

# CSAR Service - Management Report

## November 2002

This report documents the quality of the CSAR service during the month of November 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 November 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.

November 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 78%.

### 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 November 1<sup>st</sup> to 30th inclusive.

Overall, the CPARS Performance Achievement in November 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											
	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov
<b>HPC Services Availability</b>												
Availability in Core Time (% of time)	100.00%	99.86%	99.73%	99.70%	96.17%	96.08%	97.66%	99.2%	99.75%	98.75%	99.77%	99.25%
Availability out of Core Time (% of time)	98.49%	99.89%	99.85%	99.97%	97.75%	99.90%	99%	100%	100%	99.42%	99.52%	99.57%
Number of Failures in month	4	2	1	2	2	1	4	0	1	2	1	1
Mean Time between failures in 52 week rolling period (hours)	337	350	324	313	302	324	313	365	381	381	398	417
<b>Fujitsu Service Availability</b>												
Availability in Core Time (% of time)	100%	100%	100%	100%	96.89%	100%	100%	100%	100%	100%	100%	100%
Availability out of Core Time (% of time)	100%	100%	100%	100%	98.92%	100%	100%	100%	100%	100%	100%	100%
<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	<1	<1	<2	<1	<1	<2	<5	<2	<2	<1	<2	<2
Administrative Queries - Max Time to resolve 95% of all queries	<2	<0.5	<1	<2	<2	<3	<5	<2	<0.5	<2	<0.5	<0.5
Help Desk Telephone - % of calls answered within 2 minutes	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>Others</b>												
Normal Media Exchange Requests - average response time	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
New User Registration Time (working days)	0	0	0	0	0	0	0	0	0	0	0	0
Management Report Delivery Times (working days)	10	10	10	10	10	10	10	10	10	10	10	10
System Maintenance - no. of sessions taken per system in the month	2	2	2	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 November. These will be accounted on a quarterly basis, formally from the Go-Live Date. The values are calculated according to agreed Service Credit Ratings and Weightings.

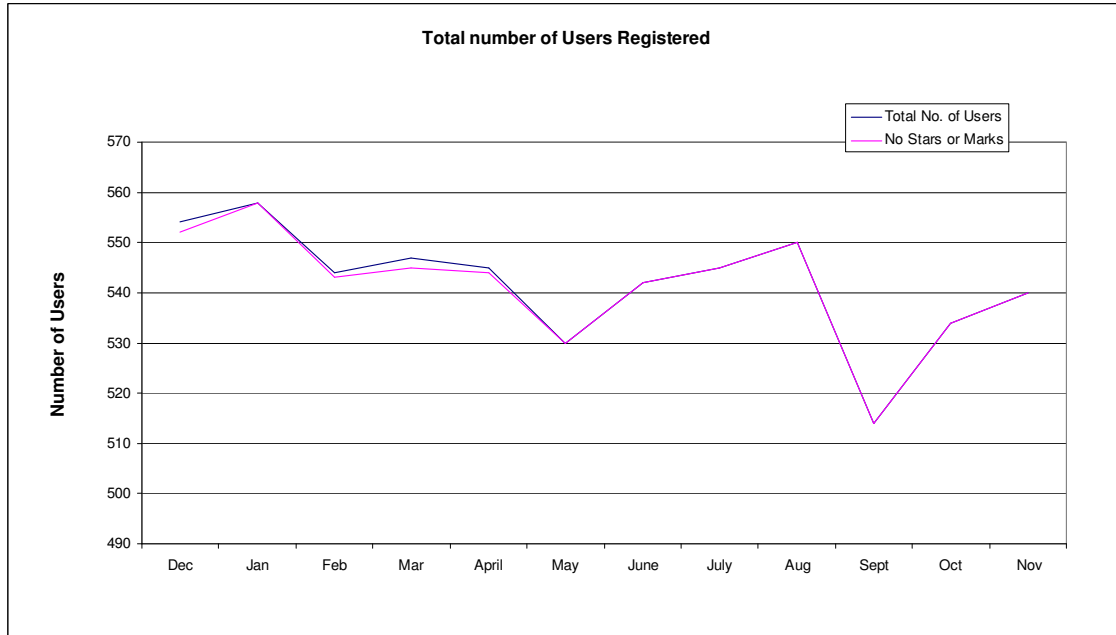
**CSAR Service - Service Quality Report - Service Credits**

Service Quality Measure	2001/2											
	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov
<b>HPC Services Availability</b>												
Availability in Core Time (% of time)	-0.058	-0.039	-0.039	-0.039	0.078	0.078	0.078	0	-0.039	0.039	-0.039	0
Availability out of Core Time (% of time)	0.000	-0.047	-0.047	-0.047	0.039	-0.047	0.000	-0.047	-0.047	0	-0.039	-0.039
Number of Failures in month	0.008	0	-0.008	0	0	-0.008	0.000	-0.009	-0.008	0	-0.008	-0.008
Mean Time between failures in 52 week rolling period (hours)	0	0	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	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019
Non In-depth Queries - Max Time to resolve 95% of all queries	-0.016	-0.016	0	-0.016	-0.016	0	0.031	0	0	-0.016	0	0
Administrative Queries - Max Time to resolve 95% of all queries	0	-0.019	-0.016	0	0	0.016	0.031	0	-0.019	0	-0.019	-0.019
Help Desk Telephone - % of calls answered within 2 minutes	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004	-0.004
<b>Others</b>												
Normal Media Exchange Requests - average response time	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
New User Registration Time (working days)	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019
Management Report Delivery Times (working days)	0	0	0	0	0	0	0	0	0	0	0	0
System Maintenance - no. of sessions taken per system in the month	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Total & overall Service Quality Rating for each period:	-0.05	-0.06	-0.06	-0.07	0.03	0.00	0.05	-0.05	-0.06	-0.01	-0.07	-0.05

**Table 3**

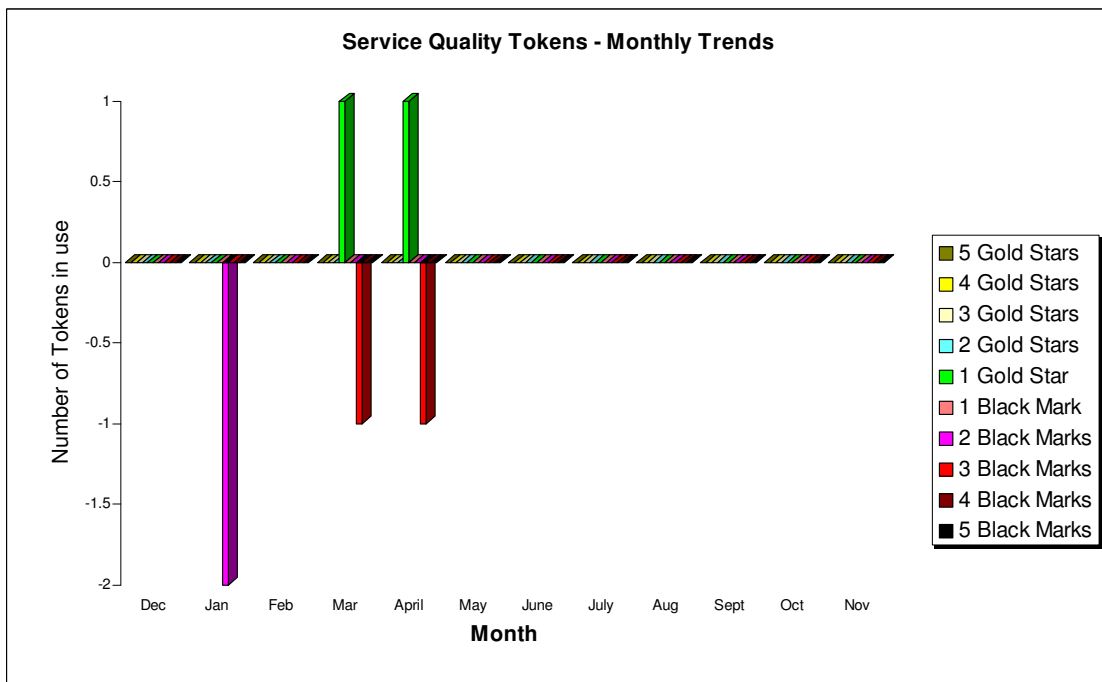
## 2.2 Service Quality Tokens

The position at the end of November 2002 is that none of the 540 users had awarded either black marks or gold stars to the service.



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

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



The current status of the Stendahl tokens is that there are no black marks or gold stars allocated to the service.

## 2.3 Throughput Target against Baseline

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

The Baseline Target for throughput was fully achieved this month due to plenty of work over the period.  
The actual usage figure was 188% of Baseline capacity.

### Job Throughput Against Baseline CSAR Service Provision

Period: 1st to 30th November 2002

	Baseline Capacity for Period (GFLOP Years)	Actual Usage in Period (GFLOP Years)	Actual % Utilisation c/w Baseline during Period
1. Has CIS failed to deliver Baseline MPP Computing Capacity for EPSRC?	11.80	22.25	188.6%
	Baseline Capacity for Period (GFLOP Years)	Job Time Demands in Period	Job Demand above 110% of Baseline during Period (Yes/No)?
2. Have Users submitted work demanding > 110% of the Baseline during period?	11.80	20.6	Yes
		Number of Jobs at least 4 days old at end Period	Number of Jobs at least 4 days old at end Period is not zero (Yes/No)?
3. Are there User Jobs outstanding at the end of the period over 4 days old?		3	Yes
		Minimum Job Time Demands as % of Baseline during Period	Minimum Job Time Demand above 90% of Baseline during Period (Yes/No)?
4. Have Users submitted work demands above 90% of the Baseline during period?		71%	No
	Number of standard Job Queues (ignoring priorities)	Average % of time each queue contained jobs in the Period	Average % of time each queue contained jobs in the Period is > 97%?
5. Majority of Job Queues contained jobs from Users for more than 97% during period?	4	81%	No

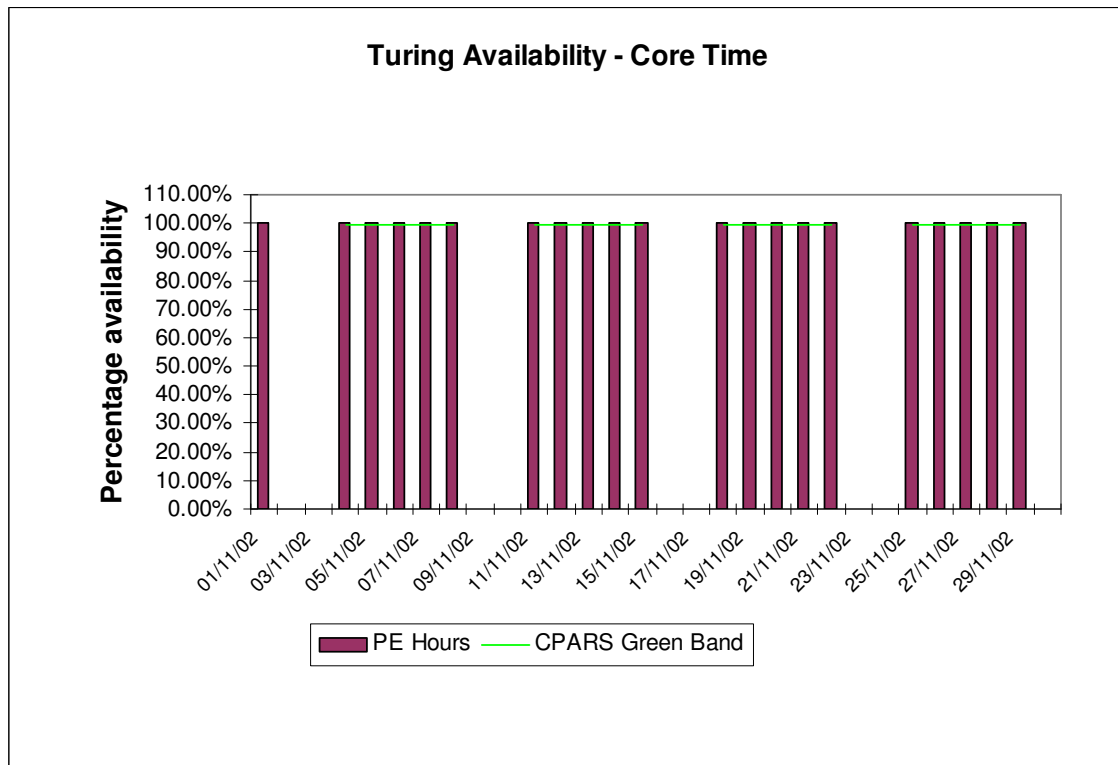
### 3. System Availability

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.

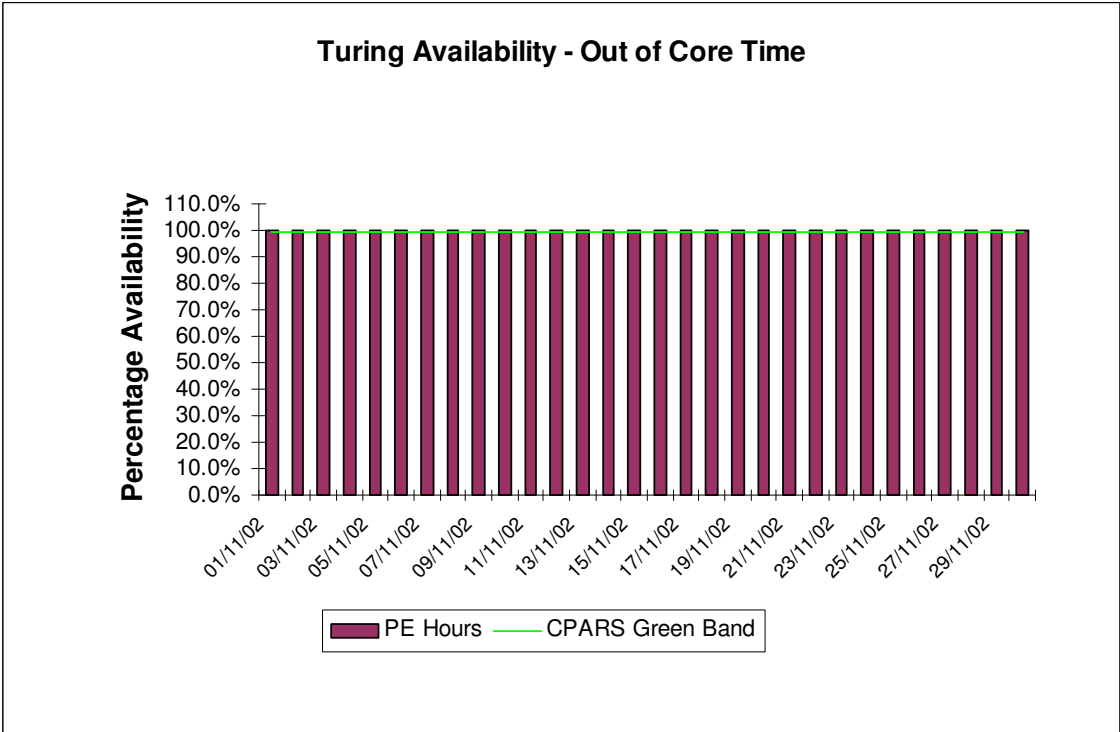
#### 3.1 Cray T3E-1200E System (Turing)

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> November.

Turing availability for November:



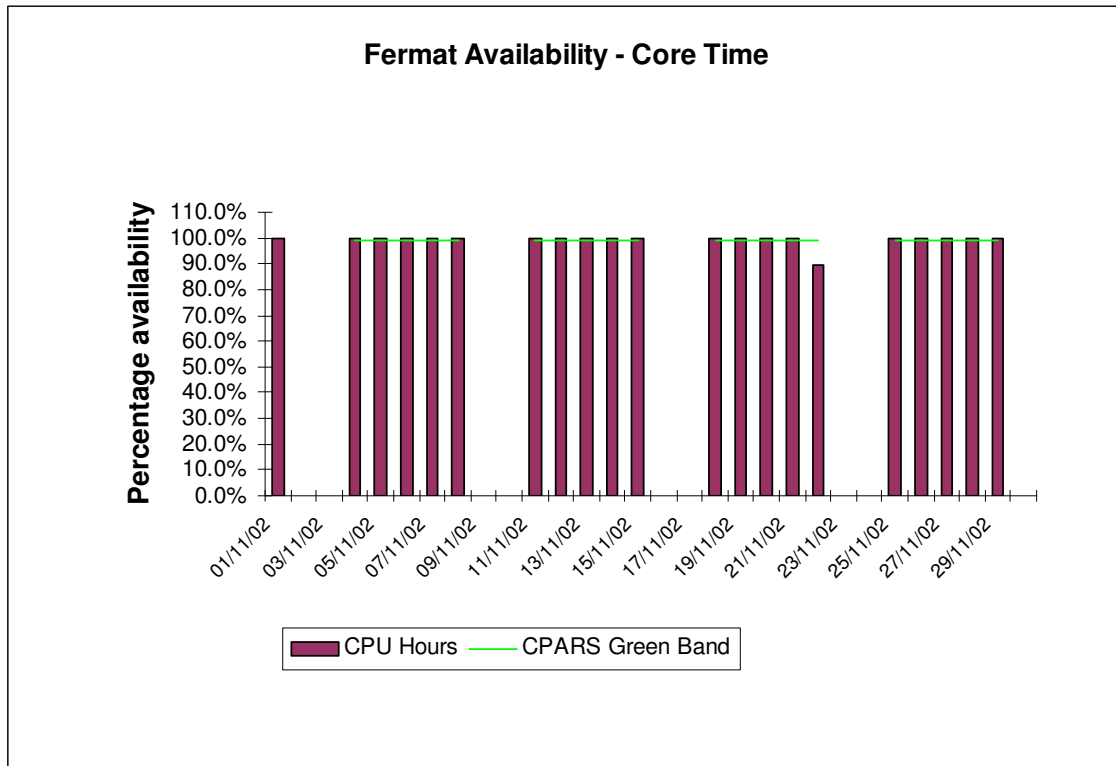
Availability of Turing in core time during November was excellent, with no outages.



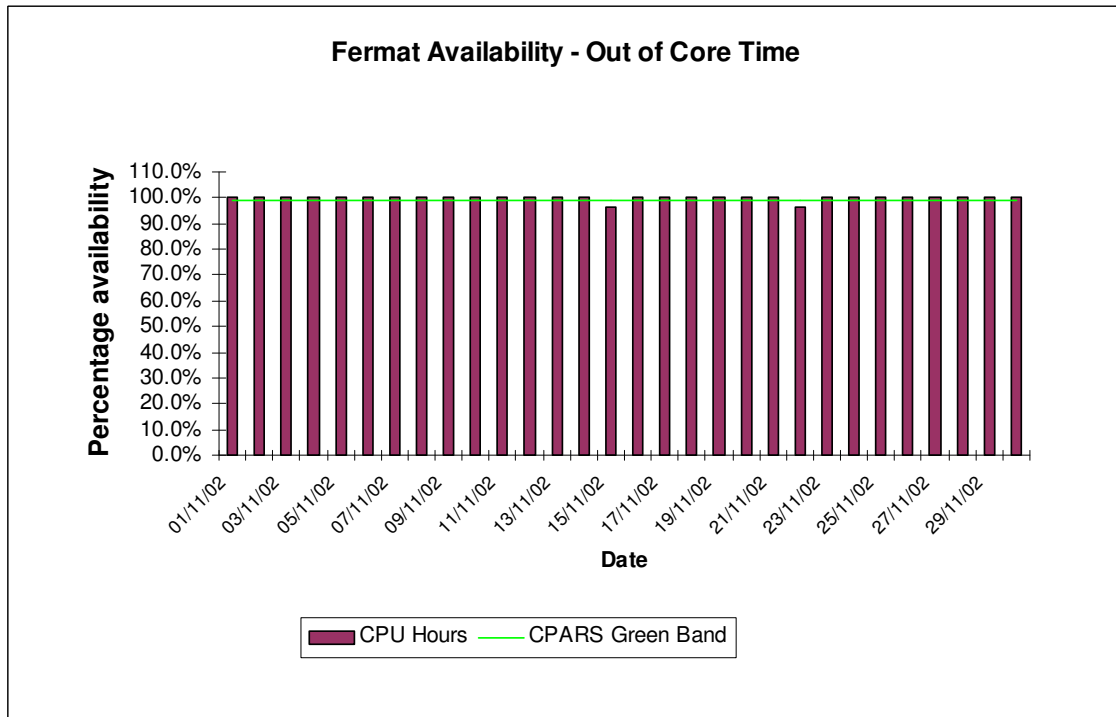
Availability of Turing out of core time during November was excellent, with no outages.

### 3.2 SGI Origin2000 System (Fermat)

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



Availability of Fermat in core time during November was very good, with one outage on the 22<sup>nd</sup> due to a technical issue with the SAN.

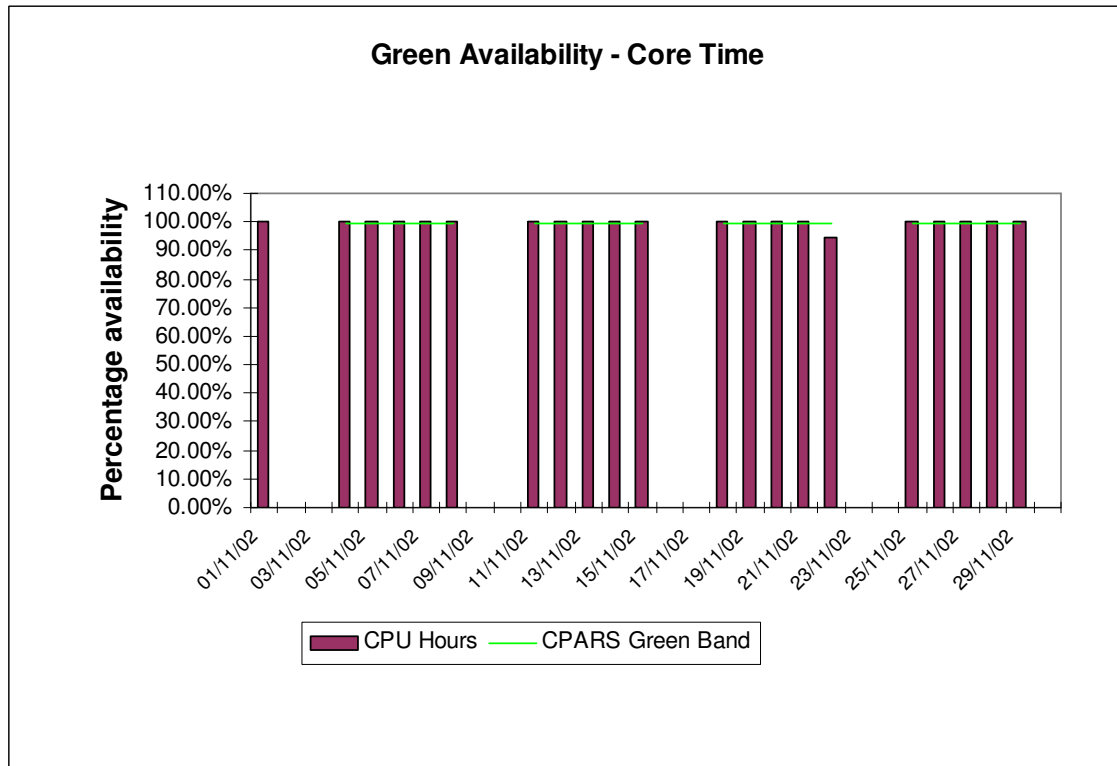


Availability of Fermat out of core time during November was good, with two brief outages.

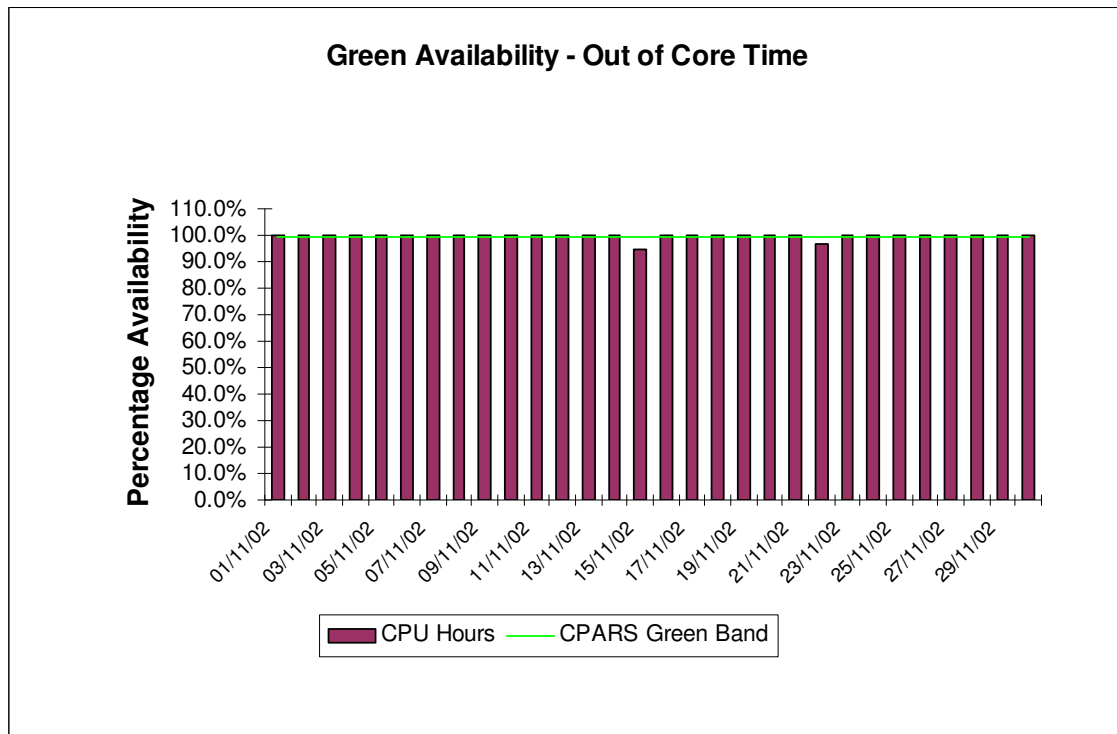


### 3.3 SGI Origin3000 System (Green)

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 November was very good, with one outage on the 22<sup>nd</sup> due to a technical issue with the SAN.



