

# CSAR Service - Management Report

## April 2002

This report documents the quality of the CSAR service during the month of April 2002.

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 April 2002. The information, in particular, covers the availability and usage of the following three main CSAR Service High Performance Computing (HPC) systems:

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

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

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

The percentage of Turing CPU capacity used by jobs larger than 64 PEs was 70%.

During April, in the early hours of the 24<sup>th</sup>, the CSAR service suffered a major failure which resulted in the loss of the whole service for almost 12 hours. The cause of the failure was the UPS which suffered extensive damage. This resulted in a major service break but through effective problem management and good team work the downtime was minimised. This information was communicated to the client user community.

### 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
<b>HPC Services Availability</b>						
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
<b>Fujitsu Service Availability</b>						
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
<b>Help Desk</b>						
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
<b>Others</b>						
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 April 1<sup>st</sup> to 30<sup>th</sup> inclusive. Overall, despite the UPS failure, the CPARS Performance Achievement in April was satisfactory (see Table 3); i.e. Green measured against the CPARS performance targets. The Fujitsu availability figures are included in Table 2, but not Table 3 as they have zero weighting in CPARS terms.

### CSAR Service - Service Quality Report - Actual Performance Achievement

Service Quality Measure	2001/2											
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April
<b>HPC Services Availability</b>												
Availability in Core Time (% of time)	99.70%	99.70%	98.49%	98.49%	98.49%	98.60%	98.60%	100.00%	99.86%	99.73%	99.70%	96.17%
Availability out of Core Time (% of time)	99.40	99.40	98.49%	100%	99.40	99.50%	99.50%	98.49%	99.89%	99.85%	99.97%	97.75
Number of Failures in month	3	3	4	2	2	2	2	4	2	1	2	2
Mean Time between failures in 52 week rolling period (hours)	584	584	438	398	365	365	365	337	350	324	313	302
<b>Fujitsu Service Availability</b>												
Availability in Core Time (% of time)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96.89%
Availability out of Core Time (% of time)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98.92%
<b>Help Desk</b>												
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	<2	<2	<1	<1	<1	<1	<1	<1	<1	<2	<1	<1
Administrative Queries - Max Time to resolve 95% of all queries	<0.5	<0.5	<1	<2	<1	<1	<0.5	<2	<0.5	<1	<2	<2
Help Desk Telephone - % of calls answered within 2 minutes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Others</b>												
Normal Media Exchange Requests - average response time	<0.5	<0.5	<0.5	0	<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 month	0	0	1	2	2	2	2	2	2	2	2	2

**Table 2**

**Notes:**

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

$$\text{Turing availability} \times 143 / (143 + 40 + 233) + [\text{Fermat availability} \times 40 / (143 + 40 + 233) + \text{Green availability} \times 233 / (143 + 40 + 233)]$$
- 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 April. 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.

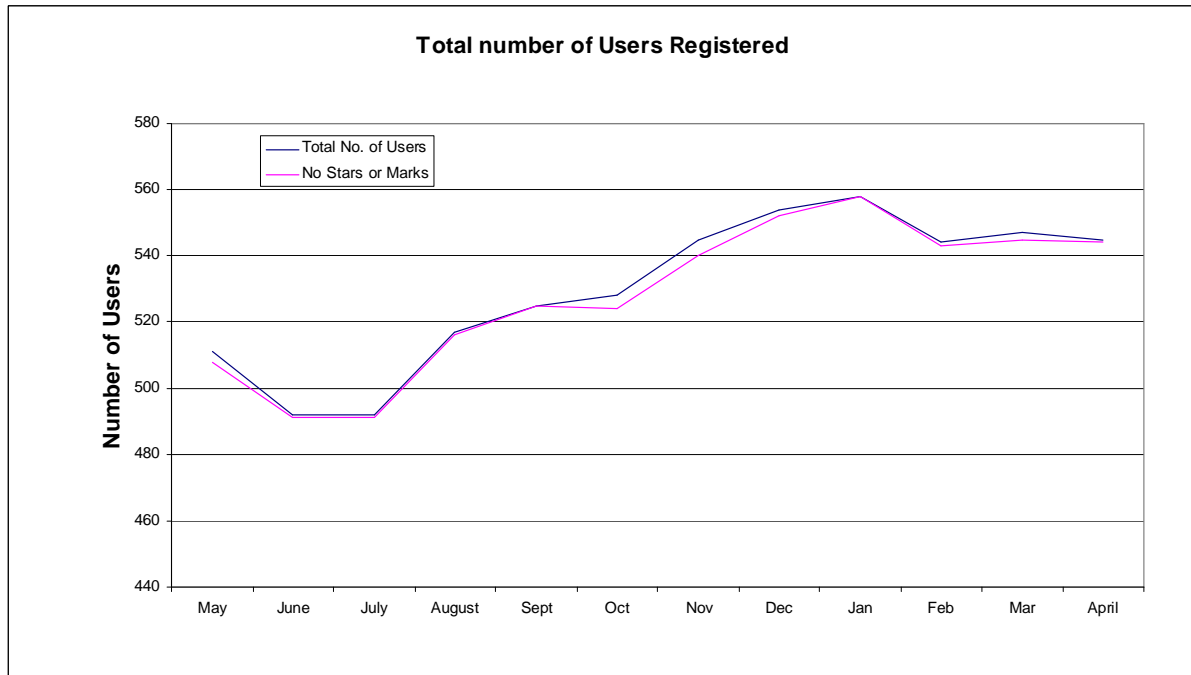
**CSAR Service - Service Quality Report - Service Credit Ratings**

Service Quality Measure	2001/2											
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April
<b>HPC Services Availability</b>												
Availability in Core Time (% of time)	-0.083	-0.083	0.083	0.083	0.083	0.083	0.083	-0.125	-0.083	-0.083	-0.083	0.167
Availability out of Core Time (% of time)	0	0	0	-0.1	0	-0.083	-0.083	0	-0.1	-0.1	-0.1	0.083
Number of Failures in month	0	0	0.083	0	0	0	0	0.083	0	-0.083	0	0
Mean Time between failures in 52 week rolling period (hours)	-0.083	-0.083	0	0	0	0	0	0	0	0	0	0
<b>Help Desk</b>												
Non In-depth Queries - Max Time to resolve 50% of all queries	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Non In-depth Queries - Max Time to resolve 95% of all queries	0	0	-0.083	-0.083	-0.083	-0.083	-0.083	-0.083	-0.083	0	-0.083	-0.083
Administrative Queries - Max Time to resolve 95% of all queries	-0.1	-0.1	-0.083	0	-0.083	-0.083	-0.1	0	-0.1	-0.083	0	0
Help Desk Telephone - % of calls answered within 2 minutes	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
<b>Others</b>												
Normal Media Exchange Requests - average response time	-0.1	-0.1	-0.1	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
New User Registration Time (working days)	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
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 month	-0.1	-0.1	-0.083	0	0	0	0	0	0	0	0	0

**Table 3**

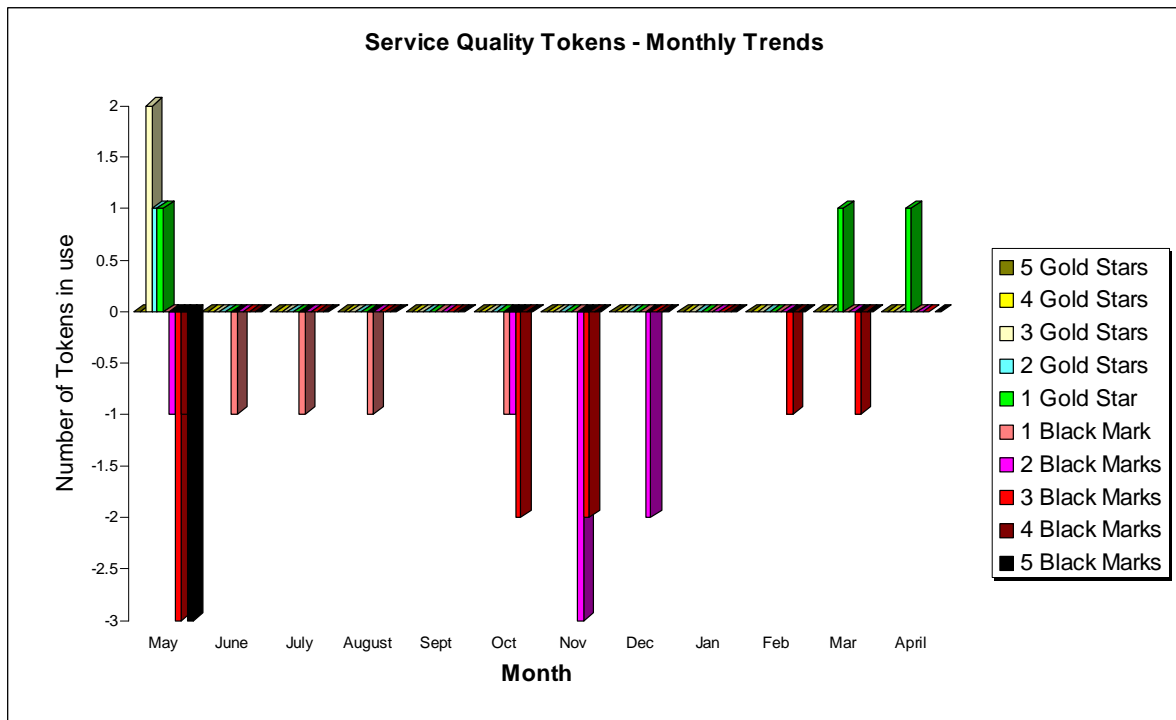
## 2.2 Service Quality Tokens

The position at the end of April 2002 is that one of the 545 registered users of the CSAR Service had registered a gold star for 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 one user has allocated a gold star for the service.

<b>SUMMARY OF SERVICE QUALITY TOKEN USAGE</b>			
<b>No of Stars or Marks</b>	<b>Consortia</b>	<b>Date Allocated</b>	<b>Reason Given</b>
1 gold star	cse013	25/03/02	Good assistance with problem

### 2.3 Throughput Target against Baseline

Green is now fully accepted as the technology refresh machine. The baseline has therefore been transferred to Green, as requested by the Research Councils, and is shown in GFLOP-Years for consistency with the other information contained within this report.

The Baseline Target for throughput was fully achieved this month due to plenty of work over the period. The actual usage figure was 165.5% of Baseline capacity.

#### Job Throughput Against Baseline CSAR Service Provision

Period: 1st to 30th April 2002

	<b>Baseline Capacity for Period (GFLOP Years)</b>	<b>Actual Usage in Period (GFLOP Years)</b>	<b>Actual % Utilisation c/w Baseline during Period</b>
1. Has CfS failed to deliver Baseline MPP Computing Capacity for EPSRC?	11.80	19.5	165.5%
2. Have Users submitted work demanding > 110% of the Baseline during period?	11.80	19.8	Yes
3. Are there User Jobs outstanding at the end of the period over 4 days old?		<b>Number of Jobs at least 4 days old at end Period</b> 2	<b>Number of Jobs at least 4 days old at end Period is not zero (Yes/No)?</b> Yes
4. Have Users submitted work demands above 90% of the Baseline during period?		<b>Minimum Job Time Demands as % of Baseline during Period</b> 74%	<b>Minimum Job Time Demand above 90% of Baseline during Period (Yes/No)?</b> No
5. Majority of Job Queues contained jobs from Users for more than 97% during period?	4	<b>Average % of time each queue contained jobs in the Period</b> 71%	<b>Average % of time each queue contained jobs in the Period is &gt; 97%?</b> No

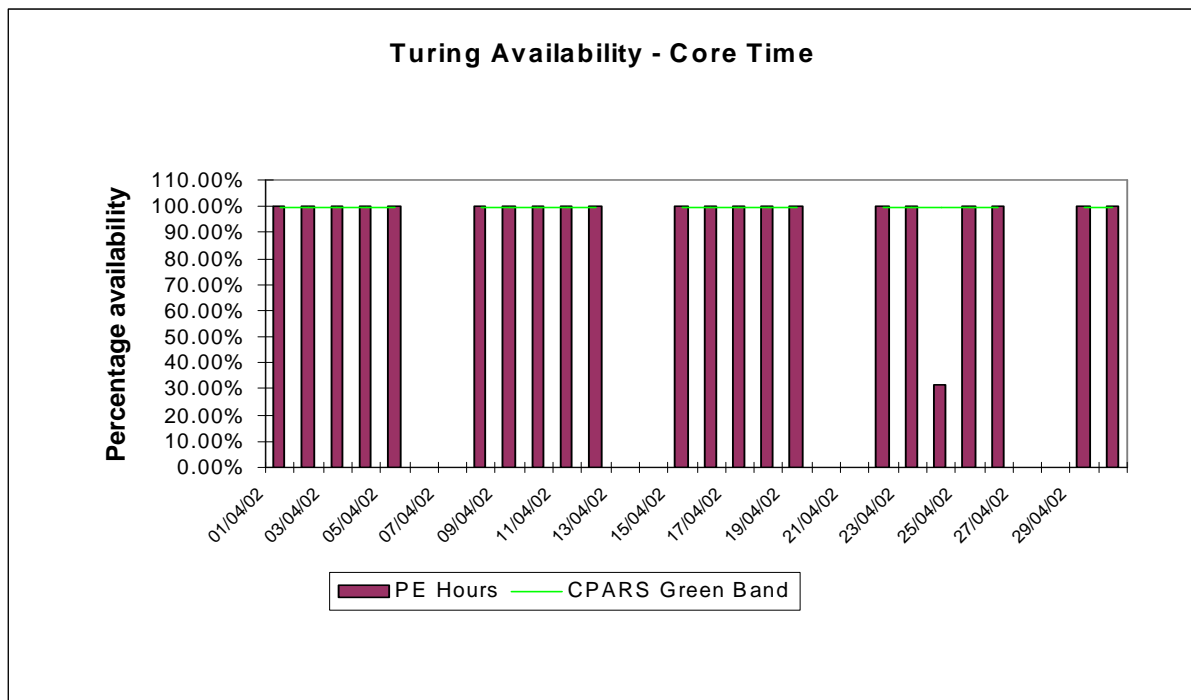
### 3. System Availability

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.

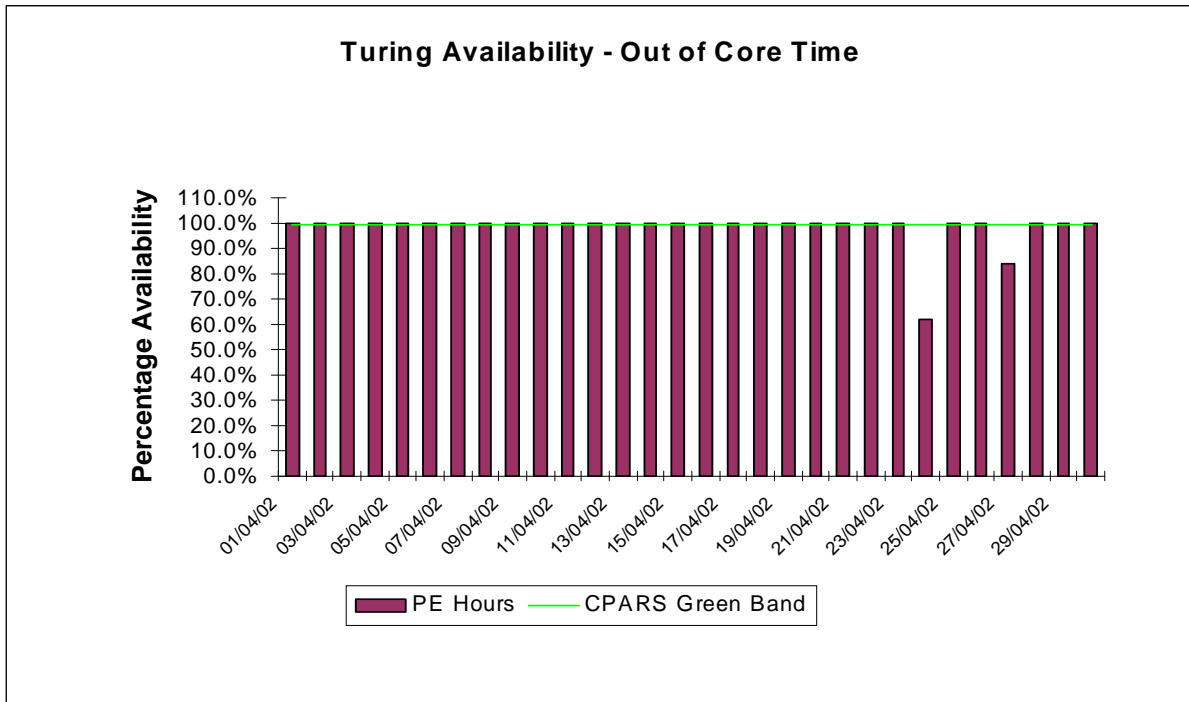
#### 3.1 Cray T3E-1200E System (Turing)

The following graphs show the availability of Turing both in core time and out of core time respectively during the period of 1<sup>st</sup> to 30<sup>th</sup> April.

Turing availability for April:



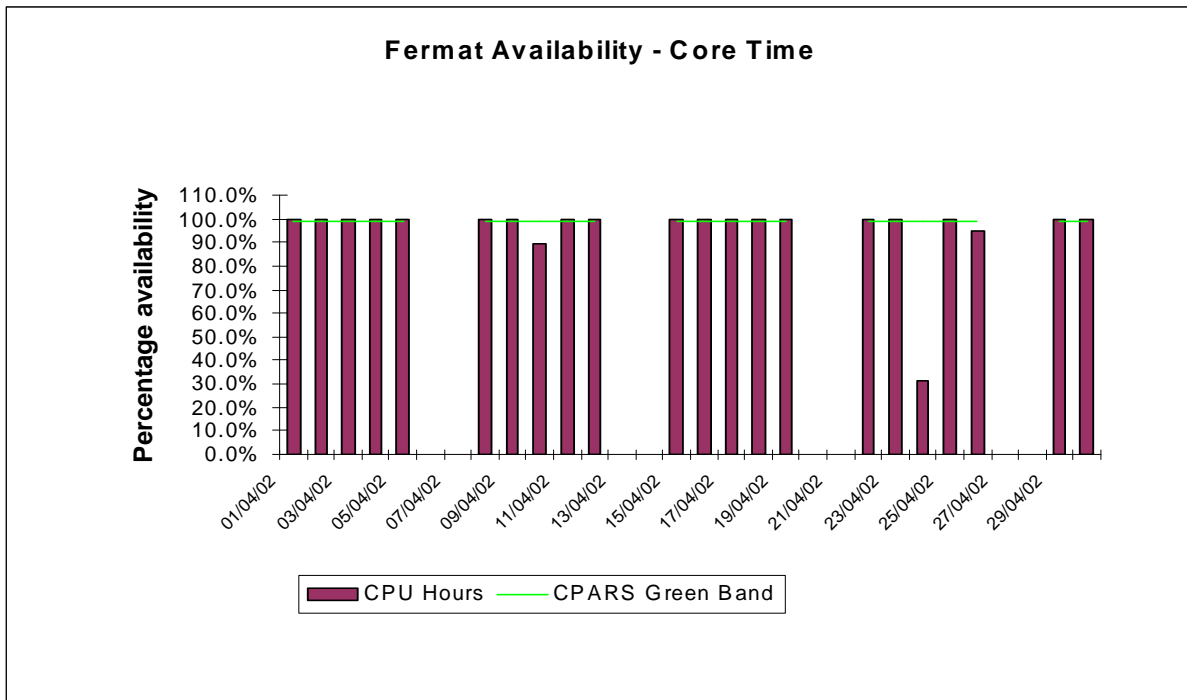
Availability of Turing in core time during April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS.



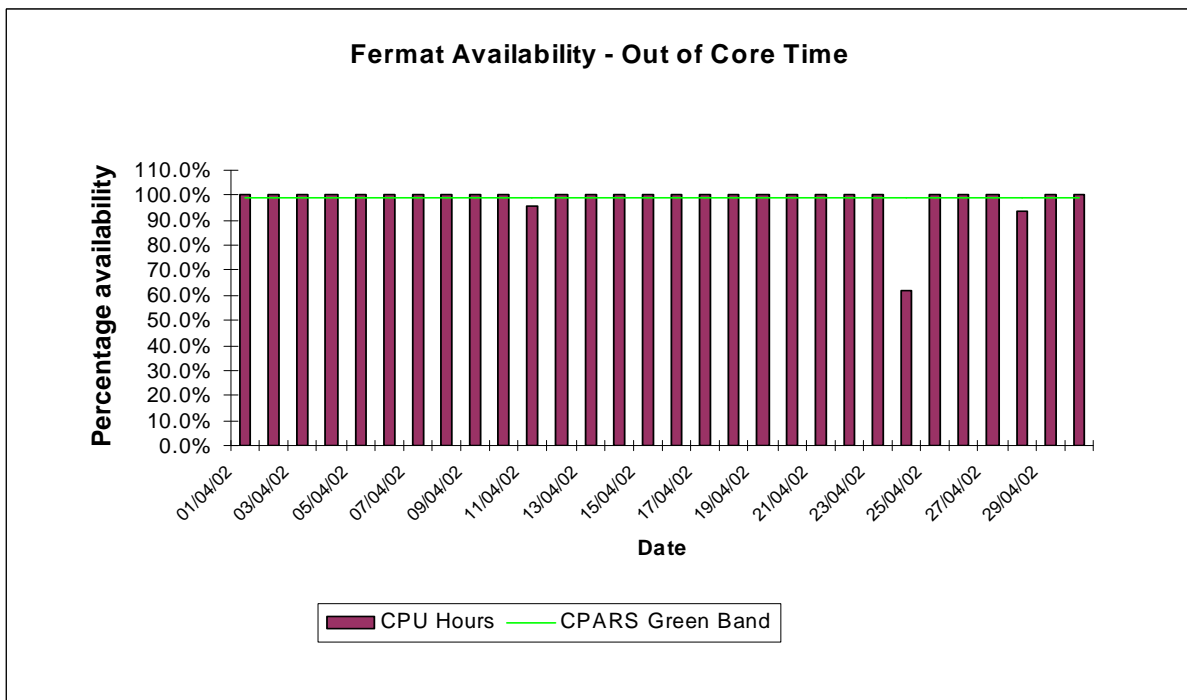
Availability of Turing out of core time during April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS and one outage on the 27<sup>th</sup>.

### 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 April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS, and two other minor outages.

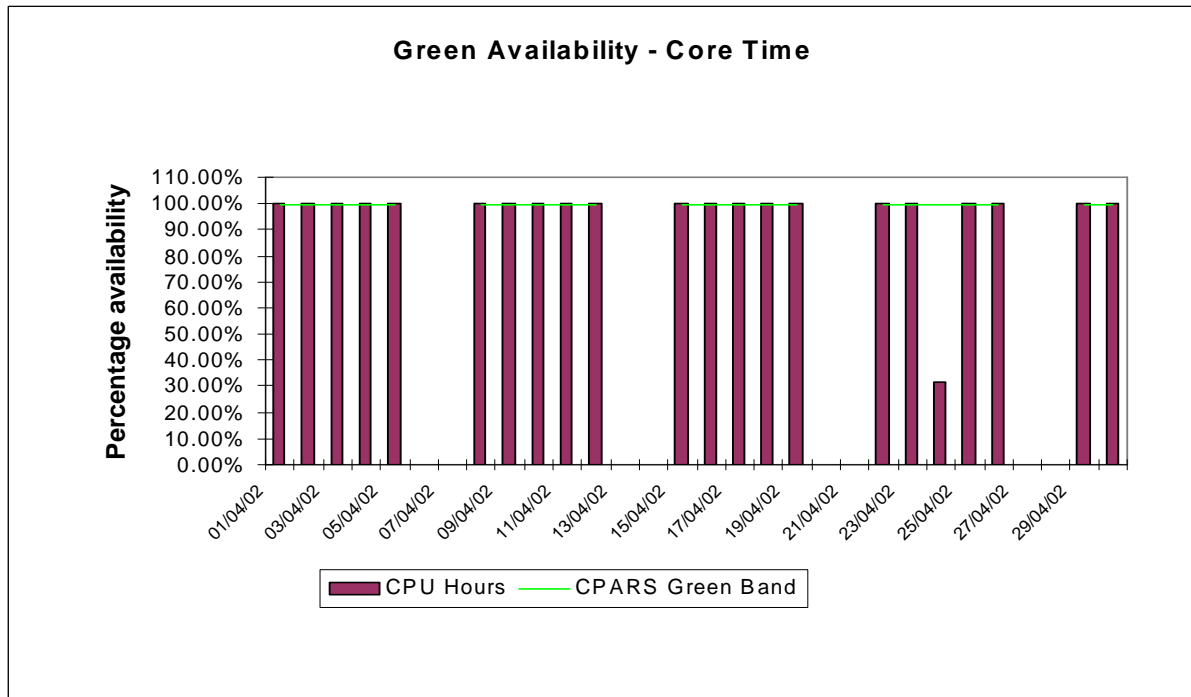


Availability of Fermat out of core time during April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS, and two other minor outages.

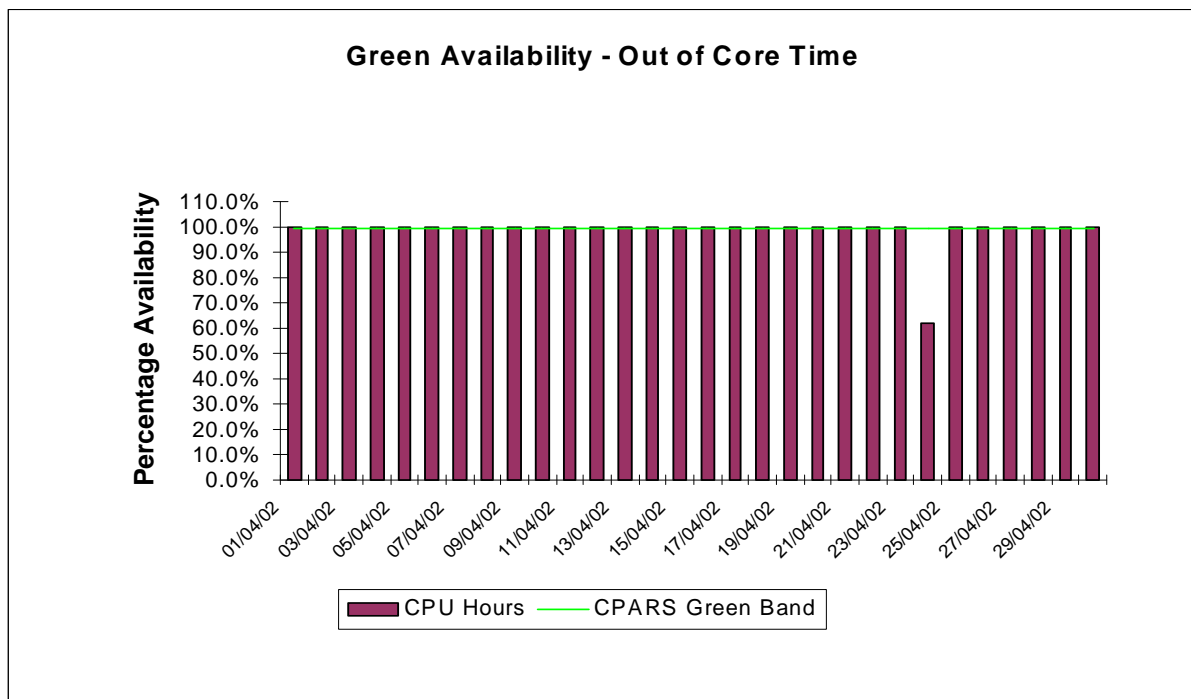


### 3.3 SGI Origin3000 System (Green)

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 April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS.



