CSAR Service - Management Report

September 1999

This report documents the quality of the CSAR service during the month of September 1999.

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 month there was an upturn in the workload submitted to the service. However the total amount submitted was still not quite sufficient to fully use the baseline capacity.

This document gives information on Service Quality and on actual usage of the CSAR Service during the reporting period of September 1999. The information, in particular, covers the availability and usage of the following two main CSAR Service High Performance Computing (HPC) systems:

- Cray T3E-1200E/576 (Turing)
- SGi Origin2000/16 (Fermat).

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

2. Service Quality

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

2.1 CPARS

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

CSAR Service - Service Quality Report - Performance Targets

Service Quality Measure	Performance Targets					
	White	Blue	Green	Yellow	Orange	Red
HPC Services Availability						
Availability in Core Time (% of time)	> 99.9%	> 99.5%	> 99.2%	> 98.5%	> 95%	95% or less
Availability out of Core Time (% of time)	> 99.8%	> 99.5%	> 99.2%	> 98.5%	> 95%	95% or less
Number of Failures in month	0	1	2 to 3	4	5	> 5
Mean Time between failures in 52 week rolling period (hours)	>750	>500	>300	>200	>150	otherwise
Help Desk						
Non In-depth Queries - Maximum Time to resolve 50% of all queries (working days)	< 1/4	< 1/2	< 1	< 2	< 4	4 or more
Non In-depth Queries - Maximum Time to resolve 95% of all queries (working days)	< 1/2	< 1	< 2	< 3	< 5	5 or more
Administrative Queries - Maximum Time to resolve 95% of all queries (working days)	< 1/2	< 1	< 2	< 3	< 5	5 or more
Help Desk Telephone - % of calls answered within 2 minutes	>98%	> 95%	> 90%	> 85%	> 80%	80% or less
Others						
Normal Media Exchange Requests - average response time in month (working days)	< 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 scheduled 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 September 1st to 30th inclusive.
Overall, the CPARS Performance Achievement was satisfactory (see Table 3), i.e. green measured against the CPARS performance targets.

CSAR Service - Service Quality Report - Actual Performance Achievement

Service Quality Measure	1999								
	Jan	Feb	March	April	May	June	July	Aug.	Sept
HPC Services Availability									
Availability in Core Time (% of time)	99.70%	100%	100%	97.10%	98.50%	99.70%	99.70%	100%	100%
Availability out of Core Time (% of time)	100%	99.40%	98.51%	98.10%	99.71%	99.40%	99.40%	99.40%	99.5%
Number of Failures in month	1	3	1	1	3	2	2	1	1
Mean Time between failures in 52 week rolling period (hours)	744	354	432	480	453	395	391	416	437
Help Desk									
Non In-depth Queries - Maximum Time to resolve 50% of all queries (working days)	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Non In-depth Queries - Maximum Time to resolve 95% of all queries (working days)	<1	<2	<2	<1	<3	<3	<2	<2	<1
Administrative Queries - Maximum Time to resolve 95% of all queries (working days)	<1	<5	<2	<2	<2	<1	<1	<1	<1
Help Desk Telephone - % of calls answered within 2 minutes	100%	100%	100%	100%	100%	100%	100%	100%	100%
Others									
Normal Media Exchange Requests - average response time in month (working days)	<0.5	0	<0.5	<0.5	<0.5	<0.5	0	0	0
New User Registration Time (working days)	<2	0	0	0	0	0	0	0	0
Management Report Delivery Times (working days)	10	10	10	10	10	10	10	10	10
System Maintenance - no. of scheduled sessions taken per system in the month	2	2	2	0	1	2	2	2	1

Table 2

Notes:

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

   [Turing availability x 122 / (122 + 3.5)] + [Fermat availability x 3.5 / (122 + 3.5)]

2 Mean Time between failures for Service Credits is formally calculated from Go-Live Date.

Table 3 gives Service Credit values for the month of September. 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	1999 Jan	Feb	March	April	May	June	July	Aug.	Sept
HPC Services Availability									
Availability in Core Time (% of time)	-0.039	-0.058	-0.058	0.078	0.039	-0.039	-0.039	-0.058	-0.058
Availability out of Core Time (% of time)	-0.047	0	0.000	0.039	-0.039	0	0	0	-0.039
Number of Failures in month	-0.008	0	-0.008	-0.008	0	0	0	-0.008	-0.008
Mean Time between failures in 52 week rolling period (hours)	-0.009	0	0	0	0	0	0	0	0
Help Desk									
Non In-depth Queries - Maximum Time to resolve 50% of all queries (working days)	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019	-0.019
Non In-depth Queries - Maximum Time to resolve 95% of all queries (working days)	-0.016	0	0	-0.016	0.016	0.016	-0.016	-0.016	-0.016
Administrative Queries - Maximum Time to resolve 95% of all queries (working days)	-0.016	0.031	0	0	0	-0.016	-0.016	-0.016	-0.016
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
Others									
Normal Media Exchange Requests - average response time in month (working days)	-0.002	0	-0.002	-0.002	-0.002	-0.002	0	0	0
New User Registration Time (working days)	0	0	0	0	0	0	0	0	0
Management Report Delivery Times (working days)	0	0	0	0	0	0	0	0	0
System Maintenance - no. of scheduled sessions taken per system in the month	0	0	0	-0.004	-0.003	0	0	0	-0.003
Monthly Total & overall Service Quality Rating for each period:	-0.08	-0.02	-0.05	0.03	-0.01	-0.03	-0.05	-0.06	-0.08

Table 3

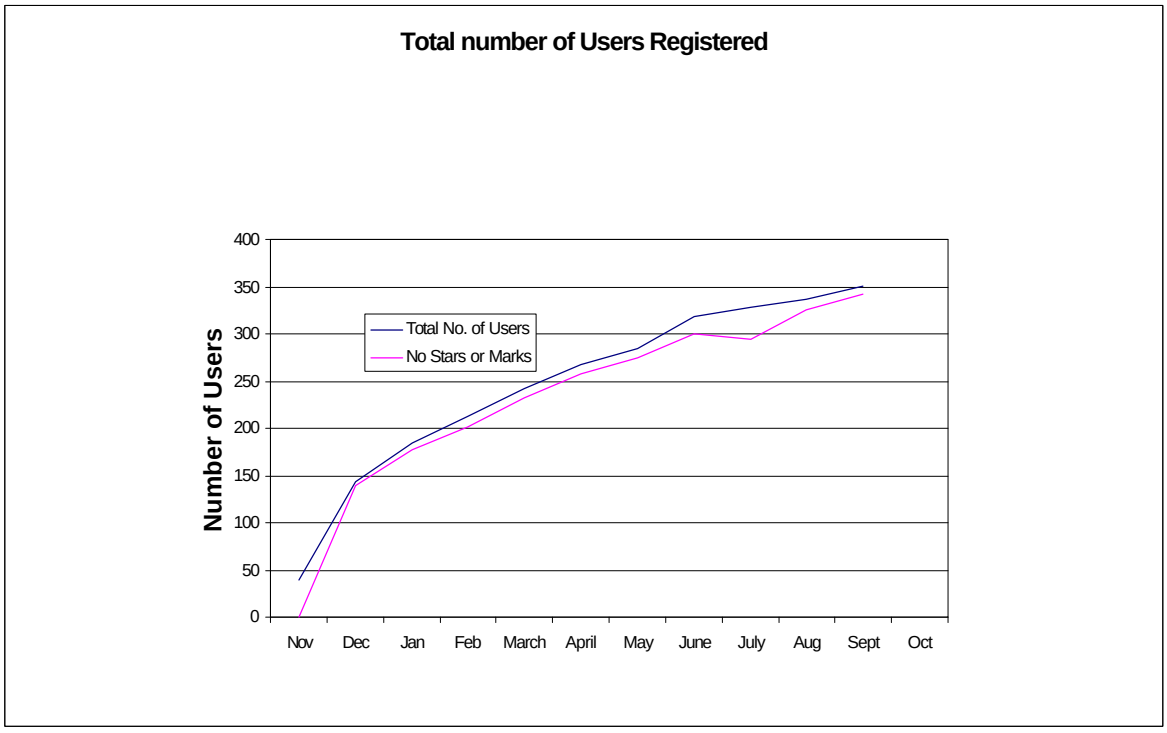
2.2 Service Quality Tokens

The current position at the end of September 1999 is that 9 of the 351 registered users of the CSAR Service had used Service Quality Tokens. See below:

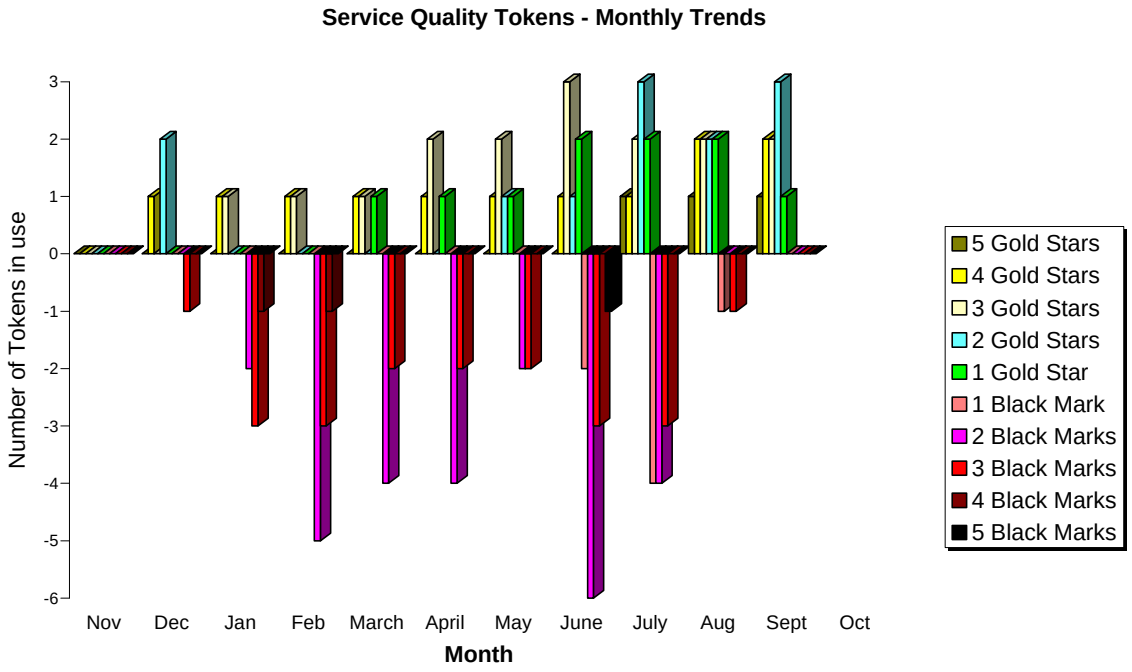
Service Quality Tokens

	Position as at end of each month											
	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct
5 Gold Stars	0	0	0	0	0	0	0	0	1	1	1	
4 Gold Stars	0	1	1	1	1	1	1	1	1	2	2	
3 Gold Stars	0	0	1	1	1	2	2	3	2	2	2	
2 Gold Stars	0	2	0	0	0	0	1	1	3	2	3	
1 Gold Star	0	0	0	0	1	1	1	2	2	2	1	
No Stars or Marks	0	140	177	201	233	258	275	300	295	326	342	
1 Black Mark	0	0	0	0	0	0	0	2	4	1	0	
2 Black Marks	0	0	2	5	4	4	2	6	4	0	0	
3 Black Marks	0	1	3	3	2	2	2	3	3	1	0	
4 Black Marks	0	0	1	1	0	0	0	0	0	0	0	
5 Black Marks	0	0	0	0	0	0	0	1	0	0	0	
	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct
Total No. of Users	40	144	185	212	242	268	284	319	328	337	351	
No Stars or Marks	0	140	177	201	233	258	275	300	295	326	342	

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

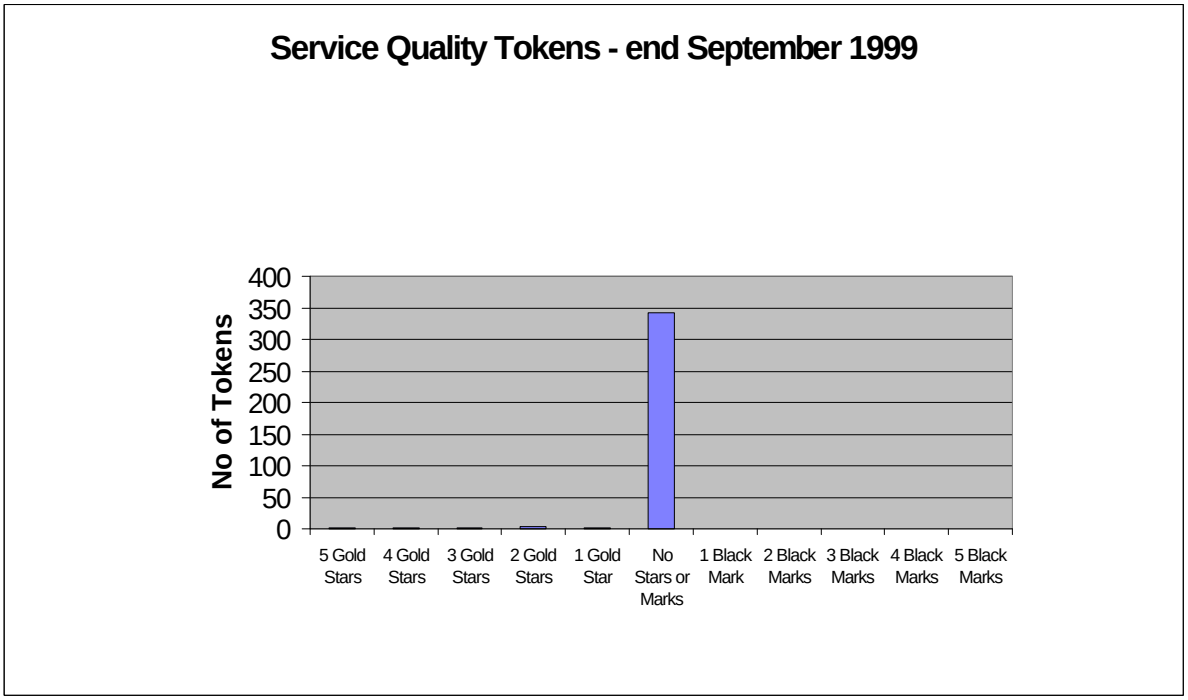


The graph below illustrates the monthly usage trend of quality tokens:



The present status is that no black marks are currently showing against the service.

In the form of a bar chart, the current statistics are:



SUMMARY OF SERVICE QUALITY TOKEN USAGE

No of Stars or Marks	Consortia	Date Allocated	Reason Given
1Gold Star	CSN003 (Fuji)	06/08/99	Good response to suggestions/complaints
2 Gold Stars	CSE003	29/08/99	Interactive improvements good support
2 Gold Stars	CSN003 (Fuji)	20/09/99	Fuji improvements
3 Gold Stars	HPCI Daresbury	27/08/99	Interactive improvements
3 Gold Stars	CSN003 (Fuji)	16/08/99	Fuji improvements, good support
4 Gold Stars	CSN003 (Fuji)	09/08/99	Fuji improvements
4 Gold Stars	CSN003 (Fuji)	27/08/99	Fuji improvements, good support

The above table summarises the currently allocated Service Quality Tokens, detailing the reason given for the allocation of the tokens.