Availability of Green out of core time during November was good, with two short outages.

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

- CPU usage
  - Turing: 515,926 PE Hours
  - Fermat (Batch): 25,193 CPU Hours
  - Fermat (Interactive): 100.93 CPU Hours
  - Wren (Batch): 11.01 CPU Hours
  - Wren (Interactive): 207.93 CPU Hours
  - Green: 168,421 CPU Hours
- Fujitsu CPU usage
  - Fuji: 4,038 CPU Hours
- User Disk allocation
  - Turing: 67.53 GB Years
  - Fermat: 97.93 GB Years
  - SAN UHP: 7.4 GB Years
- HSM/tape usage
  - 3,252.12 GB Years

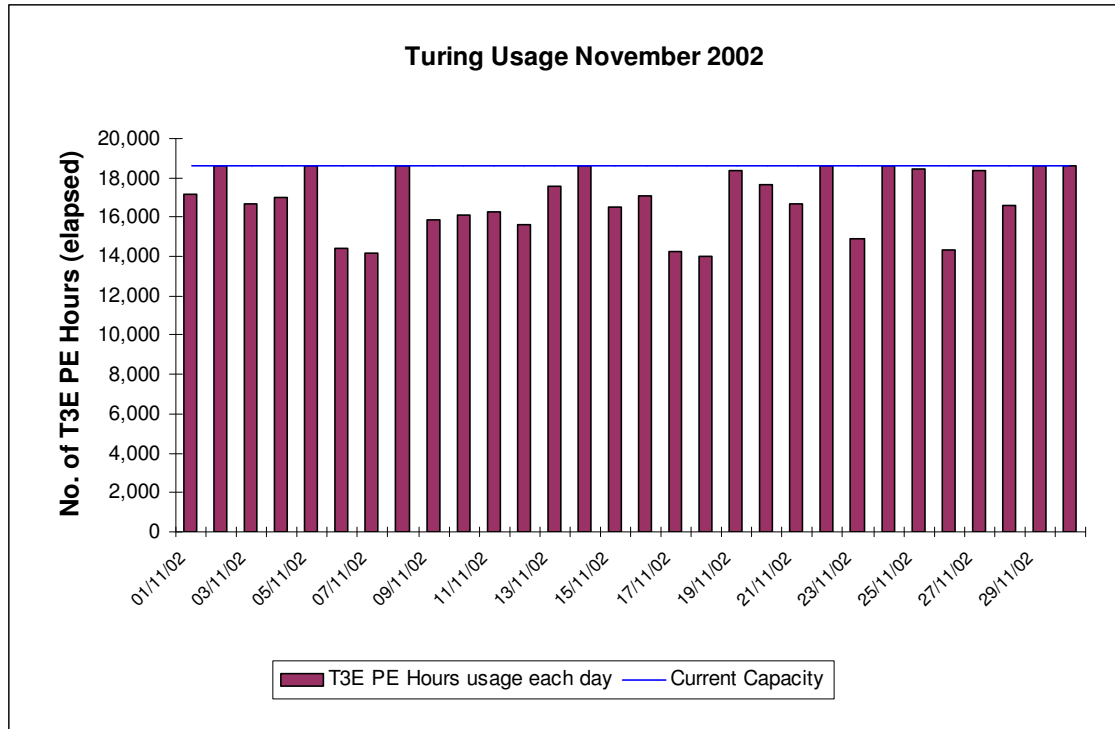
In addition, the following graphs are provided to illustrate usage per month, historically:

- 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 November 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 November:



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

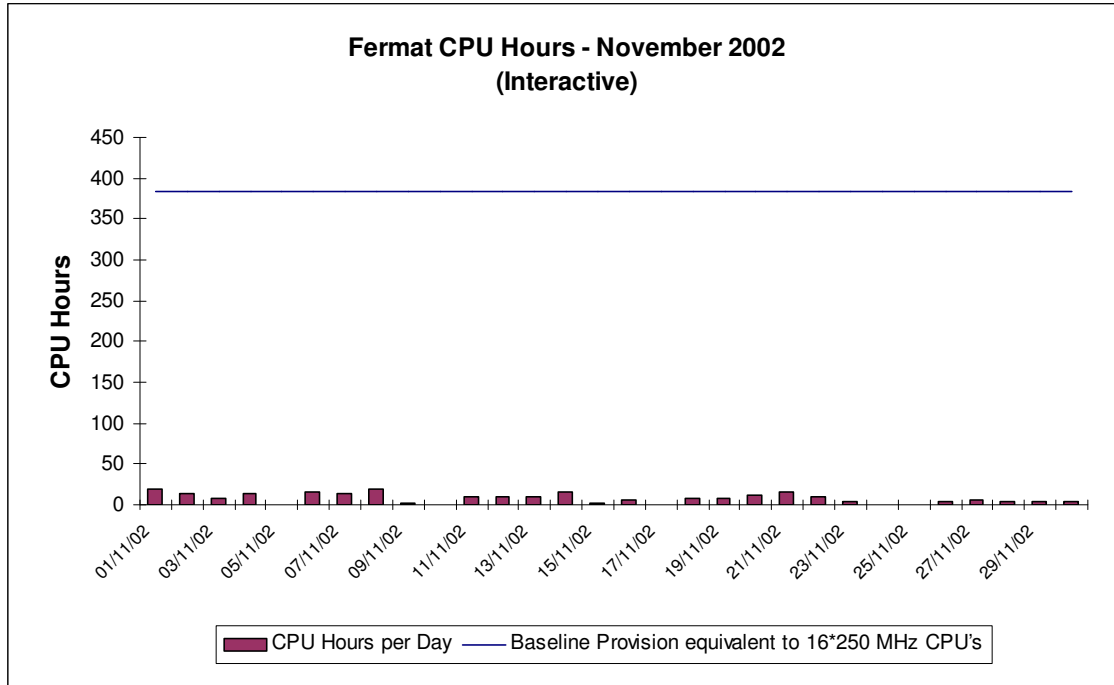
The graph also indicates the workload reached 100% of maximum theoretical capacity some parts of the month.

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.

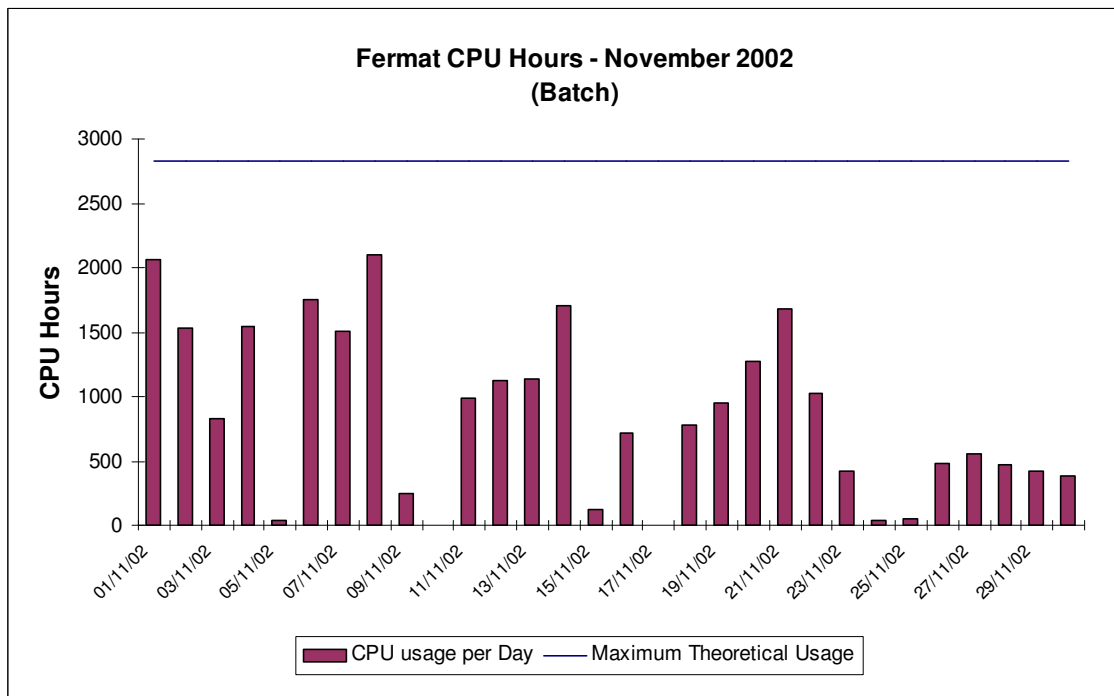
In particular, Turing will continue to start large jobs above 256 PEs, including 512 PEs, when they are queued subject to the overall workload.

## 4.2 SGI Origin2000 System (Fermat)

The usage of the Origin system was low. The groups most heavily using the Fermat system are CSE002 (Wander), CSE009 (Slater), and CSN001 (De Cuevas).

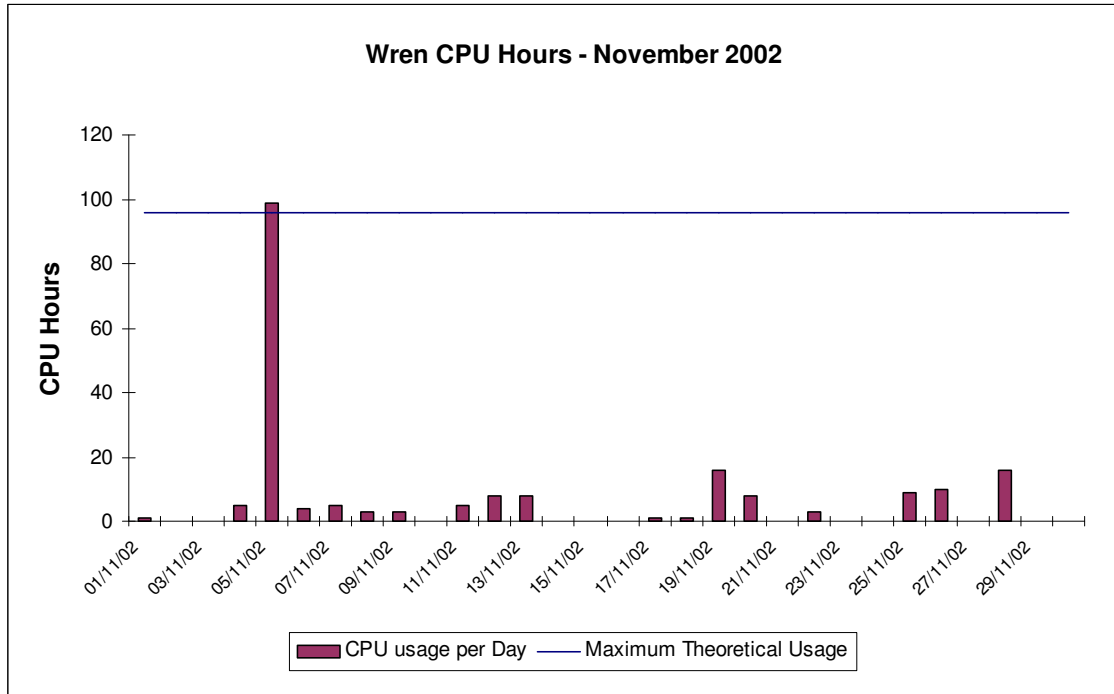


The graph above shows the interactive usage of the Origin 2000 (Fermat).



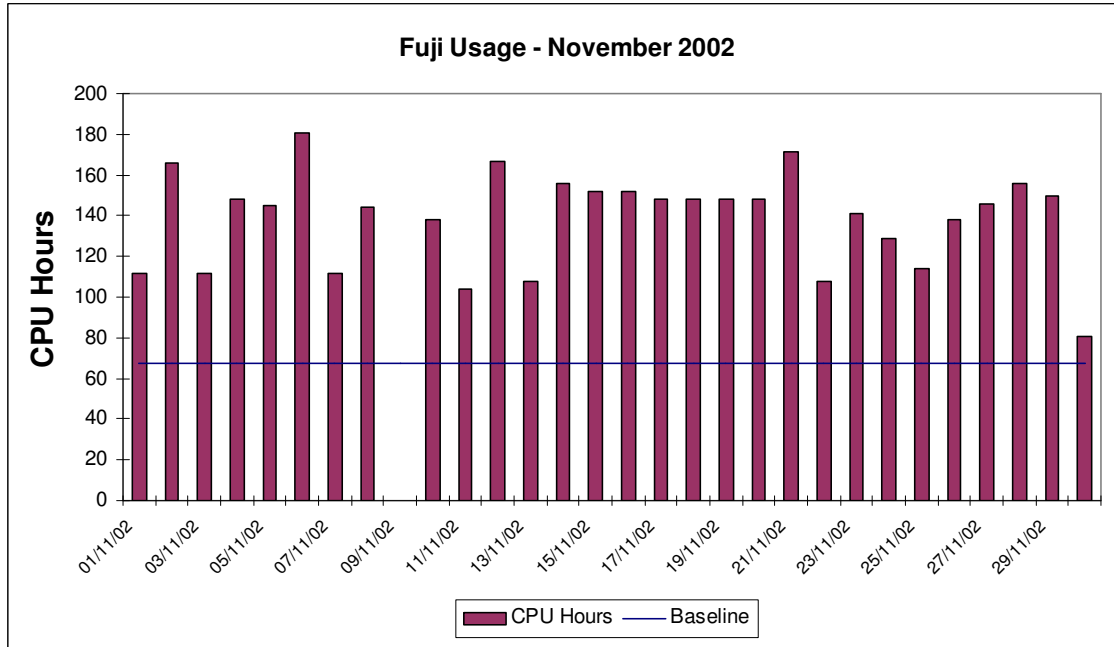
The above graph to a different scale shows the variable batch utilisation of the Origin 128.

### 4.3 SGI Origin300 System (Wren)



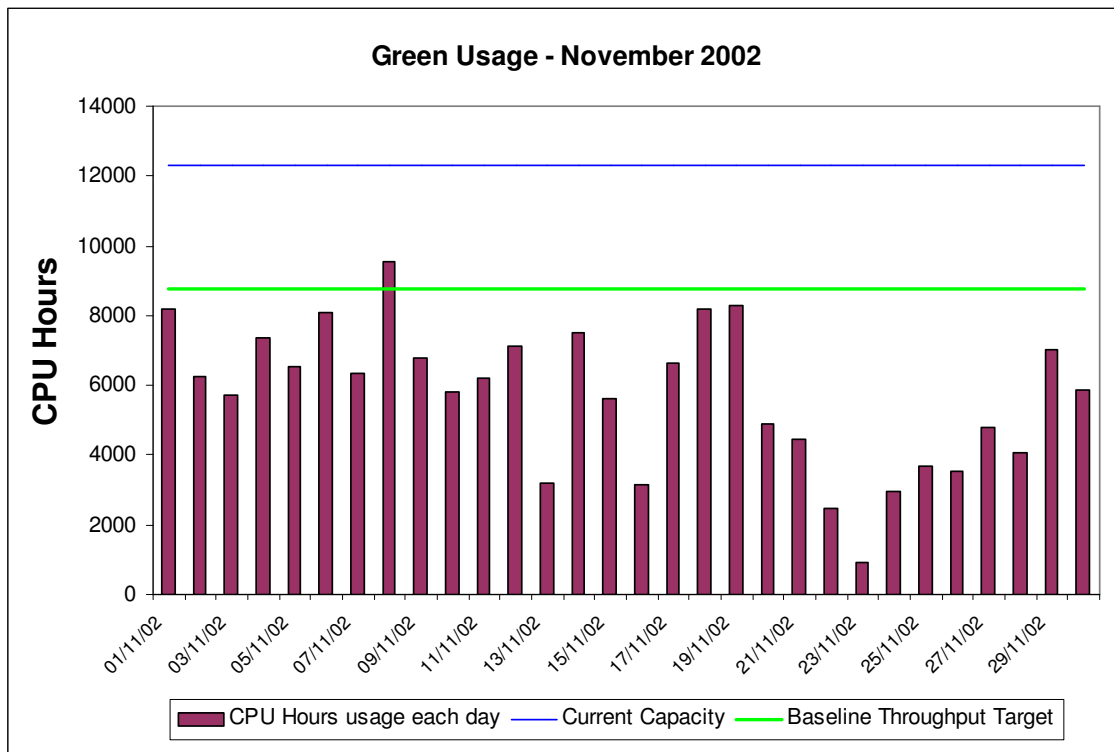
The above graph shows the utilisation of the new SGI system Wren for the month of November. Wren is intended to take over as the interactive machine from Fermat, with just a small number of CPUs available for batch compilation jobs.

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



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

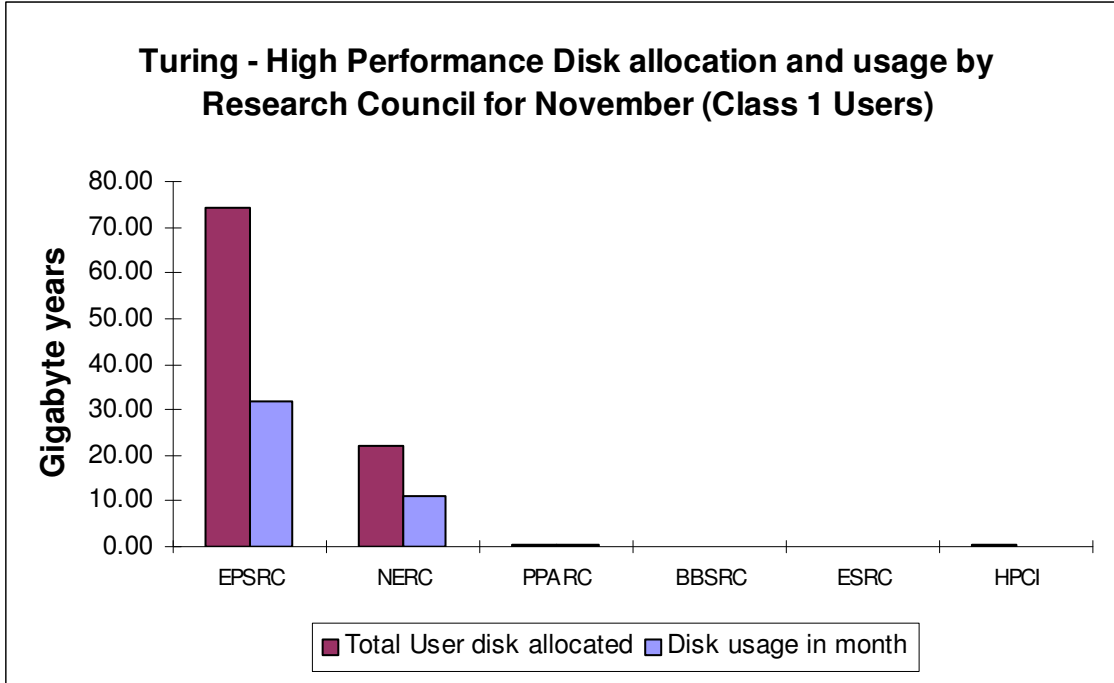
#### 4.5 SGI Origin3000 System (Green)



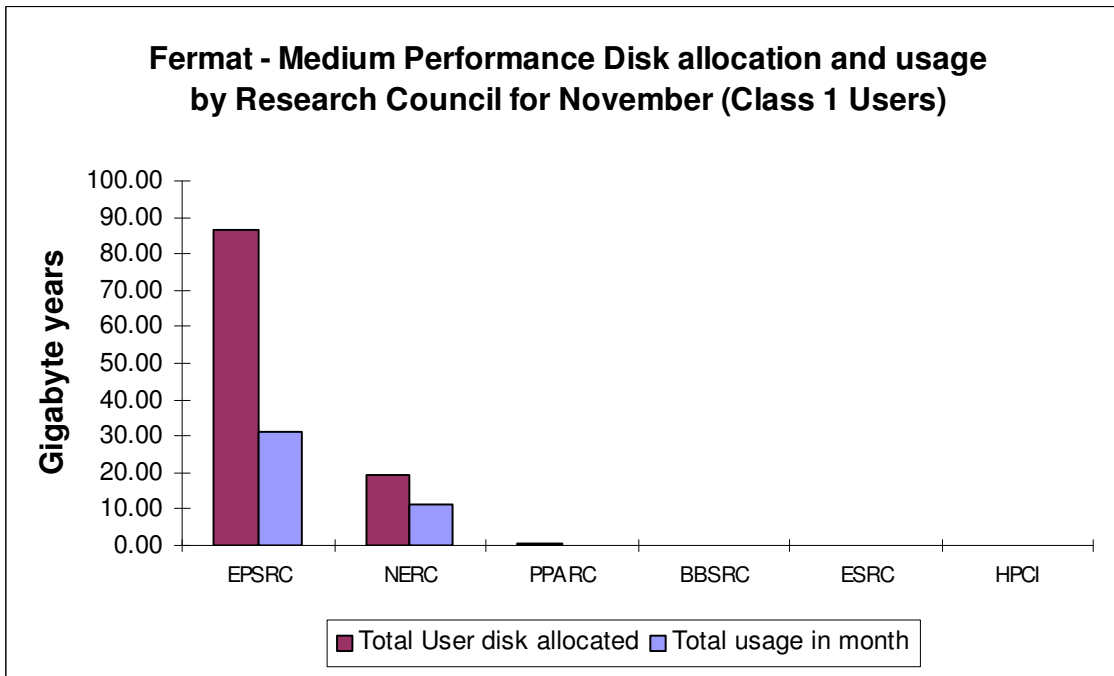
The above graph shows the utilisation of Green for the month of November, which saw the system running with a varied load.

### 4.6 Disk/HSM Usage Charts

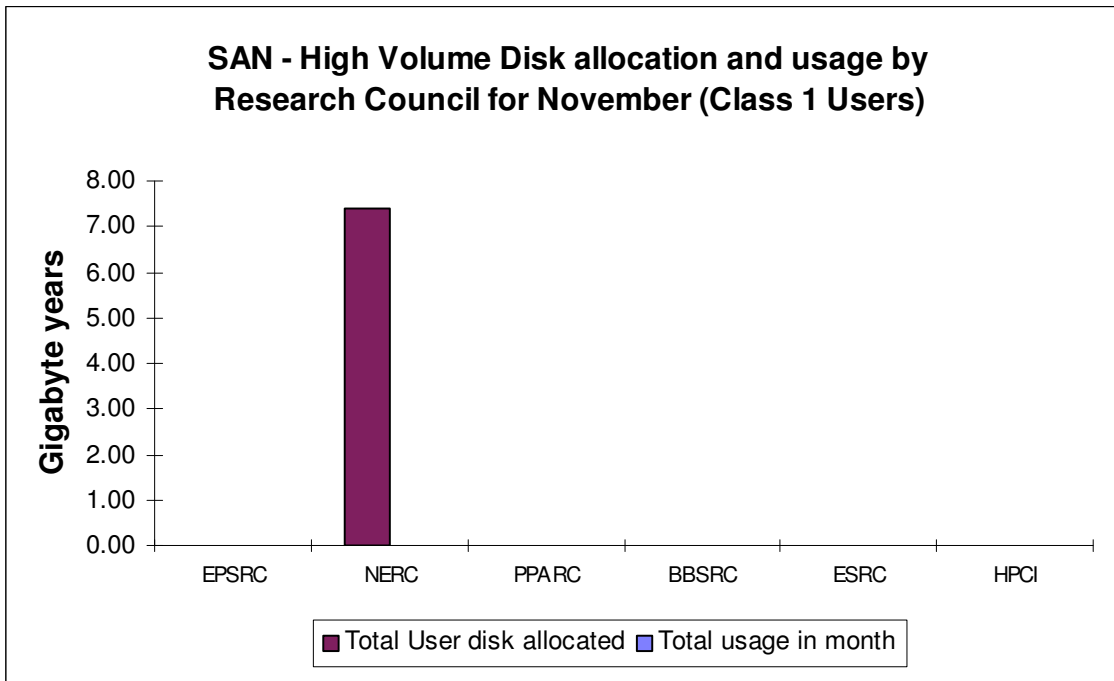
The graphs below show current disk and HSM allocations and usage.



