MICOM PORTSELECTOR INSTALLED

Over the summer, a communications switch was installed and a number of on-campus computer systems were connected to it. As a result, when you access an ACF system it may well be through the MICOM MICRO600 Portselector. Installation of the MICOM -- or "NYU Computer System Selector" -- began last June. Since then, the ACF systems, and other University-affiliated systems, as well, have gradually been connected to the Portselector.

Terminals which are, or can be, connected to the portselector include private terminals used with dial-in equipment; the "hardwired" ACF terminal clusters which have been obtained by departments particularly for their own members' use; and many of the terminals at the ACF public work areas. (Most terminals at 14 Washington Place are wired directly to the CYBER system.)

The ACF systems which are connected to the MICOM are the IBM 370/158 and 4341, the CDC CYBER 170-720, and the DEC VAX 11/780. Other on-campus computer systems which are connected to the Portselector include the Computer Science Department's HP-2000 and DEC PDP 11/34 (UNIX); and a CDC 6600, two DEC VAX 11/780's, and a DEC PDP-11/40 (ELF), each affiliated with the Courant Mathematics and Computing Laboratory (CMCL). The Computer Science Department's
DEC VAX 11/750, as well as the Graduate School of Business Administration's DEC 2050, will be connected to the MICOM in the coming months.

Nearly all dial-in use of the ACF systems is now routed through the MICOM. The new dial-in numbers are listed in the Information and Directory at the end of this issue of the Newsletter.

At present, there are over 150 terminals hardwired to the MICOM, and over 30 dial-up lines. In addition to these, there are over 200 ports through which ACF systems are accessed; many of these will be added to the MICOM in the future. The MICOM is capable of being connected to 127 computers and 500 terminals, dial-up lines, and computer ports, in any of a number of combinations. Among the many considerations in the management and allocation of these lines and ports are the relative demand, system loading, and contention ratio (the terminal-to-port ratio desired).

Instructions for using the MICOM are included in the new introductory guide to the ACF systems, "ACFINTR"; in "QIAF", the introduction to the Cyber's time-sharing system; and in the VAX on-line "Help" utility (type the command "help micom"). Several on-line writeups list other changes due to the MICOM's installation. They closely duplicate the contents of the VAX "Help" entry. For further information about these writeups, see the notes on CYBER, IBM, and VAX documentation in the articles which follow.

* * *

UPDATE: ACF SYSTEMS, SOFTWARE, DOCUMENTATION

For CDC CYBER Users

Upgrading of operating system. The CDC CYBER operating system NOS was upgraded from level 518 to level 531, along with much of the software supplied by CDC. All ACF reference racks were updated to reflect the change, as were the ACF on-line "Quick Guides" and writeups. The change that will affect the greatest number of users relates to the CYBER cluster printers: now, if you wish to have your output printed on one of these self-service printers, you must include the printer's number in the "ROUTE" command. Other notable changes include "typeahead", which makes it unnecessary to wait for a prompt before entering data or commands to IAF; and an "X" command, which allows entry of "Batch" directives from any of the IAF subsystems. (Most CYBER users are in BATCH, which is the default subsystem of IAF.) For further information, check the ACF CYBER writeup, "NOS531", by using the "OBTAIN" command, or the item "NOS531" in the CYBER "HELP" utility.

Software additions and changes. Four packages were added to the software available on the CYBER from vendors other than CDC. The first, SPURT/76 (Simulation Modeling and Programming), is a comprehensive package of FORTRAN
subroutines designed for discrete system simulation. A manual, "Simulation Modeling and Programming with SPURT/76", can be obtained from the Vogelback Computing Center at Northwestern University, Evanston, Illinois 60201. A reference copy is available for inspection. See E. Friedman for more information. COFAMM (Confirmatory Factor Analysis with Model Identification), EPAP (Exploratory Factor Analysis Program), and LISREL (Analysis of Linear Structural Relationships by the Method of Maximum Likelihood), the programs of Joreskog and his associates, were installed in August. Reference copies of the manuals are available from ACF consultants in Room LC-11 Tisch Hall, Room 307 Warren Weaver Hall, and 14 Washington Place. The following non-CDC software products which were available last spring have been updated since the last issue of the Newsletter: BMDP-79, GPSS, IMSL, MINITAB, OMNITAB, SIR, SPITBOL, and SPSS.

