5. COMPUTER STATISTICS

IBM SYSTEMS 17/5/82 - 14/6/82

Weekly availability is uptime/168.

SYSTEM AVAILABILITY - % of 672 hrs available

MVT - 91.7%, CMS - 93.8%, ELECTRIC - 86.9%.

MVT THROUGHPUT

Average jobs/week	11580
Average CPU hrs/week	190

TERMINAL SYSTEM USERS

	CMS	ELECTRIC
Registered users	768	1236
Active users	371	497

SERVICE LEVELS

Percentage of prime shift short jobs not turned round inside guideline:

MVT Batch	Core size	P12	P10	P8
	0 - 210k	5.7	11.0	2.9
	212k - 350k	-	7.8	2.0
	352k - 560k	-	2.1	1.0

TERMINAL SYSTEMS

Response to trivial command during peak period:

CMS	Week 1	Week 2	Week 3	Week 4
% <1 sec	96.0	95.5	95.4	95.4
% <3 secs	99.8	99.8	99.8	99.9

ELECTRIC				
% <2 secs	81.1	84.7	88.5	60.8
% <5 secs	91.6	93.7	95.8	76.6

USAGE

Cumulative totals are for current financial year - 10 weeks to date.

Board	MVT 195hrs	ELECTRIC AUS	CMS AUS	
ASR	86	91	75	
Engineering	175	68	80	
Nuclear Physics	1175	677	468	
Science	196	178	112	
Central Funding	51	120	1192	*
NERC	34	28	43	
External	28	27	59	
TOTAL	1745	1189	2029	

* These entries include some usage due to "service" functions which are strictly an overhead and should be accounted separately.

ICF SYSTEMS

AU USAGE BY BOARD - periods 8204-8206

Board	Prime	GEC	DEC-10	TOTAL
ASR	67	50	10	128
Engineering	2932	974	1858	5765
Nuclear Physics	61	78	0	139
Science	173	196	317	688
Central Funding	1817	404	388	2610
System Overheads	3318	76	550	3944
External	98	75	75	249
TOTAL	8466	1853	3198	13523

6. DIARY

IBM PREVENTATIVE MAINTENANCE DATES

Routine Preventative Maintenance will take place on the following days from 1800 - 2200 hours. Login messages on the ELECTRIC and CMS services will be issued prior to each maintenance session as a reminder.

22 Jul 19 Aug 16 Sept 21 Oct 18 Nov 16 Dec

AIR-CONDITIONING SHUTDOWN - CHANGE OF DATE

The next shutdown of all computer systems (except network equipment) scheduled for 1982 for the maintenance of air-conditioning plant is:

0800 hrs on Friday 22 Oct till late Monday 25 Oct

7. INDEX

List of articles in FORUM 20, 21 and 22

Rutherford Appleton Laboratory FORUM

COMPUTER NEWSLETTER

Newsletter of the SERC Central Computing Facility

No. 25 July 1982

1. QUESTIONNAIRE RESULTS - LIST OF WORST CASES

Having printed the results of the recent questionnaire, we have decided to highlight the areas which came out worst and to give some indication of what we are doing about it. If your own personal gripe is not included here it is probably due to the fact that your problems are special and should be treated specially by us (so contact PAO and let us help).

Computing Division Seminars

This question received the worst rating, which is not surprising since the seminar series at RAL had lapsed. It is intended mainly for geographically local users but while we do not publish to all, there is no reason why any user should not come if visiting RAL on the appropriate day. We have revived the series now on a monthly basis and information is sent to RAL site and neighbouring laboratories. We hope we have made the series interesting and informative.

Hardcopy Terminals at Workstations

This question related to availability of the device. However, it was not clear from the replies whether users wanted more fast teletype devices for use as alternatives to lineprinters, whether they wished to record their terminal sessions on hardcopy or whether it related to Tektronix hardcopy devices. Traditionally, users have had to provide their own terminal equipment (except for ICF and main lineprinters). We are willing to look into the provision of more equipment if we know what is wanted so please either contact PAO or write directly to me and let us know what, if anything, is required.

Home Terminals

Again this related to availability. RAL do have a limited number of portable terminals for use in special cases but we cannot reimburse telephone charges etc. If there was sufficient demand we could consider increasing this number, so let us know if you are interested.

Network Reliability

This problem occupies a lot of our time. As you probably know, steps are in hand to set up a National Network with proper controls and statistics. We are all working towards a more reliable service. Since a user sees a combination of the reliability of a variety of items (terminals, computers, lines, modems, software), the perceived reliability tends to be poor.

ELECTRIC response

We are aware of the problems there have been in this area. However, with the advent of CMS and the prospect of closing ELECTRIC sometime in the forseeable future, we do not intend to do any work to improve the situation. The solution is to move to CMS as soon as possible.

