

# CSAR Service - Management Report

## August 1999

This report documents the quality of the CSAR service during the month of August 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 document gives information on Service Quality and on actual usage of the CSAR Service during the reporting period of August 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
<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>Help Desk</b>						
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
<b>Others</b>						
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 August 1<sup>st</sup> to 31<sup>st</sup> 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.
<b>HPC Services Availability</b>								
Availability in Core Time (% of time)	99.70%	100%	100%	97.10%	98.50%	99.70%	99.70%	100%
Availability out of Core Time (% of time)	100%	99.40%	98.51%	98.10%	99.71%	99.40%	99.40%	99.40%
Number of Failures in month	1	3	1	1	3	2	2	1
Mean Time between failures in 52 week rolling period (hours)	744	354	432	480	453	395	391	416
<b>Help Desk</b>								
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
Non In-depth Queries - Maximum Time to resolve 95% of all queries (working days)	<1	<2	<2	<1	<3	<3	<2	<2
Administrative Queries - Maximum Time to resolve 95% of all queries (working days)	<1	<5	<2	<2	<2	<1	<1	<1
Help Desk Telephone - % of calls answered within 2 minutes	100%	100%	100%	100%	100%	100%	100%	100%
<b>Others</b>								
Normal Media Exchange Requests - average response time in month (working days)	<0.5	0	<0.5	<0.5	<0.5	<0.5	0	0
New User Registration Time (working days)	<2	0	0	0	0	0	0	0
Management Report Delivery Times (working days)	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

**Table 2**

Notes:

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

$$[ \text{Turing availability} \times 122 / (122 + 3.5) ] + [ \text{Fermat availability} \times 3.5 / (122 + 3.5) ]$$
- Mean Time between failures for Service Credits is formally calculated from Go-Live Date.

Table 3 gives Service Credit values for the month of August. 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.
<b>HPC Services Availability</b>								
Availability in Core Time (% of time)	-0.039	-0.058	-0.058	0.078	0.039	-0.039	-0.039	-0.058
Availability out of Core Time (% of time)	-0.047	0.000	0.000	0.039	-0.039	0	0.000	0.000
Number of Failures in month	-0.008	0.000	-0.008	-0.008	0	0	0.000	-0.008
Mean Time between failures in 52 week rolling period (hours)	-0.009	0.000	0.000	0.000	0	0	0.000	0.000
<b>Help Desk</b>								
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
Non In-depth Queries - Maximum Time to resolve 95% of all queries (working days)	-0.016	0.000	0.000	-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	0.000	0.000	0	-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
<b>Others</b>								
Normal Media Exchange Requests - average response time in month (working days)	-0.002	0.000	-0.002	-0.002	-0.002	-0.002	0.000	0.000
New User Registration Time (working days)	0.000	0.000	0.000	0.000	0	0	0.000	0.000
Management Report Delivery Times (working days)	0.000	0.000	0.000	0.000	0	0	0.000	0.000
System Maintenance - no. of scheduled sessions taken per system in the month	0.000	0.000	0.000	-0.004	-0.003	0	0.000	0.000
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

**Table 3**

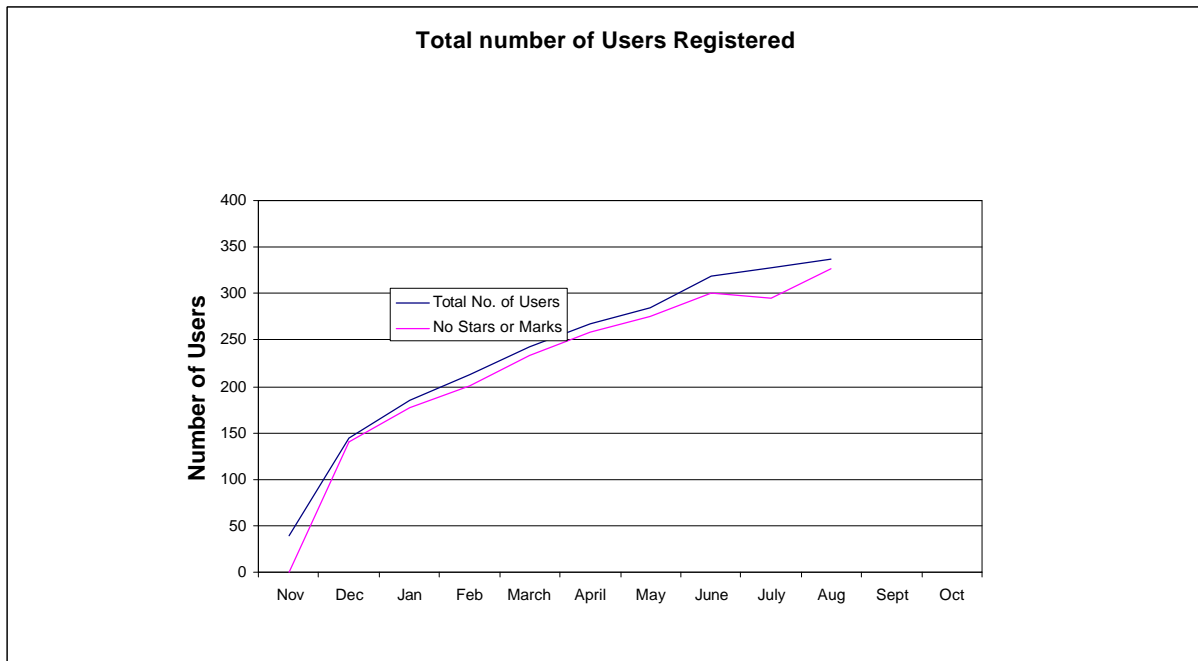
## 2.2 Service Quality Tokens

The current position at the end of August 1999 is that 11 of the 337 registered users of the CSAR Service had used Service Quality Tokens. See below:

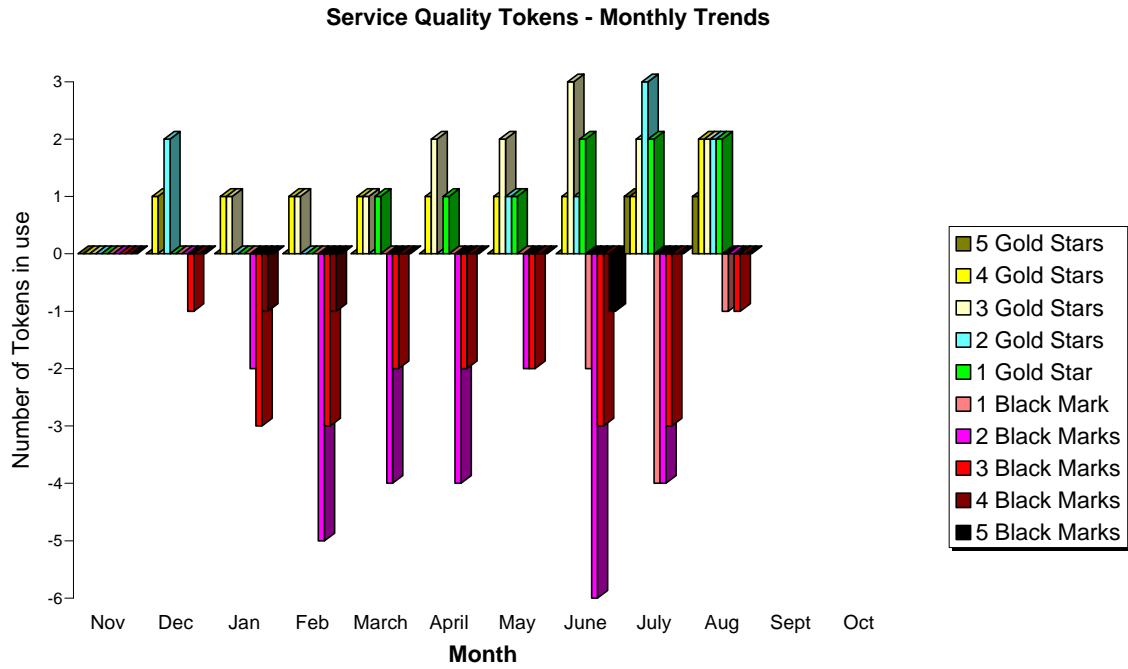
### Service Quality Tokens

	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		
4 Gold Stars	0	1	1	1	1	1	1	1	1	2		
3 Gold Stars	0	0	1	1	1	2	2	3	2	2		
2 Gold Stars	0	2	0	0	0	0	1	1	3	2		
1 Gold Star	0	0	0	0	1	1	1	2	2	2		
No Stars or Marks	0	140	177	201	233	258	275	300	295	326		
1 Black Mark	0	0	0	0	0	0	0	2	4	1		
2 Black Marks	0	0	2	5	4	4	2	6	4	0		
3 Black Marks	0	1	3	3	2	2	2	3	3	1		
4 Black Marks	0	0	1	1	0	0	0	0	0	0		
5 Black Marks	0	0	0	0	0	0	0	1	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		
No Stars or Marks	0	140	177	201	233	258	275	300	295	326		

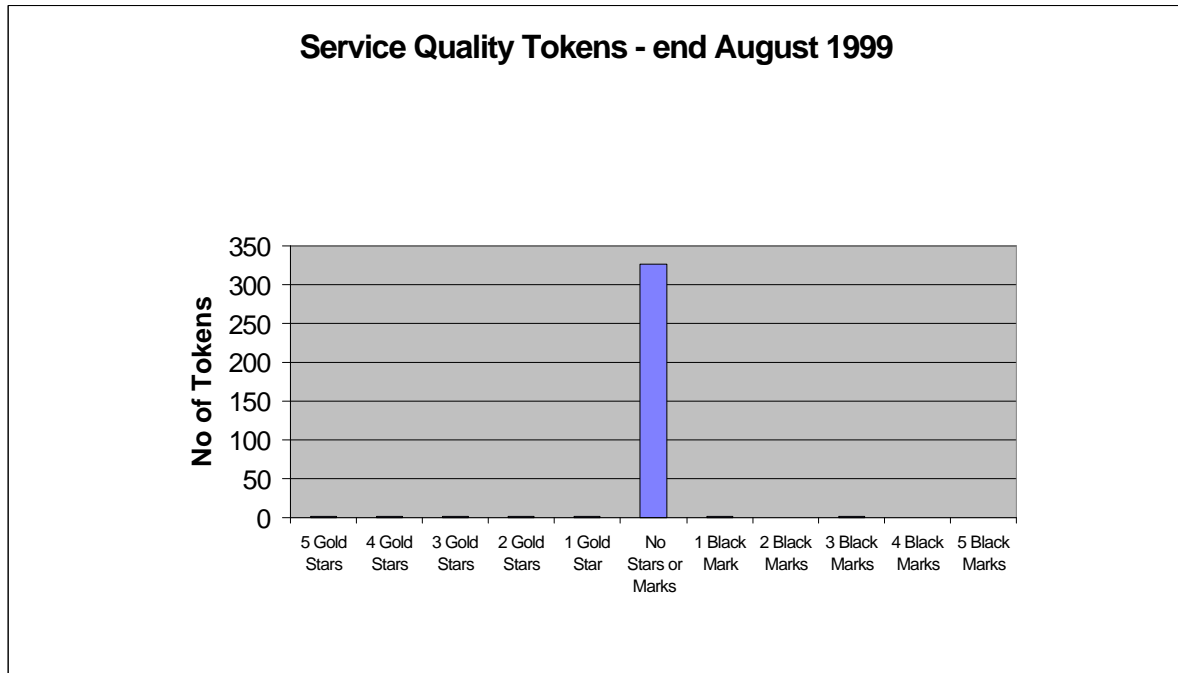
The graph below shows the total number of registered users on the CSAR Service and the number of users holding a neutral view of the service.



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



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
3 Black Marks	CSN001	20/07/99	File retrieval problems
1 Black Marks	HPCI Daresbury	27/07/99	Poor interactive speed
1 Gold Star	CSN003 (Fuji)	06/08/99	Good response to suggestions/complaints
2 Gold Stars	CSN003 (Fuji)	29/07/99	None
2 Gold Stars	HPCI Daresbury	29/07/99	Interactive improvements, good support
3 Gold Stars	HPCI Daresbury	29/08/99	Interactive improvements
3 Gold Stars	CSN003 (Fuji)	16/08/99	Fuji improvements, good support
4 Gold Stars	CSN003 (Fuji)	16/08/99	Fuji improvements
4 Gold Stars	CSN003 (Fuji)	09/08/99	Fuji improvements, good support
5 Gold Stars	CSN003 (Fuji)	28/07/99	Fuji improvements

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 31-day period of August was 86% of Baseline.

### Job Throughput Against Baseline CSAR Service Provision

Period: 1st to 31st August 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?	361,804	310,605	85.85%
2. Have Users submitted work demanding > 110% of the Baseline during period?	361,804	301,632	No
3. Are there User Jobs outstanding at the end of the period over 4 days old?		Number of Jobs at least 4 days old at end Period 0	Number of Jobs at least 4 days old at end Period is not zero (Yes/No)? No
4. Have Users submitted work demands above 90% of the Baseline during period?		Minimum Job Time Demands as % of Baseline during Period 26%	Minimum Job Time Demand above 90% of Baseline during Period (Yes/No)? No
5. Majority of Job Queues contained jobs from Users for more than 97% during period?	Number of standard Job Queues (ignoring priorities) 4	Average % of time each queue contained jobs in the Period 71.3%	Average % of time each queue contained jobs in the Period is > 97%? No

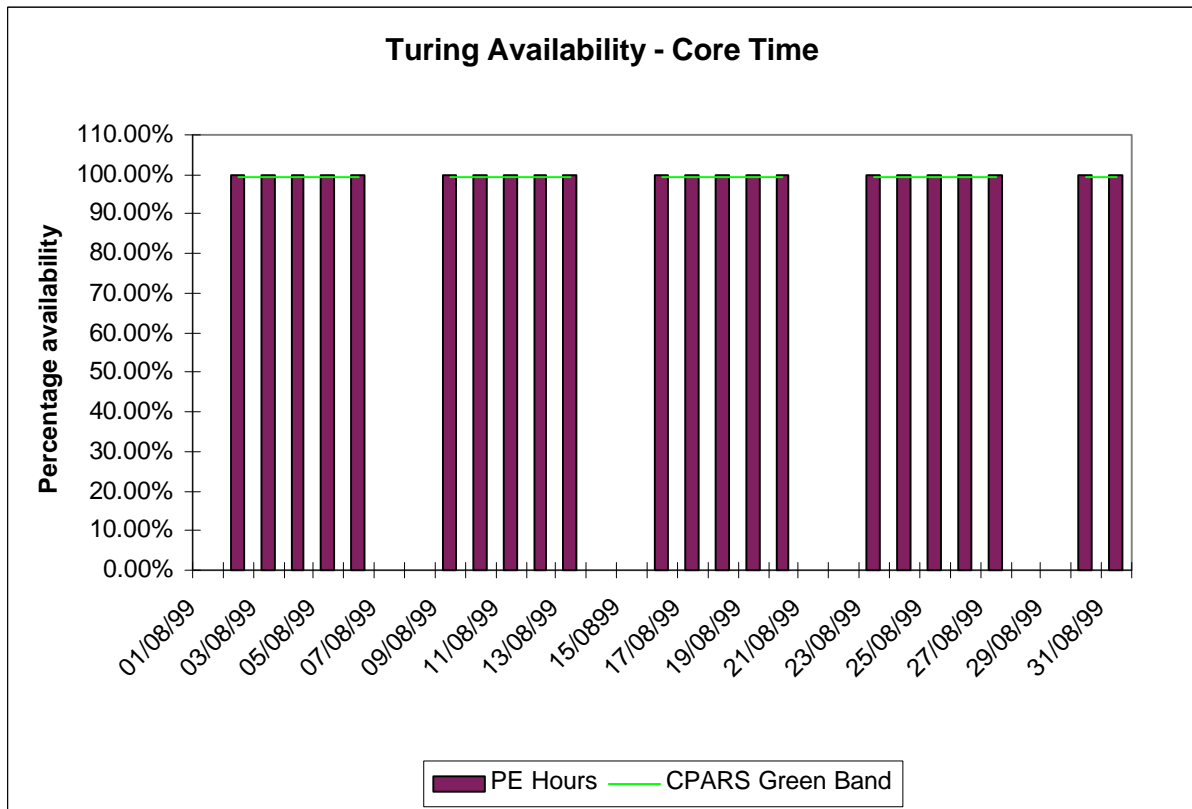
### 3. System Availability

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)