For a list of the CYBER software, from CDC and from other vendors, as well, see the on-line CYBER writeup, "SOFTWR". The same writeup will point you to further documentation of the CYBER software products.

New and updated CYBER documentation. ACF writeups produced for users of the CYBER system since last spring include an introduction and directory to the ACF systems and facilities and guides to using BASIC, ALGOL, and the statistical package MINITAB on the CYBER system. Their "ACF document names" are "QIAF", "QBASIC", "ALGOL", and "QMINI", respectively. Three new writeups will be of interest to a wide range of CYBER users: "Cyberkit, volume 1: Hints . . . for New CYBER Users" ("CYBK1") is a supplement to "QIAF", the ACF's introductory guide to the CYBER's time-sharing system IAF; and "QXEDITA" and "QXEDITS" provide an introductory tutorial session and a summary of commands for CYBER users who wish to learn to use the text editor, XEDIT. CYBER users may also be interested in "SOFTWR" (mentioned above), and "MICOM", "QMICOM" and "NOS531" -- writeups dealing with the newly installed MICOM portselector and the upgrading of the CYBER operating system, NOS, to level 531. Revised documents include "QBATCH", "QIAF", "QFASCAL", and "QPLI". Revisions of other documents reflect a few changes due to the upgrading of NOS.

The writeup "DOCDATE", an annotated list of issue and revision dates, will help you check that your library of ACF CYBER writeups is complete and up-to-date. Since CYBER documentation is on-line, users can have a writeup listed on one of the CYBER printers. Writeups that have been printed off for distribution to users are available at several locations. For information on obtaining CYBER documentation, see the Information and Directory at the end of this Newsletter, or the ACF writeup "QINDEX".

(UPDATE continues on following page.)
For IBM Users

System changes. The ACF IBM system was modified somewhat this fall. (Last spring's conversion of the IBM system to MVS was outlined in the ACF's "MVS Conversion Guide"). The resultant changes have been detailed in the ACF writeups mentioned below. IBM users should check the on-line "IBM NEWS" periodically for announcements of further changes and of additional ACF documentation about the system. The following changes will affect the greatest number of IBM users:

1. All datasets stored on the system must be named with a WYL.GG.UUU format prefix and catalogued. For further information on dataset naming, storage, and archiving policies, see the ACF writeup "Data Set Policies", available in LC-8 or LC-11 Tisch Hall, or on-line as WYL.PB.PUB.MANUAL.DATASET. For information and instructions on renaming datasets which are not in the WYL.GG.UUU format, users should consult the ACF IBM system writeup on renaming datasets. It is available in Room LC-8 and LC-11 Tisch Hall (single copies only) or on-line as WYL.PB.PUB.MANUAL.RENAME.

2. There have been some changes in job class structure, and jobs will be cancelled if they are not run in the proper classes. Consult the writeup "ACF IBM System Job Card", the "ACF Simple JCL Guide for the IBM System", or the "Users Orientation Guide" to determine the appropriate class for a job.

3. Any job using a setup card to request either tape or disk mounts must be run in class "I" or "M" regardless of the amount of time requested by the job. See the writeup the "ACF IBM System Jobcard" for descriptions of the setup card and class structure.

Software updates. VS Cobol Release 2 is now the only COBOL compiler which is fully supported on the ACF IBM system. IBM users are urged to test programs written for COBOL compilers previously on the IBM. Some differences in JCL are associated with the new COBOL release: consult the ACF writeup "COBOL JCL for the ACF IBM System".