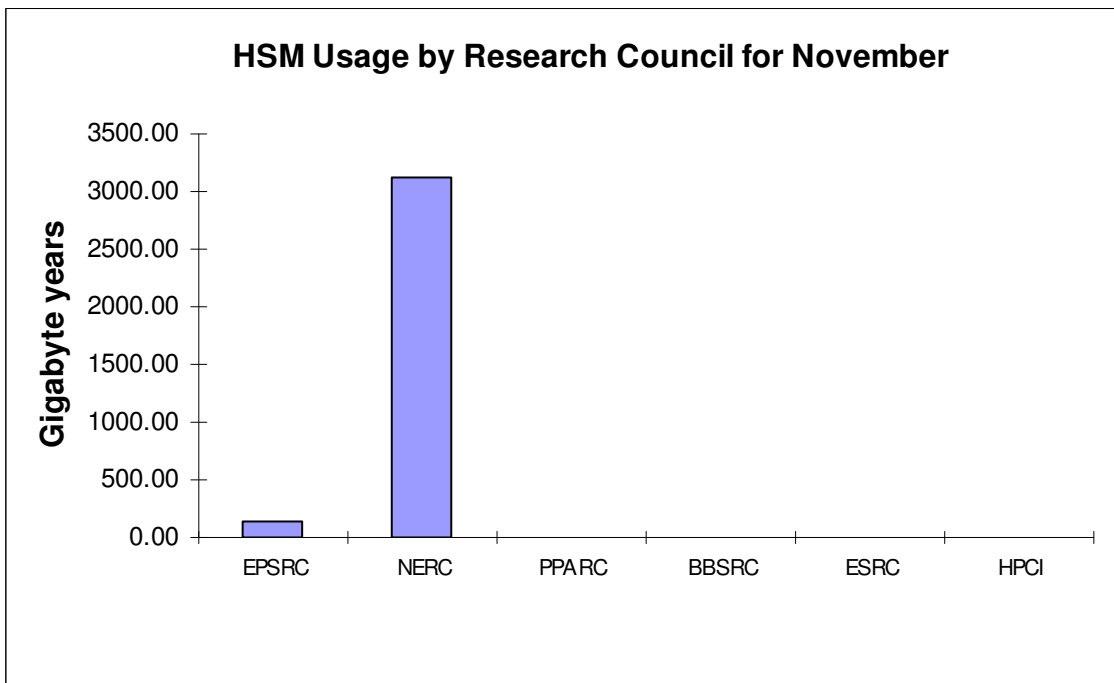
The preceding graph shows actual usage on average against the current allocation of disk on the Turing system.



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



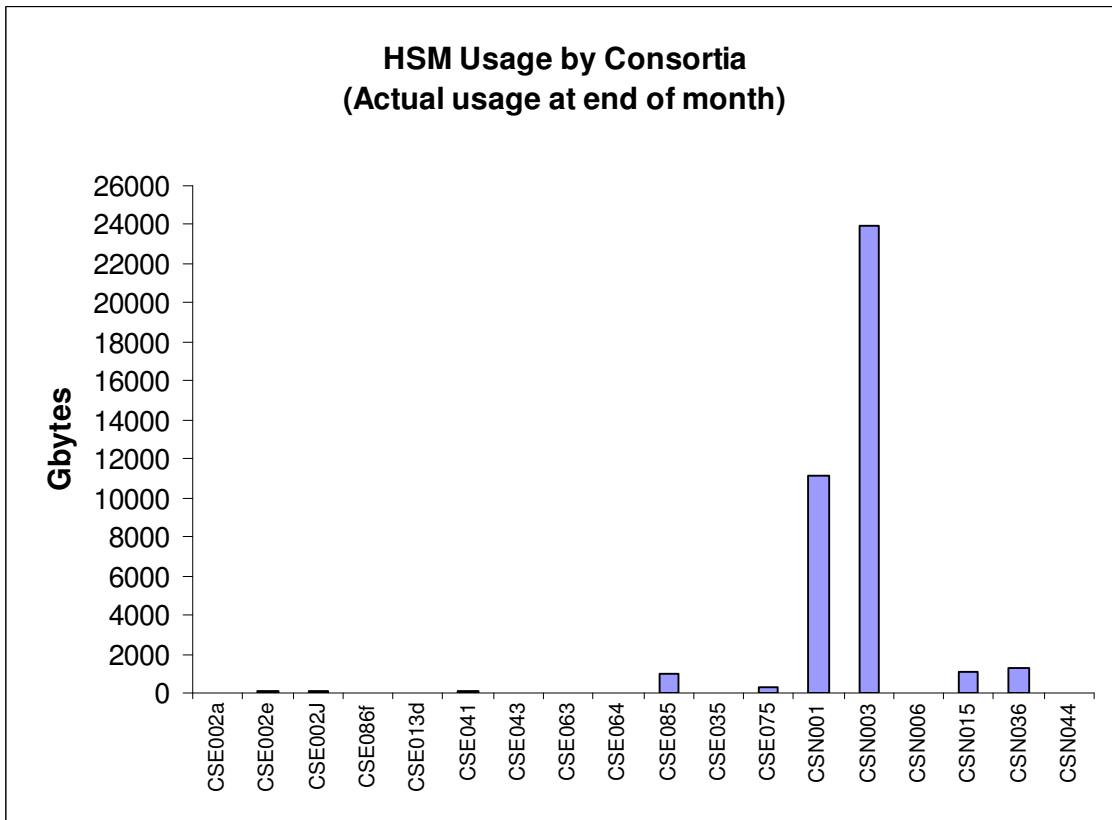
The above graph shows the disk allocation against usage on average of the new SAN High Volume (HV) disk.



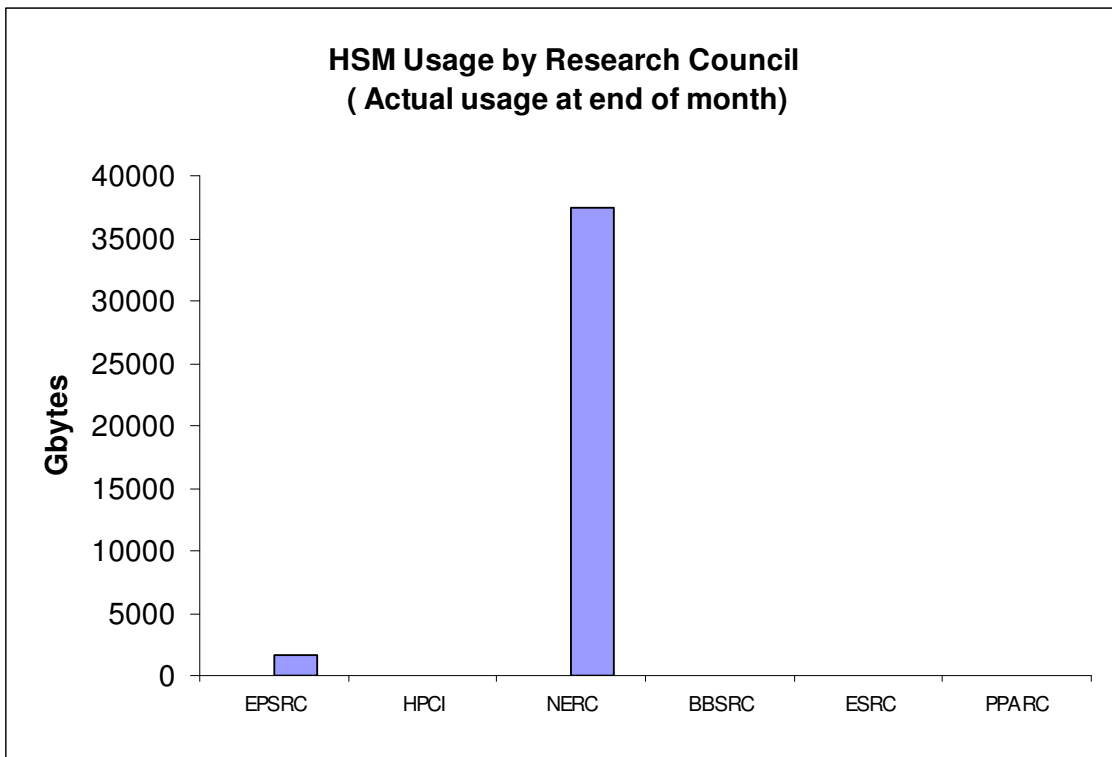
The above graph shows the total usage of the HSM facility by Research Council.

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



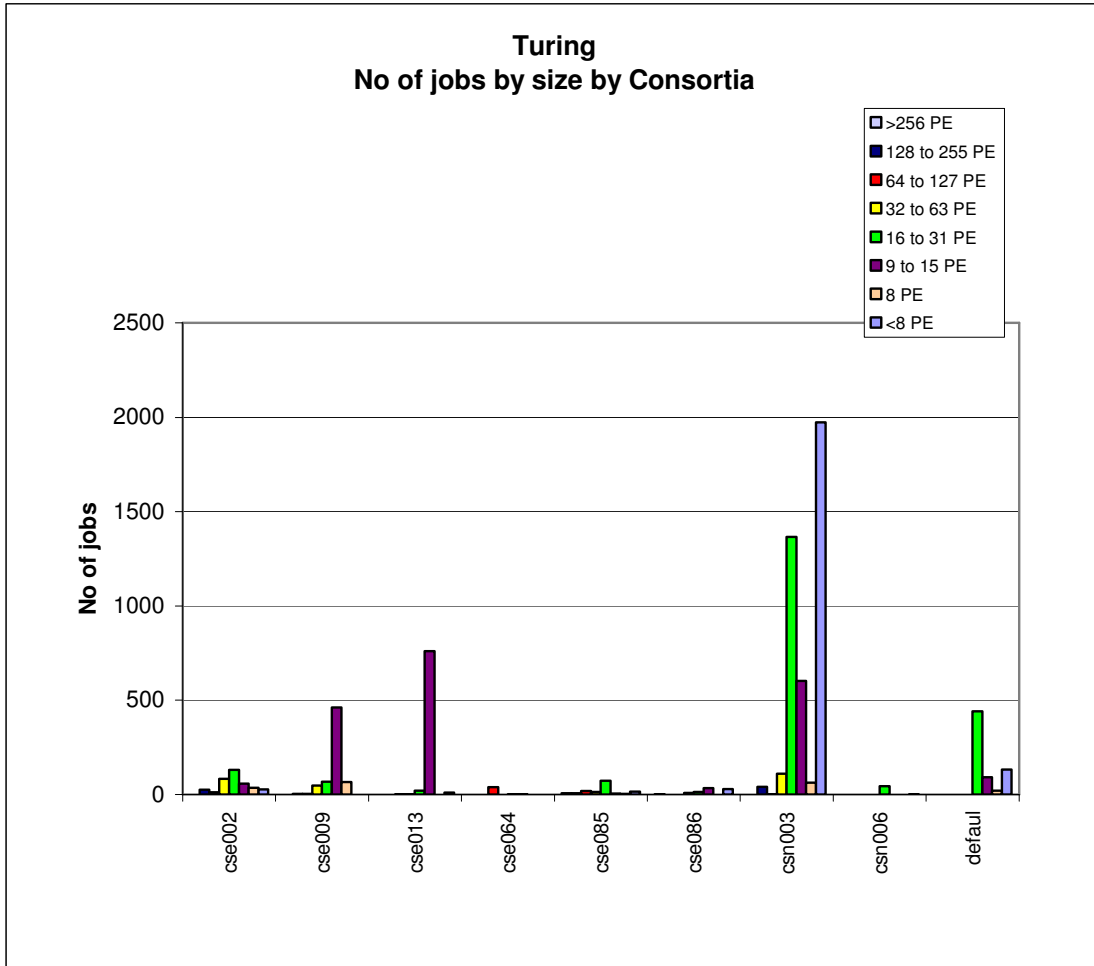


CSE085 (Sandham), CSN001 (De Cuevas), CSN003 (O'Neill), CSN015 (Proctor) & CSN036 (Woolf) were the major users of HSM resource.



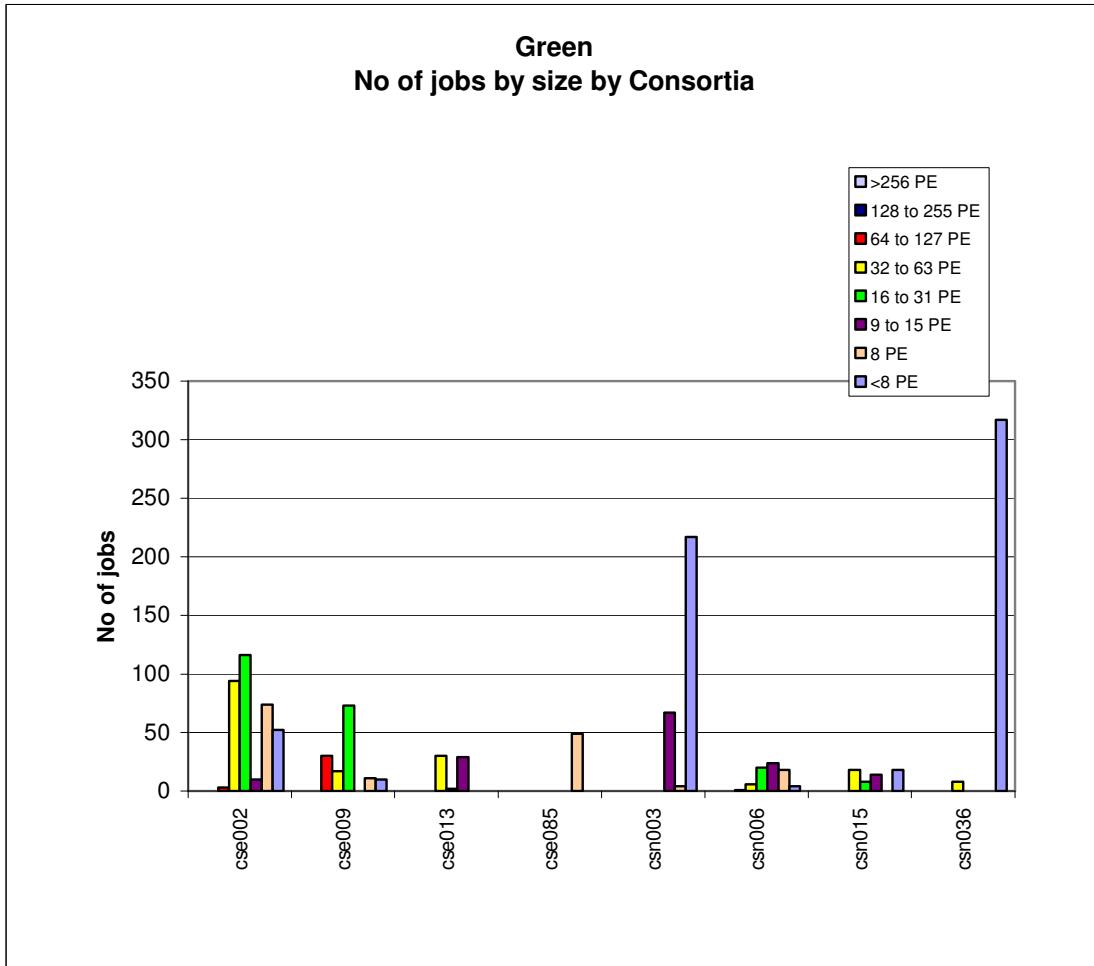
### 4.7 Processor Usage and Job Statistics Charts

Job statistics for Turing:



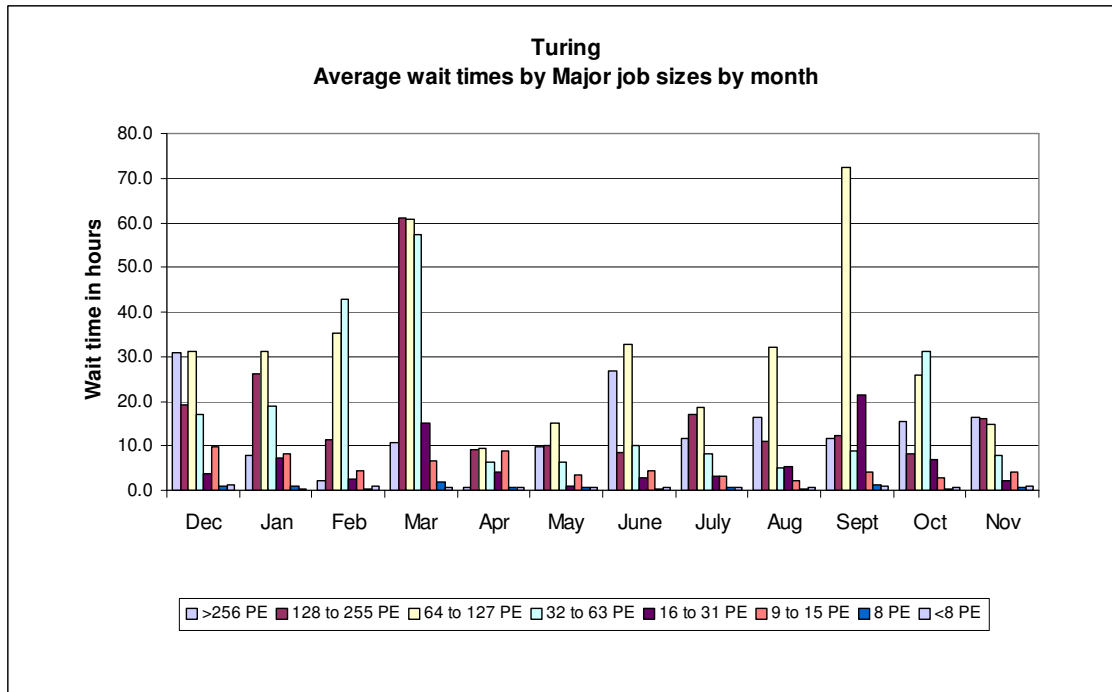
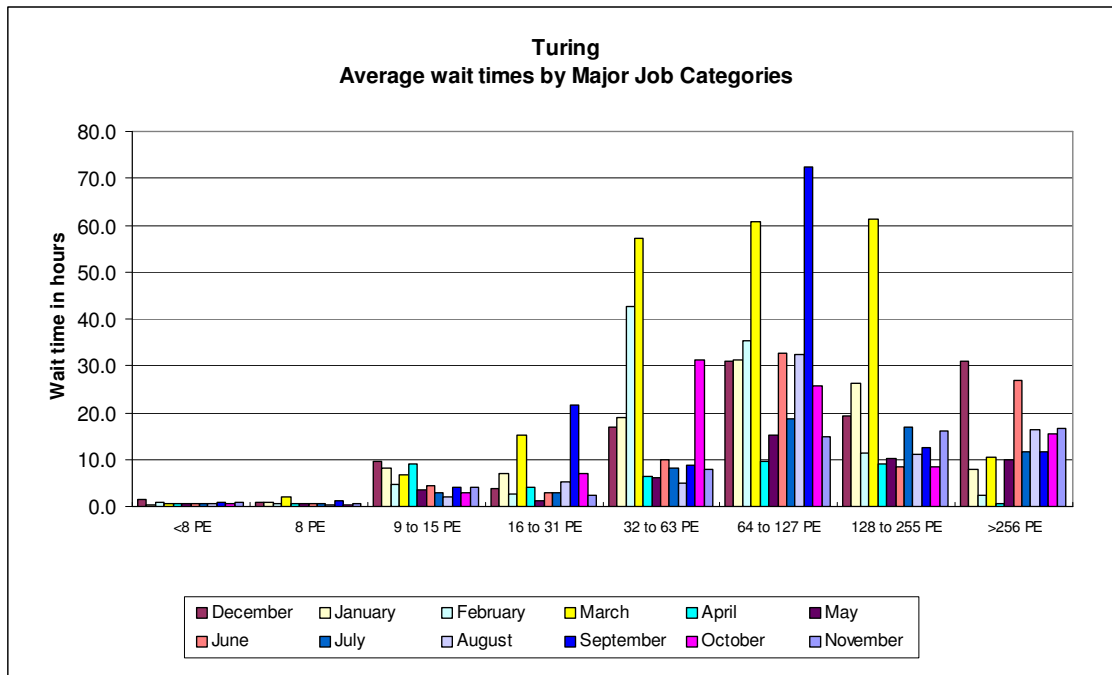
The above graph shows the number of jobs of the major sizes run in the period 1<sup>st</sup> to 30<sup>th</sup> November 2002.

Job statistics for Green:



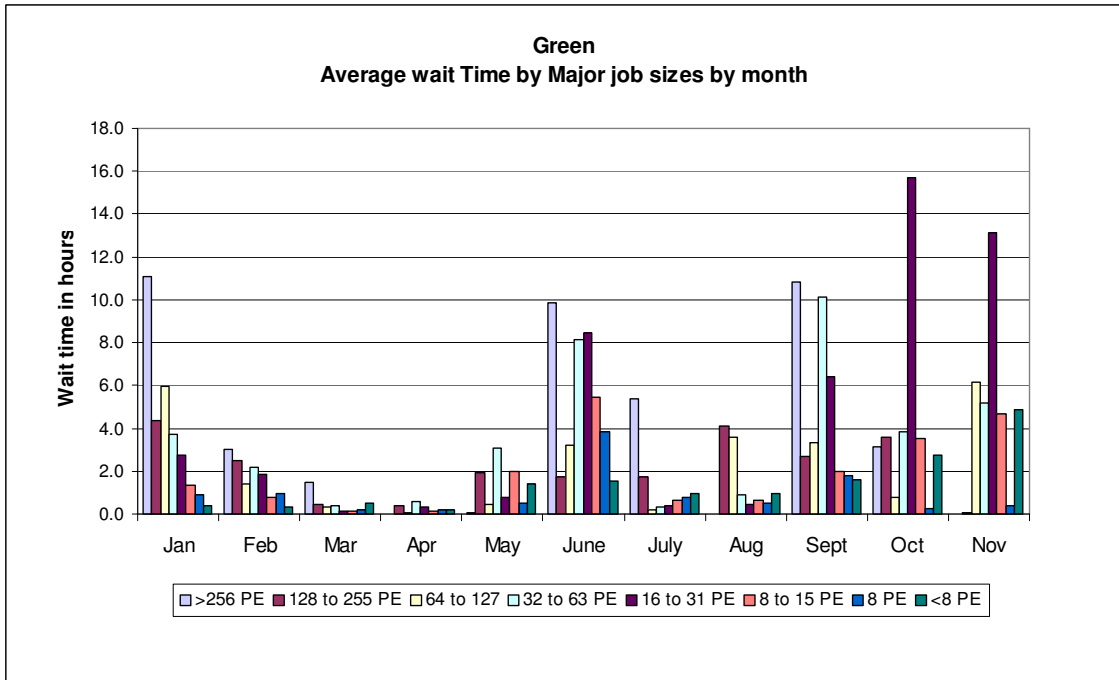
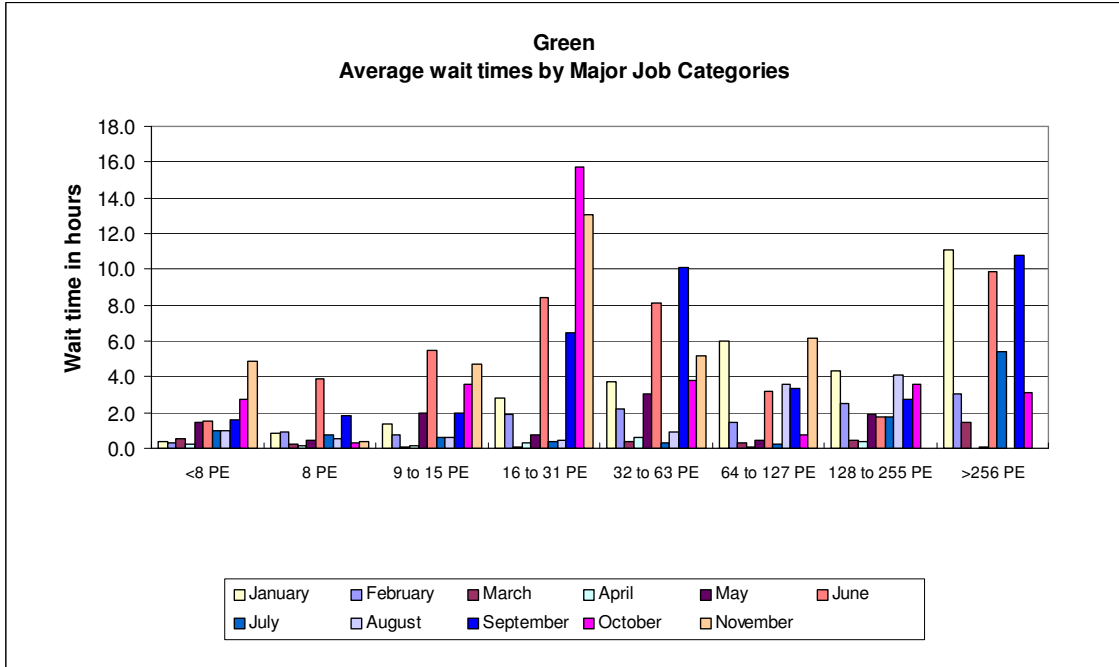
The above graph shows the number of jobs of the major sizes run in the period 1<sup>st</sup> to 30<sup>th</sup> November 2002.

