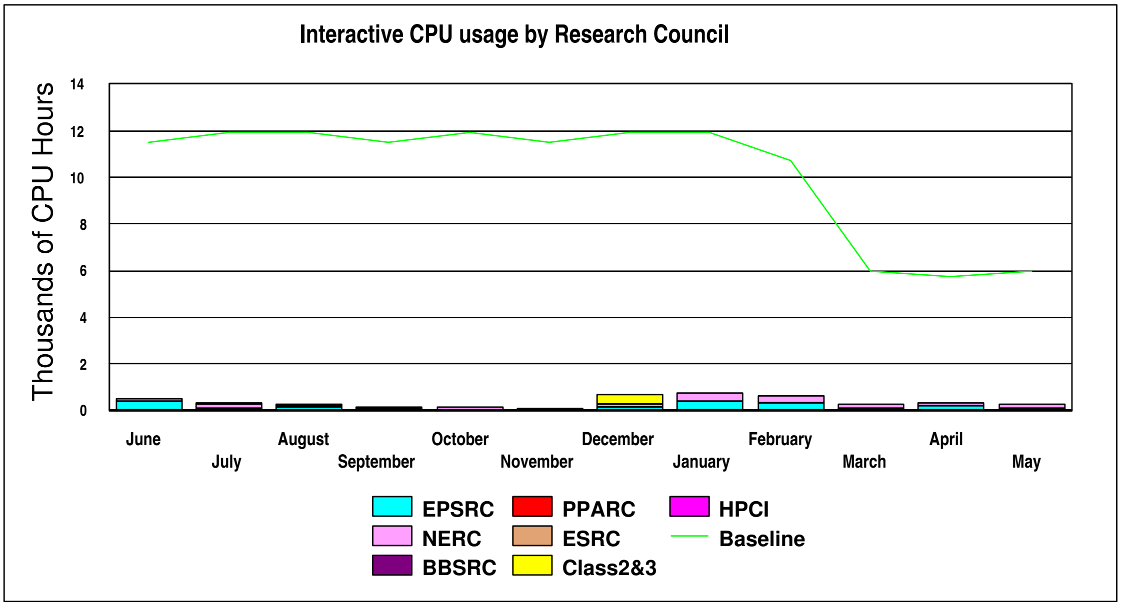
In all the Usage Charts, the baseline varies dependant on the number of days in each month, within a 365-day year.

The graph below shows the GFLOP Year utilisation on Turing and Fermat by Research Council for the previous 12 months.



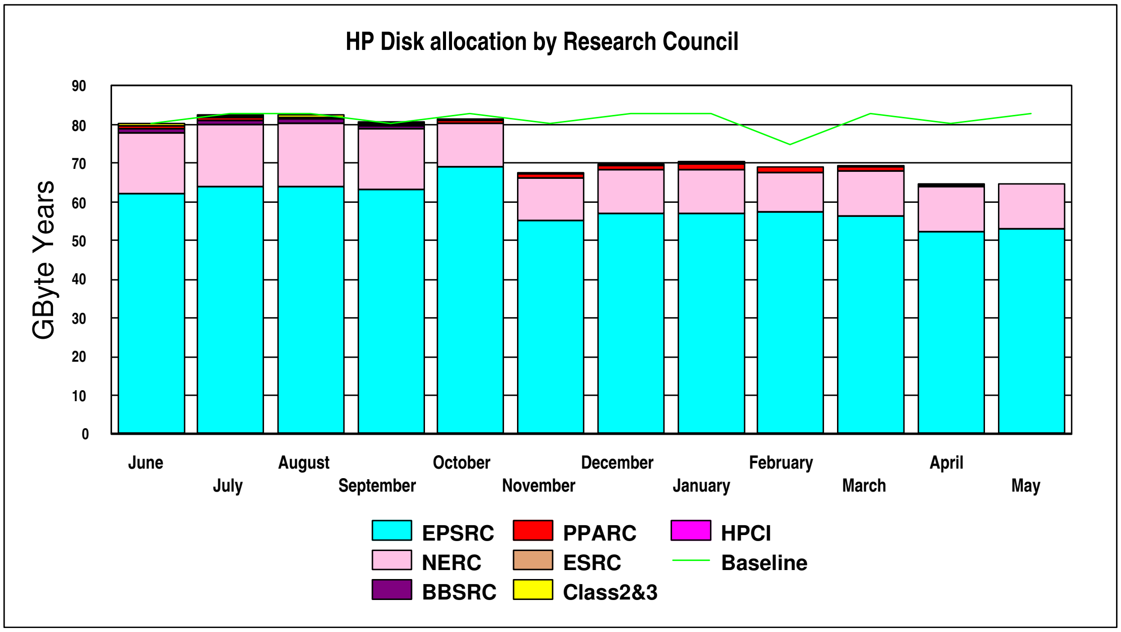
The graph below shows the historic SMP/MPP usage on the major systems.



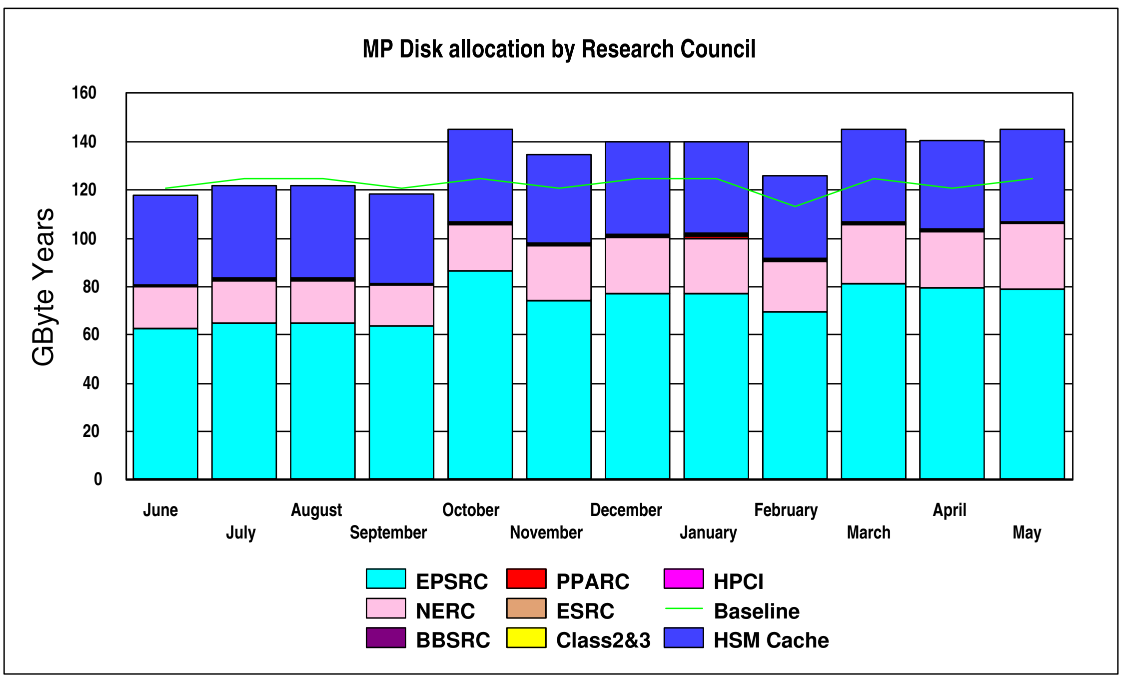


The above graph shows the historic interactive usage of the 'baseline' Fermat system (equivalent to 16@250Mhz CPUs) up to the end of February 2003, at which point the interactive usage was transferred to Wren and Fermat became a batch-only system.. Eight of the higher speed 500Mhz CPUs in the Origin 300 system (Wren) deliver the baseline capacity equivalent to that which was previously available on Fermat for interactive usage.

The next series of graphs illustrates the usage of the disk and HSM resources of the system.

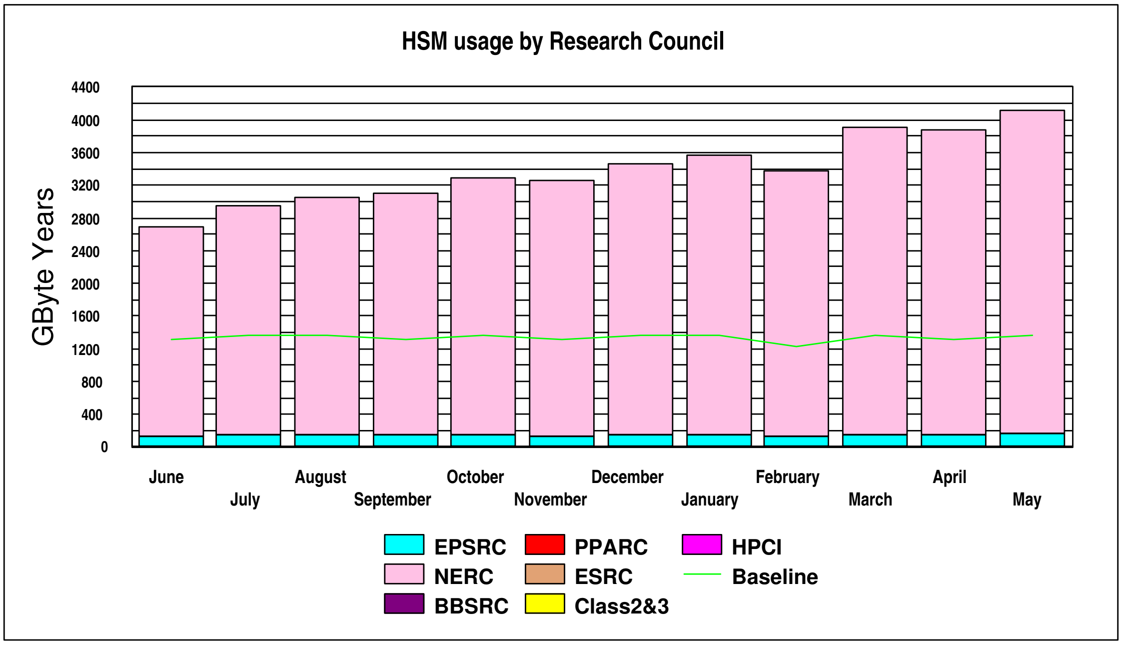


The preceding graph illustrates the historic allocation of the High Performance Disk on Turing.



The graph above illustrates the historic allocation of the Medium Performance Disk on Fermat.

The graph below shows the historic HSM usage by Research Council funded projects, now above Baseline at 48 Terabytes. The primary usage is for NERC.



4.9 Guest System Usage Charts

There is currently no Guest System usage.

5. Service Status, Issues and Plans

5.1 Status

The service was reasonably utilised in May, with usage exceeding baseline.

During the month there was a fairly balanced spread of work across all major systems.

The four additional fibre-attached tape drives on Fermat have helped to improve the response and reliability of the Data Migration Facility; response times this month have been much better than in previous months..

5.2 Issues

Green suffered with hardware issues during May, causing a series of outages. Two PEs were subsequently isolated and replaced.

Fermat also suffered with a hardware issue during May. A cooling fan failure caused the system to shut down on May 22nd. The faulty fan was replaced before power was restored to the system.

5.3 Plans

Plans are now underway to introduce a 32-PE Altix system (Reynolds) into the service by 30th June 2003. This will be superseded by a 256-PE Altix system (Newton) during September 2003. Further details will be announced as they become available.

It is also the intention of CfS to further upgrade the Silo configuration by the addition of a second tape silo within the next few months.

6. Conclusion

May 2003 saw the overall CPARS rating at Green with the baseline being exceeded by 10.3%.

Continued management attention will be given to maximise the throughput of the Service, whilst balancing as fairly as practicable the shares between Projects and jobs of the varying sizes.

Appendix 1 contains the accounts for May 2003

Appendix 2 contains the Percentage shares by Consortium for May 2003

Appendix 3 contains the Percentage shares by Research Council for May 2003

Appendix 4 contains the Training, Applications and Optimisation support figures to the end of May 2003

Appendix 5 contains a breakdown of resource usage by Consortia to the end of May 2003.

Appendix 6 contains a reference table of the Consortia name, the subject area and the PI name.

Appendix 1

The summary accounts for the month of May 2003 can be found at the URL below

http://www.csar.cfs.ac.uk/admin/accounts/summary.shtml

Percentage PE time per consortia for Turing in May 2003

Consortia	% Machine Time
CSE002	6.89
CSE030	0.00
CSE055	0.00
CSE057	0.00
CSE084	0.00
CSE086	9.94
CSE004	0.00
CSE013	0.00
CSE040	0.00
CSE041	0.00
CSE043	0.00
CSE050	0.23
CSE052	0.00
CSE053	1.19
CSE061	0.00
CSE063	1.11
CSE064	0.11
CSE085	11.03
CSE072	0.52
CSE009	0.00
CSE035	0.00
CSE060	7.66
CSE020	0.00
CSE066	0.30
CSE075	0.00
CSE076	0.03
CSE034	0.00
CSE036	0.00
CS3016	0.00
HPCI Southampton	0.00
HPCI Daresbury	0.00
HPCI Edinburgh	0.00
CSN001	0.00
CSN003	60.11
CSN005	0.00
CSN006	0.00
CSN007	0.00
CSN010	0.00
CSN012	0.00
CSN015	0.05
CSN017	0.00
CSN036	0.00
CSN044	0.00
CSN052	0.00
CSB001	0.00
CSB002	0.00
CSP007	0.83
CS2018	0.00
CS2033	0.00
CS2034	0.00
CS2035	0.00
CS2036	0.00
CS2037	0.00
CS3001	0.00
CS3002	0.00
CS3005	0.00
CS3010	0.00
CS3015	0.00

Percentage CPU time per consortia for Fermat in May 2003

Consortia	% Machine Time
CSE002	1.79
CSE030	0.00
CSE055	0.00
CSE057	0.00
CSE084	0.00
CSE086	1.01
CSE004	0.00
CSE013	0.00
CSE040	0.00
CSE041	0.00
CSE043	0.00
CSE050	0.00
CSE052	0.00
CSE053	0.00
CSE056	8.44
CSE063	0.00
CSE064	0.00
CSE085	0.07
CSE082	30.91
CSE009	0.00
CSE035	0.00
CSE060	0.00
CSE020	0.00
CSE066	0.00
CSE075	0.00
CSE076	0.00
CSE034	0.00
CSE036	0.00
CS3016	0.00
HPCI Southampton	0.00
HPCI Daresbury	0.00
HPCI Edinburgh	0.00
CSN001	46.08
CSN003	11.67
CSN005	0.00
CSN006	0.00
CSN007	0.00
CSN010	0.00
CSN012	0.00
CSN015	0.00
CSN017	0.00
CSN036	0.00
CSN044	0.00
CSN052	0.00
CSB001	0.00
CSB002	0.00
CSP007	0.00
CS2004	0.00
CS2033	0.00
CS2034	0.00
CS2035	0.00
CS2036	0.00
CS2041	0.02
CS2039	0.00
CS3002	0.00
CS3005	0.00
CS3010	0.00
CS3015	0.01