2.3 Throughput Target against Baseline

The Baseline Target for throughput was not achieved this month due to insufficient work being submitted. The actual usage for the 30-day period of September was 93.5% of Baseline.

Job Throughput Against Baseline CSAR Service Provision

Period: 1st to 30st September 1999

	Baseline Capacity for Period (T3E PE Hours)	**Actual Usage in Period (T3E PE Hours)**	**Actual % Utilisation c/w Baseline during Period**
1. Has CfS failed to deliver Baseline MPP Computing Capacity for EPSRC?	350,132	327,391	**93.50%**
	Baseline Capacity for Period (T3E PE Hours)	**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?	350,132	303,099	No
		Number of Jobs at least 4 days old at end Period	**Number of Jobs at least 4 days old at end Period is not zero (Yes/No)?**
3. Are there User Jobs oustanding at the end of the period over 4 days old?		0	No
		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?		37%	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	81.0%	No

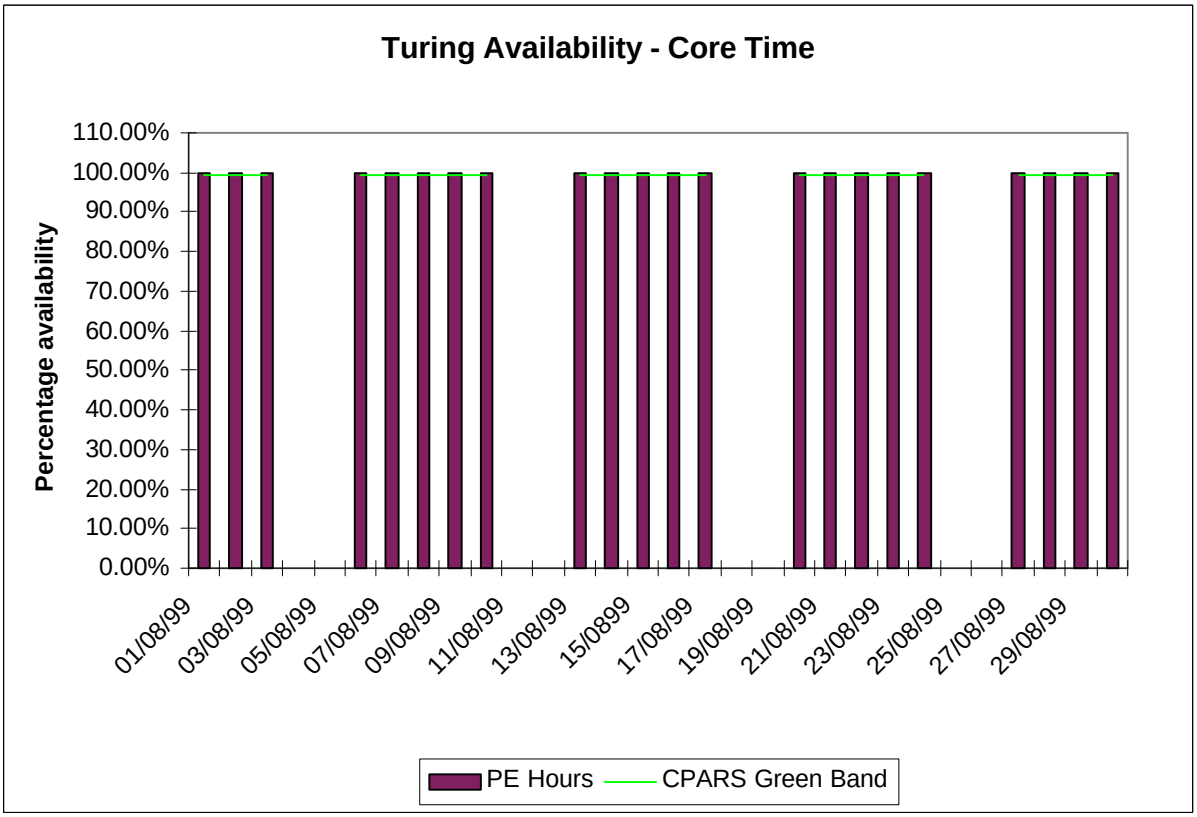
3. System Availability

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

3.1 Cray T3E-1200E System (Turing)

The following graphs show the availability of Turing both in core time and out of core time respectively during the period of 1st to 30th September.

Turing availability for September:



Availability of Turing in core time during September was excellent

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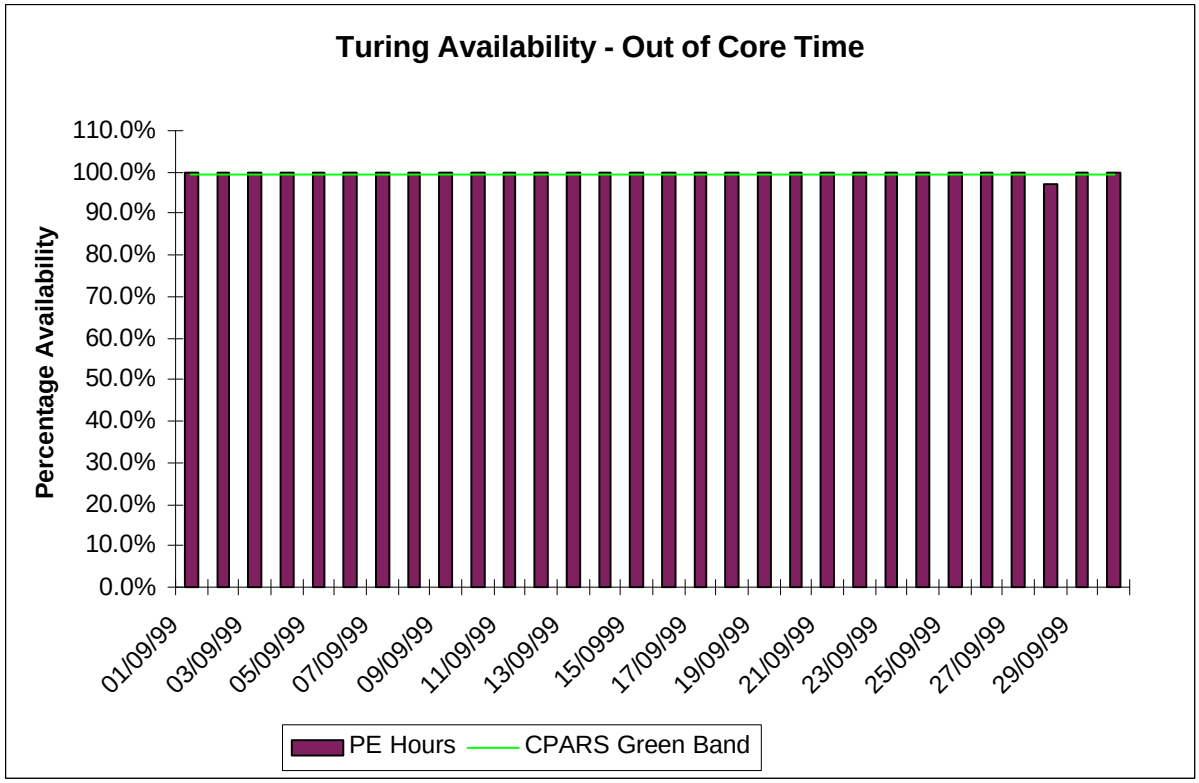
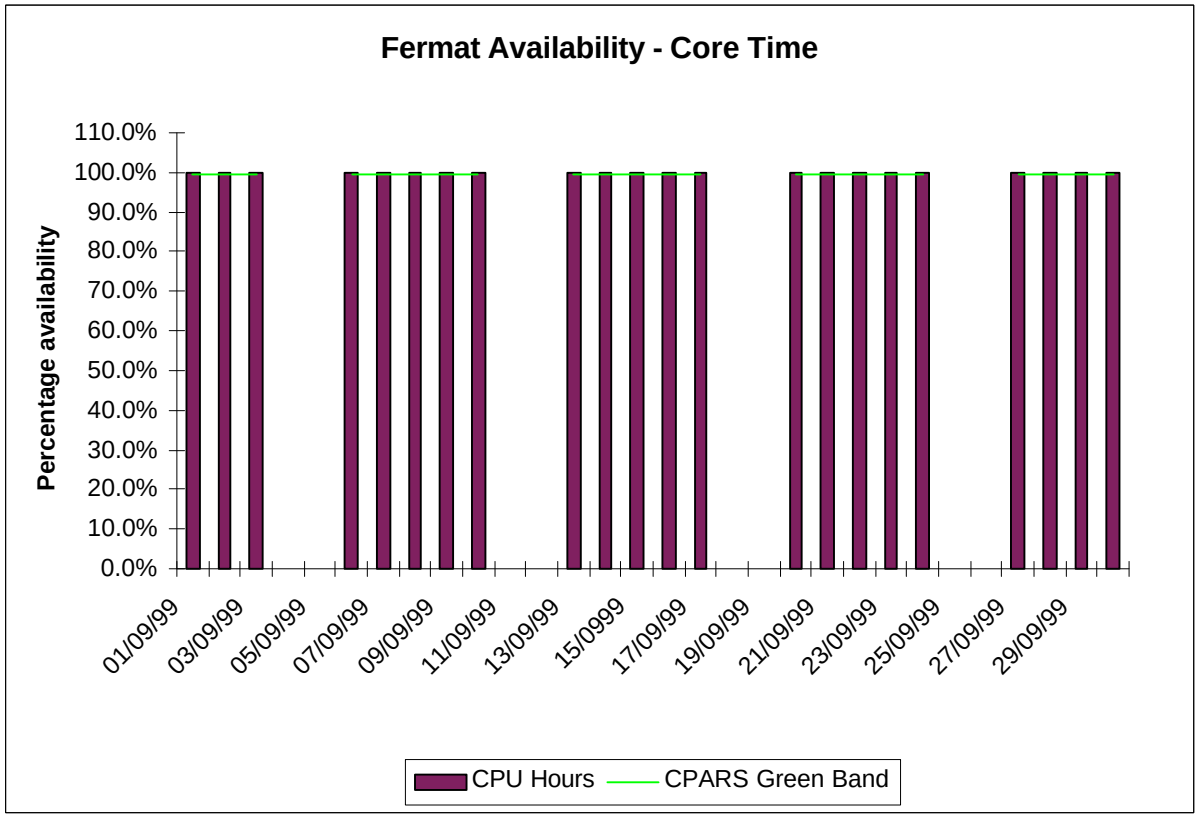


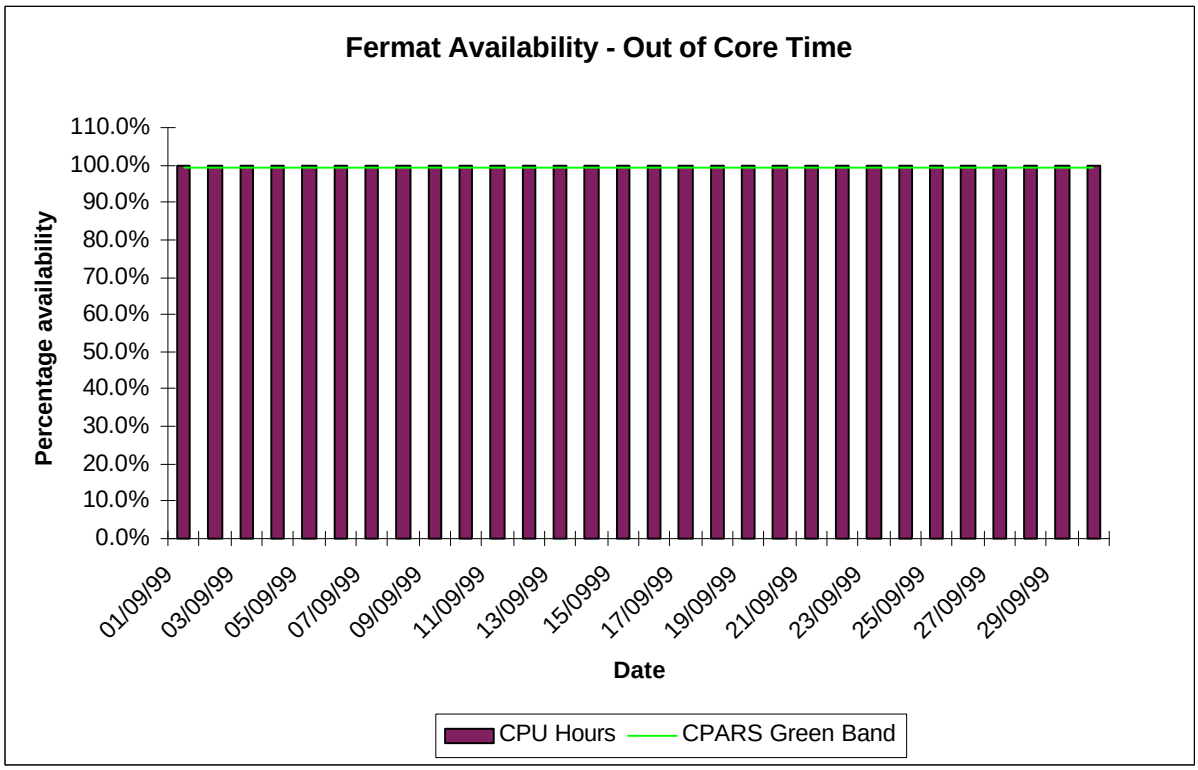
Availability of Turing out of core time during was good with the exception of a PE failure, which had minimal effect on the out of core time availability of the system.

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 September was excellent.



Availability of Fermat out of core time during September was excellent.

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 September 1st to 30th is provided by Project/User Group, totalled by Research Council and overall. This covers:

• CPU usage	Turing: 327,391 PE Hours	Fermet: 5,720.03 CPU Hours
• User Disk allocation	Turing: 36.21 GB Years	Fermat: 18.5 GB Years
• HSM/tape usage	450.23 GB Years	

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

a) MPP (T3E) Usage by month, showing usage each month of CPU (T3E PE Elapsed Hours), split by Research Council and giving the equivalent GFLOP-Years as per NPB. The Baseline Capacity (103 GFLOP-Years) is shown by an overlaid horizontal line.

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 (3.5 GFLOP-Years) 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.