Availability of Green out of core time during April was good, with the exception of the outage on the 24<sup>th</sup> caused by the failure of the UPS.

## 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 April 1<sup>st</sup> to 30th, is provided by Project/User Group, totalled by Research Council and overall. This covers:

- CPU usage                      Turing: 485,370 PE Hours              Fermat (Batch): 47,940 Hours
- Fermat (Interactive): 535 CPU Hours
- Green: 113,421 Hours
- Fujitsu CPU usage              Fuji: 2,355 CPU Hours
- User Disk allocation           Turing: 79.64 GB Years              Fermat: 75.40 GB Years
- HSM/tape usage                2,606.29 GB Years

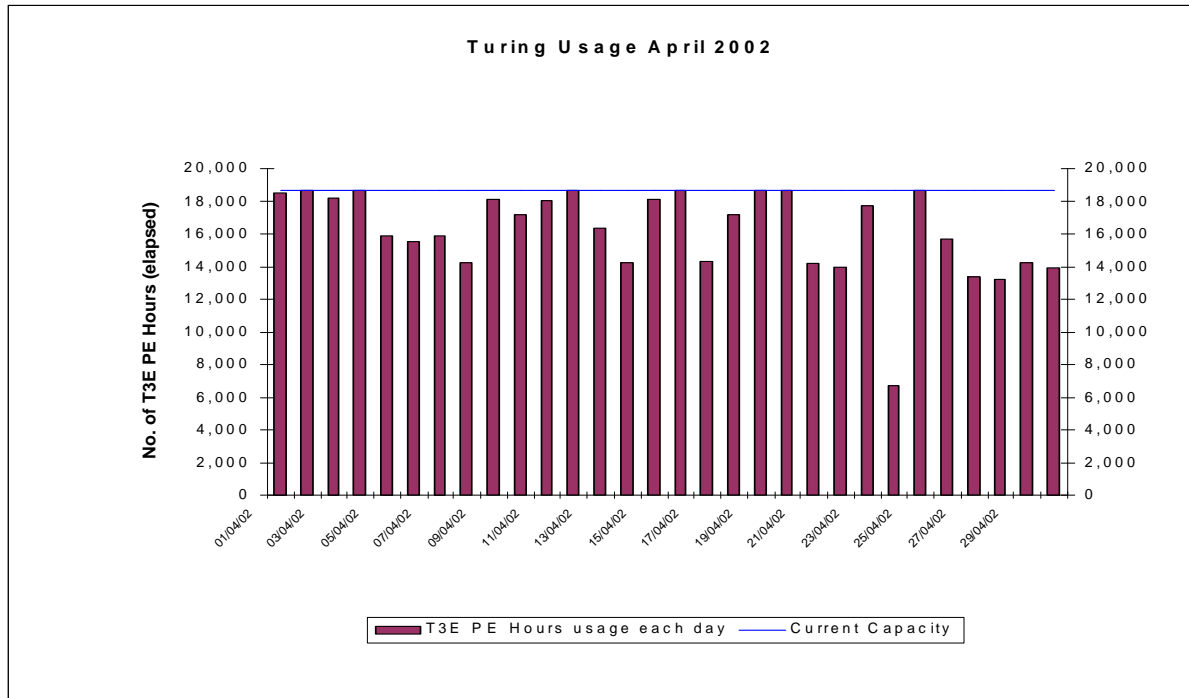
In addition, the following graphs are provided to illustrate usage per month, historically:

- 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 Baseline and 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 Capacity is shown by an overlaid horizontal line.
- 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 April 2002. 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 April:



The above usage graph for the Turing system shows that the overall workload was variable.

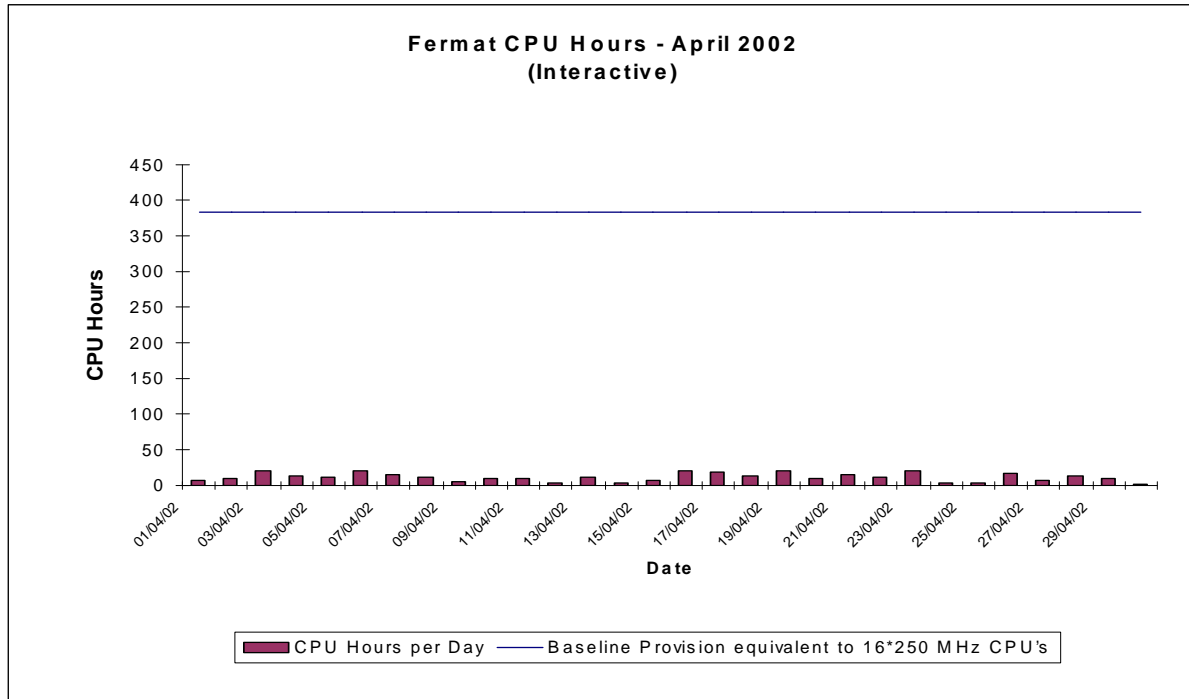
The graph also indicates the workload reached 100% of maximum theoretical capacity some parts of the month.

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.

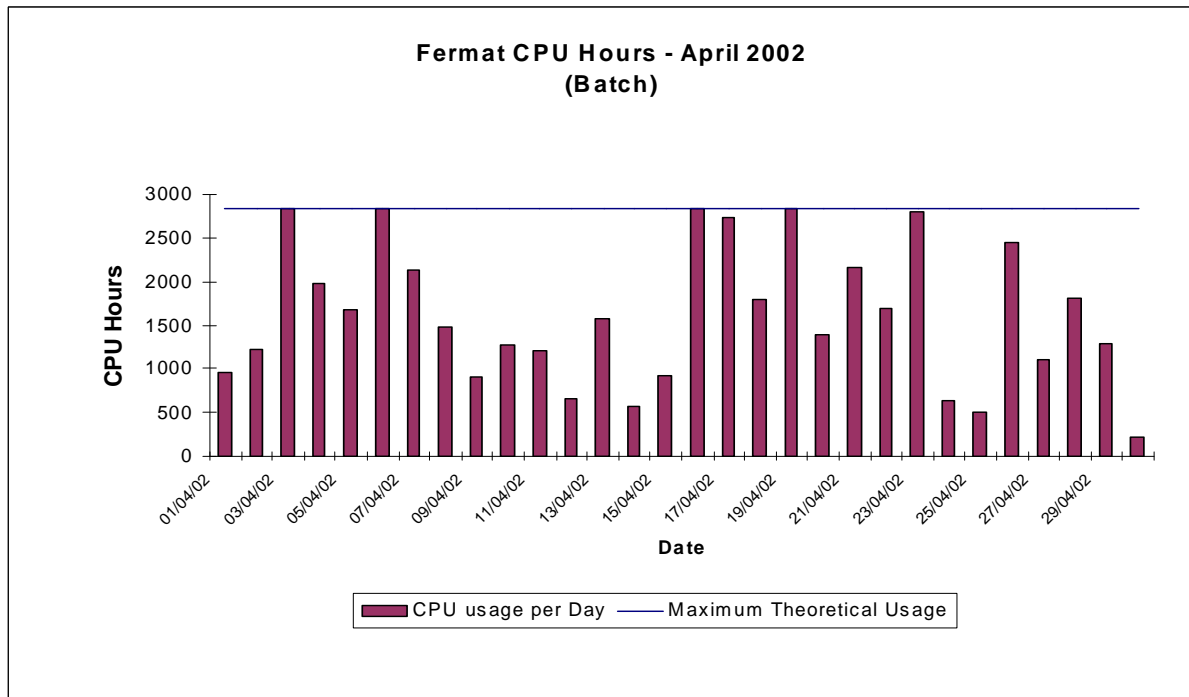
In particular, Turing will continue to start large jobs above 256 PEs, including 512 PEs, when they are queued subject to the overall workload.

### 4.2 SGI Origin2000 System (Fermat)

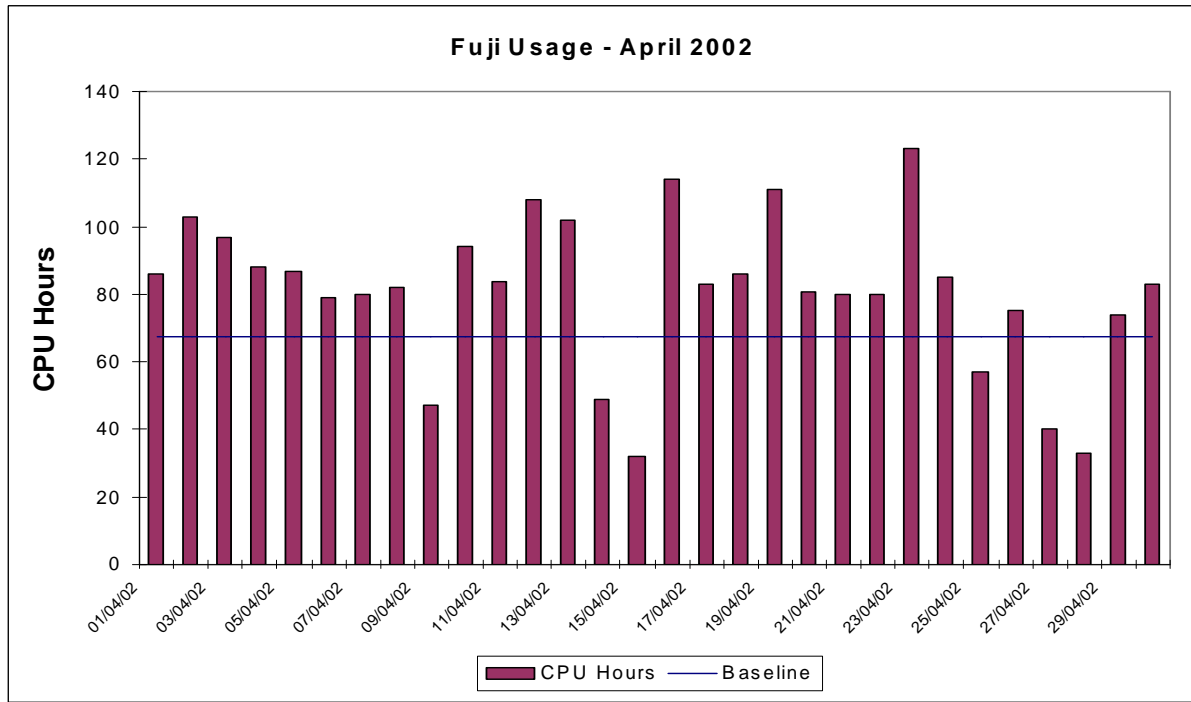
The usage of the Origin system was low. The groups most heavily using the Fermat system are CSE006 (Briddon), CSN006 (Price), CSN015 (Proctor) and HPCI Daresbury.



The graph above shows the interactive usage of the Origin 2000 (Fermat).



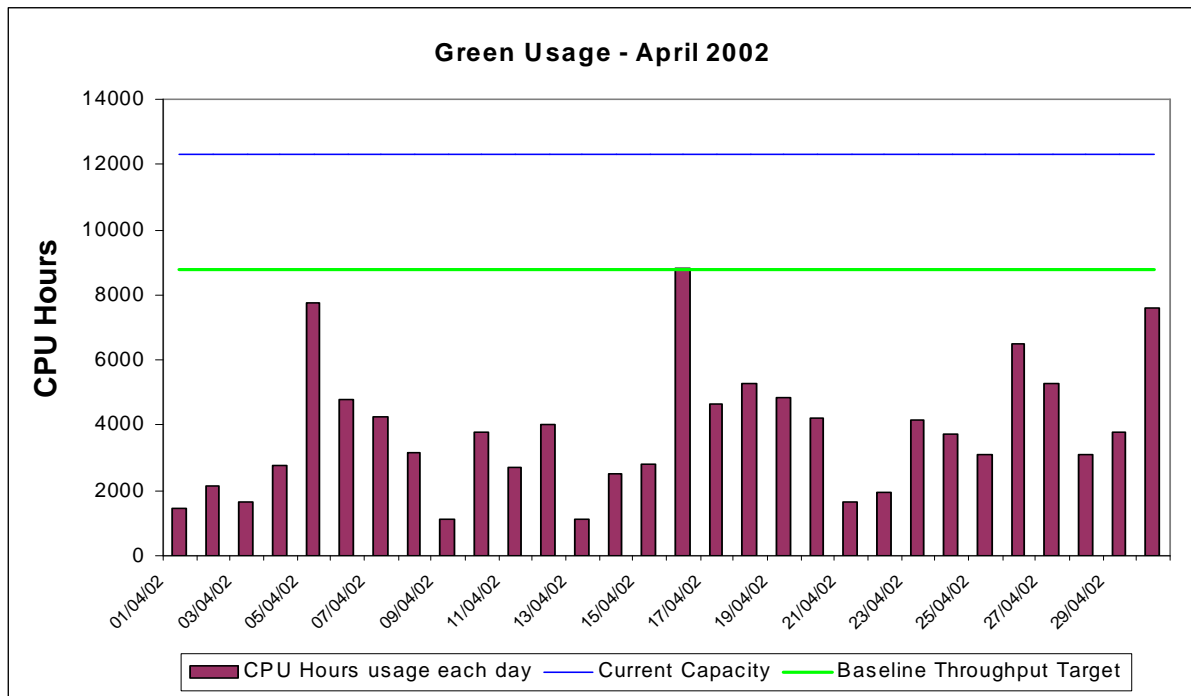
The above graph to a different scale shows the variable batch utilisation of the Origin 128.



### 4.3 Fujitsu VPP 300/8 System (Fuji)

Fuji utilisation was again variable over the month with the overall position resulting in usage above baseline.

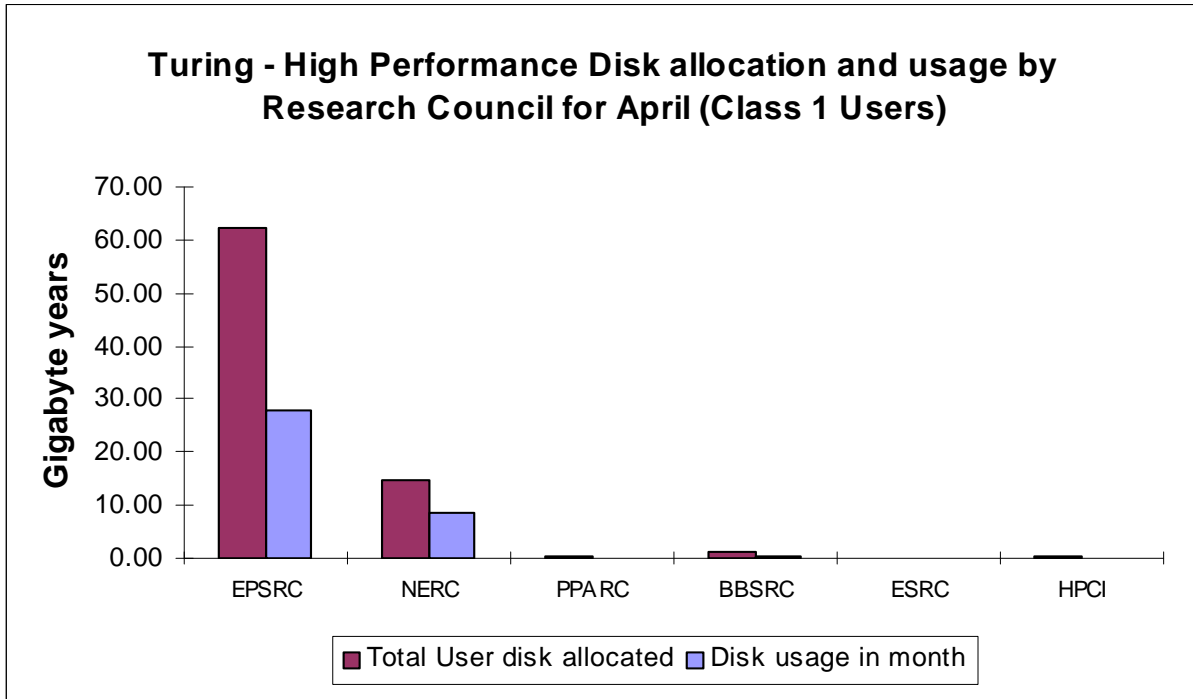
### 4.4 SGI Origin3000 System (Green)



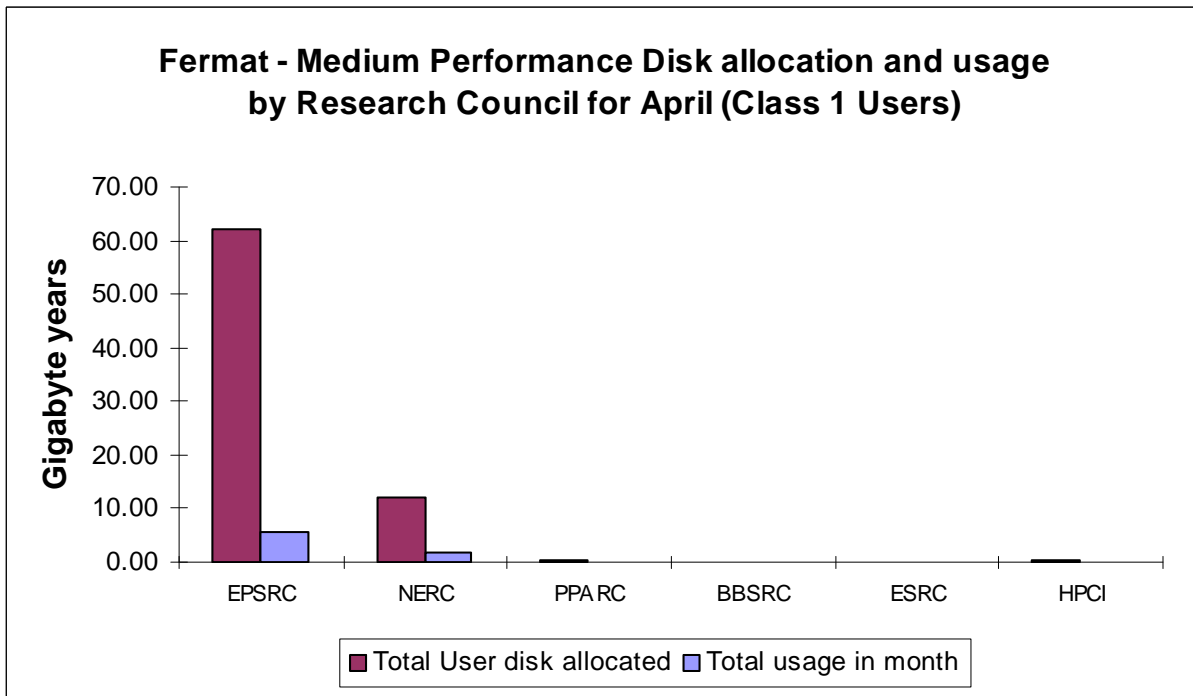
The above graph shows the utilisation of Green for the month of April, which saw the system running with a varied load.

### 4.5 Disk/HSM Usage Charts

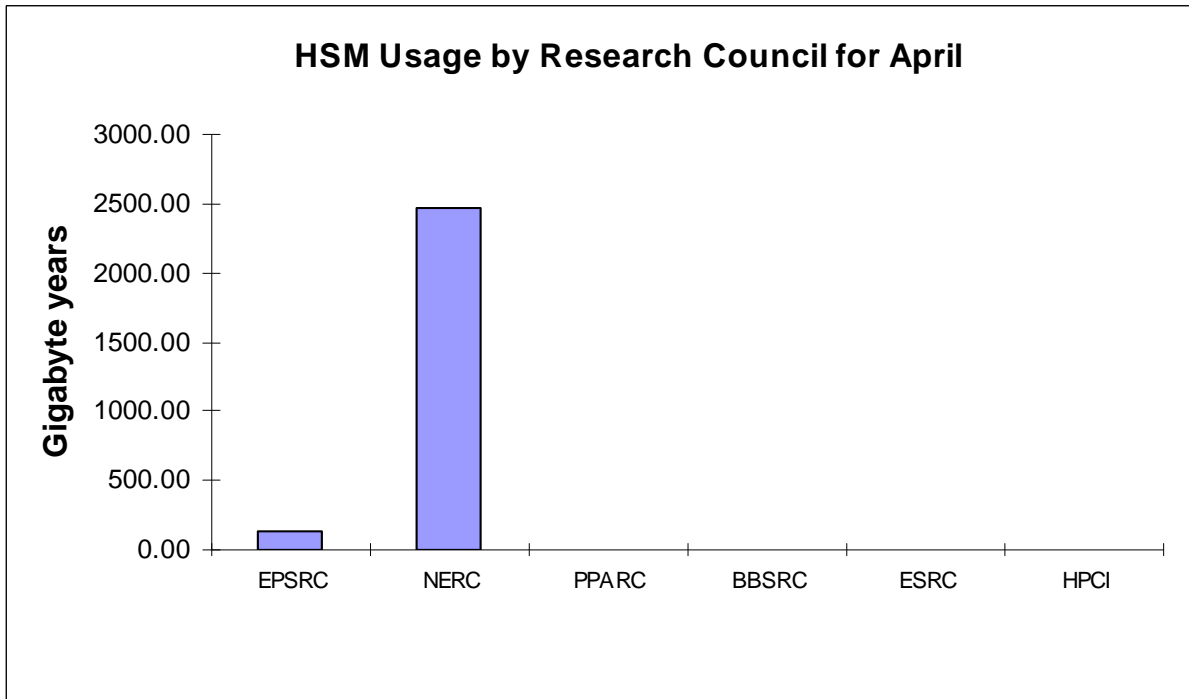
The graphs below show current disk and HSM allocations and usage.



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

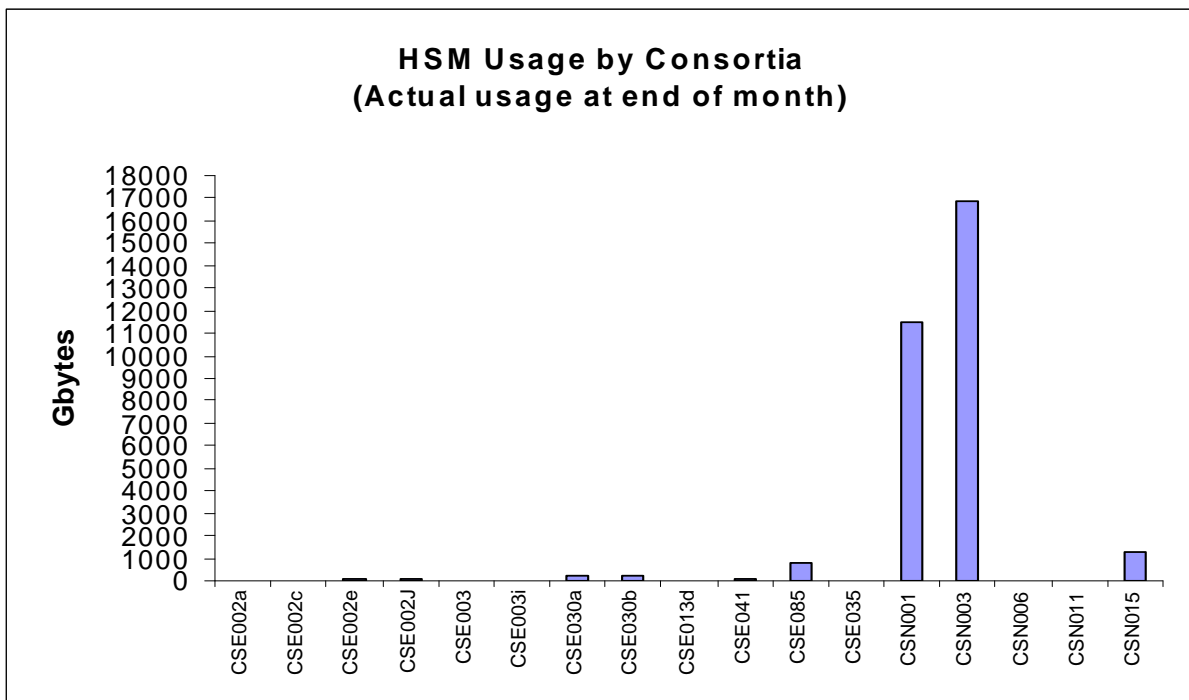


The above graph shows the disk allocations against usage on average of the disk on Fermat.