Percentage CPU time per consortia for Green in May 2003

Consortia	% Machine Time
CSE002	2.29
CSE084	0.00
CSE086	0.02
CSE098	0.01
CSE041	0.00
CSE053	14.90
CSE056	0.00
CSE063	0.00
CSE064	12.55
CSE085	12.62
CSE082	0.00
CSE009	0.00
CSE075	10.54
CSE076	0.00
CSN001	11.85
CSN003	8.87
CSN006	0.00
CSN015	22.23
CSN052	3.59
CSP006	0.00
CS2041	0.03
CS2039	0.06
CS3015	0.47

Percentage CPU time per consortia for Wren in May 2003

Consortia	% Machine Time
CSE002	0.09
CSE084	0.08
CSE086	13.30
CSE098	0.00
CSE041	0.00
CSE053	0.08
CSE056	1.99
CSE063	0.03
CSE064	0.78
CSE085	1.91
CSE082	3.19
CSE009	0.54
CSE075	1.25
CSE076	0.29
CSN001	12.32
CSN003	32.02
CSN006	22.57
CSN015	3.70
CSN052	0.98
CSP007	1.52
CS2041	0.45
CS2039	2.80
CS3015	0.45

Percentage disc allocation by Consortia for Turing in May 2003

Consortia	%Allocation
CSE002	29.97
CSE030	0.00
CSE055	0.12
CSE057	0.05
CSE084	1.58
CSE086	9.80
CSE013	1.19
CSE040	0.06
CSE041	0.06
CSE043	0.06
CSE052	0.39
CSE053	0.23
CSE056	0.00
CSE063	1.31
CSE064	0.03
CSE085	19.69
CSE009	7.02
CSE035	0.91
CSE019	0.00
CSE020	0.00
CSE066	1.53
CSE075	7.70
CSE076	0.14
CSE034	0.00
CSE036	0.03
HPCI Southampton	0.00
HPCI Daresbury	0.12
HPCI Edinburgh	0.12
CSN001	2.63
CSN003	4.06
CSN005	0.00
CSN006	6.57
CSN007	0.00
CSN010	0.00
CSN012	0.00
CSN015	0.26
CSN017	0.02
CSN036	3.94
CSN052	0.20
CSB001	0.00
CSP004	0.00
CS2037	0.00
CS3015	0.00

Percentage disc allocation by Consortia for Fermat in May 2003

Consortia	%Allocation
CSE002	7.85
CSE030	0.00
CSE055	0.00
CSE057	0.00
CSE084	1.59
CSE086	7.92
CSE013	0.00
CSE040	0.39
CSE041	0.07
CSE043	0.08
CSE052	0.00
CSE053	0.44
CSE056	0.12
CSE063	0.00
CSE064	0.07
CSE085	8.73
CSE009	1.59
CSE082	4.87
CSE019	0.00
CSE020	0.00
CSE066	0.82
CSE075	38.46
CSE076	0.44
CSE034	0.00
CSE036	0.01
HPCI Southampton	0.00
HPCI Daresbury	0.04
HPCI Edinburgh	0.07
CSN001	11.91
CSN003	2.38
CSN005	0.00
CSN006	1.59
CSN007	0.00
CSN010	0.00
CSN012	0.04
CSN015	1.59
CSN017	0.23
CSN036	5.56
CSN052	2.20
CSB001	0.00
CSP004	0.00
CS2037	0.32
CS3015	0.17

Percentage usage of HSM by Consortium for May 2003

Consortium	% Usage
CSE002	0.18
CSE086	0.03
CSE013	0.00
CSE041	0.26
CSE043	0.00
CSE053	0.04
CSE063	0.42
CSE064	0.02
CSE085	2.44
CSE035	0.01
CSE075	0.53
CSN001	25.01
CSN003	65.82
CSN006	0.01
CSN015	2.65
CSN036	2.54
CSN044	0.02

Percentage PE usage on Turing by Research Council for May 2003

Research Council	% Usage
EPSRC	39.02
HPCI	0.00
NERC	60.15
BBSRC	0.00
ESRC	0.00
PPARC	0.83

Percentage CPU usage on Fermat by Research Council for May 2003

Research Council	% Usage
EPSRC	42.23
HPCI	0.00
NERC	57.75
BBSRC	0.00
ESRC	0.00
PPARC	0.00

Percentage PE usage on Green by Research Council for May 2003

Research Council	% Usage
EPSRC	53.41
HPCI	0.00
NERC	46.53
BBSRC	0.06
ESRC	0.00
PPARC	0.00

Percentage CPU usage on Wren by Research Council for May 2003

Research Council	% Usage
EPSRC	24.09
HPCI	0.00
NERC	71.60
BBSRC	2.80
ESRC	0.00
PPARC	1.52

Percentage Disc allocated on Turing by Research Council for May 2003

Research Council	% Allocated
EPSRC	82.06
HPCI	0.26
NERC	17.68
BBSRC	0.00
ESRC	0.00
PPARC	0.00

Percentage Disc allocated on Fermat by Research Council for May 2003

Research Council	% Allocated
EPSRC	74.06
HPCI	0.12
NERC	25.51
BBSRC	0.32
ESRC	0.00
PPARC	0.00

Percentage Disc allocated as SAN UHP by Research Council for May 2003

EPSRC	0.00
HPCI	0.00
NERC	0.00
BBSRC	0.00
ESRC	0.00
PPARC	0.00

Percentage Disc allocated as SAN HV by Research Council for May 2003

EPSRC	0.00
HPCI	0.00
NERC	100.00
BBSRC	0.00
ESRC	0.00
PPARC	0.00

Percentage HSM usage by Research Council for May 2003

Research Council	% usage
EPSRC	3.95
HPCI	0.00
NERC	96.05
BBSRC	0.00
ESRC	0.00
PPARC	0.00

Appendix 4

The following tables show the training and support resource usage by the consortias in person days to the current month.

Project	PI	Subject	Discipline/ Department	Liaison Officer	Support Bought	Apps Support for May 2003	Total Apps Support from July 2000	Opt Support for May 2003	Total Opt Support from July 2000	Total Support Used	Trainin g Bought	Training Used
cse002	Wander, A (Dr)	Support for the UKCP	Physics	Neil Stringfellow	446.7		12.25			144.25	74	3
cse003	Dundas, D (Dr)	HPC Consortiums 98-2000		Martyn Foster	25.27		6		15.5	24.5	10	6
cse004	Sandham, N (Prof)	UK Turbulence		Keith Taylor							2	2
cse006	Briddon, P (Dr)	Covalently Bonded Materials		Kevin Roy	4				4	4		
cse007	Foulkes, M (Dr)	Quantum Many Body Theory		Martyn Foster	4					1	2	2
cse008	Vincent, M (Dr)	Model Chemical Reactivity		Robin Pinning								
cse009	Slater, Ben	HPC Computing Applications in Materials Chemistry	Chemistry	Neil Stringfellow	275.5		6		3	9	26.5	
cse010	Williams, J (Dr)	Free Surface Flows		Dan Kidger	15.95					15.95		
cse011	Williams, J (Dr)	Open Channel Flood Plains		Dan Kidger	2.18					2.18	1	
cse012												
cse013	Leschziner, M (Prof)	Large Eddy Simulation for Aerospace & Turbomachinery Dynamics	Mechanical Engineering	Mike Pettipher	9						57.5	10
cse014	de Oliverira, C (Dr)	Problems in Nuclear Safety		Dan Kidger	3							
cse016	Cant, S (Dr)	Turbulent Combustion		Keith Taylor								
cse017	Luo, K (Dr)	Large Eddy Simulation & Modelling of Buoyant Plumes & Smoke Spread in Enclosures		Keith Taylor	2.44						5	
cse018	Jaffri, K			Keith Taylor								
cse019	Lander, J (Dr)			Kevin Roy								
cse020				Kevin Roy								
cse021	Staunton, J (Dr)			John Brooke	0.2						1.04	1
cse022	Jones, W P (Prof)			Keith Taylor								
cse023	Allen, M (Prof)			Robin Pinning								

cse024	Allan, R J (Dr)			Ben Jesson	24						300	
cse025	Walet, N R (Dr)			Martyn Foster							2	1.5
cse026	Neal, M (Dr)											
cse027												
cse028												
cse029	Apsley, D D (Dr)			Keith Taylor								
cse030	Desplat, J C (Dr)	High Performance Computing for Complex Fluids	Physics	Andrew Jones	103		21		5	51	31	7
cse031												
cse033	Breard, C (Dr)											
cse034				Kevin Roy								
cse035	Jenkins, S (Dr)	Ab Initio Simulations of Catalytic Processes at Extended Metal Surfaces	Chemistry	Neil Stringfellow								
cse036	Duff, I (Prof)	Research & Development of Algorithms & Software for Large-Scale Linear & Non-Linear Systems	Maths	Adrian Tate								
cse040	Badcock, K (Dr)	Prediction of Non-Linear Flutter Characteristics by Numerical Path Following & Model Reduction	Aerospace Engineering									
cse041	Wu, X (Dr)	Flutter & Noise Generation Mechanisms - Turbomachinery Fan Assemblies	Mechanical Engineering	Keith Taylor	60						5	
cse043	Williams, J (Dr)	Numerical Simulation of Flow over a Rough Bed	Engineering	Keith Taylor	4		2		2	4	4	4
cse050	Bradley, D (Prof)	Flame Instabilities: their influence on turbulent combustion & incorporation in mathematical models.	Mechanical Engineering	Mike Pettipher	20						10	
cse051												
cse052	Di Mare, F (Miss)	Heat Transfer in Turbine Combustors	Mechanical Engineering	Jon Gibson	10						25	
cse053	Leschziner, M (Prof)	Coupling RANS Near-Wall Turbulence Models with Large Eddy Simulation Strategies	Aerospace Engineering	Mike Pettipher	15						8	

cse055	Staunton, J (Dr)	Ab-initio theory of magnetic anisotropy in transition metal ferromagnets	Physics	Andrew Jones	5						10	
cse056	Zheng, Y(Dr)	Aerothermalelasticity Modelling of Air Riding Seals for Large Gas Turbines	Mechanical Engineering	Keith Taylor	5						10	
cse057	Evans, R (Dr)	Relativistic Particle Generation from Ultra-Intense Laser Plasma Interactions	Physics	Andrew Jones	20						10	
cse060	Robb, M (Prof)	CCP1 Renewal plus falgship project on Car-Parrinello in Chemistry	Chemistry	Neil Stringfellow	10						10	
cse061	Imregun, M (Prof)	Casing treatment modelling for the investigation of stall, flutter and noise mechanisms in turbomachinery compressors.	Mechanical Engineering	Mike Pettipher	5						5	
cse063	Sandham, N (Prof)	Computational Aerocaustics for Turbulent Plane Jets	Aerospace Engineering	Adrian Tate	30						10	
cse064	Leschziner, M (Prof)	Improvement of predictive performance of anisotropy-resolving turbulence models in post-reattachment recovery region of separated flow using Large Eddy Simulation	Aerodynamics	Mike Pettipher	10						8	
cse066	Coveney, P V (Prof)	New clay-polymer nanocomposites using diversity-discovery methods: synthesis, processing and testing	IT	Kevin Roy	21						6	3

cse071	Iacovides (Dr)	The Practical Computation of Three-Dimensional Time-Dependent Turbulent Flows in Rotating Cavities	Mechanical Engineering	Mike Pettipher	5						6	
cse072	Karlin, V (Dr)	Structure & Dynamics of Unstable Premixed Laminar Flames	Engineering	Jon Gibson	18						9	6
cse074	Luo (Dr)	Consortium on Computational Combustion for Engineering Applications	Engineering	Jon Gibson								
cse075	Coveney, PV (Prof)	The Reality Grid - a tool for investigating condensed matter & materials	IT	Kevin Roy	14		5			5	14	
cse076	Briddon, P (Dr)	HPC facilities for the first principles simulation of covalently bonded materials	IT	Adrian Tate	20				11	11		
cse077	Kronenburg, A (Dr)	Combustion Model Development for Large-Eddy Simulation of Non-Premixed Reactive Flows.	Mechanical Engineering	Jon Gibson							2	
cse082	Barakos, G (Dr)	CFD Study of Three-Dimensional Dynamic Shelf	Aerospace Engineering	Keith Taylor	5						1	
cse084	Needs, R (Dr)	The Consortium for Computational Quantum Many-Body Theory	Physics	Adrian Tate	19							10
cse085	Sandham, N (Prof)	UK Turbulence Consortium	Engineering	Adrian Tate	15						6	6
cse086	Taylor, K (Prof)	Multiphoton, Electron Collisions and BEC HPC Consortium 2002-2004	Physics	Kevin Roy	35				5	5	116	

