

Rutherford Appleton Laboratory

FORUM

COMPUTER NEWSLETTER

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1. EDITORIAL

The Summer seems to have disappeared and here we are ready to face the 'storm' after the lull. As usual unpredictable seasonal variations have distorted the use of the facilities. In particular the IBM system has delivered anything from 160 to 350 CPU hours per week during the period.

Machine performance has been generally good across all facilities with no really bad situations arising.

The need to change the image of FORUM is highlighted in this issue with an article summarising the views of User Support Group on how this should be achieved. I would like to make a personal plea to any of our readers who wish to contribute to send their comments and views to me.

Readers will also discover in this issue that one can still apparently get something for nothing. The zero-cost upgrade of the IBM 3081D will probably be as baffling to you as it was to us. However it almost certainly will happen and we eagerly await the outcome. Unfortunately we are not aware of any such possibilities involving DEC, GEC or PRIME.

The move to Rev 19.1 of the PRIME Operating System has not been as smooth as we would have liked. The present situation is summarised in this issue, and to the best of our knowledge we have overcome the worst of the difficulties. Any users who are still in trouble should contact RAL.

Mike Jane - Head of User Support Group

2. DIARY

- 17 Oct Central Computing Committee meeting
- 19 - 20 Oct ELECTRIC/CMS Conversion Course
- 24 - 27 Oct IBM New Users Course

ICF SYSTEMS

AU USAGE BY BOARD - Periods 8304-8308

Board	Prime	GEC	DEC-10	TOTAL
A S R	91	41	31	164
Engineering	5294	2009	4393	11697
Central Funding	2720	678	799	4198
Nuclear Physics	64	23	0	88
Science	180	408	185	775
External	125	104	0	230
Systems Overheads	2842	192	893	3929
TOTAL	11316	3455	6301	21081

IBM SYSTEMS 25/7/83 - 21/8/83

The statistics presented in this section are being reorganised in order to present more relevant information on system usage. To this end the electric user and response graphs have been removed. The statistics in the next issue will be in the new format.

A P J Lobley - Capacity Performance Section
Computer Services Group

MWT - 97.0%, CMS - 99.6%, ELECTRIC - 90.8%.

MWT THROUGHPUT

Average jobs/week 8564
Average CPU hrs/week 299
Average backlog on Monday mornings 54hrs 14 min

TERMINAL SYSTEM USERS

Registered users	CMS	ELECTRIC
Active users	1214	1103
	524	199

MWT BATCH SERVICE LEVELS

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

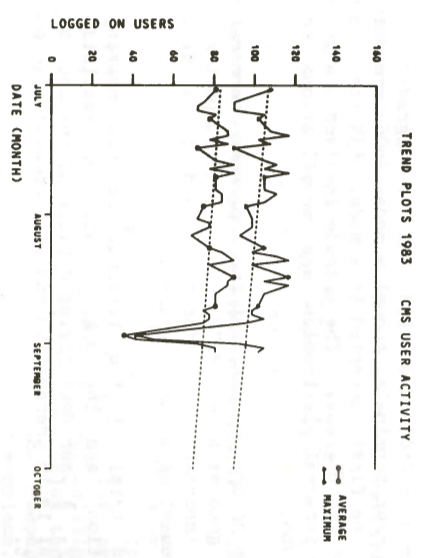
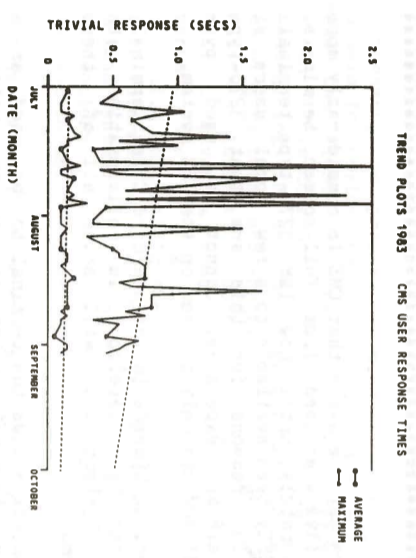
Setup Jobs	Size	P12	P10	P8
0 - 210K	-	13.2	11.3	1.8
212K - 560K	-	3.0	1.8	1.8
562K - 1500K	-	5.8	2.4	2.4

Non-setup jobs	Size	P12	P10	P8
0 - 210K	-	2.2	6.3	0.4
212K - 560K	-	10.8	0.2	0.1
562K - 1500K	-	-	4.9	0.3

USAGE

Cumulative totals are for current financial year, 20 weeks to date.