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

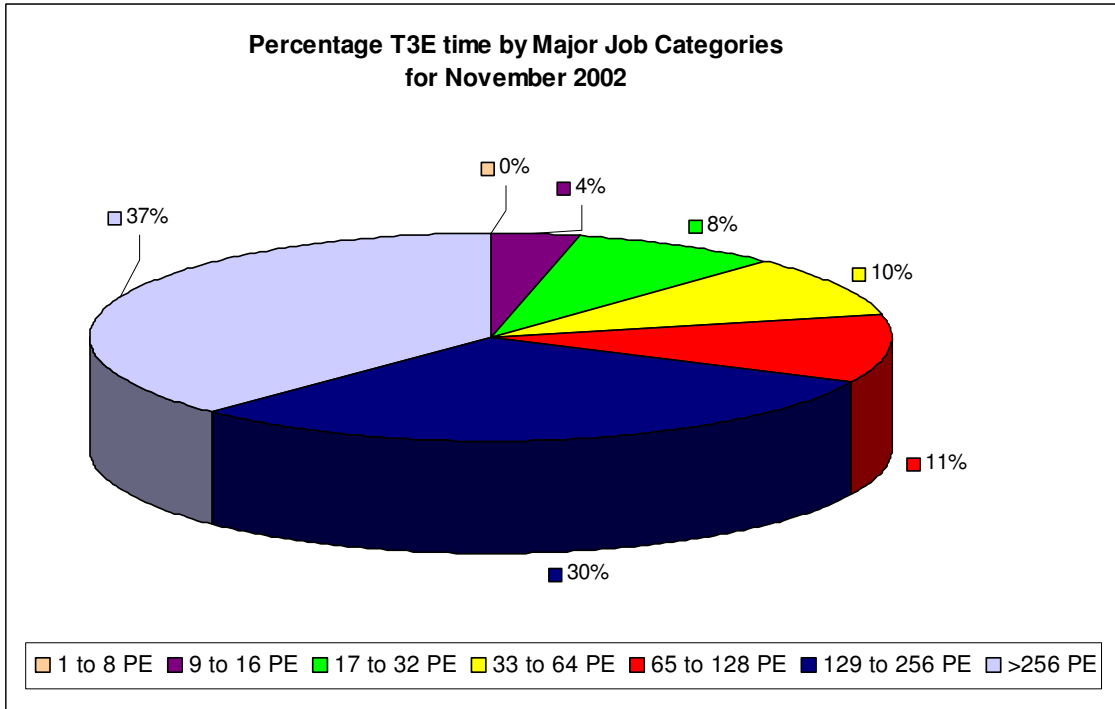


The chart above shows the average wait time trend on Turing over the last 12 months. Wait times for all jobs have continued to stay low now that Green is in full production usage as a 512 PE machine.

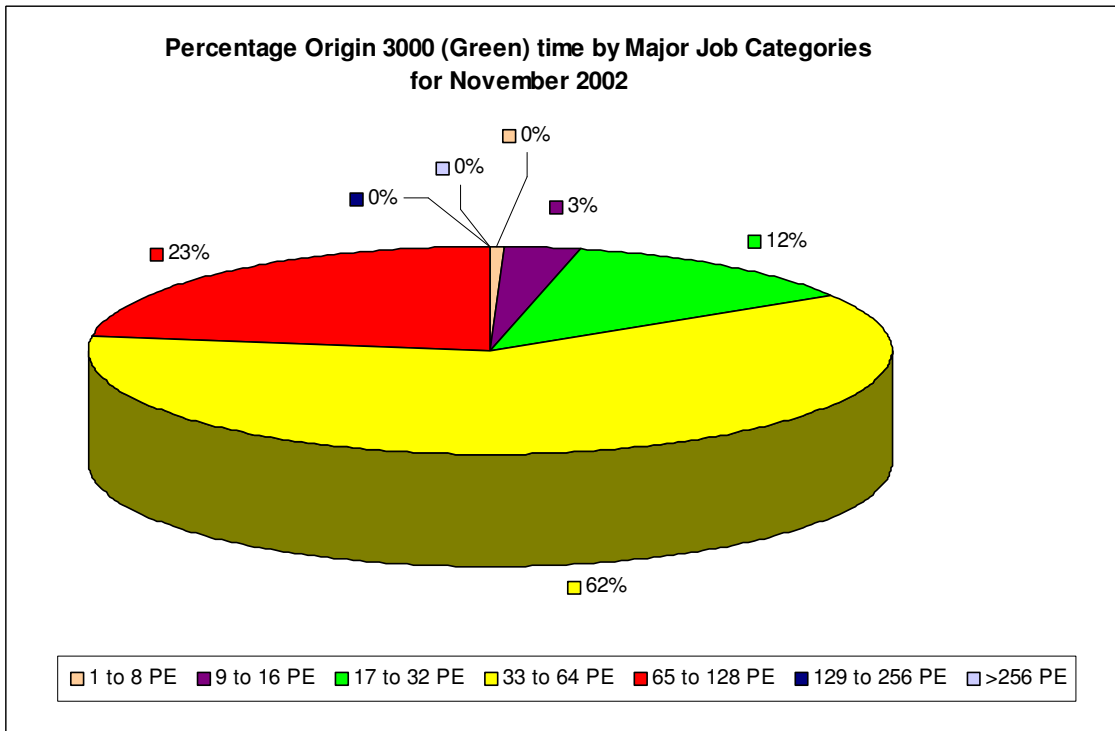
The next graph shows the wait times in minutes on Green for the major categories of jobs:



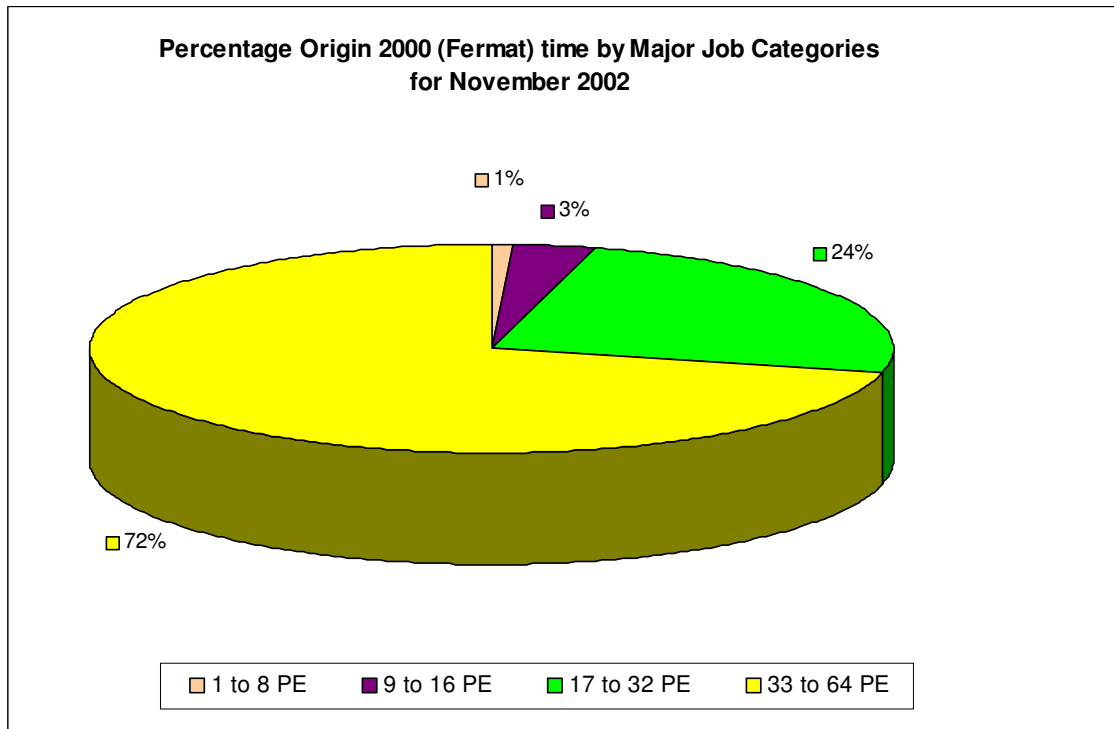
The chart above shows the average wait time trend on Green for November.



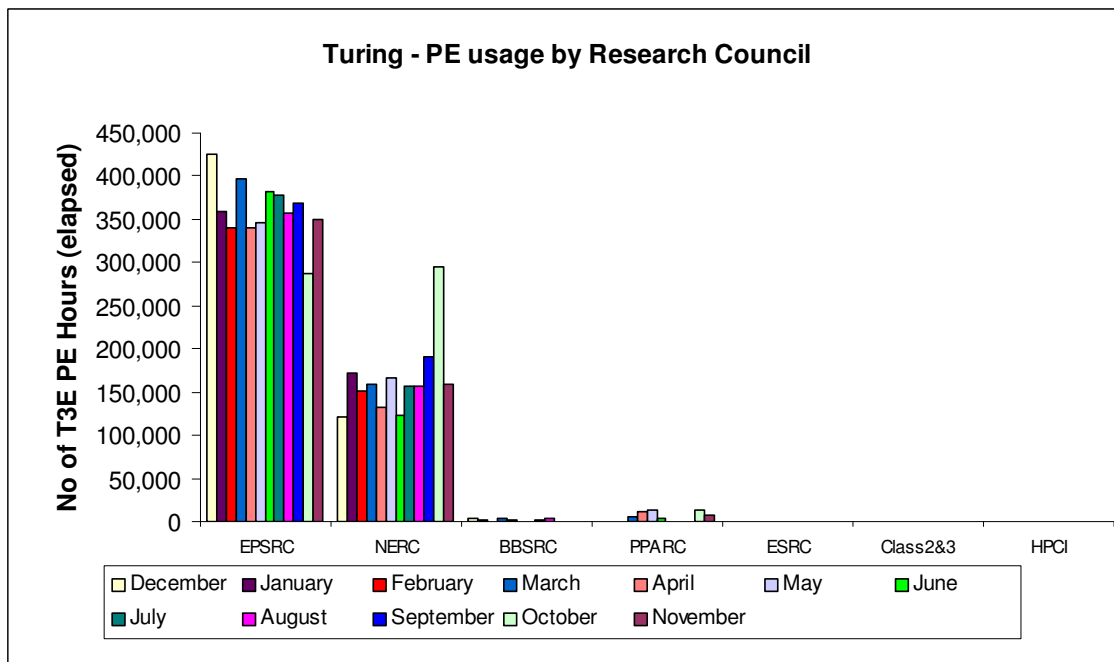
The largest proportion of the workload on Turing, 78%, was greater than 64 PEs in size.



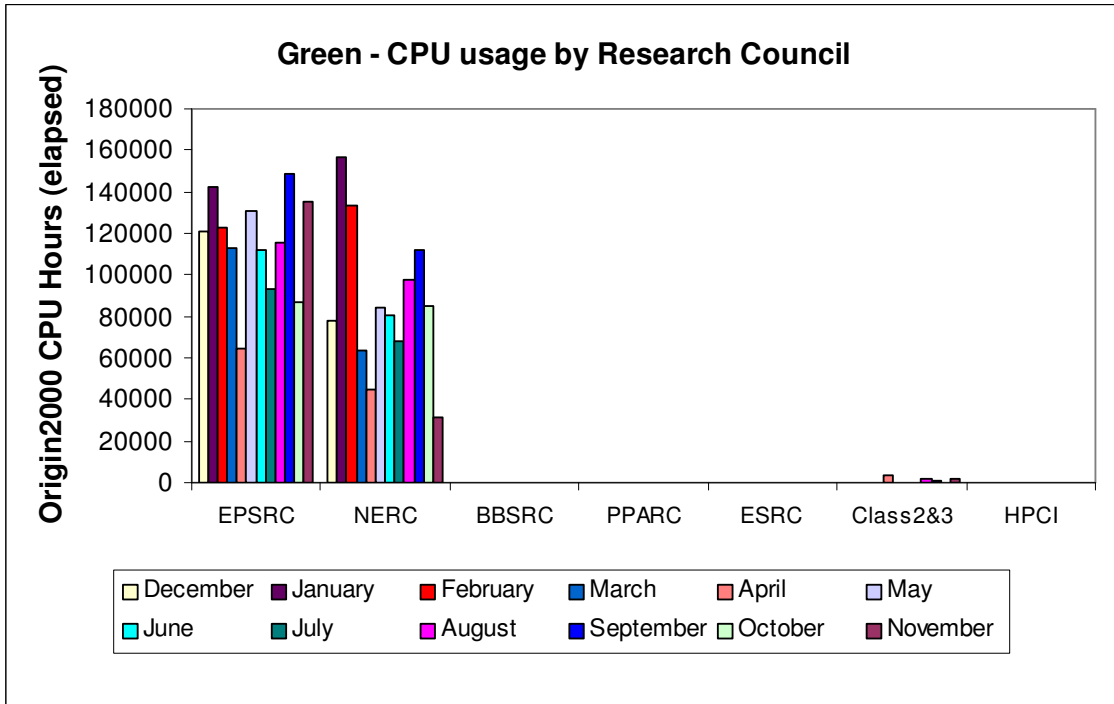
As can be seen from the above chart, the greatest portion of work on Green during November was in the 33 to 64 PE range, at 62% of the total workload.



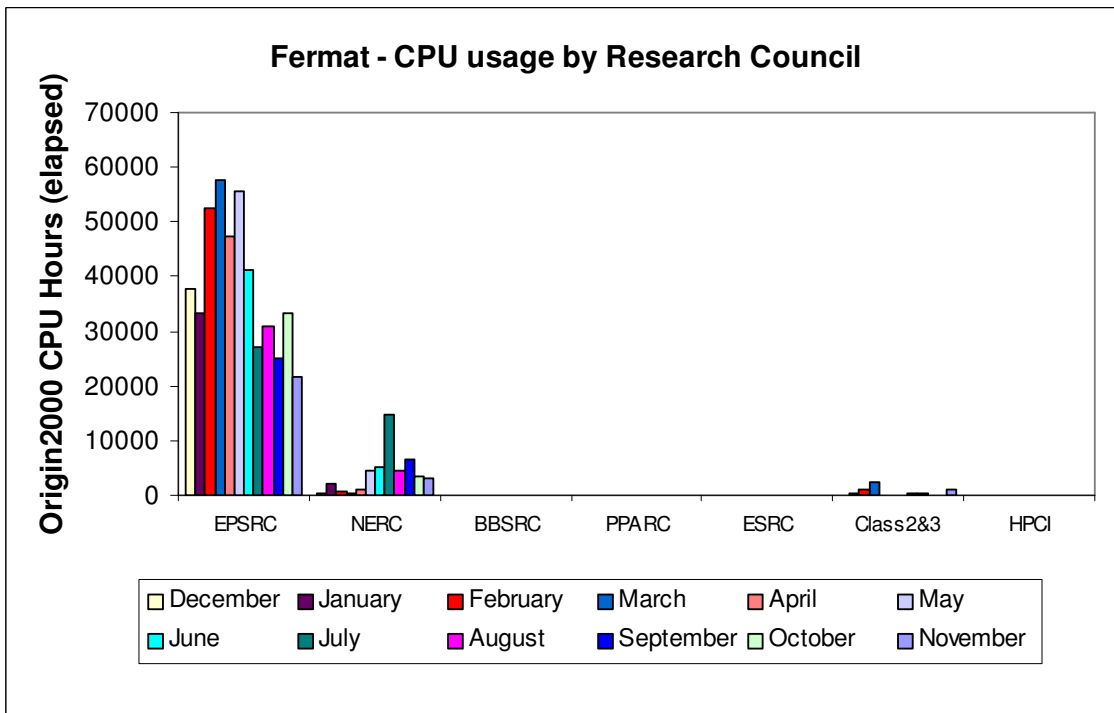
The greatest concentration of work across Fermat for November was in the 33 to 64 PE range.



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



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

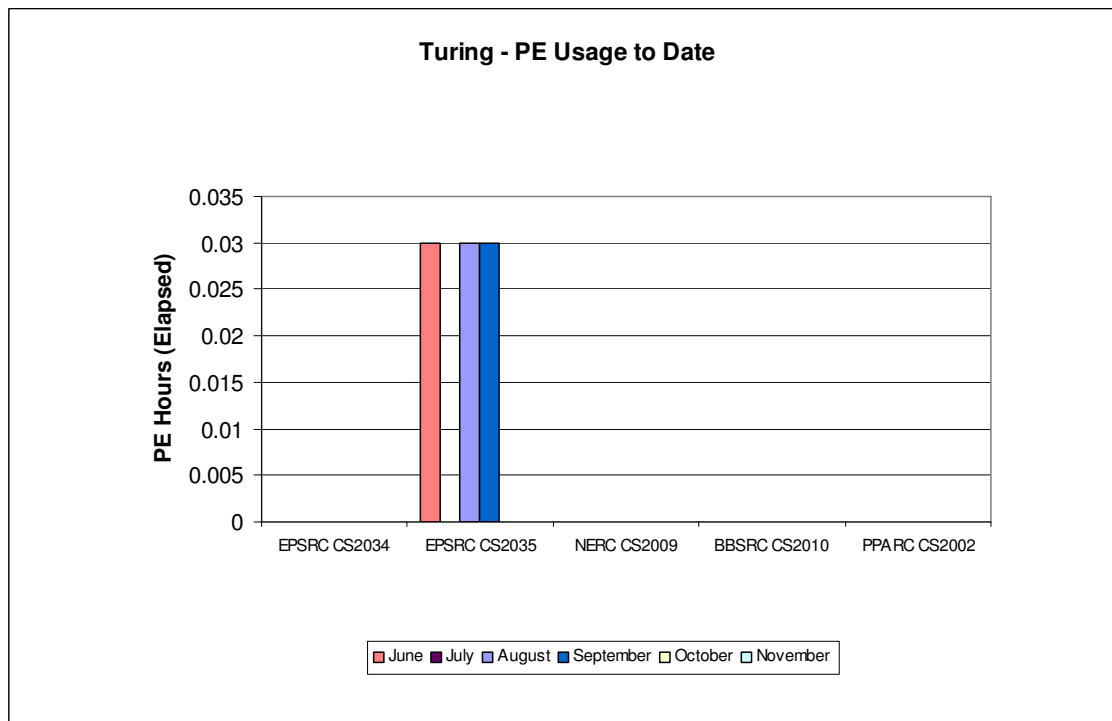


Origin 2000 CPU usage is shown by Research Council during the past 12 months of service in the above chart.

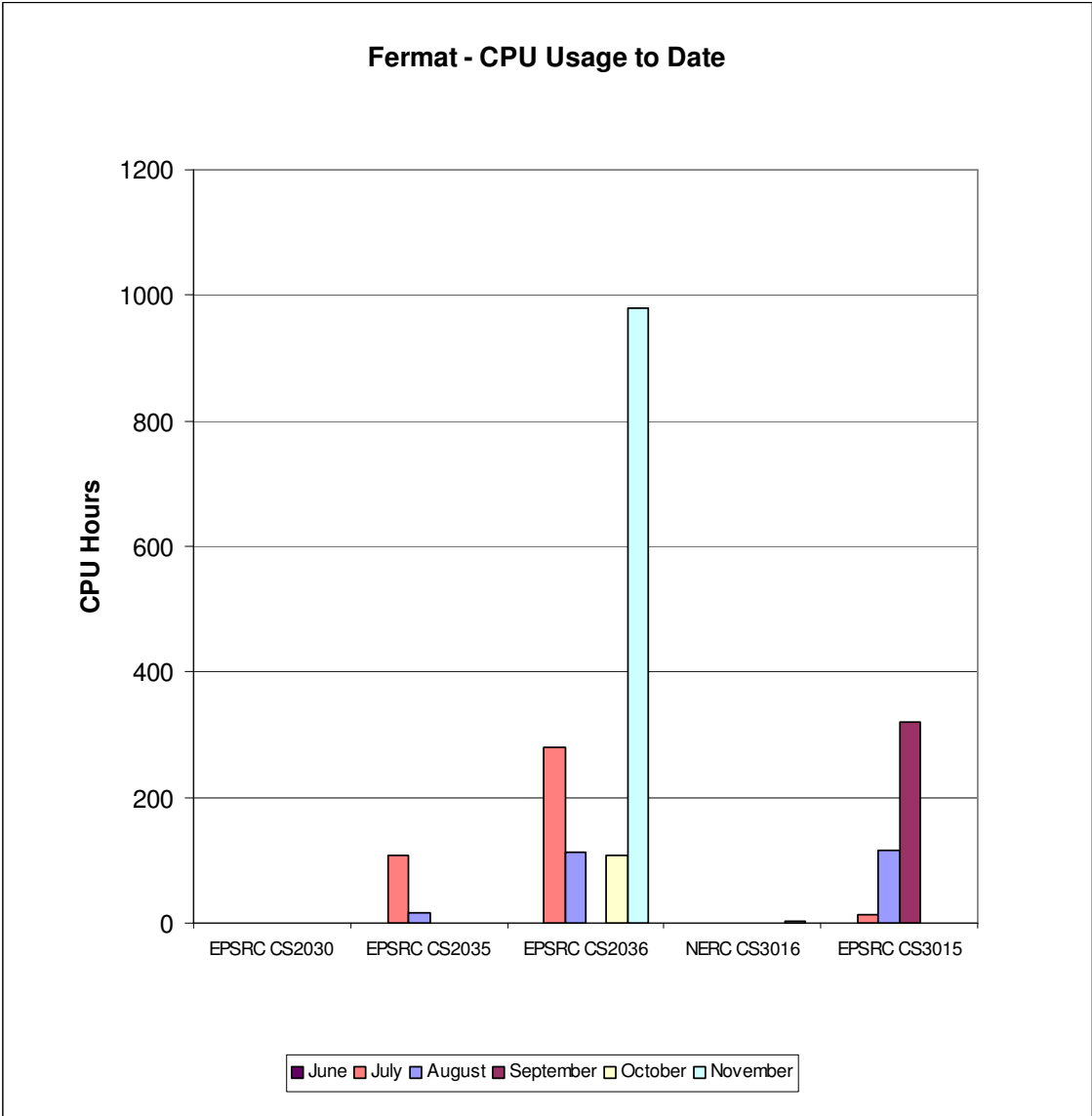


#### 4.8 Class 2 & 3 Usage Charts

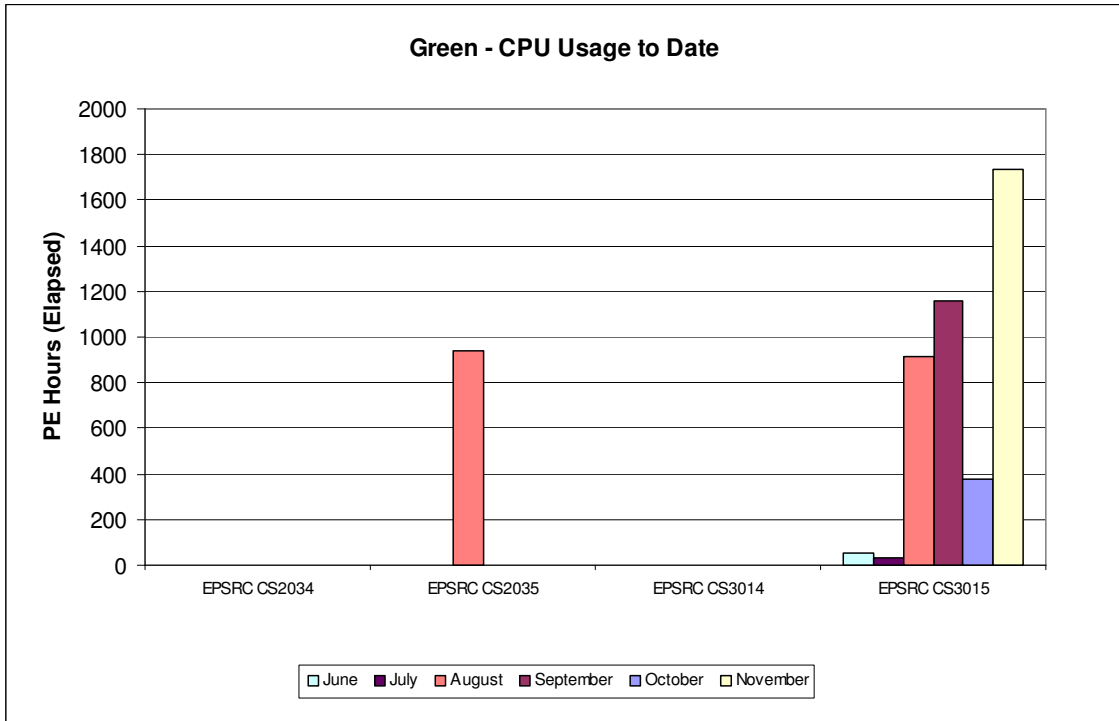
The next series of charts show the usage of the system by the class 2 & class 3 users. The usage is shown by project and identifies the Research Council of the individual projects.