cse089	Wiercigroch, M (Dr)	Nonlinear Dynamics & Rock Contact Fracture Mechanics in Modelling of Vibration Enhanced Drilling	Engineering	Keith Taylor	15						7	
cse098	De Souza M M (Dr)	Indium interactionsin silicon for ULSI technologies	Physics	Andrew Jones	5						5	
cse099	Williams, J (Prof)											
cse100	Gao, S (Dr)	Dev of Novel Aerodynamic Lenses for Focusing Nanoparticle Beams	Engineering									
cse101	Jiang (Dr)	Direct Numerical Simulation of Fuel-Air Mixing with Passive Flow Control of Diesel Combustion	Mechanical Engineering									
cse102	Williams, J (Prof)	Numerical Modelling of Flow around Bridge Piers	Engineering									
cse103	Neil, M P (Prof)	Simulation of modelling of liquid crystal mesopases linked to the design of molecular and material properties.	Mathematics									
cse104	Greaves, D M (Dr)	CFD Modelling of free surface waves driven by moving bodies using adaptively refined and material properties										
cse105	Chemyshenko, S I (Prof)	Optimal database of the direct numerical simulation of turbulent channel flow	Aerodynam & Flight Mechanics									
cse106	Augarde (Dr)	Parametric Studies of multiple tunnels	Engineering									
cse107	Hicks, M A (Dr)	Parallel Finite Elements for Stochastic Analysis	Engineering									
cse108	Holden, A V (Prof)	Large-scale parallelisation of electro-physiological & mechanical cardiac virtual tissues	Biomedical Science									
cse109	Allen, M (Prof)	University of Warwick new HPC Projects	Physics									
cse110	Leach, S A (Dr)	Application of HE Computing to Develop Complex Stochastic Models to aid Public Health & National Operational Responses to Infectious Disease Threats										
cse111	Avital, Eldad (dr)	A numercal study of three dimensional wakes generated by free surface piecing circular cylinders	Engineering									
cse112	Chemyshenko, S I (Prof)	Master-mode analysis of the genesis of organized structures in turbulent flows.	Engineering - Aerodynamics									
cse113	Wirth, T (Prof)	Stereoselective Halocyclisations	Chemistry									
cse114	Jiang, X (Dr)	Direct numerical simulation of fuel injection & spray combustion	Engineering									
csn001	De Cuevas, B (Mrs)	OCCAM	Ocean/Earth Sciences	Zoe Chaplin	70.5		1		58	61	20	3
csn002	Vincent, Mark (Dr)			Robin Pinning								

csn003	Steenman-Clark, L (Dr)	UGAMP	Meteorology	Zoe Chaplin	4.8			3	4	4	22.79	22
csn005	Huw Davies, J (Dr)				27					27	6	6
csn006	Brodholt, J (Dr)		Geological Sciences	Zoe Chaplin								
csn007				Stephen Pickles								
csn008				Michael Bane								
csn009	Proctor, R (Dr)			Michael Bane								
csn010				Kevin Roy	2						5	
csn011	Gray, S L (Dr)											
csn012	Tennyson, J (Prof)	Calculated Absorption by water vapour at near infra-red & optical wavelengths	Physics & Astronomy	Andrew Jones								
csn013	Voke, P (Prof)	Large Eddy Simulation Extended by Extreme Value Theory for the Prediction of Dispersion, Concentration Threshold Boundaries & Field Connectivity	Mechanical & Materials Engineering	Keith Taylor								
csn014	Llewellyn Jones (Prof)		Physics & Astronomy	Andrew Jones								
csn015	Proctor, R (Dr)	A Testbed for Zooplankton Models of the Irish Sea	Coastal & Marine Sciences		20		2			2	10	3
csn017	Payne, A (Dr)	Stability of the Antarctic Ice Sheet	Geography	Kevin Roy	16				2	2	18	2
csn036	Liu, C (Dr)	Assimilation of Altimeter, Radiometer & in situ data into the OCCAM model. Analysis of water properties & transports	Environmental Science	Zoe Chaplin	2						5	
csn042	Gray, S L (Dr)	Transport & Mixing in Fronts										
csn044	Steenman-Clark, L (Dr)	Earth Observation Project	Meteorology	Zoe Chaplin								
csn049	Srokosz	Climate impact changes in Atlantic Thermohaline.										
csn050	Chellenor	The probability of rapid climate change.										

csn051	Proctor	Ultra-fine scale modeling of the northern North Atlantic Thermohaline										
csn052	Xie, Z (Dr)	Quantifying the scaling of physical transport in structured heterogeneous porous media.	Earth Science	Zoe Chaplin							5	5
csn053	Das, S (Dr)	Rupture history of large earthquakes from analysis of broard band seismograms, and its physical interpretation.	Earth Science									
csn054	Thuburn, J (Dr)	An Integrated Model of Atmospheric Convection	Meteorology									
csn055	Vocadlo, L (Dr)	The structure and anisotropy of Earths inner core.	Earth Science									
csn056	Hoskins, B (Prof)	Atmospheric water vapour budget & its relevance to the thermohaline circulation	Meteorology									
csn057	Guilyardi, E (Dr)	Role of salinity in ocean circulation and climate response to greenhouse gas forcing	Atmospheric Modelling									
csn058	Tudhope, A (Dr)	Improving ability to predict rapid changes in the el nino southern oscillation climatic phenomenon	Atmospheric Modelling									
csn059	Watson, A J (Prof)	Circulation, overflow & deep connection in the Nordic seas.	Environmental Sciences									
csb001	Houldershaw, D (Dr)	Use of Cray T3E for multiple long trajectories of protein unfolding	Crystallography	Zoe Chaplin	6		1.5			3.5	4	2
csb002	Mulholland, A (Dr)			Robin Pinning								
csb003	Carling, J (Dr)										3	
csb005	Haley	Genetic Analysis of Complex Traits										
csp002	Chapman, S (Dr)				2						8	4
csp003	Ord, S M (Mr)			Stephen Pickles	11.79		10			11	12	12
csp004	Bell, K L (Prof)	A Programme for Atomic Physics for Astrophysics at Queen's University Belfast (2001-2005)	Astronomy	Keith Taylor	7						8	
csp006	Jain, R (Dr)	Numerical Simulation of forced magnetic reconnection in the solar corona	Physics	Jon Gibson							12	
csp007	Scott, P (Dr)	A Programme for Atomic Physics for Astrophysics at Queen's University Belfast (2001-2005)	Tomic Physics & Astrophysics	Kevin Roy								
css001	Boyle, P (Dr)			John Brooke							20	
css002	Crouchley, R (Dr)			John Brooke							2.5	2
HPCID	Allan, R (Dr)										1	1

HPCIE	Henty, D (Dr)											
HPCIS	Nicole, D (Dr)											
UKHEC	Allan, R (Dr)	UK HEC Collaboration, Core Support for High-End Computing 1999-2002		Andrew Jones							2	2
cs2001				Stephen Pickles							10	
cs2002				John Brooke	0.25					0.25		
cs2003												
cs2004				Keith Taylor								
cs2005												
cs2006				Mike Pettipher								
cs2007											1	1
cs2008				Robin Pinning	7.91					7.91		
cs2009	Pennington, V (Dr)			Michael Bane								
cs2010												
cs2011	Mallinger, F (Dr)											
cs2012	Qin, N (Prof)										1.5	1.5
cs2014	Karlin, V (Dr)										2	2
cs2015	Tejera Cuesta, P (Mr)			Keith Taylor							3	1.5
cs2016	Miles, J J (Dr)				2							
cs2017	Eisenbach, M (Mr)											
cs2018												
cs2019												
cs2020					1							
cs2021											6	1
cs2022											3	2
cs2023												
cs2024												
cs2026											1	
cs2027					6						4	
cs2028	Annett (Dr)				2						2	
cs2029												
cs2030	McKenna, K (Mr)										1	1
cs2031	Ess											
cs2032	Jain, R (Dr)											
cs2033												
cs2034	De Souza, M M (Dr)	Indium interactions in silicon for future ULSI technologies.	Physics	Jon Gibson								
cs2035	Barakos, G (Dr)	Detached Eddy Simulation of Aerodynamics & Aerocautics of Cavity Flows	Aerospace Engineering	Keith Taylor								
cs2036	Farid, Vakili-Tahami (Mr)	MPI Evaluation	Mechanical Aerospace & Manufacturing Engineering	Jon Gibson	1.7				1	1		
cs2037	Domene, Carmen (Dr)	Ab initio molecular dynamics of ion in membrane proteins										

cs2038	Excell, P (Prof)	Computational Bioelectromagnetic Modelling of Human Cellular Processes for Mobile Phone Safety Research.	Informatics		1							
cs2039	Carlborg (Dr)	Genetic Analysis of Complex Traits	Genetics & Biometry									
cs2040	Costen, F (Mrs)	Impulse radio propogation in a dense multipath & shodowed environment for ultra-wideband communication systems.	Computer Science									
cs2041	Filippone, A (Dr)	Numerical study of a 3D obstructed shear-driven cavity flow	Mechanical Aerospace & Manufacturi ng Engineering									
cs2042	Smeed, D A (Dr)	A temporally continuous high-resolution record of global sea level during the Holocene	Ocean/Earth Sciences									
cs2043	Theodoropoul os, K (Dr)	Design of microchannel structures for microreactor applications	Process Integration									
cs3001					6.8						10.45	3
cs3002	Novik, K (Dr)										2	2
cs3003	Chambers, E (Dr)											
cs3004	Avis, N (Prof)			Jo Leng	19						12	1
cs3005	Zarei, B (Mr)			John Brooke	10						5	3
cs3006					4						5	1
cs3007	Finch, E				37		7		5	12	5	
cs3008	Alsberg, B (Dr)				3						13	
cs3009	Flower, D (Dr)				2						3	
cs3010	Kemsley, K (Dr)				4						8	1
cs3012	Austin, J (Prof)				5				3	3	3	2
cs3013	Raval, R (Prof)				2							
cs3014	MacLaren, J (Dr)				2							
cs3015	Hampshire, D (Dr)	High Performance Computational Solutions for the Ginzburg-Landau Equations that describe Flux Pinning in High-Field Superconductors	Physics	Keith Taylor	2						5	
cs3016	Petchey, O (Dr)	Randomisation test for the significance of functional diversity for eco-system processes	Animal & Plant Sciences	Adrian Tate	2							
cs3017	Gross, M (Mr)	Numerical Simulation of Laser Materials Processing	Engineering		3							

cs3018	Durrant, M (Dr)	Functional modelling of oxalate-degrading enzymes & of lipoxygenase using quantum calculations.	Biology		3						3	
cs3019	Bengough (Dr)	Lattice-Boltzmann simulation of water & solute transport in porous media.	Physics		2							

Appendix 5

The following table shows resource utilisation by Consortia to the end of May 2003.

Usage Report run on Sun Jun 1 08:50:00 2003 for the CSAR service

cs2039 Carlborg
Last Trade: Mon Mar 3 09:34:39 2003
Usage:
10.9 of 20.2 Hour Wren CPU (0.5 of 1.0 G.S.T), 53.9%
24.1 of 25.6 Hour SMP CPU (0.9 of 1.0 G.S.T), 94.4%
0.0 of 0.5 GByteYear MP Disk (0.0 of 1.8 G.S.T), 0.0%
610.7 of 1834.6 Hour Green CPU (31.9 of 95.9 G.S.T), 33.3%
Total usage for project cs2039 33.4 of 99.6 Generic Service Tokens, 33.5%

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cs2041 Filippone
Last Trade: re-enabled
Usage:
1.2 of 10.1 Hour Wren CPU (0.1 of 0.5 G.S.T), 11.9%
6.7 of 0.0 Hour SMP CPU (0.3 of 0.0 G.S.T), 49892.3%
0.0 of 12.5 GByteYear MP Disk (0.0 of 44.5 G.S.T), 0.0%
16.7 of 1052.6 Hour Green CPU (0.9 of 55.0 G.S.T), 1.6%
Total usage for project cs2041 1.2 of 100.0 Generic Service Tokens, 1.2%

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cs3015 Hampshire
Last Trade: re-enabled
Usage:
85.1 of 285.3 Hour Wren CPU (4.2 of 14.1 G.S.T), 29.8%
512.4 of 648.8 Hour SMP CPU (19.9 of 25.2 G.S.T), 79.0%
2.2 of 3.0 GByteYear MP Disk (7.7 of 10.7 G.S.T), 72.2%
5445.4 of 16049.3 Hour Green CPU (284.5 of 838.6 G.S.T), 33.9%
0.0 of 2.0 PersonDay Support (0.0 of 58.8 G.S.T), 0.0%
0.0 of 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%
Total usage for project cs3015 316.4 of 1001.2 Generic Service Tokens, 31.6%

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cs3017 Gross
Last Trade: Mon Jan 13 10:31:13 2003
Usage:
0.0 of 100.3 Hour Wren CPU (0.0 of 5.0 G.S.T), 0.0%
0.0 of 1.3 Hour SMP CPU (0.0 of 0.1 G.S.T), 0.0%
0.0 of 25.0 GByteYear MP Disk (0.0 of 89.3 G.S.T), 0.0%
0.0 of 6075.3 Hour Green CPU (0.0 of 317.4 G.S.T), 0.0%
0.0 of 3.0 PersonDay Support (0.0 of 88.2 G.S.T), 0.0%
Total usage for project cs3017 0.0 of 500.0 Generic Service Tokens, 0.0%

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cs3019 Bengough
Last Trade: Tue Dec 17 12:55:36 2002
Usage:
0.0 of 360.1 Hour Wren CPU (0.0 of 17.8 G.S.T), 0.0%
0.5 of 10648.7 Hour SMP CPU (0.0 of 413.7 G.S.T), 0.0%
0.0 of 3.0 GByteYear MP Disk (0.0 of 10.7 G.S.T), 0.0%
0.0 of 2.0 PersonDay Support (0.0 of 58.8 G.S.T), 0.0%
Total usage for project cs3019 0.0 of 501.1 Generic Service Tokens, 0.0%

CSE001 - Admin users
Last Trade: Fri Oct 8 15:16:30 1999

Usage:
0.0 of 12.4 PEHour MPP PE CPU (0.0 of 0.3 G.S.T), 0.0%
0.1 of 0.1 GByteYear HP Disk (0.4 of 0.5 G.S.T), 70.5%
Total usage for project cse001 0.4 of 0.8 Generic Service Tokens, 45.3%

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cse002 GR/N02337 Bird
Last Trade: Fri May 23 14:58:09 2003
Usage:
3056392.2 of 3093737.0 PEHour MPP PE CPU (73899.6 of 74802.6 G.S.T), 98.8%
822.0 of 1262.0 GByteYear HP Disk (4892.8 of 7511.9 G.S.T), 65.1%
28.3 of 102.8 Hour Wren CPU (1.4 of 5.1 G.S.T), 27.5%
148897.3 of 162260.2 Hour SMP CPU (5784.9 of 6304.1 G.S.T), 91.8%
318.2 of 1222.0 GByteYear MP Disk (1136.6 of 4364.3 G.S.T), 26.0%
399.5 of 414.5 GByteYear HSM/Tape (251.0 of 260.4 G.S.T), 96.4%
266491.5 of 256260.5 Hour Green CPU (13924.7 of 13390.1 G.S.T), 104.0%
144.2 of 144.3 PersonDay Support (4242.6 of 4242.6 G.S.T), 100.0%
3.0 of 3.0 Day Training (32.3 of 32.3 G.S.T), 100.0%
Total usage for project cse002 104165.9 of 110913.3 Generic Service Tokens, 93.9%

