

Newsletter of the SERC Central Computing Facility

No. 14 August 1981

3. COMPUTER STATISTICS
IBM SYSTEMS 15/6/81 - 12/7/81

Weekly availability is based on 40% uptime/168. MVT availability is based on 40% contributions from each 195 and 20% from the 3032.

SYSTEM AVAILABILITY

MVT - 92%, CMS - 94%, ELECTRIC not yet available.

USAGE FOR CURRENT FINANCIAL YEAR

Board	MVT 195hrs	ELECTRIC AUS	CMS AUS
ASR	220	272	18
Engineering	254	136	8
Nuclear Physics	2137	2168	645
Science	489	725	327
Central Funding	59	359	1601
NERC	57	147	80
External	68	280	15
TOTAL	3284	4087	2694

LIBRARIES AND PACKAGES

The following obsolete HYDRA version 3.11 utility and dummy routines were removed from SYS1.CERNLIB on 2 April:

LIBRARY	NAME	LIBRARY	NAME
DOSMAP	JQWIND	KQFORL	KQLAST
NOBANK	QBLQWV	QDRPOP	QNAMEX
OPAGE	QTCCHD	CTIDY	QTITLE
ROEND	ROTELL	TQUSER	QVERIT

HYDRA is supported by High Energy Physics Division.

SMALL ITEMS

Abend Aid - Computing Division has been evaluating the abend processor called Abend Aid which was installed for a month's trial period (ended 17th July). During this period the procedures FGCLG (FORTC) and FHCLG (FORTH) have been modified to include the necessary JCL to invoke Abend Aid. Some users have had problems when Abend Aid was unable to obtain enough core to run and therefore returned control to OS, causing a dump to be printed (Abend Aid is invoked via the SYSDUMP DD statement). Comments about the information supplied by Abend Aid are welcome and should be made as soon as possible.

VM Spool - Files placed in the VM spool are regarded as transient. If the addressee does not remove them within a reasonable time (deliberately undefined) they will be purged.

Short Job Experiment

For an experimental period it is planned to try raising the time limit for short jobs to 5 minutes. This will be tried about the last 2 weeks in August. Exact dates will be published nearer the time.

Data Editing System

By Monday 3 August the Data Editing System will have been closed and users transferred to the GEC 4085 known as RLGB. It is no longer possible to make calls to CMS or ELECTRIC from the Data Editing System and the network names of RLGB and EDIT no longer exist; although the latter could be retained if there was sufficient user demand.

Board	Prime	GEC	DEC-10	TOTAL
ASR	56	92	-	148
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Nuclear Physics	-	45	557	701
Science	99	562	1704	4503
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1. CENTRAL COMPUTER REPRESENTATIVES
MEETING NOTES

INTRODUCTION

Changes in Computing Division

Mr Hallstone retired as head of Resource and Data Management Group on 1 April 1981. It was decided to split the functions of the group so that databases, text processing and the Distributed Computing System Programme are now in Applications Group and Dr Mike Jane is responsible for Resource Management as well as Telecommunications. Paul Thompson has taken over as Operations Manager and Geoff Lambert has moved into the Resource Management area. Doug House remains Operations Group Leader. Full details will be published shortly in a revised Section A of CIGAR.

Computer Review Working Party Report

This report has now been accepted by SERC and is being implemented although the timescales have been moved back by about a year. The division is actively preparing Operational Requirements for a Central Filestore system and for a machine to enhance the front-end capability and provide an introduction to MVS. These will be issued at an appropriate time, when we know funds are available. Dr Manning is SERC's Computing Coordinator and is currently working out the details of the meeting structure which will provide him with the necessary information and allow the users to have a voice at a high level. There will be User Liaison Committees at Daresbury and Rutherford, replacing the old Computer Advisory Committees, with representatives from the main subject areas and machine interests. A representative may be appointed from the Central Computer Representatives Meeting to express the views of the users of the central batch system. This may lead to the appointment of a user chairman.

The Last Six Months

The major advances have been the extra memory for the 3032, the introduction of VM/SP and the start of the CMS service. Unfortunately, ELECTRIC response continues to be a problem in spite of our efforts. The imminent arrival of VNET, when all those authorised to use CMS will have access, means that our best hope of improvement is to move these users to CMS as soon as possible.

Discussions have gone on within the community on

the control systems for use with ELECTRIC and CMS. These have now been agreed and will be introduced in September. They should have a marked effect on the response times.

HARDWARE

The new Memorex disk drives were installed in February, but without the fixed heads. Memorex have not yet supplied the fixed heads and are now paying liquidated damages. Delivery has been promised at the rate of one pair per fortnight and the first pair left the United States on 26 June. We will be the first European site with this equipment installed. A second fixed head file was installed in June.