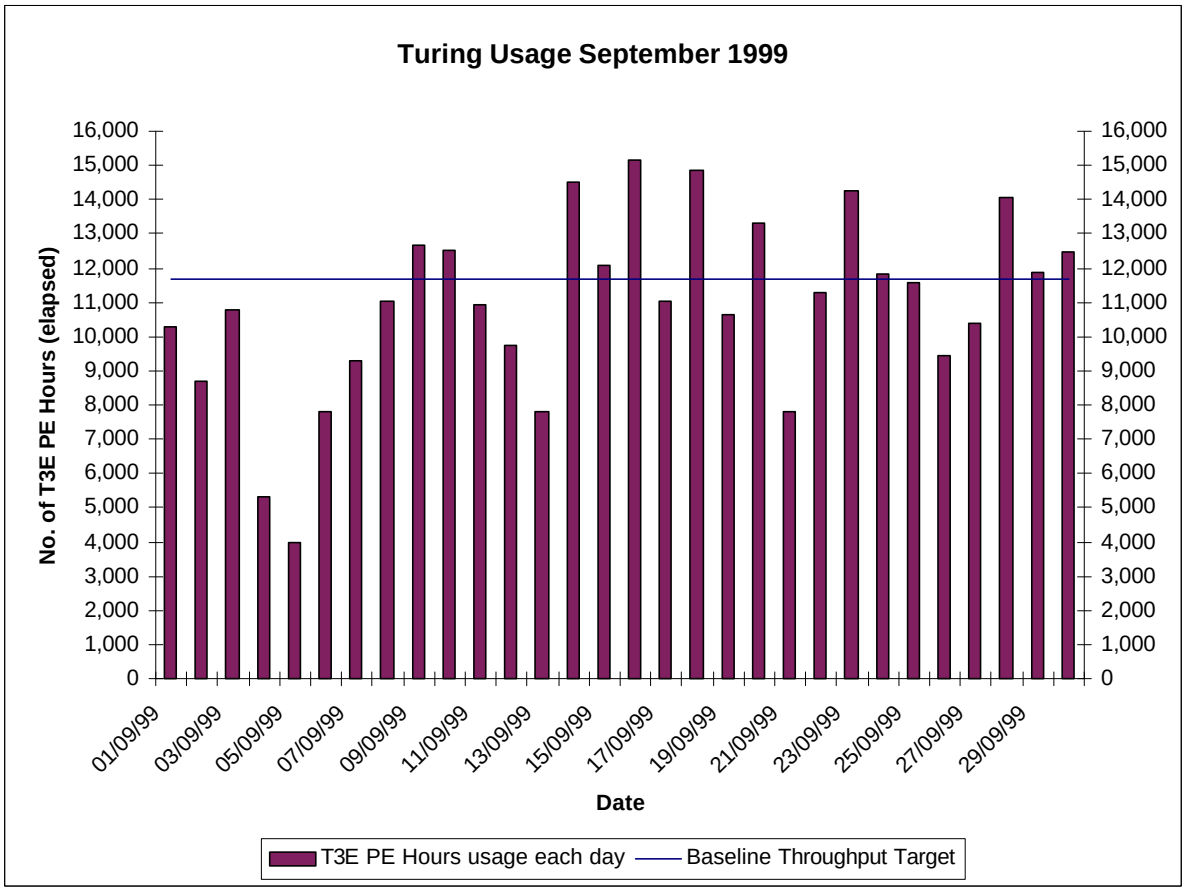
d) Medium Performance Disk (Origin) allocated for User Data by month, showing the allocated space each month in GBytes, split by Research Council. The Baseline Capacity (1.5 Terabytes) is shown by an overlaid horizontal line.

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 September 1999. 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 12 hour limit on jobs, so that they are check-pointed, and computational time lost due to any failure is well managed.

Turing usage for September:



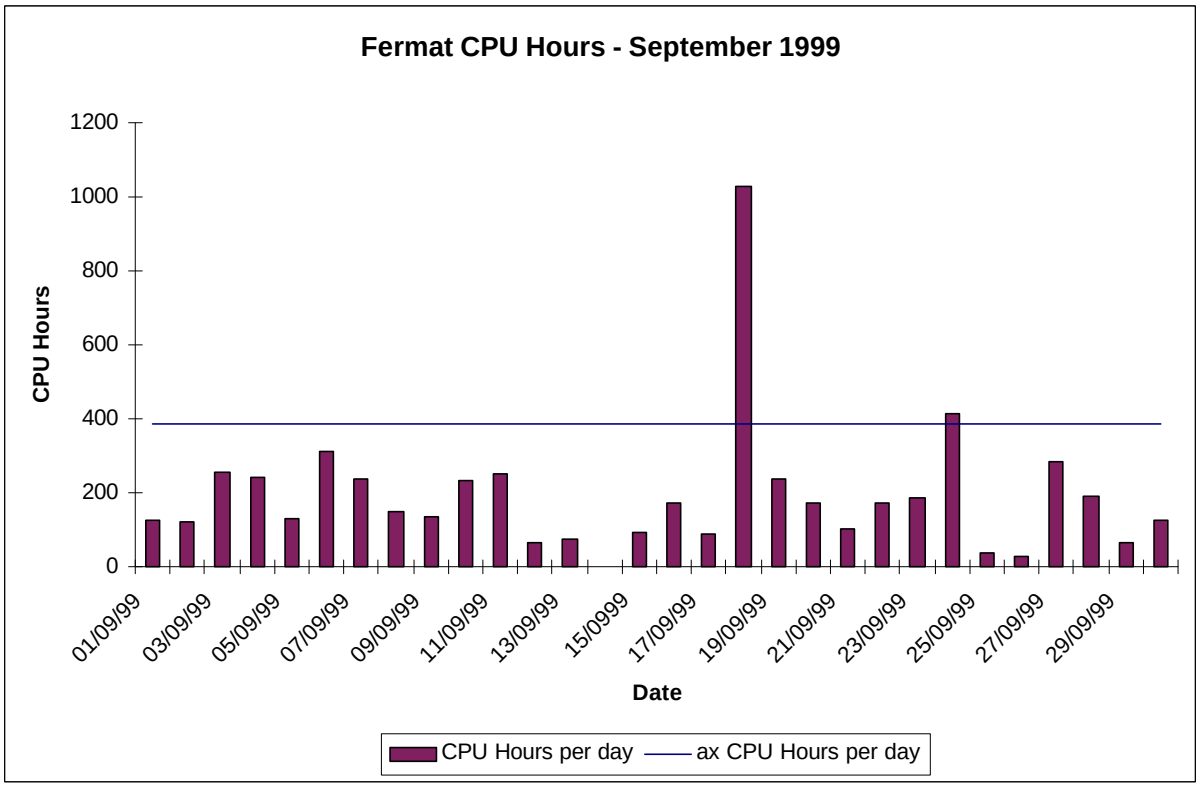
The above usage graph for the Turing system shows that the overall workload was variable, though increasing.

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, every night they are queued.

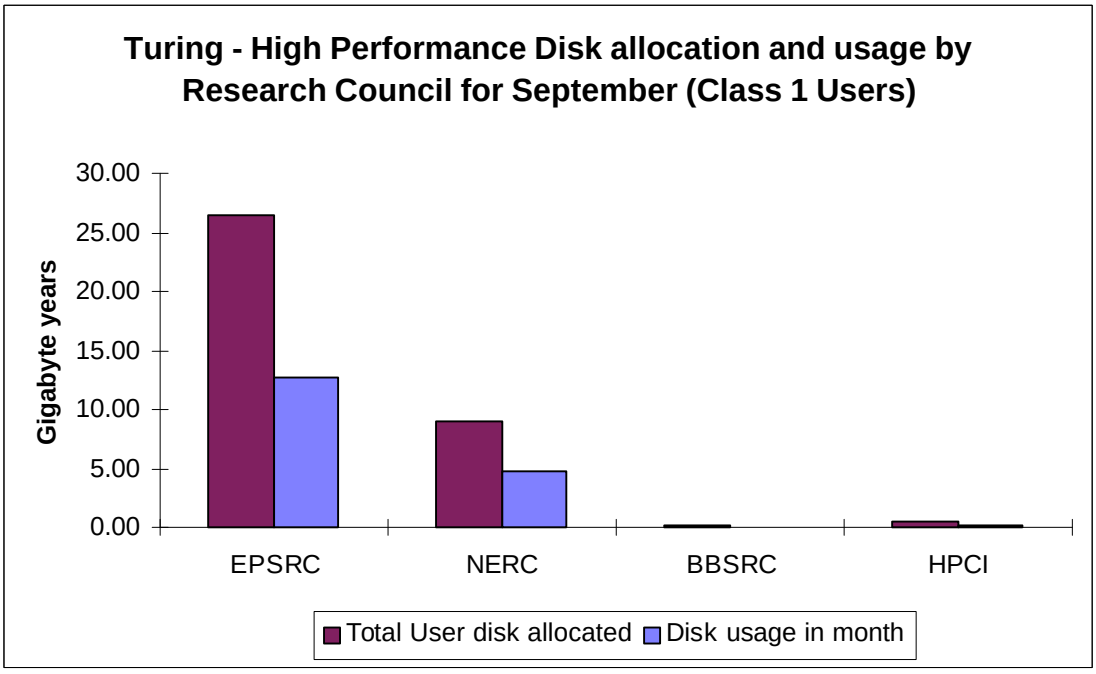
4.2 SGi Origin2000 System (Fermat)

The usage of the Origin system was good for the month with the daily usage of the system averaging 49.6% of theoretical maximum. This figure does not show that in some periods CPU time is running at 99.9% of the total available CPU time. The groups most heavily using the Fermat system are CSE009 (Catlow) and CSN001 (DeCuevas) and CS2004 (Watkins) of the class 2 users.

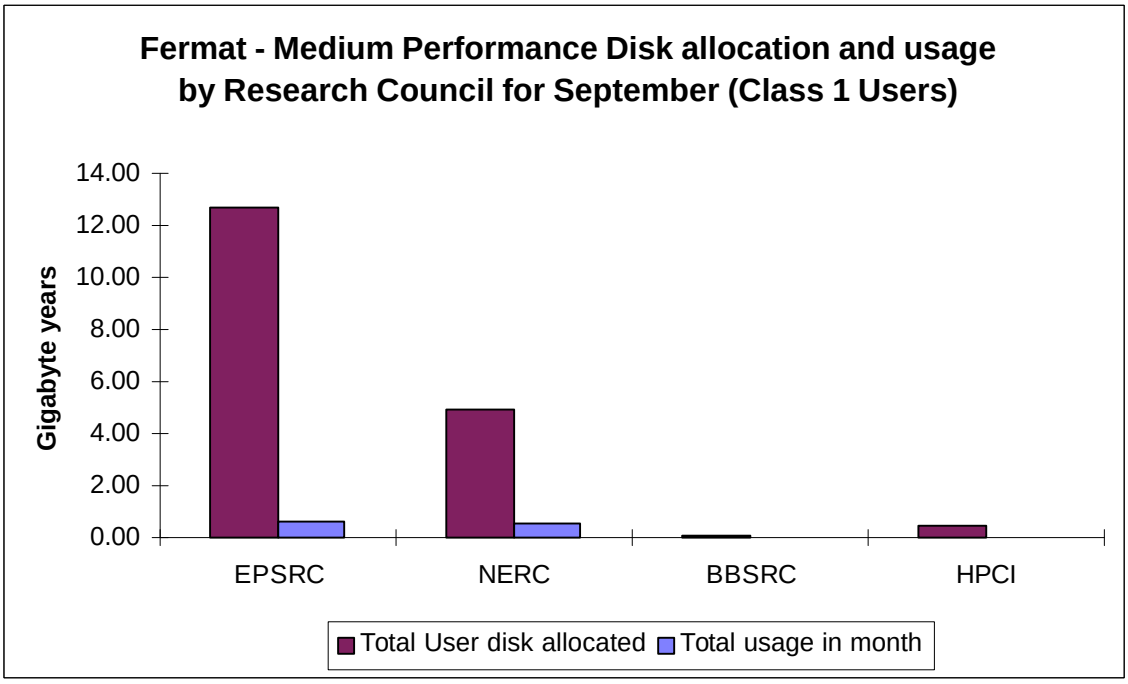


4.3 Disk/HSM Usage Charts

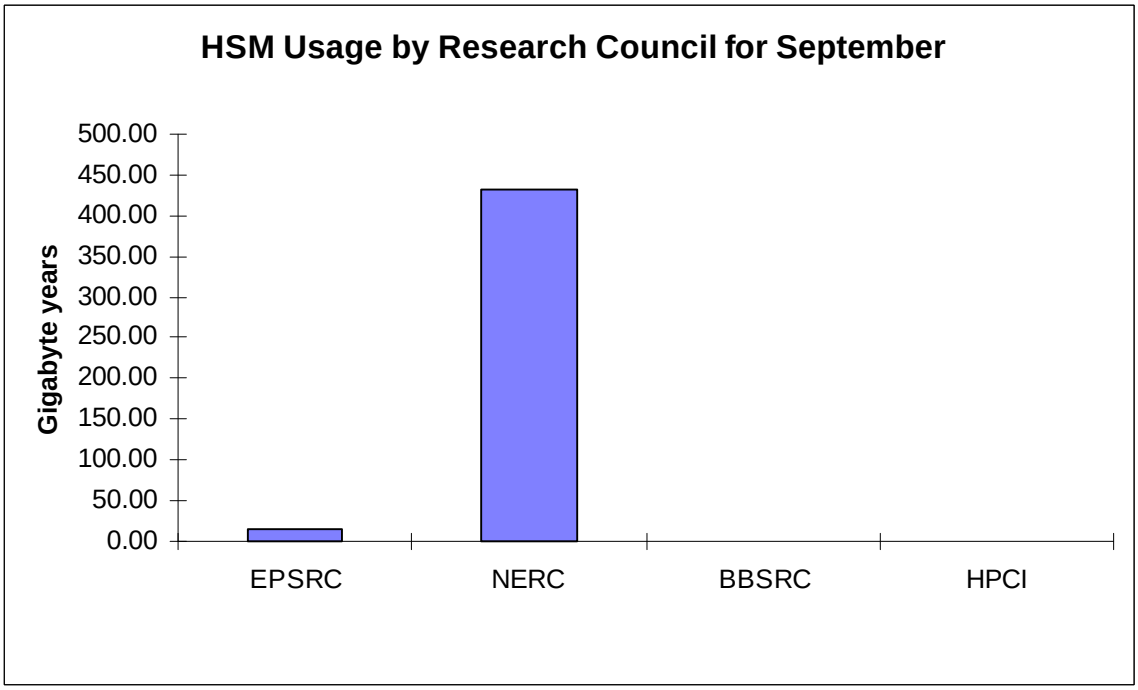
The graphs below show current disk and HSM allocations and usage.