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cse002 Daresbury
Last Trade: never
Usage:
495285.9 of 499686.0 PEHour MPP PE CPU (11975.4 of 12081.8 G.S.T), 99.1%
135.7 of 200.0 GByteYear HP Disk (807.9 of 1190.5 G.S.T), 67.9%
27.6 of 25.0 Hour Wren CPU (1.4 of 1.2 G.S.T), 110.3%
35538.5 of 35350.0 Hour SMP CPU (1380.7 of 1373.4 G.S.T), 100.5%
35.1 of 48.9 GByteYear MP Disk (125.2 of 174.6 G.S.T), 71.7%
71.1 of 106.0 GByteYear HSM/Tape (44.6 of 66.6 G.S.T), 67.0%
38123.2 of 22500.0 Hour Green CPU (1992.0 of 1175.7 G.S.T), 169.4%
Total usage for subproject cse002a 16327.2 of 16063.8 Generic Service Tokens, 101.6%

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cse002 Belfast
Last Trade: never
Usage:
368412.3 of 388170.0 PEHour MPP PE CPU (8907.7 of 9385.5 G.S.T), 94.9%
109.3 of 120.0 GByteYear HP Disk (650.4 of 714.3 G.S.T), 91.1%
0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%
19555.1 of 20446.0 Hour SMP CPU (759.7 of 794.4 G.S.T), 95.6%
13.0 of 44.9 GByteYear MP Disk (46.5 of 160.4 G.S.T), 29.0%
0.0 of 3.0 GByteYear HSM/Tape (0.0 of 1.9 G.S.T), 0.0%
Total usage for subproject cse002b 10364.5 of 11056.6 Generic Service Tokens, 93.7%

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cse002 Cambridge - Matsci
Last Trade: never
Usage:
371895.7 of 371396.0 PEHour MPP PE CPU (8992.0 of 8979.9 G.S.T), 100.1%
50.8 of 54.4 GByteYear HP Disk (302.2 of 323.8 G.S.T), 93.3%
0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%
0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.0%
27.5 of 50.4 GByteYear MP Disk (98.2 of 180.0 G.S.T), 54.6%
9.9 of 52.0 GByteYear HSM/Tape (6.2 of 32.6 G.S.T), 19.0%
Total usage for subproject cse002c 9398.6 of 9516.7 Generic Service Tokens, 98.8%

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cse002 Cambridge - Physics
Last Trade: never
Usage:

88900.2 of 89901.0 PEHour MPP PE CPU (2149.5 of 2173.7 G.S.T), 98.9%
16.0 of 26.7 GByteYear HP Disk (95.3 of 158.9 G.S.T), 59.9%
0.1 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 0.8%
18353.7 of 27938.0 Hour SMP CPU (713.1 of 1085.4 G.S.T), 65.7%
23.6 of 27.7 GByteYear MP Disk (84.2 of 98.9 G.S.T), 85.2%
0.0 of 27.0 GByteYear HSM/Tape (0.0 of 16.9 G.S.T), 0.0%
0.0 of 0.5 Hour Green CPU (0.0 of 0.0 G.S.T), 0.0%
Total usage for subproject cse002d 3042.1 of 3534.4 Generic Service Tokens, 86.1%

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cse002 Bath
Last Trade: never

Usage:
455233.5 of 457233.0 PEHour MPP PE CPU (11007.0 of 11055.3 G.S.T), 99.6%
178.4 of 199.0 GByteYear HP Disk (1062.1 of 1184.5 G.S.T), 89.7%
0.0 of 4.0 Hour Wren CPU (0.0 of 0.2 G.S.T), 0.0%
0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.0%
38.2 of 50.5 GByteYear MP Disk (136.4 of 180.4 G.S.T), 75.6%
125.7 of 75.0 GByteYear HSM/Tape (79.0 of 47.1 G.S.T), 167.6%
Total usage for subproject cse002e 12284.4 of 12467.5 Generic Service Tokens, 98.5%

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cse002 UCL
Last Trade: never
Usage:
84029.5 of 89030.0 PEHour MPP PE CPU (2031.7 of 2152.6 G.S.T), 94.4%
28.0 of 59.1 GByteYear HP Disk (166.9 of 351.8 G.S.T), 47.5%
0.0 of 12.0 Hour Wren CPU (0.0 of 0.6 G.S.T), 0.0%
4775.9 of 3450.0 Hour SMP CPU (185.6 of 134.0 G.S.T), 138.4%
29.5 of 54.6 GByteYear MP Disk (105.5 of 195.0 G.S.T), 54.1%
0.0 of 3.3 GByteYear HSM/Tape (0.0 of 2.1 G.S.T), 0.0%
34210.9 of 29998.0 Hour Green CPU (1787.6 of 1567.5 G.S.T), 114.0%
Total usage for subproject cse002f 4277.3 of 4403.6 Generic Service Tokens, 97.1%

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cse002 Oxford - pcl
Last Trade: never
Usage:
120318.8 of 120319.0 PEHour MPP PE CPU (2909.2 of 2909.2 G.S.T), 100.0%
19.1 of 32.8 GByteYear HP Disk (113.9 of 195.2 G.S.T), 58.3%
0.3 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 4.0%
1905.4 of 1875.0 Hour SMP CPU (74.0 of 72.8 G.S.T), 101.6%
31.8 of 35.0 GByteYear MP Disk (113.7 of 125.0 G.S.T), 91.0%
0.0 of 2.2 GByteYear HSM/Tape (0.0 of 1.4 G.S.T), 0.0%
17426.1 of 16195.0 Hour Green CPU (910.5 of 846.2 G.S.T), 107.6%
Total usage for subproject cse002g 4121.3 of 4150.2 Generic Service Tokens, 99.3%

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cse002 Edinburgh
Last Trade: never
Usage:
366804.2 of 304793.0 PEHour MPP PE CPU (8868.9 of 7369.5 G.S.T), 120.3%
46.9 of 51.0 GByteYear HP Disk (279.0 of 303.6 G.S.T), 91.9%
0.0 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 0.0%
0.0 of 12800.0 Hour SMP CPU (0.0 of 497.3 G.S.T), 0.0%
13.7 of 46.5 GByteYear MP Disk (48.9 of 166.1 G.S.T), 29.4%
0.0 of 2.8 GByteYear HSM/Tape (0.0 of 1.8 G.S.T), 0.0%
Total usage for subproject cse002i 9196.7 of 8338.6 Generic Service Tokens, 110.3%

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cse002 Kent (UKC)
Last Trade: never
Usage:
240737.8 of 239888.0 PEHour MPP PE CPU (5820.7 of 5800.2 G.S.T), 100.4%
88.1 of 100.0 GByteYear HP Disk (524.7 of 595.2 G.S.T), 88.1%
0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%
0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.0%
21.1 of 33.6 GByteYear MP Disk (75.5 of 120.0 G.S.T), 62.9%
72.4 of 100.0 GByteYear HSM/Tape (45.5 of 62.8 G.S.T), 72.4%
152553.5 of 156113.0 Hour Green CPU (7971.2 of 8157.2 G.S.T), 97.7%
Total usage for subproject cse002j 14437.6 of 14735.8 Generic Service Tokens, 98.0%

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cse002 Durham
Last Trade: never
Usage:
57482.5 of 110000.0 PEHour MPP PE CPU (1389.9 of 2659.7 G.S.T), 52.3%
30.9 of 45.0 GByteYear HP Disk (183.7 of 267.9 G.S.T), 68.6%
0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.0%
13.1 of 45.0 GByteYear MP Disk (46.7 of 160.7 G.S.T), 29.1%
Total usage for subproject cse002k 1620.3 of 3088.3 Generic Service Tokens, 52.5%

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cse002 York
Last Trade: never
Usage:
36850.4 of 49999.0 PEHour MPP PE CPU (891.0 of 1208.9 G.S.T), 73.7%
2.6 of 5.0 GByteYear HP Disk (15.4 of 29.8 G.S.T), 51.9%
0.0 of 2.0 Hour Wren CPU (0.0 of 0.1 G.S.T), 0.0%
0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.0%
20.8 of 30.0 GByteYear MP Disk (74.3 of 107.1 G.S.T), 69.3%
Total usage for subproject cse002l 980.7 of 1346.0 Generic Service Tokens, 72.9%

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cse009 GR/20607 Catlow
Last Trade: re-enabled
Usage:
1740830.4 of 1738836.8 PEHour MPP PE CPU (42091.0 of 42042.8 G.S.T), 100.1%
207.9 of 728.3 GByteYear HP Disk (1237.5 of 4335.3 G.S.T), 28.5%
37.8 of 79.4 Hour Wren CPU (1.9 of 3.9 G.S.T), 47.6%
52016.7 of 55111.5 Hour SMP CPU (2020.9 of 2141.2 G.S.T), 94.4%
37.6 of 646.7 GByteYear MP Disk (134.2 of 2309.7 G.S.T), 5.8%
0.0 of 0.9 GByteYear HSM/Tape (0.0 of 0.6 G.S.T), 0.0%
254419.1 of 254206.0 Hour Green CPU (13293.9 of 13282.8 G.S.T), 100.1%
9.0 of 9.5 PersonDay Support (264.7 of 279.4 G.S.T), 94.7%
0.0 of 0.5 Day Training (0.0 of 5.4 G.S.T), 0.0%
Total usage for project cse009 59044.2 of 64401.2 Generic Service Tokens, 91.7%

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cse013 - ICL
Last Trade: never
Usage:
168218.4 of 200000.0 PEHour MPP PE CPU (4067.3 of 4835.7 G.S.T), 84.1%
3.3 of 4.0 GByteYear HP Disk (19.8 of 23.8 G.S.T), 83.3%
0.0 of 1.0 Hour Wren CPU (0.0 of 0.0 G.S.T), 0.0%
366.3 of 500.0 Hour SMP CPU (14.2 of 19.4 G.S.T), 73.3%
0.2 of 5.0 GByteYear MP Disk (0.6 of 17.9 G.S.T), 3.5%
0.0 of 2.0 GByteYear HSM/Tape (0.0 of 1.3 G.S.T), 0.0%
Total usage for subproject cse013a 4102.0 of 4898.1 Generic Service Tokens, 83.7%

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cse013 - Loughborough
Last Trade: never
Usage:
822149.8 of 950000.0 PEHour MPP PE CPU (19878.5 of 22969.8 G.S.T), 86.5%
10.3 of 10.0 GByteYear HP Disk (61.5 of 59.5 G.S.T), 103.3%
0.0 of 1.0 Hour Wren CPU (0.0 of 0.0 G.S.T), 0.0%
9145.2 of 12000.0 Hour SMP CPU (355.3 of 466.2 G.S.T), 76.2%
2.4 of 15.0 GByteYear MP Disk (8.6 of 53.6 G.S.T), 16.0%
0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%
4449.5 of 7000.0 Hour Green CPU (232.5 of 365.8 G.S.T), 63.6%
Total usage for subproject cse013b 20536.4 of 23918.0 Generic Service Tokens, 85.9%

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cse013 - Surrey
Last Trade: never
Usage:
73101.7 of 80000.0 PEHour MPP PE CPU (1767.5 of 1934.3 G.S.T), 91.4%
7.2 of 8.0 GByteYear HP Disk (43.0 of 47.6 G.S.T), 90.4%
5.2 of 5.0 Hour Wren CPU (0.3 of 0.2 G.S.T), 105.0%
5160.0 of 5900.0 Hour SMP CPU (200.5 of 229.2 G.S.T), 87.5%
3.5 of 15.0 GByteYear MP Disk (12.6 of 53.6 G.S.T), 23.6%
0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%
47000.9 of 50000.0 Hour Green CPU (2455.9 of 2612.6 G.S.T), 94.0%
Total usage for subproject cse013c 4479.8 of 4880.7 Generic Service Tokens, 91.8%

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cse013 - QMW
Last Trade: never
Usage:
569166.5 of 700000.0 PEHour MPP PE CPU (13761.7 of 16925.1 G.S.T), 81.3%
11.3 of 15.0 GByteYear HP Disk (67.0 of 89.3 G.S.T), 75.0%
4.5 of 5.0 Hour Wren CPU (0.2 of 0.2 G.S.T), 90.8%
2212.0 of 3000.0 Hour SMP CPU (85.9 of 116.6 G.S.T), 73.7%
4.9 of 15.0 GByteYear MP Disk (17.5 of 53.6 G.S.T), 32.7%
35.3 of 40.0 GByteYear HSM/Tape (22.2 of 25.1 G.S.T), 88.3%
Total usage for subproject cse013d 13954.6 of 17209.9 Generic Service Tokens, 81.1%

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cse030 Edinburgh
Last Trade: never
Usage:
102882.3 of 110480.0 PEHour MPP PE CPU (2487.6 of 2671.3 G.S.T), 93.1%
206.6 of 234.4 GByteYear HP Disk (1229.5 of 1395.2 G.S.T), 88.1%
2920.1 of 3200.0 Hour SMP CPU (113.5 of 124.3 G.S.T), 91.3%
101.2 of 120.0 GByteYear MP Disk (361.4 of 428.6 G.S.T), 84.3%
410.6 of 516.3 GByteYear HSM/Tape (257.9 of 324.3 G.S.T), 79.5%
0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%
Total usage for subproject cse030a 4449.8 of 4943.7 Generic Service Tokens, 90.0%

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cse030 QMW
Last Trade: never
Usage:
196350.5 of 213142.1 PEHour MPP PE CPU (4747.5 of 5153.5 G.S.T), 92.1%
190.9 of 215.0 GByteYear HP Disk (1136.4 of 1279.8 G.S.T), 88.8%
8.0 of 0.0 Hour Wren CPU (0.4 of 0.0 G.S.T), 40075.0%
2056.3 of 3000.0 Hour SMP CPU (79.9 of 116.6 G.S.T), 68.5%
482.8 of 440.0 GByteYear MP Disk (1724.3 of 1571.4 G.S.T), 109.7%
188.1 of 322.2 GByteYear HSM/Tape (118.2 of 202.4 G.S.T), 58.4%
0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%
Total usage for subproject cse030b 7806.6 of 8323.7 Generic Service Tokens, 93.8%

