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ACADEMIC COMPUTING AND NETWORKING AT NYU

Volume 1, Number 1, November 1990

Academic Computing and Networking at NYU is edited and published by New York University's Academic Computing Facility (ACF). Formerly the Academic Computing Facility Newsletter, the new publication's broadened scope is intended to include information about computing and networking activities at NYU's various schools, departments and administrative units.

Copies of Academic Computing and Networking at NYU are mailed to University faculty and staff and are also available from the ACF's Documentation Office (Room 306 Warren Weaver Hall). Students holding ACF individual computer accounts are included automatically in the newsletter's mailing list. Four issues are planned for the 1990-91 academic year, and five issues for 1991-92. Contributions from sources within the University are invited for consideration by the editor.

Unless otherwise indicated, articles are authored by members of the ACF staff. This issue includes articles contributed by the following members of other departments: Geneine Babakian and Melanie Dodson (Bobst Library); Jennifer King (Book Centers); Charles Wilson (Economics, FAS); Stephen Krause (Purchasing Services); Zvia Naphtali (Sociology, FAS); Matthew Gee and Cecelia Poppleton (Stern).

Special contributions to this issue were made by the following ACF staff members and associates (in alphabetical order): Jeffrey Bary, Gary Chapman, Ed Franceschini, Ed Friedman, Alex Harvey, Bert Holland, Henry Mullish, Gary Rosenblum, Bill Russell, George Sadowsky. Additional production assistance provided by Charlee Leimberg, Telly Mavroidis, Elizabeth Moglia, and Rita Santiago.

Newsletter Editor: Estelle Hochberg
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Page design and Macintosh layout: Lu Ratunil, John Quinan
Newsletter Design: NYU's Advertising and Publication Services and the ACF

On our cover, scenes from two of the ACF's microcomputer laboratories: at the Education Building (above) and the Third Avenue North Residence Hall (below). Photos by Bruce Falkinburg. Related story on page 7.
With this issue, the Academic Computing Facility Newsletter becomes a new publication, Academic Computing and Networking at NYU.

The change of name implies changes both in focus and in substance. While computing was highly centralized in its early days because of hardware economies of scale, the locus of computing in universities as well as in many other organizations has been decentralizing since minicomputers became affordable in the 1970's. The emergence of the microcomputer industry accelerated this trend toward decentralization throughout the 1980's. Today, computing activities are distributed both organizationally and geographically over almost all University departments and in many of our homes as well.

Within NYU today, academic computing activity occurs in many places in the University and takes forms that are often only moderately related to the type of work that characterized early computer centers. Many departments and schools within NYU have their own computer-based facilities. Bobst Library is active in offering computer-based services and in exploiting other aspects of information technology. Several of the schools have collections of equipment and staff to meet their special needs. Electronic computing is no longer a specialized tool primarily of the sciences, nor is it practiced at just a few locations.

The composition of Academic Computing and Networking at NYU will reflect these changes. The new publication, edited and published by the Academic Computing Facility, will include news and information about computing activities coming from the NYU departments, schools, and locations at which they occur.

For example, the NYU Book Center is a significant player within the NYU community in providing computing equipment to faculty, staff, and students at exceptionally favorable prices, thereby helping to promote computer literacy as well as to increase the number of computers available to support instructional and research computing activities. We hope therefore to include product and price information from the Book Center whenever appropriate and to alert you to related campus events, such as vendor presentations in which you may be interested as a consumer of this technology. An illustration is provided in this issue by information describing the newly announced Apple Macintosh computers (see page 17). As another example, a special section of this issue focuses on two of Bobst Library's computer-based services: there is a report on its new microcomputer center and what we hope will be the first of a continuing series of items on Bobst's facilities for online information search.

Of course, the Academic Computing Facility continues to play a principal role in computing on campus, and we will be active contributors to Academic Computing and Networking at NYU, with news about on-going applications of computer technology to instruction and research as well as information about new initiatives that we are undertaking.