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

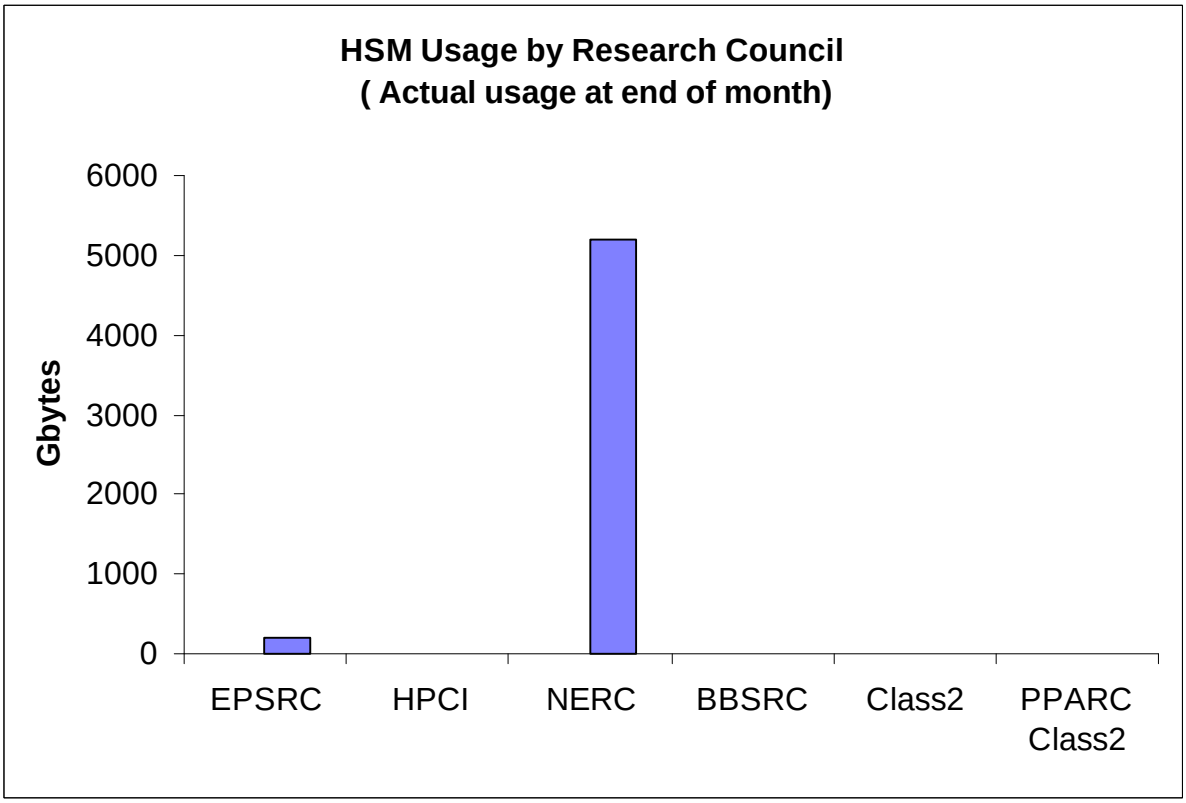


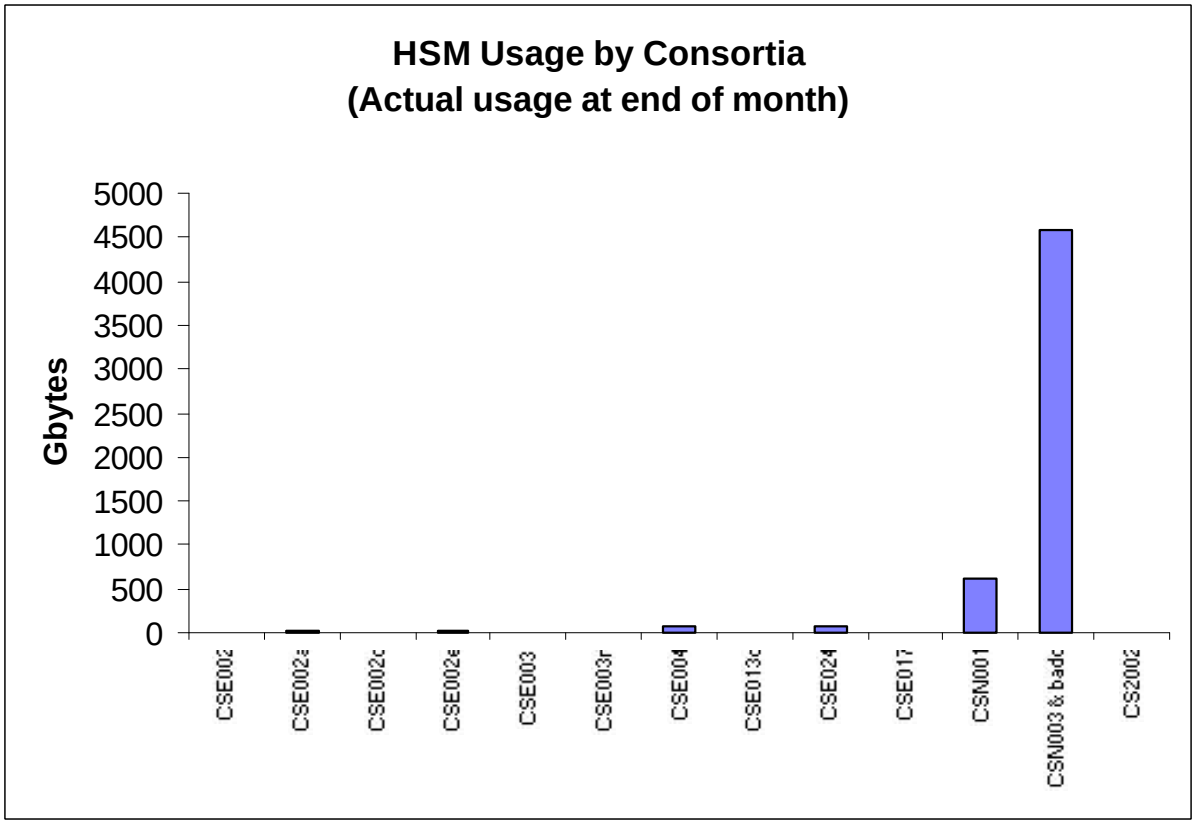
The above graph shows the disk allocations against usage on average of the disk on Fermat.



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

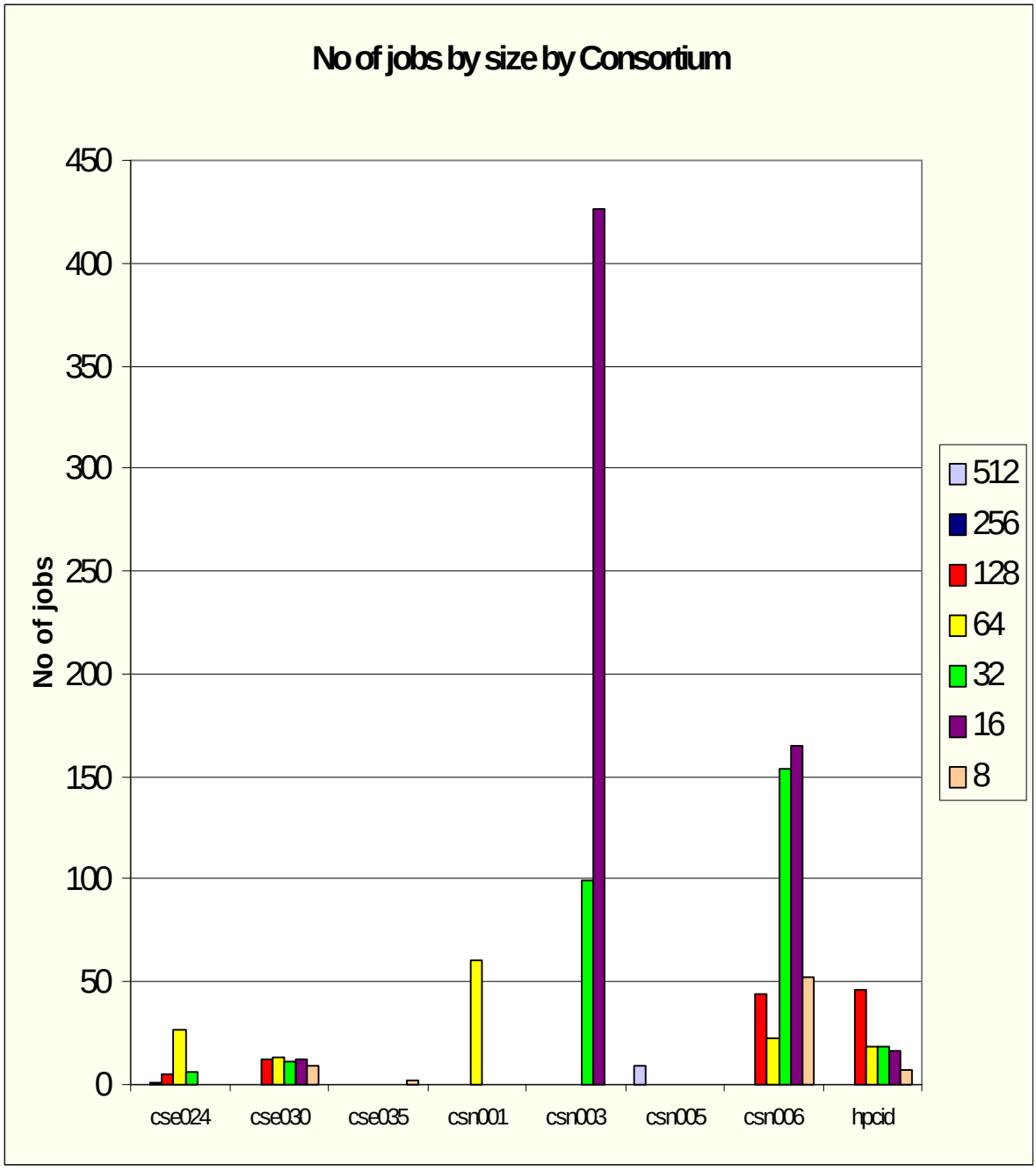
The next two graphs give actual usage of HSM by Research Council and by Consortium.





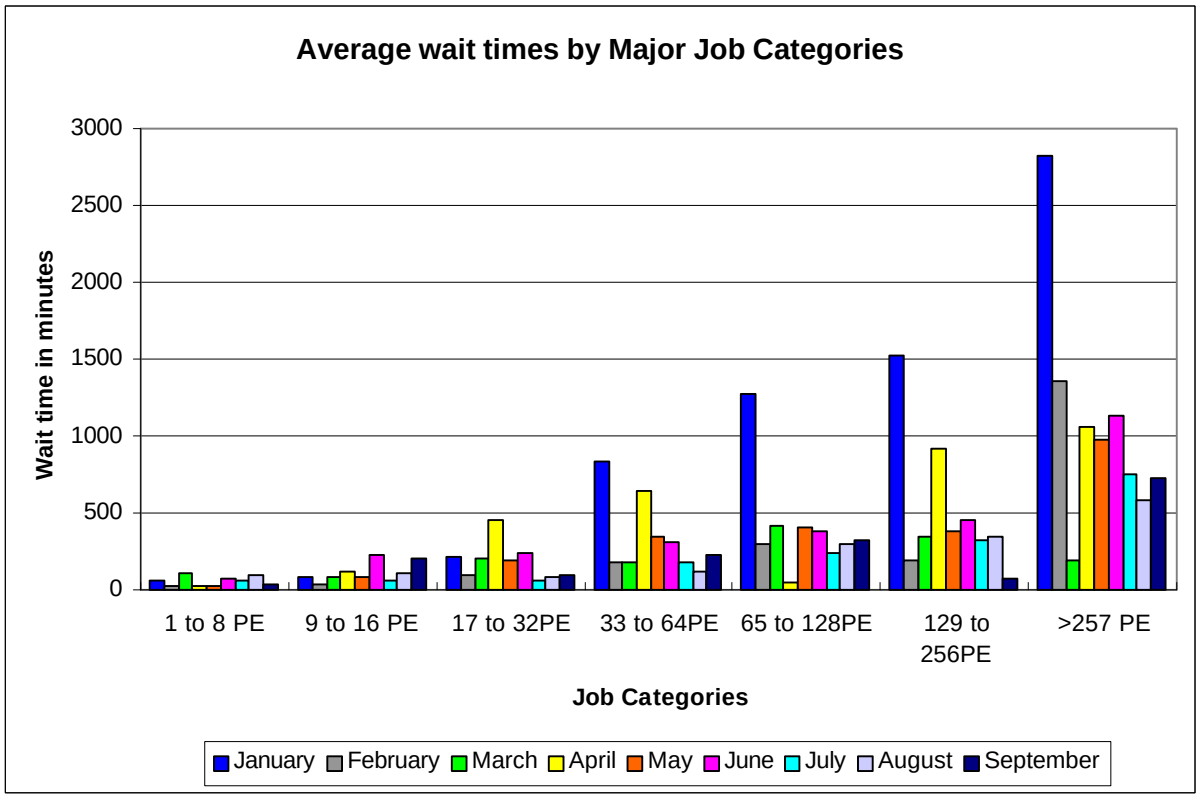
CSE002 (Gillan), CSE004 (Sandham), CSE024 (Tennyson), CSN001 (Webb) & CSN003 (O'Neill).

Job statistics for Turing:

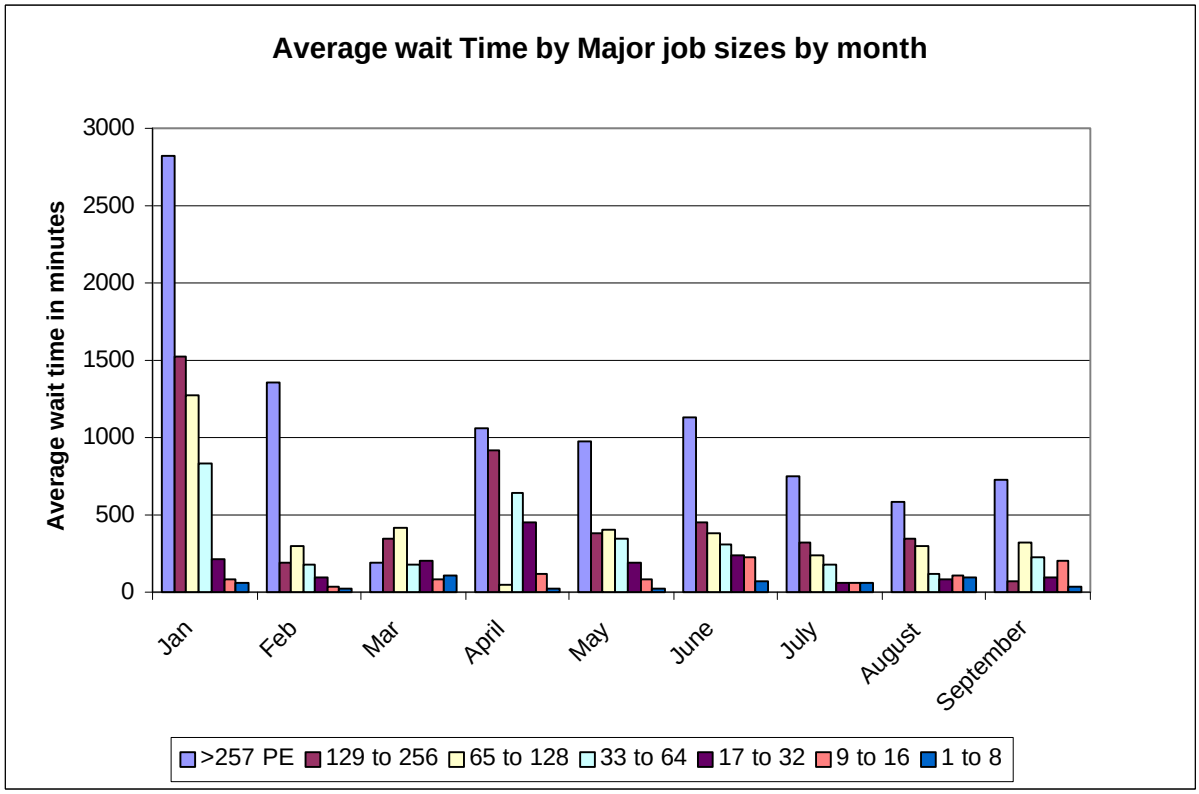


The above graph shows the number of jobs of the major sizes run in the period 1st to 30th September 1999.