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cse030 Oxford
Last Trade: never
Usage:
18310.7 of 18310.7 PEHour MPP PE CPU (442.7 of 442.7 G.S.T), 100.0%
1.1 of 2.0 GByteYear HP Disk (6.6 of 11.9 G.S.T), 55.4%
0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%
7.7 of 10.0 GByteYear MP Disk (27.6 of 35.7 G.S.T), 77.2%
0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)
0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%
Total usage for subproject cse030c 476.9 of 492.3 Generic Service Tokens, 96.9%

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cse030 Bristol
Last Trade: never
Usage:
0.0 of 50.0 PEHour MPP PE CPU (0.0 of 1.2 G.S.T), 0.0%
10.7 of 12.0 GByteYear HP Disk (63.4 of 71.4 G.S.T), 88.8%
0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%
11.8 of 14.0 GByteYear MP Disk (42.0 of 50.0 G.S.T), 83.9%
0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)
Total usage for subproject cse030d 105.4 of 124.6 Generic Service Tokens, 84.6%

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cse030 Leeds
Last Trade: never
Usage:
0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)
0.0 of 0.0 GByteYear HP Disk (0.0 of 0.0 G.S.T)
0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)
0.0 of 0.0 GByteYear MP Disk (0.0 of 0.0 G.S.T)
0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)
Total usage for subproject cse030e 0.0 of 0.0 Generic Service Tokens, 0.0%

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cse030 Cambridge
Last Trade: never
Usage:
0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)
0.0 of 0.0 GByteYear HP Disk (0.0 of 0.0 G.S.T)
0.0 of 200.0 Hour SMP CPU (0.0 of 7.8 G.S.T), 0.0%
0.0 of 3.0 GByteYear MP Disk (0.0 of 10.7 G.S.T), 0.0%
0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)
0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%
Total usage for subproject cse030f 0.0 of 18.5 Generic Service Tokens, 0.0%

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cse030 Sheffield Hallam
Last Trade: never
Usage:
8896.1 of 8900.0 PEHour MPP PE CPU (215.1 of 215.2 G.S.T), 100.0%
5.0 of 5.8 GByteYear HP Disk (29.9 of 34.2 G.S.T), 87.5%
0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%
4.5 of 6.0 GByteYear MP Disk (15.9 of 21.4 G.S.T), 74.4%
0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)
0.0 of 0.0 Hour Green CPU (0.0 of 0.0 G.S.T)
Total usage for subproject cse030g 261.0 of 272.8 Generic Service Tokens, 95.7%

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cse035 GR/M76720 King

Last Trade: Fri Dec 6 15:42:12 2002
Usage:
424183.0 of 424189.3 PEHour MPP PE CPU (10256.2 of 10256.4 G.S.T), 100.0%
23.7 of 23.3 GByteYear HP Disk (141.1 of 138.5 G.S.T), 101.9%
0.0 of 0.3 Hour SMP CPU (0.0 of 0.0 G.S.T), 6.0%
0.0 of 0.6 GByteYear MP Disk (0.1 of 2.0 G.S.T), 3.7%
20.3 of 18.7 GByteYear HSM/Tape (12.7 of 11.8 G.S.T), 108.2%
Total usage for project cse035 10410.1 of 10408.6 Generic Service Tokens, 100.0%

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cse036 GR/M78502 Duff
Last Trade: re-enabled
Usage:
40.3 of 617.1 PEHour MPP PE CPU (1.0 of 14.9 G.S.T), 6.5%
0.8 of 3.0 GByteYear HP Disk (4.6 of 17.9 G.S.T), 25.9%
0.0 of 15.7 Hour Wren CPU (0.0 of 0.8 G.S.T), 0.0%
88.0 of 379.9 Hour SMP CPU (3.4 of 14.8 G.S.T), 23.2%
0.4 of 3.0 GByteYear MP Disk (1.6 of 10.7 G.S.T), 14.9%
Total usage for project cse036 10.6 of 59.0 Generic Service Tokens, 18.0%

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cse040 GR/M84350 Badcock
Last Trade: re-enabled
Usage:
18.9 of 5000.0 PEHour MPP PE CPU (0.5 of 120.9 G.S.T), 0.4%
0.3 of 6.0 GByteYear HP Disk (1.6 of 35.8 G.S.T), 4.5%
5.4 of 6.8 GByteYear MP Disk (19.3 of 24.4 G.S.T), 78.9%
0.0 of 2.5 PersonDay Support (0.0 of 72.2 G.S.T), 0.0%
0.0 of 6.3 Day Training (0.0 of 68.1 G.S.T), 0.0%
Total usage for project cse040 21.3 of 321.3 Generic Service Tokens, 6.6%

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cse041 GR/M84879 Imregun
Last Trade: re-enabled
Usage:
588.6 of 12981.4 PEHour MPP PE CPU (14.2 of 313.9 G.S.T), 4.5%
1.5 of 119.7 GByteYear HP Disk (8.7 of 712.4 G.S.T), 1.2%
171.1 of 78.4 Hour Wren CPU (8.5 of 3.9 G.S.T), 218.2%
1699.1 of 4431.4 Hour SMP CPU (66.0 of 172.2 G.S.T), 38.3%
1.5 of 123.5 GByteYear MP Disk (5.4 of 440.9 G.S.T), 1.2%
180.0 of 230.3 GByteYear HSM/Tape (113.1 of 144.6 G.S.T), 78.2%
0.0 of 60.0 PersonDay Support (0.0 of 1764.7 G.S.T), 0.0%
0.0 of 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%
Total usage for project cse041 215.8 of 3606.4 Generic Service Tokens, 6.0%

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cse043 GR/M85241 Williams
Last Trade: re-enabled
Usage:
146564.2 of 148935.0 PEHour MPP PE CPU (3543.7 of 3601.1 G.S.T), 98.4%
1.7 of 10.0 GByteYear HP Disk (10.4 of 59.5 G.S.T), 17.4%
0.0 of 6.2 Hour SMP CPU (0.0 of 0.2 G.S.T), 0.2%
2.7 of 4.8 GByteYear MP Disk (9.8 of 17.3 G.S.T), 56.4%
20.0 of 28.8 GByteYear HSM/Tape (12.6 of 18.1 G.S.T), 69.7%
4.0 of 4.0 PersonDay Support (117.6 of 117.8 G.S.T), 99.8%
4.0 of 4.0 Day Training (43.0 of 43.0 G.S.T), 100.1%
Total usage for project cse043 3737.1 of 3857.0 Generic Service Tokens, 96.9%

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cse050 GR/N/38152 Bradley
Last Trade: re-enabled

Usage:
891.1 of 104742.3 PEHour MPP PE CPU (21.5 of 2532.5 G.S.T), 0.9%
0.0 of 11.0 GByteYear HP Disk (0.0 of 65.5 G.S.T), 0.0%
0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%
0.3 of 1200.0 Hour SMP CPU (0.0 of 46.6 G.S.T), 0.0%
0.0 of 4.5 GByteYear HSM/Tape (0.0 of 2.8 G.S.T), 0.0%
0.0 of 20.0 PersonDay Support (0.0 of 588.2 G.S.T), 0.0%
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%
Total usage for project cse050 21.6 of 3347.1 Generic Service Tokens, 0.6%

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cse052 GR/N17683 Hayes
Last Trade: re-enabled
Usage:
417367.9 of 418004.1 PEHour MPP PE CPU (10091.4 of 10106.8 G.S.T), 99.8%
5.7 of 12.2 GByteYear HP Disk (33.8 of 72.5 G.S.T), 46.6%
0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T)
0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)
0.0 of 8.5 GByteYear MP Disk (0.0 of 30.4 G.S.T), 0.0%
0.0 of 3.0 GByteYear HSM/Tape (0.0 of 1.9 G.S.T), 0.0%
0.0 of 10.0 PersonDay Support (0.0 of 294.1 G.S.T), 0.0%
0.0 of 0.0 Day Training (0.0 of 0.0 G.S.T)
Total usage for project cse052 10125.2 of 10505.6 Generic Service Tokens, 96.4%

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cse053 GR/R04225 Leschziner
Last Trade: Tue Apr 8 09:06:47 2003
Usage:
55399.0 of 259557.6 PEHour MPP PE CPU (1339.5 of 6275.8 G.S.T), 21.3%
2.1 of 115.0 GByteYear HP Disk (12.4 of 684.5 G.S.T), 1.8%
1.9 of 78.4 Hour Wren CPU (0.1 of 3.9 G.S.T), 2.5%
73.9 of 13900.0 Hour SMP CPU (2.9 of 540.0 G.S.T), 0.5%
2.1 of 85.0 GByteYear MP Disk (7.4 of 303.6 G.S.T), 2.4%
3.7 of 100.0 GByteYear HSM/Tape (2.3 of 62.8 G.S.T), 3.7%
26009.3 of 29614.9 Hour Green CPU (1359.0 of 1547.4 G.S.T), 87.8%
0.0 of 15.0 PersonDay Support (0.0 of 441.2 G.S.T), 0.0%
0.0 of 8.0 Day Training (0.0 of 86.0 G.S.T), 0.0%
Total usage for project cse053 2723.6 of 9945.2 Generic Service Tokens, 27.4%

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cse055 GR/N66810 Staunton
Last Trade: Mon Aug 6 09:05:54 2001
Usage:
8840.4 of 24604.0 PEHour MPP PE CPU (213.7 of 594.9 G.S.T), 35.9%
1.9 of 2.5 GByteYear HP Disk (11.3 of 14.9 G.S.T), 75.7%
0.0 of 3.1 Hour SMP CPU (0.0 of 0.1 G.S.T), 0.0%
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%
Total usage for project cse055 225.0 of 864.5 Generic Service Tokens, 26.0%

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cse056 GR/N24773 Imregun
Last Trade: Tue Feb 18 12:13:04 2003
Usage:
0.0 of 100.2 PEHour MPP PE CPU (0.0 of 2.4 G.S.T), 0.0%
0.0 of 40.0 GByteYear HP Disk (0.0 of 238.0 G.S.T), 0.0%
5.4 of 78.4 Hour Wren CPU (0.3 of 3.9 G.S.T), 6.8%
4653.7 of 33674.1 Hour SMP CPU (180.8 of 1308.3 G.S.T), 13.8%
1.3 of 43.9 GByteYear MP Disk (4.6 of 156.8 G.S.T), 2.9%
0.0 of 0.0 PersonDay Support (0.0 of 0.0 G.S.T)
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%

Total usage for project cse056 185.6 of 1817.0 Generic Service Tokens, 10.2%

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cse057 GR/R23909 Krushelnick
Last Trade: Fri Sep 7 11:39:20 2001
Usage:
2310.0 of 86751.6 PEHour MPP PE CPU (55.9 of 2097.5 G.S.T), 2.7%
0.7 of 30.0 GByteYear HP Disk (4.3 of 178.6 G.S.T), 2.4%
1.7 of 62.2 Hour SMP CPU (0.1 of 2.4 G.S.T), 2.7%
0.5 of 462.7 Hour Green CPU (0.0 of 24.2 G.S.T), 0.1%
0.0 of 20.0 PersonDay Support (0.0 of 588.2 G.S.T), 0.0%
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%
Total usage for project cse057 60.2 of 2998.5 Generic Service Tokens, 2.0%

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cse060 GR/R17058 Robb
Last Trade: Mon Apr 7 12:05:34 2003
Usage:
71869.7 of 120607.5 PEHour MPP PE CPU (1737.7 of 2916.1 G.S.T), 59.6%
0.0 of 3.0 GByteYear HP Disk (0.0 of 17.9 G.S.T), 0.0%
0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T), 51.2%
0.0 of 1.2 GByteYear MP Disk SAN (0.0 of 5.2 G.S.T), 0.0%
0.0 of 9154.6 Hour Green CPU (0.0 of 478.3 G.S.T), 0.0%
0.0 of 10.0 PersonDay Support (0.0 of 294.1 G.S.T), 0.0%
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%
Total usage for project cse060 1737.7 of 3819.2 Generic Service Tokens, 45.5%

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cse061 GR/R42672 Imregun
Last Trade: Thu Oct 17 15:11:50 2002
Usage:
0.0 of 85875.0 PEHour MPP PE CPU (0.0 of 2076.3 G.S.T), 0.0%
0.0 of 50.1 GByteYear HP Disk (0.0 of 298.3 G.S.T), 0.0%
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%
Total usage for project cse061 0.0 of 2575.5 Generic Service Tokens, 0.0%

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cse063 GR/R46151 Sandham
Last Trade: Thu Mar 13 11:50:09 2003
Usage:
77210.2 of 288901.7 PEHour MPP PE CPU (1866.8 of 6985.3 G.S.T), 26.7%
15.3 of 100.0 GByteYear HP Disk (90.8 of 595.2 G.S.T), 15.3%
6.5 of 10.8 Hour Wren CPU (0.3 of 0.5 G.S.T), 60.2%
167.9 of 62.9 Hour SMP CPU (6.5 of 2.4 G.S.T), 267.2%
0.0 of 50.0 GByteYear MP Disk (0.0 of 178.6 G.S.T), 0.0%
52.7 of 525.0 GByteYear HSM/Tape (33.1 of 329.8 G.S.T), 10.0%
45450.5 of 69408.8 Hour Green CPU (2374.9 of 3626.8 G.S.T), 65.5%
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 0.0 Day Training (0.0 of 0.0 G.S.T)
Total usage for project cse063 4372.5 of 11865.6 Generic Service Tokens, 36.9%

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cse064 GR/R43570 Leschziner
Last Trade: Mon May 12 17:12:43 2003
Usage:
14530.1 of 115039.1 PEHour MPP PE CPU (351.3 of 2781.5 G.S.T), 12.6%
0.4 of 15.0 GByteYear HP Disk (2.3 of 89.3 G.S.T), 2.6%
14.2 of 78.4 Hour Wren CPU (0.7 of 3.9 G.S.T), 18.0%
6986.8 of 21900.0 Hour SMP CPU (271.4 of 850.8 G.S.T), 31.9%
0.4 of 33.0 GByteYear MP Disk (1.6 of 117.9 G.S.T), 1.4%

4.8 of 193.5 GByteYear HSM/Tape (3.0 of 121.6 G.S.T), 2.5%
8797.5 of 23136.6 Hour Green CPU (459.7 of 1208.9 G.S.T), 38.0%
0.0 of 10.0 PersonDay Support (0.0 of 294.1 G.S.T), 0.0%
2.0 of 8.0 Day Training (21.5 of 86.0 G.S.T), 25.0%
Total usage for project cse064 1111.6 of 5554.0 Generic Service Tokens, 20.0%