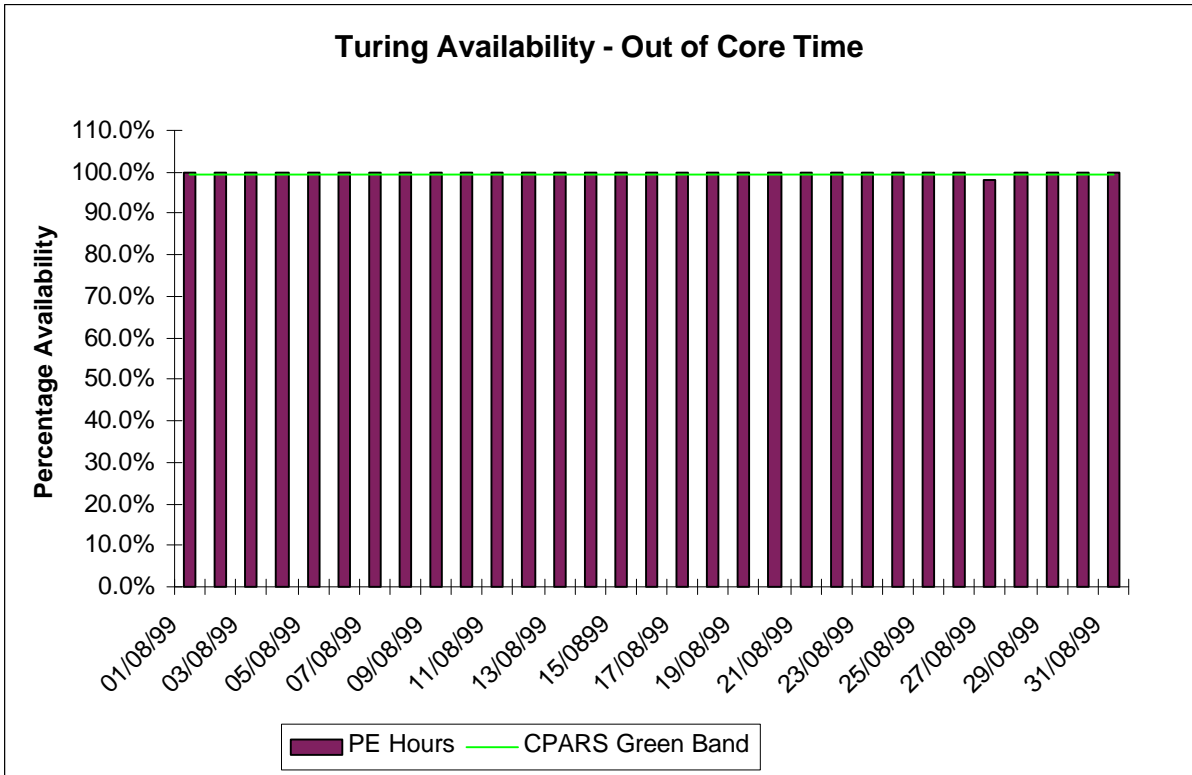
The following graphs show the availability of Turing both in core time and out of core time respectively during the period of 1<sup>st</sup> to 31<sup>st</sup> August.

Turing availability for August:



Availability of Turing in core time during August was excellent

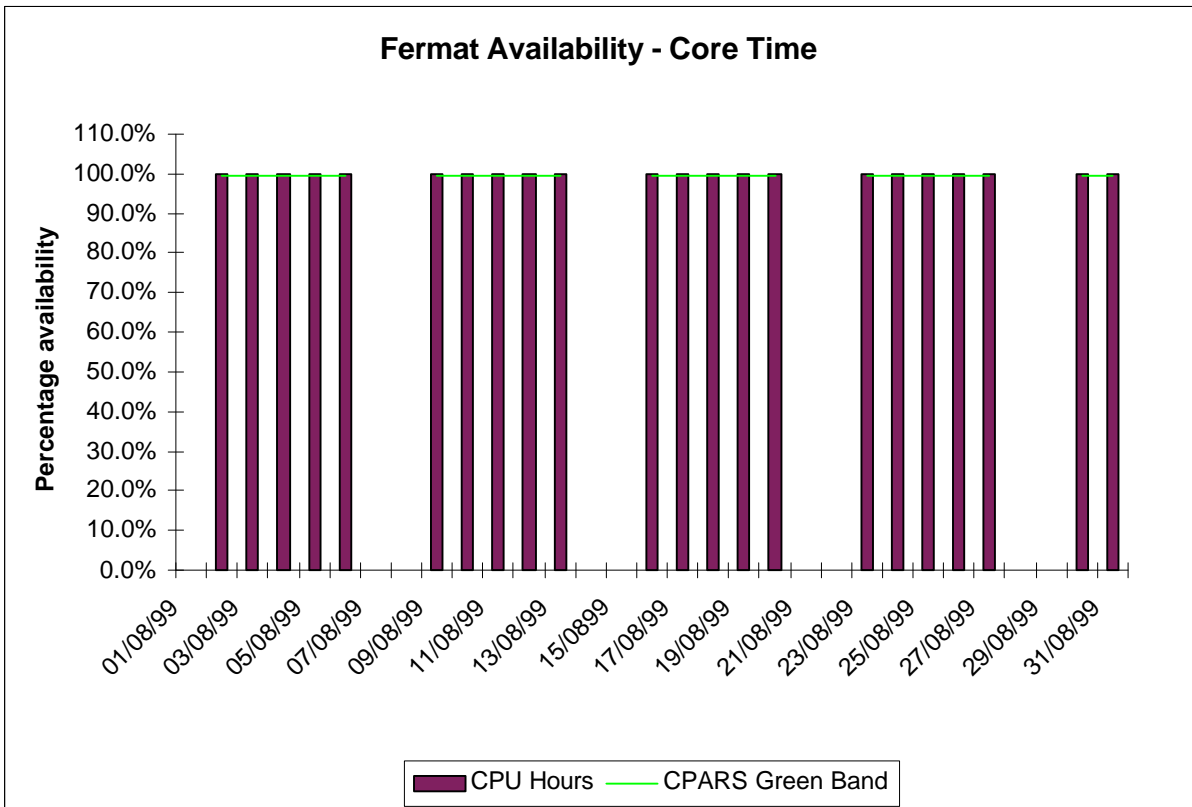




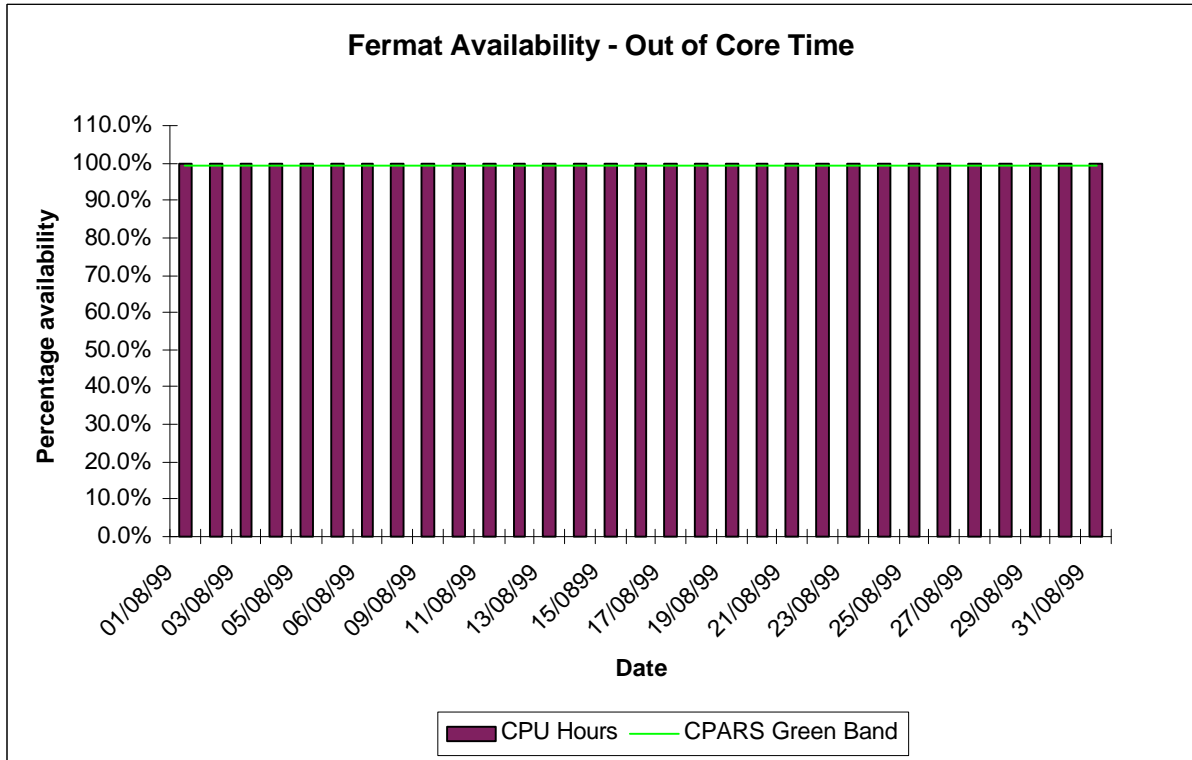
Availability of Turing out of core time during was good with the exception of a disk failure, which had minimal effect on the out of core time availability of the system.

### 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 August was excellent.



Availability of Fermat out of core time during August 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 August 1<sup>st</sup> to 31<sup>st</sup> is provided by Project/User Group, totalled by Research Council and overall. This covers:

- CPU usage                                    Turing: 310,605 PE Hours                                    Fermat: 5,555.80 CPU Hours
- User Disk allocation                        Turing: 35.92 GB Years                                        Fermat: 21.87 GB Years
- HSM/tape usage                                436.18 GB Years

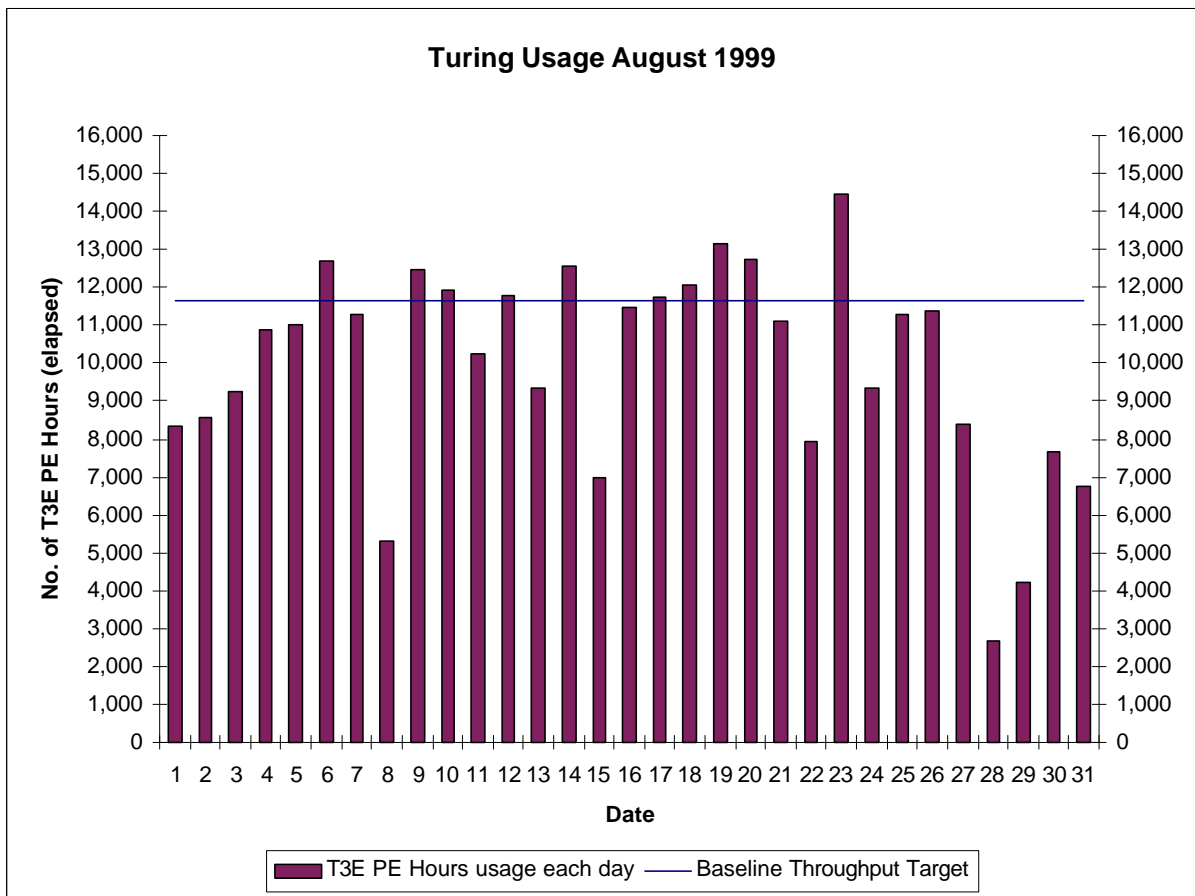
In addition, the following graphs are provided to illustrate usage per month, historically:

- 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 August 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 August:



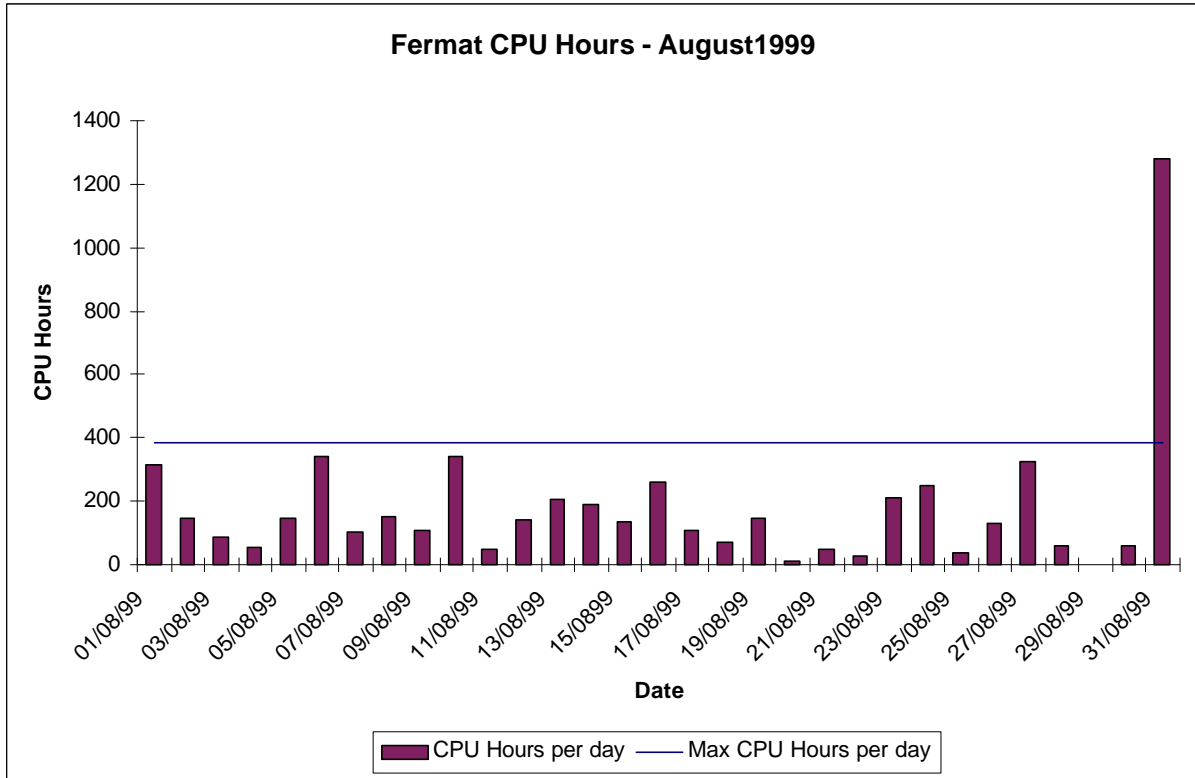
The above usage graph for the Turing system shows that the overall workload was variable.

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.

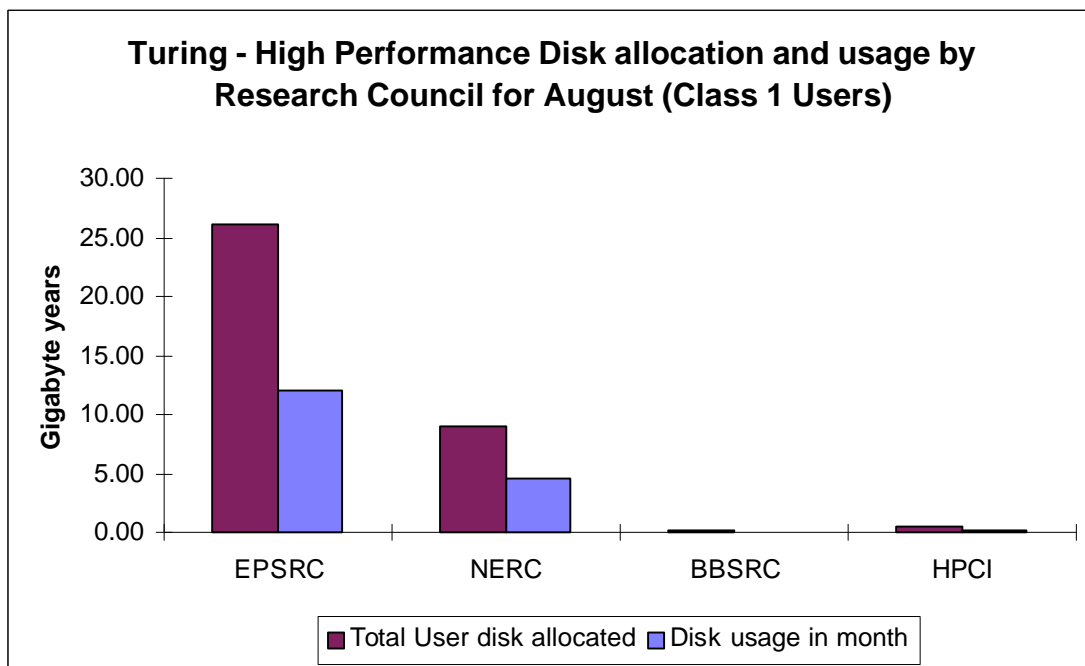
### 4.2 SGi Origin2000 System (Fermat)

The usage of the Origin system was good for the month with the daily usage of the system averaging 46.6% 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 CSE002 (Gillan), CSN009 (Catlow) and CS2004 (Watkins) of the class 2 users.

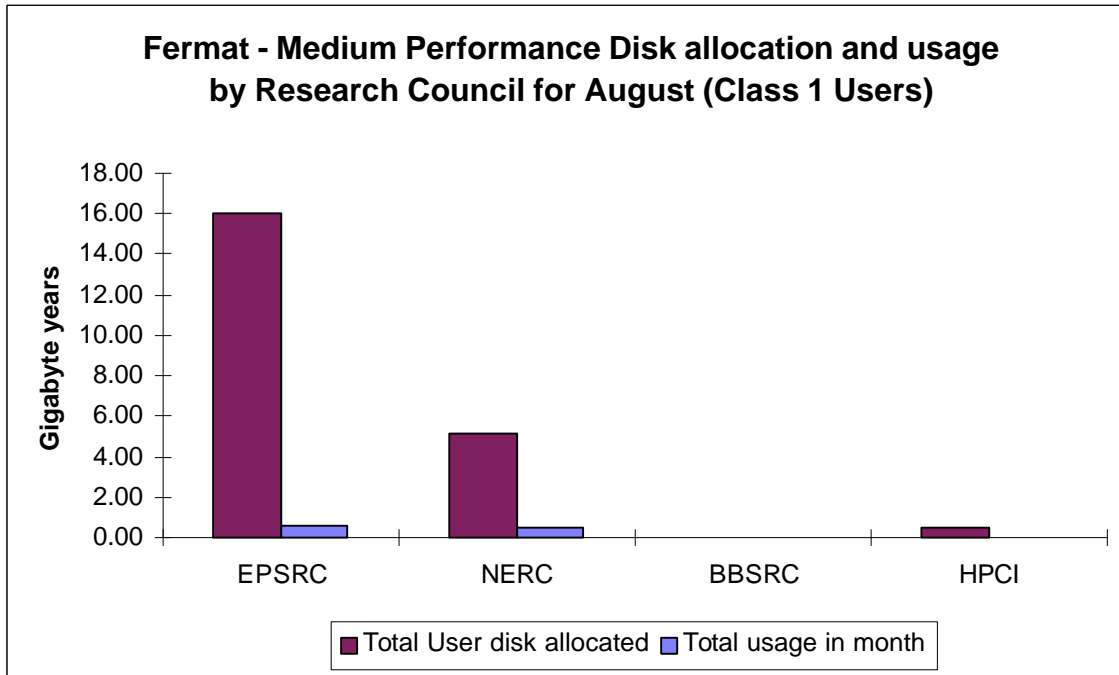


### 4.3 Disk/HSM Usage Charts

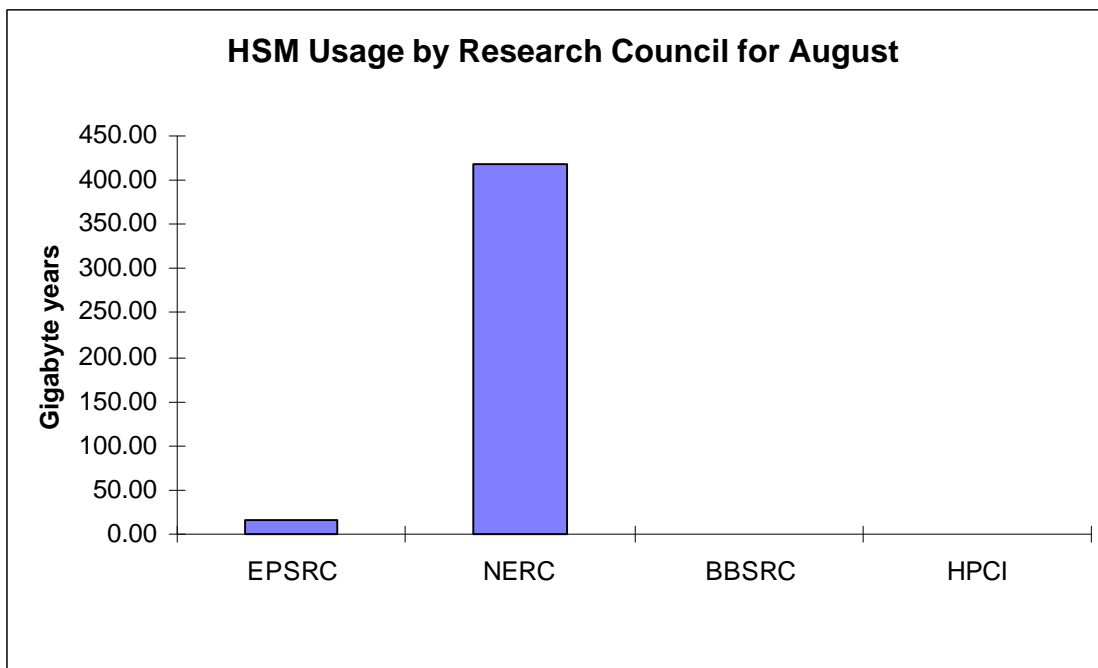
The graphs below show current disk and HSM allocations and usage.



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

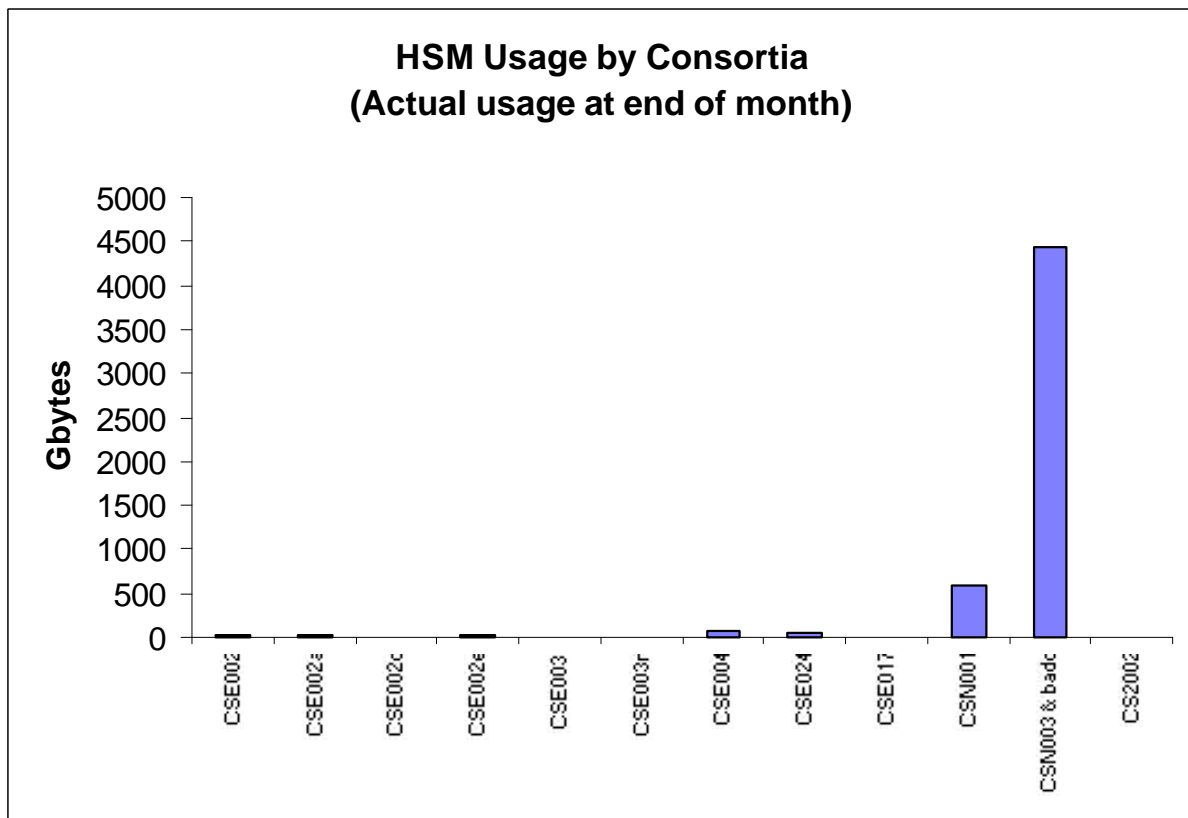
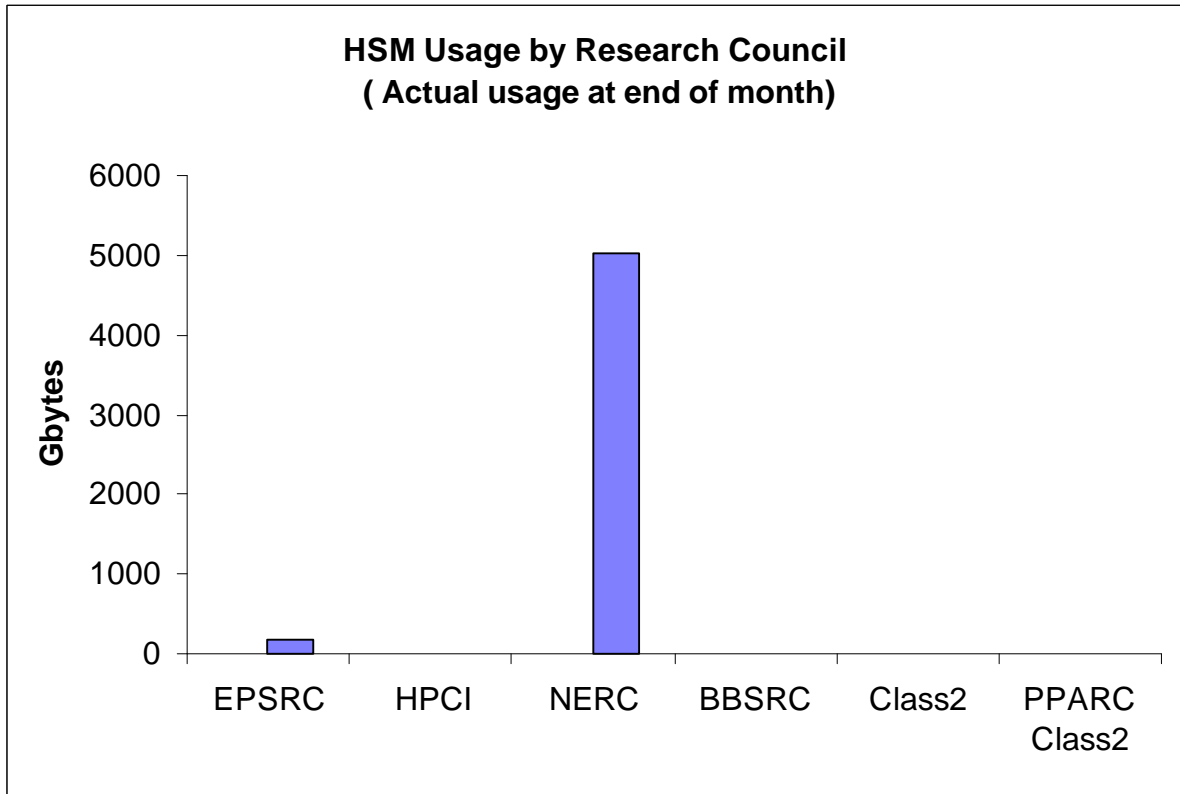


The above graph shows the disk allocations against usage on average of the disk on Fermat.