Among the software products from vendors other than IBM, new versions of SAS, SPSS, and TSP have been installed. Version 79.5 of SAS (Statistical Analysis System), ETS (Econometric Time Series), and the SAS Supplemental Library offer a number of new procedures. These include routines for several kinds of clustering, and for multivariate rank tests, analysis of data obtained with lattice designs, and ridge regression. In addition, several functions have been modified and some computational problems in SAS and ETS have been corrected. See the ACF statistical consultants in Room LC-11 Tisch Hall for a complete list of the new SAS routines and information. New subprograms associated with Version 9 of SPSS (Statistical Packages for the Social Sciences) include a Box-Jenkins analysis, a Manova, and a new regression procedure. McGraw-Hill's SPSS Version 7-9 Update Manual is sold at the NYU bookstore. Version 3.5B of TSP (Time Series Procession) corrects many computational errors in Version 3.5; see the ACF statistical consultants in LC-11 Tisch Hall for divergences from the published manual resulting from the update of TSP.

On-line ACF documentation for IBM users. WYLBUR users can now access the on-line IBM news facility simply by typing the command "HELP IBMNEWS". (Batch instructions are given in this issue's Information and Directory.)
ACF writeups for IBM users are being revised and expanded, and a number of new writeups have been issued or are in preparation. For example, "Using SPSS", a guide to the JCL needed to use SPSS on the ACF IBM system, became available this week. All current ACF IBM writeups, including those referred to above, are listed in the on-line writeup "INDEX". To obtain a copy of this document, WYLBUR users should "use" WYL.PB.PUB.MANUAL.INDEX and "list" it (or, for hardcopy, enter the command "list off unn cc"). Batch users can obtain a copy of "INDEX" by inserting the card "// EXEC MANUALS,NAME=INDEX" after a job card. This job can be run in any of the regular (non-fastbatch) job classes. Single copies of all current ACF IBM system documentation can be obtained in Tisch Hall, Room LC-8 or LC-11.

For ACF VAX Users

Upgrading of VAX/VMS. Over the summer, VAX/VMS and its associated software were upgraded from level 2.2 to level 2.3. The DEC manuals in all ACF reference racks were updated, where necessary, to reflect the change.

On-line documentation. The ACF VAX "Help" utility incorporates a substantial part of ACF on-line documentation for the VAX. It is easy to use and modify, has grown considerably since Spring 1981, and is being expanded and amended weekly.

In addition to HELP, a "Bulletin Board" facility has been made available on the ACF VAX. BBOARD serves as an on-line means of disseminating bulletins about the VAX from the ACF systems, operations, software, and documentation staff. Much of its content is comparable to that of "News" on the IBM and CYBER systems. For more information, see the entry "BBOARD" in the VAX "Help" utility.

Software updates. Several of the software products not supplied by DEC were also updated. These include TEDI, NAG, SCSS, and SPITBOL. TEDI is a text editor and formatter; the new version now also offers "screen editing" when used with a VT-100 terminal. NAG ("Numerical Algorithms Group") is a library of subroutines applicable to a range of mathematical and statistical problems; it has been updated to MARK 8. (See E. Friedman for further information or for a reference copy of the NAG manual.) SCSS is a "conversational" SPSS ("Statistical Package for the Social Sciences"); it is now at version 4.2. SCSS manuals are available at the Bookstore. For further information on SCSS documentation and for instructions on invoking SCSS on the ACF VAX, check BBOARD. The VAX version of SPITBOL is now at 3.5, which supports LOAD and EXIT. Programs written to run under previous versions should function smoothly under 3.5, as well. The entire SPITBOL manual has been converted to "Help" format. See the VAX BBOARD announcement of the SPITBOL update for further information and examine the "SPITBOL" entry in the VAX "Help" utility. Finally, there is a new version of SETL on the VAX. There are few changes, one of them being that a new "seq" option is now available; see BBOARD for further details.

* * *
UPDATE OF ACF USER SERVICES

Tutorial Sessions and Seminars

ACF presentations on systems and software use are announced in the on-line news bulletins (see the Information and Directory at the end of this issue for instructions). Announcements are also posted on bulletin boards at the ACF’s user work areas.