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cse066 GR/R30907 Coveney
Last Trade: re-enabled
Usage:
64884.1 of 87981.1 PEHour MPP PE CPU (1568.8 of 2127.3 G.S.T), 73.7%
14.0 of 90.0 GByteYear HP Disk (83.1 of 535.7 G.S.T), 15.5%
0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%
2389.0 of 14900.0 Hour SMP CPU (92.8 of 578.9 G.S.T), 16.0%
14.2 of 18.0 GByteYear MP Disk (50.6 of 64.5 G.S.T), 78.5%
12184.5 of 64652.8 Hour Green CPU (636.7 of 3378.2 G.S.T), 18.8%
0.0 of 21.0 PersonDay Support (0.0 of 617.6 G.S.T), 0.0%
3.0 of 6.0 Day Training (32.3 of 64.5 G.S.T), 50.0%
Total usage for project cse066 2464.3 of 7370.6 Generic Service Tokens, 33.4%

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cse071 GR/R23657 Iacovides
Last Trade: Fri Oct 5 16:21:54 2001
Usage:
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 6.0 Day Training (0.0 of 64.5 G.S.T), 0.0%
Total usage for project cse071 0.0 of 211.6 Generic Service Tokens, 0.0%

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cse072 GR/R66692 Karlin
Last Trade: re-enabled
Usage:
2030.6 of 160329.2 PEHour MPP PE CPU (49.1 of 3876.6 G.S.T), 1.3%
0.0 of 3.0 GByteYear HP Disk (0.0 of 17.9 G.S.T), 0.0%
0.0 of 15.7 Hour Wren CPU (0.0 of 0.8 G.S.T), 0.0%
0.0 of 163.0 Hour SMP CPU (0.0 of 6.3 G.S.T), 0.0%
0.0 of 24.0 GByteYear MP Disk (0.0 of 85.7 G.S.T), 0.0%
0.0 of 84.0 GByteYear HSM/Tape (0.0 of 52.8 G.S.T), 0.0%
0.0 of 18.0 PersonDay Support (0.0 of 529.4 G.S.T), 0.0%
6.0 of 9.0 Day Training (64.5 of 96.8 G.S.T), 66.7%
Total usage for project cse072 113.6 of 4666.2 Generic Service Tokens, 2.4%

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cse074 GR/R66197 Luo
Last Trade: Wed Jan 2 15:22:45 2002
Usage:
0.0 of 15370.1 PEHour MPP PE CPU (0.0 of 371.6 G.S.T), 0.0%
0.0 of 6.0 GByteYear HP Disk (0.0 of 35.7 G.S.T), 0.0%
0.0 of 600.0 Hour SMP CPU (0.0 of 23.3 G.S.T), 0.0%
0.0 of 9.0 GByteYear MP Disk (0.0 of 32.1 G.S.T), 0.0%
Total usage for project cse074 0.0 of 462.8 Generic Service Tokens, 0.0%

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cse075 GR/R67699 Coveney
Last Trade: re-enabled
Usage:
8401.6 of 264758.5 PEHour MPP PE CPU (203.1 of 6401.5 G.S.T), 3.2%
41.1 of 217.0 GByteYear HP Disk (244.9 of 1291.5 G.S.T), 19.0%
23.4 of 263.6 Hour Wren CPU (1.2 of 13.1 G.S.T), 8.9%
0.0 of 350.5 GByteYear MP Disk SAN (0.0 of 1504.4 G.S.T), 0.0%
6516.4 of 31500.0 Hour SMP CPU (253.2 of 1223.8 G.S.T), 20.7%

295.7 of 1013.5 GByteYear MP Disk (1056.2 of 3619.6 G.S.T), 29.2%
161.9 of 1959.4 GByteYear HSM/Tape (101.7 of 1230.8 G.S.T), 8.3%
75422.5 of 398388.6 Hour Green CPU (3941.0 of 20816.6 G.S.T), 18.9%
0.0 of 34.0 PersonDay Support (0.0 of 1000.0 G.S.T), 0.0%
5.0 of 14.0 Day Training (53.8 of 150.5 G.S.T), 35.7%
Total usage for project cse075 5855.0 of 37251.9 Generic Service Tokens, 15.7%

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cse076 GR/R66975 Briddon
Last Trade: Fri Aug 30 09:40:32 2002
Usage:
8868.5 of 4161.1 PEHour MPP PE CPU (214.4 of 100.6 G.S.T), 213.1%
1.3 of 1.3 GByteYear HP Disk (7.7 of 8.0 G.S.T), 96.1%
91.7 of 504.6 Hour Wren CPU (4.5 of 25.0 G.S.T), 18.2%
268169.5 of 267888.9 Hour SMP CPU (10418.8 of 10407.9 G.S.T), 100.1%
7.5 of 27.2 GByteYear MP Disk (26.6 of 97.1 G.S.T), 27.4%
254717.4 of 260197.5 Hour Green CPU (13309.5 of 13595.9 G.S.T), 97.9%
11.0 of 20.0 PersonDay Support (323.5 of 588.2 G.S.T), 55.0%
0.0 of 53.5 Day Training (0.0 of 575.0 G.S.T), 0.0%
Total usage for project cse076 24305.2 of 25397.7 Generic Service Tokens, 95.7%

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cse077 GR/R69792 Kronenburg
Last Trade: Thu Oct 17 14:11:09 2002
Usage:
0.0 of 400000.6 PEHour MPP PE CPU (0.0 of 9671.5 G.S.T), 0.0%
0.0 of 22.5 GByteYear HP Disk (0.0 of 134.0 G.S.T), 0.0%
0.0 of 2.0 Day Training (0.0 of 21.5 G.S.T), 0.0%
Total usage for project cse077 0.0 of 9827.0 Generic Service Tokens, 0.0%

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cse082 GR/R79654 Barakos
Last Trade: Tue May 27 14:01:25 2003
Usage:
8.5 of 15.7 Hour Wren CPU (0.4 of 0.8 G.S.T), 54.1%
8903.4 of 8367.6 Hour SMP CPU (345.9 of 325.1 G.S.T), 106.4%
5.2 of 23.5 GByteYear MP Disk (18.6 of 83.8 G.S.T), 22.2%
0.0 of 60.7 GByteYear HSM/Tape (0.0 of 38.1 G.S.T), 0.0%
2.0 of 1115.3 Hour Green CPU (0.1 of 58.3 G.S.T), 0.2%
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 1.0 Day Training (0.0 of 10.8 G.S.T), 0.0%
Total usage for project cse082 365.0 of 663.9 Generic Service Tokens, 55.0%

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cse084 GR/R47066 Needs
Last Trade: re-enabled
Usage:
271846.8 of 306225.8 PEHour MPP PE CPU (6572.9 of 7404.1 G.S.T), 88.8%
19.9 of 270.0 GByteYear HP Disk (118.4 of 1607.1 G.S.T), 7.4%
187.5 of 78.4 Hour Wren CPU (9.3 of 3.9 G.S.T), 239.0%
4282.7 of 14384.3 Hour SMP CPU (166.4 of 558.9 G.S.T), 29.8%
26.1 of 75.6 GByteYear MP Disk (93.3 of 270.1 G.S.T), 34.5%
80324.2 of 78955.4 Hour Green CPU (4197.1 of 4125.6 G.S.T), 101.7%
0.0 of 19.0 PersonDay Support (0.0 of 558.8 G.S.T), 0.0%
0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%
Total usage for project cse084 11157.4 of 14636.0 Generic Service Tokens, 76.2%

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cse085 GR/R64957 Sandham
Last Trade: Mon Jan 6 14:15:52 2003
Usage:

1032641.2 of 1388400.0 PEHour MPP PE CPU (24967.9 of 33569.7 G.S.T), 74.4%
240.0 of 650.0 GByteYear HP Disk (1428.7 of 3869.0 G.S.T), 36.9%
29.6 of 78.4 Hour Wren CPU (1.5 of 3.9 G.S.T), 37.7%
2315.8 of 3945.2 Hour SMP CPU (90.0 of 153.3 G.S.T), 58.7%
174.8 of 750.0 GByteYear MP Disk (624.3 of 2678.6 G.S.T), 23.3%
1544.0 of 2373.2 GByteYear HSM/Tape (969.9 of 1490.7 G.S.T), 65.1%
205619.8 of 643628.0 Hour Green CPU (10744.1 of 33630.9 G.S.T), 31.9%
0.0 of 15.0 PersonDay Support (0.0 of 441.2 G.S.T), 0.0%
6.0 of 6.0 Day Training (64.5 of 64.5 G.S.T), 100.0%
Total usage for project cse085 38890.8 of 75901.8 Generic Service Tokens, 51.2%

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cse086 GR/R83118 Taylor
Last Trade: Fri May 16 15:21:38 2003
Usage:
502277.4 of 751363.8 PEHour MPP PE CPU (12144.4 of 18167.0 G.S.T), 66.8%
87.7 of 162.7 GByteYear HP Disk (522.2 of 968.4 G.S.T), 53.9%
471.4 of 2208.1 Hour Wren CPU (23.4 of 109.4 G.S.T), 21.3%
0.0 of 12.9 GByteYear HP Disk SAN - /d (0.0 of 76.8 G.S.T), 0.0%
0.0 of 46.6 GbyteYear HV Disk SAN /v (0.0 of 83.4 G.S.T), 0.0%
9043.9 of 13449.2 Hour SMP CPU (351.4 of 522.5 G.S.T), 67.2%
115.1 of 497.0 GByteYear MP Disk (410.9 of 1775.0 G.S.T), 23.2%
17.1 of 3750.0 GByteYear HSM/Tape (10.8 of 2355.5 G.S.T), 0.5%
98222.6 of 658900.0 Hour Green CPU (5132.3 of 34428.9 G.S.T), 14.9%
5.0 of 35.0 PersonDay Support (147.1 of 1029.4 G.S.T), 14.3%
0.0 of 116.0 Day Training (0.0 of 1247.3 G.S.T), 0.0%
Total usage for project cse086 18742.5 of 60763.6 Generic Service Tokens, 30.8%

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cse086a MP1
Last Trade: never
Usage:
352047.3 of 500000.0 PEHour MPP PE CPU (8512.1 of 12089.4 G.S.T), 70.4%
5.5 of 10.0 GByteYear HP Disk (32.7 of 59.5 G.S.T), 55.0%
0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%
0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%
6.9 of 10.0 GByteYear MP Disk (24.8 of 35.7 G.S.T), 69.5%
0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%
Total usage for subproject cse086a 8569.6 of 12719.0 Generic Service Tokens, 67.4%

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cse086b MP2
Last Trade: never
Usage:
48448.5 of 56000.0 PEHour MPP PE CPU (1171.4 of 1354.0 G.S.T), 86.5%
22.6 of 25.0 GByteYear HP Disk (134.5 of 148.8 G.S.T), 90.4%
117.9 of 200.0 Hour Wren CPU (5.8 of 9.9 G.S.T), 58.9%
2089.2 of 4000.0 Hour SMP CPU (81.2 of 155.4 G.S.T), 52.2%
17.9 of 20.0 GByteYear MP Disk (63.8 of 71.4 G.S.T), 89.3%
95102.3 of 100000.0 Hour Green CPU (4969.3 of 5225.2 G.S.T), 95.1%
Total usage for subproject cse086b 6426.0 of 6964.8 Generic Service Tokens, 92.3%

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cse086d MP4
Last Trade: never
Usage:
0.1 of 0.1 GByteYear HP Disk (0.3 of 0.6 G.S.T), 57.6%
0.1 of 0.1 GByteYear MP Disk (0.2 of 0.4 G.S.T), 57.0%
Total usage for subproject cse086d 0.5 of 1.0 Generic Service Tokens, 57.4%

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cse086e MP5
Last Trade: never
Usage:
48.8 of 500.0 PEHour MPP PE CPU (1.2 of 12.1 G.S.T), 9.8%
1.2 of 2.0 GByteYear HP Disk (6.9 of 11.9 G.S.T), 58.1%
273.8 of 450.0 Hour Wren CPU (13.6 of 22.3 G.S.T), 60.9%
0.0 of 5.0 GbyteYear HV Disk SAN /v (0.0 of 8.9 G.S.T), 0.0%
4068.2 of 5000.0 Hour SMP CPU (158.1 of 194.3 G.S.T), 81.4%
8.3 of 10.0 GByteYear MP Disk (29.5 of 35.7 G.S.T), 82.6%
547.2 of 10000.0 Hour Green CPU (28.6 of 522.5 G.S.T), 5.5%
Total usage for subproject cse086e 237.8 of 807.7 Generic Service Tokens, 29.4%

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cse086f EC1
Last Trade: never
Usage:
3.3 of 5000.0 PEHour MPP PE CPU (0.1 of 120.9 G.S.T), 0.1%
2.3 of 5.0 GByteYear HP Disk (13.9 of 29.8 G.S.T), 46.6%
0.7 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.3%
4.8 of 50.0 Hour SMP CPU (0.2 of 1.9 G.S.T), 9.6%
13.5 of 15.0 GByteYear MP Disk (48.1 of 53.6 G.S.T), 89.9%
17.1 of 40.0 GByteYear HSM/Tape (10.8 of 25.1 G.S.T), 42.8%
0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%
Total usage for subproject cse086f 73.1 of 763.7 Generic Service Tokens, 9.6%

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cse086g EC2
Last Trade: never
Usage:
571.7 of 5000.0 PEHour MPP PE CPU (13.8 of 120.9 G.S.T), 11.4%
24.3 of 25.0 GByteYear HP Disk (144.6 of 148.8 G.S.T), 97.2%
79.0 of 200.0 Hour Wren CPU (3.9 of 9.9 G.S.T), 39.5%
456.9 of 550.0 Hour SMP CPU (17.8 of 21.4 G.S.T), 83.1%
42.7 of 45.0 GByteYear MP Disk (152.4 of 160.7 G.S.T), 94.9%
0.0 of 50.0 GByteYear HSM/Tape (0.0 of 31.4 G.S.T), 0.0%
2573.0 of 10000.0 Hour Green CPU (134.4 of 522.5 G.S.T), 25.7%
Total usage for subproject cse086g 467.0 of 1015.6 Generic Service Tokens, 46.0%