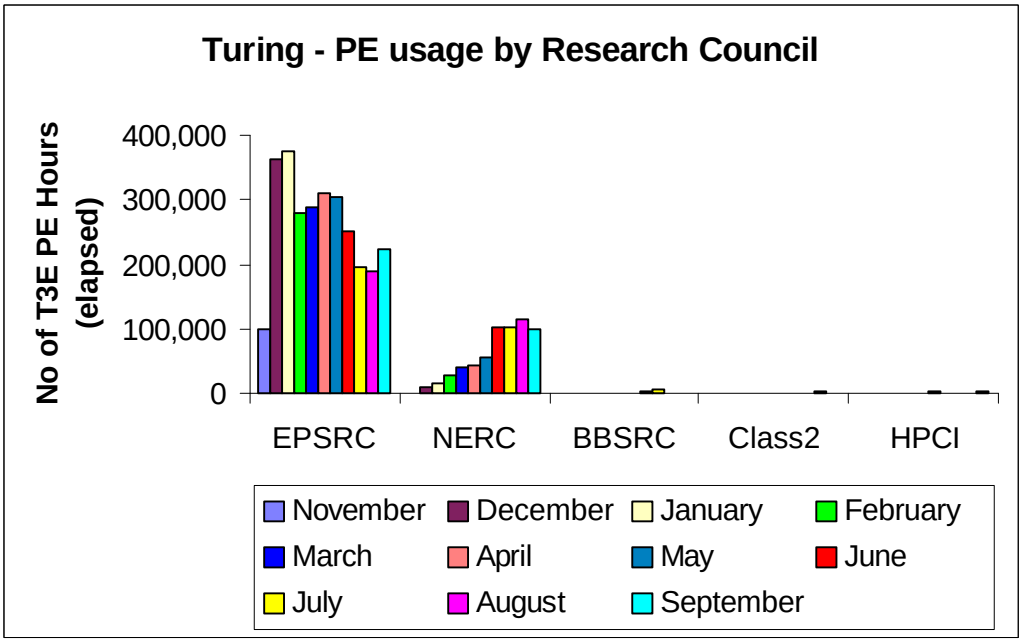
The next graph shows the wait times in minutes for the major categories of jobs.



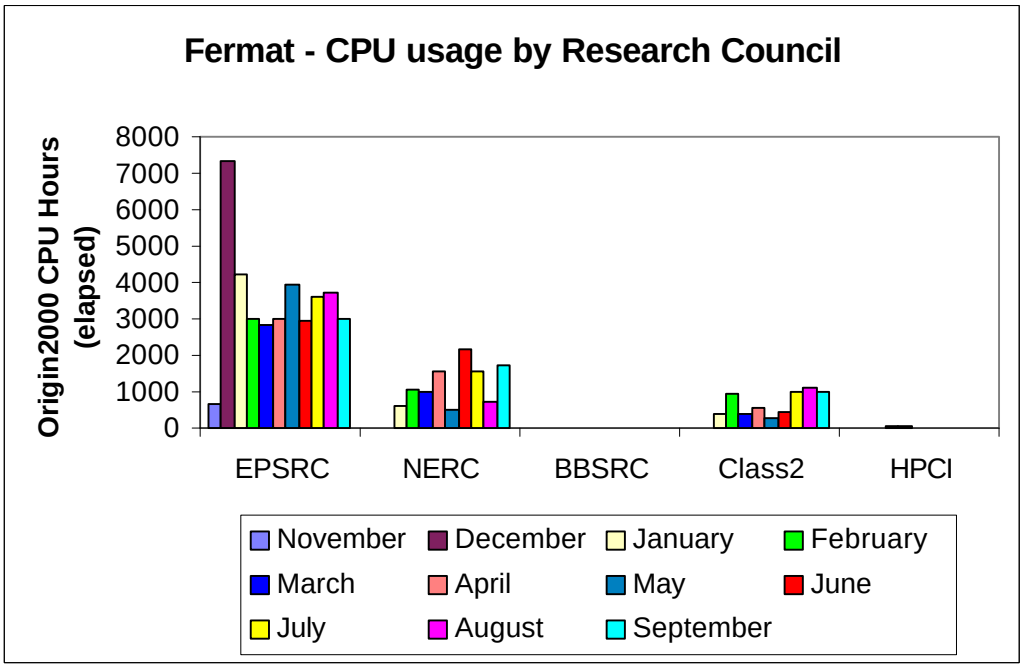
The above chart shows the average wait time trend over the months from January to date.



It can be seen from the above graph that enhancements to the scheduling on Turing have reduced the average wait times however attention must be paid to ensure sufficient head room exists in the system to prevent wait times from rising.



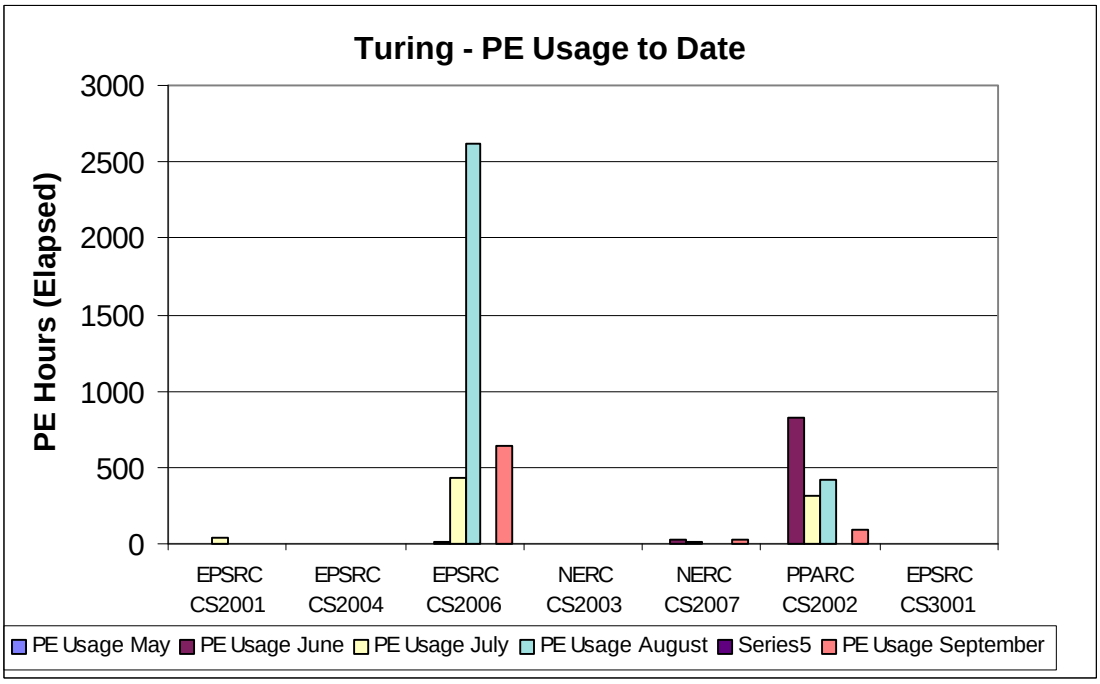
Turing PE usage is shown by Research Council during the months of service to date in the above chart.



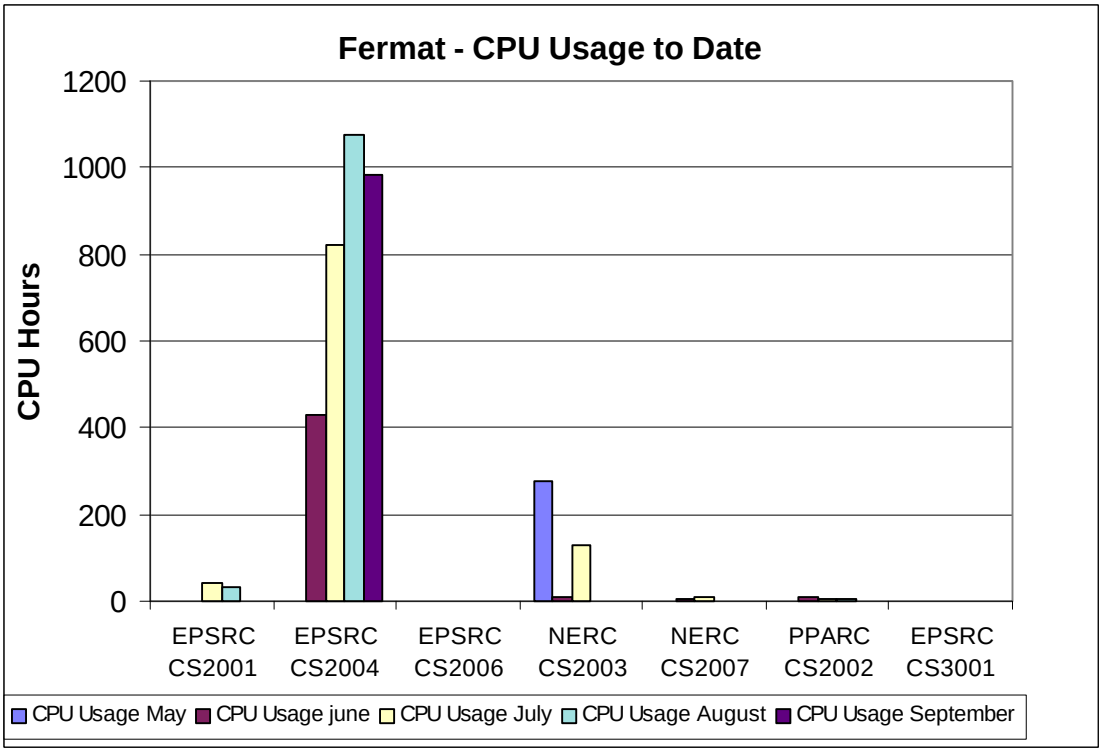
Origin 2000 CPU usage is shown by Research Council during the months of service to date in the above chart.

4.4 Class 2 & 3 Usage Charts

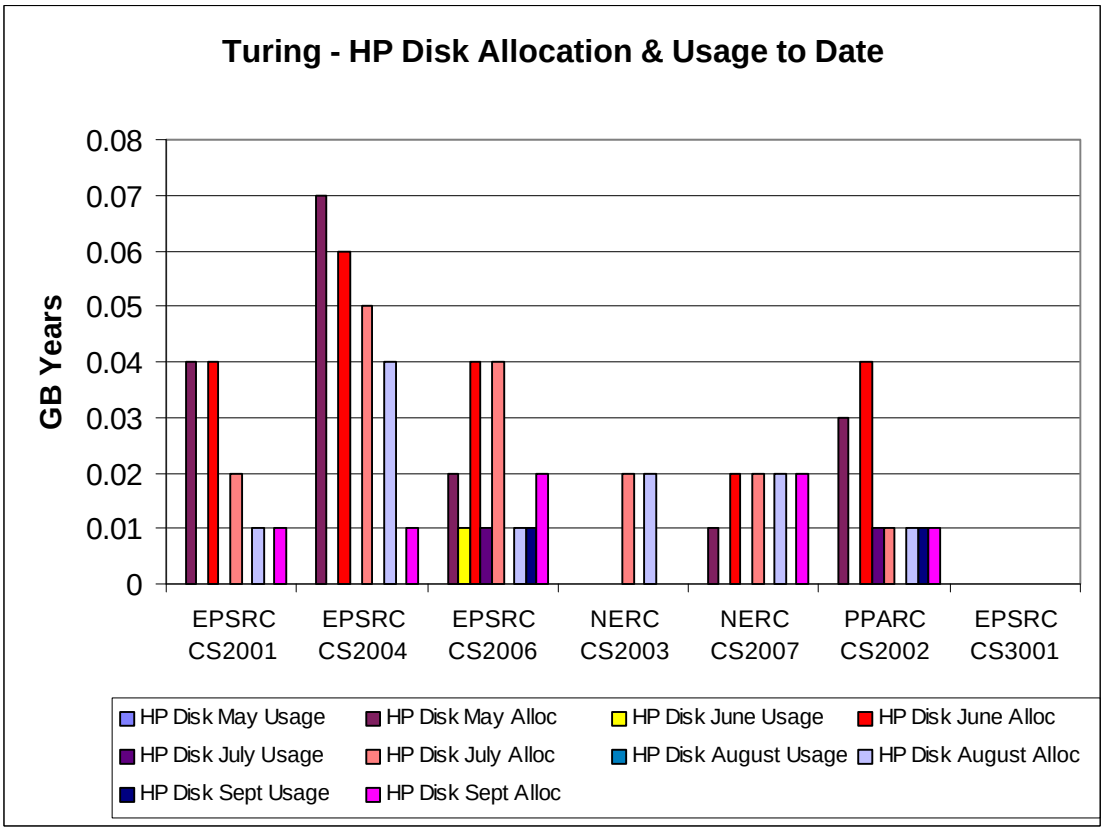
The next series of charts show the usage of the system by the class 2 & class 3 users. The usage is shown by project and identifies the Research Council of the individual projects.



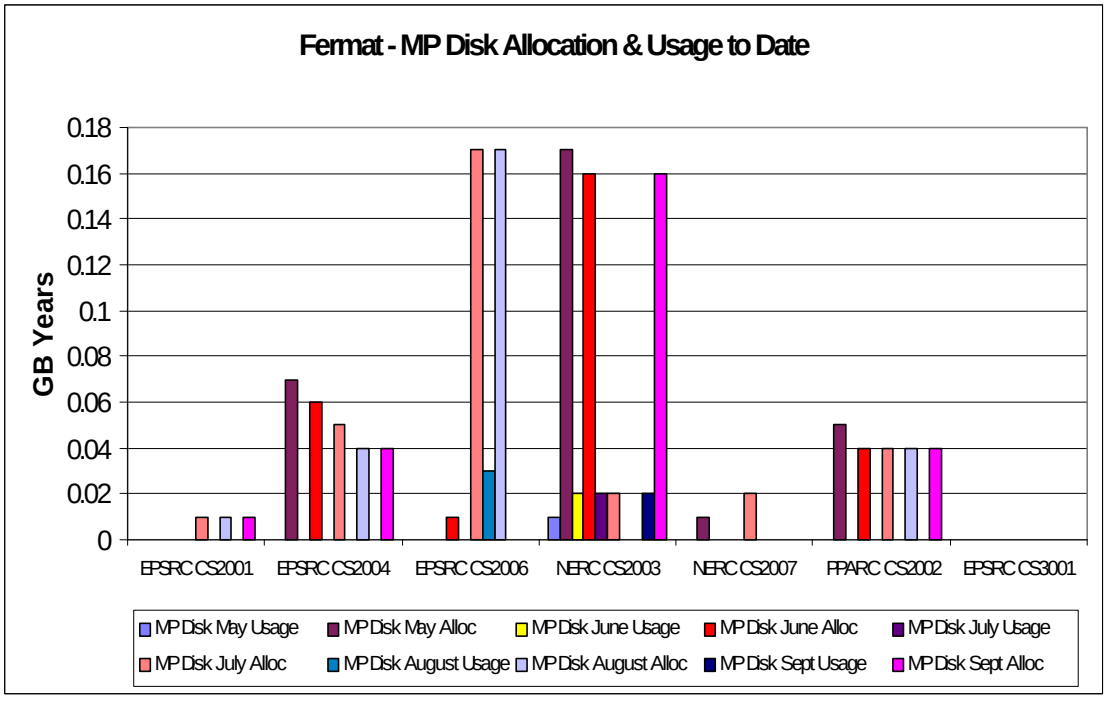
The above chart shows the PE usage of the Turing system.