Board	MWT	ELECTRIC	AUS	CMS
ASR	150	92	486	486
Engineering	404	83	413	413
Nuclear Physics	3113	289	2563	2563
Science	330	109	703	703
Central Funding	17	30	2584	2584
NERC	34	8	188	188
External	33	13	146	146
Overheads	26	39	2256	2256
TOTAL	4107	663	9339	9339



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* 3. EXCHANGE OF 3081DS *
* OR HOW TO GET SOMETHING FOR NOTHING *

To understand how you can get something for nothing, consider the following parable:

Once upon a time, a company sold threshing machines to farmers all round the world. As it was a large company, it only updated its price of threshing machines at intervals. Consequently, if there were wild fluctuations of exchange rate between countries, it was possible for the price of threshing machines to vary significantly in different countries. Normally the company managed to review the prices in time, but it was possible to buy a threshing machine in one country and sell it in another making a modest profit. However, the average farmer was unable to understand the complexities of high finance sufficiently to take advantage of such variations, particularly as he had no experience of selling threshing machines abroad.

The situation was further complicated by the company's benevolent attitude to agricultural colleges. It gave such establishments a discounted price. Some people said this was because the company wanted to make sure that new farmers were aware of the possibilities opened up by the use of threshing machines, while others rather maliciously said it was to make sure that all young farmers coming out of college had only used that company's threshing machine and so would continue to buy them in the future.

Be that as it may, agricultural colleges could buy threshing machines cheaper than young farmers could. To stop colleges selling the machines to farmers, the company insisted that a college paid back the discount if it resold it, taking into consideration the age of the threshing machine.

Of course, if the amount for which you could sell the threshing machine to a farmer (less the discount that you paid back) was the same as the discounted cost of a new threshing machine, the agricultural college could sell its old machine and buy a new one at no cost.

I assume you have followed me so far. Now the real situation was nowhere near as simple as that! Depending on the time of year, the number of threshing machines in stock and how philanthropic the company was feeling, the discount given to agricultural colleges varied. For example, you could buy a machine one day at one price and pay more or less a year later.

Upon this scene came a veritable financial wizard who knew farmers in many countries. By buying second-hand threshing machines from agricultural colleges in one country and selling them to farmers in another it was possible for the wizard to give a college more money than it needed to replace the threshing machine it had sold and still make a profit for the wizard. As threshing machines were not always easy to come by, the wizard found this relatively easy to do.

You may ask who was the loser in this parable. The surprising answer is nobody. The wizard made a

profit. The college got a new machine. The company sold another threshing machine. It is a pity that all life is not like this!

In October, the current 16 Mbyte 3081D is being replaced by a 32 Mbyte 3081D at no cost to SERC.

Bob Hopgood - Head of Computing Division

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* 4. PROFS *

Computing and Administration Divisions are jointly establishing a six-month pilot project in office automation embracing a limited set of office workers on the RAL site. The system under evaluation in the pilot is IBM's PROFS package; PROFS being an acronym for Professional Office System. It is one of IBM's strategic products which grew out of a joint venture between IBM and AMOCO Labs in the USA. It is widely used both within IBM and by its customer base, and is a mature development having been through about ten major releases.

PROFS consists of a set of VM/CMS - based application programs designed to support a wide range of office activities via full screen terminals. In machine terms it requires a configuration equivalent to an IBM 4331 or larger, a minimum of 1 Mbyte of main storage, and discs for which there is VM/SP support. Networking to terminals, printers etc. uses VNET. As originally conceived, PROFS had a command driven interface but this has been replaced by a menu driven system which makes extensive use of the PR keys available on 327x terminals. Its origins do, however, mean that PROFS can be used on line-mode devices, though it is less comfortable to work in this environment.