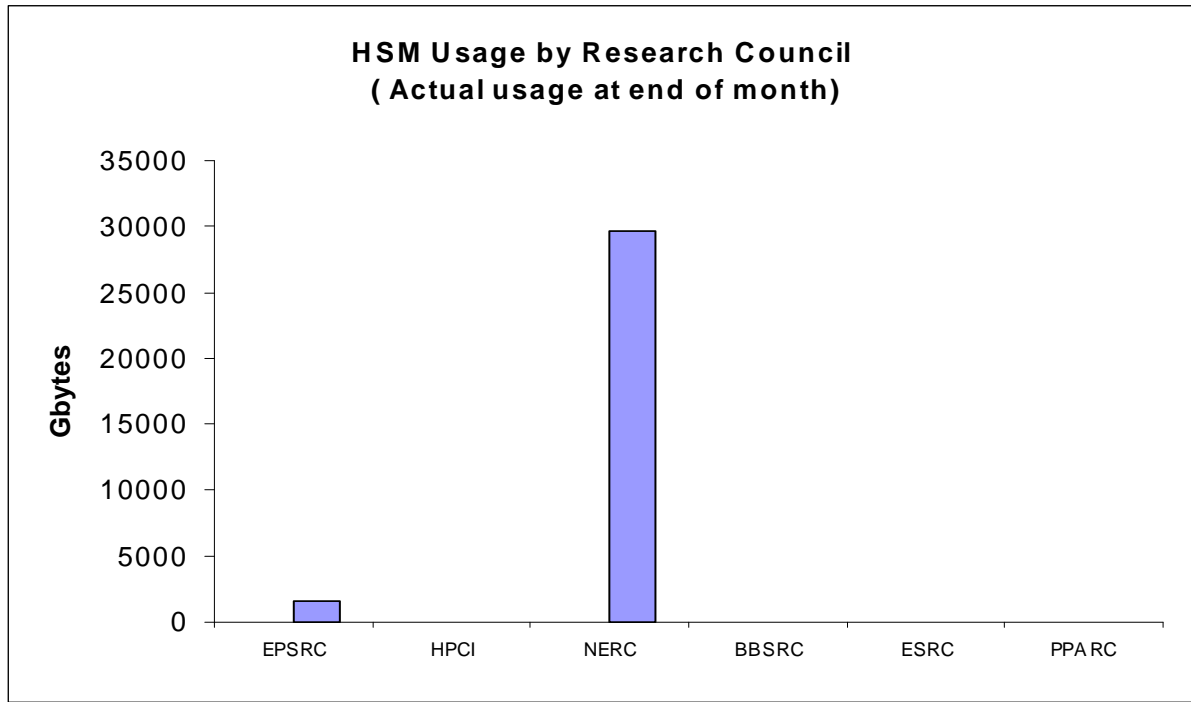


The above graph shows the total usage of the HSM facility by Research Council.

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



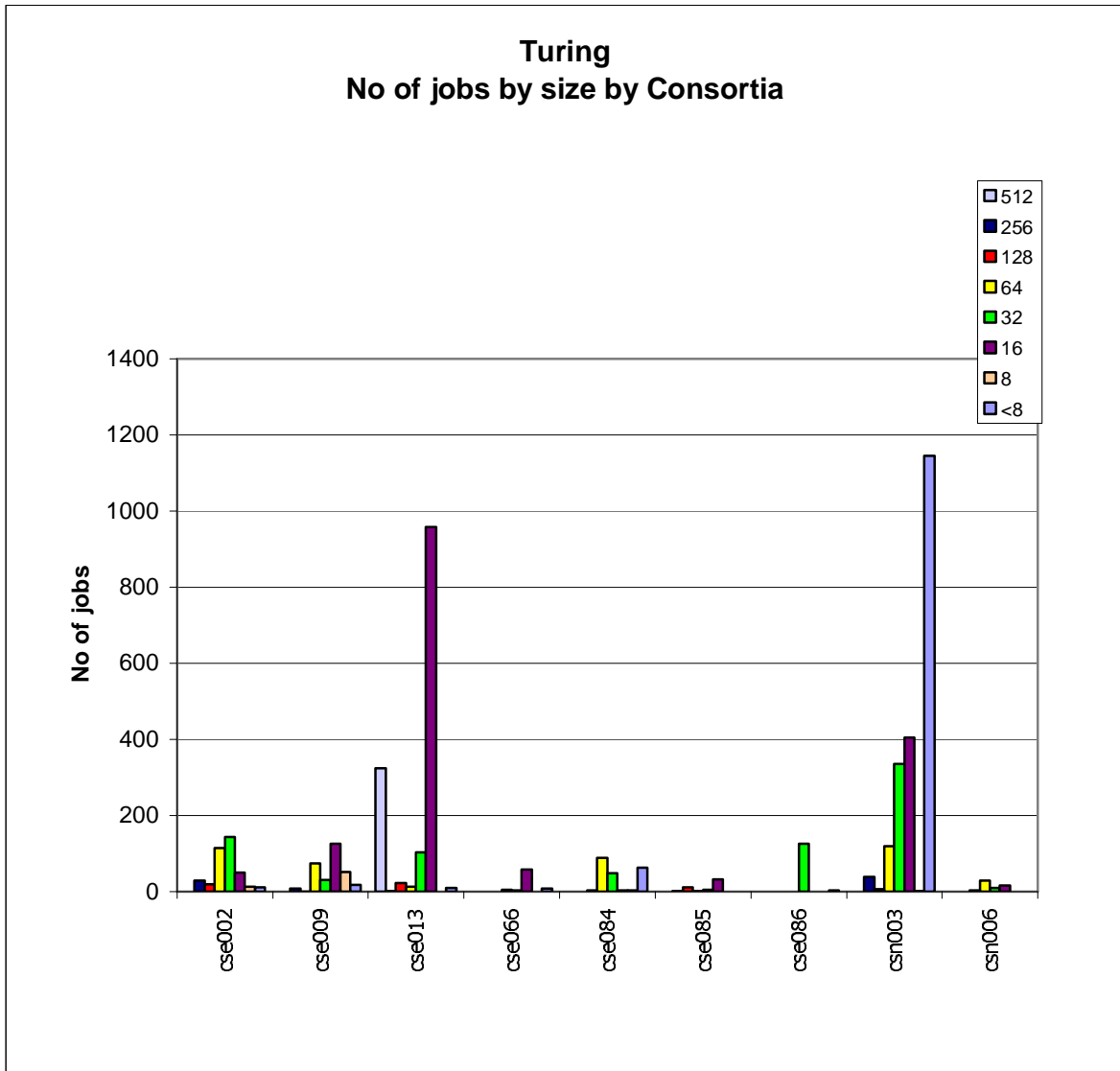
CSE085 (Sandham), CSN001 (Webb), CSN003 (O'Neill) & CSN015 (Proctor) were the major users of HSM resource.





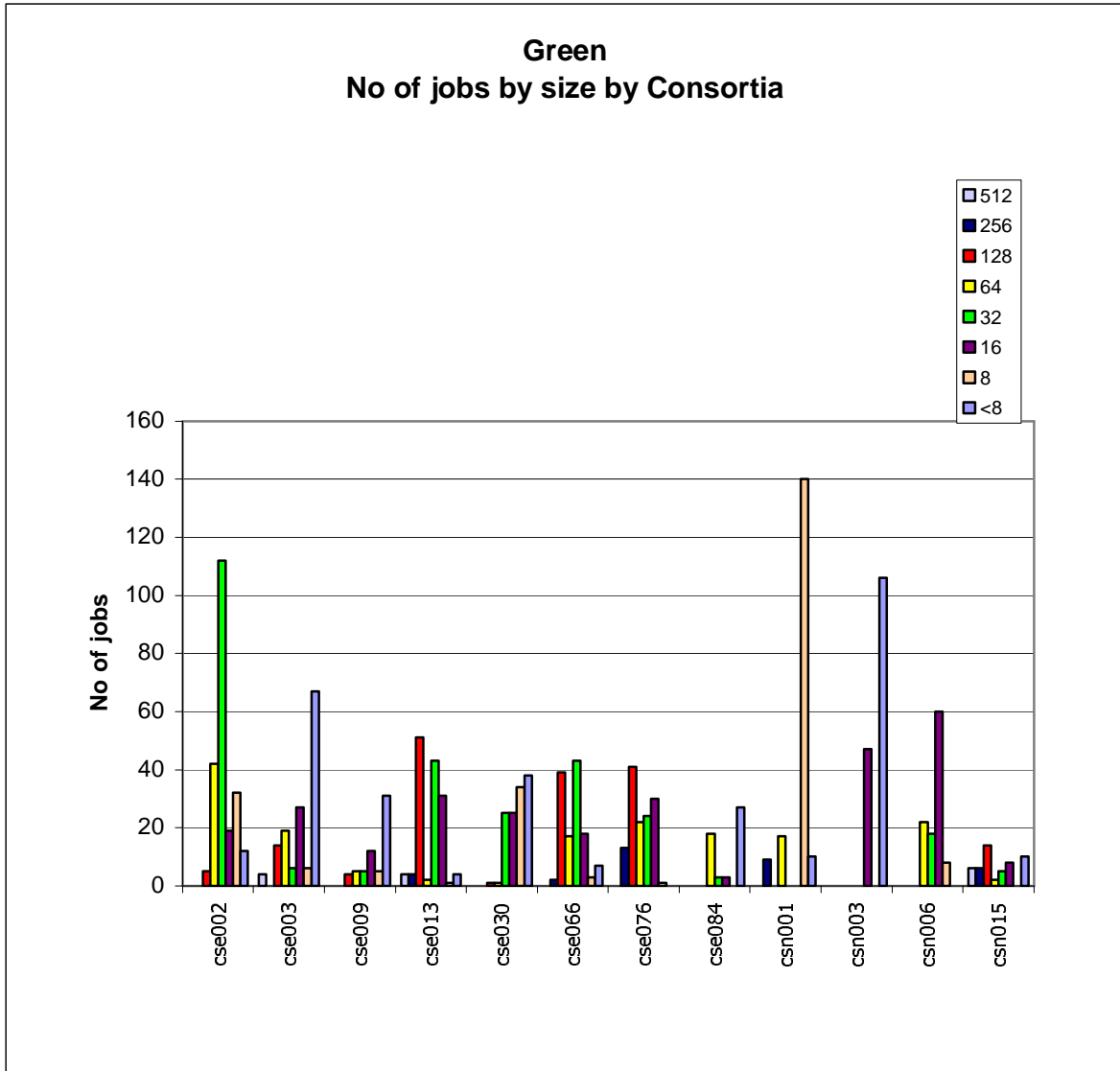
### 4.6 Processor Usage and Job Statistics Charts

Job statistics for Turing:



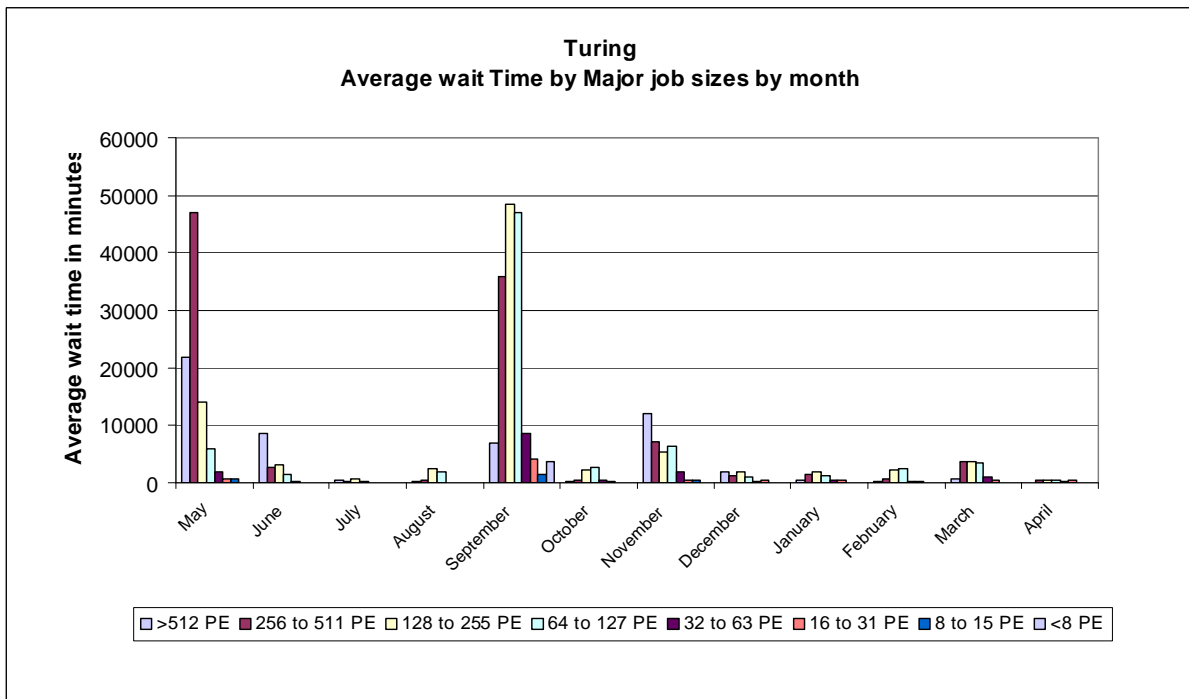
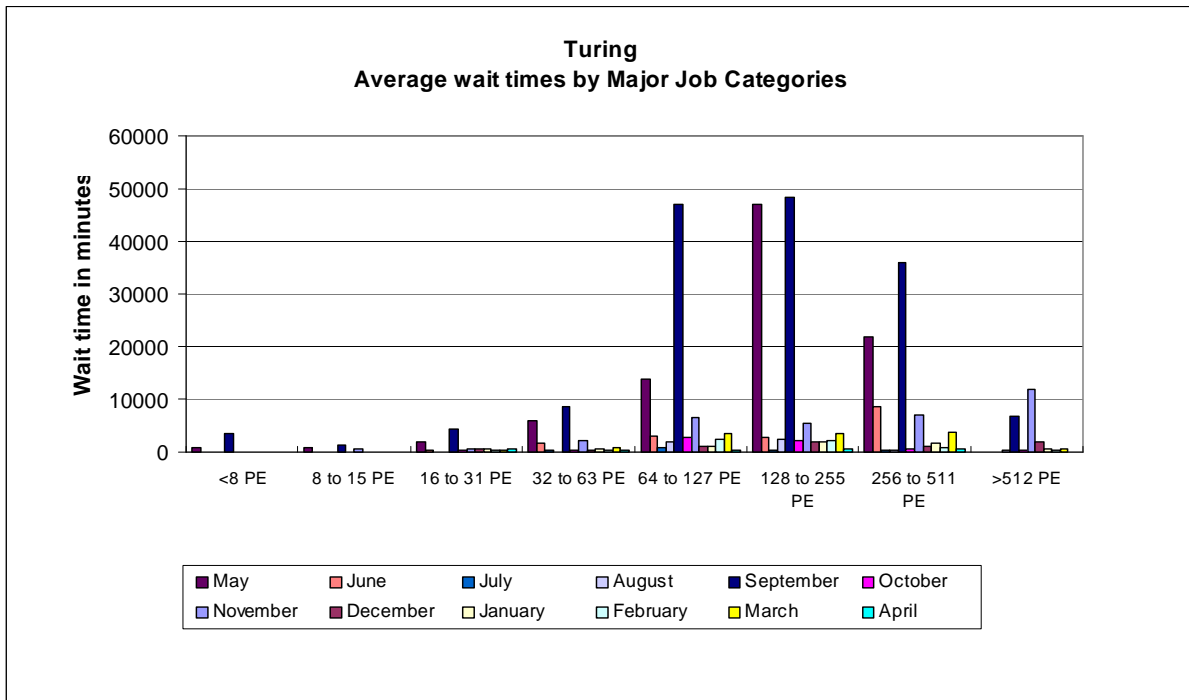
The above graph shows the number of jobs of the major sizes run in the period 1<sup>st</sup> to 30<sup>th</sup> April 2002.

Job statistics for Green:



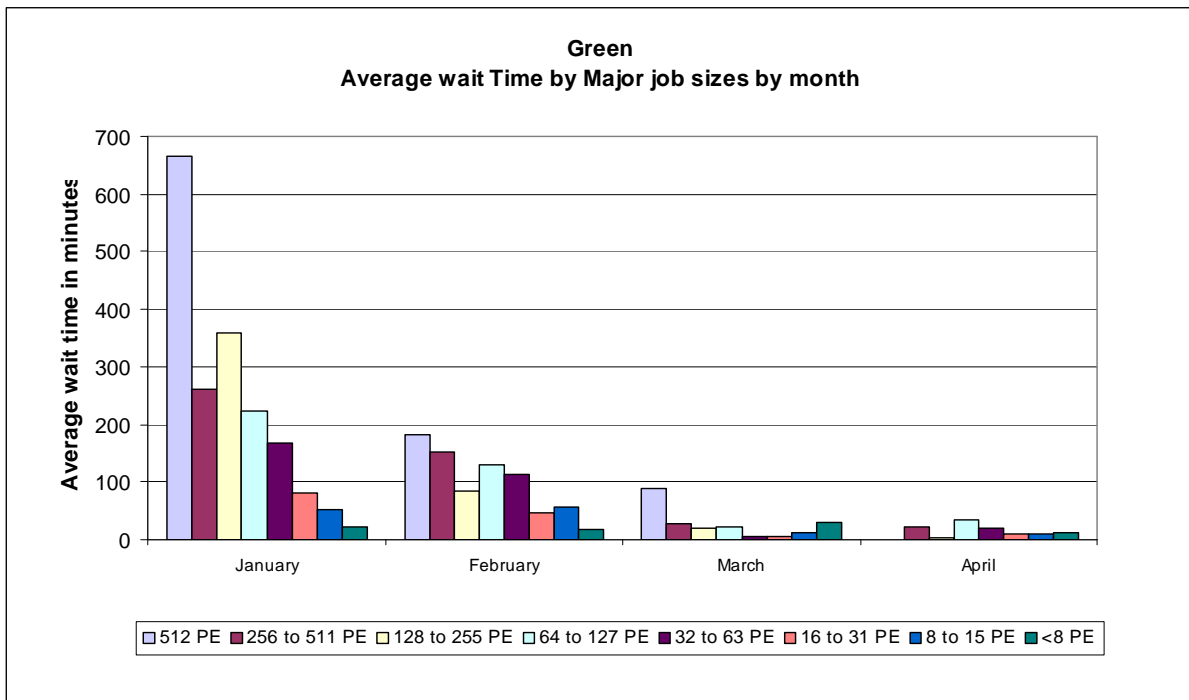
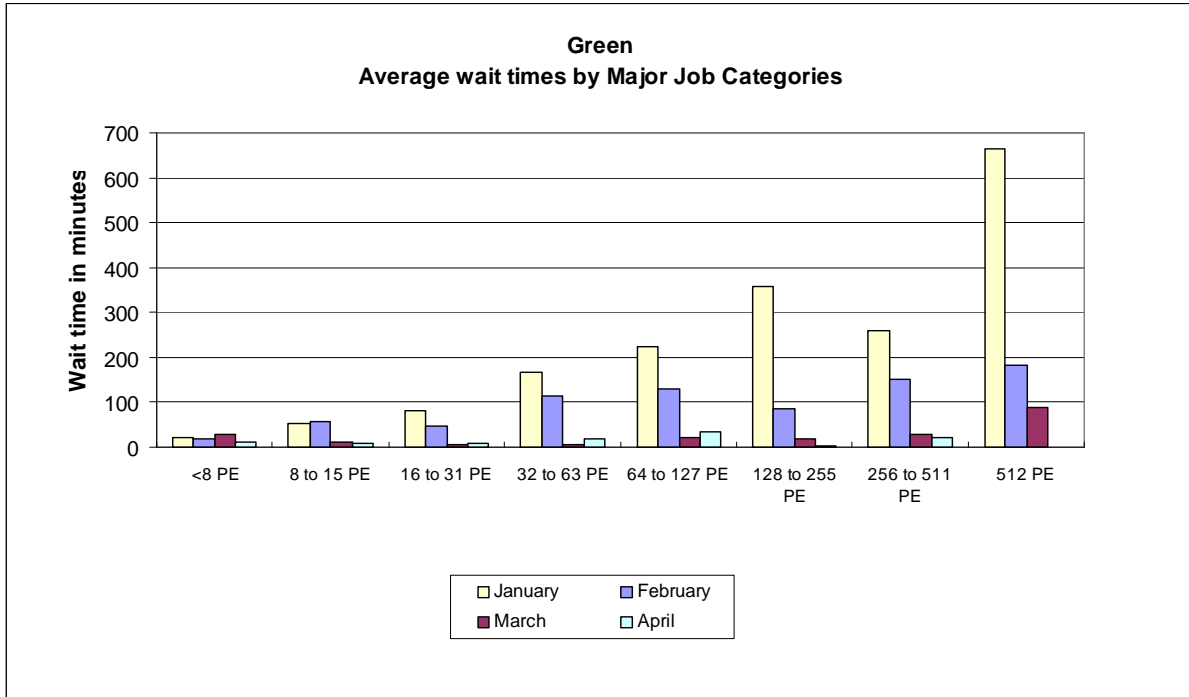
The above graph shows the number of jobs of the major sizes run in the period 1<sup>st</sup> to 30<sup>th</sup> April 2002.

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

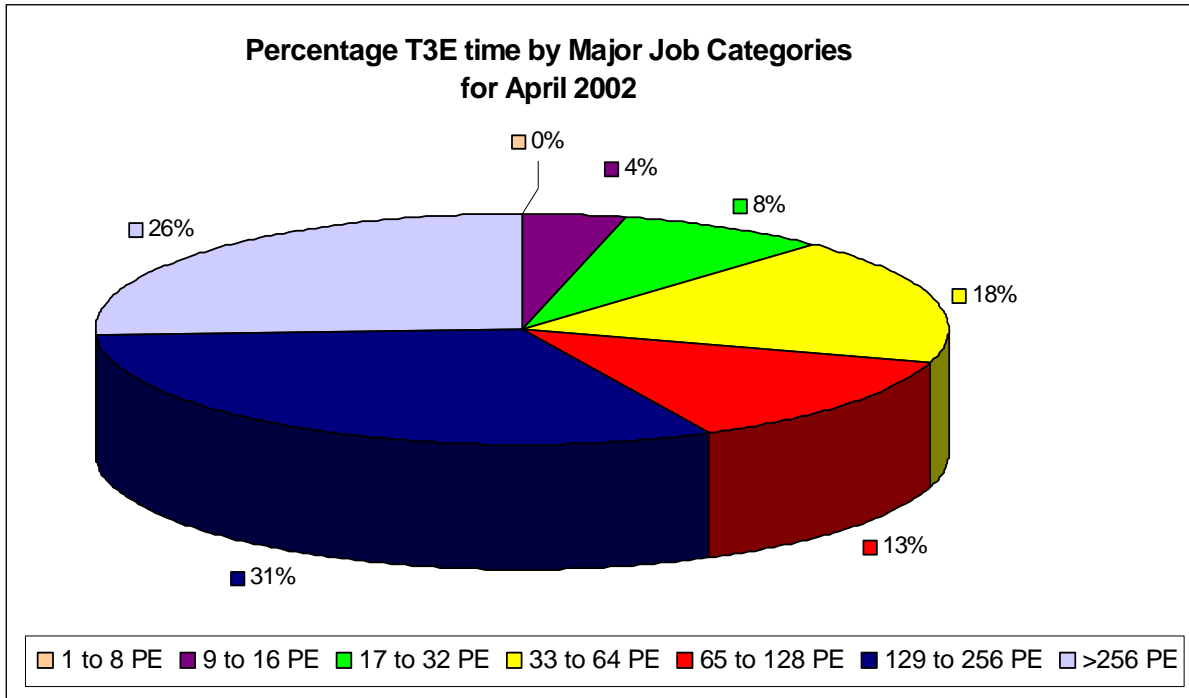


The chart above shows the average wait time trend on Turing over the last 12 months. Wait times for all jobs had fallen as Green is now in full production usage as a 512 PE machine. The trend now shows a slight fall in overall wait times over the March figures.

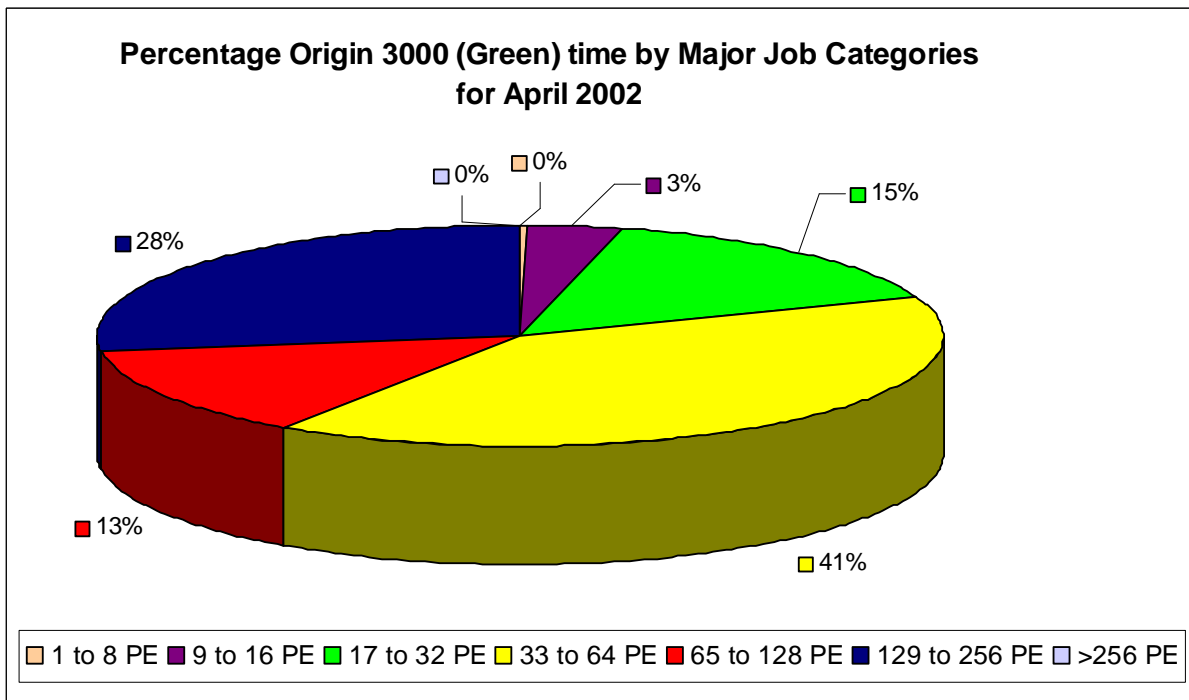
The next graph shows the wait times in minutes on Green for the major categories of jobs:



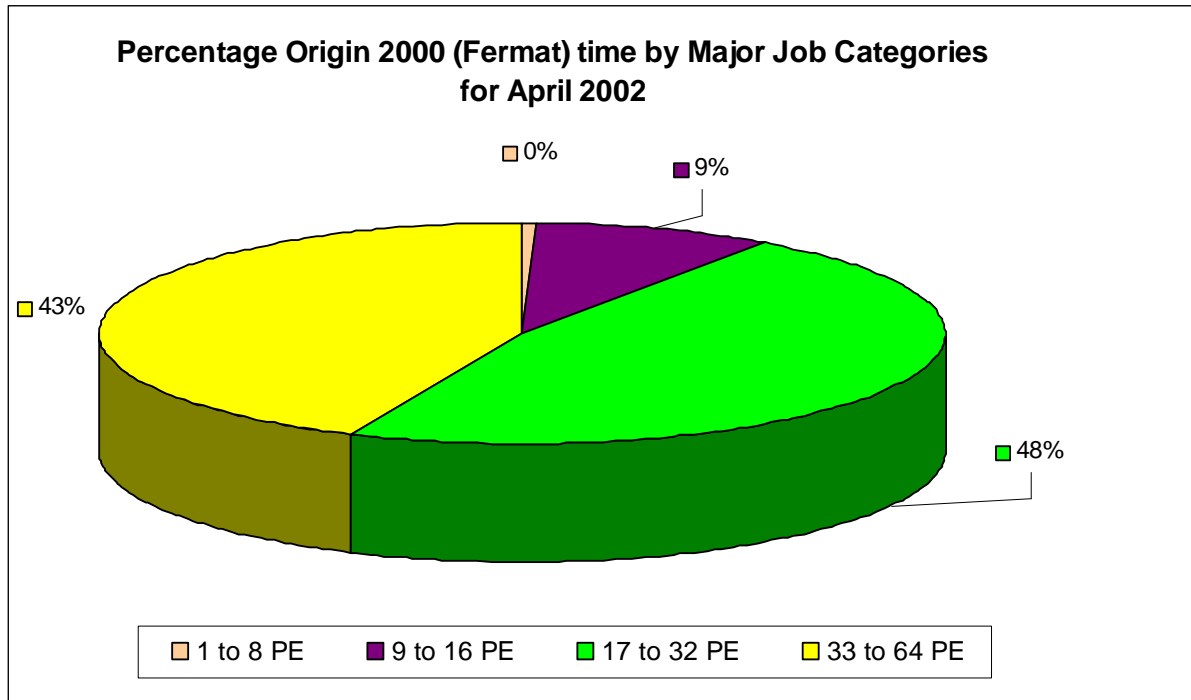
The chart above shows the average wait time trend on Green for April.