Performance

There were problems with the Memorex disk controllers.

There was a problem with the IBM 3350 disk control unit early in July, which resulted in the MVT system being unavailable for 9 hours. The failure of the recovery procedure is still being investigated.

The next shutdown for the six-monthly air-conditioning maintenance will be from Friday 11th to Monday 14th September.

SYSTEM SOFTWARE

Work is still in progress to get the new version of the Fortran H compiler running; there have been problems with it and these are being investigated by IBM.

Fortran 77

The VS Fortran compiler has now been delivered for a one month's trial and is running under CMS (type HELP FORTVS for information on how to use it. NEWS FORTVS contains additional information). Part of the trial will be to ascertain whether the compiler will run under MVT (as MVT is no longer supported by IBM, no assumption can be made that new products will run under it). A decision on whether we will obtain this compiler will be made following the trial period and at that stage we will decide on which (if any) system it will be installed.

VM AND CMS

FORUM 12 contains an article on the introduction of CMS to users. The only change in the information already supplied there is that the current aim is to register not more than 10 users in any one week. We are trying to ensure that response remains within the stated guidelines. This policy will be reviewed at the beginning of October. The work of registration will be assisted greatly if members of collaborative groups arrange to apply for identifiers together. The following information must be supplied by users requesting CMS registration:

surname, all initials, style, title, address (work), telephone number, existing MVT account number, and identifier, method of output distribution (post, courier or RAL pigeon hole), logon password (maximum of 8 characters - if not supplied it will be set to be the same as the userid).

The userid in CMS is normally chosen to be the user's initials. Registration information should be sent to the Program Advisory Office.

Details about the distribution of manuals will be published shortly in a revised Section A of CIGAR.

Work continues on providing new facilities in CMS and improving existing ones. Changes made since the last meeting are too numerous to list in detail but full information is contained in the NEWS files.

CMS/SP was installed in February, making the EXEC2 processor and the SP editor XEDIT available. CP/SP was installed in April.

The Editor

The IBM editor XEDIT superseded the Perkin-Elmer editor (invoked via the EDIT command) and should be used in preference. It is not possible to guarantee that the Perkin-Elmer editor will work without problems under VM/SP. It will be withdrawn at some future date.

Dumps

A new VM dumping system was introduced in March. The SYSDUMP1 virtual machine now performs regular full-pack disk dumps and a nightly incremental dump of all minidisks, copying only those files which have been changed since the previous dump.

SCRIPT

The Waterloo supported version of SCRIPT has been ordered and we are awaiting delivery.

Tape Access from CMS

Access to tapes is not generally provided for CMS users. The only exception which may be made is in the case of users transferring packages to CMS from elsewhere, in which case the Program Advisory Office should be approached to see if the necessary arrangements can be made. The reason for this is that we do not have sufficient drives to dedicate more than one drive to CMS and that would almost certainly give unacceptable performance.

ELECTRIC

During February an experimental attempt was made to improve ELECTRIC response by preventing short jobs from running on one of the 195's during the afternoon. The experiment was terminated prematurely when it was found that, although there was a significant improvement in response, batch job turnaround suffered unacceptably. ELECTRIC performance has been degraded since the introduction of VM/SP and fixes for this are being actively sought.

PRINT PUNCH and TAPE Commands

It is intended to provide two more System Parameters to the ELECTRIC commands PRINT, PUNCH and TAPE. COMMENT will be a plant which allows text to be provided on a JCL comment card (//*) following the JOB card. USERJCL will be the name of a Supply to enable a file containing JCL statements to be inserted after the JOB card and before the line to which that COMMENT applies. The reason for this is to enable workstations with independent file stores to read appropriate control information. It is not a change to the ELECTRIC Program, only a skeleton file used by the commands mentioned above. This will affect any users who have files which already use the names COMMENT or USERJCL.

DISKS

The 3350 equivalent disks mentioned at the last meeting and in Forum 11, have been installed. As previously stated, the aim is to attempt to eliminate the use of SETUP disks. This involves the expansion of the use of public space. It will also entail some changes to recommended user practices.

Revised use of FREEDISK

We intend to adopt the following rules. Their purpose is to remove the problem of identifying which of the volumes for short-lived datasets to choose.

- New datasets must be catalogued.
- New datasets must specify VOL=REF=FREE
- Old datasets should have no reference to the VOL parameter.
- Dataset names must have the prefix corresponding to the month name, eg JUL.DATASET.
- Datasets not in the catalogue will be deleted.
- Datasets will be deleted if unused for 15 days.
- Datasets will be deleted at the end of the second month after creation, eg JUL.DATASET is deleted at the end of August.
- Unopened datasets will be deleted.
- The maximum permitted size of a dataset is 200 tracks.