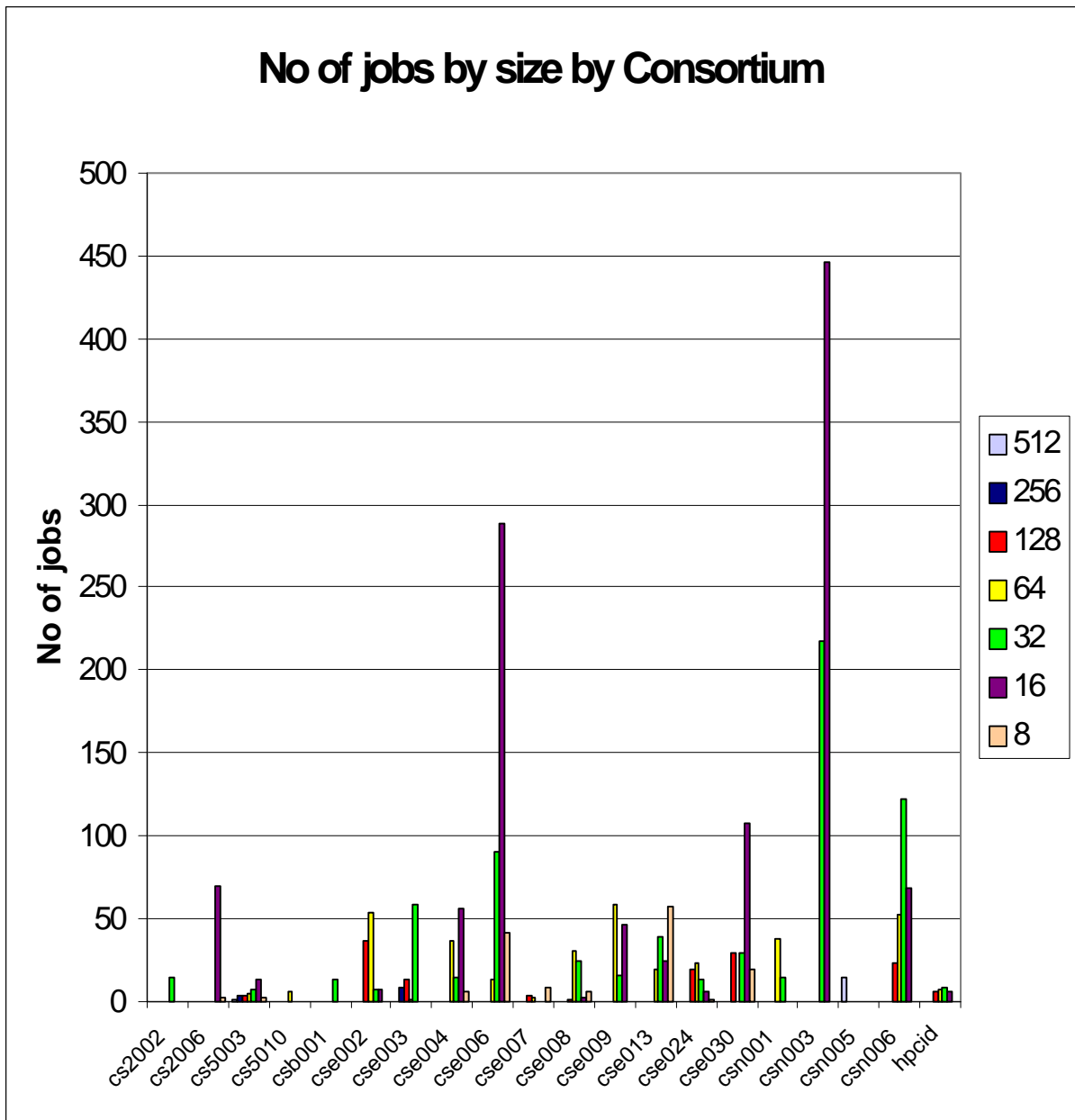
The above graph shows the total usage of the HSM facility by Research Council.

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



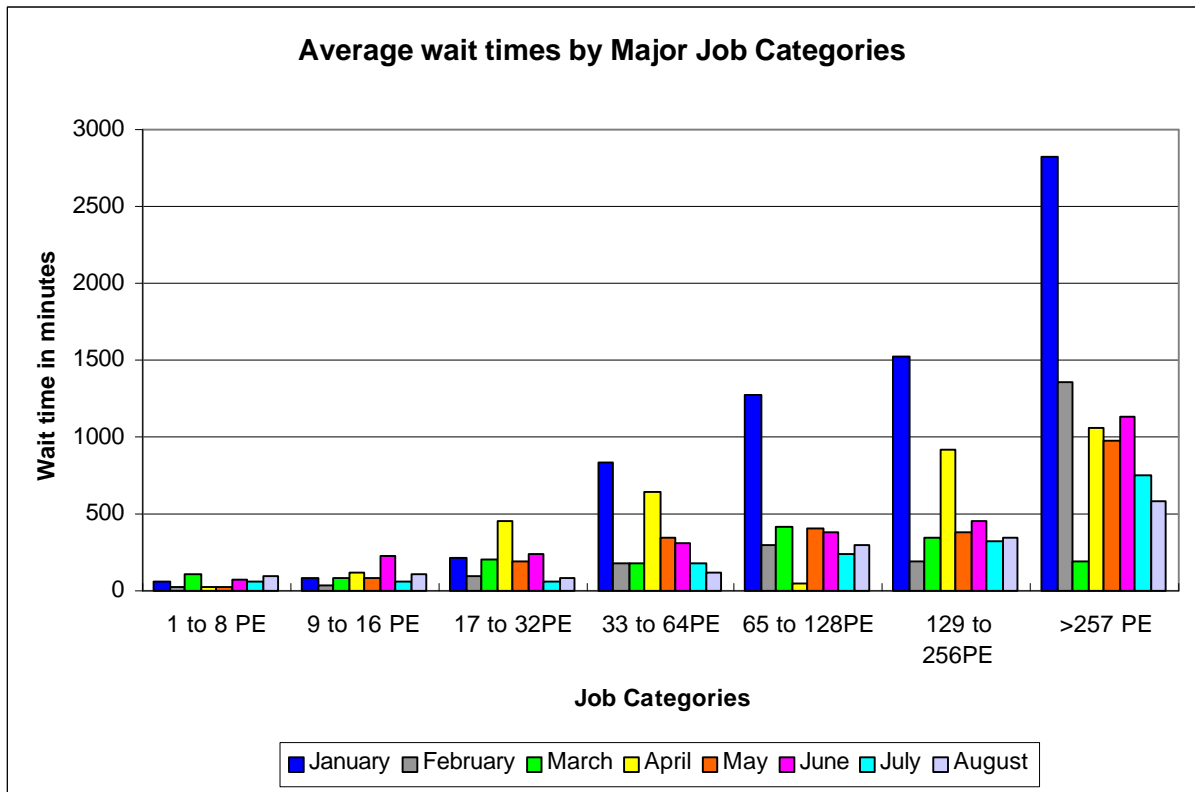
CSE002 (Gillan), CSE003 (Taylor), CSE004 (Sandham), CSE024 (Tennyson), CSN001 (Webb) & CSN003 (O'Neill).

Job statistics for Turing:

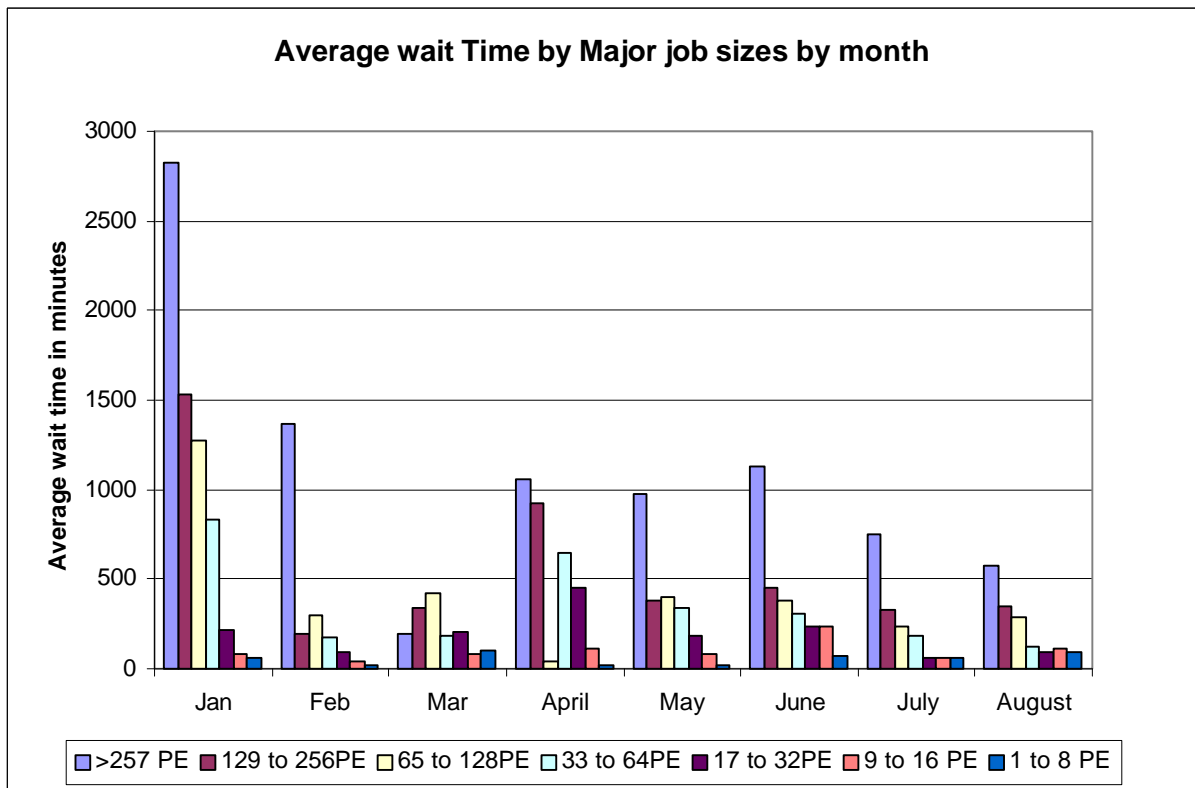


The above graph shows the number of jobs of the major sizes run in the period 1<sup>st</sup> to 31<sup>st</sup> August 1999.

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

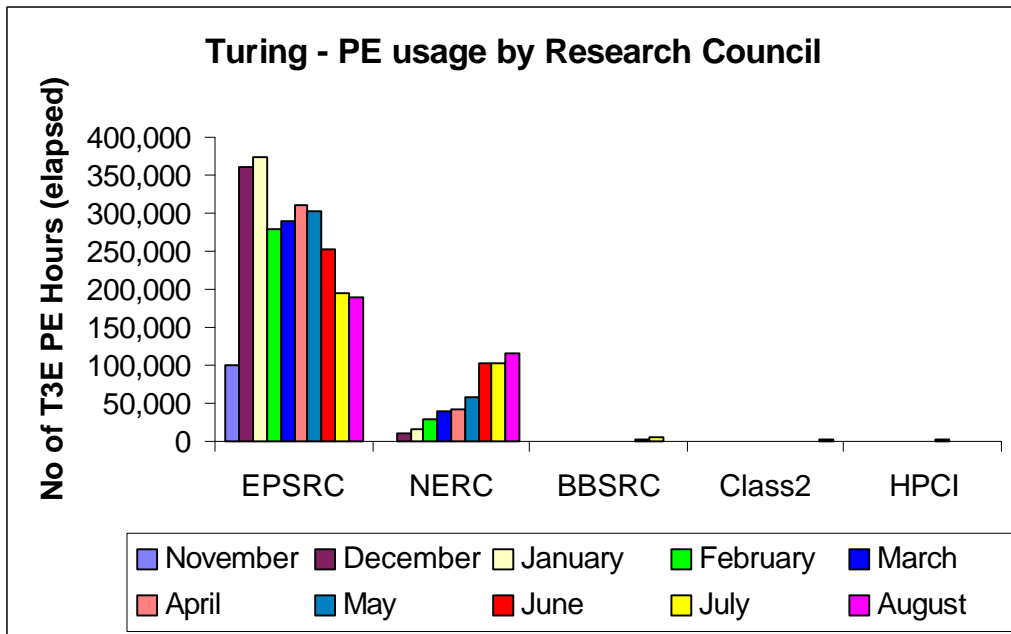


The above chart shows the average wait time trend over the months from January to date.