A major feature of PROFS is its relationship to other well-known IBM products. Since it uses the standard CMS filestore for storage of information, many housekeeping functions and CMS utilities are available to the PROFS user. For text production, it uses IBM's Document Composition Facility (DCF) which grew out of SCRIPT. Among the features available are alignment, pagination, multi-column layout, various styles of headings and lists, indexing, several macros and spelling verification. PROFS overall design is sufficiently flexible to cater for a broad spectrum of potential users. At one extreme someone with little or no knowledge of computer systems can use it very effectively and be completely unaware of the substructure on which the system depends. However, an expert user is free to exploit his knowledge of CMS and DCF; for instance, the full power of the CMS Editor is available to him as well as any DCF control words he may care to use for text preparation.

The office activities on which PROFS will be brought to bear during the RAL experiment include:
* communication between office professionals using electronic mail

- * document management in all its aspects; specifically their creation, automatic distribution, filing and retrieval
- * resource scheduling eg. conference room reservations, plus the option of personal/group calendars on the computer
- * information services based on existing administrative and management databases accessible through PROFS, plus full-text reference material brought into machine readable form using OCR equipment

The pilot project is nearly ready to start. The installation of wiring and terminals is now well advanced and the PROFS package has been running for some time on the 3081/Atlas 10 complex. About 70 users are participating in the experiment drawn mainly from General Administration, Finance and Personnel Sections, plus selected Heads of Division, secretaries and typists. Although it is possible to use a range of terminals with PROFS from standard VDUs to Displaywriters (IBM Word Processors), the pilot will concentrate on using IBM 3178 Model C2 full screen terminals. Approximately 30 are being installed together with matrix and letter-quality printers to give an overall terminal printer ratio of about 4:1. The IBM Personal Computer will be evaluated as a managerial workstation and some standard VDUs will be tried. As the pilot progresses, further decisions will be taken on its possible expansion.

David Leech - Office Automation / Unix Group

- * boring
- * technical
- * IBM-orientated.

It has been said in the past that FORUM is too:
* boring
* technical
* IBM-orientated.

A project is now underway in User Support Group to update FORUM and attempt to redress some of these criticisms.

We have spent some time analysing the problems with FORUM, and have a series of proposals which we intend to implement. We have already made some of the smaller changes; May's issue included the Table of Contents on the front page, and the first issue with an Editorial column was in June. Also, in an attempt to cover a wider area of interest, we have tried to include more news items without a bias towards the mainframe computers. Major changes will be introduced in the first issue of 1984.

OBJECTIVES

First, we tried to define the function of FORUM. As the RAL Computing Division's Newsletter, its main function should be to provide an information service to all our computer users.

It should be interesting as well as informative, and should include articles from a variety of sources over a wide range of topics.

PROPOSALS

Improve FORUM's appearance. This includes:

- * a modified name
- * a new front page
- * an improved layout.

As from January 1984, FORUM's name will be modified annually to include the year. Hence next year, FORUM will be called FORUM 84.

The front page will be redesigned, and will contain only the Table of Contents. The inside front cover will include the Editorial, the names of those on the editorial board, dates for the deadlines of future editions, and a preview of special forthcoming articles.

We will investigate how to make the headings more prominent and the possibility of using different size characters, and try to introduce more diagrams and photographs to illustrate the text.

However, in improving the layout, we are restricted by the facilities available; we want the process to be as automatic as possible, to keep "pasting-up" time to a minimum, for example.

Include more user contributions.

This will be done in two ways; articles from users on their experiences in the computing environment will be encouraged and we will also have a "letters to the Editor" section. To start this off, if you have any specific suggestions for changes to FORUM, or feel strongly (one way or another) about any proposal in this article, please mail your comments to FORUM @ RAL. If you do not have access to SERCNET, then letters may be sent to The Editor of FORUM, R27, RAL, Chilton, Didcot, Oxon, OX11 0QX.

Each December issue will include an index of all relevant articles over the past year.

We will choose a "theme" for two or three FORUMS during each year; these will be publicised, and articles relating to that theme will be requested. Suggestions for themes include Graphics, a specific computer range (eg GECs), HELP systems, and the Network.

We would also like to have a regular section, covering all the different machine ranges, where a small number of topical user queries and answers are printed.

Users may also find a list of "who to contact at RAL for what, and how to contact them" useful. Regular inclusion of this list is being considered.

If you have any comments on any of the proposed changes to FORUM, please mail them to:

FORUM @ RAL

Jacky Hutchinson - User Support Group