Note that the fourth rule will prohibit the currently legal form which begins USFR. Such names will be allowed until 1st August 1982. Also note that the actual value associated with VOL=REF=FREE is a system parameter which will change with time (not too frequently). This is why it is only used at dataset creation and relies on the system catalogue to locate the dataset subsequently. The fifth rule will be enforced from 1 January 1982.

Currently FREEDISK is provided on 3330 disks. The new rules will begin to operate when the it is transferred to 3350's.

UNIT=WORK

The disks used for temporary datasets specified by UNIT=WORK are now 3350's. We are in the process of defining what is a reasonable limit to allow. The limit of 200 tracks(3.8Mbytes) given in CIGAR can be relaxed. It is now permitted to use up to 5 megabytes per job. When the revised chapter of CIGAR is distributed a further relaxation may be expected. Jobs requiring more than 10 Mbytes but less than 100 Mbytes are catered for as described in the following section.

Use of Demountable Disks for Work space

The MVT Batch System now has a vastly increased amount of workspace. The JCL will still require the parameter UNIT=WORK, but there will be much more workspace available. It is our belief that to all intents and purposes this will make continued use of the demountable 3330 disks for workspace unnecessary. Since one of the principal reasons for purchasing the extra disk space was to eliminate as far as possible the use of SETUP disks, we shall at a very early date withdraw the disks USDSK2 and USDSK3. Users should modify their jobs accordingly.

In order to avoid the situation of two jobs attempting simultaneously to use very large amounts of work space, jobs needing more than 10 cylinders of workspace in total must include the card /#SETUP TEMP,01 This is somewhat similar to the TEMP30 card mentioned in CIGAR. We expect to be able to relax the limit of 10 cylinders in the light of experience.

Users should not make any particular assumptions about the device type. Initially we shall use the new 3350 equivalent disks for work space. But later on as the new disks are organised it is likely that the UNIT=WORK areas will move back to 3330s. Generally the DCB parameters for blocked card images would be appropriate for either type of disk. DCB=TRACK30, however, would be wasteful of space on a 3350 (since the track size there is 19069). We are therefore introducing a new model DCB for VBS datasets, DCB=VBS, which will have a blocksize of 6008 and therefore use space efficiently on either type of device. (A 3350 has 30 tracks per cylinder, which makes a cylinder on a 3350 about 0.5 Mbyte, ie twice the amount on a 3330).

It is very important to stress that you do not have exclusive use of the work areas. Under no circumstances should users attempt to scratch any VTOC. All work areas will be cleared each time the

system is IPL'd so the problem of residual datasets not being cleared following a system break should disappear.

It may turn out that there are a few users for whom the new arrangement does not cater adequately. Please report any such difficulty through the Program Advisory Office.

New Dataset Naming Conventions

We intend to adopt a new set of conventional dataset names for use on public disks, which will eventually phase out the current convention. It forms part of a practice of having all permanently mounted datasets catalogued. Under the new convention dataset names will be of the form:

GROUP.ID.ETC

where the suffix ETC can consist of one or more components (but components should not be generated unnecessarily as this is a greater overhead). The prefix GROUP would be shared by a group or community of users and must be agreed with User Interface Group (contactable via the Program Advisory office). Further details will be published in a revision of chapter C6 of CIGAR.

New Model DSCB

A new model DSCB has been introduced. If the user specifies DCB=VBS the dataset will be given DCB parameters which are suitable for unformatted I/O on any direct access storage device, with reasonable efficiency of I/O and space allocation.

TAPES

It is intended to move the tape library to the new tape store during the air-conditioning shutdown in September.

We are considering the possibility of withdrawing the 7-track tape drives and we would like to know the reaction of users to this proposition. Anyone with a continuing requirement to use 7-track tapes should contact the Program Advisory Office.

WORKSTATIONS AND TELECOMMUNICATIONS

VMET Installation Programme

With the Systems Development for the VMET program now nearing completion, an implementation program will begin shortly. Because of a feature of the design of the DKNCP/MAST interface it has been found necessary to adopt certain criteria in choosing sites for the initial connections. As a result the first batch of sites will be those systems which are connected directly to the SERC Network and those HASP workstations which do not require access to ELECTRIC or ++H commands.

Network HELLP

Those systems connected to the SERC Network now have available certain services which may be of assistance. The DEMO account on RLBG has a small number of files which give details of such things as Error-Codes, Network Addresses etc. To access these files login as user DEMO on PACX service 67, i!RLBG or i!4.ITP from the Network.