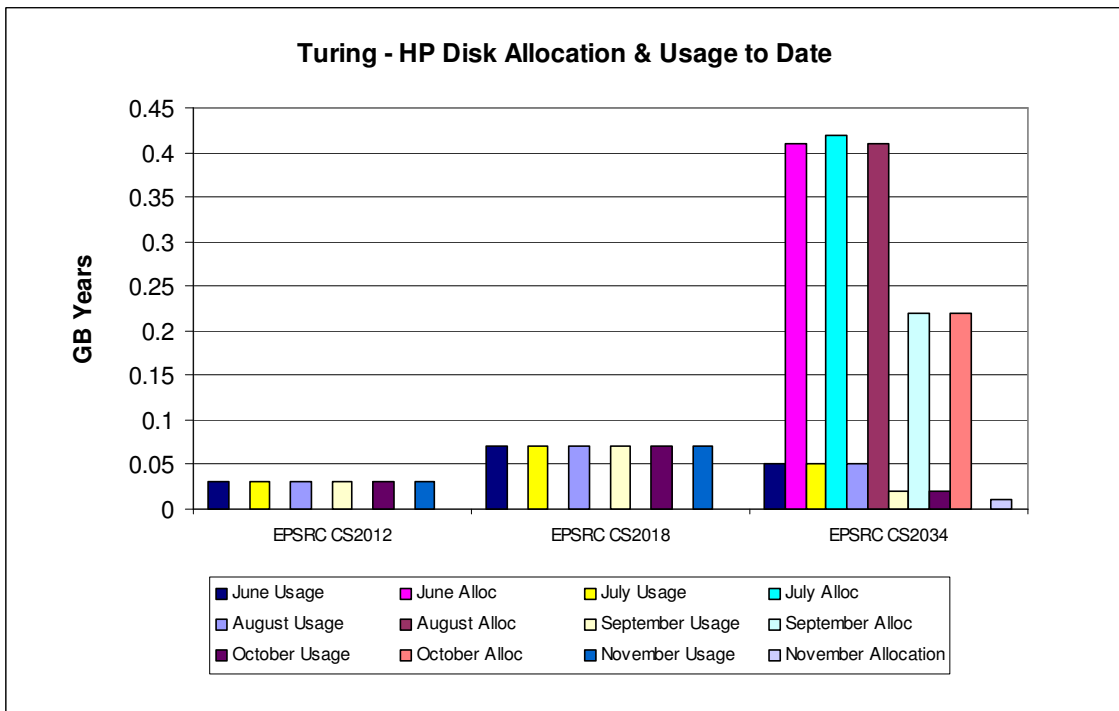
The above chart shows the most significant PE usage of the Turing system by class 2 and class 3 users.



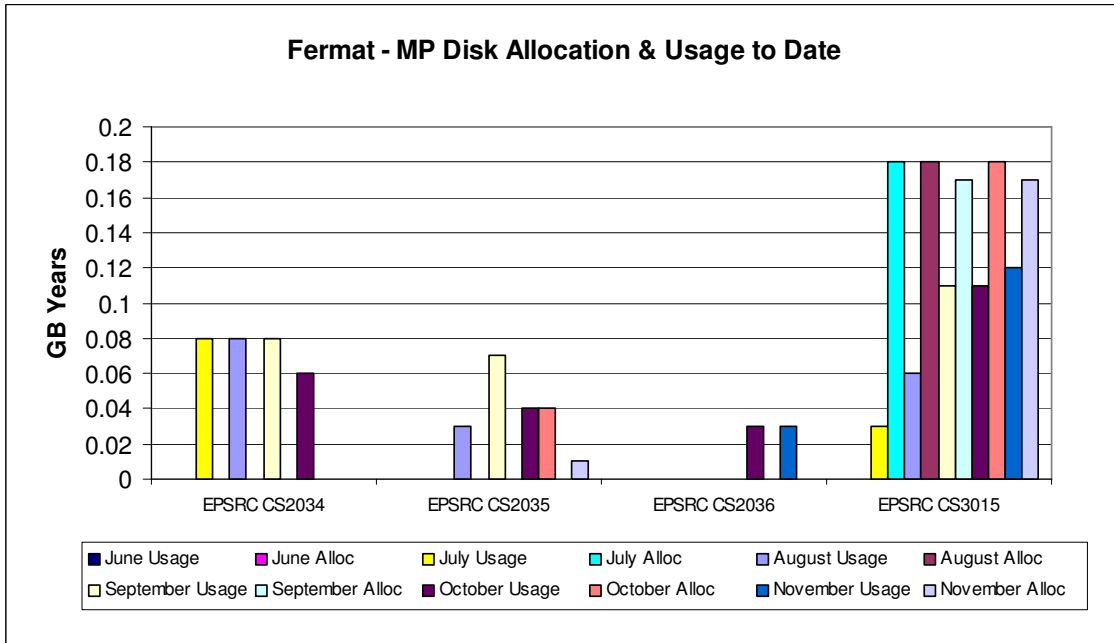
The above chart shows the CPU usage of the Fermat system by class 2 and class 3 users.



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.

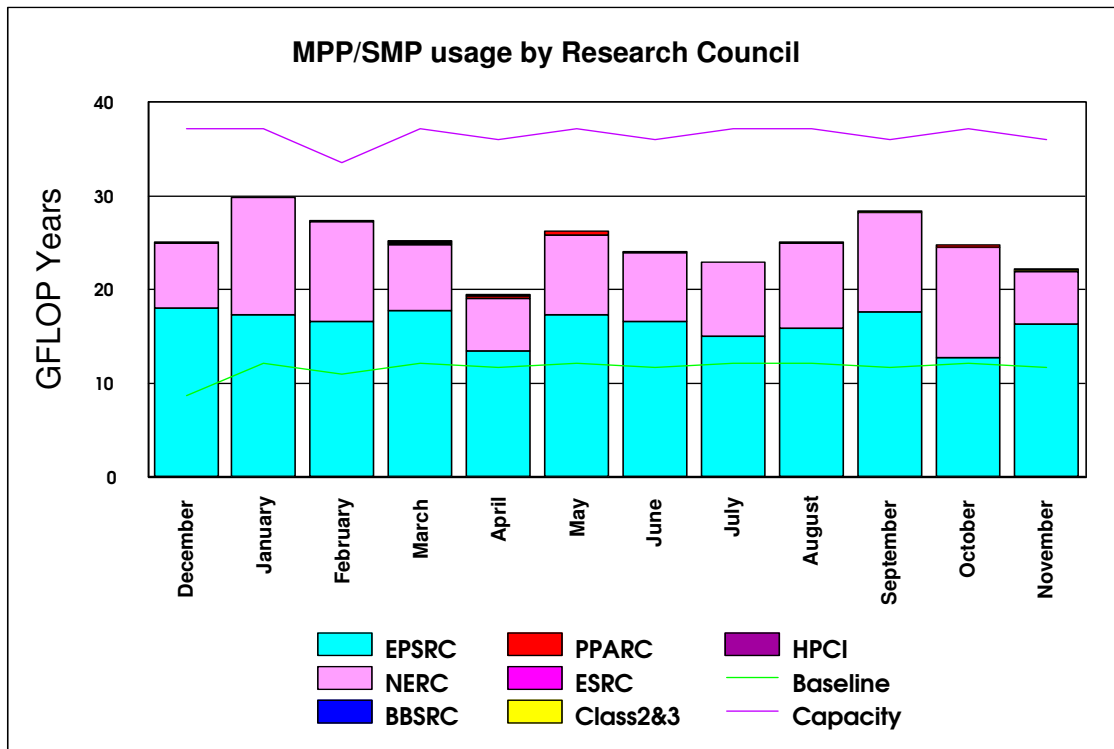


The above chart shows the most significant disk allocations on the Fermat system for class 2 and class 3 users. There is currently no HSM usage by class 2 and class 3 users.

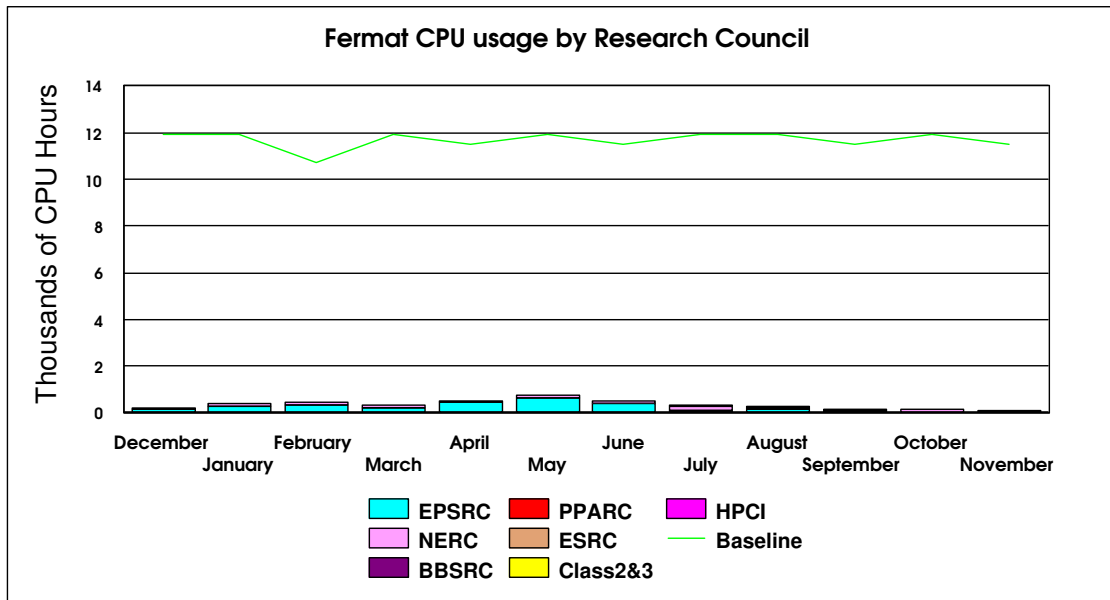
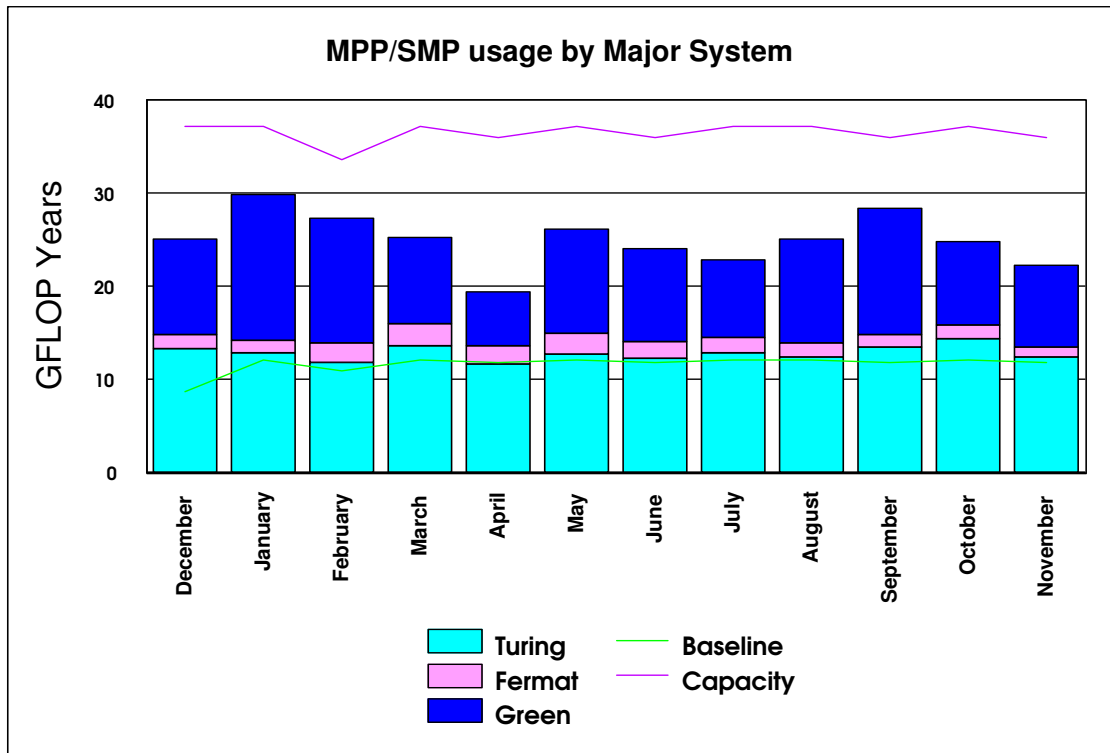
#### 4.9 Charts of Historical Usage

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

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

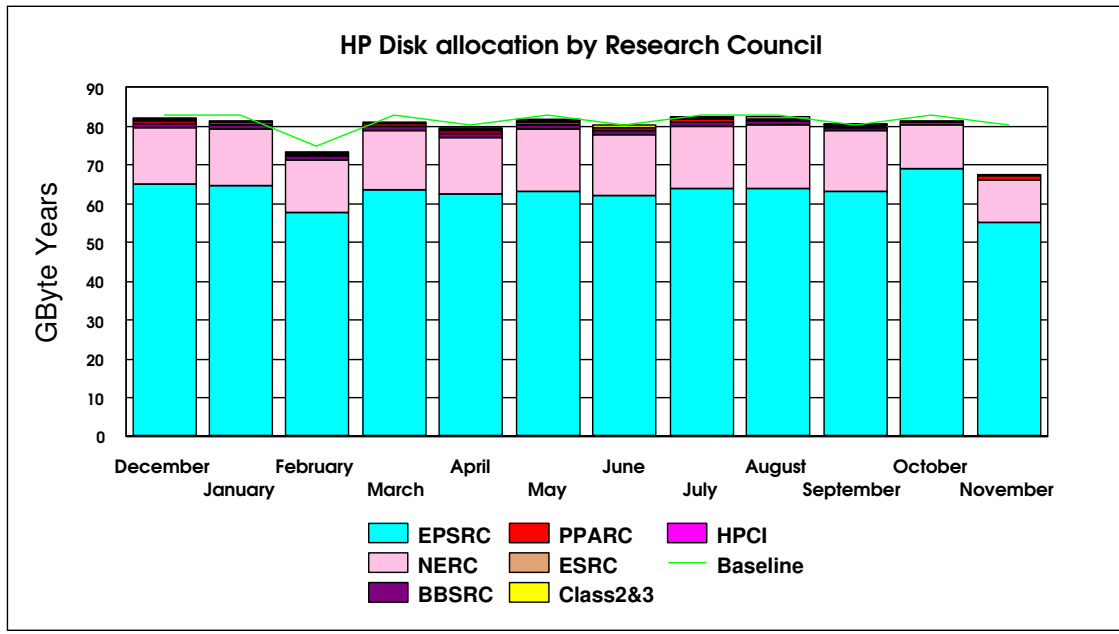


The graph below shows the historic SMP/MPP usage on the major systems.

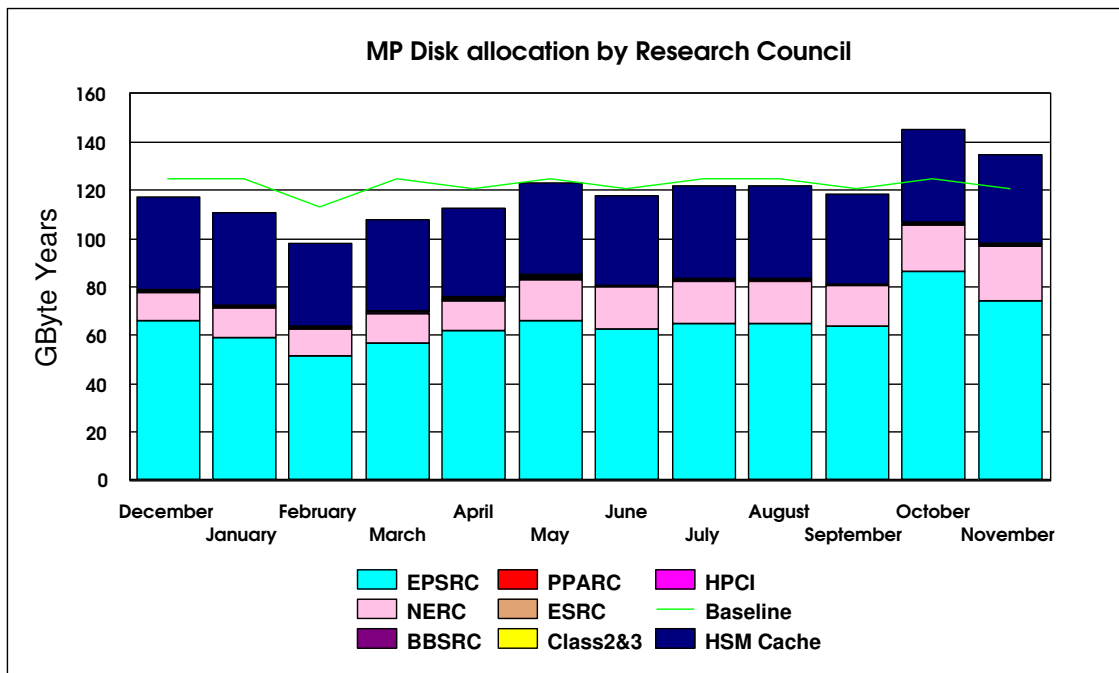


The above graph shows the historic interactive usage of the 'Baseline' Fermat system (equivalent to 16@250Mhz CPUs)

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

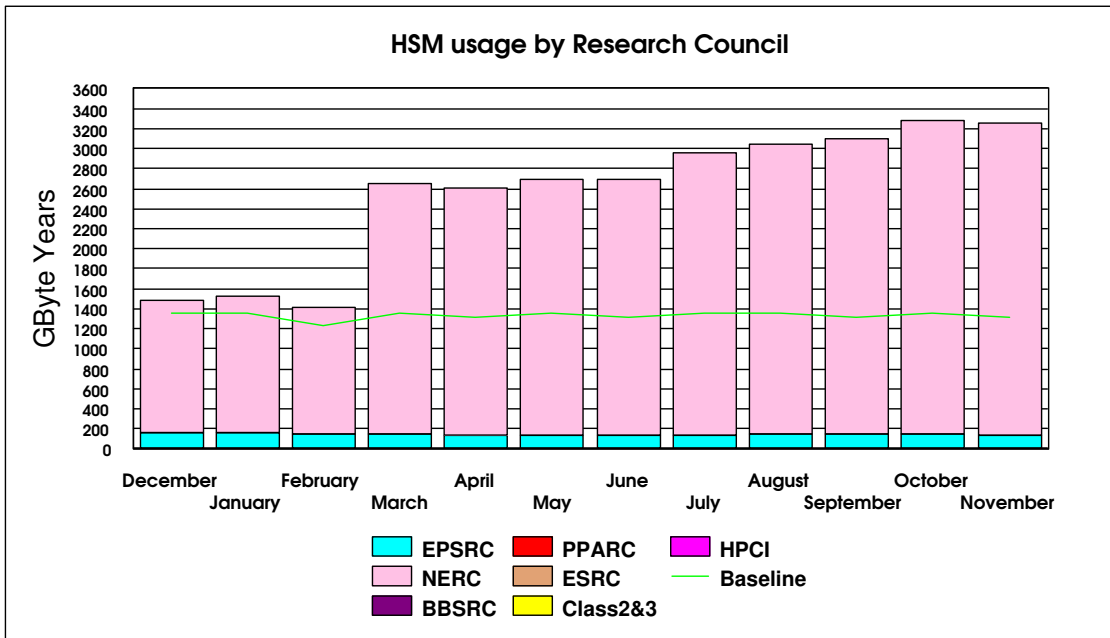


The preceding graph illustrates the historic allocation of the High Performance Disk on Turing.

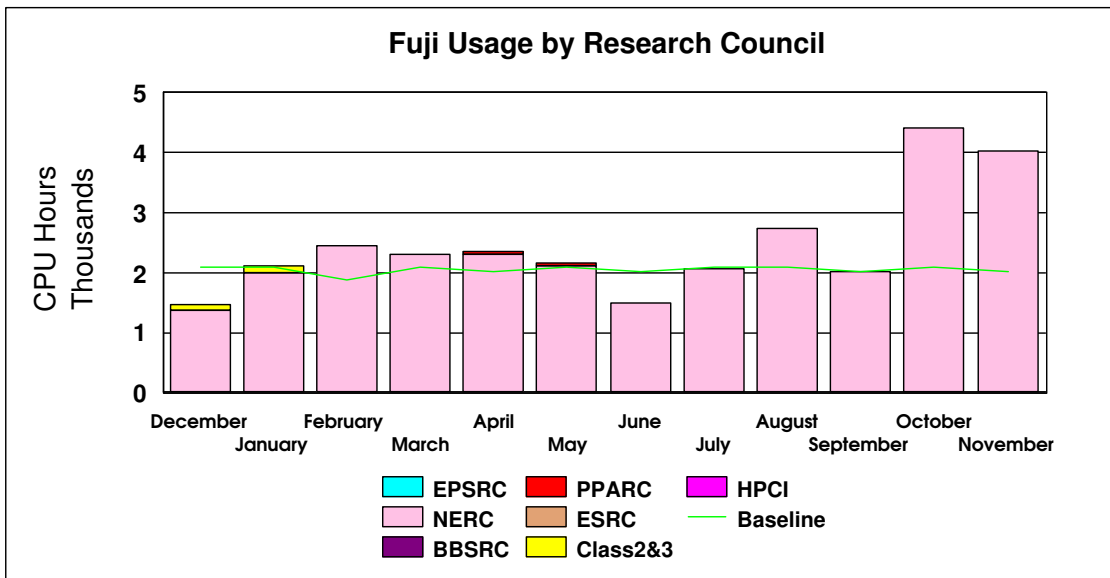


The graph above illustrates the historic allocation of the Medium Performance Disk on Fermat.

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



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



The Fujitsu system usage was well above baseline this month.

#### 4.9 Guest System Usage Charts

There is currently no Guest System usage.

## 5. Service Status, Issues and Plans

### 5.1 Status

The service was not fully utilised in November, although usage still exceeded baseline.

During the month, 76% of the jobs run on Turing were larger than 64 PEs in size, while the workload on Green focused largely on the 33 to 64 PE job range, at 62% of the total workload.

### 5.2 Issues

There are no issues to report this month.

### 5.3 Plans

LSF continues in its final testing phase, with the balance of PEs on all systems running LSF continuing to be moved gradually from NQE to LSF. Announcements will be made nearer the time as to the final "go live" date for LSF.

## 6. Conclusion

November 2002 saw the overall CPARS rating at Green with the baseline being exceeded by 88.6%.