CYBER Tutorial Sessions. ACF User Services conducted a series of small-group tutorial sessions for new users of the CYBER. The tutorials, announced in the CYBER on-line news bulletins, were given four times a day, three days per week, at 14 Washington Place, and were coordinated by Frank LoPresti.

While these walk-in, no-appointment-necessary tutorials ended November 4, instructors can arrange tutorial sessions specifically for their students. The instructor should assign the students to groups of five each, and must contact Frank LoPresti at 460-7140 to arrange a schedule. To date, several pre-arranged CYBER tutorials have been given. One advantage of the pre-scheduled tutorials is that the User Services staff can adapt the session to the computational goals and backgrounds characterizing students in particular courses.

In the coming weeks the consulting staff at 14 Washington Place will be offering tutorials on the use of the text editor "XEDIT". The sessions will be given at 14 Washington Place on Wednesday, November 18 at 10:00 a.m., Friday, November 20 at 2:00 p.m. and Monday, November 23 at 6:00 p.m. Faculty, researchers, and all students are welcome. Reservations are not necessary. Additional XEDIT tutorials will be scheduled depending upon demand. They will be announced in the on-line CYBER "News".

Talks - for CYBER and IBM users. A series of informal talks planned for November and December have been aimed primarily at users of the ACF CYBER and IBM systems. These talks all take place in Room 1013 Warren Weaver Hall at 1 p.m.

Three talks concerning SPSS ("Statistical Packages for the Social Sciences"), given by ACF staff members Susan Auman and Bert Holland were scheduled for the first, second, and third Wednesdays in November. The first talk was a general introduction to SPSS; the second covered selected topics and was aimed at users of SPSS on the ACF’s IBM system; the third (November 18) will cover comparable topics but will be for users of SPSS on the ACF’s CYBER system.

A fourth talk, scheduled for Wednesday, 2 December, will deal with the use of computer graphics on the ACF CYBER and VAX systems. (No graphics software is available on the IBM at present.) Ed Friedman will describe the graphics devices and software available, and present simple examples of the use of "NCAR" and other graphics software packages. These ACF talks are being coordinated by Frank LoPresti. Contact him for further information (460-7140).
Additional Documentation Notes

Introductory guide to the ACF. A general introduction and directory to the ACF systems and facilities has been prepared for holders of individual accounts on the CYBER, VAX, and IBM. "ACFINTR" includes information on applying and renewing accounts; general instructions on using the MICOM Portselector and on logging in to each of the ACF systems; special instructions for dial-in users; and a list of the guides and writeups to which beginners on a particular system should refer. The writeup is distributed with the issuing of a new account. Single copies are also available in Rooms LC-11 Tisch Hall and 307 Warren Weaver Hall.

ACF writeups for classroom instruction. The ACF has been printing multiple copies of ACF writeups, upon request, for instructors who wish to distribute them to their classes. Forms and instructions were distributed the first week of September to all departments associated with class accounts on the CYBER and IBM systems. Blank forms for requesting multiple copies of writeups can be obtained in Rooms LC-11 Tisch Hall and 306 and 307 Warren Weaver Hall. About a week should be allowed from the time that the request is submitted. For help in selecting a set of CYBER writeups for class instruction, contact Estelle Hochberg (460-7397) or Frank LoPresti (460-7140). The ACF consultants in Room LC-11 Tisch Hall will help instructors choose ACF writeups for classes using the IBM systems; call Bert Holland (598-7851).

Help in selecting manuals as texts. The ACF will help instructors decide which CDC, DEC, and IBM manuals, if any, they should have the N.Y.U. Bookstore stock specifically for their spring semester classes. The Bookstore starts to assemble preorders for the Spring semester about the third week in November. Instructors who wish help in selecting manuals for their classes should contact the following ACF staff members to schedule appointments: Frank LoPresti (460-7140), for classes on the CYBER; Susan Auman (598-7851), for the IBM; Stephen Tihor (460-7396), for the VAX.