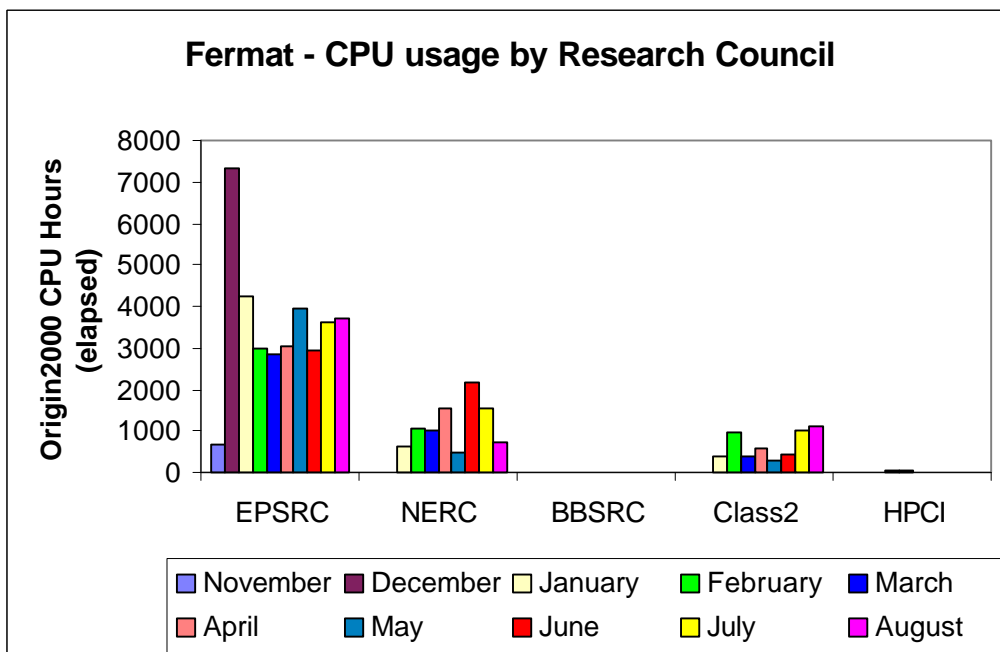


It can be seen from the above graph that enhancements to the scheduling on Turing have reduced the average wait times however attention must be paid to ensure sufficient head room exists in the system to prevent wait times from rising.





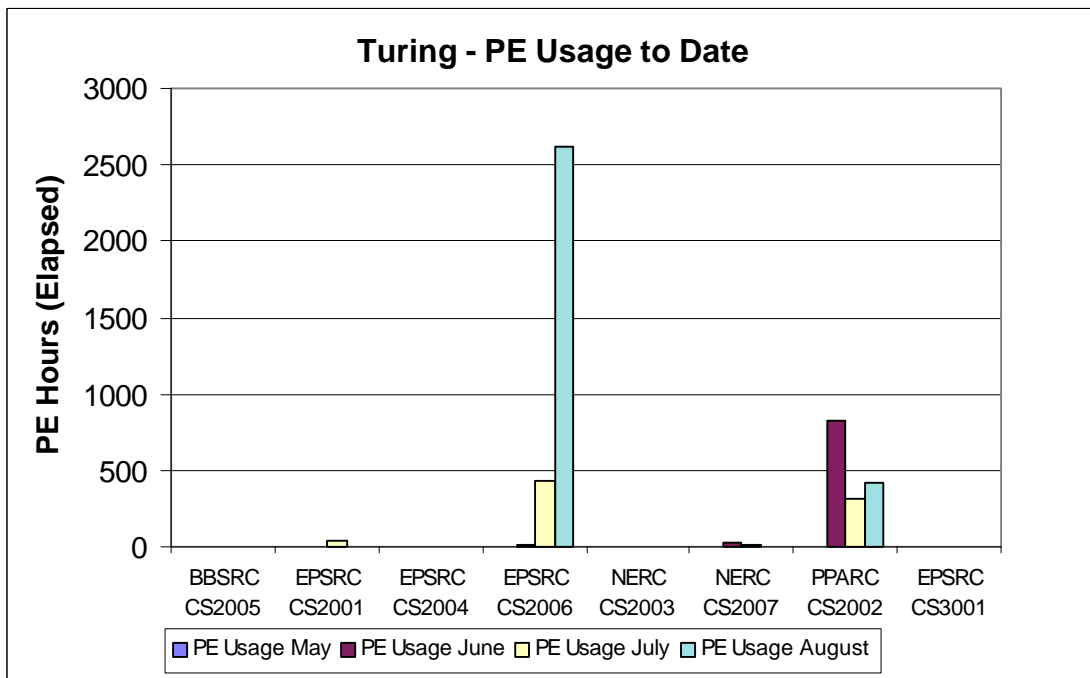
Turing PE usage is shown by Research Council during the months of service to date in the above chart.



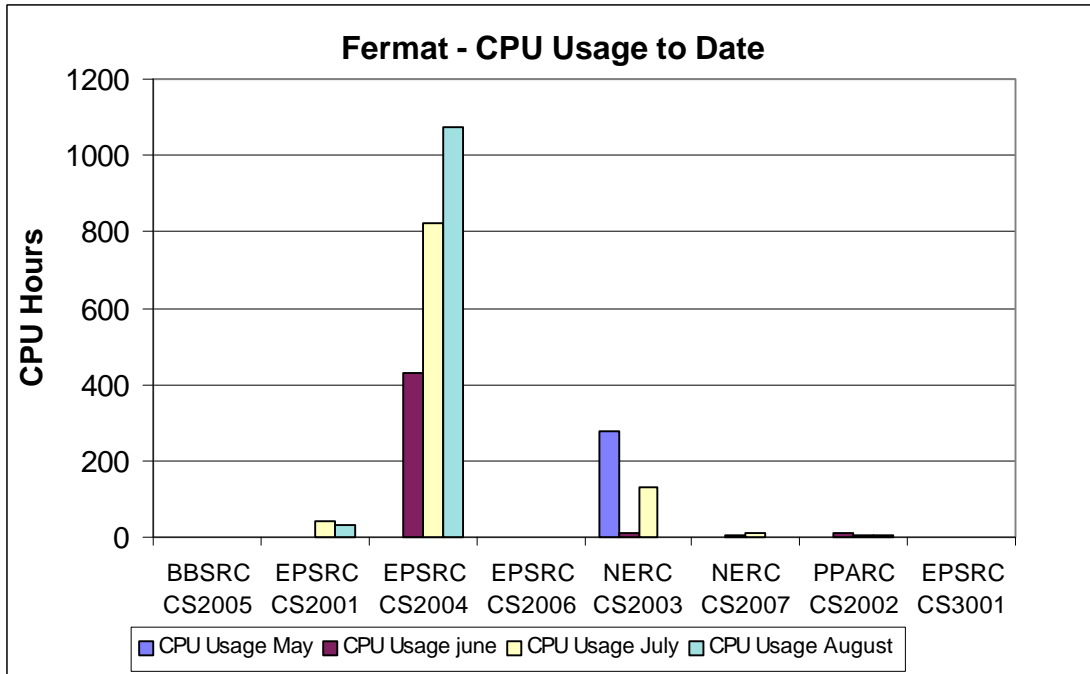
Origin 2000 CPU usage is shown by Research Council during the months of service to date in the above chart.

#### 4.4 Class 2 & 3 Usage Charts

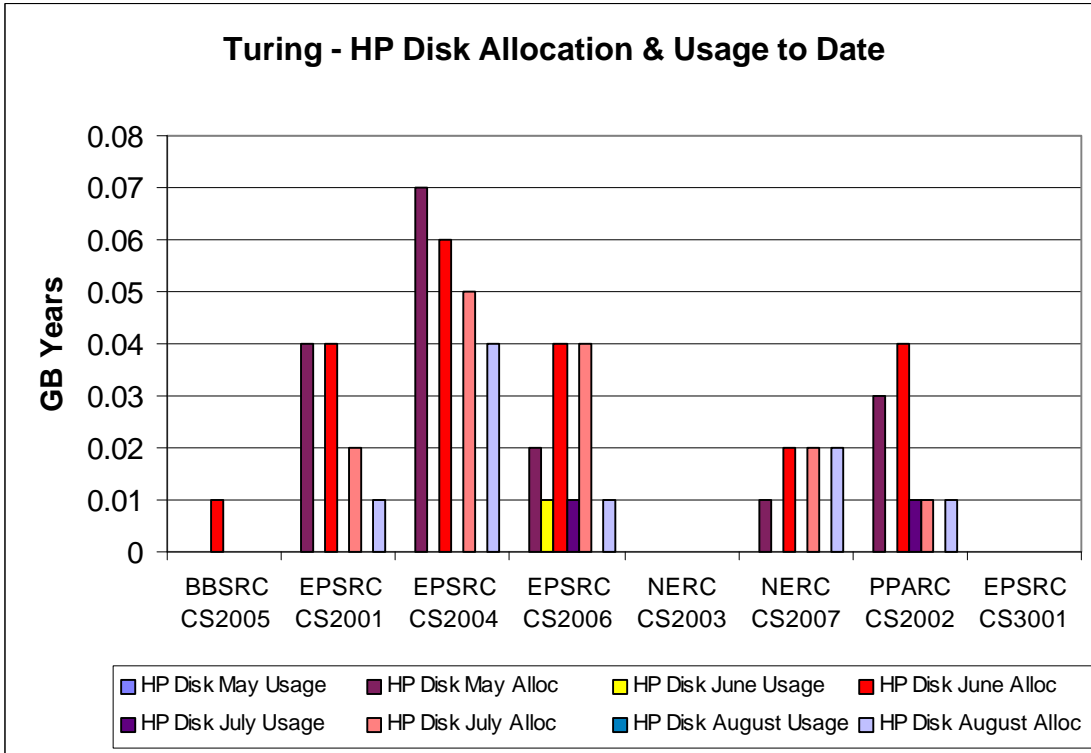
The next series of charts show the usage of the system by the class 2 & class 3 users. The usage is shown by project and identifies the Research Council of the individual projects.



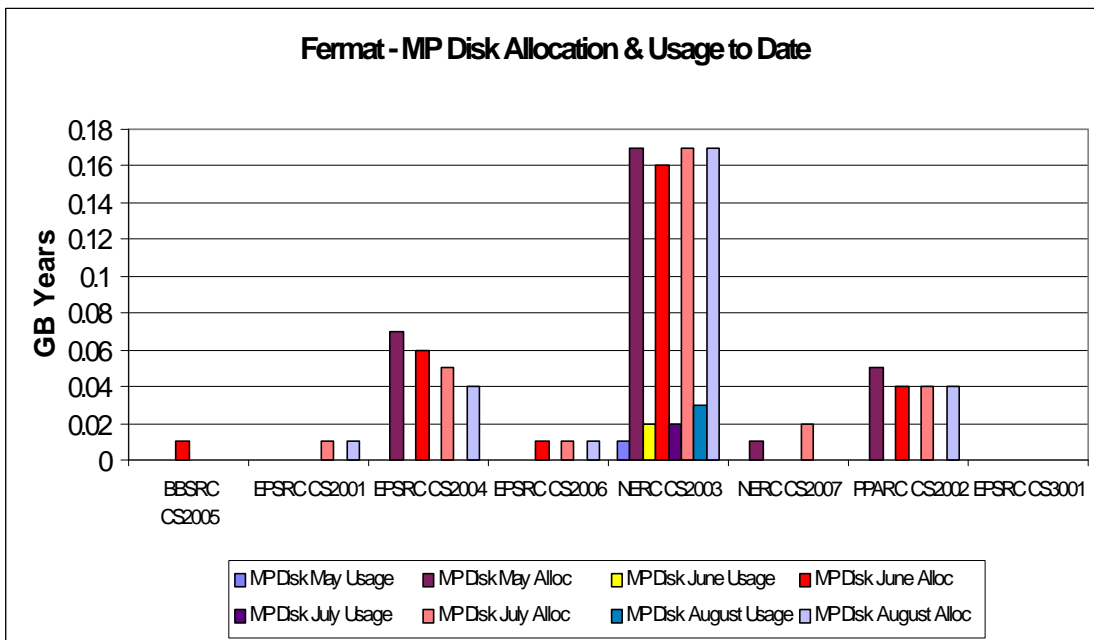
The above chart shows the PE usage of the Turing system.



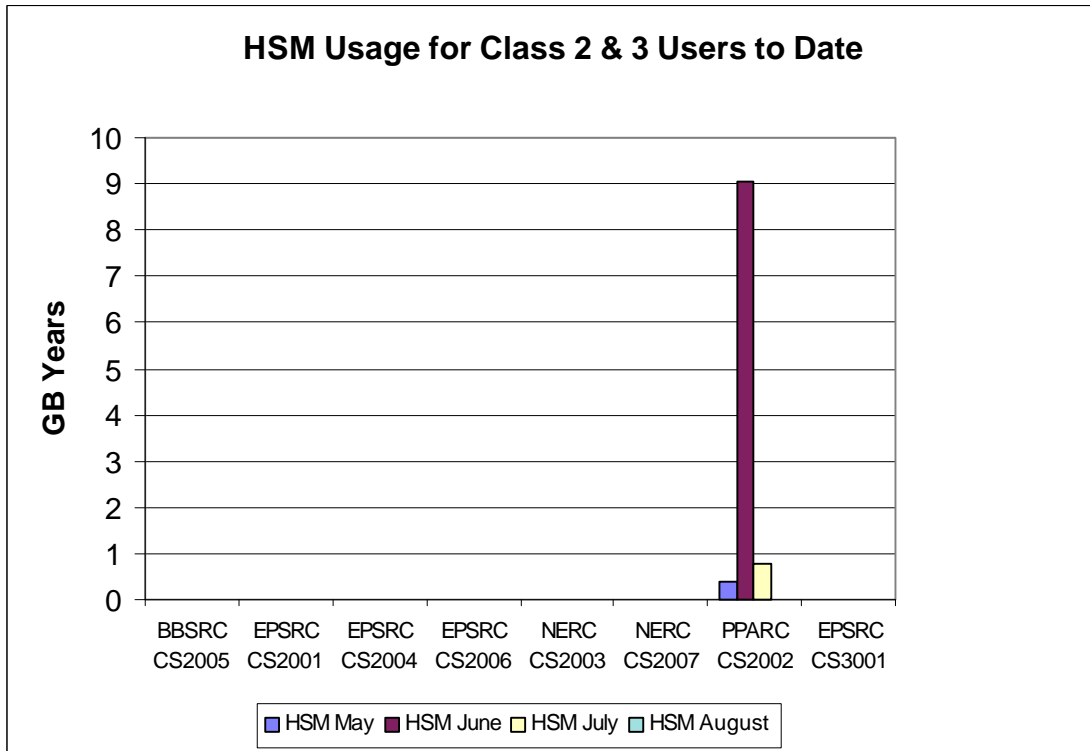
The above chart shows the CPU usage of the Fermat system.