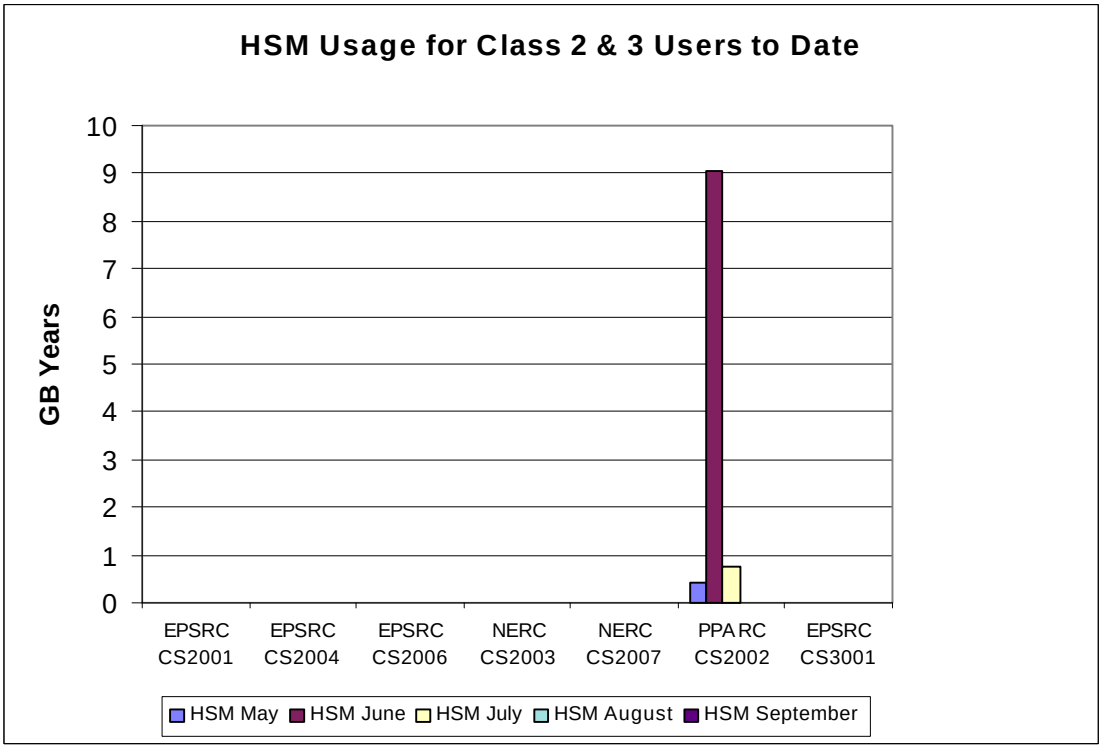
The above chart shows the CPU usage of the Fermat system.



The above chart shows the disk allocations on the Turing system.



The above chart shows the disk allocations on the Fermat system.

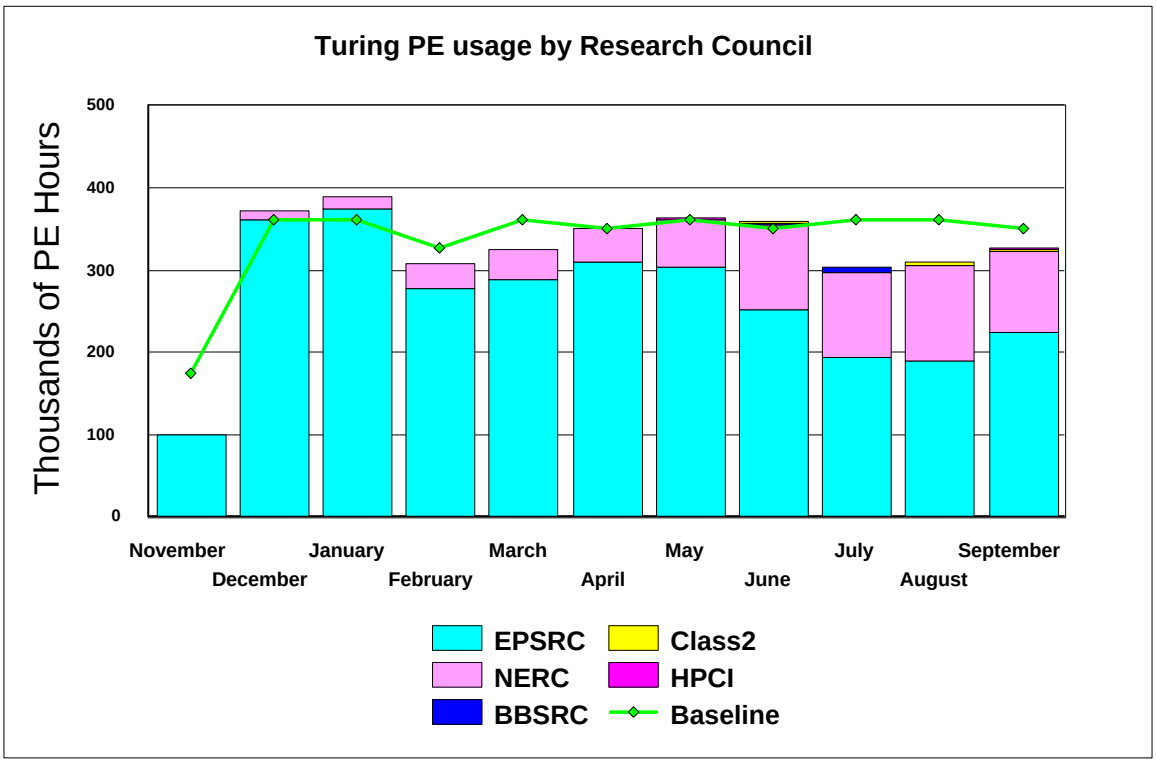


The above chart shows the HSM usage.

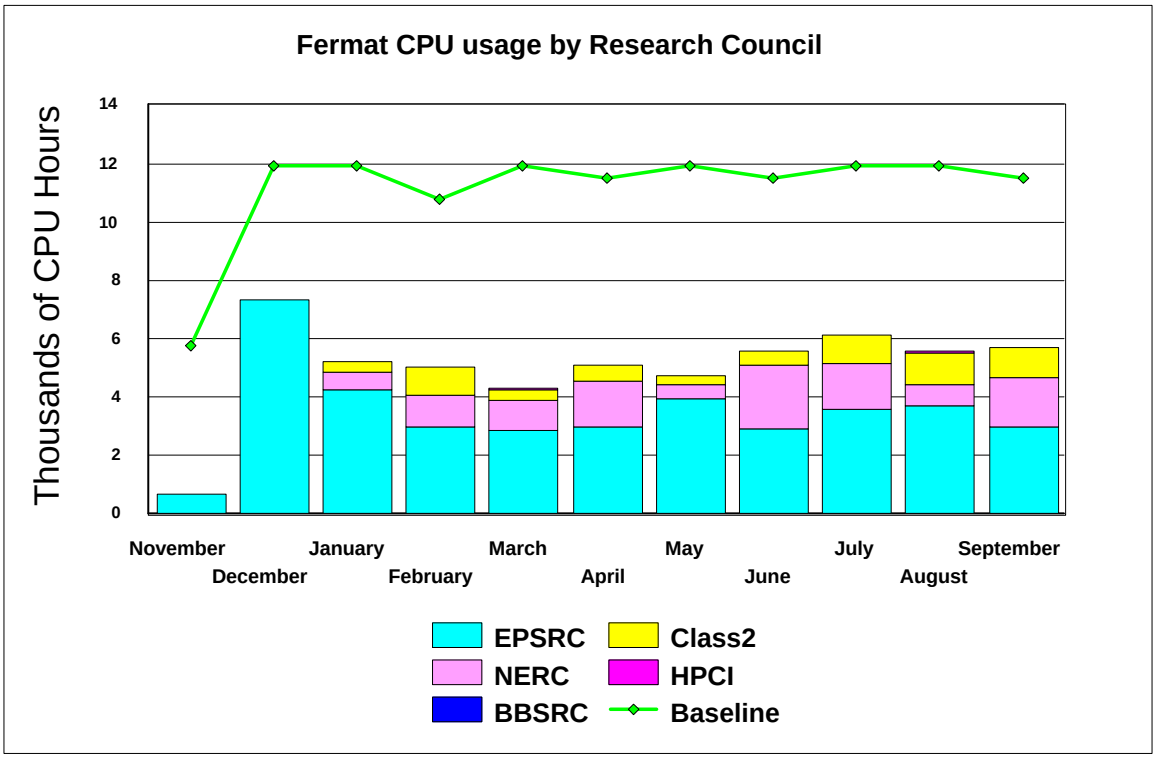
4.5 Charts of Historical Usage

In all the Usage Charts, the baseline varies dependant on the number of days in each month, within a 365-day year. The reduced Baseline in November 1998 represents half a month.

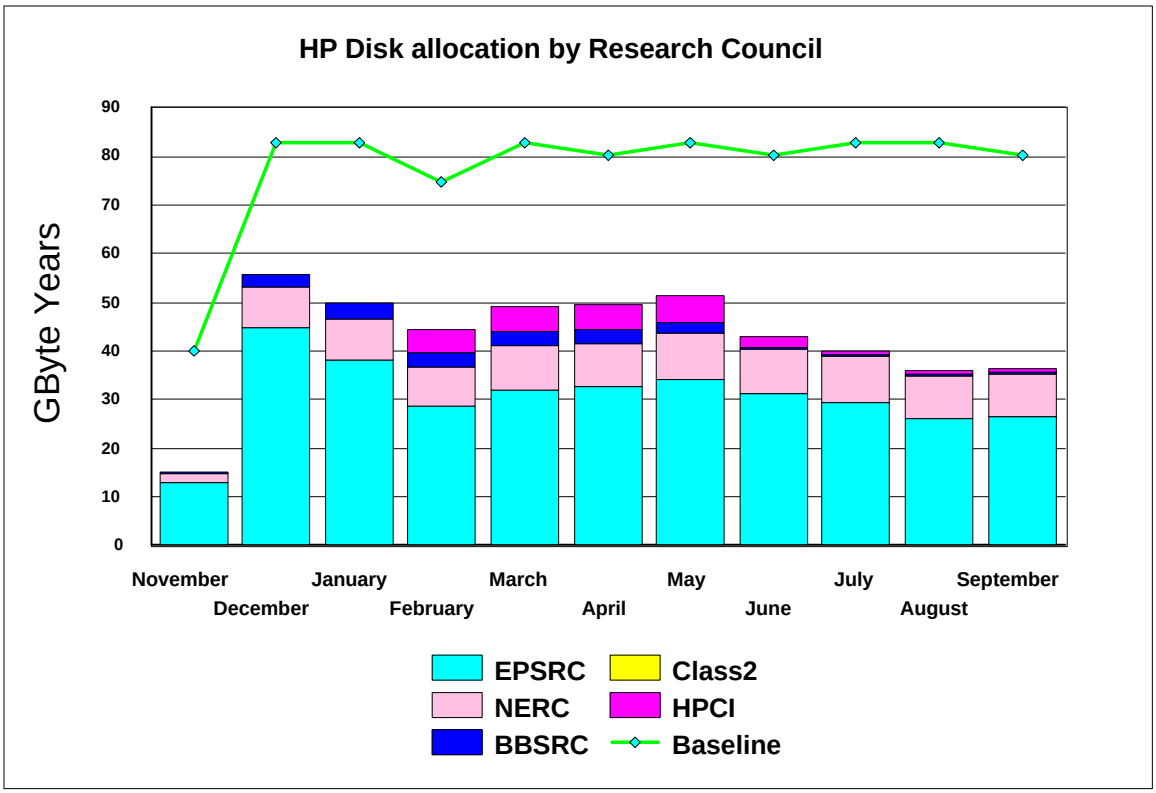
The graph below shows the PE hour's utilisation on Turing by Research Council from November 1998.



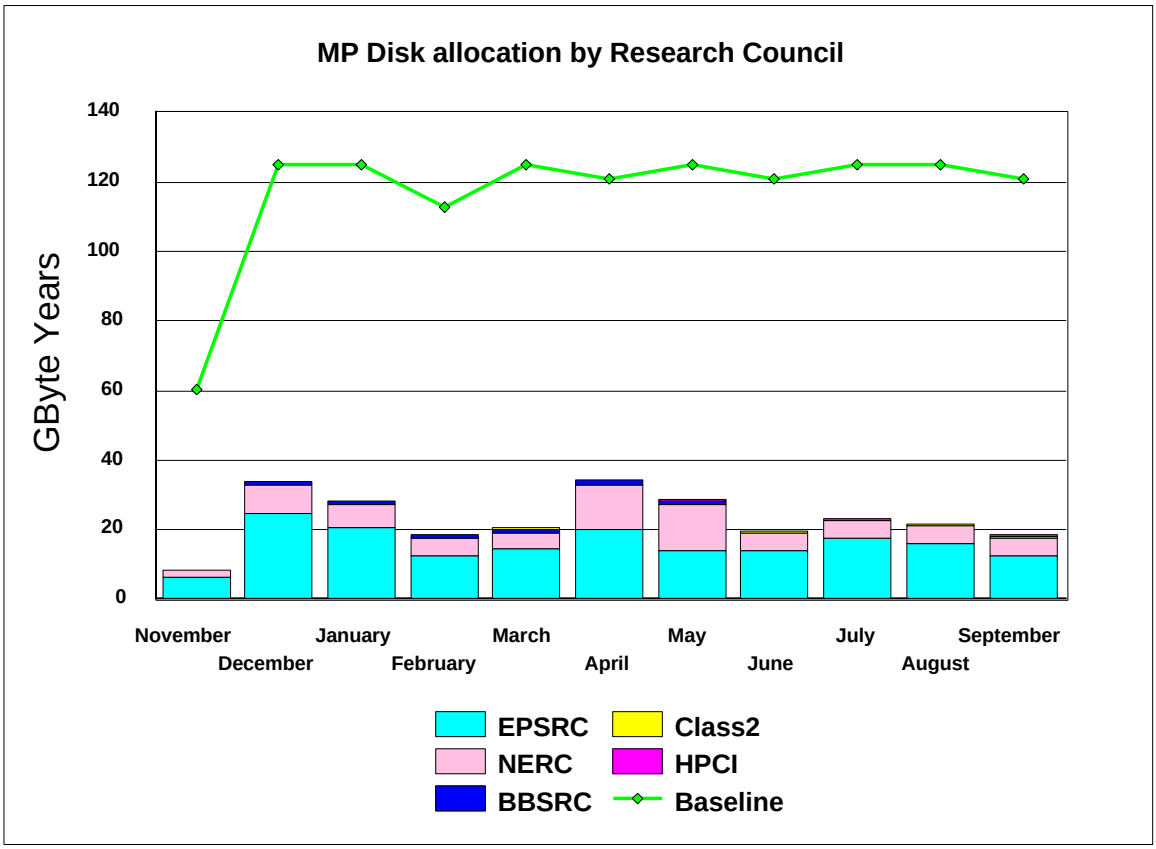
The graph below shows the historic CPU usage on Fermat by Research Council from November.