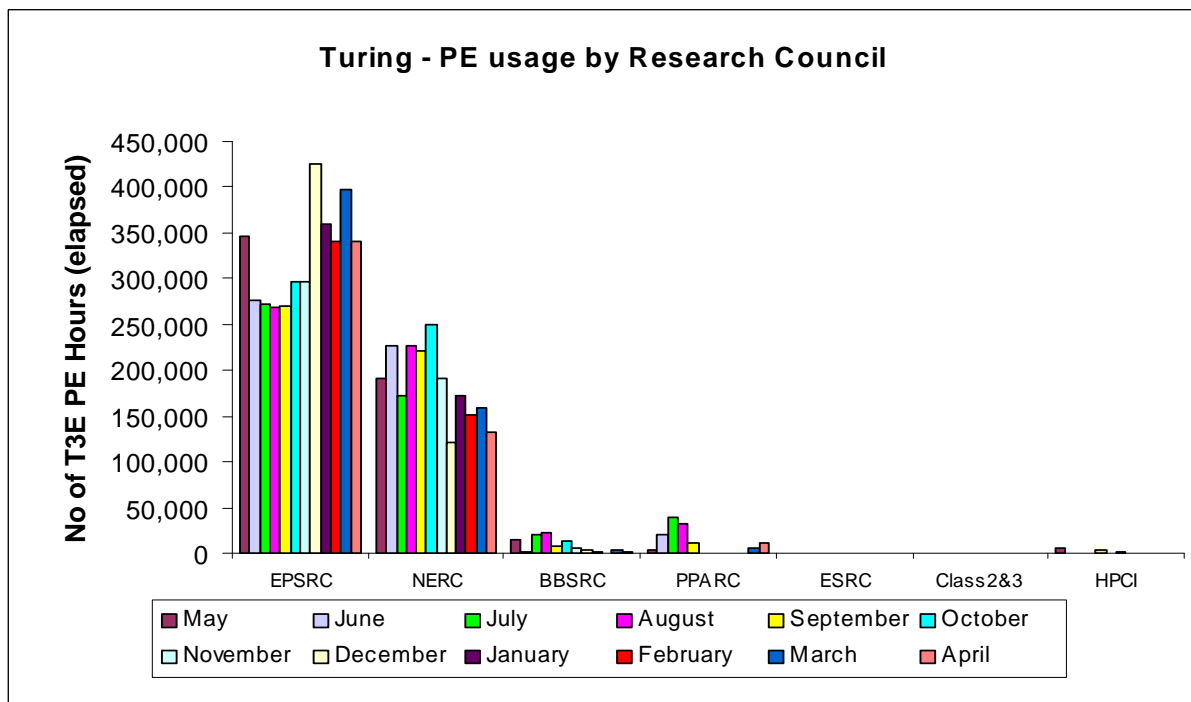
The largest proportion of the workload on Turing, 70%, was greater than 64 PEs in size.



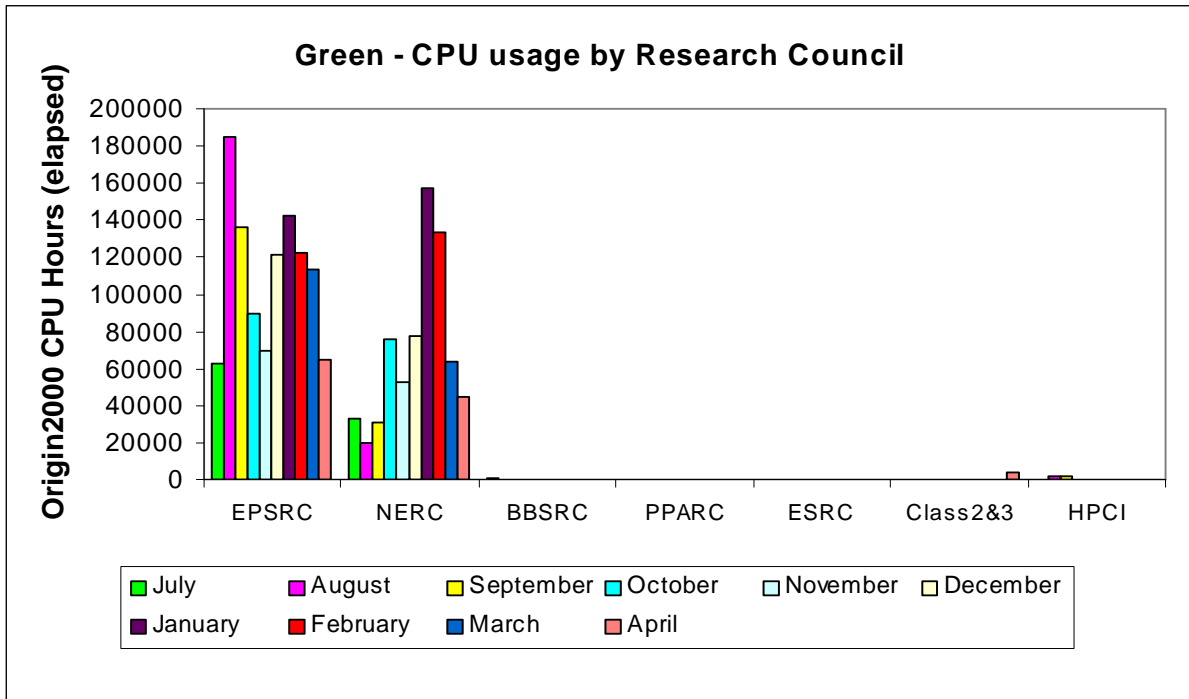
The spread of work across Green for April was reasonably varied, with 41% of jobs being greater than 64 PEs in size..



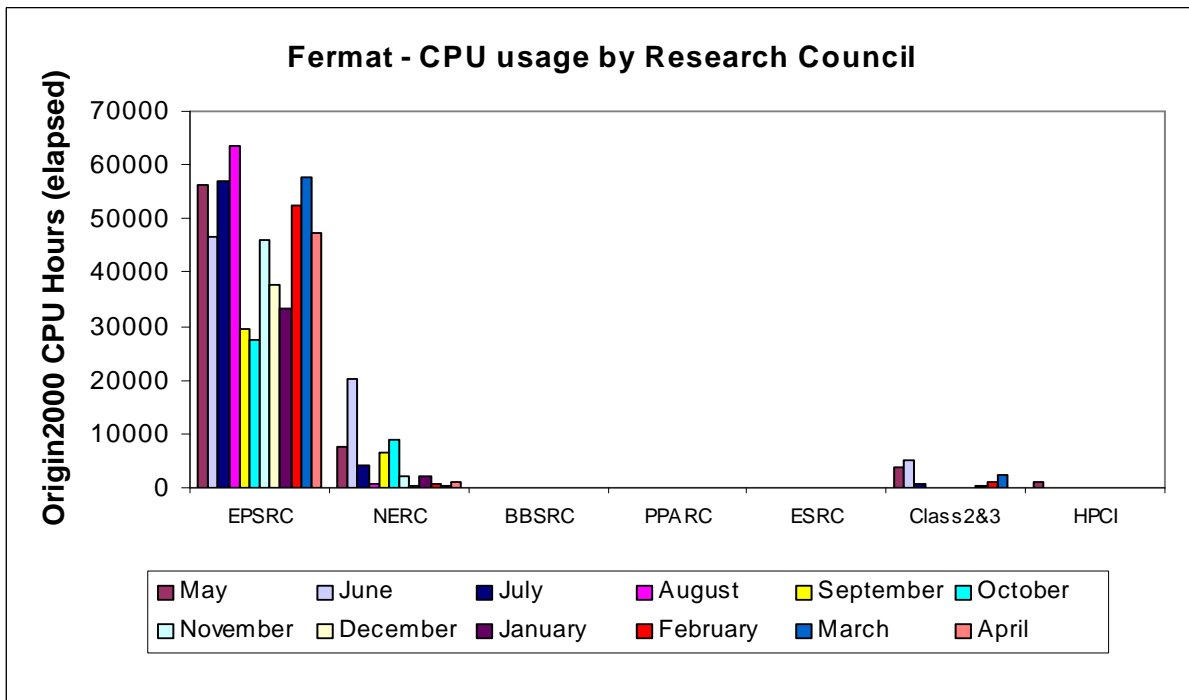
The workload on Fermat was fairly evenly spread across all job categories during April.



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



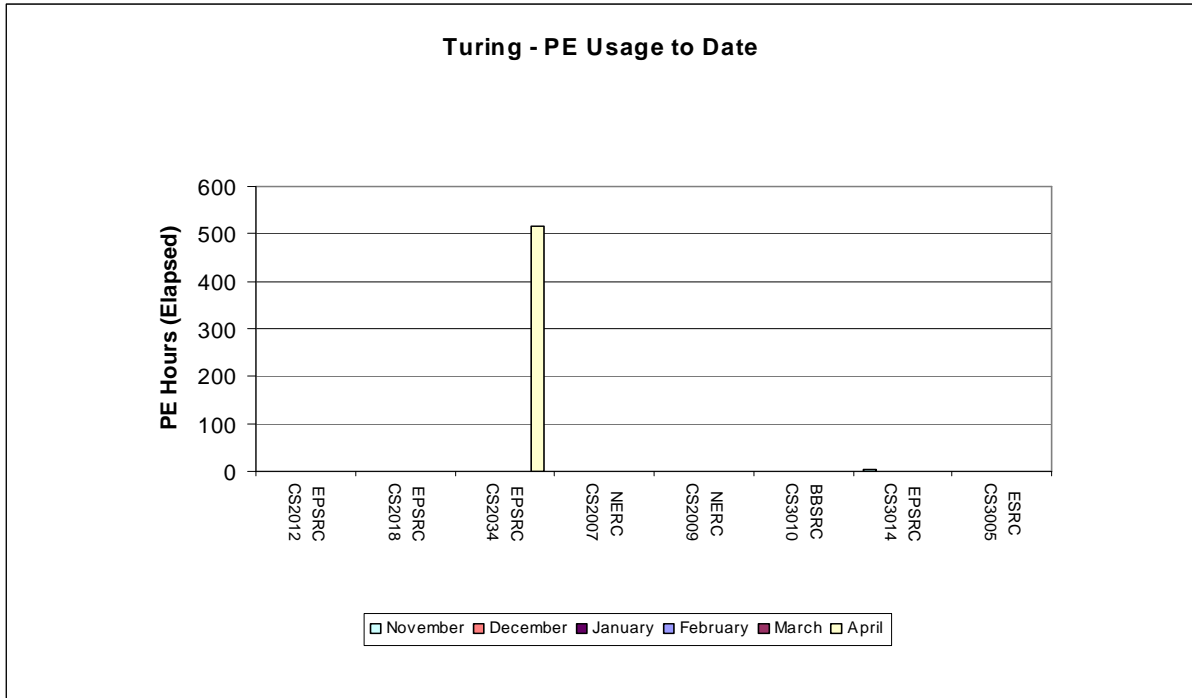
The above chart shows Green CPU usage by Research Council during the past 10 months of service.



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

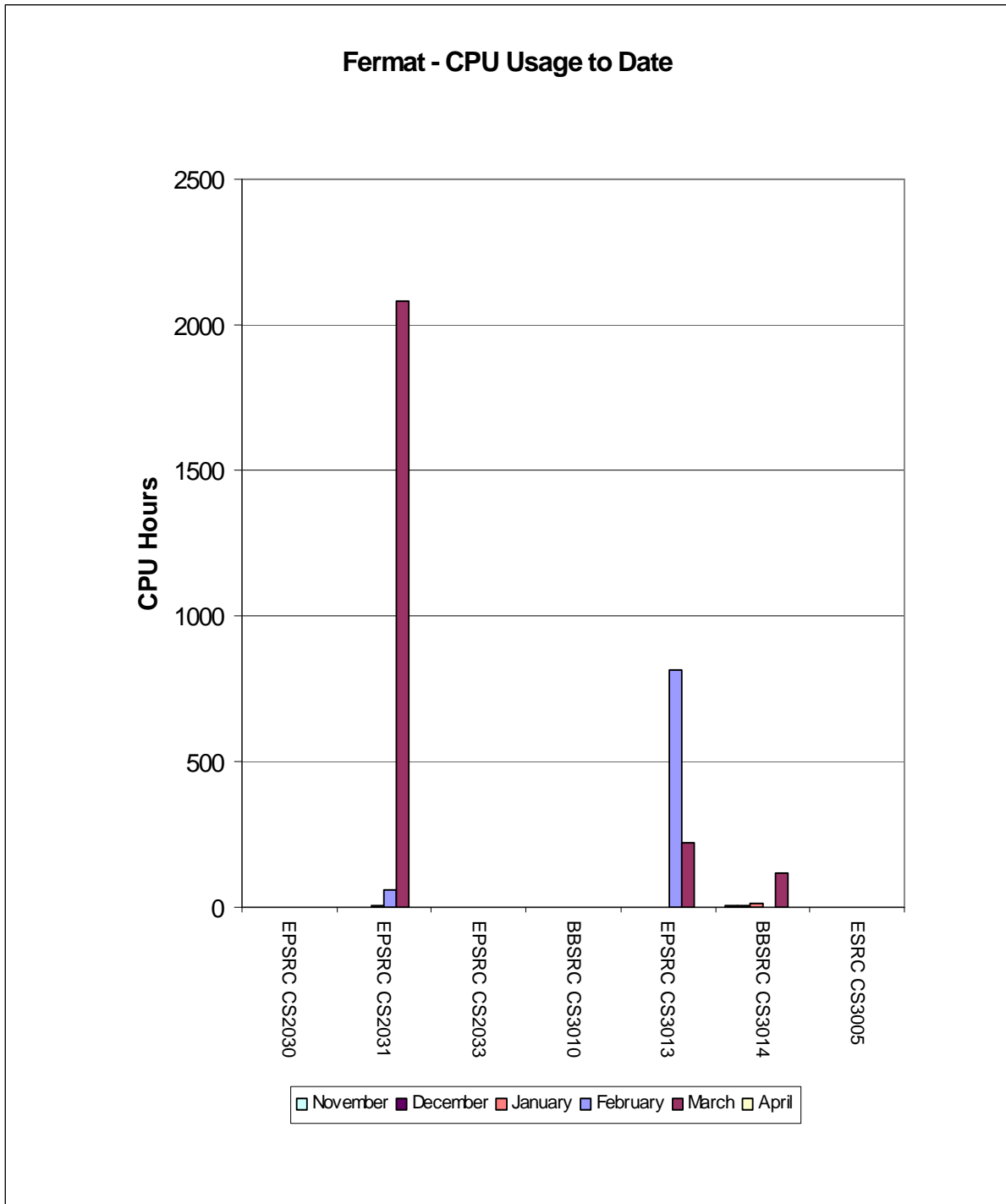
### 4.7 Class 2 & 3 Usage Charts

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.

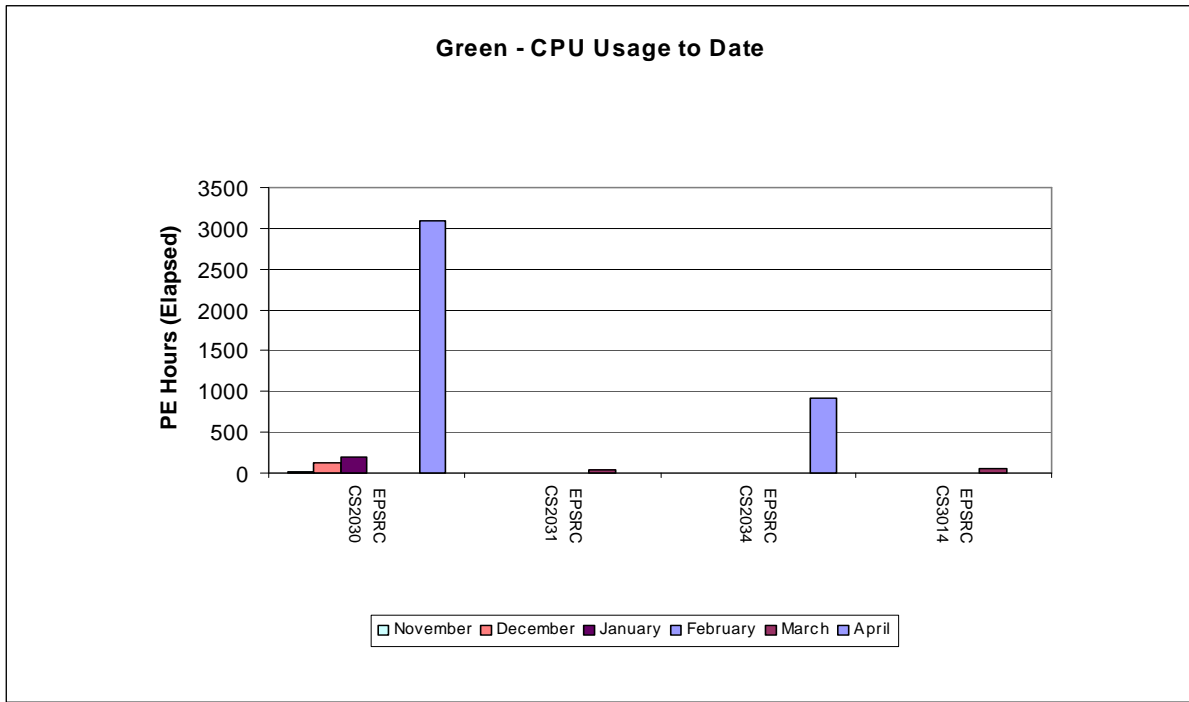


The above chart shows the most significant PE usage of the Turing system by class 2 and class 3 users.

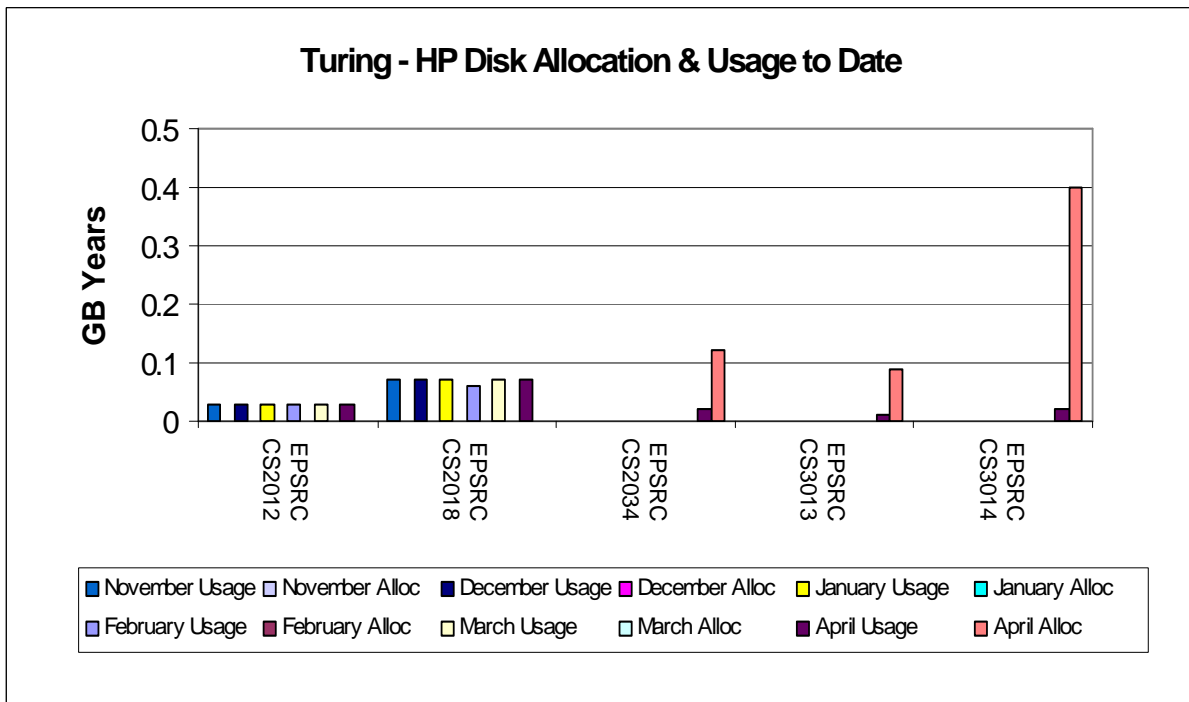




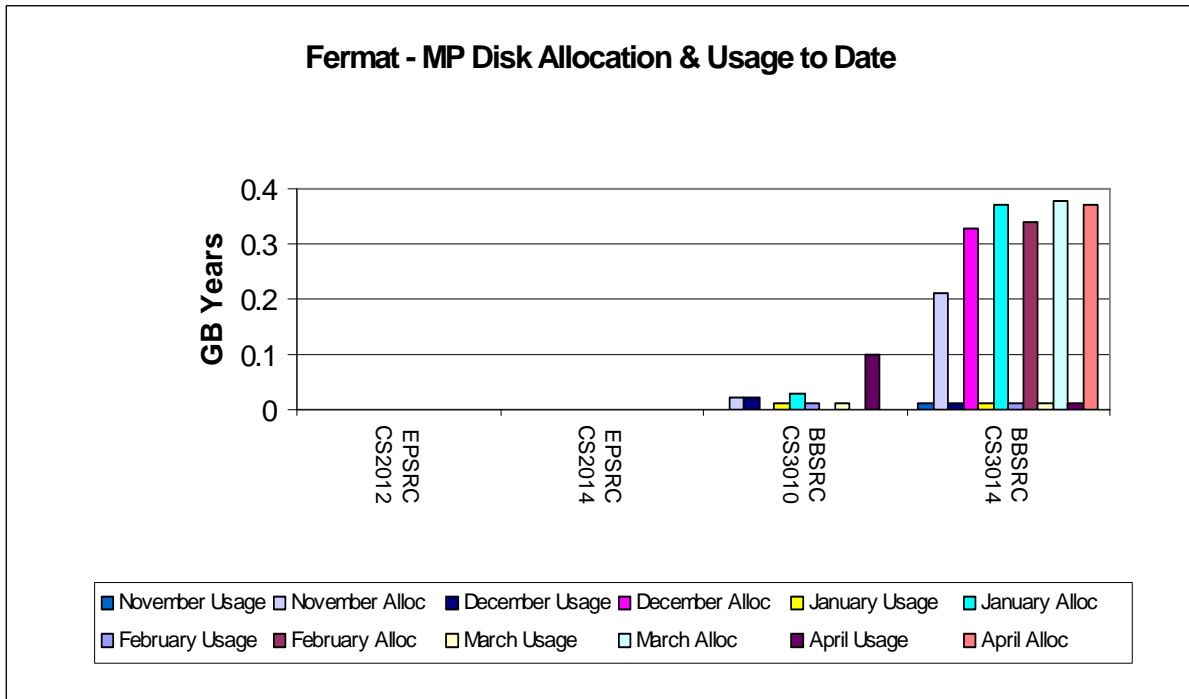
The above chart shows the CPU usage of the Fermat system by class 2 and class 3 users.



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.

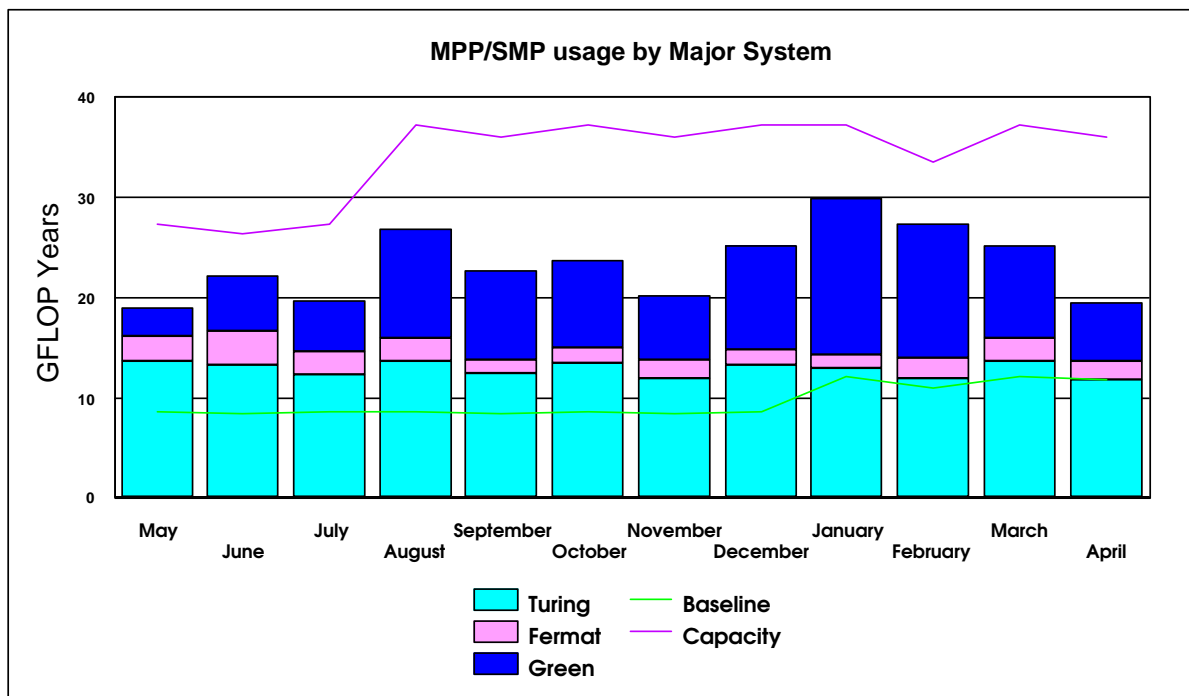


The above chart shows the most significant disk allocations on the Fermat system for class 2 and class 3 users. There is currently no HSM usage by class 2 and class 3 users.