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 November 2002

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

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

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

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

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



The summary accounts for the month of November 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 November 2002		Percentage CPU time per consortia for Fermat in November 2002	
Consortia	% Machine Time	Consortia	% Machine Time
CSE002	14.39	CSE002	57.92
CSE003	0.00	CSE003	0.00
CSE021	0.00	CSE021	0.00
CSE023	0.00	CSE023	0.00
CSE025	0.00	CSE025	0.00
CSE030	0.00	CSE030	0.00
CSE055	0.00	CSE055	0.00
CSE057	0.00	CSE057	0.00
CSE084	0.00	CSE084	0.00
CSE086	2.56	CSE086	2.01
CSE004	0.00	CSE004	0.00
CSE013	8.27	CSE013	0.01
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	0.37
CSE043	0.00	CSE043	0.00
CSE050	0.00	CSE050	0.00
CSE052	5.03	CSE052	0.00
CSE053	0.25	CSE053	0.00
CSE056	0.00	CSE056	0.00
CSE063	0.47	CSE063	0.00
CSE064	0.37	CSE064	0.95
CSE085	17.95	CSE085	0.26
CSE008	0.00	CSE008	0.00
CSE009	17.88	CSE009	21.21
CSE024	0.00	CSE024	0.00
CSE033	0.00	CSE033	0.00
CSE035	0.00	CSE035	0.00
CSE020	0.00	CSE020	0.00
CSE066	0.17	CSE066	0.00
CSE075	0.35	CSE075	0.01
CSE076	0.00	CSE076	1.26
CSE034	0.00	CSE034	0.00
CSE036	0.00	CSE036	0.00
CS3016	0.00	CS3016	0.01
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	0.00	UKHEC	0.00
CSN001	0.00	CSN001	8.64
CSN003	29.22	CSN003	1.12
CSN005	0.00	CSN005	0.00
CSN006	1.49	CSN006	0.08
CSN007	0.00	CSN007	0.00
CSN010	0.00	CSN010	0.00
CSN012	0.00	CSN012	0.00
CSN015	0.07	CSN015	0.00
CSN017	0.00	CSN017	2.11
CSN036	0.00	CSN036	0.24
CSN044	0.00	CSN044	0.00
CSB001	0.00	CSB001	0.00
CSB002	0.00	CSB002	0.00
CSP004	1.52	CSP004	0.01
CS2018	0.00	CS2018	0.00
CS2033	0.00	CS2033	0.00
CS2034	0.00	CS2034	0.00
CS2035	0.00	CS2035	0.00
CS2036	0.00	CS2036	3.78
CS3001	0.00	CS3001	0.00
CS3002	0.00	CS3002	0.00
CS3005	0.00	CS3005	0.00
CS3010	0.00	CS3010	0.00
CS3015	0.00	CS3015	0.00

Appendix 2

Percentage CPU time per consortia for Green in November 2002		Percentage CPU time per consortia for Wren in November 2002	
Consortia	% Machine Time	Consortia	% Machine Time
CSE002	17.81	CSE002	7.51
CSE084	0.00	CSE084	0.00
CSE086	0.07	CSE086	69.39
CSE013	10.81	CSE013	0.69
CSE053	0.00	CSE053	0.00
CSE085	23.03	CSE085	0.88
CSE009	27.98	CSE009	1.85
CSE066	0.00	CSE066	0.00
CSE075	0.46	CSE075	0.04
CSE076	0.00	CSE076	9.12
CSN001	0.00	CSN001	1.47
CSN003	2.74	CSN003	6.82
CSN006	6.91	CSN006	0.40
CSN015	3.69	CSN015	0.58
CSN017	0.24	CSN017	0.00
CSN036	5.23	CSN036	1.24
CS3015	1.03	CS3015	0.02

Appendix 2

Percentage disc allocation by Consortia for Turing in November 2002		Percentage disc allocation by Consortia for Fermat in November 2002	
Consortia	%Allocation	Consortia	%Allocation
CSE002	27.78	CSE002	8.11
CSE003	0.00	CSE003	0.00
CSE021	0.00	CSE021	0.00
CSE023	0.00	CSE023	0.00
CSE025	0.00	CSE025	0.00
CSE030	0.00	CSE030	8.39
CSE055	0.12	CSE055	0.00
CSE057	0.04	CSE057	0.00
CSE084	1.47	CSE084	1.67
CSE086	12.39	CSE086	8.38
CSE004	0.00	CSE004	0.00
CSE013	2.43	CSE013	0.70
CSE014	0.00	CSE014	0.00
CSE016	0.00	CSE016	0.00
CSE027	0.00	CSE027	0.00
CSE040	0.03	CSE040	0.42
CSE041	0.06	CSE041	0.08
CSE043	0.06	CSE043	0.08
CSE052	0.37	CSE052	0.00
CSE053	0.12	CSE053	0.08
CSE056	0.00	CSE056	0.08
CSE063	1.21	CSE063	0.00
CSE064	0.03	CSE064	0.00
CSE085	18.26	CSE085	9.23
CSE008	0.00	CSE008	0.00
CSE009	6.52	CSE009	1.67
CSE024	0.00	CSE024	0.00
CSE033	0.00	CSE033	0.00
CSE035	0.86	CSE035	0.00
CSE019	0.00	CSE019	0.00
CSE020	0.00	CSE020	0.00
CSE066	1.42	CSE066	0.87
CSE075	7.18	CSE075	35.33
CSE076	0.12	CSE076	0.46
CSE034	0.00	CSE034	0.00
CSE036	0.03	CSE036	0.01
HPCI Southampton	0.00	HPCI Southampton	0.00
HPCI Daresbury	0.12	HPCI Daresbury	0.04
HPCI Edinburgh	0.12	HPCI Edinburgh	0.08
UKHEC	0.12	UKHEC	0.08
CSN001	2.43	CSN001	12.59
CSN003	3.52	CSN003	1.26
CSN005	0.00	CSN005	0.00
CSN006	6.09	CSN006	1.67
CSN007	0.00	CSN007	0.00
CSN010	0.00	CSN010	0.00
CSN012	0.00	CSN012	0.00
CSN015	0.24	CSN015	1.26
CSN017	0.01	CSN017	0.10
CSN036	3.66	CSN036	5.87
CSB001	0.06	CSB001	0.00
CSP004	1.82	CSP004	0.67
CS2034	0.01	CS2034	0.00
CS2035	0.00	CS2035	0.01
CS2037	0.00	CS2037	0.14
CS3001	0.00	CS3001	0.00
CS3002	0.00	CS3002	0.00
CS3005	0.00	CS3005	0.00
CS3010	0.00	CS3010	0.00
CS3015	0.00	CS3015	0.17

Percentage usage of HSM by Consortium for November 2002	
Consortium	% Usage
CSE002	0.32
CSE086	0.04
CSE013	0.05
CSE041	0.32
CSE043	0.09
CSE063	0.07
CSE064	0.00
CSE085	2.56
CSE035	0.02
CSE075	0.65
CSN001	28.64
CSN003	61.25
CSN006	0.01
CSN015	2.77
CSN036	3.19
CSN044	0.02

Appendix 3

<u>Percentage PE usage on Turing by Research Council for November 2002</u>			<u>Percentage CPU usage on Fermat by Research Council for November 2002</u>		
<u>Research Council</u>	<u>% Usage</u>		<u>Research Council</u>	<u>% Usage</u>	
EPSRC	67.70		EPSRC	87.79	
HPCI	0.00		HPCI	0.01	
NERC	30.78		NERC	12.20	
BBSRC	0.00		BBSRC	0.00	
ESRC	0.00		ESRC	0.00	
PPARC	1.52		PPARC	0.01	

<u>Percentage PE usage on Green by Research Council for November 2002</u>			<u>Percentage CPU usage on Wren by Research Council for November 2002</u>		
<u>Research Council</u>	<u>% Usage</u>		<u>Research Council</u>	<u>% Usage</u>	
EPSRC	81.20		EPSRC	89.50	
HPCI	0.00		HPCI	0.00	
NERC	18.80		NERC	10.50	
BBSRC	0.00		BBSRC	0.00	
ESRC	0.00		ESRC	0.00	
PPARC	0.00		PPARC	0.00	

<u>Percentage Disc allocated on Turing by Research Council for November 2002</u>			<u>Percentage Disc allocated on Fermat by Research Council for November 2002</u>		
<u>Research Council</u>	<u>% Allocated</u>		<u>Research Council</u>	<u>% Allocated</u>	
EPSRC	81.80		EPSRC	76.20	
HPCI	0.37		HPCI	0.21	
NERC	15.96		NERC	22.77	
BBSRC	0.06		BBSRC	0.00	
ESRC	0.00		ESRC	0.00	
PPARC	1.82		PPARC	0.67	

<u>Percentage Disc allocated as SAN UHP by Research Council for November 2002</u>			<u>Percentage Disc allocated as SAN HV by Research Council for November 2002</u>		
<u>Research Council</u>	<u>% Allocated</u>		<u>Research Council</u>	<u>% Allocated</u>	
EPSRC	0.00		EPSRC	0.00	
HPCI	0.00		HPCI	0.00	
NERC	0.00		NERC	100.00	
BBSRC	0.00		BBSRC	0.00	
ESRC	0.00		ESRC	0.00	
PPARC	0.00		PPARC	0.00	

<u>Percentage HSM usage by Research Council for November 2002</u>		
<u>Research Council</u>	<u>% usage</u>	
EPSRC	4.12	
HPCI	0	
NERC	95.88	
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 November 2002	Total Application Support from November 2000	Optimisation Support for November 2002	Total Optimisation Support from November 2000	Total Support Used	Training Bought	Training Used
Cse002	Dr Phil Lindan	Support for the UKCP	Stephen Pickles	446.7		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	4
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	Magnetism	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 Programme	Martyn Foster							2	1.5
Cse026	Dr Maureen Neal	Molecular Dynamics									
Cse027	Dr M Imregun	Excitation Mechanisms		-							
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	4		2		2	4	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				11	11		
Cse085	Prof Neil Sandham									6	3
Cse086								5	5		
Csn00 1	Mrs Beverly de Cuevas (Webb)	HPCI Global Ocean Consortium	Dan Kidger	60.5		1		55	58	20	3
Csn00 2	Dr Mark Vincent (Hillier)	Pollutant Sorption on Mineral Surf	Robin Pinning								
Csn00 3	Dr Lois Steenman-Clark (O'Neill)	UGAMP	Dan Kidger							4	4
Csn00 5	Dr Huw Davies	Constraining Earth Mantle	Fumie Costen	27					27	6	6
Csn00 6	Dr John Brodholt (Price)	Density Functional Methods	Stephen Pickles								
Csn00 7	Dr John Brodholt (Price)	Density Functional Methods	Stephen Pickles								
Csn00 8	Hulton	Sub-Glacial Process	Michael Bane								
Csn00 9	Dr Roger Proctor		Michael Bane								
Csn01 0	Dr Jason	Flow over Complex terrain	Kevin Roy	2					-	5	-



	(Mobbs)										
Csn01 1	Dr Ed Dicks (Thorpe)	Exchange of Polluted Air									
Csn01 2	Prof Tennyson	fuji user	Ben Jesson								
Csn01 3	Dr L Steenman- Clark (Voke)	Large-Eddy Simulation Extended by Extreme Value Theory for the Prediction of Dispersion, Concentration Threshold Boundaries and Field Connectivity	-								
Csn01 4	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	-								
Csn01 5	Dr Roger Proctor	Atlantic Margin Metocean Project	-	20		2		2	10	3	
Csn01 7	Dr Antony Payne	Stability of the Antarctic Ice Sheet	-	16				2	2	18	2
Csn03 6	Prof Keith Haines	Assimilation of Altimeter, Radiometer and in situ data into the OCCAM Model. Analysis of water properties and transports.	-	2						5	-
Csb00 1	Dr David Houldershaw (Goodfellow)	Macromolecular Interactions	Robin/Fum ie	6		1.5			3.5	4	2
Csb00 2	Dr Adrian Mulholland (Danson)	Stability of Enzymes at high temp	Robin Pinning								
Csb00 3	Dr John Carling (Williams)	Anguilliform Swimming								3	-
Csp00 2	Dr Sandra Chapman	Nonlinear process in solar system and astrophysical plasmas	-	2						8	4
Csp00 3	Prof Andrew Lyne	Computing Resources for Precision timing of Millisecond Pulsars	Stephen Pickles	11.79		10			11	12	12
Csp00 4	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
Cs200 1	Dr Sudhir Jain	3D Ising Spin Glass	Stephen Pickles							10	-
Cs200 2	Dr Ingrid Stairs (Lyne)	Millisecond Pulsars	John Brooke	0.25					0.25	0	-

4	Watkins	Engine	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 Karim	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 magnitudes		-						-	-
Cs2030	Prof G J Morgan	Spin Diffusion in Magnetic Multilayers		-						1	1
Cs3001	Mr John Andrew	Helical Coherent Structures		6.8					0	10.45	3

	Staveley										
Cs300 2	Dr Keir Novik	Simulations of DNA oligomers								2	2
Cs300 3	Dr Eric Chambers	Band III peptide fragments									
Cs300 4	Prof Nick Avis	Computational Steering and Interactive Virtual Environments	Jo Leng	19						12	1
Cs300 5	Mr Behrouz Zarei	Simulation of Queuing Networks	John Brooke	10						5	3
Cs300 6	Mr F Li	Quantifying Room Acoustic Quality	-	4						5	1
Cs300 7	Emma Finch	Development of a 3D Crustal Lattice Solid Model	-	37		7		5	12	5	-
Cs300 8	Dr B J Alsberg	Development of a 3D QSAR method based on quantum topological descriptors	-	3					-	13	-
Cs300 9	Dr D Flower	Epitope Prediction Methods based on molecular dynamics simulation	-	2					-	3	-
Cs301 0	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
Cs301 2	Prof Jim Austin	Evaluation of binary neural networks on a vector parallel processor	-	5				3	3	3	2
Cs301 3	Prof Rasmita Raval	Structure and function of Chiral Bioarrays: A fundamental approach to proteomic devices	-	2					-	-	-
Cs301 4	Dr John Brooke	Enabling UK Academic Grid Application Development and Testing	-	2					-	-	-
Cs301 5	Dr Damian Hampshire	Flux-Pinning in High-Field Superconductors	-	2					-	5	-
Cs301 6	Dr Owne Petchey	Functional Diversity for ecosystem processes	-	2					-	-	-

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

<p>Usage Report run on Sun Dec 1 08:50:01 2002 for the CSAR service</p> <p>cs2036 Hayhurst Last Trade: re-enabled Usage: 0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0% 1480.2 of 2363.2 Hour SMP CPU (57.5 of 91.8 G.S.T), 62.6% 0.0 of 1.0 GByteYear MP Disk (0.0 of 4.3 G.S.T), 0.0% Total usage for project cs2036 57.5 of 100.0 Generic Service Tokens, 57.5%</p>
<p>cs2037 Domene Last Trade: re-enabled Usage: 0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T) 0.0 of 386.1 Hour SMP CPU (0.0 of 15.0 G.S.T), 0.0% 0.1 of 4.7 GByteYear MP Disk (0.6 of 20.0 G.S.T), 3.1% 0.0 of 1244.0 Hour Green CPU (0.0 of 65.0 G.S.T), 0.0% Total usage for project cs2037 0.6 of 100.0 Generic Service Tokens, 0.6%</p>
<p>cs2038 Excell Last Trade: Mon Nov 4 09:58:38 2002 Usage: 0.0 of 1.3 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.4% 0.0 of 4.9 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0% 0.2 of 50.0 Hour VPP_CPU (0.2 of 54.9 G.S.T), 0.4% 0.0 of 4.0 GByteYear Fuji Disk (0.0 of 17.2 G.S.T), 0.0% 0.0 of 1.0 PersonDay Support (0.0 of 27.8 G.S.T), 0.0% Total usage for project cs2038 0.2 of 103.0 Generic Service Tokens, 0.2%</p>
<p>cs3015 Hampshire Last Trade: Fri Sep 20 10:47:54 2002 Usage: 79.0 of 235.3 Hour Wren CPU (3.9 of 11.7 G.S.T), 33.6% 450.0 of 648.8 Hour SMP CPU (17.5 of 25.2 G.S.T), 69.4% 1.1 of 2.0 GByteYear MP Disk (4.8 of 8.6 G.S.T), 56.0% 4272.1 of 6596.1 Hour Green CPU (223.2 of 344.7 G.S.T), 64.8% 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 cs3015 249.4 of 499.4 Generic Service Tokens, 49.9%</p>
<p>cs3016 Petchey Last Trade: re-enabled Usage: 42.7 of 78.4 Hour Wren CPU (2.1 of 3.9 G.S.T), 54.4% 111.4 of 9920.1 Hour SMP CPU (4.3 of 385.4 G.S.T), 1.1% 0.0 of 0.5 GByteYear MP Disk (0.0 of 2.1 G.S.T), 0.0% 0.0 of 2.0 PersonDay Support (0.0 of 55.6 G.S.T), 0.0% Total usage for project cs3016 6.4 of 447.0 Generic Service Tokens, 1.4%</p>
<p>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% 8.0 of 48.1 GByteYear HP Disk (61.9 of 372.5 G.S.T), 16.6% 0.4 of 1.2 Hour SMP CPU (0.0 of 0.0 G.S.T), 28.3% 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%</p>

Total usage for project csb001 3928.6 of 7431.8 Generic Service Tokens, 52.9%

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), 68.5%

Total usage for project cse001 0.5 of 1.0 Generic Service Tokens, 48.0%

cse002 GR/N02337 Bird

Last Trade: Wed Nov 6 10:16:12 2002

Usage:

2923037.5 of 3105966.1 PEHour MPP PE CPU (70675.3 of 75098.3 G.S.T), 94.1%

708.1 of 1322.0 GByteYear HP Disk (5482.4 of 10235.4 G.S.T), 53.6%

16.5 of 102.8 Hour Wren CPU (0.8 of 5.1 G.S.T), 16.1%

122838.0 of 145457.1 Hour SMP CPU (4772.4 of 5651.2 G.S.T), 84.4%

268.9 of 1222.0 GByteYear MP Disk (1153.4 of 5242.0 G.S.T), 22.0%

349.1 of 414.5 GByteYear HSM/Tape (217.6 of 258.4 G.S.T), 84.2%

241197.2 of 250507.1 Hour Green CPU (12603.1 of 13089.5 G.S.T), 96.3%

144.2 of 152.8 PersonDay Support (4006.9 of 4243.1 G.S.T), 94.4%

3.0 of 9.0 Day Training (32.3 of 96.8 G.S.T), 33.3%

Total usage for project cse002 98944.3 of 113919.7 Generic Service Tokens, 86.9%

cse002 Daresbury

Last Trade: never

Usage:

431551.0 of 494686.0 PEHour MPP PE CPU (10434.3 of 11960.9 G.S.T), 87.2%

123.5 of 200.0 GByteYear HP Disk (956.2 of 1548.5 G.S.T), 61.8%

16.2 of 25.0 Hour Wren CPU (0.8 of 1.2 G.S.T), 64.7%

21312.9 of 18550.0 Hour SMP CPU (828.0 of 720.7 G.S.T), 114.9%

31.4 of 48.9 GByteYear MP Disk (134.6 of 209.8 G.S.T), 64.2%

68.9 of 106.0 GByteYear HSM/Tape (42.9 of 66.1 G.S.T), 65.0%

32157.4 of 22500.0 Hour Green CPU (1680.3 of 1175.7 G.S.T), 142.9%

Total usage for subproject cse002a 14077.2 of 15682.8 Generic Service Tokens, 89.8%

cse002 Belfast

Last Trade: never

Usage:

346265.8 of 353170.0 PEHour MPP PE CPU (8372.3 of 8539.2 G.S.T), 98.0%

87.3 of 99.0 GByteYear HP Disk (676.2 of 766.5 G.S.T), 88.2%

0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%

19555.1 of 20446.0 Hour SMP CPU (759.7 of 794.4 G.S.T), 95.6%

9.0 of 44.9 GByteYear MP Disk (38.8 of 192.6 G.S.T), 20.1%

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

Total usage for subproject cse002b 9847.0 of 10294.8 Generic Service Tokens, 95.6%

cse002 Cambridge - Matsci

Last Trade: never

Usage:

370637.5 of 371396.0 PEHour MPP PE CPU (8961.5 of 8979.9 G.S.T), 99.8%

46.3 of 54.4 GByteYear HP Disk (358.7 of 421.2 G.S.T), 85.2%

0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%

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

24.0 of 50.4 GByteYear MP Disk (103.0 of 216.2 G.S.T), 47.6%

9.9 of 52.0 GByteYear HSM/Tape (6.2 of 32.4 G.S.T), 19.0%

Total usage for subproject cse002c 9429.4 of 9747.1 Generic Service Tokens, 96.7%

cse002 Cambridge - Physics

Last Trade: never

Usage:

88900.2 of 92520.0 PEHour MPP PE CPU (2149.5 of 2237.0 G.S.T), 96.1%

11.8 of 26.7 GByteYear HP Disk (91.1 of 206.7 G.S.T), 44.1%

0.1 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 0.8%

18353.7 of 27938.0 Hour SMP CPU (713.1 of 1085.4 G.S.T), 65.7%

17.4 of 27.7 GByteYear MP Disk (74.5 of 118.8 G.S.T), 62.7%

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 3028.1 of 3665.2 Generic Service Tokens, 82.6%

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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%  
 147.8 of 199.0 GByteYear HP Disk (1144.1 of 1540.7 G.S.T), 74.3%  
 0.0 of 4.0 Hour Wren CPU (0.0 of 0.2 G.S.T), 0.0%  
 0.0 of 2500.0 Hour SMP CPU (0.0 of 97.1 G.S.T), 0.0%  
 33.2 of 50.5 GByteYear MP Disk (142.4 of 216.6 G.S.T), 65.8%  
 104.2 of 75.0 GByteYear HSM/Tape (65.0 of 46.8 G.S.T), 138.9%  
 Total usage for subproject cse002e 12358.4 of 13087.0 Generic Service Tokens, 94.4%

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## cse002 UCL

Last Trade: never

## Usage:

84029.4 of 140733.0 PEHour MPP PE CPU (2031.7 of 3402.7 G.S.T), 59.7%  
 24.6 of 59.1 GByteYear HP Disk (190.1 of 457.6 G.S.T), 41.5%  
 0.0 of 12.0 Hour Wren CPU (0.0 of 0.6 G.S.T), 0.0%  
 4775.8 of 3450.0 Hour SMP CPU (185.5 of 134.0 G.S.T), 138.4%  
 24.0 of 54.6 GByteYear MP Disk (103.1 of 234.2 G.S.T), 44.0%  
 0.0 of 3.3 GByteYear HSM/Tape (0.0 of 2.0 G.S.T), 0.0%  
 34210.9 of 29998.0 Hour Green CPU (1787.6 of 1567.5 G.S.T), 114.0%  
 Total usage for subproject cse002f 4298.1 of 5798.7 Generic Service Tokens, 74.1%

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## cse002 Oxford - pcl

Last Trade: never

## Usage:

120308.2 of 157112.0 PEHour MPP PE CPU (2908.9 of 3798.8 G.S.T), 76.6%  
 13.4 of 32.8 GByteYear HP Disk (103.8 of 253.9 G.S.T), 40.9%  
 0.3 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 3.3%  
 1904.9 of 1875.0 Hour SMP CPU (74.0 of 72.8 G.S.T), 101.6%  
 24.4 of 30.8 GByteYear MP Disk (104.5 of 132.1 G.S.T), 79.1%  
 0.0 of 2.2 GByteYear HSM/Tape (0.0 of 1.4 G.S.T), 0.0%  
 9777.5 of 16195.0 Hour Green CPU (510.9 of 846.2 G.S.T), 60.4%  
 Total usage for subproject cse002g 3702.0 of 5105.7 Generic Service Tokens, 72.5%

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## cse002 Edinburgh

Last Trade: never

## Usage:

359983.1 of 304793.0 PEHour MPP PE CPU (8703.9 of 7369.5 G.S.T), 118.1%  
 41.9 of 51.0 GByteYear HP Disk (324.3 of 394.9 G.S.T), 82.1%  
 0.0 of 8.0 Hour Wren CPU (0.0 of 0.4 G.S.T), 0.0%  
 0.0 of 2800.0 Hour SMP CPU (0.0 of 108.8 G.S.T), 0.0%  
 12.2 of 46.5 GByteYear MP Disk (52.3 of 199.5 G.S.T), 26.2%  
 0.0 of 2.8 GByteYear HSM/Tape (0.0 of 1.8 G.S.T), 0.0%  
 Total usage for subproject cse002i 9080.5 of 8074.8 Generic Service Tokens, 112.5%

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## cse002 Kent (UKC)

Last Trade: never

## Usage:

239858.0 of 239888.0 PEHour MPP PE CPU (5799.5 of 5800.2 G.S.T), 100.0%  
 74.2 of 100.0 GByteYear HP Disk (574.4 of 774.2 G.S.T), 74.2%  
 0.0 of 6.0 Hour Wren CPU (0.0 of 0.3 G.S.T), 0.0%  
 0.0 of 2350.0 Hour SMP CPU (0.0 of 91.3 G.S.T), 0.0%  
 15.1 of 33.6 GByteYear MP Disk (65.0 of 144.1 G.S.T), 45.1%  
 45.8 of 100.0 GByteYear HSM/Tape (28.5 of 62.3 G.S.T), 45.8%  
 140873.6 of 156113.0 Hour Green CPU (7360.9 of 8157.2 G.S.T), 90.2%  
 Total usage for subproject cse002j 13828.3 of 15029.7 Generic Service Tokens, 92.0%

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cse002 Durham  
 Last Trade: never  
 Usage:  
 55829.3 of 90000.0 PEHour MPP PE CPU (1349.9 of 2176.1 G.S.T), 62.0%  
 21.9 of 45.0 GByteYear HP Disk (169.4 of 348.4 G.S.T), 48.6%  
 0.0 of 3000.0 Hour SMP CPU (0.0 of 116.6 G.S.T), 0.0%  
 10.6 of 45.0 GByteYear MP Disk (45.4 of 193.0 G.S.T), 23.5%  
 Total usage for subproject cse002k 1564.7 of 2834.1 Generic Service Tokens, 55.2%

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cse002 York  
 Last Trade: never  
 Usage:  
 0.0 of 28000.0 PEHour MPP PE CPU (0.0 of 677.0 G.S.T), 0.0%  
 2.1 of 5.0 GByteYear HP Disk (16.2 of 38.7 G.S.T), 41.9%  
 0.0 of 2.0 Hour Wren CPU (0.0 of 0.1 G.S.T), 0.0%  
 0.0 of 2500.0 Hour SMP CPU (0.0 of 97.1 G.S.T), 0.0%  
 16.8 of 30.0 GByteYear MP Disk (72.1 of 128.7 G.S.T), 56.0%  
 Total usage for subproject cse002l 88.3 of 941.6 Generic Service Tokens, 9.4%

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cse009 GR/20607 Catlow  
 Last Trade: Mon Nov 11 17:03:57 2002  
 Usage:  
 1682960.6 of 1846749.2 PEHour MPP PE CPU (40691.8 of 44652.0 G.S.T), 91.1%  
 181.2 of 728.3 GByteYear HP Disk (1403.1 of 5639.0 G.S.T), 24.9%  
 6.2 of 79.4 Hour Wren CPU (0.3 of 3.9 G.S.T), 7.8%  
 50198.1 of 55111.5 Hour SMP CPU (1950.3 of 2141.2 G.S.T), 91.1%  
 27.6 of 646.7 GByteYear MP Disk (118.5 of 2774.2 G.S.T), 4.3%  
 0.0 of 714.9 GByteYear HSM/Tape (0.0 of 445.7 G.S.T), 0.0%  
 177474.5 of 191936.9 Hour Green CPU (9273.4 of 10029.1 G.S.T), 92.5%  
 9.0 of 13.0 PersonDay Support (250.0 of 361.1 G.S.T), 69.2%  
 0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%  
 Total usage for project cse009 53687.4 of 66153.8 Generic Service Tokens, 81.2%

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cse013 GR/M50539 Leschziner  
 Last Trade: Fri Sep 27 14:29:58 2002  
 Usage:  
 1420551.6 of 4037760.0 PEHour MPP PE CPU (34347.1 of 97627.9 G.S.T), 35.2%  
 33.2 of 820.4 GByteYear HP Disk (257.2 of 6352.1 G.S.T), 4.0%  
 15024.0 of 29364.5 Hour SMP CPU (583.7 of 1140.9 G.S.T), 51.2%  
 13.2 of 308.0 GByteYear MP Disk (56.6 of 1321.2 G.S.T), 4.3%  
 31.3 of 504.0 GByteYear HSM/Tape (19.5 of 314.2 G.S.T), 6.2%  
 53309.5 of 259280.1 Hour Green CPU (2785.5 of 13547.9 G.S.T), 20.6%  
 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 38092.8 of 121172.4 Generic Service Tokens, 31.4%