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



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

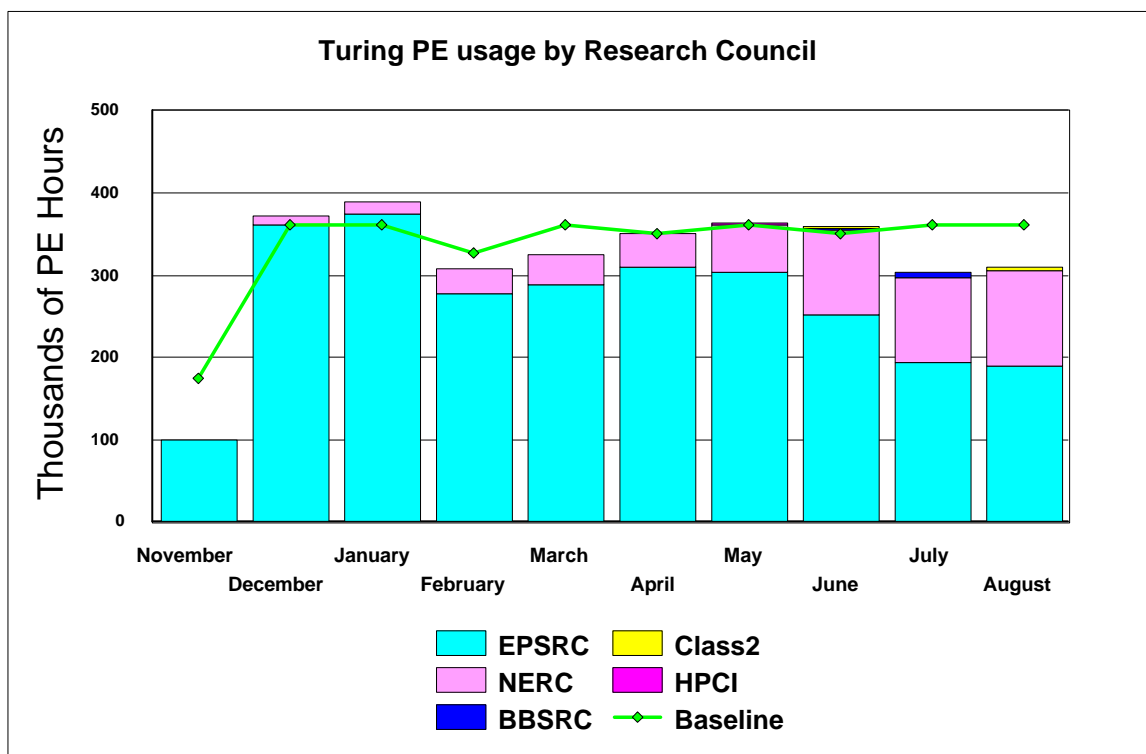


The above chart shows the HSM usage.

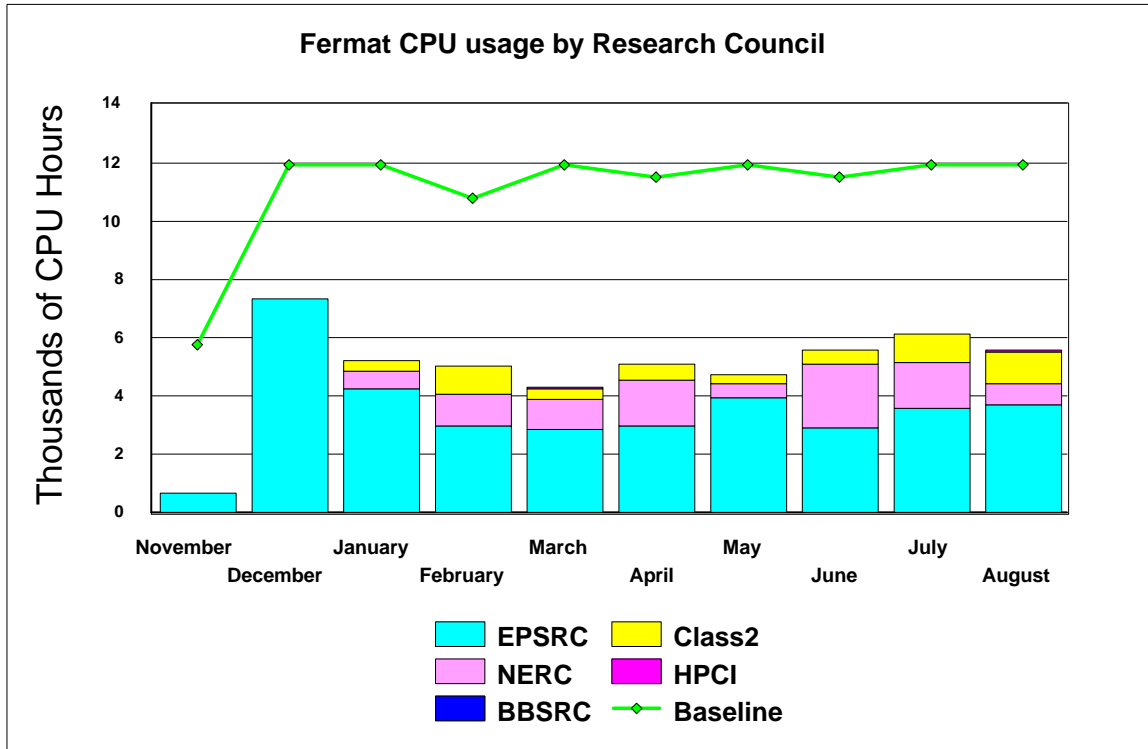
#### 4.5 Charts of Historical Usage

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.

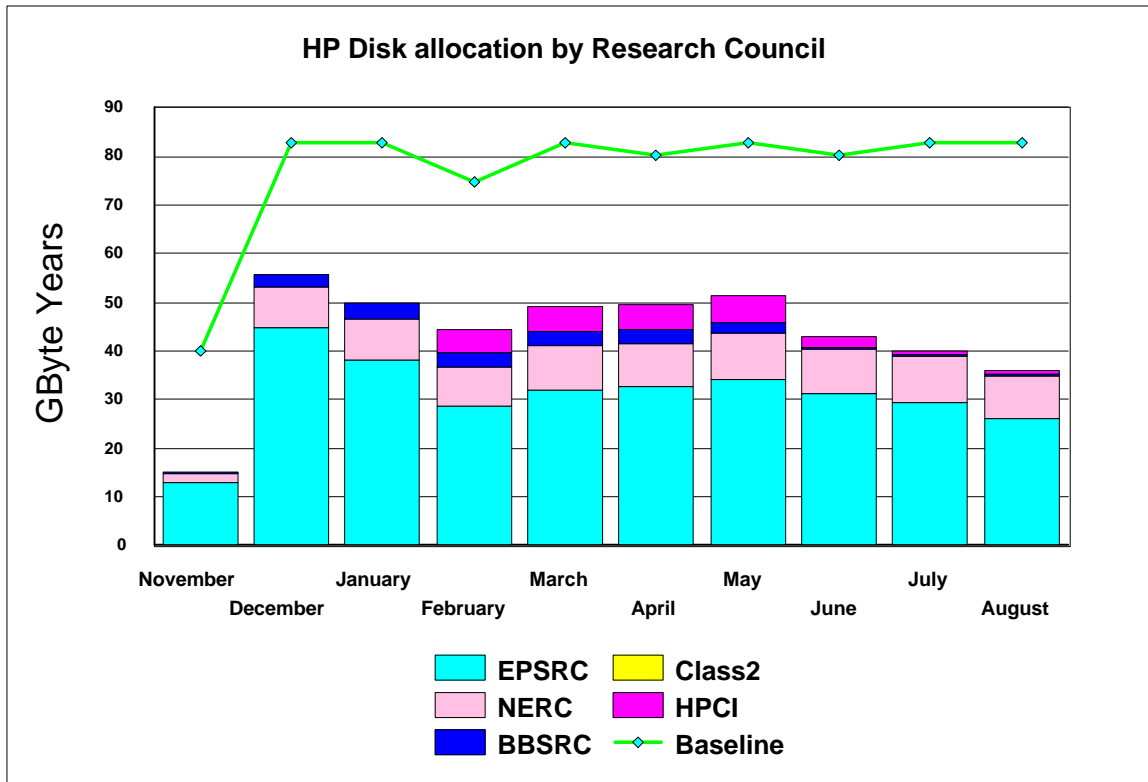
The graph below shows the PE hour's utilisation on Turing by Research Council from November 1998.



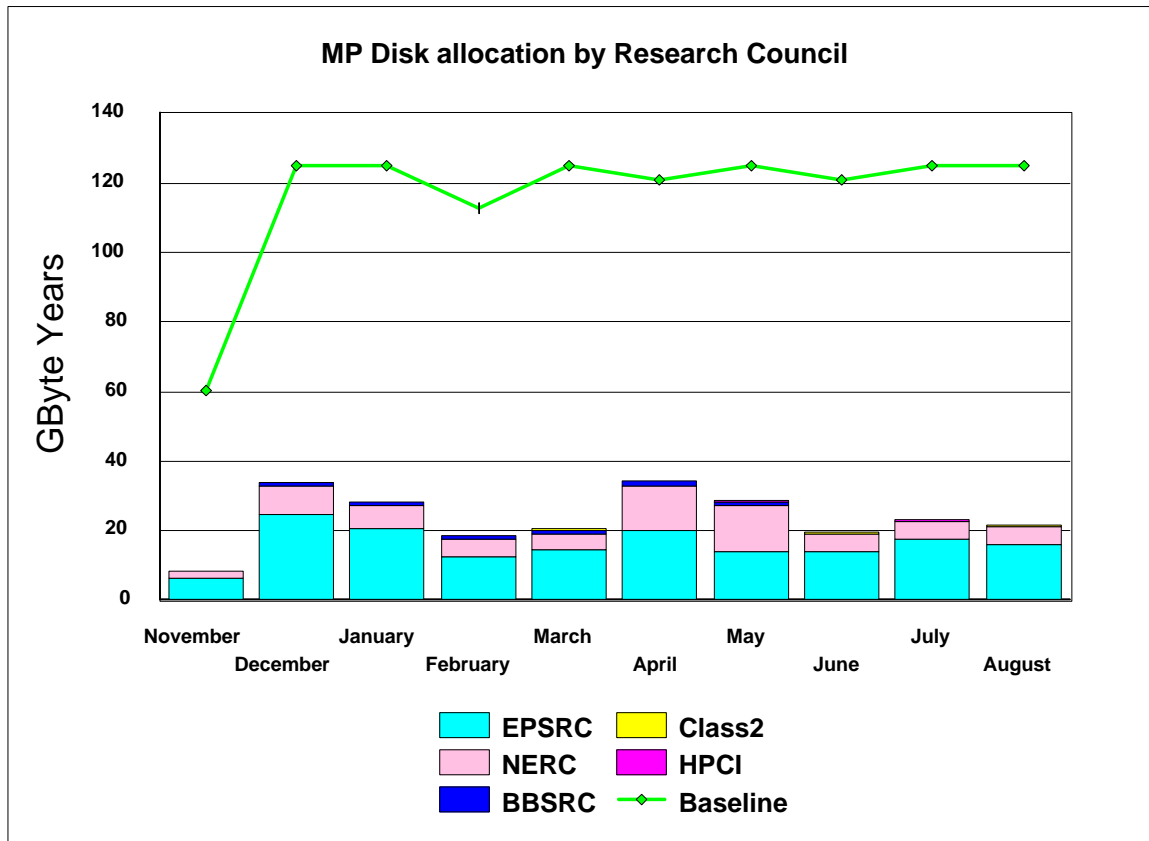
The graph below shows the historic CPU usage on Fermat by Research Council from November.



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

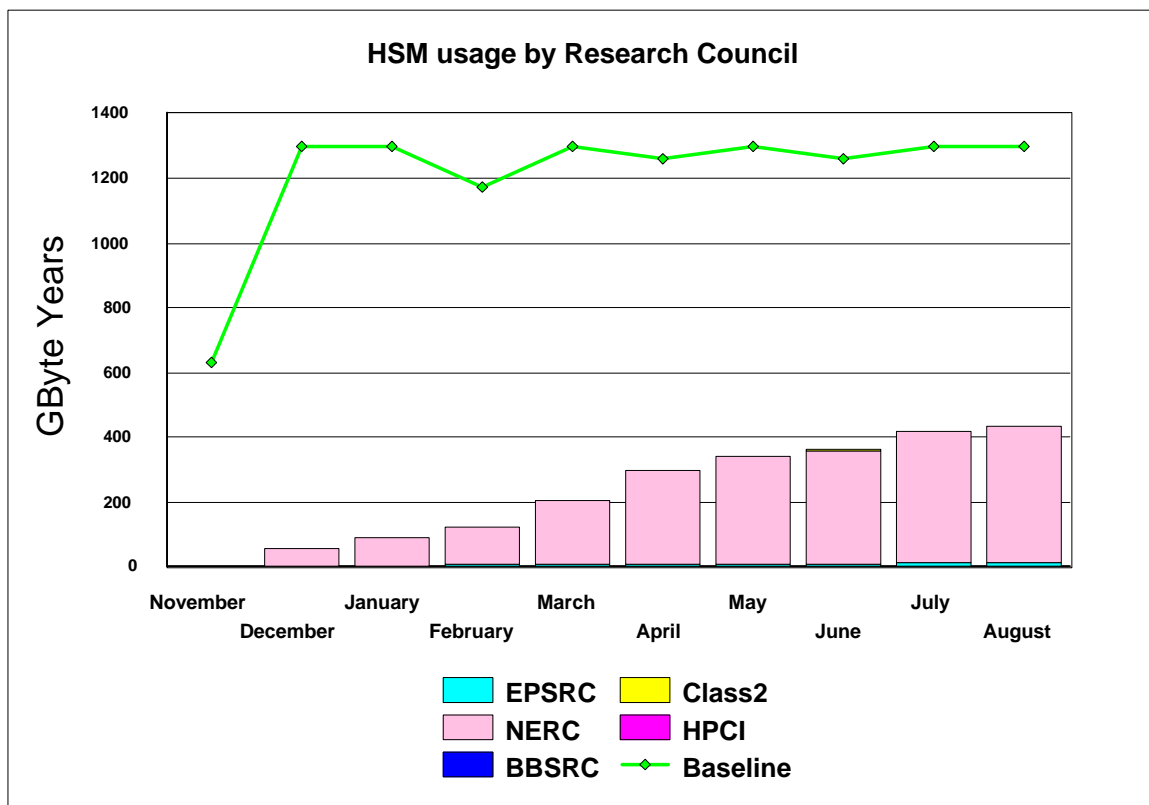


The preceding graph illustrates the historic allocation of the High Performance Disk on Turing.