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cse086h EC3
Last Trade: never
Usage:
46335.1 of 50000.0 PEHour MPP PE CPU (1120.3 of 1208.9 G.S.T), 92.7%
4.6 of 5.0 GByteYear HP Disk (27.2 of 29.8 G.S.T), 91.4%
0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%
219.9 of 250.0 Hour SMP CPU (8.5 of 9.7 G.S.T), 87.9%
14.3 of 20.0 GByteYear MP Disk (51.1 of 71.4 G.S.T), 71.6%
0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%
Total usage for subproject cse086h 1207.2 of 1852.3 Generic Service Tokens, 65.2%

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cse086i EC4
Last Trade: never
Usage:
0.1 of 0.1 GByteYear HP Disk (0.3 of 0.6 G.S.T), 57.0%
0.1 of 0.1 GByteYear MP Disk (0.2 of 0.4 G.S.T), 57.0%
Total usage for subproject cse086i 0.5 of 1.0 Generic Service Tokens, 57.0%

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cse086j BEC1
Last Trade: never

Usage:
54822.9 of 60000.0 PEHour MPP PE CPU (1325.5 of 1450.7 G.S.T), 91.4%
1.1 of 3.0 GByteYear HP Disk (6.3 of 17.9 G.S.T), 35.1%
0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%
0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.2%
0.2 of 5.0 GByteYear MP Disk (0.8 of 17.9 G.S.T), 4.3%
0.0 of 1000.0 Hour Green CPU (0.0 of 52.3 G.S.T), 0.0%
Total usage for subproject cse086j 1332.6 of 1548.6 Generic Service Tokens, 86.1%

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cse086k BEC2
Last Trade: never
Usage:
0.1 of 0.1 GByteYear HP Disk (0.3 of 0.6 G.S.T), 57.0%
0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%
2205.0 of 3500.0 Hour SMP CPU (85.7 of 136.0 G.S.T), 63.0%
10.4 of 15.0 GByteYear MP Disk (37.0 of 53.6 G.S.T), 69.1%
Total usage for subproject cse086k 123.0 of 200.1 Generic Service Tokens, 61.5%

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cse089 GR/R85556 Wiercigroch
Last Trade: re-enabled
Usage:
0.0 of 8242.8 PEHour MPP PE CPU (0.0 of 199.3 G.S.T), 0.0%
0.0 of 45.1 GByteYear HP Disk (0.0 of 268.2 G.S.T), 0.0%
0.0 of 15.0 PersonDay Support (0.0 of 441.2 G.S.T), 0.0%
0.0 of 7.0 Day Training (0.0 of 75.3 G.S.T), 0.0%
Total usage for project cse089 0.0 of 984.0 Generic Service Tokens, 0.0%

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cse098 GR/S20062 De Souza
Last Trade: Fri Feb 7 10:25:19 2003
Usage:
0.0 of 333000.0 PEHour MPP PE CPU (0.0 of 8051.5 G.S.T), 0.0%
0.0 of 20.0 GByteYear HP Disk (0.0 of 119.0 G.S.T), 0.0%
0.0 of 10.0 Hour Wren CPU (0.0 of 0.5 G.S.T), 0.0%
0.0 of 3975.4 Hour SMP CPU (0.0 of 154.5 G.S.T), 0.0%
0.0 of 10.0 GByteYear MP Disk (0.0 of 35.7 G.S.T), 0.0%
0.0 of 100.0 GByteYear HSM/Tape (0.0 of 62.8 G.S.T), 0.0%
5.7 of 8500.0 Hour Green CPU (0.3 of 444.1 G.S.T), 0.1%
0.0 of 5.0 PersonDay Support (0.0 of 147.1 G.S.T), 0.0%
0.0 of 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%
Total usage for project cse098 0.3 of 9069.0 Generic Service Tokens, 0.0%

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csehpcx - benchmarking
Last Trade: Fri Oct 4 14:39:35 2002
Usage:
10087.5 of 134743.4 PEHour MPP PE CPU (243.9 of 3257.9 G.S.T), 7.5%
10.1 of 18.9 GByteYear HP Disk (60.2 of 112.5 G.S.T), 53.5%
0.0 of 1464.1 Hour Wren CPU (0.0 of 72.5 G.S.T), 0.0%
0.5 of 1867.0 Hour SMP CPU (0.0 of 72.5 G.S.T), 0.0%
3.5 of 56.4 GByteYear MP Disk (12.4 of 201.3 G.S.T), 6.2%
21193.2 of 23136.6 Hour Green CPU (1107.4 of 1208.9 G.S.T), 91.6%
Total usage for project csehpcx 1423.9 of 4925.7 Generic Service Tokens, 28.9%

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csn001 Webb & GST/02/2846 Killworth & T/S/2001/00187 New
Last Trade: re-enabled
Usage:
403672.2 of 418058.5 PEHour MPP PE CPU (9760.3 of 10108.1 G.S.T), 96.6%

295.2 of 420.3 GByteYear HP Disk (1757.2 of 2501.6 G.S.T), 70.2%
145.4 of 401.8 Hour Wren CPU (7.2 of 19.9 G.S.T), 36.2%
104384.3 of 149188.6 Hour SMP CPU (4055.5 of 5796.2 G.S.T), 70.0%
387.2 of 902.2 GByteYear MP Disk (1382.9 of 3222.0 G.S.T), 42.9%
18994.7 of 22589.7 GByteYear HSM/Tape (11931.4 of 14189.5 G.S.T), 84.1%
779302.2 of 793791.3 Hour Green CPU (40720.1 of 41477.2 G.S.T), 98.2%
61.0 of 70.5 PersonDay Support (1794.1 of 2073.5 G.S.T), 86.5%
3.0 of 15.3 Day Training (32.3 of 164.4 G.S.T), 19.6%
Total usage for project csn001 71441.0 of 79552.5 Generic Service Tokens, 89.8%

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csn003 UGAMP O'Neill
Last Trade: Mon Apr 7 10:24:00 2003
Usage:
5436020.0 of 6248258.3 PEHour MPP PE CPU (131436.0 of 151074.9 G.S.T), 87.0%
94.9 of 113.9 GByteYear HP Disk (564.8 of 677.7 G.S.T), 83.3%
397.3 of 2664.9 Hour Wren CPU (19.7 of 132.0 G.S.T), 14.9%
111.8 of 470.3 GbyteYear HV Disk SAN /v (200.0 of 841.4 G.S.T), 23.8%
28593.1 of 153954.2 Hour SMP CPU (1110.9 of 5981.4 G.S.T), 18.6%
77.1 of 93.8 GByteYear MP Disk (275.2 of 334.9 G.S.T), 82.2%
52114.1 of 65916.4 GByteYear HSM/Tape (32735.0 of 41404.8 G.S.T), 79.1%
107327.1 of 193578.0 Hour Green CPU (5608.1 of 10114.8 G.S.T), 55.4%
1.0 of 2.7 PersonDay Support (29.4 of 78.4 G.S.T), 37.5%
12.0 of 12.1 Day Training (129.0 of 130.1 G.S.T), 99.2%
Total usage for project csn003 172108.1 of 210770.3 Generic Service Tokens, 81.7%

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csn006 GR9/3550 Price
Last Trade: re-enabled
Usage:
1599990.8 of 1674524.0 PEHour MPP PE CPU (38685.7 of 40487.8 G.S.T), 95.5%
161.1 of 192.2 GByteYear HP Disk (959.1 of 1144.3 G.S.T), 83.8%
193.6 of 78.4 Hour Wren CPU (9.6 of 3.9 G.S.T), 246.8%
70825.3 of 72126.1 Hour SMP CPU (2751.7 of 2802.2 G.S.T), 98.2%
40.6 of 85.5 GByteYear MP Disk (144.9 of 305.4 G.S.T), 47.5%
6.7 of 20.3 GByteYear HSM/Tape (4.2 of 12.7 G.S.T), 33.0%
460843.7 of 465084.9 Hour Green CPU (24080.0 of 24301.6 G.S.T), 99.1%
Total usage for project csn006 66635.2 of 69057.9 Generic Service Tokens, 96.5%

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csn012 NER/A/S/2000/01315 Tennyson
Last Trade: Fri Mar 28 09:40:00 2003
Usage:
96.8 of 250.1 PEHour MPP PE CPU (2.3 of 6.0 G.S.T), 38.7%
0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T), 2233.5%
0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 8.0%
0.1 of 1.1 GByteYear MP Disk (0.3 of 3.8 G.S.T), 7.5%
0.0 of 9518.0 Hour Green CPU (0.0 of 497.3 G.S.T), 0.0%
Total usage for project csn012 2.6 of 507.1 Generic Service Tokens, 0.5%

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csn014 GST/02/2785 Llewellyn-Jones
Last Trade: Tue Aug 27 15:35:33 2002
Usage:
0.0 of 658.3 PEHour MPP PE CPU (0.0 of 15.9 G.S.T), 0.0%
0.0 of 15.0 GByteYear HP Disk (0.0 of 89.3 G.S.T), 0.0%
0.0 of 0.8 Hour Wren CPU (0.0 of 0.0 G.S.T), 0.0%
0.0 of 11.9 Hour SMP CPU (0.0 of 0.5 G.S.T), 0.0%
0.0 of 5.0 GByteYear MP Disk (0.0 of 17.9 G.S.T), 0.0%
Total usage for project csn014 0.0 of 123.6 Generic Service Tokens, 0.0%

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csn015 Proctor
Last Trade: Wed Apr 16 16:48:08 2003
Usage:
286527.8 of 470776.0 PEHour MPP PE CPU (6927.9 of 11382.8 G.S.T), 60.9%
5.0 of 13.1 GByteYear HP Disk (29.9 of 78.1 G.S.T), 38.3%
41.7 of 78.4 Hour Wren CPU (2.1 of 3.9 G.S.T), 53.2%
736.0 of 1562.0 Hour SMP CPU (28.6 of 60.7 G.S.T), 47.1%
55.5 of 99.3 GByteYear MP Disk (198.2 of 354.5 G.S.T), 55.9%
2824.9 of 3330.5 GByteYear HSM/Tape (1774.4 of 2092.0 G.S.T), 84.8%
184152.4 of 303613.7 Hour Green CPU (9622.3 of 15864.4 G.S.T), 60.7%
2.0 of 10.0 PersonDay Support (58.8 of 294.1 G.S.T), 20.0%
3.0 of 862.6 Day Training (32.3 of 9275.3 G.S.T), 0.3%
Total usage for project csn015 18674.5 of 39405.8 Generic Service Tokens, 47.4%

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csn017 Payne GR3/12917
Last Trade: re-enabled
Usage:
435.9 of 435.9 PEHour MPP PE CPU (10.5 of 10.5 G.S.T), 100.0%
0.4 of 0.2 GByteYear HP Disk (2.3 of 1.4 G.S.T), 168.9%
0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%
2025.0 of 2137.4 Hour SMP CPU (78.7 of 83.0 G.S.T), 94.7%
3.5 of 13.6 GByteYear MP Disk (12.7 of 48.6 G.S.T), 26.0%
603.3 of 2126.6 Hour Green CPU (31.5 of 111.1 G.S.T), 28.4%
0.0 of 16.0 PersonDay Support (0.0 of 470.6 G.S.T), 0.0%
2.0 of 18.0 Day Training (21.5 of 193.5 G.S.T), 11.1%
Total usage for project csn017 157.2 of 922.7 Generic Service Tokens, 17.0%

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csn036 NER/T/S/1999/00110 Haines
Last Trade: Tue Oct 22 16:39:08 2002
Usage:
1158.7 of 10737.1 PEHour MPP PE CPU (28.0 of 259.6 G.S.T), 10.8%
23.3 of 30.0 GByteYear HP Disk (138.4 of 178.6 G.S.T), 77.5%
12.7 of 78.4 Hour Wren CPU (0.6 of 3.9 G.S.T), 16.2%
2091.8 of 25193.4 Hour SMP CPU (81.3 of 978.8 G.S.T), 8.3%
47.2 of 50.0 GByteYear MP Disk (168.5 of 178.6 G.S.T), 94.4%
1623.7 of 2014.0 GByteYear HSM/Tape (1019.9 of 1265.1 G.S.T), 80.6%
21990.5 of 25450.3 Hour Green CPU (1149.0 of 1329.8 G.S.T), 86.4%
0.0 of 2.0 PersonDay Support (0.0 of 58.8 G.S.T), 0.0%
0.0 of 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%
Total usage for project csn036 2585.8 of 4306.9 Generic Service Tokens, 60.0%

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csn044 Earth Observation
Last Trade: Wed Aug 28 11:09:50 2002
Usage:
9948.9 of 13857.9 PEHour MPP PE CPU (240.6 of 335.1 G.S.T), 71.8%
0.0 of 5.0 GByteYear HP Disk (0.0 of 30.0 G.S.T), 0.0%
0.0 of 28.4 Hour Wren CPU (0.0 of 1.4 G.S.T), 0.0%
0.2 of 73.9 Hour SMP CPU (0.0 of 2.9 G.S.T), 0.3%
0.0 of 5.0 GByteYear MP Disk (0.0 of 17.9 G.S.T), 0.0%
8.6 of 53.8 GByteYear HSM/Tape (5.4 of 33.8 G.S.T), 16.0%
Total usage for project csn044 246.0 of 421.0 Generic Service Tokens, 58.4%

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csn052 GST/02/2658 Mackay
Last Trade: Wed May 7 16:10:52 2003
Usage:
3.6 of 10905.9 PEHour MPP PE CPU (0.1 of 263.7 G.S.T), 0.0%

1.0 of 3.0 GByteYear HP Disk (6.2 of 17.9 G.S.T), 34.9%
2.6 of 5.9 Hour Wren CPU (0.1 of 0.3 G.S.T), 44.6%
0.0 of 1.0 GByteYear HP Disk SAN - /d (0.0 of 6.0 G.S.T), 0.0%
0.0 of 0.0 GByteYear MP Disk SAN (0.0 of 0.0 G.S.T), 0.0%
1.3 of 1.9 Hour SMP CPU (0.1 of 0.1 G.S.T), 71.0%
2.4 of 17.3 GByteYear MP Disk (8.4 of 61.9 G.S.T), 13.6%
0.0 of 5.7 GByteYear HSM/Tape (0.0 of 3.6 G.S.T), 0.0%
2015.1 of 11365.5 Hour Green CPU (105.3 of 593.9 G.S.T), 17.7%
5.0 of 5.0 Day Training (53.8 of 53.8 G.S.T), 100.0%
Total usage for project csn052 174.0 of 1001.0 Generic Service Tokens, 17.4%