Manuals at Bobst's Reserve Desk. Several ACF terminals have been installed on the B-level of Bobst library and can be used during library or Study-Hall hours. Users of these terminals can now refer to manuals at the Bobst Reserve Desk. So far, about ten of the CDC manuals most likely to be needed by CYBER users have been placed on reserve at Bobst. They are catalogued under the instructor name "Computer", as well as under their titles. The author is listed as "CDC" or "Control Data Corporation". In the next month or so VAX and IBM manuals will also be placed on reserve.

Manuals to be available at CIMS Library. The ACF will begin to provide selected CYBER and VAX manuals to the CIMS Library in the coming weeks. Check the CYBER and VAX on-line news bulletins for announcements of the manuals' availability.

* * *
IBM SYSTEM CONFIGURATION

The ACF provides computing resources on the CYBER, IBM, and VAX computer systems. In the last issue of the Newsletter, we sketched the basic hardware configuration of the ACF's CYBER system. In this issue, we present a comparable description of the IBM. An outline of the VAX hardware configuration will be included in a future issue of the Newsletter.

The NYU IBM system includes an IBM 370/158, an IBM 4341, and 2 IBM Series/1. The ACF uses only a portion of these resources. That portion consists basically of the 4341 and a Series/1. Separate systems provide remote entry to the IBM system from beyond the Washington Square sites. These are a DEC 20 (from the Graduate School of Business Administration, GBA) and 2 PDP 11/34 (from the Midtown Center).

The 370/158 and the 4341 each have six I/O channels, and 4000K 32-bit words of central memory.

There are eighteen 3350 disk drives with a capacity of 317.5 million characters per unit, and eight mountable 3330 disk drives with a capacity of 200 million characters per unit attached to the 370/158 and the 4341.

A communications system consisting of a 3704 and a 3705 processing unit can support up to approximately 74 communication lines. One Series/1 also has another 30 ports which can be used for job entry; these are dedicated to users of WIDJETS. The other Series/1 has 32 ports dedicated to administrative use.

A 2501 card reader (1000 cards per minute), a 3203 Model 5 line printer (1200 lines per minute), a 1403 Model N1 line printer (1000 lines per minute), and a 3525 card punch peripheral are all located at the main IBM site, at 715 Broadway. In addition, the Tisch Hall remote site has two 3203 Model 3 line printers (1000 lines per minute), two 2502 card readers (250 cards per minute), and two 3521 card punch peripherals, as well as a printer (600 lines per minute) for WIDJETS-submitted jobs. The GBA remote site has one high speed line printer. The Midtown Center remote site has one 3203 Model 3 line printer (1000 lines per minute) and 2 low speed DEC printers attached to the IBM system.

There are seven tape drives attached to the 370/158 and 4341 system. There are three 3420 Model 6 drives which record and read densities of 1600 or 6250 BPI. There are three 3420 Model 5 drives which record and read densities of 800 or 1600 BPI. All six of these are 9-track tape drives. There is also one 7-track 556 BPI drive.

*   *   *
SUMMARY OF ACCESS TO NYU/ACF COMPUTING SYSTEMS

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<tr>
<th>Means</th>
<th>Location</th>
<th>System</th>
<th>Notes, and Usage Restrictions</th>
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<tbody>
<tr>
<td>Card Submission</td>
<td>TH LC-8, WWH 311, 312</td>
<td>IBM, CYBER</td>
<td>Faculty, researchers only</td>
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<td>Interactive Terminals</td>
<td>TH LC-8, 14 Washington Place, TH LC-14, TH UC-49, Bobst (B-level), WWH 317, 318</td>
<td>IBM, CYBER</td>
<td>Student I/O via WIDJETS only * Limited access to other systems About one-half are for HP-2000 Limited to BPA use No consultation or hard copy Faculty, research users only</td>
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<td></td>
<td>From 460 exchange</td>
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<td>Dial extension 7381 **</td>
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<td>Dial extension 6272 **</td>
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<td>From off campus</td>
<td>All</td>
<td>Dial 777-7600 **</td>
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<tr>
<td></td>
<td></td>
<td>IBM</td>
<td>Dial 475-2801 **</td>
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</table>

* "WIDJETS" is a terminal-oriented job creation, editing, and submittal system. There are 28 WIDJETS terminals in Tisch Hall LC-8. Accounts are available from the site manager.