The inclusion of the word Networking in the new title is deliberate, and reflects the increasing importance played by digital communications and data networking in many fields of modern scholarship. Network services such as electronic mail are now playing an essential part in the research activities of many scholars around the world. Among other things, networks provide the ability to exchange information rapidly and exactly, to utilize computing resources at a multiplicity of locations, and to pursue collaborative work far more efficiently than in the past. Networks provide a means of enhancing the instructional process by facilitating faculty-student

(continued on following page)
communication, as well as making available instructional materials and programs in a more versatile manner. Computing and networking are now inextricably linked in academic life; both are essential for the effective use of current information technology.

Having introduced you to this new publication and its goals, I would like to turn for a moment to some notes about the Academic Computing Facility, the organization which I came to direct just this past August.

In September, we instituted, on an experimental basis, a more open policy regarding use of the ACF's microcomputer laboratories (see page 7). Our goal is to make as effective use of the facilities at our disposal as we can, while still maintaining priority access for specific instructional and research activities.

Since we don't know what the overall demand is for access to microcomputers on this new basis, we will be watching growth of demand carefully, and we may make changes in policy in order to balance supply and demand. We welcome feedback from you regarding the usefulness of this experiment.

In the months and years to come, we expect that information technology and the ACF will become increasingly important and active at NYU. As we continue to schedule more classes, seminars, and other events, we will notify you about them in a number of ways. Every week, we now have one or more notices about such activities on (currently) page 2 of the NYU Events Hot Line, published each Monday by the NYU Information Center. Take the time to read our announcements each week and participate in what we have to offer. We will also advertise special events through postings, direct mailings, personal contacts, and other appropriate means. If you have not yet received a copy of our schedule of offerings for this semester, please call our general information number and we will gladly mail one to you.

We hope that the orientation of this new publication will prove a productive one for the entire NYU community. We will make every effort to be responsive to your suggestions regarding the form and content of this publication and how it can be more helpful to you. Please give us your feedback on current issues and your suggestions for the future. And by all means, if you have information about academic computing and networking applications that you wish to pass on to other members of the NYU community, please let us know: we welcome your contributions!

George Sadowsky
sadowsky@acfcluster.nyu.edu

At the NYU Book Center's second annual Computer Fair, ACF systems group member Jeffrey Bary (second from left) demonstrates electronic mail to visitors. (Photo courtesy of Jennifer King. Story on page 18.)
Colloquia on Faculty Authored Instructional Software Continue

NYU Series Features Courseware from a Variety of Academic Disciplines

Medicine and health care, Egyptian lexicography, and the physical sciences are among the substantive areas represented thus far in this semester's series of colloquia on faculty-authored instructional software and its integration into higher education curricula.

The colloquium series, which is now in its third semester, is sponsored by the Academic Computing Facility (ACF) and the Faculty of Arts and Sciences, with support from Apple Computer, Inc. and the IBM Corporation. As we go to press, three Fall '90 colloquia remain, along with the second of two intensive courses in authoring with HyperCard (see box, page 5), and a series of new and even more interesting presentations are being scheduled for Spring '91.

"As groups of educators, researchers, and academic institutions across the country become increasingly involved in the creative and effective use of computers in higher education curricula, a growing body of exciting, novel, and usable 'courseware' is being developed," notes ACF Director George Sadowsky. "The colloquium series is a way of bringing new work and ideas to the attention of the NYU community, and of encouraging effective and novel uses of the new computer and interactive, multimedia technologies in instruction and research at NYU."

**Medicine and Health Sciences**

The speaker at the first session of the semester, Dr. Paula O'Neill, is chairperson of a consortium of seventeen schools of medicine and nursing in the United States and Canada, formed three years ago with the purpose of developing interactive videodisc instructional courseware for medical and health care instruction. Working together over a three-year period, and supported by the IBM Corporation, faculty members at these schools have developed some 75 new interactive courses in such disciplines as neonatology, ophthalmology, psychiatry, radiography, human embryology, neuroanatomy, and our speaker's area, the nursing, diagnosis and treatment of cancer patients.