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csp006 PPA/G/S/2001/00050 Browning
Last Trade: Wed Mar 26 11:34:05 2003
Usage:
0.0 of 111.6 Hour Wren CPU (0.0 of 5.5 G.S.T), 0.0%
0.0 of 20699.4 Hour SMP CPU (0.0 of 804.2 G.S.T), 0.0%
0.0 of 20.0 GByteYear MP Disk (0.0 of 71.4 G.S.T), 0.0%
0.0 of 12.0 Day Training (0.0 of 129.0 G.S.T), 0.0%
Total usage for project csp006 0.0 of 1010.2 Generic Service Tokens, 0.0%

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csp007 PPA/G/O/2002/00004 Hibbert
Last Trade: Tue Apr 1 15:29:22 2003
Usage:
36860.9 of 49999.7 PEHour MPP PE CPU (891.2 of 1208.9 G.S.T), 73.7%
0.0 of 80.0 GByteYear HP Disk (0.0 of 476.2 G.S.T), 0.0%
6.6 of 600.0 Hour Wren CPU (0.3 of 29.7 G.S.T), 1.1%
0.0 of 60.0 GByteYear HP Disk SAN - /d (0.0 of 357.1 G.S.T), 0.0%
0.0 of 600.0 Hour SMP CPU (0.0 of 23.3 G.S.T), 0.0%
Total usage for project csp007 891.6 of 2095.3 Generic Service Tokens, 42.6%

HPCI Daresbury
Last Trade: Mon Oct 7 10:07:27 2002
Usage:
34683.7 of 34482.9 PEHour MPP PE CPU (838.6 of 833.8 G.S.T), 100.6%
4.5 of 3.8 GByteYear HP Disk (26.8 of 22.7 G.S.T), 117.7%
1.9 of 0.0 Hour Wren CPU (0.1 of 0.0 G.S.T), 484965.4%
4062.9 of 4120.4 Hour SMP CPU (157.8 of 160.1 G.S.T), 98.6%
2.2 of 1.7 GByteYear MP Disk (7.8 of 6.0 G.S.T), 129.2%
10817.5 of 10497.3 Hour Green CPU (565.2 of 548.5 G.S.T), 103.1%
1.0 of 1.0 Day Training (10.8 of 10.8 G.S.T), 99.7%
Total usage for project hpcid 1607.1 of 1581.9 Generic Service Tokens, 101.6%

HPCI Edinburgh
Last Trade: Wed Jul 11 12:09:29 2001
Usage:
1759.1 of 4070.6 PEHour MPP PE CPU (42.5 of 98.4 G.S.T), 43.2%
4.5 of 4.7 GByteYear HP Disk (26.7 of 28.1 G.S.T), 94.7%
698.4 of 770.8 Hour SMP CPU (27.1 of 29.9 G.S.T), 90.6%
3.4 of 2.8 GByteYear MP Disk (12.1 of 10.0 G.S.T), 120.5%
1728.7 of 1739.8 Hour Green CPU (90.3 of 90.9 G.S.T), 99.4%
Total usage for project hpcie 198.7 of 257.4 Generic Service Tokens, 77.2%

HPCI Southampton
Last Trade: re-enabled
Usage:
737.9 of 5825.0 PEHour MPP PE CPU (17.8 of 140.8 G.S.T), 12.7%

31.7 of 31.6 GByteYear HP Disk (188.9 of 188.2 G.S.T), 100.4%
37.8 of 1074.0 Hour SMP CPU (1.5 of 41.7 G.S.T), 3.5%
3.1 of 3.0 GByteYear MP Disk (11.2 of 10.7 G.S.T), 104.6%
Total usage for project hpcis 219.4 of 381.5 Generic Service Tokens, 57.5%

Project	PI Name	Subject	Discipline/Department
cse002	Wander, A (Dr)	Support for the UKCP	Physics
cse009	Slater, Ben	HPC Computing Applications in Materials Chemistry	Chemistry
cse035	Jenkins, S (Dr)	Ab Initio Simulations of Catalytic Processes at Extended Metal Surfaces	Chemistry
cse036	Duff, I (Prof)	Research & Development of Algorithms & Software for Large-Scale Linear & Non-Linear Systems	Maths
cse041	Wu, X (Dr)	Flutter & Noise Generation Mechanisms - Turbomachinery Fan Assemblies	Mechanical Engineering
cse043	Williams, J (Dr)	Numerical Simulation of Flow over a Rough Bed	Engineering
cse050	Bradley, D (Prof)	Flame Instabilities: their influence on turbulent combustion & incorporation in mathematical models.	Mechanical Engineering
cse052	Di Mare, F (Miss)	Heat Transfer in Turbine Combustors	Mechanical Engineering
cse053	Leschziner, M (Prof)	Coupling RANS Near-Wall Turbulence Models with Large Eddy Simulation Strategies	Aerospace Engineering
cse055	Staunton, J (Dr)	Ab-initio theory of magnetic anisotropy in transition metal ferromagnets	Physics
cse056	Zheng, Y (Dr)	Aerothermalelasticity Modelling of Air Riding Seals for Large Gas Turbines	Mechanical Engineering
cse057	Evans, R (Dr)	Relativistic Particle Generation from Ultra-Intense Laser Plasma Interactions	Physics
cse060	Robb, M (Prof)	CCP1 Renewal plus falgship project on Car-Parrinello in Chemistry	Chemistry
cse061	Imregun, M (Prof)	Casing treatment modelling for the investigation of stall, flutter and noise mechanisms in turbomachinery compressors.	Mechanical Engineering
cse063	Sandham, N (Prof)	Computational Aerocaustics for Turbulent Plane Jets	Aerospace Engineering
cse064	Leschziner, M (Prof)	Improvement of predictive performance of anisotropy-resolving turbulence models in post-reattachment recovery region of separated flow using Large Eddy Simulation	Aerodynamics
cse066	Coveney, P V (Prof)	New clay-polymer nanocomposites using diversity-discovery methods: synthesis, processing and testing	IT
cse071	Iacovides (Dr)	The Practical Computation of Three-Dimensional Time-Dependent Turbulent Flows in Rotating Cavities	Mechanical Engineering
cse072	Karlin, V (Dr)	Structure & Dynamics of Unstable Premixed Laminar Flames	Engineering
cse074	Luo (Dr)	Consortium on Computational Combustion for Engineering Applications	Engineering
cse075	Coveney, PV (Prof)	The Reality Grid - a tool for investigating condensed matter & materials	IT
cse076	Briddon, P (Dr)	HPC facilities for the first principles simulation of covalently bonded materials	IT
cse077	Kronenburg, A (Dr)	Combustion Model Development for Large-Eddy Simulation of Non-Premixed Reactive Flows.	Mechanical Engineering
cse082	Barakos, G (Dr)	CFD Study of Three-dDimensional Dynamic Shelf	Aerospace Engineering
cse084	Needs, R (Dr)	The Consortium for Computational Quantum Many-Body Theory	Physics
cse085	Sandham, N (Prof)	UK Turbulence Consortium	Engineering
cse086	Taylor, K (Prof)	Multiphoton, Electron Collisions and BEC HPC Consortium 2002-2004	Physics
cse089	Wiercigroch, M (Dr)	Nonlinear Dynamics & Rock Contact Fracture Mechanics in Modelling of Vibration Enhanced Drilling	Engineering
cse098	De Souza, M M (Dr)	Indium interaction in silicon for ULSI technologies	Physics
cse100	Gao, S (Dr)	Dev of Novel Aerodynamic Lenses for Focusing Nanoparticle Beams	Engineering
cse101	Jiang (Dr)	Direct Numerical Simulation of Fuel-Air Mixing with Passive Flow Control of Diesel Combustion.	Mechanical Engineering
cse102	Williams, J (Prof)	Numerical Modelling of Flow around Bridge Piers	Engineering

cse103	Neil, M P (Prof)	Simulation and Modelling of liquid crystalmesopases linked to the design of molecular and material properties.	Mathematics
cse104	Greaves, D M (Dr)	CFD Modelling of free surface waves driven by moving bodies using adaptively refined cut cell hierarchical grids	
cse105	Chemyshenko, S I (Prof)	Optimal database of the direct numerical simulation of turbulent channel flow	Aerodynamics & Flight Mechanics
cse106	Augarde (Dr)	Parametric Studies of multiple tunnels	Engineering
cse107	Hicks, MA (Dr)	Parallel Finite Elements for Stochastic Analysis	Engineering
cse108	Holden, AV (Prof)	Large-scale parallelisation of electro-physiological & mechanical cardiac virtual tissues.	Biomedical Sciences
cse109	Allen, M (Prof)	University of Warwick New HPC Project	Physics
cse110	Leach, SA (Dr)	Application of HE Computing to Develop Complex Stochastic Models to aid Public Health & National Operational Responses to Infectious Disease Threats.	
cse111	Avital, Eldad 9Dr)	A numerical study of three dimensional wakes generated by free surface piecing circular cylinders	Engineering
cse112	Chemyshenko, SI (Prof)	Master-mode analysis of the genesis of organized structures in turbulent flows.	Engineering - Aerodynamics
cse113	Wirth, T (Prof)	Stereoselective Halocyclisations	Chemistry
cse114	Jiang, X (Dr)	Direct numerical simulation of fuel injection & spray combustion	Engineering
csn001	De Cuevas, B (Mrs)	OCCAM	Ocean/Earth Sciences
csn003	Steenman-Clark, L (Dr)	UGAMP	Meteorology
csn006	Brodholt, J (Dr)		Geological Sciences
csn012	Tennyson, J (Prof)	Calculated Absorption by water vapour at near infra-red & optical wavelengths	Physics & Astronomy
csn013	Voke, P (Prof)	Large Eddy Simulation Extended by Extreme Value Theory for the Prediction of Dispersion, Concentration Threshold Boundaries & Field Connectivity	Mechanical & Materials Engineering
csn014	Llewellyn Jones (Prof)		Physics & Astronomy
csn015	Proctor, R (Dr)	A Testbed for Zooplankton Models of the Irish Sea	Coastal & Marine Sciences
csn017	Payne, A (Dr)	Stability of the Antarctic Ice Sheet	Geography
csn036	Liu, C (Dr)	Assimilation of Altimeter, Radiometer & in situ data into the OCCAM model. Analysis of water properties & transports	Environmental Science
csn042	Gray, SL (Dr)	Transport & Mixing in Fronts	
csn044	Steenman-Clark, L (Dr)	Earth Observation Project	Meteorology
csn049	Srokosz	Climate impact changes in Atlantic Thermohaline.	
csn050	Challenor	The Probability of rapid climate change	
csn051	Proctor	Ultr-fine scale modeling of the northern North Atlantic Thermohaline.	
csn052	Xie, Z (Dr0	Quantifying the scaling of physical transport in structured heterogeneous porous media	Earth Sciences
csn053	Das, S (Dr)	Rupture History of large earthquakes from analysis of broad band seismograms, and its physical interpretation.	Earth Sciences
csn054	Thuburn, J (Dr)	An Integrated Model of Atmospheric Convection	Meteorology
csn055	Vocadlo, L (Dr0	The structure and anisotropy of Earths inner core.	Earth Sciences
csn056	Hoskins B (Prof)	Atmospheric water vapour budget & it's relevance to the thermohaline circulation	Meteorology
csn057	Guilyardi, E (Dr)	Role of salinity in ocean circulation and climate response to greenhouse gas forcing.	Atmospheric Modelling
csn058	Tudhope, A (Dr)	Improving ability to predict rapid changes in the el nino southern oscillation climatic phenomenon	Atmospheric Modelling
csn059	Watson, AJ (Prof)	Circulation, overflow & deep connection in the Nordic seas.	Environmental Sciences
csb001	Houldershaw, D (Dr)	Use of Cray T3E for multiple long trajectories of protein unfolding	Crystallography
csb005	Haley	Genetic Analysis of Complex Traits	
csp004	Bell, K L (Prof)	A Programme for Atomic Physics for Astrophysics at Queen's University Belfast (2001-2005)	Astronomy
csp006	Jain, R (Dr)	Numerical Simulation of forced magnetic reconnection in the solar corona	Physics
csp007	Scott, P (Dr)	A Programme for Atomic Physics for Astrophysics at Queens University Belfast (2001-2005)	Astronomy
HPCID	Allan, R (Dr)		
HPCIE	Henty, D (Dr)		
UKHEC	Allan, R (Dr)	UK HEC Collaboration, Core Support for High-End Computing 1999-2002	
cs2034	Chichkine, M (Mr)	Indium interaction in silicon for future ULSI technologies	Physics
cs2035	Barakos, G (Dr)	Detached Eddy Simulation of Aerodynamics & Aerocautics of Cavity Flows	Aerospace Engineering
cs2036	Farid, Vakili-Tahami (Mr)	MPI Evaluation	Mechanical Aerospace & Manufacturing Engineering
cs2037	Domene, Carmen (Dr)	Ab initio molecular dynamics of ion in membrane proteins	
cs2039	Carlborg (Dr)	Genetic Analysis of Complex Traits	Genetics & Biometry

cs2040	Costen, F (Mrs)	Impulse radio propogation in a dense multipath & shadowed environment for ultra-wideband communication systems	Computer Science
cs2041	Filippone, A (Dr)	Numerical Study of the 3D obstructed shear-driven cavity flow.	Mechanical Aerospace & Manufacturing Engineering
cs2042	Smeed, DA (Dr)	A temporally continuous high-resolution record of global sea level during the Holocene.	
cs2043	Theodoropoulos, K (Dr)	Design of microchannel structures for microreactor applications	Process Intewgration
cs3015	Hampshire, D (Dr)	High Performance Computational Solutions for the Ginzburg-Landau Equations that describe Flux Pinning in High-Field Superconductors	Physics
cs3016	Petchey, O (Dr)	Randomisation test for the significance of functional diversity for eco-system processes	Animal & Plant Sciences
cs3017	Gross, M (Mr)	Numerical Simulation of Laser Materials Processing	Engineering
cs3018	Durrant, M (Dr)	Functional modelling of oxalate-degrading enzymes & of lipoxygenase using quantum calculations.	Biology
cs3019	Bengough (Dr)	Lattice-Boltzmann simulation of water & solute transport in porous media.	Physics
cs4001	White P		
cs4002	Cooper A (Miss)		