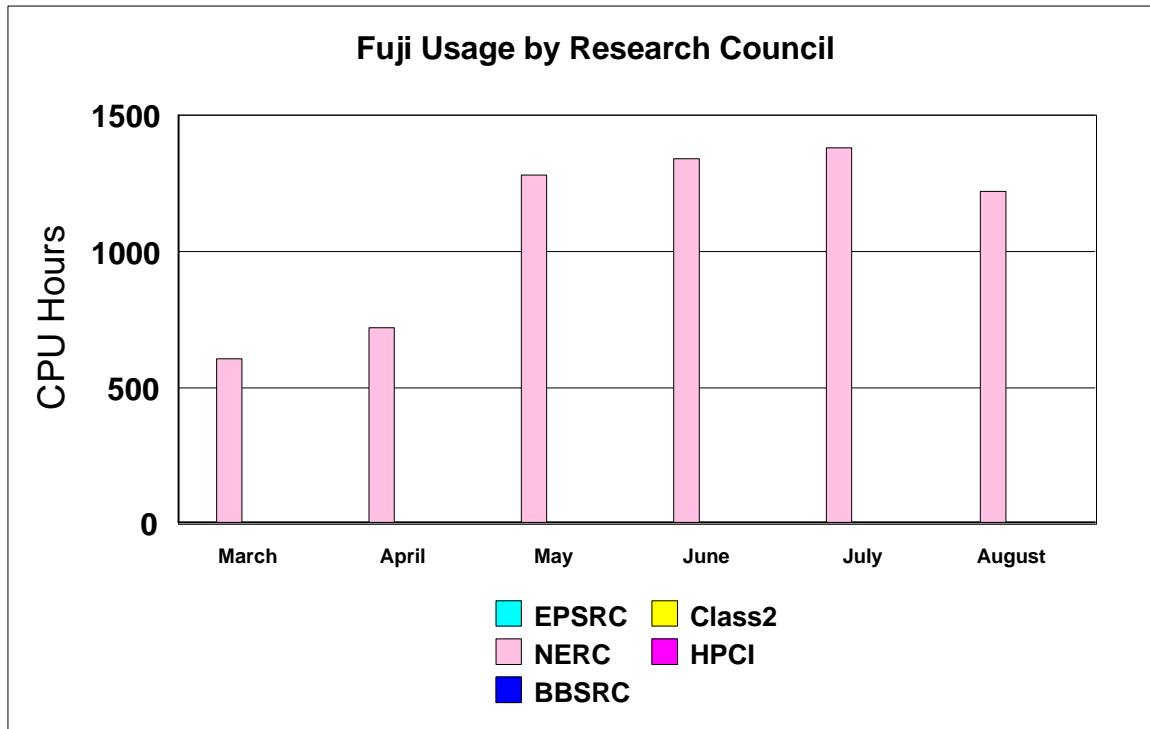
The graph above illustrates the historic allocation of the Medium Performance Disk on Fermat.

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

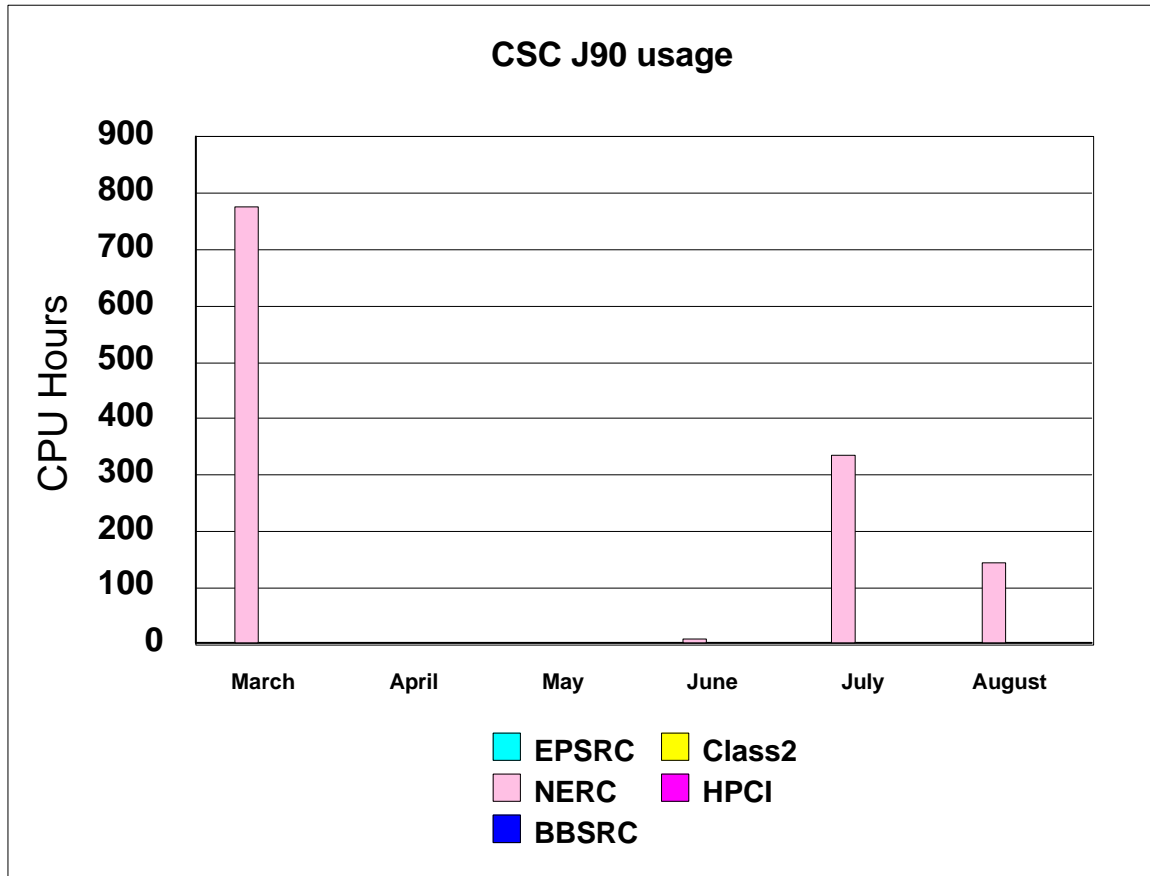


### 4.5 Guest System Usage Charts

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 systems continue to run efficiently, however this month has seen insufficient volume of work to maintain the Turing system usage at baseline or above.

### 5.2 Issues

A new command line facility has been issue to aid users of the HSM tool to more effectively monitor the outstanding requests current with the system.

### 5.3 Plans

It is planned to upgrade the current Fujitsu VPP system and incorporate it into the CSAR system. The planned date for this is the 1<sup>st</sup> November 1999, subject to formal go-ahead by EPSRC/NERC.

## 6. Conclusion

August 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 August 1999

**Appendix 2** contains the Percentage shares by Consortium for August 1999

**Appendix 3** contains the Percentage shares by Research Council for August 1999

**Appendix 4** contains the Training and support figures to the end of August 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 Sunday 1-Aug-99 to Tuesday 31-Aug-99

Account		----- CPU Usage (Hours) -----				Total	--- Storage (GB-Years) ---		
		Inter	Priority	Normal	Low		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	1.16	8.53	619.52	-	629.20	1.76	2.99
		fermat	431.07	-	-	-	431.07	0.11	1.59
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002a	gr/m01753 Gillan	turing	6.85	156.44	2160.94	-	2324.23	2.41	3.38
		fermat	1655.65	-	-	-	1655.65	0.05	1.07
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002b	gr/m01753 Gillan	turing	-	-	-	-	-	0.69	0.72
		fermat	-	-	-	-	-	0.00	0.06
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002c	gr/m01753 Gillan	turing	3.14	63.26	3536.12	-	3602.52	0.39	0.96
		fermat	-	-	-	-	-	0.01	0.76
		fuji	-	-	-	-	-	-	0.15
		CSCJ90	-	-	-	-	-	-	-
CSE002d	gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.00	0.06
		fermat	-	-	-	-	-	0.04	0.50
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002e	gr/m01753 Gillan	turing	0.00	-	-	-	0.00	0.21	0.60
		fermat	-	-	-	-	-	0.13	0.63
		fuji	-	-	-	-	-	-	1.21
		CSCJ90	-	-	-	-	-	-	-
CSE002f	gr/m01753 Gillan	turing	3.94	-	3606.03	-	3609.97	0.10	0.72
		fermat	0.02	-	-	-	0.02	0.01	0.44
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002g	gr/m01753 Gillan	turing	-	-	-	-	-	0.06	0.36
		fermat	-	-	-	-	-	0.01	0.38
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002h	gr/m01753 Gillan	turing	-	-	-	-	-	0.03	0.06
		fermat	-	-	-	-	-	0.00	0.06
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE002i	gr/m01753 Gillan	turing	-	-	-	-	-	0.24	0.90
		fermat	-	-	-	-	-	0.00	0.63
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-

CfS Supercomputer Service				----- CPU Usage (Hours) -----			--- Storage (GB-Years) ---				
Account				Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM
CSE003	gr/m01784	Taylor	turing	-	-	-	-	-	-	0.03	-
			fermat	-	-	-	-	-	0.00	0.00	-
			fuji	-	-	-	-	-	-	-	-
			CSCJ90	-	-	-	-	-	-	-	-
CSE003a	gr/m01784	Taylor	turing	140.46	-	369.73	-	510.19	0.02	0.03	-
			fermat	231.83	-	-	-	231.83	0.00	0.01	-
			fuji	-	-	-	-	-	-	-	-
			CSCJ90	-	-	-	-	-	-	-	-
CSE003b	gr/m01784	Taylor	turing	126.82	-	29891.42	-	30018.24	0.05	0.15	-
			fermat	0.25	-	-	-	0.25	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	4.72	-	-	-	4.72	0.01	0.04	-
			fermat	0.03	-	-	-	0.03	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	77.62	-	1407.61	-	1485.23	0.50	0.58	-
			fermat	0.20	-	-	-	0.20	0.00	0.02	0.56
			fuji	-	-	-	-	-	-	-	-
			CSCJ90	-	-	-	-	-	-	-	-
CSE003j	gr/m01784	Taylor	turing	-	-	-	-	-	-	0.00	-
			fermat	-	-	-	-	-	-	0.00	-
			fuji	-	-	-	-	-	-	-	-
			CSCJ90	-	-	-	-	-	-	-	-
CSE003k	gr/m01784	Taylor	turing	1.28	-	-	-	1.28	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) -----				--- Storage (GB-Years) ---			
	Inter	Priority	Normal	Low	Total	D-Usage	D-Allocln	HSM
CSE003n gr/m01784 Taylor	0.01	205.82	-	-	205.83	0.11	0.86	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.00	0.15
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE007 gr m05348 Foulkes	5.84	-	5297.77	-	5303.60	0.23	0.58	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.30	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
cse021 GR/L95427 Staunton	0.02	-	259.84	-	259.87	0.00	0.08	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.08	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE023 GR/M16023 Allen	-	-	-	-	-	0.00	0.08	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE025 GR/L22331 Bishop	-	-	-	-	-	0.00	0.04	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.04	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE030 GR/M56234 Cates	-	-	-	-	-	-	0.00	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE030a GR/M56234 Cates	23.01	-	3629.29	-	3652.30	0.07	0.57	-
	turing	-	-	-	-	-	-	-
	fermat	0.03	-	-	0.03	0.03	0.85	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE030b GR/M56234 Cates	22.36	-	2753.16	-	2775.52	0.47	0.93	-
	turing	-	-	-	-	-	-	-
	fermat	0.08	-	-	0.08	0.00	0.37	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE030c GR/M56234 Cates	82.45	-	4608.79	-	4691.24	0.26	0.37	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.47	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE030d GR/M56234 Cates	0.00	-	-	-	0.00	0.00	0.21	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.68	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
Total for Subject								
Physics	499.68	434.05	58140.22	-	59073.95	7.62	15.34	-
	turing	-	-	-	-	-	-	-
	fermat	2319.17	-	-	2319.17	0.41	8.99	5.13
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-
CSE006 gr/m05201 Briddon	121.29	-	60748.98	-	60870.27	0.17	0.41	-
	turing	-	-	-	-	-	-	-
	fermat	-	-	-	-	0.00	0.01	-
	fuji	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-

		CfS Supercomputer Service				----- CPU Usage (Hours) -----				--- Storage (GB-Years) ---		
Account		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM			
Total for Subject												
Materials	turing	121.29	-	60748.98	-	60870.27	0.17	0.41	-			
	fermat	-	-	-	-	-	0.00	0.01	-			
	fuji	-	-	-	-	-	-	-	-			
	CSCJ90	-	-	-	-	-	-	-	-			
CSE004	gr/m08424 Sandham	turing	59.93	-	30227.55	-	30287.48	2.33	3.40	-		
	fermat	0.63	-	-	-	0.63	0.16	2.64	5.44	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE010	gr/104108 Williams	turing	0.01	-	28.72	-	28.73	0.07	0.04	-		
	fermat	-	-	-	-	-	0.00	0.00	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE011	gr/k52317 Williams	turing	0.28	-	-	-	0.28	0.52	0.53	-		
	fermat	-	-	-	-	-	0.00	0.00	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
cse013	gr/k43902 Leschzine	turing	-	-	-	-	-	0.00	0.17	-		
	fermat	0.07	-	-	-	0.07	0.00	0.25	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE013b	gr/k43902 Leschzin	turing	0.17	-	0.00	-	0.17	0.00	0.19	-		
	fermat	-	-	-	-	-	0.00	0.26	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE013c	gr/k43902 Leschzin	turing	2.29	-	-	-	2.29	0.01	0.18	-		
	fermat	-	-	-	-	-	-	0.25	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE013d	gr/k43902 Lesc	turing	6.57	1.06	848.67	198.17	1054.47	0.04	0.20	-		
	fermat	-	-	-	-	-	0.00	0.27	0.00	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
cse014	GR/K73466 Goddard	turing	0.02	-	0.60	-	0.62	0.00	0.08	-		
	fermat	-	-	-	-	-	0.00	0.08	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
CSE016	GR/K96519 Cant	turing	0.05	-	-	-	0.05	0.00	0.33	-		
	fermat	-	-	-	-	-	0.00	0.00	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		
cse017	GR/L58699 Luo	turing	-	-	-	-	-	-	0.00	-		
	fermat	-	-	-	-	-	-	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	-	-	-	-	-	0.02	0.05	-		
	fermat	-	-	-	-	-	0.00	-	-	-		
	fuji	-	-	-	-	-	-	-	-	-		
	CSCJ90	-	-	-	-	-	-	-	-	-		

CfS Supercomputer Service									
Account		----- CPU Usage (Hours) -----					--- Storage (GB-Years) ---		
		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM
CSE029	GR/L58804 Leschzine	turing	-	-	-	-	-	-	-
		fermat	296.53	-	-	-	296.53	0.00	0.04
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
Total for Subject Engineering		turing	69.32	1.06	31105.54	198.17	31374.09	2.98	5.50
		fermat	297.23	-	-	-	297.23	0.17	3.80
		fuji	-	-	-	-	-	-	5.44
		CSCJ90	-	-	-	-	-	-	-
CSE008	GR/M07624 Hillier	turing	5.51	-	9768.92	-	9774.43	0.06	0.10
		fermat	-	-	-	-	-	0.00	0.00
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE009	gr/m07441 Catlow	turing	60.64	-	8542.82	-	8603.46	1.00	1.64
		fermat	1070.00	-	-	-	1070.00	0.01	0.03
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
cse024	GR/M44453 Tennyson	turing	95.03	10477.66	9561.43	-	20134.12	0.10	2.88
		fermat	6.90	-	-	-	6.90	0.00	2.97
		fuji	-	-	-	-	-	-	4.97
		CSCJ90	-	-	-	-	-	-	-
cse033	GR/M63874 Imregun	turing	0.00	-	-	-	0.00	0.00	0.05
		fermat	-	-	-	-	-	-	0.02
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
Total for Subject Chemistry		turing	161.18	10477.66	27873.18	-	38512.01	1.16	4.67
		fermat	1076.90	-	-	-	1076.90	0.01	3.03
		fuji	-	-	-	-	-	-	4.97
		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	214.47	-	-	-	214.47	0.02	0.08
		fermat	-	-	-	-	-	0.00	0.08
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
Total for Subject Information Technology		turing	214.47	-	-	-	214.47	0.04	0.16
		fermat	-	-	-	-	-	0.00	0.17
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-
CSE034	gr/m78342 Durham	turing	5.07	-	2.03	-	7.10	0.00	0.01
		fermat	16.73	-	-	-	16.73	0.00	0.01
		fuji	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-