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cse013 - ICL  
 Last Trade: never  
 Usage:  
 107624.9 of 200000.0 PEHour MPP PE CPU (2602.2 of 4835.7 G.S.T), 53.8%  
 2.2 of 4.0 GByteYear HP Disk (17.1 of 31.0 G.S.T), 55.1%  
 366.3 of 500.0 Hour SMP CPU (14.2 of 19.4 G.S.T), 73.3%  
 0.1 of 5.0 GByteYear MP Disk (0.6 of 21.4 G.S.T), 2.7%  
 0.0 of 2.0 GByteYear HSM/Tape (0.0 of 1.2 G.S.T), 0.0%  
 Total usage for subproject cse013a 2634.1 of 4908.8 Generic Service Tokens, 53.7%

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cse013 - Loughborough  
 Last Trade: never  
 Usage:  
 690613.4 of 800000.0 PEHour MPP PE CPU (16698.1 of 19343.0 G.S.T), 86.3%  
 7.9 of 10.0 GByteYear HP Disk (61.5 of 77.4 G.S.T), 79.5%  
 9145.2 of 12000.0 Hour SMP CPU (355.3 of 466.2 G.S.T), 76.2%  
 2.1 of 15.0 GByteYear MP Disk (9.1 of 64.3 G.S.T), 14.1%

0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%  
 4449.5 of 7000.0 Hour Green CPU (232.5 of 365.8 G.S.T), 63.6%  
 Total usage for subproject cse013b 17356.5 of 20319.8 Generic Service Tokens, 85.4%

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cse013 - Surrey  
 Last Trade: never

Usage:  
 66621.8 of 80000.0 PEHour MPP PE CPU (1610.8 of 1934.3 G.S.T), 83.3%  
 6.1 of 8.0 GByteYear HP Disk (47.3 of 61.9 G.S.T), 76.4%  
 33.7 of 1800.0 Hour SMP CPU (1.3 of 69.9 G.S.T), 1.9%  
 2.2 of 15.0 GByteYear MP Disk (9.3 of 64.3 G.S.T), 14.4%  
 0.0 of 5.0 GByteYear HSM/Tape (0.0 of 3.1 G.S.T), 0.0%  
 18350.0 of 24700.0 Hour Green CPU (958.8 of 1290.6 G.S.T), 74.3%  
 Total usage for subproject cse013c 2627.6 of 3424.3 Generic Service Tokens, 76.7%

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cse013 - QMW  
 Last Trade: never

Usage:  
 555691.4 of 700000.0 PEHour MPP PE CPU (13435.9 of 16925.1 G.S.T), 79.4%  
 10.0 of 15.0 GByteYear HP Disk (77.3 of 116.1 G.S.T), 66.6%  
 1145.3 of 1800.0 Hour SMP CPU (44.5 of 69.9 G.S.T), 63.6%  
 3.5 of 15.0 GByteYear MP Disk (15.0 of 64.3 G.S.T), 23.2%  
 31.3 of 40.0 GByteYear HSM/Tape (19.5 of 24.9 G.S.T), 78.4%  
 Total usage for subproject cse013d 13592.2 of 17200.5 Generic Service Tokens, 79.0%

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cse030 Edinburgh  
 Last Trade: never

Usage:  
 102882.3 of 110480.0 PEHour MPP PE CPU (2487.6 of 2671.3 G.S.T), 93.1%  
 206.6 of 234.4 GByteYear HP Disk (1599.2 of 1814.7 G.S.T), 88.1%  
 2920.1 of 3200.0 Hour SMP CPU (113.5 of 124.3 G.S.T), 91.3%  
 101.2 of 120.0 GByteYear MP Disk (434.0 of 514.8 G.S.T), 84.3%  
 410.6 of 516.3 GByteYear HSM/Tape (256.0 of 321.9 G.S.T), 79.5%  
 0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%  
 Total usage for subproject cse030a 4890.3 of 5447.0 Generic Service Tokens, 89.8%

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cse030 QMW

Last Trade: never

Usage:  
 196350.5 of 213142.1 PEHour MPP PE CPU (4747.5 of 5153.5 G.S.T), 92.1%  
 190.9 of 215.0 GByteYear HP Disk (1478.1 of 1664.6 G.S.T), 88.8%  
 8.0 of 0.0 Hour Wren CPU (0.4 of 0.0 G.S.T), 40075.0%  
 2056.3 of 3000.0 Hour SMP CPU (79.9 of 116.6 G.S.T), 68.5%  
 442.0 of 440.0 GByteYear MP Disk (1895.9 of 1887.4 G.S.T), 100.4%  
 188.1 of 322.2 GByteYear HSM/Tape (117.3 of 200.9 G.S.T), 58.4%  
 0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%  
 Total usage for subproject cse030b 8319.1 of 9023.1 Generic Service Tokens, 92.2%

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cse030 Oxford

Last Trade: never

Usage:  
 18310.7 of 18310.7 PEHour MPP PE CPU (442.7 of 442.7 G.S.T), 100.0%  
 1.1 of 2.0 GByteYear HP Disk (8.6 of 15.5 G.S.T), 55.4%  
 0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%  
 7.7 of 10.0 GByteYear MP Disk (33.1 of 42.9 G.S.T), 77.2%  
 0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)  
 0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%  
 Total usage for subproject cse030c 484.4 of 503.1 Generic Service Tokens, 96.3%

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cse030 Bristol

Last Trade: never

Usage:  
 0.0 of 50.0 PEHour MPP PE CPU (0.0 of 1.2 G.S.T), 0.0%  
 10.7 of 12.0 GByteYear HP Disk (82.5 of 92.9 G.S.T), 88.8%



0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%  
 11.8 of 14.0 GByteYear MP Disk (50.4 of 60.1 G.S.T), 83.9%  
 0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)  
 Total usage for subproject cse030d 132.9 of 156.1 Generic Service Tokens, 85.2%

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## cse030 Leeds

Last Trade: never

## Usage:

0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 GByteYear HP Disk (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 GByteYear MP Disk (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)  
 Total usage for subproject cse030e 0.0 of 0.0 Generic Service Tokens, 0.0%

---

## cse030 Cambridge

Last Trade: never

## Usage:

0.0 of 0.0 PEHour MPP PE CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 GByteYear HP Disk (0.0 of 0.0 G.S.T)  
 0.0 of 200.0 Hour SMP CPU (0.0 of 7.8 G.S.T), 0.0%  
 0.0 of 3.0 GByteYear MP Disk (0.0 of 12.9 G.S.T), 0.0%  
 0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)  
 0.0 of 1.0 Hour Green CPU (0.0 of 0.1 G.S.T), 0.0%  
 Total usage for subproject cse030f 0.0 of 20.7 Generic Service Tokens, 0.0%

---

## cse030 Sheffield Hallam

Last Trade: never

## Usage:

8896.1 of 8900.0 PEHour MPP PE CPU (215.1 of 215.2 G.S.T), 100.0%  
 5.0 of 5.8 GByteYear HP Disk (38.9 of 44.5 G.S.T), 87.5%  
 0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%  
 4.5 of 6.0 GByteYear MP Disk (19.1 of 25.7 G.S.T), 74.4%  
 0.0 of 0.0 GByteYear HSM/Tape (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 Hour Green CPU (0.0 of 0.0 G.S.T)  
 Total usage for subproject cse030g 273.2 of 287.4 Generic Service Tokens, 95.1%

---

## cse035 GR/M76720 King

Last Trade: re-enabled

## Usage:

418580.3 of 425689.3 PEHour MPP PE CPU (10120.7 of 10292.6 G.S.T), 98.3%  
 20.2 of 18.6 GByteYear HP Disk (156.5 of 143.9 G.S.T), 108.7%  
 0.0 of 0.3 Hour SMP CPU (0.0 of 0.0 G.S.T), 6.0%  
 0.0 of 0.6 GByteYear MP Disk (0.1 of 2.4 G.S.T), 2.8%  
 16.7 of 18.7 GByteYear HSM/Tape (10.4 of 11.7 G.S.T), 89.3%  
 Total usage for project cse035 10287.7 of 10450.6 Generic Service Tokens, 98.4%

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## cse036 GR/M78502 Duff

Last Trade: re-enabled

## Usage:

18.9 of 617.1 PEHour MPP PE CPU (0.5 of 14.9 G.S.T), 3.1%  
 0.7 of 3.0 GByteYear HP Disk (5.0 of 23.2 G.S.T), 21.7%  
 0.0 of 15.7 Hour Wren CPU (0.0 of 0.8 G.S.T), 0.0%  
 84.5 of 379.9 Hour SMP CPU (3.3 of 14.8 G.S.T), 22.2%  
 0.4 of 3.0 GByteYear MP Disk (1.6 of 12.9 G.S.T), 12.6%  
 Total usage for project cse036 10.4 of 66.6 Generic Service Tokens, 15.6%

---

## cse040 GR/M84350 Badcock

Last Trade: re-enabled

## Usage:

18.9 of 5000.0 PEHour MPP PE CPU (0.5 of 120.9 G.S.T), 0.4%  
 0.1 of 6.0 GByteYear HP Disk (1.1 of 46.5 G.S.T), 2.4%  
 2.9 of 6.8 GByteYear MP Disk (12.5 of 29.3 G.S.T), 42.5%  
 0.0 of 2.5 PersonDay Support (0.0 of 68.2 G.S.T), 0.0%

0.0 of 6.3 Day Training (0.0 of 68.1 G.S.T), 0.0%  
 Total usage for project cse040 14.0 of 333.0 Generic Service Tokens, 4.2%

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cse041 GR/M84879 Imregun

Last Trade: re-enabled

Usage:

588.6 of 12981.4 PEHour MPP PE CPU (14.2 of 313.9 G.S.T), 4.5%  
 1.2 of 119.7 GByteYear HP Disk (9.3 of 926.6 G.S.T), 1.0%  
 0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%  
 1403.7 of 4431.4 Hour SMP CPU (54.5 of 172.2 G.S.T), 31.7%  
 1.0 of 123.5 GByteYear MP Disk (4.3 of 529.6 G.S.T), 0.8%  
 116.4 of 230.3 GByteYear HSM/Tape (72.6 of 143.6 G.S.T), 50.6%  
 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 155.0 of 3810.1 Generic Service Tokens, 4.1%

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cse043 GR/M85241 Williams

Last Trade: re-enabled

Usage:

146253.6 of 148935.0 PEHour MPP PE CPU (3536.2 of 3601.1 G.S.T), 98.2%  
 1.5 of 10.0 GByteYear HP Disk (11.5 of 77.4 G.S.T), 14.9%  
 0.0 of 6.2 Hour SMP CPU (0.0 of 0.2 G.S.T), 0.2%  
 2.2 of 4.8 GByteYear MP Disk (9.6 of 20.8 G.S.T), 46.1%  
 10.6 of 28.8 GByteYear HSM/Tape (6.6 of 17.9 G.S.T), 36.7%  
 4.0 of 4.0 PersonDay Support (111.1 of 111.3 G.S.T), 99.8%  
 4.0 of 4.0 Day Training (43.0 of 43.0 G.S.T), 100.1%  
 Total usage for project cse043 3718.1 of 3871.7 Generic Service Tokens, 96.0%

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cse050 GR/N/38152 Bradley

Last Trade: re-enabled

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 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%  
 0.1 of 1200.0 Hour SMP CPU (0.0 of 46.6 G.S.T), 0.0%  
 0.0 of 4.5 GByteYear HSM/Tape (0.0 of 2.8 G.S.T), 0.0%  
 0.0 of 20.0 PersonDay Support (0.0 of 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: Thu Nov 28 10:35:40 2002

Usage:

259398.2 of 298505.0 PEHour MPP PE CPU (6271.9 of 7217.5 G.S.T), 86.9%  
 4.2 of 9.1 GByteYear HP Disk (32.4 of 70.8 G.S.T), 45.7%  
 0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.0 Hour SMP CPU (0.0 of 0.0 G.S.T)  
 0.0 of 8.5 GByteYear MP Disk (0.0 of 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 0.0 Day Training (0.0 of 0.0 G.S.T)  
 Total usage for project cse052 6304.3 of 7604.4 Generic Service Tokens, 82.9%

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cse053 GR/R04225 Leschziner

Last Trade: re-enabled

Usage:

28395.3 of 319557.6 PEHour MPP PE CPU (686.6 of 7726.5 G.S.T), 8.9%  
 1.4 of 115.0 GByteYear HP Disk (10.9 of 890.4 G.S.T), 1.2%  
 0.1 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.1%  
 73.9 of 13900.0 Hour SMP CPU (2.9 of 540.0 G.S.T), 0.5%  
 1.0 of 85.0 GByteYear MP Disk (4.3 of 364.6 G.S.T), 1.2%  
 0.0 of 100.0 GByteYear HSM/Tape (0.0 of 62.3 G.S.T), 0.0%  
 612.4 of 1850.9 Hour Green CPU (32.0 of 96.7 G.S.T), 33.1%  
 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 736.6 of 10187.1 Generic Service Tokens, 7.2%

cse055 GR/N66810 Staunton

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

Usage:

8840.4 of 24604.0 PEHour MPP PE CPU (213.7 of 594.9 G.S.T), 35.9%

1.4 of 2.5 GByteYear HP Disk (10.8 of 19.4 G.S.T), 55.8%

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 224.5 of 860.8 Generic Service Tokens, 26.1%

cse056 GR/N24773 Imregun

Last Trade: re-enabled

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%

0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%

346.7 of 33674.1 Hour SMP CPU (13.5 of 1308.3 G.S.T), 1.0%

0.6 of 2.7 GByteYear MP Disk (2.7 of 11.7 G.S.T), 23.0%

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 cse056 16.2 of 1882.4 Generic Service Tokens, 0.9%

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%

0.5 of 30.0 GByteYear HP Disk (4.0 of 232.3 G.S.T), 1.7%

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 60.0 of 3019.5 Generic Service Tokens, 2.0%

cse060 GR/R17058 Robb

Last Trade: re-enabled

Usage:

0.0 of 140607.5 PEHour MPP PE CPU (0.0 of 3399.7 G.S.T), 0.0%

0.0 of 3.0 GByteYear HP Disk (0.0 of 23.3 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 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%

Total usage for project cse060 0.0 of 3808.3 Generic Service Tokens, 0.0%

cse061 GR/R42672 Imregun

Last Trade: Thu Oct 17 15:11:50 2002

Usage:

0.0 of 85875.0 PEHour MPP PE CPU (0.0 of 2076.3 G.S.T), 0.0%

0.0 of 50.1 GByteYear HP Disk (0.0 of 388.0 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 5.0 Day Training (0.0 of 53.8 G.S.T), 0.0%

Total usage for project cse061 0.0 of 2657.0 Generic Service Tokens, 0.0%

cse063 GR/R46151 Sandham

Last Trade: Mon Oct 28 08:14:51 2002

Usage:

28483.0 of 404063.7 PEHour MPP PE CPU (688.7 of 9769.7 G.S.T), 7.0%

10.3 of 100.0 GByteYear HP Disk (79.5 of 774.2 G.S.T), 10.3%

0.7 of 62.9 Hour SMP CPU (0.0 of 2.4 G.S.T), 1.1%

0.0 of 50.0 GByteYear MP Disk (0.0 of 214.5 G.S.T), 0.0%

9.3 of 525.0 GByteYear HSM/Tape (5.8 of 327.3 G.S.T), 1.8%

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 774.1 of 12029.1 Generic Service Tokens, 6.4%

cse064 GR/R43570 Leschziner  
 Last Trade: Thu Oct 17 18:03:11 2002  
 Usage:  
 9717.6 of 115039.1 PEHour MPP PE CPU (235.0 of 2781.5 G.S.T), 8.4%  
 0.2 of 35.0 GByteYear HP Disk (1.9 of 271.0 G.S.T), 0.7%  
 0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%  
 836.6 of 21900.0 Hour SMP CPU (32.5 of 850.8 G.S.T), 3.8%  
 0.0 of 33.0 GByteYear MP Disk (0.0 of 141.6 G.S.T), 0.0%  
 0.1 of 4.0 GByteYear HSM/Tape (0.0 of 2.5 G.S.T), 1.3%  
 0.0 of 23136.6 Hour Green CPU (0.0 of 1208.9 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 290.9 of 5624.0 Generic Service Tokens, 5.2%

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cse066 GR/R30907 Coveney  
 Last Trade: re-enabled  
 Usage:  
 57483.5 of 87981.1 PEHour MPP PE CPU (1389.9 of 2127.3 G.S.T), 65.3%  
 8.1 of 90.0 GByteYear HP Disk (63.1 of 696.8 G.S.T), 9.1%  
 0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%  
 2389.0 of 14900.0 Hour SMP CPU (92.8 of 578.9 G.S.T), 16.0%  
 9.0 of 18.0 GByteYear MP Disk (38.7 of 77.4 G.S.T), 50.0%  
 12184.5 of 64652.8 Hour Green CPU (636.7 of 3378.2 G.S.T), 18.8%  
 0.0 of 21.0 PersonDay Support (0.0 of 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 2253.4 of 7510.4 Generic Service Tokens, 30.0%

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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%

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cse072 GR/R66692 Karlin  
 Last Trade: re-enabled  
 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 15.7 Hour Wren CPU (0.0 of 0.8 G.S.T), 0.0%  
 0.0 of 163.0 Hour SMP CPU (0.0 of 6.3 G.S.T), 0.0%  
 0.0 of 24.0 GByteYear MP Disk (0.0 of 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%

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cse074 GR/R66197 Luo  
 Last Trade: Wed Jan 2 15:22:45 2002  
 Usage:  
 0.0 of 15370.1 PEHour MPP PE CPU (0.0 of 371.6 G.S.T), 0.0%  
 0.0 of 6.0 GByteYear HP Disk (0.0 of 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%

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cse075 GR/R59540 Coveney  
 Last Trade: Fri Oct 11 15:40:47 2002  
 Usage:  
 3285.0 of 379758.5 PEHour MPP PE CPU (79.4 of 9182.1 G.S.T), 0.9%

11.9 of 217.0 GByteYear HP Disk (92.3 of 1679.9 G.S.T), 5.5%  
 6.1 of 78.4 Hour Wren CPU (0.3 of 3.9 G.S.T), 7.8%  
 5135.7 of 9899.8 Hour SMP CPU (199.5 of 384.6 G.S.T), 51.9%  
 72.3 of 150.0 GByteYear MP Disk (310.2 of 643.4 G.S.T), 48.2%  
 33.8 of 1636.4 GByteYear HSM/Tape (21.1 of 1020.2 G.S.T), 2.1%  
 28870.6 of 300000.0 Hour Green CPU (1508.5 of 15675.6 G.S.T), 9.6%  
 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 2211.4 of 29684.7 Generic Service Tokens, 7.4%

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cse076 GR/R66975 Briddon

Last Trade: Fri Aug 30 09:40:32 2002

Usage:

8531.4 of 4161.1 PEHour MPP PE CPU (206.3 of 100.6 G.S.T), 205.0%  
 0.8 of 1.3 GByteYear HP Disk (6.2 of 10.5 G.S.T), 59.1%  
 44.8 of 504.6 Hour Wren CPU (2.2 of 25.0 G.S.T), 8.9%  
 268168.4 of 267888.9 Hour SMP CPU (10418.8 of 10407.9 G.S.T), 100.1%  
 4.7 of 27.2 GByteYear MP Disk (20.2 of 116.6 G.S.T), 17.4%  
 254717.4 of 260197.5 Hour Green CPU (13309.5 of 13595.9 G.S.T), 97.9%  
 11.0 of 20.0 PersonDay Support (305.6 of 555.6 G.S.T), 55.0%  
 0.0 of 53.5 Day Training (0.0 of 575.0 G.S.T), 0.0%  
 Total usage for project cse076 24268.7 of 25387.0 Generic Service Tokens, 95.6%

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cse077 GR/R69792 Kronenburg

Last Trade: Thu Oct 17 14:11:09 2002

Usage:

0.0 of 400000.6 PEHour MPP PE CPU (0.0 of 9671.5 G.S.T), 0.0%  
 0.0 of 22.5 GByteYear HP Disk (0.0 of 174.3 G.S.T), 0.0%  
 0.0 of 2.0 Day Training (0.0 of 21.5 G.S.T), 0.0%  
 Total usage for project cse077 0.0 of 9867.3 Generic Service Tokens, 0.0%

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cse082 GR/R79654 Barakos

Last Trade: Wed Oct 16 16:04:52 2002

Usage:

0.0 of 7079.3 Hour SMP CPU (0.0 of 275.0 G.S.T), 0.0%  
 0.0 of 55.0 GByteYear MP Disk (0.0 of 236.0 G.S.T), 0.0%  
 0.0 of 55.0 GByteYear HSM/Tape (0.0 of 34.3 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 1.0 Day Training (0.0 of 10.8 G.S.T), 0.0%  
 Total usage for project cse082 0.0 of 695.0 Generic Service Tokens, 0.0%

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cse084 GR/R47066 Needs

Last Trade: re-enabled

Usage:

228658.1 of 306225.8 PEHour MPP PE CPU (5528.7 of 7404.1 G.S.T), 74.7%  
 13.9 of 270.0 GByteYear HP Disk (107.7 of 2090.4 G.S.T), 5.2%  
 186.8 of 78.4 Hour Wren CPU (9.3 of 3.9 G.S.T), 238.2%  
 4258.8 of 14384.3 Hour SMP CPU (165.5 of 558.9 G.S.T), 29.6%  
 16.2 of 75.6 GByteYear MP Disk (69.3 of 324.4 G.S.T), 21.4%  
 80324.2 of 78955.4 Hour Green CPU (4197.1 of 4125.6 G.S.T), 101.7%  
 0.0 of 19.0 PersonDay Support (0.0 of 527.8 G.S.T), 0.0%  
 0.0 of 10.0 Day Training (0.0 of 107.5 G.S.T), 0.0%  
 Total usage for project cse084 10077.4 of 15142.6 Generic Service Tokens, 66.6%

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cse085 GR/R64957 Sandham

Last Trade: re-enabled

Usage:

475611.0 of 1388400.0 PEHour MPP PE CPU (11499.7 of 33569.7 G.S.T), 34.3%  
 165.2 of 650.0 GByteYear HP Disk (1279.3 of 5032.5 G.S.T), 25.4%  
 2.8 of 78.4 Hour Wren CPU (0.1 of 3.9 G.S.T), 3.5%  
 2073.9 of 3945.2 Hour SMP CPU (80.6 of 153.3 G.S.T), 52.6%  
 119.9 of 750.0 GByteYear MP Disk (514.5 of 3217.2 G.S.T), 16.0%  
 980.2 of 1375.0 GByteYear HSM/Tape (611.1 of 857.2 G.S.T), 71.3%  
 192822.6 of 655628.0 Hour Green CPU (10075.4 of 34257.9 G.S.T), 29.4%  
 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 24092.9 of 77857.7 Generic Service Tokens, 30.9%

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cse086 GR/R83118 Taylor

Last Trade: Thu Oct 10 11:53:19 2002

Usage:

381290.1 of 521898.0 PEHour MPP PE CPU (9219.1 of 12618.8 G.S.T), 73.1%  
 41.3 of 74.9 GByteYear HP Disk (320.1 of 580.0 G.S.T), 55.2%  
 184.9 of 2208.1 Hour Wren CPU (9.2 of 109.4 G.S.T), 8.4%  
 0.0 of 12.9 GByteYear HP Disk SAN - /d (0.0 of 100.0 G.S.T), 0.0%  
 0.0 of 46.6 GbyteYear HV Disk SAN /v (0.0 of 100.0 G.S.T), 0.0%  
 6907.0 of 13449.2 Hour SMP CPU (268.3 of 522.5 G.S.T), 51.4%  
 65.2 of 497.0 GByteYear MP Disk (279.8 of 2132.0 G.S.T), 13.1%  
 8.8 of 3750.0 GByteYear HSM/Tape (5.5 of 2337.9 G.S.T), 0.2%  
 95807.0 of 768900.0 Hour Green CPU (5006.1 of 40176.6 G.S.T), 12.5%  
 5.0 of 35.0 PersonDay Support (138.9 of 972.2 G.S.T), 14.3%  
 0.0 of 116.0 Day Training (0.0 of 1247.3 G.S.T), 0.0%  
 Total usage for project cse086 15247.1 of 60896.8 Generic Service Tokens, 25.0%

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cse086a MP1

Last Trade: never

Usage:

262458.2 of 340000.0 PEHour MPP PE CPU (6345.9 of 8220.8 G.S.T), 77.2%  
 3.0 of 4.0 GByteYear HP Disk (23.3 of 31.0 G.S.T), 75.1%  
 0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%  
 0.0 of 50.0 Hour SMP CPU (0.0 of 1.9 G.S.T), 0.0%  
 4.5 of 5.0 GByteYear MP Disk (19.1 of 21.4 G.S.T), 89.0%  
 0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%  
 Total usage for subproject cse086a 6388.3 of 8807.6 Generic Service Tokens, 72.5%

---

cse086b MP2

Last Trade: never

Usage:

48448.5 of 58000.0 PEHour MPP PE CPU (1171.4 of 1402.4 G.S.T), 83.5%  
 10.1 of 15.0 GByteYear HP Disk (78.5 of 116.1 G.S.T), 67.6%  
 104.0 of 200.0 Hour Wren CPU (5.2 of 9.9 G.S.T), 52.0%  
 2088.7 of 4000.0 Hour SMP CPU (81.1 of 155.4 G.S.T), 52.2%  
 7.3 of 10.0 GByteYear MP Disk (31.5 of 42.9 G.S.T), 73.4%  
 94663.6 of 100000.0 Hour Green CPU (4946.4 of 5225.2 G.S.T), 94.7%  
 Total usage for subproject cse086b 6314.1 of 6951.9 Generic Service Tokens, 90.8%

---

cse086d MP4

Last Trade: never

Usage:

0.0 of 0.1 GByteYear HP Disk (0.3 of 0.8 G.S.T), 32.9%  
 0.0 of 0.1 GByteYear MP Disk (0.1 of 0.4 G.S.T), 32.3%  
 Total usage for subproject cse086d 0.4 of 1.2 Generic Service Tokens, 32.7%

---

cse086e MP5

Last Trade: never

Usage:

48.8 of 500.0 PEHour MPP PE CPU (1.2 of 12.1 G.S.T), 9.8%  
 0.7 of 2.0 GByteYear HP Disk (5.1 of 15.5 G.S.T), 33.1%  
 74.9 of 450.0 Hour Wren CPU (3.7 of 22.3 G.S.T), 16.6%  
 0.0 of 5.0 GbyteYear HV Disk SAN /v (0.0 of 10.7 G.S.T), 0.0%  
 2346.8 of 4000.0 Hour SMP CPU (91.2 of 155.4 G.S.T), 58.7%  
 5.8 of 10.0 GByteYear MP Disk (24.7 of 42.9 G.S.T), 57.7%  
 545.8 of 10000.0 Hour Green CPU (28.5 of 522.5 G.S.T), 5.5%  
 Total usage for subproject cse086e 154.5 of 781.4 Generic Service Tokens, 19.8%

---

cse086f EC1  
 Last Trade: never  
 Usage:  
 1.2 of 5000.0 PEHour MPP PE CPU (0.0 of 120.9 G.S.T), 0.0%  
 1.3 of 2.0 GByteYear HP Disk (9.7 of 15.5 G.S.T), 62.6%  
 0.7 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.3%  
 4.8 of 50.0 Hour SMP CPU (0.2 of 1.9 G.S.T), 9.5%  
 7.5 of 10.0 GByteYear MP Disk (32.2 of 42.9 G.S.T), 75.0%  
 8.8 of 40.0 GByteYear HSM/Tape (5.5 of 24.9 G.S.T), 22.0%  
 0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%  
 Total usage for subproject cse086f 47.6 of 738.6 Generic Service Tokens, 6.4%

---

cse086g EC2  
 Last Trade: never  
 Usage:  
 497.7 of 5000.0 PEHour MPP PE CPU (12.0 of 120.9 G.S.T), 10.0%  
 8.3 of 12.0 GByteYear HP Disk (64.6 of 92.9 G.S.T), 69.5%  
 5.3 of 200.0 Hour Wren CPU (0.3 of 9.9 G.S.T), 2.7%  
 58.7 of 100.0 Hour SMP CPU (2.3 of 3.9 G.S.T), 58.7%  
 20.4 of 30.0 GByteYear MP Disk (87.6 of 128.7 G.S.T), 68.1%  
 597.7 of 10000.0 Hour Green CPU (31.2 of 522.5 G.S.T), 6.0%  
 Total usage for subproject cse086g 198.0 of 878.8 Generic Service Tokens, 22.5%

---

cse086h EC3  
 Last Trade: never  
 Usage:  
 46335.1 of 50000.0 PEHour MPP PE CPU (1120.3 of 1208.9 G.S.T), 92.7%  
 2.6 of 3.2 GByteYear HP Disk (19.9 of 24.8 G.S.T), 80.5%  
 0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%  
 219.9 of 250.0 Hour SMP CPU (8.5 of 9.7 G.S.T), 87.9%  
 12.4 of 20.0 GByteYear MP Disk (53.3 of 85.8 G.S.T), 62.1%  
 0.0 of 10000.0 Hour Green CPU (0.0 of 522.5 G.S.T), 0.0%  
 Total usage for subproject cse086h 1202.1 of 1861.6 Generic Service Tokens, 64.6%

---

cse086i EC4  
 Last Trade: never  
 Usage:  
 0.0 of 0.1 GByteYear HP Disk (0.3 of 0.8 G.S.T), 32.3%  
 0.0 of 0.1 GByteYear MP Disk (0.1 of 0.4 G.S.T), 32.3%  
 Total usage for subproject cse086i 0.4 of 1.2 Generic Service Tokens, 32.3%

---

cse086j BEC1  
 Last Trade: never  
 Usage:  
 23500.8 of 25000.0 PEHour MPP PE CPU (568.2 of 604.5 G.S.T), 94.0%  
 0.6 of 3.0 GByteYear HP Disk (4.3 of 23.2 G.S.T), 18.5%  
 0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%  
 0.0 of 0.1 Hour SMP CPU (0.0 of 0.0 G.S.T), 0.2%  
 0.1 of 5.0 GByteYear MP Disk (0.5 of 21.4 G.S.T), 2.3%  
 0.0 of 1000.0 Hour Green CPU (0.0 of 52.3 G.S.T), 0.0%  
 Total usage for subproject cse086j 573.0 of 711.3 Generic Service Tokens, 80.6%

---

cse086k BEC2  
 Last Trade: never  
 Usage:  
 0.0 of 0.1 GByteYear HP Disk (0.3 of 0.8 G.S.T), 32.3%  
 0.0 of 200.0 Hour Wren CPU (0.0 of 9.9 G.S.T), 0.0%  
 2188.3 of 4500.0 Hour SMP CPU (85.0 of 174.8 G.S.T), 48.6%  
 6.5 of 10.0 GByteYear MP Disk (27.9 of 42.9 G.S.T), 64.9%  
 Total usage for subproject cse086k 113.1 of 228.4 Generic Service Tokens, 49.5%

---

cse089 GR/R85556 Wiercigroch  
 Last Trade: re-enabled  
 Usage:  
 0.0 of 8242.8 PEHour MPP PE CPU (0.0 of 199.3 G.S.T), 0.0%  
 0.0 of 45.1 GByteYear HP Disk (0.0 of 348.8 G.S.T), 0.0%  
 0.0 of 15.0 PersonDay Support (0.0 of 416.7 G.S.T), 0.0%  
 0.0 of 7.0 Day Training (0.0 of 75.3 G.S.T), 0.0%  
 Total usage for project cse089 0.0 of 1040.1 Generic Service Tokens, 0.0%

---

csehpcx - benchmarking  
 Last Trade: Fri Oct 4 14:39:35 2002  
 Usage:  
 9804.9 of 134743.4 PEHour MPP PE CPU (237.1 of 3257.9 G.S.T), 7.3%  
 5.1 of 18.9 GByteYear HP Disk (39.7 of 146.3 G.S.T), 27.1%  
 0.0 of 1464.1 Hour Wren CPU (0.0 of 72.5 G.S.T), 0.0%  
 0.5 of 1867.0 Hour SMP CPU (0.0 of 72.5 G.S.T), 0.0%  
 1.0 of 56.4 GByteYear MP Disk (4.2 of 241.8 G.S.T), 1.7%  
 13783.9 of 23136.6 Hour Green CPU (720.2 of 1208.9 G.S.T), 59.6%  
 Total usage for project csehpcx 1001.2 of 5000.0 Generic Service Tokens, 20.0%

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csn001 Webb & GST/02/2846 Killworth & T/S/2001/00187 New  
 Last Trade: Fri Oct 11 15:47:08 2002  
 Usage:  
 403672.0 of 418058.5 PEHour MPP PE CPU (9760.3 of 10108.1 G.S.T), 96.6%  
 285.2 of 420.3 GByteYear HP Disk (2208.4 of 3253.8 G.S.T), 67.9%  
 21.6 of 201.8 Hour Wren CPU (1.1 of 10.0 G.S.T), 10.7%  
 68107.9 of 71971.6 Hour SMP CPU (2646.1 of 2796.2 G.S.T), 94.6%  
 312.4 of 702.2 GByteYear MP Disk (1340.2 of 3012.0 G.S.T), 44.5%  
 13130.5 of 15221.7 GByteYear HSM/Tape (8186.1 of 9489.8 G.S.T), 86.3%  
 697850.3 of 756856.2 Hour Green CPU (36464.1 of 39547.3 G.S.T), 92.2%  
 645.3 of 838.8 Hour VPP\_CPU (708.4 of 920.8 G.S.T), 76.9%  
 2.6 of 6.3 GByteYear Fuji Disk (11.1 of 27.1 G.S.T), 40.8%  
 58.0 of 60.5 PersonDay Support (1611.1 of 1680.6 G.S.T), 95.9%  
 3.0 of 15.3 Day Training (32.3 of 164.4 G.S.T), 19.6%  
 Total usage for project csn001 62969.0 of 71010.2 Generic Service Tokens, 88.7%

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csn003 UGAMP O'Neill  
 Last Trade: Wed Nov 27 11:09:50 2002  
 Usage:  
 4195922.6 of 4217048.8 PEHour MPP PE CPU (101452.0 of 101962.8 G.S.T), 99.5%  
 79.5 of 113.9 GByteYear HP Disk (615.8 of 881.6 G.S.T), 69.9%  
 21.4 of 78.4 Hour Wren CPU (1.1 of 3.9 G.S.T), 27.3%  
 11.6 of 200.0 GByteYear HV Disk SAN /v (24.8 of 429.2 G.S.T), 5.8%  
 19944.7 of 22458.7 Hour SMP CPU (774.9 of 872.6 G.S.T), 88.8%  
 66.0 of 93.8 GByteYear MP Disk (283.1 of 402.3 G.S.T), 70.4%  
 37933.9 of 43533.3 GByteYear HSM/Tape (23649.6 of 27140.5 G.S.T), 87.1%  
 83346.5 of 92133.3 Hour Green CPU (4355.0 of 4814.2 G.S.T), 90.5%  
 80779.9 of 89384.6 Hour VPP\_CPU (88671.7 of 98117.0 G.S.T), 90.4%  
 381.5 of 442.9 GByteYear Fuji Disk (1636.5 of 1900.0 G.S.T), 86.1%  
 0.0 of 0.0 Hour Compaq EV67 CPU (0.0 of 0.0 G.S.T)  
 0.0 of 0.1 GByteYear Compaq Disk (0.0 of 0.3 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 221507.5 of 236567.2 Generic Service Tokens, 93.6%

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csn006 GR9/3550 Price  
 Last Trade: re-enabled  
 Usage:  
 1546992.8 of 1674524.0 PEHour MPP PE CPU (37404.3 of 40487.8 G.S.T), 92.4%  
 136.2 of 192.2 GByteYear HP Disk (1054.4 of 1488.4 G.S.T), 70.8%  
 116.2 of 78.4 Hour Wren CPU (5.8 of 3.9 G.S.T), 148.2%  
 70359.8 of 72126.1 Hour SMP CPU (2733.6 of 2802.2 G.S.T), 97.6%  
 30.6 of 85.5 GByteYear MP Disk (131.3 of 366.8 G.S.T), 35.8%  
 3.8 of 20.3 GByteYear HSM/Tape (2.4 of 12.6 G.S.T), 18.7%



319122.5 of 369394.9 Hour Green CPU (16674.8 of 19301.6 G.S.T), 86.4%  
 Total usage for project csn006 58006.5 of 64463.4 Generic Service Tokens, 90.0%

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csn012 NER/A/S/2000/01315 Tennyson

Last Trade: Thu Oct 3 10:43:22 2002

Usage:

96.8 of 250.1 PEHour MPP PE CPU (2.3 of 6.0 G.S.T), 38.7%

0.0 of 1.2 GByteYear MP Disk (0.0 of 5.0 G.S.T), 0.3%

4395.6 of 4845.2 Hour VPP\_CPU (4825.0 of 5318.5 G.S.T), 90.7%

9.0 of 9.3 GByteYear Fuji Disk (38.6 of 40.0 G.S.T), 96.5%

Total usage for project csn012 4866.0 of 5369.6 Generic Service Tokens, 90.6%

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csn013 GR3/12954 Voke

Last Trade: re-enabled

Usage:

926.0 of 1711.2 Hour VPP\_CPU (1016.5 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 1016.5 of 1888.3 Generic Service Tokens, 53.8%

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csn014 GST/02/2785 Llewellyn-Jones

Last Trade: Tue Aug 27 15:35:33 2002

Usage:

0.0 of 658.3 PEHour MPP PE CPU (0.0 of 15.9 G.S.T), 0.0%

0.0 of 15.0 GByteYear HP Disk (0.0 of 116.1 G.S.T), 0.0%

0.0 of 0.8 Hour Wren CPU (0.0 of 0.0 G.S.T), 0.0%

0.0 of 11.9 Hour SMP CPU (0.0 of 0.5 G.S.T), 0.0%

0.0 of 5.0 GByteYear MP Disk (0.0 of 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 Sep 30 17:44:35 2002

Usage:

253716.2 of 472776.0 PEHour MPP PE CPU (6134.5 of 11431.1 G.S.T), 53.7%

4.0 of 5.0 GByteYear HP Disk (31.2 of 38.7 G.S.T), 80.6%

2.1 of 78.4 Hour Wren CPU (0.1 of 3.9 G.S.T), 2.7%

731.3 of 1562.0 Hour SMP CPU (28.4 of 60.7 G.S.T), 46.8%

47.6 of 99.3 GByteYear MP Disk (204.1 of 425.8 G.S.T), 47.9%

2233.9 of 3330.5 GByteYear HSM/Tape (1392.7 of 2076.4 G.S.T), 67.1%

132360.8 of 240788.5 Hour Green CPU (6916.1 of 12581.7 G.S.T), 55.0%

0.0 of 2951.8 Hour VPP\_CPU (0.0 of 3240.2 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 14795.0 of 30232.5 Generic Service Tokens, 48.9%

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csn017 Payne GR3/12917

Last Trade: re-enabled

Usage:

435.9 of 435.9 PEHour MPP PE CPU (10.5 of 10.5 G.S.T), 100.0%

0.3 of 0.2 GByteYear HP Disk (2.4 of 1.8 G.S.T), 136.6%

0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%

2025.0 of 2137.4 Hour SMP CPU (78.7 of 83.0 G.S.T), 94.7%

2.0 of 13.6 GByteYear MP Disk (8.8 of 58.4 G.S.T), 15.1%

603.3 of 2126.6 Hour Green CPU (31.5 of 111.1 G.S.T), 28.4%

0.0 of 16.0 PersonDay Support (0.0 of 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 153.5 of 906.7 Generic Service Tokens, 16.9%

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csn036 NER/T/S/1999/00110 Haines

Last Trade: Tue Oct 22 16:39:08 2002

Usage:

1158.7 of 10737.1 PEHour MPP PE CPU (28.0 of 259.6 G.S.T), 10.8%

8.3 of 30.0 GByteYear HP Disk (64.2 of 232.3 G.S.T), 27.6%

4.3 of 78.4 Hour Wren CPU (0.2 of 3.9 G.S.T), 5.5%

2004.1 of 25193.4 Hour SMP CPU (77.9 of 978.8 G.S.T), 8.0%  
 12.3 of 50.0 GByteYear MP Disk (52.7 of 214.5 G.S.T), 24.5%  
 849.6 of 2014.0 GByteYear HSM/Tape (529.7 of 1255.6 G.S.T), 42.2%  
 15512.4 of 25450.3 Hour Green CPU (810.6 of 1329.8 G.S.T), 61.0%  
 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 1563.2 of 4383.8 Generic Service Tokens, 35.7%

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#### csn044 Earth Observation

Last Trade: Wed Aug 28 11:09:50 2002

##### Usage:

9948.9 of 13857.9 PEHour MPP PE CPU (240.6 of 335.1 G.S.T), 71.8%  
 0.0 of 5.0 GByteYear HP Disk (0.0 of 39.0 G.S.T), 0.0%  
 0.0 of 28.4 Hour Wren CPU (0.0 of 1.4 G.S.T), 0.0%  
 0.2 of 73.9 Hour SMP CPU (0.0 of 2.9 G.S.T), 0.3%  
 0.0 of 5.0 GByteYear MP Disk (0.0 of 21.5 G.S.T), 0.0%  
 4.5 of 53.8 GByteYear HSM/Tape (2.8 of 33.5 G.S.T), 8.4%  
 0.0 of 41.1 Hour VPP\_CPU (0.0 of 45.1 G.S.T), 0.0%  
 0.0 of 5.0 GByteYear Fuji Disk (0.0 of 21.5 G.S.T), 0.0%  
 Total usage for project csn044 243.4 of 500.0 Generic Service Tokens, 48.7%

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#### csp004 PPA/G/0/2000/00024 Bell

Last Trade: Wed Oct 9 17:19:11 2002

##### Usage:

61501.9 of 86221.7 PEHour MPP PE CPU (1487.0 of 2084.7 G.S.T), 71.3%  
 11.1 of 47.0 GByteYear HP Disk (86.0 of 363.9 G.S.T), 23.6%  
 1.9 of 862.6 Hour Wren CPU (0.1 of 42.7 G.S.T), 0.2%  
 40.8 of 3174.0 Hour SMP CPU (1.6 of 123.3 G.S.T), 1.3%  
 7.8 of 24.0 GByteYear MP Disk (33.6 of 103.0 G.S.T), 32.6%  
 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 1608.3 of 2998.1 Generic Service Tokens, 53.6%

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#### csp006 PPA/G/S/2001/00050 Browning

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

##### Usage:

65.8 of 800.0 Hour VPP\_CPU (72.2 of 878.2 G.S.T), 8.2%  
 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 72.2 of 1093.0 Generic Service Tokens, 6.6%

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#### HPCI Daresbury

Last Trade: Mon Oct 7 10:07:27 2002

##### Usage:

34673.1 of 34482.9 PEHour MPP PE CPU (838.4 of 833.8 G.S.T), 100.6%  
 4.0 of 3.8 GByteYear HP Disk (30.9 of 29.6 G.S.T), 104.7%  
 0.0 of 0.0 Hour Wren CPU (0.0 of 0.0 G.S.T), 994.7%  
 4061.9 of 4120.4 Hour SMP CPU (157.8 of 160.1 G.S.T), 98.6%  
 1.9 of 1.7 GByteYear MP Disk (8.3 of 7.2 G.S.T), 114.4%  
 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 1611.4 of 1589.9 Generic Service Tokens, 101.3%

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#### HPCI Edinburgh

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

##### Usage:

1759.1 of 4070.6 PEHour MPP PE CPU (42.5 of 98.4 G.S.T), 43.2%  
 4.0 of 4.7 GByteYear HP Disk (30.8 of 36.6 G.S.T), 84.2%  
 698.4 of 770.8 Hour SMP CPU (27.1 of 29.9 G.S.T), 90.6%  
 2.9 of 2.8 GByteYear MP Disk (12.4 of 12.0 G.S.T), 102.7%  
 1728.7 of 1739.8 Hour Green CPU (90.3 of 90.9 G.S.T), 99.4%  
 Total usage for project hpcie 203.2 of 267.9 Generic Service Tokens, 75.8%

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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: re-enabled  
Usage:  
69.5 of 10000.0 PEHour MPP PE CPU (1.7 of 241.8 G.S.T), 0.7%  
0.7 of 10.0 GByteYear HP Disk (5.3 of 77.4 G.S.T), 6.8%  
0.0 of 78.4 Hour Wren CPU (0.0 of 3.9 G.S.T), 0.0%  
0.0 of 9900.0 Hour SMP CPU (0.0 of 384.6 G.S.T), 0.0%  
0.7 of 10.0 GByteYear MP Disk (2.9 of 42.9 G.S.T), 6.8%  
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%  
0.7 of 3.0 GByteYear Fuji Disk (2.9 of 12.9 G.S.T), 22.8%  
2.0 of 2.0 Day Training (21.5 of 21.6 G.S.T), 99.7%  
Total usage for project ukhec 34.4 of 1885.4 Generic Service Tokens, 1.8%

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## Appendix 6

<b>Code</b>	<b>PI</b>	<b>Subject</b>	<b>Subject Area</b>
cse002	Dr Adrian Wander	Support for the UKCP	Physics
cse009	Ben Slater	HPC in Materials Chemistry	Chemistry
cse013	Prof Michael Leschziner	Aerospace & Turbomachinery Dynamics	Mechanical Engineering
cse035	Dr Stephen Jenkins	Ab Initio Simulations of Catalytic Processes at Extended Metal Surfaces	Chemistry
cse036	Prof Iain Duff	Research & Development of Algorithms & Software for Large-Scale Linear & Non-Linear Systems	Maths
cse041	Dr Xianhong Wu	Flutter & Noise Generation Mechanisms - Turbomachinery Fan Assemblies	Mechanical Engineering
cse043	Dr J Williams	Numerical Simulation of Flow over a Rough Bed	Engineering
cse052	Miss Francesca Di Mare	Heat Transfer in Turbine Combustors	Mechanical Engineering
cse053	Prof Michael Leschziner	Coupling RANS Near-Wall Turbulence Models with Large Eddy Simulation Strategies	Aerospace Engineering
cse055	Dr Julia Staunton	Ab-initio theory of magnetic anisotropy in transition metal ferromagnets	Physics
cse056	Dr Tie Chen	Aerothermalelasticity Modelling of Air Riding Seals for Large Gas Turbines	Mechanical Engineering
cse057	Dr Roger Evans	Relativistic Particle Generation from Ultra-Intense Laser Plasma Interactions	Physics
cse061	Prof M Imregun	Casing treatment modelling for the investigation of stall, flutter and noise mechanisms in turbomachinery compressors.	Mechanical Engineering
cse063	Prof Neil Sandham	Computational Aeroacoustics for Turbulent Plane Jets	Aerospace Engineering
cse064	Professor Leschziner	Improvement of predictive performance of anisotropy-resolving turbulence models in post-reattachment recovery region of separated flow using Large Eddy Simulation	Aerodynamics
cse066	Prof P V Coveney	New clay-polymer nanocomposites using diversity-discovery methods: synthesis, processing and testing	IT
cse074	Applicant=Dr Luo	Consortium on Computational Combustion for Engineering Applications	Engineering
cse075	Dr Keir Novik	The Reality Grid - a tool for investigating condensed matter & materials	IT
cse076	Dr P Briddon	HPC facilities for the first principles simulation of covalently bonded materials	IT
cse077	Dr A Kronenburg	Combustion Model Development for Large-Eddy Simulation of Non-Premixed Reactive Flows.	Mechanical Engineering
cse082	Dr G Barakos	CFD Study of Three-dimensional Dynamic Shelf	Aerospace Engineering
cse084	Dr R Needs	The Consortium for Computational Quantum Many-Body Theory	Physics
cse085	Prof N Sandham	UK Turbulence Consortium	Engineering
cse086	Prof K Taylor	Multiphoton, Electron Collisions and BEC HPC Consortium 2002-2004	Physics
cse089	Dr M Wiercigroch	Nonlinear Dynamics & Rock Contact Fracture Mechanics in Modelling of Vibration Enhanced Drilling	Engineering
csn001	Mrs Beverly De Cuevas	OCCAM	Ocean/Earth Sciences
csn003	Dr Lois Steenman-Clark	UGAMP	Meteorology
csn006	Dr J Brodholt		Geological Sciences
csn012	Prof Jonathan Tennyson	Calculated Absorption by water vapour at near infra-red & optical wavelengths	Physics & Astronomy

csn013	Prof P Voke	Large Eddy Simulation Extended by Extreme Value Theory for the Prediction of Dispersion, Concentration Threshold Boundaries & Field Connectivity	Mechanical & Materials Engineering
csn015	Dr Roger Proctor	A Testbed for Zooplankton Models of the Irish Sea	Coastal & Marine Sciences
csn017	Dr Anthony Payne	Stability of the Antarctic Ice Sheet	Geography
csn036	Mr Andrew Woolf	Assimilation of Altimeter, Radiometer & in situ data into the OCCAM model. Analysis of water properties & transports	Environmental Science
csn044	Dr Lois Steenman-Clark	Earth Observation Project	Meteorology
csb001	Dr David Houldershaw	Use of Cray T3E for multiple long trajectories of protein unfolding	Crystallography
csp004	Prof K L Bell	A Programme for Atomic Physics for Astrophysics at Queen's University Belfast (2001-2005)	Astronomy
csp006	Dr R Jain	Numerical Simulation of forced magnetic reconnection in the solar corona	Physics
HPCID	Dr R Allan		
HPCIE	Dr D Henty		
UKHEC	Dr R Allan	UK HEC Collaboration, Core Support for High-End Computing 1999-2002	
cs2036	David R Hayhurst	MPI Evaluation	Mechanical Aerospace & Manufacturing Engineering
cs2037	Dr Carmen Domene	Ab initio molecular dynamics of ion in membrane proteins	
cs2038	Prof Peter Excell	Computational Bioelectromagnetic Modelling of Human Cellular Processes for Mobile Phone Safety Research.	Informatics
cs3015	Dr D Hampshire	High Performance Computational Solutions for the Ginzburg-Landau Equations that describe Flux Pinning in High-Field Superconductors	Physics
cs3016	Dr O Petchey	Randomisation test for the significance of functional diversity for eco-system processes	Animal & Plant Sciences