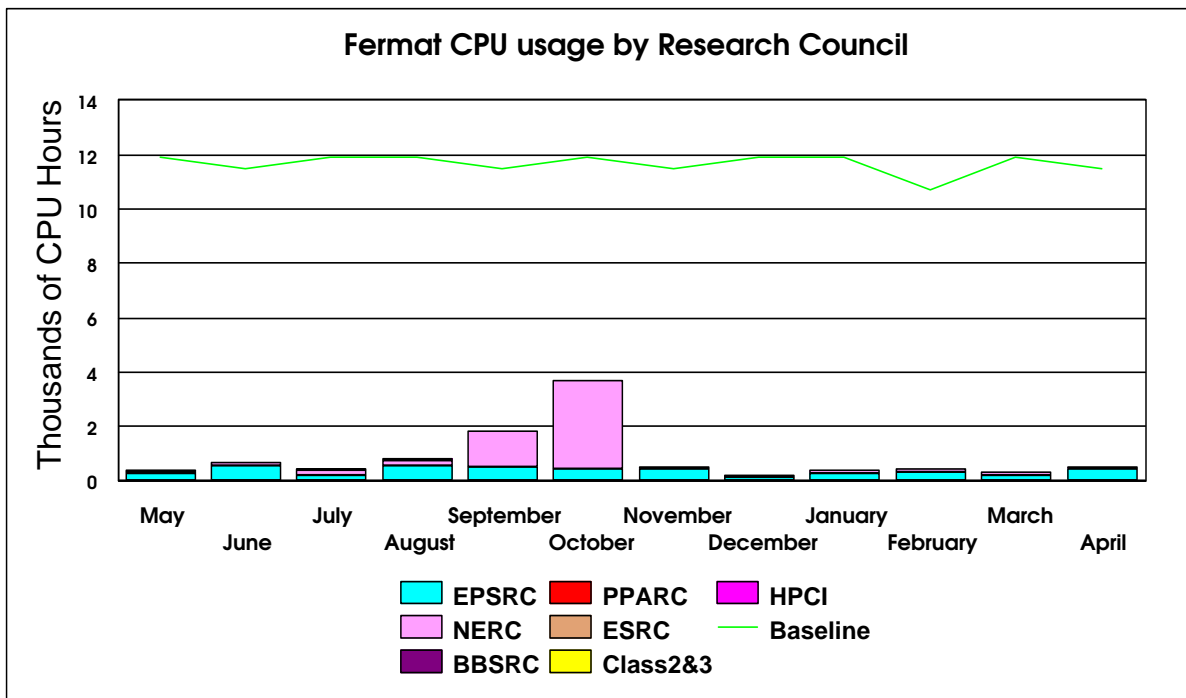
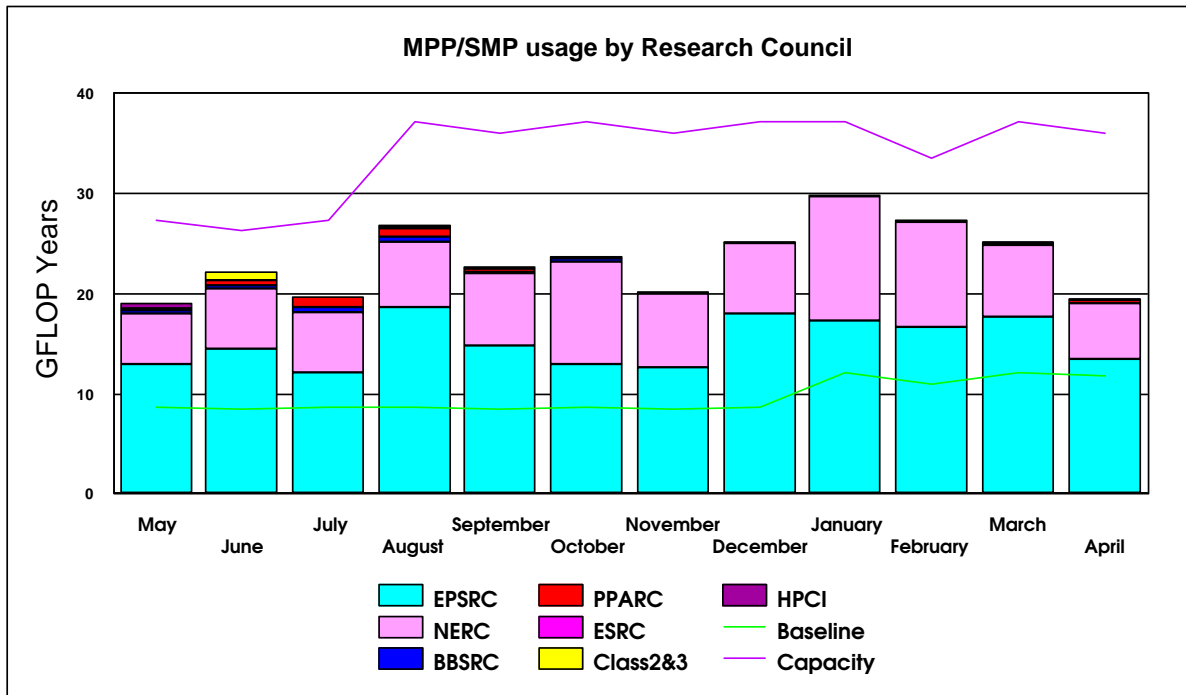
#### 4.8 Charts of Historical Usage

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; usage in July being reduced due to the outage for the major Green system upgrade.

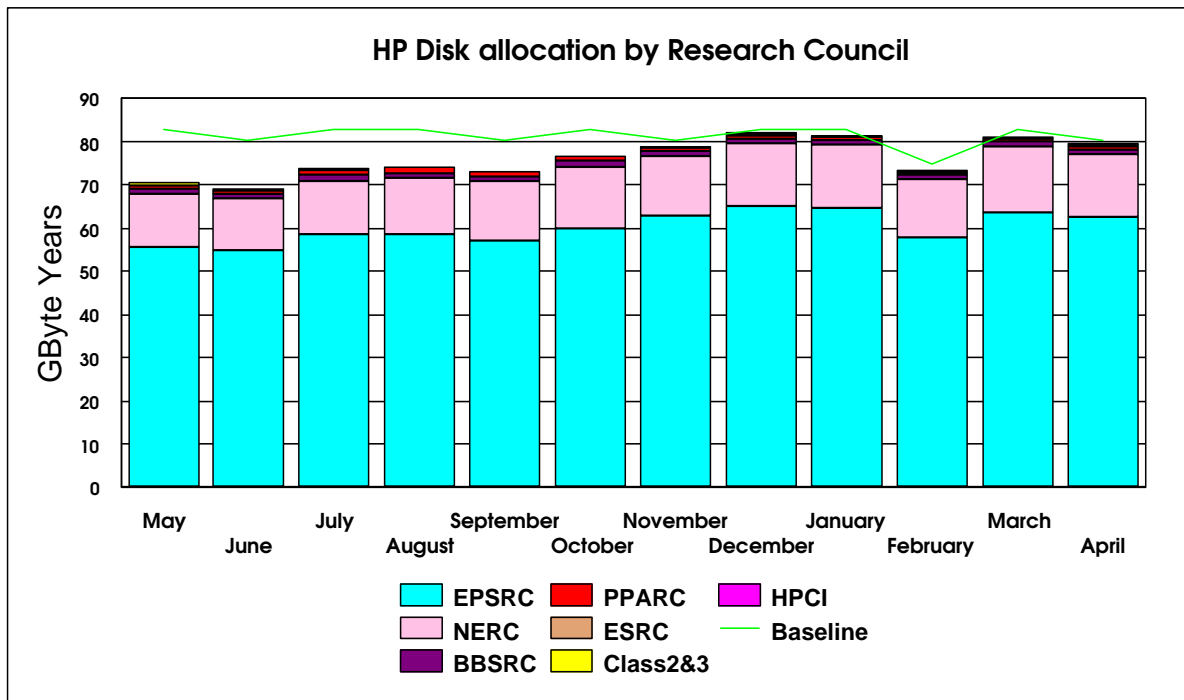


The graph below shows the historic SMP/MPP usage on the major systems, with the upgrade to Green showing from April 2001.

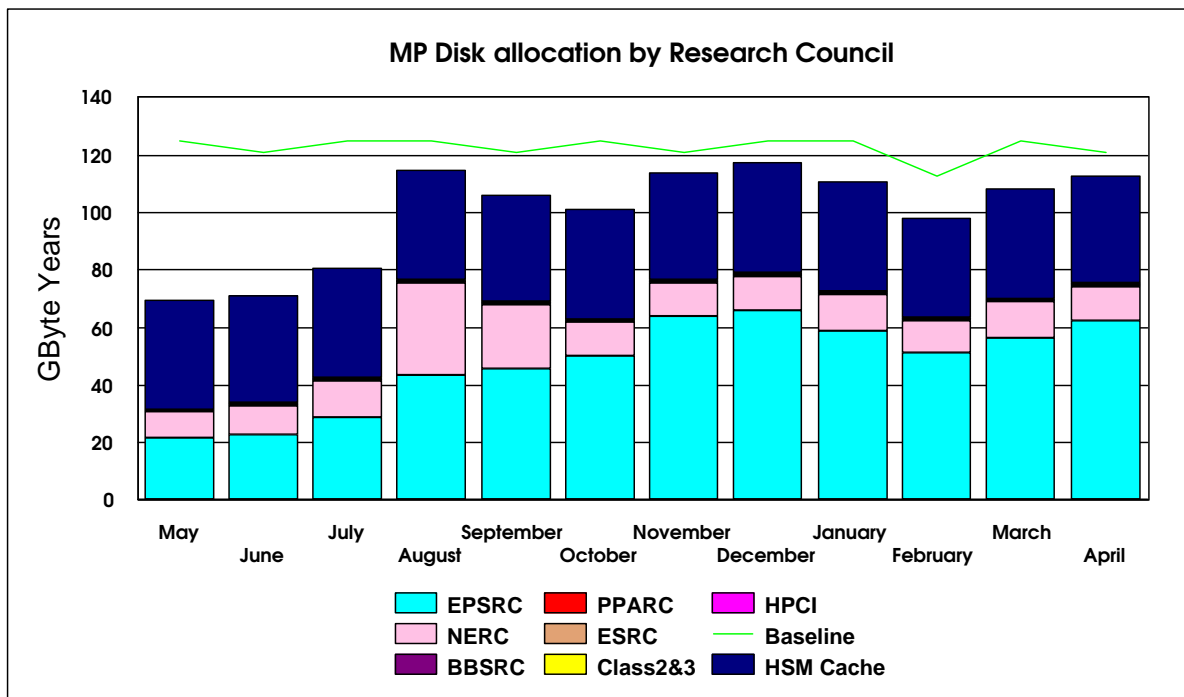


The above graph shows the historic interactive usage of the 'Baseline' Fermat system (equivalent to 16@250Mhz CPUs)

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

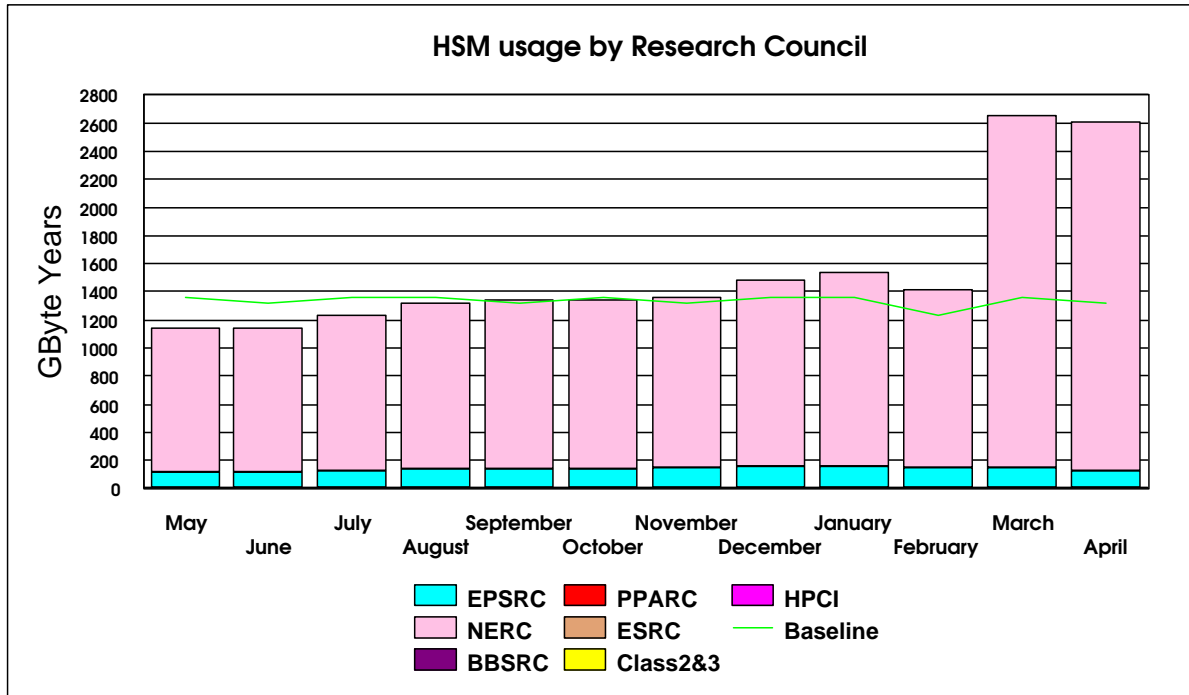


The preceding graph illustrates the historic allocation of the High Performance Disk on Turing, which has now reached the Baseline level.

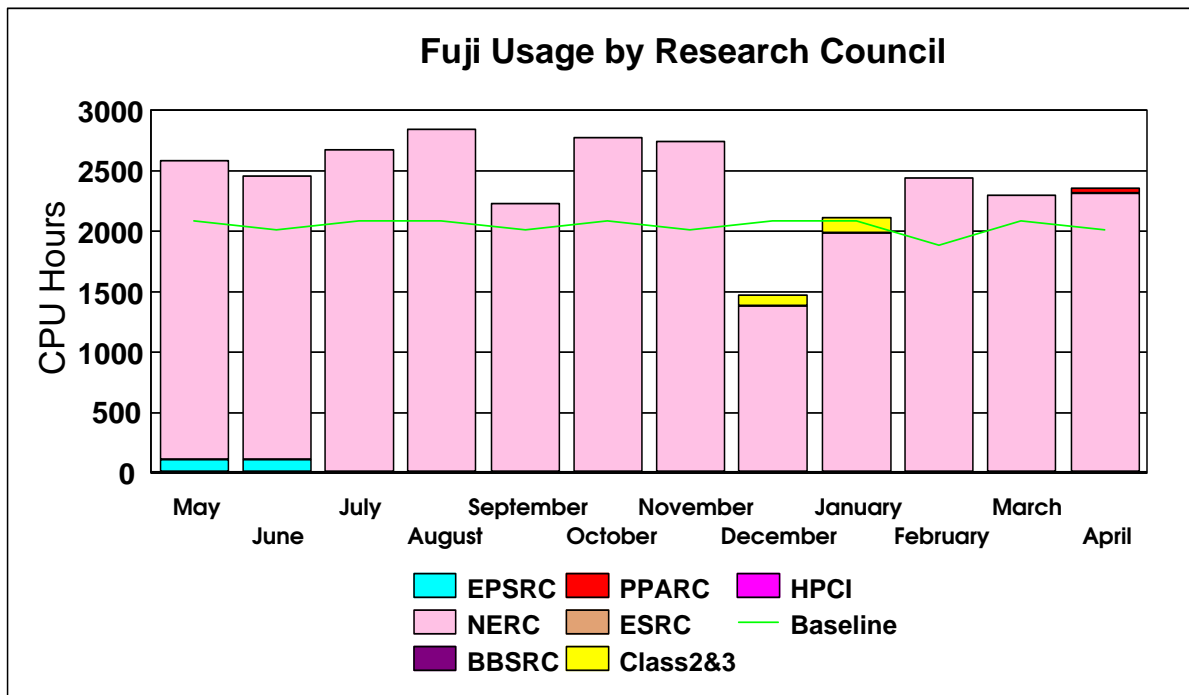


The graph above illustrates the historic allocation of the Medium Performance Disk on Fermat, which is now beginning to grow more rapidly with the growth in usage of both Fermat and Green.

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



The next chart shows the historic usage of the Fuji system.



The Fujitsu system usage was above baseline this month.

#### 4.8 Guest System Usage Charts

There is currently no Guest System usage.

## 5. Service Status, Issues and Plans

### 5.1 Status

The service was not fully utilised in April.

During the month, 70% of the jobs run on Turing were larger than 64 PEs in size.

Green ran a variable spread of jobs during April.

### 5.2 Issues

The migration of data from the Redwoods continues.

There is ongoing work to the UPS that failed in the Manchester computer room to fully restore the UPS service.

### 5.3 Plans

The installation of the SAN is now underway. Periodic announcements will be made regarding progress. Plans are also underway to migrate from NQE, on the SGI machines, to LSF. Users will be kept informed as to the implementation date and the implication of this move if any.

## 6. Conclusion

April 2002 saw the overall CPARS rating at Green with the baseline being exceeded by 65.5%.

The largest proportion of the workload, on the major systems (Turing & Green), continues to be of the larger job sizes. The largest shift in this area was in the range of 128 and above, although the larger jobs were run on Turing.

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 April 2002

**Appendix 2** contains the Percentage shares by Consortium for April 2002

**Appendix 3** contains the Percentage shares by Research Council for April 2002

**Appendix 4** contains the Training, Applications and Optimisation support figures to the end of April 2002

**Appendix 5** contains a breakdown of resource usage by Consortia to the end of April 2002.

**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 April 2002 can be found at the URL below

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



Appendix 2

Percentage PE time per consortia for Turing in April 2002		Percentage CPU time per consortia for Fermat in April 2002	
Consortia	% Machine Time	Consortia	% Machine Time
CSE002	21.05	CSE002	20.62
CSE003	0.08	CSE003	0.05
CSE021	0.00	CSE021	0.00
CSE023	0.00	CSE023	0.00
CSE025	0.00	CSE025	0.00
CSE030	0.43	CSE030	0.09
CSE055	0.00	CSE055	0.00
CSE057	0.00	CSE057	0.00
CSE084	2.15	CSE084	0.00
CSE086	1.70	CSE086	0.33
CSE004	0.00	CSE004	0.00
CSE013	16.91	CSE013	0.27
CSE014	0.00	CSE014	0.00
CSE016	0.00	CSE016	0.00
CSE027	0.00	CSE027	0.00
CSE040	0.00	CSE040	0.00
CSE041	0.00	CSE041	0.00
CSE043	4.11	CSE043	0.00
CSE052	5.03	CSE052	0.00
CSE053	0.57	CSE053	0.00
CSE056	0.00	CSE056	0.03
CSE063	0.00	CSE063	0.00
CSE064	0.00	CSE064	0.00
CSE085	0.90	CSE085	0.01
CSE008	0.00	CSE008	0.00
CSE009	14.07	CSE009	0.12
CSE024	0.00	CSE024	0.00
CSE033	0.00	CSE033	0.00
CSE035	0.62	CSE035	0.00
CSE020	0.00	CSE020	0.00
CSE066	2.51	CSE066	0.00
CSE076	0.00	CSE076	76.09
CSE034	0.00	CSE034	0.00
CSE036	0.00	CSE036	0.00
HPCI Southampton	0.00	HPCI Southampton	0.00
HPCI Daresbury	0.00	HPCI Daresbury	0.00
HPCI Edinburgh	0.00	HPCI Edinburgh	0.00
UKHEC	0.01	UKHEC	0.00
CSN001	0.28	CSN001	0.22
CSN003	22.21	CSN003	0.12
CSN005	0.00	CSN005	0.00
CSN006	2.90	CSN006	0.00
CSN007	0.00	CSN007	0.00
CSN010	0.00	CSN010	0.00
CSN011	0.03	CSN011	0.00
CSN012	0.00	CSN012	0.00
CSN015	1.91	CSN015	0.00
CSN017	0.00	CSN017	0.26
CSN036	0.00	CSN036	0.00
CSB001	0.00	CSB001	0.00
CSB002	0.22	CSB002	0.00
CSP004	2.21	CSP004	0.00
CS2018	0.00	CS2018	0.00
CS2031	0.00	CS2031	0.00
CS2033	0.00	CS2033	0.00
CS2034	0.11	CS2033	0.00
CS3001	0.00	CS3001	0.00
CS3002	0.00	CS3002	0.00
CS3005	0.00	CS3005	0.00
CS3007	0.00	CS3007	0.00
CS3008	0.00	CS3008	0.00
CS3010	0.00	CS3010	0.00
CS3012	0.00	CS3012	0.00
CS3013	0.00	CS3013	0.00
CS3014	0.00	CS3014	0.00

<u>Percentage CPU time per consortia for Green in April 2002</u>	
<u>Consortia</u>	<u>% Machine Time</u>
CSE002	10.48
CSE003	0.00
CSE030	0.97
CSE084	0.00
CSE086	0.73
CSE013	0.00
CSE053	0.00
CSE085	2.13
CSE009	7.27
CSE024	0.00
CSE066	0.00
CSE076	35.46
CSN001	7.18
CSN003	8.71
CSN006	18.56
CSN015	5.05
CS2030	2.65
CS2034	0.81
CS3014	0.00

Appendix 2

Percentage disc allocation by Consortia for Turing in April 2002		Percentage disc allocation by Consortia for Fermat in April 2002	
Consortia	%Allocation	Consortia	%Allocation
CSE002	23.57	CSE002	8.40
CSE003	6.05	CSE003	8.71
CSE021	0.00	CSE021	0.00
CSE023	0.00	CSE023	0.00
CSE025	0.00	CSE025	0.00
CSE030	19.91	CSE030	38.70
CSE055	0.10	CSE055	0.00
CSE057	0.04	CSE057	0.00
CSE084	1.24	CSE084	1.09
CSE086	2.39	CSE086	8.77
CSE004	0.00	CSE004	0.00
CSE013	1.29	CSE013	0.24
CSE014	0.00	CSE014	0.00
CSE016	0.06	CSE016	0.00
CSE027	0.00	CSE027	0.00
CSE040	0.00	CSE040	0.00
CSE041	0.05	CSE041	0.11
CSE043	0.05	CSE043	0.11
CSE052	0.31	CSE052	0.00
CSE053	0.10	CSE053	0.11
CSE056	0.00	CSE056	0.05
CSE063	1.03	CSE063	0.00
CSE064	0.03	CSE064	0.00
CSE085	15.48	CSE085	11.99
CSE008	0.00	CSE008	0.00
CSE009	5.16	CSE009	2.18
CSE024	0.00	CSE024	0.03
CSE033	0.00	CSE033	0.00
CSE035	0.73	CSE035	0.00
CSE019	0.00	CSE019	0.00
CSE020	0.00	CSE020	0.00
CSE066	0.51	CSE066	1.19
CSE075	0.08	CSE075	0.00
CSE076	0.10	CSE076	0.60
CSE034	0.00	CSE034	0.00
CSE036	0.03	CSE036	0.01
HPCI Southampton	0.00	HPCI Southampton	0.00
HPCI Daresbury	0.10	HPCI Daresbury	0.05
HPCI Edinburgh	0.10	HPCI Edinburgh	0.11
UKHEC	0.10	UKHEC	0.11
CSN001	10.32	CSN001	10.90
CSN003	2.77	CSN003	1.63
CSN005	0.00	CSN005	0.00
CSN006	5.16	CSN006	2.18
CSN007	0.00	CSN007	0.00
CSN010	0.00	CSN010	0.00
CSN011	0.05	CSN011	0.00
CSN012	0.00	CSN012	0.00
CSN015	0.21	CSN015	1.09
CSN017	0.01	CSN017	0.11
CSN036	0.05	CSN036	0.00
CSB001	0.05	CSB001	0.00
CSB002	1.34	CSB002	0.11
CSP004	0.73	CSP004	0.54
CS2018	0.00	CS2018	0.00
CS2031	0.00	CS2031	0.05
CS2034	0.15	CS2034	0.00
CS3001	0.00	CS3001	0.00
CS3002	0.00	CS3002	0.00
CS3005	0.00	CS3005	0.00
CS3010	0.00	CS3010	0.00
CS3012	0.00	CS3012	0.00
CS3013	0.00	CS3013	0.12
CS3014	0.50	CS3014	0.49

Percentage usage of HSM by Consortium for April 2002	
Consortium	% Usage
CSE002	0.39
CSE003	0.07
CSE030	1.54
CSE013	0.03
CSE027	0.00
CSE041	0.29
CSE085	2.65
CSE024	0.00
CSE033	0.00
CSE035	0.03
CSN001	36.76
CSN003	54.07
CSN006	0.01
CSN011	0.00
CSN015	4.12

## Appendix 3

<u>Percentage PE usage on Turing by Research Council for April 2002</u>			<u>Percentage CPU usage on Fermat by Research Council for April 2002</u>		
<u>Research Council</u>	<u>% Usage</u>		<u>Research Council</u>	<u>% Usage</u>	
EPSRC	81.83		EPSRC	97.61	
HPCI	0.00		HPCI	0.00	
NERC	32.86		NERC	2.39	
BBSRC	0.84		BBSRC	0.00	
ESRC	0.00		ESRC	0.00	
PPARC	1.24		PPARC	0.00	

<u>Percentage CPU usage on Green by Research Council for April 2002</u>		
<u>Research Council</u>	<u>% Usage</u>	
EPSRC	60.50	
HPCI	0.00	
NERC	39.50	
BBSRC	0.00	
ESRC	0.00	
PPARC	0.00	

<u>Percentage Disc allocated on Turing by Research Council for April 2002</u>			<u>Percentage Disc allocated on Fermat by Research Council for April 2002</u>		
<u>Research Council</u>	<u>% Allocated</u>		<u>Research Council</u>	<u>% Allocated</u>	
EPSRC	78.50		EPSRC	82.53	
HPCI	0.31		HPCI	0.28	
NERC	18.58		NERC	15.92	
BBSRC	1.90		BBSRC	0.60	
ESRC	0.00		ESRC	0.00	
PPARC	0.73		PPARC	0.54	

<u>Percentage HSM usage by Research Council for April 2002</u>		
<u>Research Council</u>	<u>% usage</u>	
EPSRC	5.00	
HPCI	0	
NERC	94.96	
BBSRC	0	
ESRC	0	
PPARC	0	