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

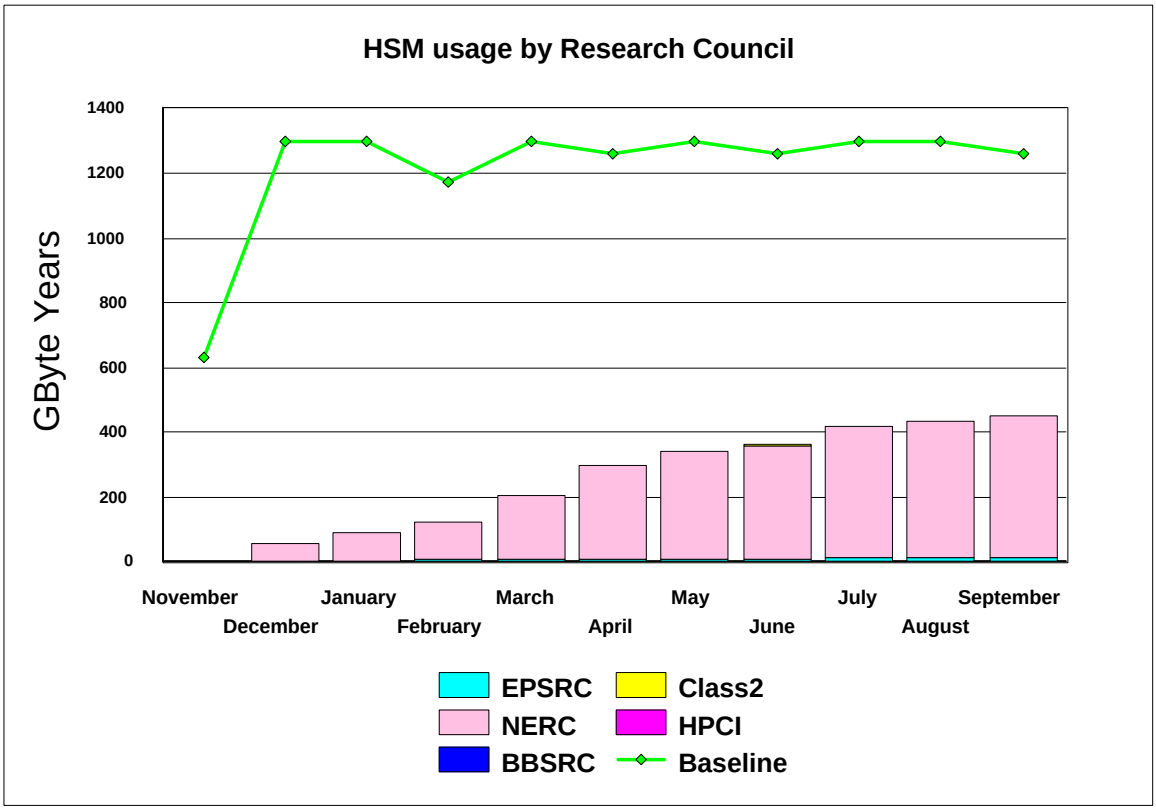


The preceding graph illustrates the historic allocation of the High Performance Disk on Turing.



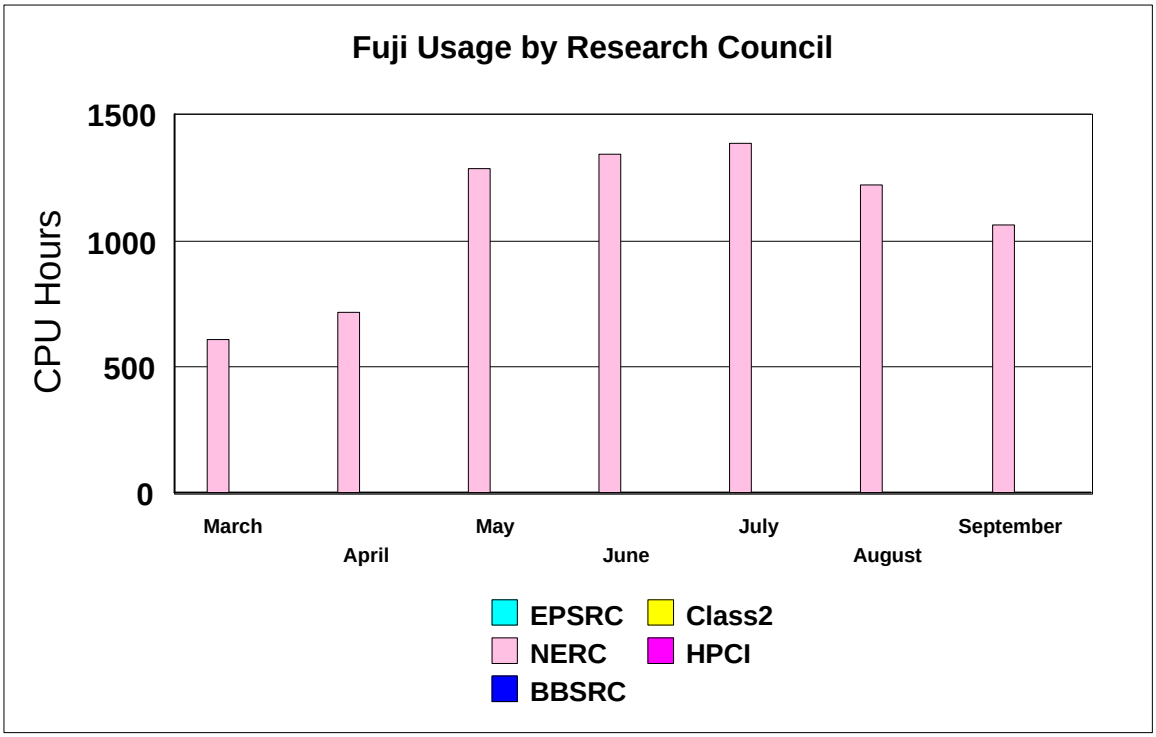
The graph above illustrates the historic allocation of the Medium Performance Disk on Fermat.

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

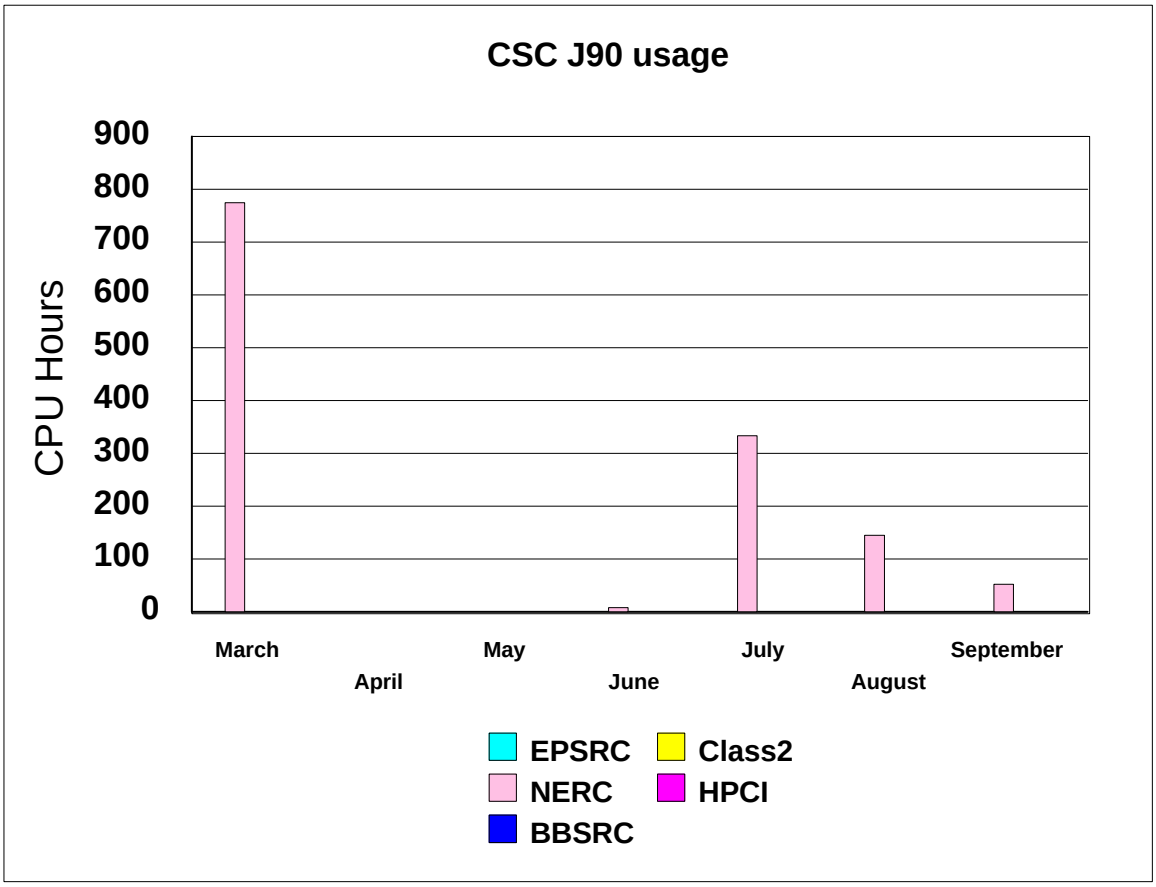


4.5 Guest System Usage Charts

The following graph shows the CPU usage on the current two available CSAR guest systems.



The Fujitsu usage graph above has been reconstructed using the regenerated accounting data as the error has been traced and rectified. It should be noted that the figures do not include the system overheads.



The usage on the CSC J90 guest system was accounted for by NERC, project CSN003 (O'Neill).

5. Service Status, Issues and Plans

5.1 Status

The usage of the systems continues to be under baseline, but current usage is showing an upturn.
September usage was actually 93.5% of baseline which is an increase over the August usage.

5.2 Issues

The capacity planning information on the system still shows a disparity when compared to actual usage for a large number of the consortia's currently using the system.

5.3 Plans

The planned date for the Fujitsu upgrade to be completed is the 1st November 1999.
It is also planned for the CSAR service's T3E to be involved in a 4 way virtual Supercomputer in co-operation with Stuttgart, Pennsylvania and an academic system in Japan. Testing of the codes will commence soon with a live demonstration being carried out at SC99 in Portland.

6. Conclusion

September 1999 saw the overall CPARS rating at green, with the Baseline Capacity for job throughput not being achieved due to insufficient batch work being submitted.

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 September 1999

Appendix 2 contains the Percentage shares by Consortium for September 1999

Appendix 3 contains the Percentage shares by Research Council for September 1999

Appendix 4 contains the Training and support figures to the end of September 1999

Appendix 5 contains a reference table of the consortia name, the subject area and the PI name.

Appendix 1

CfS Supercomputer Service

Usage report for Research Council Projects

From Wednesday 1-Sep-99 to Thursday 30-Sep-99

Account		CPU Usage (Hours) Inter	Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSE001 Admin users	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject EPSRC Administration	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002 gr/m01753 Gillan	turing	-	-	-	-	-	-	0.01	-
	fermat	-	-	-	-	-	-	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002a gr/m01753 Gillan	turing	3.03	227.84	3288.47	-	3519.34	3.45	4.30	-
	fermat	0.03	-	-	-	0.03	0.07	1.40	2.43
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002b gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.98	0.99	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002c gr/m01753 Gillan	turing	0.21	-	1424.89	-	1425.10	0.70	1.31	-
	fermat	-	-	-	-	-	0.02	0.99	0.26
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002d gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.00	0.08	-
	fermat	0.20	-	-	-	0.20	0.06	0.66	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002e gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.30	0.82	-
	fermat	-	-	-	-	-	0.18	0.82	1.65
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002f gr/m01753 Gillan	turing	0.64	-	5090.79	-	5091.43	0.14	0.68	-
	fermat	-	-	-	-	-	0.02	0.58	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002g gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.08	0.22	-
	fermat	16.42	-	-	-	16.42	0.02	0.49	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002h gr/m01753 Gillan	turing	-	-	-	-	-	0.04	0.08	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE002i gr/m01753 Gillan	turing	1.89	0.21	1807.15	-	1809.25	0.46	0.96	-
	fermat	-	-	-	-	-	0.00	0.82	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter	Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSE003 gr/m01784 Taylor	turing	-	-	2633.99	-	2633.99	-	0.03	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003a gr/m01784 Taylor	turing	19.15	-	4375.03	-	4394.18	0.37	0.75	-
	fermat	1.15	-	-	-	1.15	0.00	0.02	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003b gr/m01784 Taylor	turing	5.04	-	46346.29	-	46351.34	0.07	0.80	-
	fermat	0.03	-	-	-	0.03	0.01	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003c gr/m01784 Taylor	turing	-	-	-	-	-	0.00	0.01	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003d gr/m01784 Taylor	turing	-	-	-	-	-	-	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003e gr/m01784 Taylor	turing	-	-	-	-	-	-	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003f gr/m01784 Taylor	turing	0.00	-	-	-	0.00	0.01	0.04	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003g gr/m01784 Taylor	turing	-	-	-	-	-	-	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003h gr/m01784 Taylor	turing	-	-	-	-	-	-	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003i gr/m01784 Taylor	turing	62.86	-	1082.53	-	1145.39	0.41	0.60	-
	fermat	0.02	-	-	-	0.02	0.00	0.02	0.64
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003j gr/m01784 Taylor	turing	-	-	-	-	-	-	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003k gr/m01784 Taylor	turing	-	-	-	-	-	0.00	0.02	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE003m gr/m01784 Taylor	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter Priority	Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSE003n gr/m01784 Taylor	turing	0.02	0.54	-	-	0.56	0.10	0.86	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE007 gr m05348 Foulkes	turing	22.56	-	17244.01	-	17266.57	0.24	0.58	-
	fermat	-	-	-	-	-	0.00	0.29	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cse021 GR/L95427 Staunton	turing	0.06	-	86.63	-	86.69	0.00	0.08	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE023 GR/M16023 Allen	turing	-	-	-	-	-	0.00	0.08	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE025 GR/L22331 Bishop	turing	-	-	-	-	-	0.00	0.04	-
	fermat	-	-	-	-	-	0.00	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE030a GR/M56234 Cates	turing	0.16	0.58	186.32	-	187.05	0.08	1.32	-
	fermat	309.93	-	-	-	309.93	0.06	0.82	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE030b GR/M56234 Cates	turing	2.69	-	324.63	-	327.32	0.95	1.36	-
	fermat	-	-	-	-	-	0.00	0.33	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE030d GR/M56234 Cates	turing	-	-	-	-	-	0.00	0.21	-
	fermat	-	-	-	-	-	0.00	0.66	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject Physics	turing	118.32	229.16	83890.72	-	84238.20	8.41	16.22	-
	fermat	327.78	-	-	-	327.78	0.43	8.23	4.98
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE006 gr/m05201 Briddon	turing	184.76	-	54300.95	-	54485.71	0.18	0.41	-
	fermat	-	-	-	-	-	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject Materials	turing	184.76	-	54300.95	-	54485.71	0.18	0.41	-
	fermat	-	-	-	-	-	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE004 gr/m08424 Sandham	turing	36.18	-	14434.53	-	14470.71	2.33	3.40	-
	fermat	-	-	-	-	-	0.14	1.23	5.70
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSE010 gr/l04108 Williams	turing	-	-	-	-	0.00	0.01	-
	fermat	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE011 gr/k52317 Williams	turing	0.02	-	-	0.02	0.52	0.53	-
	fermat	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
cse013 gr/k43902 Leschzine	turing	-	-	-	-	0.00	0.00	-
	fermat	211.85	-	-	211.85	0.00	0.00	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE013b gr/k43902 Leschzin	turing	0.65	-	0.04	0.69	0.01	0.04	-
	fermat	153.65	-	-	153.65	0.00	0.02	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE013c gr/k43902 Leschzin	turing	3.83	-	-	3.83	0.02	0.03	-
	fermat	-	-	-	-	-	0.01	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE013d gr/k43902 Lesc	turing	1.18	0.68	1591.70	-	1593.56	0.04	0.06 -
	fermat	-	-	-	-	-	0.00	0.04 0.11
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
cse014 GR/K73466 Goddard	turing	-	-	-	-	0.00	0.04	-
	fermat	-	-	-	-	0.00	0.04	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE016 GR/K96519 Cant	turing	0.46	-	0.00	101.57	102.03	0.00	0.33 -
	fermat	-	-	-	-	-	0.00	0.00 -
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
cse018 GR/L68353 Cant	turing	-	-	-	-	-	0.00	0.33 -
	fermat	-	-	-	-	-	0.00	0.00 -
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
cse022 GR/L98527 Jones	turing	0.00	-	-	-	0.00	0.02	0.05 -
	fermat	-	-	-	-	-	0.00	- -
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE029 GR/L58804 Leschzine	turing	-	-	-	-	-	-	- -
	fermat	227.68	-	-	-	227.68	0.01	0.05 -
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Subject Engineering	turing	42.33	0.68	16026.27	101.57	16170.84	2.94	4.82 -
	fermat	593.18	-	-	-	593.18	0.15	1.39 5.80
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE008 GR/M07624 Hillier	turing	9.32	-	9921.32	-	9930.64	0.06	0.12 -
	fermat	-	-	-	-	-	0.00	0.00 -
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter	Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSE009 gr/m07441 Catlow	turing	77.86	-	44913.53	-	44991.39	1.00	1.64	-
	fermat	2070.73	-	-	-	2070.73	0.01	0.03	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cse024 GR/M44453 Tennyson	turing	27.41	1905.81	11711.80	-	13645.02	0.11	2.88	-
	fermat	-	-	-	-	-	0.00	2.88	5.23
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cse033 GR/M63874 Imregun	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE035 GR/M76720 King	turing	0.13	-	0.06	-	0.19	0.00	0.13	-
	fermat	-	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject Chemistry	turing	114.72	1905.81	66546.71	-	68567.24	1.17	4.77	-
	fermat	2070.73	-	-	-	2070.73	0.01	2.92	5.23
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE019 cr/l73104 Berzins	turing	0.00	-	-	-	0.00	0.03	0.08	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE020 GR/L75139 Szularz	turing	52.80	-	-	-	52.80	0.01	0.08	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject Information Technology	turing	52.80	-	-	-	52.80	0.04	0.16	-
	fermat	-	-	-	-	-	0.00	0.16	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSE034 gr/m78342 Durham	turing	1.69	-	-	-	1.69	0.00	0.01	-
	fermat	3.62	-	-	-	3.62	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject Mathematics	turing	1.69	-	-	-	1.69	0.00	0.01	-
	fermat	3.62	-	-	-	3.62	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council EPSRC Class 1	turing	514.62	2135.65	220764	101.57	223516	12.74	26.40	-
	fermat	2995.32	-	-	-	2995.32	0.60	12.72	16.00
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
HPCI Southampton	turing	2.70	-	-	2.70	0.11	0.41	-
	fermat	8.43	-	-	8.43	0.03	0.41	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
HPCI Daresbury	turing	27.68	2882.24	-	2909.92	0.06	0.08	-
	fermat	0.03	-	-	0.03	0.00	0.02	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
HPCI Edinburgh	turing	-	-	-	-	0.00	0.08	-
	fermat	4.15	-	-	4.15	0.00	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council								
HPCI Class 1	turing	30.38	2882.24	-	2912.61	0.17	0.58	-
	fermat	12.62	-	-	12.62	0.03	0.44	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSN001 SOC Core Strategic	turing	0.65	-	4485.73	-	4486.38	2.14	4.11	-
	fermat	1371.85	-	-	-	1371.85	0.47	4.11	50.84
	fuji	0.41	-	-	-	0.41	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN002 gr3.10789 Hillier	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
badc	turing	-	-	-	-	-	-	-	-
	fermat	0.25	-	-	-	0.25	0.00	-	80.46
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN003 UGAMP O'Neill	turing	11.83	63.64	50503.34	-	50578.80	0.70	1.23	-
	fermat	333.87	-	-	-	333.87	0.07	0.82	301.15
	fuji	922.96	-	-	-	922.96	-	-	-
	CSCJ90	0.03	54.89	-	-	54.92	-	-	-
CSN005 GR9/2909 Davies	turing	1.02	-	2765.08	-	2766.10	0.72	1.40	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN006 GR9/3550 Price	turing	403.18	30.63	40146.89	-	40580.70	1.03	1.97	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN007 GST/02/1454 Price	turing	-	-	-	-	-	0.11	0.11	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN009 GST/02/1472 Proctor	turing	-	-	-	-	-	0.00	0.08	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN011 GST/02/1889 Thorpe	turing	0.06	-	135.67	-	135.72	0.06	0.09	-
	fermat	-	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CSN012	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	-	-	-
	fuji	6.62	-	-	6.62	-	-	-
	CSCJ90	-	-	-	-	-	-	-
MiscFuji	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	-	-	-
	fuji	133.81	-	-	133.81	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council NERC Class 1	turing	416.73	94.27	98036.71	-	98547.71	4.76	9.00	-
	fermat	1705.97	-	-	-	1705.97	0.55	4.93	432.44
	fuji	1063.80	-	-	-	1063.80	-	-	-
	CSCJ90	0.03	54.89	-	-	54.92	-	-	-
CSB001 27/B07117 Goodfello	turing	0.05	-	1665.73	-	1665.78	0.03	0.06	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSB002 86/B10059 Danson	turing	-	-	-	-	-	0.02	0.08	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSB003 117/SO9645 Williams	turing	0.00	-	-	-	0.00	0.01	0.03	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council BBSRC Class 1	turing	0.05	-	1665.73	-	1665.78	0.06	0.17	-
	fermat	-	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cs2001 CompApps3D Jain	turing	0.00	-	-	-	0.00	0.00	0.01	-
	fermat	-	-	-	-	-	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CS2004 ICE Watkins	turing	-	-	-	-	-	0.00	0.01	-
	fermat	982.93	-	-	-	982.93	0.00	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CS2006 AISSM Temmerman EPS	turing	0.01	-	638.62	-	638.63	0.01	0.02	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council EPSRC Class 2	turing	0.02	-	638.62	-	638.63	0.02	0.04	-
	fermat	982.93	-	-	-	982.93	0.00	0.05	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cs2003 GST/02/0760 Coultha	turing	-	-	-	-	-	-	-	-
	fermat	0.05	-	-	-	0.05	0.02	0.16	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service