CfS Supercomputer Service		----- CPU Usage (Hours) -----					--- Storage (GB-Years) ---		
Account		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM
Total for Subject									
Mathematics	turing	5.07	-	2.03	-	7.10	0.00	0.01	-
	fermat	16.73	-	-	-	16.73	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council									
EPSRC Class 1	turing	1071.01	10912.76	177869	198.17	190051	11.98	26.09	-
	fermat	3710.03	-	-	-	3710.03	0.60	16.01	15.54
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
HPCI Southampton									
	turing	3.67	-	-	-	3.67	0.13	0.41	-
	fermat	0.57	-	-	-	0.57	0.04	0.42	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
HPCI Daresbury									
	turing	2.68	1283.24	-	-	1285.91	0.06	0.08	-
	fermat	-	-	-	-	-	0.00	0.03	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
HPCI Edinburgh									
	turing	-	-	-	-	-	0.00	0.08	-
	fermat	2.35	-	-	-	2.35	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council									
HPCI Class 1	turing	6.35	1283.24	-	-	1289.58	0.19	0.58	-
	fermat	2.92	-	-	-	2.92	0.04	0.45	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN001 SOC Core Strategic									
	turing	1.02	-	1290.33	-	1291.35	1.95	4.11	-
	fermat	434.28	-	-	-	434.28	0.42	4.25	49.46
	fuji	0.02	-	-	-	0.02	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN002 gr3.10789 Hillier									
	turing	-	-	-	-	-	0.00	0.00	-
	fermat	-	-	-	-	-	-	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
badc									
	turing	-	-	-	-	-	-	-	-
	fermat	0.65	-	-	-	0.65	0.00	-	83.19
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN003 UGAMP O'Neill									
	turing	34.91	15382.38	69420.49	-	84837.78	0.67	1.23	-
	fermat	291.12	-	-	-	291.12	0.07	0.85	286.16
	fuji	964.34	-	-	-	964.34	-	-	-
	CSCJ90	0.10	145.21	-	-	145.31	-	-	-
CSN005 GR9/2909 Davies									
	turing	0.35	-	745.53	-	745.88	0.83	1.40	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN006 GR9/3550 Price									
	turing	575.31	0.05	27438.87	-	28014.23	0.92	1.97	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service									
Account		----- CPU Usage (Hours) -----				--- Storage (GB-Years) ---			HSM
		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	
CSN007 GST/02/1454 Price	turing	0.00	-	-	-	0.00	0.11	0.13	-
	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	0.04	-	22.18	-	22.21	0.05	0.06	-
	fermat	-	-	-	-	-	-	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSN012	turing	-	-	-	-	-	-	-	-
	fermat	-	-	-	-	-	-	-	-
	fuji	49.38	-	-	-	49.38	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
MiscFuji	turing	-	-	-	-	-	-	-	-
	fermat	-	-	-	-	-	-	-	-
	fuji	208.41	-	-	-	208.41	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council									
NERC Class 1	turing	611.62	15382.42	98917.40	-	114911	4.54	8.98	-
	fermat	726.05	-	-	-	726.05	0.50	5.10	418.81
	fuji	1222.14	-	-	-	1222.14	-	-	-
	CSCJ90	0.10	145.21	-	-	145.31	-	-	-
CSB001 27/B07117 Goodfello	turing	0.02	-	1308.18	-	1308.20	0.03	0.06	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSB002 86/B10059 Danson	turing	-	-	-	-	-	0.02	0.08	-
	fermat	-	-	-	-	-	0.00	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CSB003 117/S09645 Williams	turing	-	-	-	-	-	0.01	0.03	-
	fermat	-	-	-	-	-	0.00	0.00	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council									
BBSRC Class 1	turing	0.02	-	1308.18	-	1308.20	0.06	0.18	-
	fermat	-	-	-	-	-	0.00	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
cs2001 CompApps3D Jain	turing	0.02	-	2.44	-	2.46	0.00	0.01	-
	fermat	32.07	-	-	-	32.07	0.00	0.01	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
CS2004 ICE Watkins	turing	0.03	-	-	-	0.03	0.00	0.01	-
	fermat	1074.97	-	-	-	1074.97	0.00	0.04	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service										
		----- CPU Usage (Hours) -----					--- Storage (GB-Years) ---			
Account		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM	
CS2006	AISSM Temmerman EPS	turing	2.98	-	2617.65	-	2620.63	0.01	0.04	-
		fermat	-	-	-	-	-	0.00	0.01	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
Total for Council										
EPSRC Class 2		turing	3.02	-	2620.09	-	2623.12	0.02	0.05	-
		fermat	1107.03	-	-	-	1107.03	0.00	0.06	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
cs2003	GST/02/0760 Coultha	turing	-	-	-	-	-	-	-	-
		fermat	0.10	-	-	-	0.10	0.03	0.17	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
CS2007	SNOW Choularton NER	turing	5.32	-	-	-	5.32	0.00	0.02	-
		fermat	0.08	-	-	-	0.08	0.00	0.00	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
Total for Council										
NERC Class 2		turing	5.32	-	-	-	5.32	0.00	0.02	-
		fermat	0.18	-	-	-	0.18	0.03	0.17	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
CS2002	PTMP Lyne	turing	1.66	-	414.09	-	415.74	0.00	0.01	-
		fermat	6.58	-	-	-	6.58	0.00	0.04	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
Total for Council										
PPARC Class 2		turing	1.66	-	414.09	-	415.74	0.00	0.01	-
		fermat	6.58	-	-	-	6.58	0.00	0.04	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
CS3001	Stavely	turing	0.00	-	0.06	-	0.07	0.00	0.00	-
		fermat	-	-	-	-	-	-	-	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
Total for Council										
EPSRC Class 3		turing	0.00	-	0.06	-	0.07	0.00	0.00	-
		fermat	-	-	-	-	-	-	-	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
euukcp		turing	-	-	-	-	-	0.01	-	-
		fermat	-	-	-	-	-	-	-	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-
eugamp		turing	-	-	-	-	-	0.00	-	-
		fermat	-	-	-	-	-	-	-	-
		fuji	-	-	-	-	-	-	-	-
		CSCJ90	-	-	-	-	-	-	-	-



CfS Supercomputer Service

Account		----- CPU Usage (Hours) -----					--- Storage (GB-Years) ---		
		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM
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	-	1.84
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
dummy	turing	-	-	-	-	-	-	-	-
	fermat	-	-	-	-	-	0.00	-	-
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Subject eu accounts	turing	-	-	-	-	-	1.80	-	-
	fermat	-	-	-	-	-	0.11	-	1.84
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-
Total for Council Research	turing	-	-	-	-	-	1.80	-	-
	fermat	-	-	-	-	-	0.11	-	1.84
	fuji	-	-	-	-	-	-	-	-
	CSCJ90	-	-	-	-	-	-	-	-

CfS Supercomputer Service  
Usage report for All Research Councils

From Sunday 1-Aug-99 to Tuesday 31-Aug-99

Account	Total	----- CPU Usage (Hours) -----					--- Storage (GB-Years) ---			
		Inter	Priority	Normal	Low	Total	D-Usage	D-Allocn	HSM	
Research Councils		turing	1699.01	27578.42	281129	198.17	310605	18.60	35.92	-
		fermat	5552.80	-	-	-	5552.80	1.27	21.87	436.18
		fuji	1222.14	-	-	-	1222.14	-	-	-
		CSCJ90	0.10	145.21	-	-	145.31	-	-	-

## Appendix 2

Percentage PE time per consortia for Turing in August 1999		Percentage CPU time per consortia for Fermat in August 1999	
Consortia	% Machine Time	Consortia	% Machine Time
CSE002	3.27	CSE002	37.58
CSE003	10.37	CSE003	4.18
CSE007	1.71	CSE007	0.00
CSE021	0.08	CSE021	0.00
CSE023	0.00	CSE023	0.00
CSE025	0.00	CSE025	0.00
CSE030	3.58	CSE030	0.00
CSE006	19.60	CSE006	0.00
CSE004	9.75	CSE004	0.01
CSE010	0.01	CSE010	0.00
CSE011	0.00	CSE011	0.00
CSE013	0.34	CSE013	0.00
CSE014	0.00	CSE014	0.00
CSE016	0.00	CSE016	0.00
CSE018	0.00	CSE018	0.00
CSE022	0.00	CSE022	0.00
CSE029	0.00	CSE029	5.34
CSE008	3.15	CSE008	0.00
CSE009	2.77	CSE009	19.27
CSE024	6.48	CSE024	0.12
CSE033	0.00	CSE033	0.00
CSE019	0.00	CSE019	0.00
CSE020	0.07	CSE020	0.00
CSE034	0.00	CSE034	0.30
HPCI Southampton	0.00	HPCI Southampton	0.01
HPCI Daresbury	0.41	HPCI Daresbury	0.00
HPCI Edinburgh	0.00	HPCI Edinburgh	0.04
CSN001	0.42	CSN001	7.82
CSN002	0.00	CSN002	0.00
BADC	0.00	BADC	0.01
CSN003	27.31	CSN003	5.24
CSN005	0.24	CSN005	0.00
CSN006	9.02	CSN006	0.00
CSN007	0.00	CSN007	0.00
CSN009	0.00	CSN009	0.00
CSN011	0.01	CSN011	0.00
CSN012	0.00	CSN012	0.00
CSB001	0.42	CSB001	0.00
CSB002	0.00	CSB002	0.00
CSB003	0.00	CSB003	0.00
CS2001	0.00	CS2001	0.58
CS2002	0.13	CS2002	0.12
CS2003	0.00	CS2003	0.00
CS2004	0.00	CS2004	19.36
CS2005	0.00	CS2005	0.00
CS2006	0.84	CS2006	0.00
CS2007	0.00	CS2007	0.00
CS3001	0.00	CS3001	0.00

## Appendix 2

Percentage disc allocation by Consortia for Turing in August 1999		Percentage disc allocation by Consortia for Fermat in August 1999	
Consortia	%Allocation	Consortia	%Allocation
CSE002	29.93	CSE002	27.98
CSE003	4.79	CSE003	7.13
CSE007	1.61	CSE007	1.37
CSE021	0.22	CSE021	0.37
CSE023	0.22	CSE023	0.00
CSE025	0.11	CSE025	0.18
CSE030	5.79	CSE030	10.84
CSE006	1.14	CSE006	0.05
CSE004	9.47	CSE004	12.07
CSE010	0.11	CSE010	0.00
CSE011	1.48	CSE011	0.00
CSE013	2.06	CSE013	4.71
CSE014	0.22	CSE014	0.37
CSE016	0.92	CSE016	0.00
CSE018	0.92	CSE018	0.00
CSE022	0.14	CSE022	0.00
CSE029	0.11	CSE029	0.18
CSE008	0.28	CSE008	0.00
CSE009	4.57	CSE009	0.14
CSE024	8.02	CSE024	13.58
CSE033	0.14	CSE033	0.09
CSE019	0.22	CSE019	0.37
CSE020	0.22	CSE020	0.37
CSE034	0.03	CSE034	0.05
HPCI Southampton	1.14	HPCI Southampton	1.92
HPCI Daresbury	0.22	HPCI Daresbury	0.14
HPCI Edinburgh	0.22	HPCI Edinburgh	0.00
CSN001	11.44	CSN001	19.43
CSN002	0.00	CSN002	0.00
BADC	0.00	BADC	0.00
CSN003	3.42	CSN003	3.89
CSN005	3.90	CSN005	0.00
CSN006	5.48	CSN006	0.00
CSN007	0.36	CSN007	0.00
CSN009	0.22	CSN009	0.00
CSN011	0.17	CSN011	0.00
CSN012	0.00	CSN012	0.00
CSB001	0.17	CSB001	0.00
CSB002	0.22	CSB002	0.18
CSB003	0.08	CSB003	0.00
CS2001	0.03	CS2001	0.05
CS2002	0.03	CS2002	0.18
CS2003	0.00	CS2003	0.78
CS2004	0.03	CS2004	0.18
CS2005	0.00	CS2005	0.00
CS2006	0.00	CS2006	0.00
CS2007	0.06	CS2007	0.00
CS3001	0.00	CS3001	0.00

Percentage usage of HSM by Consortium for August 1999	
Consortium	% Usage
CSE002	1.01
CSE003	0.16
CSE004	1.25
CSE024	1.14
CSN001	11.34
BADC	19.07
CSN003	65.61
CS2002	0.00

## Appendix 3

<u>Percentage PE usage on Turing by Reserch Council for August 1999</u>			<u>Percentage CPU usage on Fermat by Reserch Council for August 1999</u>		
<u>Research Council</u>	<u>% Usage</u>		<u>Research Council</u>	<u>% Usage</u>	
EPSRC	62.03		EPSRC	86.75	
HPCI	0.42		HPCI	0.05	
NERC	37.00		NERC	13.08	
BBSRC	0.42		BBSRC	0	
PPARC(Class2)	0.13		PPARC(Class2)	0.12	

<u>Percentage Disc allocated on Turing by Research Council for August 1999</u>			<u>Percentage Disc allocated on Fermat by Research Council for August 1999</u>		
<u>Research Council</u>	<u>% Allocated</u>		<u>Research Council</u>	<u>% Allocated</u>	
EPSRC	72.77		EPSRC	73.48	
HPCI	1.61		HPCI	2.06	
NERC	25.06		NERC	24.10	
BBSRC	0.50		BBSRC	0.18	
PPARC(Class2)	0.03		PPARC(Class2)	0.18	

<u>Percentage HSM usage by Research Council for August 1999</u>		
<u>Research Council</u>	<u>% usage</u>	
EPSRC	3.56	
HPCI	0	
NERC	96.02	
BBSRC	0	
PPARC(Class2)	0	

**Appendix 4****Support Used to end of August**

<b>Project</b>	<b>Used</b>
cse009 GR/M07441 Catlow	0
cse006 gr/m05201 Briddon	0
cse002 gr/m01753 Gillan	<b>22</b>
cse011 GR/K52317 Williams	<b>2.18</b>
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	<b>7.97</b>
cse030 GR/M56234 Cates	<b>2</b>
cs2002 PTMP Lyne	<b>0.25</b>
csn005 GR9/2909 Davies	<b>5</b>
cs2005 ISAAG Walsh	0
cse003 gr/m01784 Taylor	0

**Training Used to end of August**

<b>Project</b>	<b>Used</b>
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	<b>4</b>
cse030 GR/M56234 Cates	<b>4</b>
cs2002 PTMP Lyne	0
cs3001 - Staveley	<b>3</b>
cs2005 ISAAG Walsh	0
cs2007 SNOW Choularton	<b>1</b>
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	