## Appendix 4

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

Code	PI	Subject	Liaison Officer	Support Bought	Application Support for April 2002	Total Application Support from July 2000	Optimisation Support for April 2002	Total Optimisation Support from July 2000	Total Support Used	Training Bought	Training Used
Cse002	Dr Phil Lindan	Support for the UKCP	Stephen Pickles	446.7	1.5	12.25			144.25	74	3
Cse003	Prof. Ken Taylor	HPC Consortiums 98- 2000	Martyn Foster	25.27		6		15.5	24.5	10	6
Cse004	Dr Neil Sandham	UK Turbulence	Keith Taylor							2	2
Cse006	Dr Patrick Briddon	Covalently Bonded Materials	Kevin Roy	4				4	4		
Cse007	Dr Matthew Foulkes	Quantum Many Body Theory	Martyn Foster	4					1	2	2
Cse008	Dr Mark Vincent (Hillier)	Model Chemical Reactivity	Robin Pinning								
Cse009	Dr Ben Slater (Catlow)	HPC in Materials Chemistry	Stephen Pickles	275.5		6		3	9	26.5	
Cse010	Dr John Williams	Free Surface Flows	Dan Kidger	15.95					15.95	0	
Cse011	Dr John Williams	Open Channel Flood Plains	Dan Kidger	2.18					2.18	1	
Cse013	Prof Michael Leschziner	Complex Engineering Flows	Keith Taylor	9						57.5	3
Cse014	Dr Cassiano de Oliverira (Goddard)	Probs in Nuclear Safety	Dan Kidger	3							
Cse016	Dr Stewart Cant	Turbulent Combustion	Keith Taylor								
Cse017	Dr Kai Luo	Large Eddy Simulation and Modelling of Buoyant Plumes and Smoke Spread in Enclosures	-	2.44						5	
Cse018	Dr Stewart Cant	Turbulent Flames	Keith Taylor								
Cse019	Dr Jason Lander (Berzins)	ROPA	Kevin Roy								
Cse020	Dr Marek Szularz	Symmetric Eigenproblem	Kevin Roy								
Cse021	Dr Julie Staunton	Magentisim	John Brooke	0.2						1.04	1
Cse022	Mr Niall Branley (Jones)	Turbulent Flames	Keith Taylor								
Cse023	Allen	Liquid Crystalline Materials	Robin Pinning								
Cse024	Dr Robert Allan (Tennyson)	ChemReact 98-2000	Ben Jesson	24						300	-
Cse025	Dr Niels Rene Walet(Bishop)	Nuclear Theory Progamme	Martyn Foster							2	1.5
Cse026	Dr Maureen Neal	Molecular Dynamics									
Cse027	Dr M Imregun	Excitation Mechanisims									
Cse028	Prof. P.W. Bearman	Bridge Design									
Cse029	Dr David	Validation of Turbulence Models	Keith Taylor								

	(Leschziner)										
Cse030	Prof M Cates (VIPAR)	HPC for Complex Fluids	Robin Pinning	103		21		5	51	31	7
Cse033	Dr M Imregun	Turbomachinery core compressor		-							
Cse034	Dr Paul Durham	R&D of liner/non-linear systems	Kevin Roy								
Cse035	Dr Stephen Jenkins	Ab Initio Simulations									
Cse036	Prof Iain Duff	R&D of linear/non-linear systems									
Cse040	Dr Ken Badcock	-	Keith Taylor								
Cse041	Dr M Imregun	Flutter and Noise Generation	Keith Taylor	60						5	
Cse043	Dr J J R Williams	Numerical Simulation of flow over a rough bed	Kevin Roy	2				2	2	4	4
Cse051	Prof B. L. Gyorffy	Ab initio calculations of magnetic anisotropies in Fe	-	-						-	-
Cse052	Miss Francesca Di Mare (Heyes)	Heat Transfer in Gas Turbine Combustors	-	10						25	-
Cse053	Prof M. A. Leschziner	Coupling Rans Near-Wall Turbulence Models with Large Eddy Simulation Strategies	-	15						8	-
Cse055	Dr Julia Staunton	Ab-initio theory of magnetic anisotropy in transition metal ferromagnets	-	5						10	-
Cse056	Dr Mehmet Imregun	Aerothermoelasticity modelling of air riding seals for large gas turbines	-	5						10	-
Cse064	Dr Anne Dejoan									8	2
Cse066	Dr Keir Novik	Novel clay-polymer nanocomposites using diversity-discovery methods: synthesis, processing and testing	-	21						6	3
Cse076	Dr Patrick Briddon	Covalently bonded materials	Adrian Tate	20			4.5	11	11		
Cse085	Prof Neil Sandham									6	3
Csn001	Mrs Beverly de Cuevas (Webb)	HPCI Global Ocean Consortium	Dan Kidger	23		1	13	17	20	20	1
Csn002	Dr Mark Vincent (Hillier)	Pollutant Sorption on Mineral Surf	Robin Pinning								
Csn003	Dr Lois Steenman-Clark (O'Neill)	UGAMP	Dan Kidger							4	4
Csn005	Dr Huw Davies	Constraining Earth Mantle	Fumie Costen	27					27	6	6
Csn006	Dr John Brodholt (Price)	Density Functional Methods	Stephen Pickles								
Csn007	Dr John Brodholt (Price)	Density Functional Methods	Stephen Pickles								
Csn008	Hulton	Sub-Glacial Process	Michael Bane								
Csn009	Dr Roger Proctor		Michael Bane								
Csn010	Dr Jason	Flow over Complex terrain	Kevin Roy	2						5	-

	(Mobbs)											
Csn011	Dr Ed Dicks (Thorpe)	Exchange of Polluted Air										
Csn012	Prof Tennyson	fuji user	Ben Jesson									
Csn013	Dr L Steenman-Clark (Voke)	Large-Eddy Simulation Extended by Extreme Value Theory for the Prediction of Dispersion, Concentration Threshold Boundaries and Field Connectivity	-									
Csn014	Prof Llewellyn-Jones	A new Data Assimilation Scheme to optimise the information on the surface-atmosphere interface from satellite observations of Top-of-the Atmosphere Brightness Temperature	-	-						-		
Csn015	Dr Roger Proctor	Atlantic Margin Metocean Project	-	20		2			2	10	3	
Csn017	Dr Antony Payne	Stability of the Antarctic Ice Sheet	-	16						18	2	
Csn036	Prof Keith Haines	Assimilation of Altimeter, Radiometer and in situ data into the OCCAM Model. Analysis of water properties and transports.	-	2						5	-	
Csb001	Dr David Houldershaw (Goodfellow)	Macromolecular Interactions	Robin/Fumie	6		1.5			3.5	4	2	
Csb002	Dr Adrian Mulholland (Danson)	Stability of Enzymes at high temp	Robin Pinning									
Csb003	Dr John Carling (Williams)	Anguilliform Swimming								3	-	
Csp002	Dr Sandra Chapman	Nonlinear process in solar system and astrophysical plasmas	-	2						8	4	
Csp003	Prof Andrew Lyne	Computing Resources for Precision timing of Millisecond Pulsars	Stephen Pickles	11.79		10			11	12	12	
Csp004	Prof K L Bell	A Programme for Atomic Physics for Astrophysics at Queen's University, Belfast (2001 - 2005)		7						8		
Css001	Dr I J Turton	Human Systems Modelling	John Brooke							20		
Css002	Dr Robert Crouchley	Dropout in panel surveys	John Brooke							2.5	2	
Hpcid	Dr Robert Allan		Keith Taylor							1	1	
Hpcie	Dr David Henty		Stephen Pickles									
Hpcis	Dr Denis Nicole		Dan Kidger									
ukhec	Ms K Jaffri		-							2	2	
Cs2001	Dr Sudhir Jain	3D Ising Spin Glass	Stephen Pickles							10	-	
Cs2002	Dr Ingrid	Millisecond Pulsars	John	0.25					0.25	0	-	



	Stairs (Lyne)		Brooke								
Cs2004	Dr A. Paul Watkins	Internal Combustion Engine	Keith Taylor								
Cs2006	Prof. Walter Temmerman	Superconductivity & Magnetism	Mike Pettipher								
Cs2007	Choularton	Precipitation in the Mountains								1	1
Cs2008	Dr Matthew Genge	Extraterrestrial Mineral Surfaces	Robin Pinning	7.91					7.91		
Cs2009	Dr Roger Proctor	Atlantic Margin Metocean Project	Michael Bane								
Cs2010	Dr Christopher Dempsey	Helical membrane-lytic peptides									
Cs2011	Dr D Drikakis	Transition & Turbulence in Physiological Flows								-	
Cs2012	Prof Ning Qin	Monotone Integrated Large Eddy Simulation								1.5	1.5
Cs2014	Dr Vladimir Karlin	Dynamics of intrinsically unstable premixed flames								2	2
Cs2015	Mr Pablo Tejera-Cuesta	Nonlinear Methods in Aerodynamics	Keith Taylor							3	1.5
Cs2016	Dr Jim Miles	Investigation of Scaline Properties of Hierarchical Micromagnetic Models	-	2						-	-
Cs2017	Mr Markus Eisenbach	Ab initio calculations of magnetic anisotropies in Fe inclusions in Cu	-	-						-	-
Cs2018	Mr Maxim Chichkine	Study of defect clusters in silicon for sub-micron technologies	-	-						-	-
Cs2019	Dr Guy H Grant	Theoretical studies of flavoproteins	-	-						-	-
Cs2020	Prof John Barker	Predicting the applicability of Aquifer Storage Recovery (ASR) in the UK	-	1						-	-
Cs2021	Dr A R Mount	A Computational Study of the Luminescence of Substituted Indoles	-	-						6	1
Cs2022	Dr Philippa Browning	Numerical simulation of forced magnetic reconnection	-	-						3	2
Cs2023	Prof W Ewen Smith	The use of DFT methods for the accurate prediction of the Ramen spectrum of large molecules	-	-						-	-
Cs2024	Prof J G Doyle	Modelling of late-type stellar chromospheres	-	-						-	-
Cs2026	Dr R J Greenall	Molecular dynamics simulations of AT-tract DNA	-	-						1	-
Cs2027	Dr Anthony Kay	Mathematical Model of the Circulation of Lake Baikal	-	6						4	-
Cs2028	Dr James F Annett	Numerical Tests of Disorder Effects in D-Wave Superconductors	-	2						2	-
Cs2029	Prof B L Gyorffy	Ab-initio calculations of unconventional electronic, magnetic and lattice properties of magnetites	-	-						-	-
Cs2030			-	-						1	1

	Morgan	Magnetic Multilayers										
Cs3001	Mr John Andrew Staveley	Helical Coherent Structures		6.8					0	10.45	3	
Cs3002	Dr Keir Novik	Simulations of DNA oligomers								2	2	
Cs3003	Dr Eric Chambers	Band III peptide fragments										
Cs3004	Prof Nick Avis	Computational Steering and Interactive Virtual Environments	Jo Leng	19						12	1	
Cs3005	Mr Behrouz Zarei	Simulation of Queuing Networks	John Brooke	10						5	3	
Cs3006	Mr F Li	Quantifying Room Acoustic Quality	-	4						5	1	
Cs3007	Emma Finch	Development of a 3D Crustal Lattice Solid Model	-	37		7		5	12	5	-	
Cs3008	Dr B J Alsborg	Development of a 3D QSAR method based on quantum topological descriptors	-	3					-	13	-	
Cs3009	Dr D Flower	Epitope Prediction Methods based on molecular dynamics simulation	-	2					-	3	-	
Cs3010	Dr K Kemsley	Investigation of electromyographic recordings of muscle activity during chewing, and of relationships with perceived flavour and texture, in model and real food systems	-	4					-	8	1	
Cs3012	Prof Jim Austin	Evaluation of binary neural networks on a vector parallel processor	-	5				3	3	3	2	
Cs3013	Prof Rasmita Raval	Structure and function of Chiral Bioarrays: A fundamental approach to proteomic devices	-	2					-	-	-	
Cs3014	Dr John Brooke	Enabling UK Academic Grid Application Development and Testing	-	2					-	-	-	
Cs3015	Dr Damian Hampshire	Flux-Pinning in High-Field Superconductors	-	2					-	5	-	
Cs3016	Dr Owne Petchey	Functional Diversity for ecosystem processes	-	2					-	-	-	

The following table shows resource utilisation by Consortia to the end of April 2002.

cs2030 Morgan

Last Trade: Fri Apr 26 14:04:05 2002

Usage:

0.1 of 6.7 Hour SMP CPU (0.0 of 0.3 G.S.T), 1.6%  
 0.0 of 0.5 GByteYear MP Disk (0.0 of 2.1 G.S.T), 0.0%  
 3342.9 of 2096.5 Hour Green CPU (174.7 of 109.5 G.S.T), 159.4%  
 0.0 of 0.0 PersonDay Support (0.0 of 0.0 G.S.T)  
 1.0 of 1.0 Day Training (10.8 of 10.8 G.S.T), 100.0%  
 Total usage for project cs2030 185.4 of 122.7 Generic Service Tokens, 151.1%

---

cs2032 Vekstein

Last Trade: Fri Jan 25 15:42:16 2002

Usage:

0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 100.0%  
 0.0 of 0.0 GByteYear MP Disk (0.0 of 0.0 G.S.T)  
 224.1 of 187.4 Hour VPP\_CPU (246.0 of 205.8 G.S.T), 119.6%  
 0.0 of 0.0 GByteYear Fuji Disk (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 PersonDay Support (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 Day Training (0.0 of 0.0 G.S.T)  
 Total usage for project cs2032 246.0 of 205.8 Generic Service Tokens, 119.6%

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cs2033 Kapoor

Last Trade: Mon Dec 3 16:10:52 2001

Usage:

0.1 of 237.3 Hour SMP CPU (0.0 of 9.2 G.S.T), 0.0%  
 0.0 of 0.1 GByteYear MP Disk (0.0 of 0.4 G.S.T), 0.0%  
 0.0 of 6.0 PersonDay Support (0.0 of 166.7 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 cs2033 0.0 of 230.1 Generic Service Tokens, 0.0%

---

cs2034 De Souza

Last Trade: Thu Apr 18 09:01:15 2002

Usage:

516.7 of 1264.9 PEHour MPP PE CPU (12.5 of 30.6 G.S.T), 40.9%  
 0.1 of 0.1 GByteYear HP Disk (1.0 of 0.9 G.S.T), 116.2%  
 0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 5.1%  
 0.0 of 4.8 GByteYear MP Disk (0.0 of 20.6 G.S.T), 0.0%  
 916.9 of 916.9 Hour Green CPU (47.9 of 47.9 G.S.T), 100.0%  
 Total usage for project cs2034 61.4 of 100.0 Generic Service Tokens, 61.4%

---

cs3014 Brooke

Last Trade: Fri Jun 1 11:04:43 2001

Usage:

4.5 of 1000.0 PEHour MPP PE CPU (0.1 of 24.2 G.S.T), 0.5%  
 2.0 of 20.0 GByteYear HP Disk (15.5 of 154.8 G.S.T), 10.0%  
 138.9 of 1000.0 Hour SMP CPU (5.4 of 38.9 G.S.T), 13.9%  
 2.3 of 15.0 GByteYear MP Disk (9.9 of 64.3 G.S.T), 15.3%  
 0.0 of 40.0 GByteYear HSM/Tape (0.0 of 24.9 G.S.T), 0.0%  
 66.8 of 1000.0 Hour Green CPU (3.5 of 52.3 G.S.T), 6.7%  
 0.0 of 210.1 Hour VPP\_CPU (0.0 of 230.6 G.S.T), 0.0%

0.0 of 10.0 GByteYear Fuji Disk (0.0 of 42.9 G.S.T), 0.0%  
 Total usage for project cs3014 34.3 of 632.9 Generic Service Tokens, 5.4%

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csb001 27/B13508 Goodfellow

Last Trade: re-enabled

Usage:

148619.6 of 250989.4 PEHour MPP PE CPU (3593.4 of 6068.6 G.S.T), 59.2%  
 7.7 of 48.1 GByteYear HP Disk (59.6 of 372.5 G.S.T), 16.0%  
 0.4 of 1.2 Hour SMP CPU (0.0 of 0.0 G.S.T), 28.1%  
 6.1 of 13.7 GByteYear MP Disk (26.3 of 58.9 G.S.T), 44.7%  
 0.0 of 115.0 GByteYear HSM/Tape (0.0 of 71.7 G.S.T), 0.0%  
 2454.8 of 12444.9 Hour Green CPU (128.3 of 650.3 G.S.T), 19.7%  
 3.5 of 6.0 PersonDay Support (97.2 of 166.7 G.S.T), 58.3%  
 2.0 of 4.0 Day Training (21.5 of 43.2 G.S.T), 49.8%

Total usage for project csb001 3926.4 of 7431.8 Generic Service Tokens, 52.8%

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csb002 86/B10059 Danson

Last Trade: Wed Mar 13 14:05:19 2002

Usage:

84290.3 of 89670.6 PEHour MPP PE CPU (2038.0 of 2168.1 G.S.T), 94.0%  
 36.0 of 40.9 GByteYear HP Disk (279.1 of 316.5 G.S.T), 88.2%  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 2.7 of 2.9 GByteYear MP Disk (11.6 of 12.3 G.S.T), 94.8%

Total usage for project csb002 2328.7 of 2496.8 Generic Service Tokens, 93.3%

---

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 (0.5 of 0.7 G.S.T), 66.2%

Total usage for project cse001 0.5 of 1.0 Generic Service Tokens, 46.3%

---

cse002 GR/N02337 Bird

Last Trade: Mon Apr 29 11:04:44 2002

Usage:

2554955.1 of 3296440.1 PEHour MPP PE CPU (61775.5 of 79703.7 G.S.T), 77.5%  
 574.8 of 1322.0 GByteYear HP Disk (4450.6 of 10235.4 G.S.T), 43.5%  
 63149.9 of 94755.8 Hour SMP CPU (2453.5 of 3681.4 G.S.T), 66.6%  
 217.4 of 1222.0 GByteYear MP Disk (932.7 of 5242.0 G.S.T), 17.8%  
 275.9 of 414.5 GByteYear HSM/Tape (172.0 of 258.4 G.S.T), 66.6%  
 108862.3 of 200164.6 Hour Green CPU (5688.3 of 10459.0 G.S.T), 54.4%  
 142.8 of 152.8 PersonDay Support (3965.3 of 4243.1 G.S.T), 93.5%  
 3.0 of 9.0 Day Training (32.3 of 96.8 G.S.T), 33.3%

Total usage for project cse002 79470.2 of 113919.7 Generic Service Tokens, 69.8%

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cse002 Daresbury

Last Trade: never

Usage:

328726.2 of 586480.0 PEHour MPP PE CPU (7948.2 of 14180.3 G.S.T), 56.1%  
 109.2 of 200.0 GByteYear HP Disk (845.6 of 1548.5 G.S.T), 54.6%  
 8374.0 of 8550.0 Hour SMP CPU (325.3 of 332.2 G.S.T), 97.9%  
 27.9 of 48.9 GByteYear MP Disk (119.8 of 209.8 G.S.T), 57.1%  
 66.5 of 106.0 GByteYear HSM/Tape (41.5 of 66.1 G.S.T), 62.7%  
 1831.6 of 2000.0 Hour Green CPU (95.7 of 104.5 G.S.T), 91.6%

Total usage for subproject cse002a 9376.1 of 16441.3 Generic Service Tokens, 57.0%

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cse002 Belfast

Last Trade: never

Usage:

294389.5 of 343170.0 PEHour MPP PE CPU (7118.0 of 8297.4 G.S.T), 85.8%

61.7 of 60.0 GByteYear HP Disk (477.4 of 464.5 G.S.T), 102.8%

9917.2 of 20446.0 Hour SMP CPU (385.3 of 794.4 G.S.T), 48.5%

4.4 of 44.9 GByteYear MP Disk (18.8 of 192.6 G.S.T), 9.7%

0.0 of 3.0 GByteYear HSM/Tape (0.0 of 1.8 G.S.T), 0.0%

Total usage for subproject cse002b 7999.4 of 9750.8 Generic Service Tokens, 82.0%

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cse002 Cambridge - Matsci

Last Trade: never

Usage:

254660.2 of 331396.0 PEHour MPP PE CPU (6157.4 of 8012.7 G.S.T), 76.8%

41.1 of 54.4 GByteYear HP Disk (318.5 of 421.2 G.S.T), 75.6%

0.0 of 2500.0 Hour SMP CPU (0.0 of 97.1 G.S.T), 0.0%

19.9 of 50.4 GByteYear MP Disk (85.5 of 216.2 G.S.T), 39.5%

8.6 of 52.0 GByteYear HSM/Tape (5.3 of 32.4 G.S.T), 16.5%

Total usage for subproject cse002c 6566.7 of 8779.6 Generic Service Tokens, 74.8%

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cse002 Cambridge - Physics

Last Trade: never

Usage:

63637.2 of 101150.0 PEHour MPP PE CPU (1538.7 of 2445.7 G.S.T), 62.9%

6.8 of 26.7 GByteYear HP Disk (52.7 of 206.7 G.S.T), 25.5%

4738.2 of 5900.0 Hour SMP CPU (184.1 of 229.2 G.S.T), 80.3%

12.4 of 27.7 GByteYear MP Disk (53.1 of 118.8 G.S.T), 44.7%

0.0 of 27.0 GByteYear HSM/Tape (0.0 of 16.8 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 1828.6 of 3017.3 Generic Service Tokens, 60.6%

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cse002 Bath

Last Trade: never

Usage:

455233.5 of 462619.0 PEHour MPP PE CPU (11007.0 of 11185.5 G.S.T), 98.4%

111.9 of 145.0 GByteYear HP Disk (866.2 of 1122.6 G.S.T), 77.2%

0.0 of 2500.0 Hour SMP CPU (0.0 of 97.1 G.S.T), 0.0%

27.4 of 50.5 GByteYear MP Disk (117.4 of 216.6 G.S.T), 54.2%

66.0 of 75.0 GByteYear HSM/Tape (41.1 of 46.8 G.S.T), 87.9%

Total usage for subproject cse002e 12031.7 of 12668.7 Generic Service Tokens, 95.0%

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cse002 UCL

Last Trade: never

Usage:

84029.4 of 229733.0 PEHour MPP PE CPU (2031.7 of 5554.6 G.S.T), 36.6%

20.5 of 59.1 GByteYear HP Disk (158.5 of 457.6 G.S.T), 34.6%

173.3 of 3450.0 Hour SMP CPU (6.7 of 134.0 G.S.T), 5.0%

19.2 of 54.6 GByteYear MP Disk (82.2 of 234.2 G.S.T), 35.1%

0.0 of 3.3 GByteYear HSM/Tape (0.0 of 2.0 G.S.T), 0.0%

21952.0 of 29998.0 Hour Green CPU (1147.0 of 1567.5 G.S.T), 73.2%

Total usage for subproject cse002f 3426.2 of 7950.0 Generic Service Tokens, 43.1%

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cse002 Oxford - pcl

Last Trade: never

Usage:

119644.0 of 157112.0 PEHour MPP PE CPU (2892.8 of 3798.8 G.S.T), 76.2%

8.4 of 32.8 GByteYear HP Disk (65.1 of 253.9 G.S.T), 25.6%

1472.2 of 1875.0 Hour SMP CPU (57.2 of 72.8 G.S.T), 78.5%

17.5 of 30.8 GByteYear MP Disk (75.3 of 132.1 G.S.T), 57.0%

0.0 of 2.2 GByteYear HSM/Tape (0.0 of 1.4 G.S.T), 0.0%

4576.3 of 16195.0 Hour Green CPU (239.1 of 846.2 G.S.T), 28.3%

Total usage for subproject cse002g 3329.5 of 5105.3 Generic Service Tokens, 65.2%

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cse002 Edinburgh

Last Trade: never

Usage:

312282.8 of 304793.0 PEHour MPP PE CPU (7550.6 of 7369.5 G.S.T), 102.5%

36.0 of 51.0 GByteYear HP Disk (279.1 of 394.9 G.S.T), 70.7%

0.0 of 2800.0 Hour SMP CPU (0.0 of 108.8 G.S.T), 0.0%

10.4 of 46.5 GByteYear MP Disk (44.8 of 199.5 G.S.T), 22.5%

0.0 of 2.8 GByteYear HSM/Tape (0.0 of 1.8 G.S.T), 0.0%

Total usage for subproject cse002i 7874.5 of 8074.4 Generic Service Tokens, 97.5%

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cse002 Kent (UKC)

Last Trade: never

Usage:

221394.6 of 219888.0 PEHour MPP PE CPU (5353.0 of 5316.6 G.S.T), 100.7%

57.8 of 100.0 GByteYear HP Disk (447.9 of 774.2 G.S.T), 57.8%

0.0 of 2350.0 Hour SMP CPU (0.0 of 91.3 G.S.T), 0.0%

8.1 of 33.6 GByteYear MP Disk (34.9 of 144.1 G.S.T), 24.2%

14.5 of 100.0 GByteYear HSM/Tape (9.1 of 62.3 G.S.T), 14.5%

56324.6 of 127604.0 Hour Green CPU (2943.1 of 6667.6 G.S.T), 44.1%

Total usage for subproject cse002j 8788.0 of 13056.2 Generic Service Tokens, 67.3%

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cse002 Durham

Last Trade: never

Usage:

50516.4 of 50000.0 PEHour MPP PE CPU (1221.4 of 1208.9 G.S.T), 101.0%

11.4 of 45.0 GByteYear HP Disk (88.1 of 348.4 G.S.T), 25.3%

0.0 of 3000.0 Hour SMP CPU (0.0 of 116.6 G.S.T), 0.0%

7.7 of 45.0 GByteYear MP Disk (32.9 of 193.0 G.S.T), 17.0%

Total usage for subproject cse002k 1342.4 of 1866.9 Generic Service Tokens, 71.9%

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cse002 York

Last Trade: never

Usage:

0.0 of 50000.0 PEHour MPP PE CPU (0.0 of 1208.9 G.S.T), 0.0%

1.5 of 5.0 GByteYear HP Disk (11.7 of 38.7 G.S.T), 30.2%

0.0 of 2500.0 Hour SMP CPU (0.0 of 97.1 G.S.T), 0.0%

12.1 of 30.0 GByteYear MP Disk (52.1 of 128.7 G.S.T), 40.5%

Total usage for subproject cse002l 63.8 of 1473.5 Generic Service Tokens, 4.3%

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cse003 GR/R89073 Taylor

Last Trade: Mon Mar 11 11:48:58 2002

Usage:

1313679.2 of 1316960.7 PEHour MPP PE CPU (31763.1 of 31842.4 G.S.T), 99.8%  
 182.5 of 185.6 GByteYear HP Disk (1413.0 of 1437.1 G.S.T), 98.3%  
 6409.5 of 8086.8 Hour SMP CPU (249.0 of 314.2 G.S.T), 79.3%  
 71.2 of 136.8 GByteYear MP Disk (305.4 of 586.8 G.S.T), 52.0%  
 36.0 of 50.0 GByteYear HSM/Tape (22.5 of 31.2 G.S.T), 72.1%  
 234778.7 of 235048.3 Hour Green CPU (12267.7 of 12281.8 G.S.T), 99.9%  
 24.5 of 24.5 PersonDay Support (680.6 of 680.7 G.S.T), 100.0%  
 6.0 of 6.0 Day Training (64.5 of 64.5 G.S.T), 100.0%  
 Total usage for project cse003 46765.7 of 47238.7 Generic Service Tokens, 99.0%

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## cse003 MP1

Last Trade: never

Usage:

62468.8 of 69896.4 PEHour MPP PE CPU (1510.4 of 1690.0 G.S.T), 89.4%  
 31.8 of 31.0 GByteYear HP Disk (246.3 of 240.0 G.S.T), 102.6%  
 1671.0 of 2000.0 Hour SMP CPU (64.9 of 77.7 G.S.T), 83.6%  
 27.6 of 25.0 GByteYear MP Disk (118.4 of 107.2 G.S.T), 110.4%  
 0.0 of 20.0 GByteYear HSM/Tape (0.0 of 12.5 G.S.T), 0.0%  
 112400.9 of 106000.0 Hour Green CPU (5873.2 of 5538.7 G.S.T), 106.0%  
 Total usage for subproject cse003a 7813.2 of 7666.1 Generic Service Tokens, 101.9%

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## cse003 MP2

Last Trade: never

Usage:

868238.8 of 863103.0 PEHour MPP PE CPU (20992.9 of 20868.7 G.S.T), 100.6%  
 36.7 of 38.0 GByteYear HP Disk (284.3 of 294.2 G.S.T), 96.6%  
 883.2 of 1100.0 Hour SMP CPU (34.3 of 42.7 G.S.T), 80.3%  
 7.6 of 8.0 GByteYear MP Disk (32.5 of 34.3 G.S.T), 94.6%  
 0.0 of 40.0 GByteYear HSM/Tape (0.0 of 24.9 G.S.T), 0.0%  
 104004.6 of 105000.0 Hour Green CPU (5434.5 of 5486.5 G.S.T), 99.1%  
 Total usage for subproject cse003b 26778.4 of 26751.4 Generic Service Tokens, 100.1%

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## cse003 MP3

Last Trade: never

Usage:

0.0 of 1.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T), 0.0%  
 0.2 of 2.0 GByteYear HP Disk (1.9 of 15.5 G.S.T), 12.1%  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 0.2 of 0.8 GByteYear MP Disk (0.9 of 3.4 G.S.T), 25.4%  
 0.0 of 10.0 GByteYear HSM/Tape (0.0 of 6.2 G.S.T), 0.0%  
 Total usage for subproject cse003c 2.7 of 25.2 Generic Service Tokens, 10.9%

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## cse003 MP4

Last Trade: never

Usage:

0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.5 GByteYear HP Disk (0.0 of 3.9 G.S.T), 0.0%  
 0.0 of 100.0 Hour SMP CPU (0.0 of 3.9 G.S.T), 0.0%  
 0.0 of 0.2 GByteYear MP Disk (0.0 of 0.9 G.S.T), 0.0%  
 0.0 of 2.5 GByteYear HSM/Tape (0.0 of 1.6 G.S.T), 0.0%  
 Total usage for subproject cse003d 0.0 of 10.2 Generic Service Tokens, 0.0%

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## cse003 MP5

Last Trade: never

## Usage:

0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)  
 0.0 of 1.0 GByteYear HP Disk (0.0 of 7.7 G.S.T), 0.0%  
 0.0 of 206.0 Hour SMP CPU (0.0 of 8.0 G.S.T), 0.0%  
 0.0 of 0.4 GByteYear MP Disk (0.0 of 1.7 G.S.T), 0.0%  
 0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%  
 Total usage for subproject cse003e 0.0 of 20.6 Generic Service Tokens, 0.0%

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## cse003 MP6

Last Trade: never

## Usage:

16072.7 of 16072.7 PEHour MPP PE CPU (388.6 of 388.6 G.S.T), 100.0%  
 1.4 of 2.0 GByteYear HP Disk (10.5 of 15.5 G.S.T), 67.7%  
 0.0 of 5.0 Hour SMP CPU (0.0 of 0.2 G.S.T), 0.7%  
 0.1 of 0.8 GByteYear MP Disk (0.4 of 3.4 G.S.T), 11.2%  
 0.0 of 10.0 GByteYear HSM/Tape (0.0 of 6.2 G.S.T), 0.0%  
 Total usage for subproject cse003f 399.5 of 414.0 Generic Service Tokens, 96.5%

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## cse003 MP7

Last Trade: never

## Usage:

0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)  
 0.0 of 1.4 GByteYear HP Disk (0.0 of 10.8 G.S.T), 0.0%  
 0.0 of 288.0 Hour SMP CPU (0.0 of 11.2 G.S.T), 0.0%  
 0.0 of 0.6 GByteYear MP Disk (0.0 of 2.4 G.S.T), 0.0%  
 0.0 of 7.0 GByteYear HSM/Tape (0.0 of 4.4 G.S.T), 0.0%  
 Total usage for subproject cse003g 0.0 of 28.8 Generic Service Tokens, 0.0%

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## cse003 EC1

Last Trade: never

## Usage:

53160.7 of 53123.5 PEHour MPP PE CPU (1285.4 of 1284.5 G.S.T), 100.1%  
 15.7 of 12.5 GByteYear HP Disk (121.6 of 96.8 G.S.T), 125.6%  
 390.3 of 373.0 Hour SMP CPU (15.2 of 14.5 G.S.T), 104.6%  
 8.0 of 6.5 GByteYear MP Disk (34.4 of 27.9 G.S.T), 123.4%  
 0.0 of 4.0 GByteYear HSM/Tape (0.0 of 2.5 G.S.T), 0.0%  
 Total usage for subproject cse003h 1456.5 of 1426.1 Generic Service Tokens, 102.1%

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## cse003 EC2

Last Trade: never

## Usage:

36452.3 of 36159.1 PEHour MPP PE CPU (881.4 of 874.3 G.S.T), 100.8%  
 21.0 of 20.0 GByteYear HP Disk (162.3 of 154.8 G.S.T), 104.8%  
 61.0 of 70.0 Hour SMP CPU (2.4 of 2.7 G.S.T), 87.1%  
 2.4 of 2.0 GByteYear MP Disk (10.4 of 8.6 G.S.T), 121.3%  
 32.3 of 30.0 GByteYear HSM/Tape (20.1 of 18.7 G.S.T), 107.6%  
 0.0 of 0.0 Hour Green CPU (0.0 of 0.0 G.S.T)  
 Total usage for subproject cse003i 1076.5 of 1059.1 Generic Service Tokens, 101.6%

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## cse003 EC3

Last Trade: never

## Usage:

3469.7 of 4000.0 PEHour MPP PE CPU (83.9 of 96.7 G.S.T), 86.7%  
 14.4 of 14.0 GByteYear HP Disk (111.7 of 108.4 G.S.T), 103.1%



0.0 of 100.0 Hour SMP CPU (0.0 of 3.9 G.S.T), 0.0%  
 8.0 of 5.0 GByteYear MP Disk (34.2 of 21.4 G.S.T), 159.2%  
 0.0 of 10.0 GByteYear HSM/Tape (0.0 of 6.2 G.S.T), 0.0%  
 4105.7 of 6000.0 Hour Green CPU (214.5 of 313.5 G.S.T), 68.4%  
 Total usage for subproject cse003j 444.3 of 550.2 Generic Service Tokens, 80.8%

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## cse003 EC4

Last Trade: never

Usage:

33624.7 of 34000.0 PEHour MPP PE CPU (813.0 of 822.1 G.S.T), 98.9%  
 1.6 of 2.0 GByteYear HP Disk (12.6 of 15.5 G.S.T), 81.7%  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 0.1 of 1.6 GByteYear MP Disk (0.2 of 6.9 G.S.T), 3.3%  
 0.0 of 20.0 GByteYear HSM/Tape (0.0 of 12.5 G.S.T), 0.0%  
 Total usage for subproject cse003k 825.9 of 856.9 Generic Service Tokens, 96.4%

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## cse003 EC5

Last Trade: never

Usage:

15426.3 of 15500.0 PEHour MPP PE CPU (373.0 of 374.8 G.S.T), 99.5%  
 2.1 of 3.0 GByteYear HP Disk (16.3 of 23.2 G.S.T), 70.0%  
 0.0 of 1.0 Hour SMP CPU (0.0 of 0.0 G.S.T), 1.7%  
 0.1 of 0.6 GByteYear MP Disk (0.4 of 2.4 G.S.T), 15.9%  
 0.0 of 7.0 GByteYear HSM/Tape (0.0 of 4.4 G.S.T), 0.0%  
 Total usage for subproject cse003m 389.6 of 404.8 Generic Service Tokens, 96.3%

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## cse003 EC6

Last Trade: never

Usage:

7850.2 of 7851.0 PEHour MPP PE CPU (189.8 of 189.8 G.S.T), 100.0%  
 38.2 of 35.0 GByteYear HP Disk (295.9 of 271.0 G.S.T), 109.2%  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 0.1 of 0.6 GByteYear MP Disk (0.3 of 2.4 G.S.T), 11.5%  
 0.6 of 7.0 GByteYear HSM/Tape (0.4 of 4.4 G.S.T), 8.3%  
 Total usage for subproject cse003n 486.3 of 467.5 Generic Service Tokens, 104.0%

---

## cse009 GR/20607 Catlow

Last Trade: re-enabled

Usage:

1194091.0 of 1846749.2 PEHour MPP PE CPU (28871.6 of 44652.0 G.S.T), 64.7%  
 150.3 of 712.2 GByteYear HP Disk (1163.9 of 5514.0 G.S.T), 21.1%  
 22947.0 of 49491.7 Hour SMP CPU (891.5 of 1922.8 G.S.T), 46.4%  
 15.9 of 646.7 GByteYear MP Disk (68.4 of 2774.2 G.S.T), 2.5%  
 0.0 of 714.9 GByteYear HSM/Tape (0.0 of 445.7 G.S.T), 0.0%  
 44890.7 of 191719.6 Hour Green CPU (2345.6 of 10017.7 G.S.T), 23.4%  
 9.0 of 25.5 PersonDay Support (250.0 of 708.3 G.S.T), 35.3%  
 0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%  
 Total usage for project cse009 33591.0 of 66142.4 Generic Service Tokens, 50.8%

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## cse013 GR/M50539 Leschziner

Last Trade: re-enabled

Usage:

1055876.0 of 4737760.0 PEHour MPP PE CPU (25529.7 of 114553.0 G.S.T), 22.3%  
 24.6 of 195.8 GByteYear HP Disk (190.2 of 1516.3 G.S.T), 12.5%

8952.8 of 29364.5 Hour SMP CPU (347.8 of 1140.9 G.S.T), 30.5%  
 10.1 of 308.0 GByteYear MP Disk (43.5 of 1321.2 G.S.T), 3.3%  
 23.4 of 504.0 GByteYear HSM/Tape (14.6 of 314.2 G.S.T), 4.7%  
 6462.5 of 27763.9 Hour Green CPU (337.7 of 1450.7 G.S.T), 23.3%  
 0.0 of 9.0 PersonDay Support (0.0 of 250.0 G.S.T), 0.0%  
 4.0 of 57.5 Day Training (43.0 of 618.3 G.S.T), 7.0%  
 Total usage for project cse013 26506.6 of 121164.6 Generic Service Tokens, 21.9%

---

#### cse013 - ICL

Last Trade: never

Usage:

45924.2 of 70000.0 PEHour MPP PE CPU (1110.4 of 1692.5 G.S.T), 65.6%  
 1.0 of 2.0 GByteYear HP Disk (7.6 of 15.5 G.S.T), 49.0%  
 62.6 of 500.0 Hour SMP CPU (2.4 of 19.4 G.S.T), 12.5%  
 0.1 of 5.0 GByteYear MP Disk (0.3 of 21.4 G.S.T), 1.5%  
 0.0 of 2.0 GByteYear HSM/Tape (0.0 of 1.2 G.S.T), 0.0%  
 Total usage for subproject cse013a 1120.7 of 1750.1 Generic Service Tokens, 64.0%

---

#### cse013 - Loughborough

Last Trade: never

Usage:

457168.5 of 500000.0 PEHour MPP PE CPU (11053.7 of 12089.4 G.S.T), 91.4%  
 5.2 of 8.0 GByteYear HP Disk (40.1 of 61.9 G.S.T), 64.8%  
 3400.1 of 3800.0 Hour SMP CPU (132.1 of 147.6 G.S.T), 89.5%  
 1.7 of 15.0 GByteYear MP Disk (7.1 of 64.3 G.S.T), 11.1%  
 0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%  
 Total usage for subproject cse013b 11233.1 of 12366.4 Generic Service Tokens, 90.8%

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#### cse013 - Surrey

Last Trade: never

Usage:

39614.9 of 80000.0 PEHour MPP PE CPU (957.8 of 1934.3 G.S.T), 49.5%  
 4.5 of 8.0 GByteYear HP Disk (35.1 of 61.9 G.S.T), 56.7%  
 12.8 of 1800.0 Hour SMP CPU (0.5 of 69.9 G.S.T), 0.7%  
 0.7 of 15.0 GByteYear MP Disk (3.1 of 64.3 G.S.T), 4.9%  
 0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%  
 Total usage for subproject cse013c 996.6 of 2133.6 Generic Service Tokens, 46.7%

---

#### cse013 - QMW

Last Trade: never

Usage:

513168.3 of 600000.0 PEHour MPP PE CPU (12407.8 of 14507.2 G.S.T), 85.5%  
 8.1 of 10.0 GByteYear HP Disk (62.8 of 77.4 G.S.T), 81.1%  
 1143.9 of 1800.0 Hour SMP CPU (44.4 of 69.9 G.S.T), 63.6%  
 2.5 of 15.0 GByteYear MP Disk (10.7 of 64.3 G.S.T), 16.7%  
 23.4 of 30.0 GByteYear HSM/Tape (14.6 of 18.7 G.S.T), 78.2%  
 Total usage for subproject cse013d 12540.3 of 14737.6 Generic Service Tokens, 85.1%

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#### cse030 GR/M56234 Cates

Last Trade: Tue Jul 31 19:50:13 2001

Usage:

255497.9 of 341463.6 PEHour MPP PE CPU (6177.6 of 8256.2 G.S.T), 74.8%  
 337.6 of 344.9 GByteYear HP Disk (2613.6 of 2670.6 G.S.T), 97.9%  
 12185.3 of 24873.2 Hour SMP CPU (473.4 of 966.4 G.S.T), 49.0%

380.3 of 389.5 GByteYear MP Disk (1631.2 of 1670.8 G.S.T), 97.6%  
 452.9 of 634.1 GByteYear HSM/Tape (282.4 of 395.3 G.S.T), 71.4%  
 18378.5 of 120865.6 Hour Green CPU (960.3 of 6315.5 G.S.T), 15.2%  
 51.0 of 76.0 PersonDay Support (1416.7 of 2111.1 G.S.T), 67.1%  
 7.0 of 12.0 Day Training (75.3 of 129.0 G.S.T), 58.3%  
 Total usage for project cse030 13630.5 of 22514.9 Generic Service Tokens, 60.5%

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cse030 Edinburgh

Last Trade: never

Usage:

64480.4 of 91000.0 PEHour MPP PE CPU (1559.1 of 2200.3 G.S.T), 70.9%  
 170.5 of 178.0 GByteYear HP Disk (1320.2 of 1378.1 G.S.T), 95.8%  
 2920.1 of 6500.0 Hour SMP CPU (113.5 of 252.5 G.S.T), 44.9%  
 78.6 of 95.0 GByteYear MP Disk (337.0 of 407.5 G.S.T), 82.7%  
 322.6 of 350.0 GByteYear HSM/Tape (201.1 of 218.2 G.S.T), 92.2%  
 0.0 of 14000.0 Hour Green CPU (0.0 of 731.5 G.S.T), 0.0%  
 Total usage for subproject cse030a 3530.9 of 5188.2 Generic Service Tokens, 68.1%

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cse030 QMW

Last Trade: never

Usage:

170265.2 of 200000.0 PEHour MPP PE CPU (4116.8 of 4835.7 G.S.T), 85.1%  
 146.0 of 150.0 GByteYear HP Disk (1130.2 of 1161.4 G.S.T), 97.3%  
 702.6 of 3600.0 Hour SMP CPU (27.3 of 139.9 G.S.T), 19.5%  
 280.2 of 251.0 GByteYear MP Disk (1202.1 of 1076.7 G.S.T), 111.7%  
 83.1 of 206.0 GByteYear HSM/Tape (51.8 of 128.4 G.S.T), 40.3%  
 0.0 of 30000.0 Hour Green CPU (0.0 of 1567.6 G.S.T), 0.0%  
 Total usage for subproject cse030b 6528.2 of 8909.7 Generic Service Tokens, 73.3%

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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 1.7 GByteYear HP Disk (8.6 of 13.2 G.S.T), 65.2%  
 0.0 of 1000.0 Hour SMP CPU (0.0 of 38.9 G.S.T), 0.0%  
 5.6 of 10.0 GByteYear MP Disk (23.9 of 42.9 G.S.T), 55.8%  
 0.0 of 0.8 GByteYear HSM/Tape (0.0 of 0.5 G.S.T), 0.0%  
 0.0 of 3500.0 Hour Green CPU (0.0 of 182.9 G.S.T), 0.0%  
 Total usage for subproject cse030c 475.2 of 721.1 Generic Service Tokens, 65.9%

---

cse030 Bristol

Last Trade: never

Usage:

0.0 of 2000.0 PEHour MPP PE CPU (0.0 of 48.4 G.S.T), 0.0%  
 9.9 of 12.0 GByteYear HP Disk (76.3 of 92.9 G.S.T), 82.1%  
 0.0 of 500.0 Hour SMP CPU (0.0 of 19.4 G.S.T), 0.0%  
 11.0 of 20.0 GByteYear MP Disk (47.2 of 85.8 G.S.T), 55.0%  
 0.0 of 20.0 GByteYear HSM/Tape (0.0 of 12.5 G.S.T), 0.0%  
 Total usage for subproject cse030d 123.5 of 259.0 Generic Service Tokens, 47.7%

---

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 1000.0 Hour SMP CPU (0.0 of 38.9 G.S.T), 0.0%  
 0.0 of 8.0 GByteYear MP Disk (0.0 of 34.3 G.S.T), 0.0%  
 0.0 of 10.0 GByteYear HSM/Tape (0.0 of 6.2 G.S.T), 0.0%  
 0.0 of 3500.0 Hour Green CPU (0.0 of 182.9 G.S.T), 0.0%  
 Total usage for subproject cse030f 0.0 of 262.3 Generic Service Tokens, 0.0%

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cse030 Sheffield

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 cse030g 0.0 of 0.0 Generic Service Tokens, 0.0%

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cse035 GR/M76720 King

Last Trade: Fri Feb 2 16:20:49 2001

Usage:

415031.5 of 425689.3 PEHour MPP PE CPU (10034.9 of 10292.6 G.S.T), 97.5%  
 16.1 of 18.0 GByteYear HP Disk (124.8 of 139.4 G.S.T), 89.6%  
 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 (0.0 of 2.4 G.S.T), 1.8%  
 12.6 of 26.0 GByteYear HSM/Tape (7.8 of 16.2 G.S.T), 48.4%  
 Total usage for project cse035 10167.6 of 10450.6 Generic Service Tokens, 97.3%

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cse036 GR/M78502 Duff

Last Trade: re-enabled

Usage:

11.1 of 617.1 PEHour MPP PE CPU (0.3 of 14.9 G.S.T), 1.8%  
 0.5 of 3.0 GByteYear HP Disk (3.9 of 23.2 G.S.T), 16.8%  
 84.3 of 399.9 Hour SMP CPU (3.3 of 15.5 G.S.T), 21.1%  
 0.3 of 3.0 GByteYear MP Disk (1.3 of 12.9 G.S.T), 9.9%  
 Total usage for project cse036 8.7 of 66.6 Generic Service Tokens, 13.1%

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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%  
 0.9 of 119.7 GByteYear HP Disk (7.1 of 926.6 G.S.T), 0.8%  
 1176.4 of 4531.4 Hour SMP CPU (45.7 of 176.1 G.S.T), 26.0%  
 0.4 of 123.5 GByteYear MP Disk (1.8 of 529.6 G.S.T), 0.3%  
 52.1 of 230.3 GByteYear HSM/Tape (32.5 of 143.6 G.S.T), 22.6%

0.0 of 60.0 PersonDay Support (0.0 of 1666.7 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 101.3 of 3810.1 Generic Service Tokens, 2.7%

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cse043 GR/M85241 Williams

Last Trade: Thu Oct 18 15:49:55 2001

Usage:

28879.9 of 149987.2 PEHour MPP PE CPU (698.3 of 3626.5 G.S.T), 19.3%  
 1.2 of 10.0 GByteYear HP Disk (9.3 of 77.4 G.S.T), 12.0%  
 0.0 of 6.2 Hour SMP CPU (0.0 of 0.2 G.S.T), 0.2%  
 1.7 of 4.8 GByteYear MP Disk (7.1 of 20.8 G.S.T), 34.1%  
 0.0 of 28.8 GByteYear HSM/Tape (0.0 of 17.9 G.S.T), 0.0%  
 2.0 of 2.0 PersonDay Support (55.6 of 55.6 G.S.T), 100.0%  
 4.0 of 4.0 Day Training (43.0 of 43.0 G.S.T), 100.1%  
 Total usage for project cse043 813.2 of 3841.4 Generic Service Tokens, 21.2%

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cse050 GR/N/38152 Bradley

Last Trade: Fri Jul 27 09:18:59 2001

Usage:

0.0 of 104742.3 PEHour MPP PE CPU (0.0 of 2532.5 G.S.T), 0.0%  
 0.0 of 11.0 GByteYear HP Disk (0.0 of 85.2 G.S.T), 0.0%  
 0.0 of 1300.0 Hour SMP CPU (0.0 of 50.5 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 555.6 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 0.0 of 3334.1 Generic Service Tokens, 0.0%

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cse052 GR/N17683 Hayes

Last Trade: re-enabled

Usage:

184903.2 of 280199.7 PEHour MPP PE CPU (4470.7 of 6774.9 G.S.T), 66.0%  
 2.4 of 9.1 GByteYear HP Disk (18.8 of 70.8 G.S.T), 26.5%  
 0.0 of 600.0 Hour SMP CPU (0.0 of 23.3 G.S.T), 0.0%  
 0.0 of 8.5 GByteYear MP Disk (0.0 of 36.5 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 277.8 G.S.T), 0.0%  
 0.0 of 25.0 Day Training (0.0 of 268.8 G.S.T), 0.0%  
 Total usage for project cse052 4489.5 of 7453.9 Generic Service Tokens, 60.2%

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cse053 GR/R04225 Leschziner

Last Trade: Mon Oct 15 12:52:06 2001

Usage:

14632.0 of 319557.6 PEHour MPP PE CPU (353.8 of 7726.5 G.S.T), 4.6%  
 0.8 of 115.0 GByteYear HP Disk (6.4 of 890.4 G.S.T), 0.7%  
 73.9 of 14000.0 Hour SMP CPU (2.9 of 543.9 G.S.T), 0.5%  
 0.4 of 85.0 GByteYear MP Disk (1.8 of 364.6 G.S.T), 0.5%  
 0.0 of 100.0 GByteYear HSM/Tape (0.0 of 62.3 G.S.T), 0.0%  
 608.9 of 1850.9 Hour Green CPU (31.8 of 96.7 G.S.T), 32.9%  
 0.0 of 15.0 PersonDay Support (0.0 of 416.7 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 396.6 of 10187.1 Generic Service Tokens, 3.9%

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cse055 GR/N66810 Staunton

Last Trade: Mon Aug 6 09:05:54 2001

## Usage:

939.4 of 24604.0 PEHour MPP PE CPU (22.7 of 594.9 G.S.T), 3.8%  
0.8 of 2.5 GByteYear HP Disk (6.3 of 19.4 G.S.T), 32.4%  
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 138.9 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 29.0 of 860.8 Generic Service Tokens, 3.4%

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## cse056 GR/N24773 Imregun

Last Trade: Wed Apr 17 09:55:43 2002

## 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 309.6 G.S.T), 0.0%  
85.3 of 34074.1 Hour SMP CPU (3.3 of 1323.8 G.S.T), 0.3%  
0.0 of 0.0 GByteYear MP Disk (0.2 of 0.1 G.S.T), 257.6%  
0.0 of 5.0 PersonDay Support (0.0 of 138.9 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 cse056 3.5 of 1882.4 Generic Service Tokens, 0.2%

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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%  
0.3 of 30.0 GByteYear HP Disk (2.2 of 232.3 G.S.T), 0.9%  
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 555.6 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 58.2 of 3019.5 Generic Service Tokens, 1.9%

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## cse063 GR/R46151 Sandham

Last Trade: Tue Dec 11 09:17:13 2001

## Usage:

497.3 of 404163.7 PEHour MPP PE CPU (12.0 of 9772.2 G.S.T), 0.1%  
4.4 of 100.0 GByteYear HP Disk (34.4 of 774.2 G.S.T), 4.4%  
0.0 of 0.6 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.1%  
0.0 of 50.0 GByteYear MP Disk (0.0 of 214.5 G.S.T), 0.0%  
0.0 of 525.0 GByteYear HSM/Tape (0.0 of 327.3 G.S.T), 0.0%  
0.0 of 30.0 PersonDay Support (0.0 of 833.3 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 cse063 46.4 of 12029.1 Generic Service Tokens, 0.4%

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## cse064 GR/R43570 Leschziner

Last Trade: Mon Jan 21 16:36:28 2002

## Usage:

175.7 of 165039.1 PEHour MPP PE CPU (4.2 of 3990.4 G.S.T), 0.1%  
0.1 of 35.0 GByteYear HP Disk (0.6 of 271.0 G.S.T), 0.2%  
5.6 of 22000.0 Hour SMP CPU (0.2 of 854.7 G.S.T), 0.0%  
0.0 of 33.0 GByteYear MP Disk (0.0 of 141.6 G.S.T), 0.0%  
0.0 of 4.0 GByteYear HSM/Tape (0.0 of 2.5 G.S.T), 0.0%  
0.0 of 10.0 PersonDay Support (0.0 of 277.8 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 26.5 of 5624.0 Generic Service Tokens, 0.5%

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## cse066 GR/R30907 Coveney

Last Trade: Mon Sep 3 10:18:08 2001

## Usage:

40136.0 of 87981.1 PEHour MPP PE CPU (970.4 of 2127.3 G.S.T), 45.6%

5.7 of 90.0 GByteYear HP Disk (44.1 of 696.8 G.S.T), 6.3%

2329.5 of 15000.0 Hour SMP CPU (90.5 of 582.8 G.S.T), 15.5%

7.0 of 18.0 GByteYear MP Disk (30.0 of 77.4 G.S.T), 38.7%

10544.1 of 64652.8 Hour Green CPU (550.9 of 3378.2 G.S.T), 16.3%

0.0 of 21.0 PersonDay Support (0.0 of 583.3 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 1718.2 of 7510.4 Generic Service Tokens, 22.9%

## cse071 GR/R23657 Iacovides

Last Trade: Fri Oct 5 16:21:54 2001

## Usage:

0.0 of 3729.7 Hour VPP\_CPU (0.0 of 4094.1 G.S.T), 0.0%

0.0 of 20.0 GByteYear Fuji Disk (0.0 of 85.8 G.S.T), 0.0%

0.0 of 5.0 PersonDay Support (0.0 of 138.9 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 4383.3 Generic Service Tokens, 0.0%