Account		CPU Usage (Hours) Inter Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM
CS2007 SNOW Choularton NER	turing	20.74	-	-	20.74	0.00	0.02	-
	fermat	0.22	-	-	0.22	0.00	0.00	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council								
NERC Class 2	turing	20.74	-	-	20.74	0.00	0.02	-
	fermat	0.27	-	-	0.27	0.02	0.17	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CS2002 PTMP Lyne	turing	0.53	-	88.68	89.21	0.01	0.01	-
	fermat	1.77	-	-	1.77	0.00	0.04	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council								
PPARC Class 2	turing	0.53	-	88.68	89.21	0.01	0.01	-
	fermat	1.77	-	-	1.77	0.00	0.04	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CS3001 Stavely	turing	0.01	-	0.07	0.08	0.00	0.00	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council								
EPSRC Class 3	turing	0.01	-	0.07	0.08	0.00	0.00	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
euukcp	turing	-	-	-	-	0.01	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
eugamp	turing	-	-	-	-	0.00	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
euqub	turing	-	-	-	-	0.00	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
euqmw	turing	-	-	-	-	1.79	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
euhpci	turing	-	-	-	-	0.00	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
eural	turing	-	-	-	-	0.00	-	-
	fermat	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
earlyu	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.11	-	1.78
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
dummy	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Subject								
eu accounts	turing	-	-	-	-	1.80	-	-
	fermat	-	-	-	-	0.11	-	1.78
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Council								
Research	turing	-	-	-	-	1.80	-	-
	fermat	-	-	-	-	0.11	-	1.78
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-

CfS Supercomputer Service

Usage report for All Research Councils

From Wednesday 1-Sep-99 to Thursday 30-Sep-99

Account		CPU Usage (Hours) Inter	Priority	Normal	Low	Total	Storage (GB-Years) D-Usage	D-Allocn	HSM	Total
Research Councils	turing	983.07	5112.15	321194	101.57	327391	19.56	36.21	-	
	fermat	5720.03	-	-	-	5720.03	1.31	18.50	450.23	
	fuji	1063.80	-	-	-	1063.80	-	-	-	
	CSCJ90	0.03	54.89	-	-	54.92	-	-	-	

Appendix 2

Percentage PE time per consortia for Turing in September 1999

Consortia	% Machine Time
CSE002	3.62
CSE003	16.65
CSE007	5.27
CSE021	0.03
CSE023	0.00
CSE025	0.00
CSE030	0.16
CSE006	16.64
CSE004	4.42
CSE010	0.00
CSE011	0.00
CSE013	0.55
CSE014	0.00
CSE016	0.03
CSE018	0.00
CSE022	0.00
CSE029	0.00
CSE008	3.03
CSE009	13.74
CSE024	4.17
CSE033	0.00
CSE035	0.00
CSE019	0.00
CSE020	0.02
CSE034	0.00
HPCI Southampton	0.00
HPCI Daresbury	0.89
HPCI Edinburgh	0.00
CSN001	1.37
CSN002	0.00
BADC	0.00
CSN003	15.45
CSN005	0.84
CSN006	12.40
CSN007	0.00
CSN009	0.00
CSN011	0.04
CSB001	0.51
CSB002	0.00
CSB003	0.00
CS2001	0.00
CS2002	0.03
CS2003	0.00
CS2004	0.00
CS2006	0.20
CS3001	0.00

Percentage CPU time per consortia for Fermat in September 1999

Consortia	% Machine Time
CSE002	0.29
CSE003	0.02
CSE007	0.00
CSE021	0.00
CSE023	0.00
CSE025	0.00
CSE030	5.42
CSE006	0.00
CSE004	0.01
CSE010	0.00
CSE011	0.00
CSE013	2.69
CSE014	0.00
CSE016	0.00
CSE018	0.00
CSE022	0.00
CSE029	3.98
CSE008	0.00
CSE009	36.20
CSE024	0.12
CSE033	0.00
CSE035	0.00
CSE019	0.00
CSE020	0.00
CSE034	0.06
HPCI Southampton	0.15
HPCI Daresbury	0.00
HPCI Edinburgh	0.07
CSN001	23.98
CSN002	0.00
BADC	0.01
CSN003	5.84
CSN005	0.00
CSN006	0.00
CSN007	0.00
CSN009	0.00
CSN011	0.00
CSB001	0.00
CSB002	0.00
CSB003	0.00
CS2001	0.56
CS2002	0.03
CS2003	0.00
CS2004	17.18
CS2006	0.00
CS3001	0.00

Appendix 2

Percentage disc allocation by Consortia for Turing in September 1999

Consortia	%Allocation
CSE002	26.10
CSE003	8.59
CSE007	1.60
CSE021	0.22
CSE023	0.22
CSE025	0.11
CSE030	7.98
CSE006	1.13
CSE004	9.39
CSE010	0.03
CSE011	1.46
CSE013	0.36
CSE014	0.11
CSE016	0.91
CSE018	0.91
CSE022	0.14
CSE029	0.14
CSE008	0.33
CSE009	4.53
CSE024	7.95
CSE033	0.00
CSE035	0.36
CSE019	0.22
CSE020	0.22
CSE034	0.03
HPCI Southampton	1.13
HPCI Daresbury	0.22
HPCI Edinburgh	0.22
CSN001	11.35
CSN002	0.00
BADC	0.00
CSN003	3.40
CSN005	3.87
CSN006	5.44
CSN007	0.30
CSN009	0.22
CSN011	0.25
CSB001	0.17
CSB002	0.22
CSB003	0.08
CS2001	0.03
CS2002	0.03
CS2003	0.00
CS2004	0.03
CS2006	0.06
CS3001	0.00

Percentage disc allocation by Consortia for Fermat in September 1999

Consortia	%Allocation
CSE002	32.05
CSE003	0.43
CSE007	1.57
CSE021	0.43
CSE023	0.00
CSE025	0.22
CSE030	9.78
CSE006	0.05
CSE004	6.65
CSE010	0.00
CSE011	0.00
CSE013	0.38
CSE014	0.22
CSE016	0.00
CSE018	0.00
CSE022	0.00
CSE029	0.27
CSE008	0.00
CSE009	0.16
CSE024	15.57
CSE033	0.00
CSE035	0.00
CSE019	0.43
CSE020	0.43
CSE034	0.05
HPCI Southampton	2.22
HPCI Daresbury	0.11
HPCI Edinburgh	0.00
CSN001	22.22
CSN002	0.00
BADC	1.35
CSN003	0.38
CSN005	0.00
CSN006	0.00
CSN007	0.00
CSN009	0.00
CSN011	0.00
CSB001	0.00
CSB002	0.43
CSB003	0.00
CS2001	0.05
CS2002	0.22
CS2003	0.86
CS2004	0.22
CS2006	0.00
CS3001	0.00

Appendix 2

Percentage usage of HSM by Consortium for September 1999

Consortium	% Usage
CSE002	0.96
CSE003	0.14
CSE004	1.27
CSE013	0.02
CSE024	1.16
CSN001	11.29
BADC	17.87
CSN003	66.89
CS2002	0.00

Appendix 3

Percentage PE usage on Turing by Reserch Council for September 1999	
Research Council	**% Usage**
EPSRC	68.47
HPCI	0.89
NERC	30.11
BBSRC	0.51
PPARC(Class2)	0.03

Percentage CPU usage on Fermat by Reserch Council for September 1999	
Research Council	**% Usage**
EPSRC	69.55
HPCI	0.22
NERC	29.83
BBSRC	0
PPARC(Class2)	0

Percentage Disc allocated on Turing by Research Council for September 1999	
Research Council	**% Allocated**
EPSRC	73.02
HPCI	1.60
NERC	24.91
BBSRC	0.47
PPARC(Class2)	0.03

Percentage Disc allocated on Fermat by Research Council for September 1999	
Research Council	**% Allocated**
EPSRC	69.03
HPCI	2.38
NERC	27.57
BBSRC	0.43
PPARC(Class2)	0.22

Percentage HSM usage by Research Council for September 1999	
Research Council	**% usage**
EPSRC	3.55
HPCI	0
NERC	96.05
BBSRC	0
PPARC(Class2)	0

Support Used to end of September

Project	Used
cse009 GR/M07441 Catlow	0
cse006 gr/m05201 Briddon	0
cse002 gr/m01753 Gillan	**22**
cse011 GR/K52317 Williams	**2.18**
csn001 SOC Core Strategic Webb	0
cse007 gr/m05348 Foulkes	0
cse017 GR/L58699 Luo	0
cse008 GR/M07624 Hillier	0
cse024 GR/M44453 Tennyson	0
cse021 GR/L95427 Staunton	0
cse010 GR/L04108 Williams	**7.97**
cse030 GR/M56234 Cates	**2**
cs2002 PTMP Lyne	**0.25**
csn005 GR9/2909 Davies	**5**
cs2005 ISAAG Walsh	0
cse003 gr/m01784 Taylor	0

Training Used to end of September

Project	Used
cse009 GR/M07441 Catlow	0
csn001 SOC Core Strategic Webb	0
cse017 GR/L58699 Luo	0
cse024 GR/M44453 Tennyson	0
cse002 gr/m01753 Gillan	0
cse007 gr/m05348 Foulkes	0
cse003 gr/m01784 Taylor	0
cs2001 CompApps3D Jain	0
csb003 117/SO9645 Williams	0
cse011 GR/K52317 Williams	0
cse010 GR/L04108 Williams	0
csn003 UGAMP O'Neill	**4**
cse030 GR/M56234 Cates	**4**
cs2002 PTMP Lyne	0
cs3001 - Staveley	**3**
cs2005 ISAAG Walsh	0
cs2007 SNOW Choularton	**1**
csb001 27/B07117 Goodfellow	0

Appendix 5

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