CIGAR

The main criticisms here are lack of an index and various parts being out of date. We intend to rectify both faults.

NETSTAT

Until recently the space allocated to RAL in the NETSTAT region was very limited (much less than that allocated to Daresbury). Consequently we were not able to put as much information there as possible. The situation has improved now but it is still not always possible to update the information quickly enough. RAL intend to reinstall the ansaphone system which will be kept up to date with status information.

Flow of Information

With such a large user population, most of which is geographically remote, there is a constant problem of information dissemination. The methods we use at the moment are:

FORUM - Monthly to all users

News Bulletins - Mostly printed at workstations. Contain immediate transitory news.

Central Computers Representatives Meetings - Meeting of Group Representatives who should be passing on the information to the users they represent.

Central Site User Meeting - A monthly meeting of representatives of users based at RAL. They also should pass back useful information to co-operating groups.

User Liaison Committee - Meeting to advise the Computing Coordinator of User Views. Chairmen of the previous two meetings attend.

Any practical suggestions on ways of improving the

flow of information are always welcome. I will personally be very interested to hear from anyone.

Resource Management Assistance

Some people have had problems with allocations and related subjects. There is evidence to suggest that a part of the problem is the misconception that RAL are able to alter (especially increase) allocations on request. This is not the case. RAL are bound by the agreed yearly allocations which are made by the Boards. If you run out of time you should go back to your Board first as there is nothing that RAL can do to help.

However, we do hope to improve the way in which we service all queries, especially providing cover for people who are absent. An idea we are pursuing is the creation of a central Problem Management system whereby all calls to the Division are handled centrally and this central group are responsible for ensuring that the problems are solved satisfactorily.

IBM File Transfer

We are aware of bugs in this area and of the difference between the facilities on CMS and MVT. We are taking steps to improve things.

Lineprinter Turnround at Remote Sites

This seems like a problem that can be solved by the local users. We believe that one of the major difficulties is the scheduling of output, with the possibility of a local user at the console over-riding settings and getting his 10000 line listing out in the middle of the day. It would be possible for us to remove the ability to reschedule at a workstation, but feel that, in general, users would prefer to retain the ability, in spite of the problems. Please let us know if our understanding is wrong.

Current problems with the rerouting of VNET output are being solved.

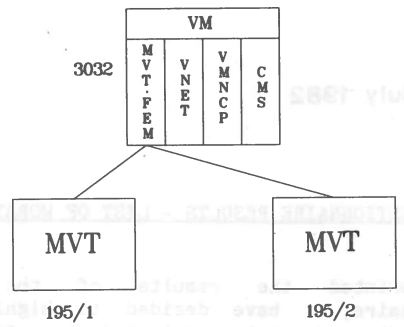
R E Thomas - User Interface Group

2. CENTRAL COMPUTER REPLACEMENT

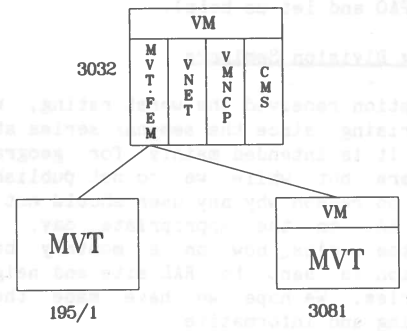
At the May meeting of Council, approval was given for the purchase of an IBM 3081D to replace our 360/195s. This machine is a 16Mbyte dual processor with slightly less cpu power than two 195s. The slight decrease in cpu power will be partially offset by the extra memory and channels.

Council also gave financial approval for the purchase, subject to detailed technical investigations, of an ICL ATLAS 10 computer. This is the Fujitsu M380 , an IBM-compatible machine marketed in the UK by ICL. It has a single processor 2.5-3 times the power of a 195. If this machine is purchased, delivery would be in mid 1983.

The replacement of the 195s will take place in several steps over about three months. The 3081 is due to be delivered on 6th July. After acceptance tests , it will be connected to the system during the weekend 17/18th July and 195/1 will be disconnected at the same time. This will require the system to be down for about 24 hours for the necessary recabling. For the next week , software testing will be carried out and the user service will be restricted to the 3032 and 195/2. After satisfactory software testing, the 3081 will be connected to the FEM and this configuration will run for about one month (Stage 1).