## cse072 GR/R66692 Karlin

Last Trade: Fri Feb 8 16:42:38 2002

## Usage:

0.0 of 160329.2 PEHour MPP PE CPU (0.0 of 3876.6 G.S.T), 0.0%

0.0 of 3.0 GByteYear HP Disk (0.0 of 23.2 G.S.T), 0.0%

0.0 of 183.0 Hour SMP CPU (0.0 of 7.1 G.S.T), 0.0%

0.0 of 24.0 GByteYear MP Disk (0.0 of 103.0 G.S.T), 0.0%

0.0 of 84.0 GByteYear HSM/Tape (0.0 of 52.4 G.S.T), 0.0%

0.0 of 120.0 Hour VPP\_CPU (0.0 of 131.7 G.S.T), 0.0%

0.0 of 1.0 GByteYear Fuji Disk (0.0 of 4.3 G.S.T), 0.0%

0.0 of 18.0 PersonDay Support (0.0 of 500.0 G.S.T), 0.0%

0.0 of 9.0 Day Training (0.0 of 96.8 G.S.T), 0.0%

Total usage for project cse072 0.0 of 4795.0 Generic Service Tokens, 0.0%

## 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 46.5 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 38.6 G.S.T), 0.0%

Total usage for project cse074 0.0 of 480.0 Generic Service Tokens, 0.0%

## cse075 GR/R59540 Coveney

Last Trade: Wed May 1 10:58:17 2002

## Usage:

0.0 of 438021.5 PEHour MPP PE CPU (0.0 of 10590.8 G.S.T), 0.0%

0.1 of 217.0 GByteYear HP Disk (0.5 of 1679.9 G.S.T), 0.0%

0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.7%

0.0 of 150.0 GByteYear MP Disk (0.0 of 643.4 G.S.T), 0.0%

0.0 of 300000.0 Hour Green CPU (0.0 of 15675.6 G.S.T), 0.0%

0.0 of 34.0 PersonDay Support (0.0 of 944.4 G.S.T), 0.0%

0.0 of 14.0 Day Training (0.0 of 150.5 G.S.T), 0.0%

Total usage for project cse075 0.5 of 29684.7 Generic Service Tokens, 0.0%

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cse076 GR/R66975 Briddon

Last Trade: Mon Apr 29 08:38:04 2002

Usage:

2409.3 of 4161.1 PEHour MPP PE CPU (58.3 of 100.6 G.S.T), 57.9%  
0.2 of 1.3 GByteYear HP Disk (1.7 of 10.5 G.S.T), 15.8%  
152358.7 of 257593.3 Hour SMP CPU (5919.4 of 10007.9 G.S.T), 59.1%  
1.5 of 27.2 GByteYear MP Disk (6.5 of 116.6 G.S.T), 5.6%  
76573.0 of 260197.5 Hour Green CPU (4001.1 of 13595.9 G.S.T), 29.4%  
6.5 of 20.0 PersonDay Support (180.6 of 555.6 G.S.T), 32.5%  
Total usage for project cse076 10167.4 of 24387.0 Generic Service Tokens, 41.7%

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cse084 GR/R47066 Needs

Last Trade: Tue Feb 12 11:08:19 2002

Usage:

109649.7 of 306225.8 PEHour MPP PE CPU (2651.2 of 7404.1 G.S.T), 35.8%  
6.9 of 270.0 GByteYear HP Disk (53.5 of 2090.4 G.S.T), 2.6%  
2113.5 of 14484.3 Hour SMP CPU (82.1 of 562.7 G.S.T), 14.6%  
5.0 of 69.1 GByteYear MP Disk (21.3 of 296.6 G.S.T), 7.2%  
55337.6 of 78955.4 Hour Green CPU (2891.5 of 4125.6 G.S.T), 70.1%  
0.0 of 20.0 PersonDay Support (0.0 of 555.6 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 5699.6 of 15142.6 Generic Service Tokens, 37.6%

---

cse085 GR/R64957 Sandham

Last Trade: Tue Dec 11 09:51:37 2001

Usage:

93119.3 of 1388400.0 PEHour MPP PE CPU (2251.5 of 33569.7 G.S.T), 6.7%  
77.7 of 650.0 GByteYear HP Disk (601.6 of 5032.5 G.S.T), 12.0%  
1786.7 of 4045.2 Hour SMP CPU (69.4 of 157.2 G.S.T), 44.2%  
55.8 of 750.0 GByteYear MP Disk (239.2 of 3217.2 G.S.T), 7.4%  
439.3 of 1375.0 GByteYear HSM/Tape (273.9 of 857.2 G.S.T), 31.9%  
94530.8 of 655628.0 Hour Green CPU (4939.4 of 34257.9 G.S.T), 14.4%  
0.0 of 257.1 Hour VPP\_CPU (0.0 of 282.3 G.S.T), 0.0%  
0.0 of 0.6 GByteYear Fuji Disk (0.0 of 2.4 G.S.T), 0.0%  
0.0 of 15.0 PersonDay Support (0.0 of 416.7 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 cse085 8407.2 of 77857.7 Generic Service Tokens, 10.8%

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cse086 GR/R83118 Taylor

Last Trade: re-enabled

Usage:

8238.1 of 216107.7 PEHour MPP PE CPU (199.2 of 5225.2 G.S.T), 3.8%  
2.0 of 34.4 GByteYear HP Disk (15.4 of 266.5 G.S.T), 5.8%  
172.3 of 6724.6 Hour SMP CPU (6.7 of 261.3 G.S.T), 2.6%  
6.9 of 497.0 GByteYear MP Disk (29.6 of 2132.0 G.S.T), 1.4%  
0.0 of 3750.0 GByteYear HSM/Tape (0.0 of 2337.9 G.S.T), 0.0%  
866.9 of 909900.0 Hour Green CPU (45.3 of 47544.2 G.S.T), 0.1%  
0.0 of 35.0 PersonDay Support (0.0 of 972.2 G.S.T), 0.0%  
0.0 of 116.0 Day Training (0.0 of 1247.3 G.S.T), 0.0%  
Total usage for project cse086 296.2 of 59986.5 Generic Service Tokens, 0.5%

---

cse086a MP1

Last Trade: never



## Usage:

0.0 of 20000.0 PEHour MPP PE CPU (0.0 of 483.6 G.S.T), 0.0%  
 0.1 of 0.1 GByteYear HP Disk (0.7 of 0.8 G.S.T), 85.3%  
 0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 1.4%  
 0.8 of 1.0 GByteYear MP Disk (3.6 of 4.3 G.S.T), 84.9%  
 Total usage for subproject cse086a 4.3 of 488.6 Generic Service Tokens, 0.9%

---

## cse086b MP2

Last Trade: never

## Usage:

35.1 of 20000.0 PEHour MPP PE CPU (0.8 of 483.6 G.S.T), 0.2%  
 0.8 of 1.0 GByteYear HP Disk (6.1 of 7.7 G.S.T), 78.2%  
 0.4 of 0.5 Hour SMP CPU (0.0 of 0.0 G.S.T), 73.9%  
 0.3 of 0.5 GByteYear MP Disk (1.4 of 2.1 G.S.T), 63.1%  
 517.7 of 10000.0 Hour Green CPU (27.0 of 522.5 G.S.T), 5.2%  
 Total usage for subproject cse086b 35.3 of 1016.0 Generic Service Tokens, 3.5%

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## cse086d MP4

Last Trade: never

## Usage:

0.0 of 0.1 GByteYear HP Disk (0.0 of 0.8 G.S.T), 3.9%  
 0.0 of 0.1 GByteYear MP Disk (0.0 of 0.4 G.S.T), 3.3%  
 Total usage for subproject cse086d 0.0 of 1.2 Generic Service Tokens, 3.7%

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## cse086e MP5

Last Trade: never

## Usage:

14.1 of 20000.0 PEHour MPP PE CPU (0.3 of 483.6 G.S.T), 0.1%  
 0.1 of 0.1 GByteYear HP Disk (0.6 of 0.8 G.S.T), 79.4%  
 86.0 of 2000.0 Hour SMP CPU (3.3 of 77.7 G.S.T), 4.3%  
 0.8 of 5.0 GByteYear MP Disk (3.6 of 21.4 G.S.T), 17.0%  
 0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%  
 Total usage for subproject cse086e 7.9 of 1106.0 Generic Service Tokens, 0.7%

---

## cse086f EC1

Last Trade: never

## Usage:

0.0 of 20000.0 PEHour MPP PE CPU (0.0 of 483.6 G.S.T), 0.0%  
 0.1 of 0.1 GByteYear HP Disk (0.6 of 0.8 G.S.T), 83.9%  
 0.2 of 700.0 Hour SMP CPU (0.0 of 27.2 G.S.T), 0.0%  
 0.5 of 1.0 GByteYear MP Disk (2.1 of 4.3 G.S.T), 49.4%  
 0.0 of 40.0 GByteYear HSM/Tape (0.0 of 24.9 G.S.T), 0.0%  
 0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%  
 Total usage for subproject cse086f 2.8 of 1063.3 Generic Service Tokens, 0.3%

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## cse086g EC2

Last Trade: never

## Usage:

3.7 of 20000.0 PEHour MPP PE CPU (0.1 of 483.6 G.S.T), 0.0%  
 0.2 of 0.5 GByteYear HP Disk (1.2 of 3.9 G.S.T), 31.8%  
 0.2 of 2000.0 Hour SMP CPU (0.0 of 77.7 G.S.T), 0.0%  
 2.1 of 5.0 GByteYear MP Disk (9.2 of 21.4 G.S.T), 42.7%  
 349.2 of 10000.0 Hour Green CPU (18.2 of 522.5 G.S.T), 3.5%  
 Total usage for subproject cse086g 28.7 of 1109.1 Generic Service Tokens, 2.6%

## cse086h EC3

Last Trade: never

Usage:

29.3 of 35.0 PEHour MPP PE CPU (0.7 of 0.8 G.S.T), 83.8%

0.2 of 0.5 GByteYear HP Disk (1.9 of 3.9 G.S.T), 48.4%

0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.2%

1.3 of 1.5 GByteYear MP Disk (5.4 of 6.4 G.S.T), 84.0%

0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%

Total usage for subproject cse086h 8.0 of 533.7 Generic Service Tokens, 1.5%

## cse086i EC4

Last Trade: never

Usage:

0.0 of 0.1 GByteYear MP Disk (0.0 of 0.4 G.S.T), 3.3%

Total usage for subproject cse086i 0.0 of 0.4 Generic Service Tokens, 3.3%

## cse086j BEC1

Last Trade: never

Usage:

8155.9 of 10000.0 PEHour MPP PE CPU (197.2 of 241.8 G.S.T), 81.6%

0.0 of 0.1 GByteYear HP Disk (0.1 of 0.8 G.S.T), 6.6%

0.0 of 0.1 GByteYear MP Disk (0.0 of 0.4 G.S.T), 3.3%

Total usage for subproject cse086j 197.3 of 243.0 Generic Service Tokens, 81.2%

## cse086k BEC2

Last Trade: never

Usage:

0.0 of 0.1 GByteYear HP Disk (0.0 of 0.8 G.S.T), 3.3%

85.6 of 2000.0 Hour SMP CPU (3.3 of 77.7 G.S.T), 4.3%

0.7 of 5.0 GByteYear MP Disk (2.8 of 21.4 G.S.T), 13.2%

Total usage for subproject cse086k 6.2 of 99.9 Generic Service Tokens, 6.2%

## csn001 Webb &amp; GST/02/2846 Killworth &amp; T/S/2001/00187 New

Last Trade: Tue Feb 5 11:29:37 2002

Usage:

402359.6 of 420058.5 PEHour MPP PE CPU (9728.5 of 10156.5 G.S.T), 95.8%

238.8 of 320.3 GByteYear HP Disk (1848.8 of 2479.6 G.S.T), 74.6%

31750.9 of 39308.9 Hour SMP CPU (1233.6 of 1527.2 G.S.T), 80.8%

225.7 of 502.2 GByteYear MP Disk (968.2 of 2154.1 G.S.T), 44.9%

7307.8 of 15221.7 GByteYear HSM/Tape (4556.0 of 9489.8 G.S.T), 48.0%

408114.2 of 432796.3 Hour Green CPU (21324.8 of 22614.5 G.S.T), 94.3%

621.6 of 838.8 Hour VPP\_CPU (682.3 of 920.8 G.S.T), 74.1%

2.3 of 6.3 GByteYear Fuji Disk (10.1 of 27.1 G.S.T), 37.2%

7.0 of 36.2 PersonDay Support (194.4 of 1006.1 G.S.T), 19.3%

3.0 of 35.3 Day Training (32.3 of 379.5 G.S.T), 8.5%

Total usage for project csn001 40579.1 of 50755.2 Generic Service Tokens, 80.0%

## csn003 UGAMP O'Neill

Last Trade: Thu Apr 25 14:29:58 2002

Usage:

3091854.2 of 3428349.0 PEHour MPP PE CPU (74757.1 of 82893.1 G.S.T), 90.2%

62.6 of 113.9 GByteYear HP Disk (484.8 of 881.6 G.S.T), 55.0%

17859.7 of 33508.7 Hour SMP CPU (693.9 of 1301.9 G.S.T), 53.3%  
 57.3 of 93.8 GByteYear MP Disk (245.6 of 402.3 G.S.T), 61.1%  
 25280.3 of 27579.5 GByteYear HSM/Tape (15760.8 of 17194.2 G.S.T), 91.7%  
 52269.4 of 502133.3 Hour Green CPU (2731.2 of 26237.5 G.S.T), 10.4%  
 61993.8 of 88908.6 Hour VPP\_CPU (68050.3 of 97594.5 G.S.T), 69.7%  
 311.5 of 442.9 GByteYear Fuji Disk (1336.2 of 1900.0 G.S.T), 70.3%  
 0.0 of 3.0 Hour Compaq EV67 CPU (0.0 of 1.1 G.S.T), 0.0%  
 0.0 of 1.7 GByteYear Compaq Disk (0.0 of 7.1 G.S.T), 0.0%  
 0.0 of 0.0 PersonDay Support (0.0 of 0.0 G.S.T)  
 4.0 of 4.0 Day Training (43.0 of 43.0 G.S.T), 100.0%  
 Total usage for project csn003 164102.8 of 228456.2 Generic Service Tokens, 71.8%

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csn006 GR9/3550 Price

Last Trade: Tue Apr 2 13:25:22 2002

Usage:

1473798.2 of 1510237.2 PEHour MPP PE CPU (35634.5 of 36515.6 G.S.T), 97.6%  
 107.0 of 122.2 GByteYear HP Disk (828.5 of 946.4 G.S.T), 87.5%  
 70301.5 of 72226.1 Hour SMP CPU (2731.3 of 2806.1 G.S.T), 97.3%  
 18.9 of 65.5 GByteYear MP Disk (81.2 of 281.0 G.S.T), 28.9%  
 0.9 of 20.3 GByteYear HSM/Tape (0.5 of 12.6 G.S.T), 4.2%  
 155971.4 of 170359.7 Hour Green CPU (8149.8 of 8901.6 G.S.T), 91.6%  
 Total usage for project csn006 47426.0 of 49463.4 Generic Service Tokens, 95.9%

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csn012 NER/A/S/2000/01315 Tennyson

Last Trade: re-enabled

Usage:

0.0 of 1.2 GByteYear MP Disk (0.0 of 5.0 G.S.T), 0.2%  
 4395.6 of 4850.7 Hour VPP\_CPU (4825.0 of 5324.6 G.S.T), 90.6%  
 8.2 of 9.3 GByteYear Fuji Disk (35.0 of 40.0 G.S.T), 87.4%  
 Total usage for project csn012 4860.0 of 5369.6 Generic Service Tokens, 90.5%

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csn013 GR3/12954 Voke

Last Trade: re-enabled

Usage:

925.3 of 1711.2 Hour VPP\_CPU (1015.7 of 1878.4 G.S.T), 54.1%  
 0.0 of 2.3 GByteYear Fuji Disk (0.0 of 9.9 G.S.T), 0.0%  
 Total usage for project csn013 1015.7 of 1888.3 Generic Service Tokens, 53.8%

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csn014 GST/02/2785 Llewellyn-Jones

Last Trade: re-enabled

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 116.1 G.S.T), 0.0%  
 0.0 of 12.9 Hour SMP CPU (0.0 of 0.5 G.S.T), 0.0%  
 0.0 of 5.0 GByteYear MP Disk (0.0 of 21.4 G.S.T), 0.0%  
 Total usage for project csn014 0.0 of 154.0 Generic Service Tokens, 0.0%

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csn015 Proctor

Last Trade: Mon Jan 28 10:01:44 2002

Usage:

205565.0 of 265982.6 PEHour MPP PE CPU (4970.3 of 6431.1 G.S.T), 77.3%  
 2.9 of 5.0 GByteYear HP Disk (22.2 of 38.7 G.S.T), 57.3%  
 678.7 of 1662.0 Hour SMP CPU (26.4 of 64.6 G.S.T), 40.8%  
 41.1 of 99.3 GByteYear MP Disk (176.4 of 425.8 G.S.T), 41.4%

1610.1 of 2450.1 GByteYear HSM/Tape (1003.8 of 1527.5 G.S.T), 65.7%  
 76967.6 of 87684.5 Hour Green CPU (4021.7 of 4581.7 G.S.T), 87.8%  
 0.0 of 3451.8 Hour VPP\_CPU (0.0 of 3789.0 G.S.T), 0.0%  
 0.0 of 4.9 GByteYear Fuji Disk (0.0 of 21.0 G.S.T), 0.0%  
 2.0 of 10.0 PersonDay Support (55.6 of 277.8 G.S.T), 20.0%  
 3.0 of 7.0 Day Training (32.3 of 75.3 G.S.T), 42.9%  
 Total usage for project csn015 10308.6 of 17232.5 Generic Service Tokens, 59.8%

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csn017 Payne GR3/12917

Last Trade: Fri May 18 14:22:04 2001

Usage:

435.9 of 5031.5 PEHour MPP PE CPU (10.5 of 121.7 G.S.T), 8.7%  
 0.2 of 5.0 GByteYear HP Disk (1.8 of 38.7 G.S.T), 4.6%  
 668.0 of 2237.4 Hour SMP CPU (26.0 of 86.9 G.S.T), 29.9%  
 1.4 of 5.0 GByteYear MP Disk (6.2 of 21.4 G.S.T), 28.9%  
 0.0 of 16.0 PersonDay Support (0.0 of 444.4 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 66.0 of 906.7 Generic Service Tokens, 7.3%

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csn036 NER/T/S/1999/00110 Haines

Last Trade: Mon Jun 11 15:58:18 2001

Usage:

0.1 of 128237.1 PEHour MPP PE CPU (0.0 of 3100.6 G.S.T), 0.0%  
 0.4 of 60.0 GByteYear HP Disk (3.1 of 464.5 G.S.T), 0.7%  
 90.1 of 400.0 Hour SMP CPU (3.5 of 15.5 G.S.T), 22.5%  
 0.0 of 60.0 GByteYear MP Disk (0.0 of 257.4 G.S.T), 0.0%  
 0.0 of 700.0 GByteYear HSM/Tape (0.0 of 436.4 G.S.T), 0.0%  
 0.0 of 2.0 PersonDay Support (0.0 of 55.6 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 6.6 of 4383.8 Generic Service Tokens, 0.1%

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csp004 PPA/G/0/2000/00024 Bell

Last Trade: Thu Mar 29 12:49:04 2001

Usage:

22893.9 of 86221.7 PEHour MPP PE CPU (553.5 of 2084.7 G.S.T), 26.6%  
 6.3 of 47.0 GByteYear HP Disk (48.6 of 363.9 G.S.T), 13.4%  
 35.7 of 4274.0 Hour SMP CPU (1.4 of 166.1 G.S.T), 0.8%  
 4.5 of 24.0 GByteYear MP Disk (19.2 of 103.0 G.S.T), 18.6%  
 0.0 of 7.0 PersonDay Support (0.0 of 194.4 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 csp004 622.8 of 2998.1 Generic Service Tokens, 20.8%

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csp006 PPA/G/S/2001/00050 Browning

Last Trade: Fri Feb 15 17:02:18 2002

Usage:

38.9 of 800.0 Hour VPP\_CPU (42.7 of 878.2 G.S.T), 4.9%  
 0.0 of 20.0 GByteYear Fuji Disk (0.0 of 85.8 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 42.7 of 1093.0 Generic Service Tokens, 3.9%

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HPCI Daresbury

Last Trade: re-enabled

Usage:

34672.1 of 34482.9 PEHour MPP PE CPU (838.3 of 833.8 G.S.T), 100.5%

3.4 of 3.8 GByteYear HP Disk (26.4 of 29.6 G.S.T), 89.4%  
4061.8 of 4120.4 Hour SMP CPU (157.8 of 160.1 G.S.T), 98.6%  
1.6 of 1.7 GByteYear MP Disk (7.0 of 7.2 G.S.T), 97.0%  
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 1605.6 of 1589.9 Generic Service Tokens, 101.0%

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#### HPCI Edinburgh

Last Trade: Wed Jul 11 12:09:29 2001

##### Usage:

1480.9 of 4070.6 PEHour MPP PE CPU (35.8 of 98.4 G.S.T), 36.4%  
3.4 of 4.7 GByteYear HP Disk (26.3 of 36.6 G.S.T), 71.8%  
698.4 of 770.8 Hour SMP CPU (27.1 of 29.9 G.S.T), 90.6%  
2.3 of 2.8 GByteYear MP Disk (9.9 of 12.0 G.S.T), 81.9%  
1728.7 of 1739.8 Hour Green CPU (90.3 of 90.9 G.S.T), 99.4%  
Total usage for project hpcie 189.4 of 267.9 Generic Service Tokens, 70.7%

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#### 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 (245.7 of 244.8 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 (13.4 of 12.8 G.S.T), 104.6%  
Total usage for project hpcis 278.4 of 440.2 Generic Service Tokens, 63.2%

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#### ukhec

Last Trade: Thu Oct 18 17:45:15 2001

##### Usage:

69.5 of 10000.0 PEHour MPP PE CPU (1.7 of 241.8 G.S.T), 0.7%  
0.1 of 10.0 GByteYear HP Disk (0.8 of 77.4 G.S.T), 1.0%  
0.0 of 10000.0 Hour SMP CPU (0.0 of 388.5 G.S.T), 0.0%  
0.1 of 10.0 GByteYear MP Disk (0.4 of 42.9 G.S.T), 1.0%  
0.0 of 5302.4 Hour Green CPU (0.0 of 277.1 G.S.T), 0.0%  
0.0 of 750.0 Hour VPP\_CPU (0.0 of 823.3 G.S.T), 0.0%  
0.1 of 3.0 GByteYear Fuji Disk (0.4 of 12.9 G.S.T), 3.4%  
2.0 of 2.0 Day Training (21.5 of 21.6 G.S.T), 99.7%  
Total usage for project ukhec 24.8 of 1885.4 Generic Service Tokens, 1.3%

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## Appendix 6

Code	PI	Subject	Subject Area
Cse002	Dr Nicolas Harrison (Gillan)	Support for the UKCP	Physics
Cse003	Prof. Ken Taylor	HPC Consortiums 98- 2000	Physics
Cse004	Dr Neil Sandham	UK Turbulence	Engineering
Cse006	Dr Patrick Briddon	Covalently Bonded Materials	Materials
Cse007	Dr Matthew Foulkes	Quantum Many Body Theory	Physics
Cse008	Dr Mark Vincent (Hillier)	Model Chemical Reactivity	Chemistry
Cse009	Dr Ben Slater (Catlow)	HPC in Materials Chemistry	Chemistry
Cse010	Dr John Williams	Free Surface Flows	Engineering
Cse011	Dr John Williams	Open Channel Flood Plains	Engineering
Cse013	Dr David Aspley (Leschziner)	Complex Engineering Flows	Engineering
Cse014	Dr Cassiano de Oliverira (Goddard)	Probs in Nuclear Safety	Engineering
Cse016	Dr Stewart Cant	Turbulent Combustion	Engineering
Cse018	Dr Stewart Cant	Turbulent Flames	Engineering
Cse019	Dr Jason Lander (Berzins)	ROPA	Information Technology
Cse020	Dr Marek Szularz	Symmetric Eigenproblem	Information Technology
Cse021	Dr Julie Staunton	Magentisim	Physics
Cse022	Mr Niall Branley (Jones)	Turbulent Flames	Engineering
Cse023	Allen	Liquid Crystalline Materials	Robin Pinning
Cse024	Dr Robert Allan (Tennyson)	ChemReact 98-2000	Chemistry
Cse025	Dr Niels Rene Walet (Bishop)	Nuclear Theory Progamme	Physics
Cse026	Dr Maureen Neal	J90 move	
Cse027	Dr M Imregun	J90 move	
Cse028	Prof. P.W. Bearman	J90 move	
Cse029	Dr David Aspley (Leschziner)	J90 move	Engineering
Cse030	Prof M Cates	HPC for Complex Fluids	Physics
Cse031	Brebbia	J90 move	
Cse033	Dr M Imregun	Tubomachinery core compressor	Chemistry
Cse034	Dr Paul Durham	R&D of liner/non-linear systems	Mathematics
Csn001	Mrs Beverly de Cuevas (Webb)	HPCI Global Ocean Consortium	
Csn002	Dr Mark Vincent (Hillier)	Pollutant Sorption on Mineral Surf	
Csn003	Dr Lois Steenman-Clark (O'Neill)	UGAMP	
Csn005	Dr Huw Davies	Constraining Earth Mantle	
Csn006	Dr John Brodholt (Price)	Density Functional Methods	
Csn007	Dr John Brodholt (Price)	Density Functional Methods	
Csn008	Hulton	Sub-Glacial Process	
Csn009	Dr Roger Proctor		
Csn010	Dr Jason Lander (Mobbs)	Flow over Complex terrain	
Csn011	Dr Ed Dicks (Thorpe)	J90 move	
Csb001	Dr David Houldershaw (Goodfellow)	Macromolecular Interactions	
Csb002	Dr Adrian Mulholland (Danson)	Stability of Enzymes at high temp	
Csb003	Dr John Carling (Williams)	J90 move	
Css001	Dr Stan Openhaw	Human Systems Modelling	
Css002	Dr Robert Crouchley	Dropout in panel surveys	
Hpcid	Dr Robert Allan		
Hpcie	Dr David Henty		
Hpcis	Dr Denis Nicole		
Cs2001	Dr Sudhir Jain	3D Ising Spin Glass	
Cs2002	Dr Ingrid Stairs (Lyne)	Millisecond Pulsars	
Cs2003	Mr Tom Coulthard	Holocene Sediment Fluxes	
Cs2004	Dr A. Paul Watkins	Internal Combustion Engine	
Cs2005	Mr Sean Walsh	Arabidopsis Genome	
Cs2006	Prof. Walter Temmerman	Superconductivity & Magmetisim	
Cs2007	Choularton	Precipitation in the Mountains	
Cs2008	Dr Matthew Genge	Extraterrestrial Mineral Surfaces	
Cs3001	Mr John Andrew Staveley	Helical Coherent Structures	