** Strike "return" to activate computer selection. Select system. Then "return" to initiate log-in on CYBER and VAX; "shift-P, return" on IBM.
INFORMATION AND DIRECTORY

Accounts  305 WWH, Mon - Fri, 9 a.m. to 5 p.m., 460-7427

Administration and General Information  305 WWH, Mon - Fri, 9 a.m. to 5 p.m., 460-7427

Dial-Up Numbers  (See pages 1 and 9 for further details.)

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<tr>
<td>285</td>
<td>All</td>
<td>6272</td>
</tr>
</tbody>
</table>

Documentation

ACF/NYU Newsletter is mailed to holders of individual accounts on the CYBER, IBM, or VAX. Inquiries: Estelle Hochberg, 306 WWH.

Bookstore (N.Y.U.), 23 Washington Place, stocks commercially published software manuals. Inquire at information desk, lower level. Computer tapes are sold at stationery counter.

ACF Writeups, CYBER: Use "obtain(writeup=qindex)" for information.

IBM: Use "/exec manuals, name=index".

Limited supplies of ACF guides and manuals are also distributed from 14 WPL, operators' desk, Mon - Fri, 9 a.m. to 10 p.m., Sat 9 a.m. to 6 p.m.; TH room LC-11, Mon - Sat, 10 a.m. to 5:30, 598-7851.

Multiple Copies of ACF Writeups for Classroom Use: Estelle Hochberg, 306 WWH for CYBER; consultants, LC-11 TH, for IBM. (Please allow about a week. Blank forms for CYBER writeups can be obtained in 306 WWH or LC-11 TH.)

On-Line Help Utilities (CYBER, VAX): Type "Help", strike return key.

On-Line News Bulletins are important sources of information on systems and operations, training sessions, new documentation, user and programming hints, and so on.

CYBER News: Use "obtain(writeup=news)" for time-sharing or batch. Replaced weekly.

IBM News: Updated as needed. Batch, use "/exec ibmnews".

VAX BBOARD: Type "bboard"; strike return key to list each message; type "Help" for further instructions; type "exit" to quit.


Equipment Problems  at 14 WPL  Site Manager
at TH  " ", room LC-7
at WWH  Operations Personnel, room 312, or 460-7414
ACF Terminals at Other Locations: 460-7414

(CONTINUED on following page)
Street Addresses
Warren Weaver Hall: 251 Mercer Street
Tisch Hall: 40 West 4th Street
Bobst Library: 70 Washington Square South

System Status
CYBER, VAX: 460-7285 (recorded message)

Tape Librarian:
CYBER, VAX: 460-7155
IBM: 598-7901

Tape Purchase:
CYBER, VAX
IBM
NYU bookstore, stationery counter

Tape Questions and Requests:
CYBER, VAX 460-7155
IBM 598-7851

Terminal Problems (ACF equipment only): See Equipment

User Services
Student Advisement
CYBER: 14 WPL
CYBER, IBM: TH room LC-7

Consultants
CYBER: TH room LC-11 598-7851
WWH room 307 598-3970
IBM: TH room LC-11 598-7851
460-7398

Hours for Consultants and Student Advisors are posted at 14 WPL,
WWH outside room 305, and TH rooms LC-7 and LC-11.

User Work Areas
Mon - Fri 9 a.m. to midnight, Sat 9 a.m. to 4:45 p.m. *
(Note: WWH facilities are for faculty and researchers only.)

ACF/ NYU NEWSLETTER
Vol. II, No. 1, November 1981

Key
WHH: Warren Weaver Hall; 14 WPL: 14 Washington Place; TH: Tisch Hall.