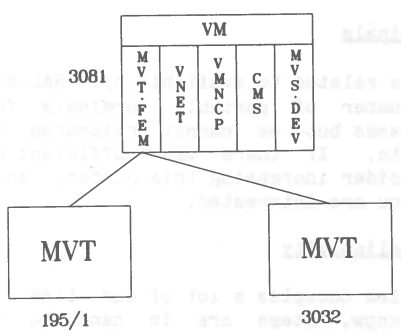


1 Present Configuration



2 Stage 1

The next stage (Stage 2) will be to swap the roles of the 3032 and 3081. The 3081 will run the current 3032 VM system but its greater power will enable it to run a bigger MVT batch system and an MVS development machine as well as improve CMS response. The 3032 and 195/2 will run native mode MVT. At this stage the throughput of the system will be greater than at present so any backlog that builds up during installation should be cleared.



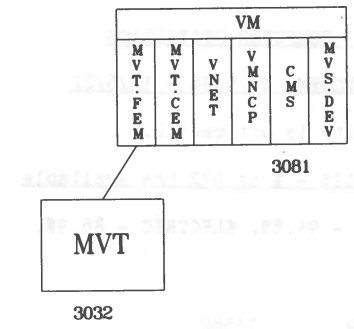
3 Stage 2

The final stage (Stage 3) will be to disconnect 195/2. To achieve maximum throughput on the 3081 it will be necessary to run two MVT machines under VM to use the 3081's two processors most efficiently. In this stage the system should have about 13.7 Mbyte for batch jobs.

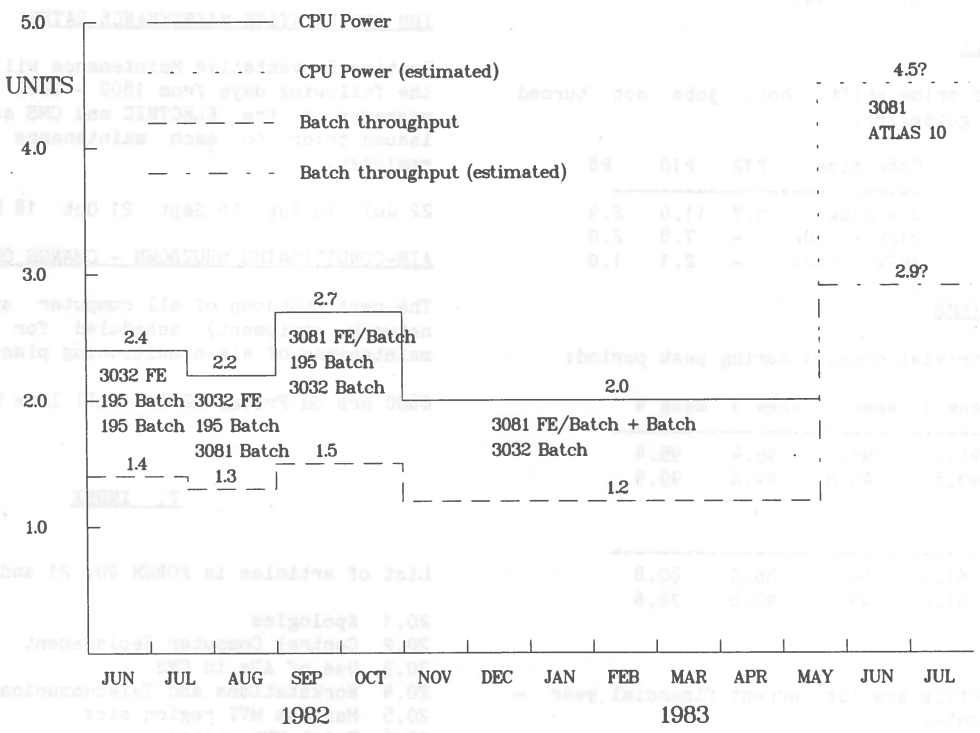
The graph below shows how the CPU power and the batch throughput should vary over the next year.

The air conditioning maintenance scheduled for September will be postponed until the end of October when both 195s will be removed.

John Gordon - User Interface Group



4 Stage 3



5 Anticipated change in "usable" cpu power and batch throughput

3. MVT BATCH USAGE

Details of MVT batch allocations and usage are publicly available on-line. In ELECTRIC the file JB=GRANTS may be examined for particular MVT accounts in the usual way. In CMS the command 'MVTGRANT acct' has been supplied to provide similar information. Further details are available in the relevant HELP file. For both cases the usage figures are updated weekly after the accounts run. Allocations reflect the latest available information.

Keith Dancy - Resource Management

4. DECNET - REDUCTION OF SERVICES

The DECnet concentrator at RAL(DN82) was removed on 1 July. All known dialup and directly connected users were informed of the new arrangements for them to obtain access to the Edinburgh DEC-10.

The similar concentrator at UMIST will remain in service for a further short period until users who rely on it for access to the DEC-10 are able to use the recommended method via the SERCnet and the GRETNA Gateway(EDXA). Users of this service will also be informed of the closure date.

Jed Brown - User Interface Group