Dr. O'Neill demonstrated some of the courseware developed under the project, and also discussed strategies and benefits associated with the development of interactive videodisc-based courseware. As Director of Instructional Resources at the University of Texas M.D. Anderson Cancer Center, Dr. O'Neill first began investigating the use of interactive videodisc technology as a means of providing effective instruction particularly in those instances in which

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A screen from a module on caring for immuno-suppressed cancer patients. Touch-sensitive oblongs enable students to control the direction and pace of their navigation through each module. (Courtesy of Dr. Paula O'Neill.)
students' direct contact with patients is impossible or undesirable—for example, when cancer patients' treatments render them highly vulnerable to infection. Her studies have confirmed the instructional effectiveness of interactive courseware developed under the consortium; in some cases, not only was learning time reduced but also long term retention was improved. Dr. O'Neill cautions, however, that one must select topics that are amenable to this type of instruction and that are readily integrated into current curricula.

For Dr. O'Neill and her associates, working in the context of a consortium has had many benefits, including a peer review procedure that is built into the courseware development process, cost-cutting through the sharing of courseware and materials, and a ready dissemination of information.

The consortium-developed courses are shared free-of-charge among consortium members and are also available at a fee for use at other institutions. They all use IBM InfoWindow Touch Display systems, consisting of IBM personal computers with special boards enabling speech-synthesis, and touch-sensitive screens with special capabilities for displaying animated and still video images.

An Egyptian Hieroglyphic Dictionary

At the second colloquium, Prof. Ogden Goelet of NYU's Department of Near Eastern Languages and Literature (FAS) described a computer-based system which he has developed for the codification of the current and continuously growing body of knowledge about the ancient Egyptian vocabulary.

The system which Professor Goelet has developed is unusual in that it allows data base operations on information which, like Egyptian hieroglyphs, have both graphical and text components. It runs on IBM personal computers and involves software which Professor Goelet has written himself, as well as commercial software which he has adapted. The system is of additional interest because software techniques which it employs are adaptable to other non-Roman character sets and languages.

Capturing the content of ancient Egyptian script in a computerized database has posed quite a number of challenges for Professor Goelet. Among other difficulties, ancient Egyptian had no punctuation, and a glyph could represent one letter, two letters, several letters, a word, or a phrase. The task is further complicated by the fact that a given set of glyphs could be configured in diverse ways, often according to the scribe's aesthetic judgment, and symbols could be read from left-to-right or from right-to-left.

Professor Goelet's system is already in use by a world-wide consortium of scholars as a computerized tool in the study of ancient Egyptian lexicography. In an article planned for the next issue of this newsletter, Professor Goelet will give

![A printout of a sample screen from a program used by scholars of ancient Egyptian lexicography. Here, the "browse" feature is illustrated. By moving the "highlighting" bar (shown here in "reverse video"), a user of this program can select the words about which he or she wishes to receive more detailed information. The program was developed by Prof. Ogden Goelet for the Egyptian Vocabulary Project (see text of accompanying article for details).]
further details of the *Egyptian Vocabu-
lar Project* and the software that
supports it.

**In the Physical Sciences**
The October 26th colloquium
featured Dr. Mort Kagan of the IBM
Corporation’s Academic Information
Systems (ACIS). Dr. Kagan gave an
overview of several of IBM’s programs
of support to faculty members and
institutions for the development of
instructional software.

His focus was on two new programs
for instruction in the physical sciences,
CUPLE (for Comprehensive Unified
Physics Learning Environment) and
CATALYST (for Computers and
Technology Applied to Lectures/Labs
Yield Superior Teaching, IBM’s chemis-
try initiative).

Dr. Kagan’s talk concluded with
demonstrations of instructional software
developed by faculty under these two
programs and implemented to run on
IBM PS/2 personal computers. These
included several interactive “labs” and
experiments in physics, mathematics, and
chemistry, all using a common IBM-
supported interface and “tool box”—a
set of software tools for wordprocessing,
spreadsheet operations, mathematical
calculations, and so on.

**Additional Information**
The January issue of this newsletter
will report on the remaining sessions in
this semester’s colloquium series, and
will outline a fresh program of presenta-
tions planned for Spring ’91. For further
information, please call the ACF’s
general information number, 998-3058.

—*Estelle Hochberg*

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**Computers in the College Classroom**

As we go to press, four presentations in the Fall ’90 series of Colloquia on Uses of
Computers in the College Classroom remain.

The colloquia are open to all NYU faculty, administrators and graduate students.
If you are interested in attending, please call 998-3058; it will help us in our plan-
ing. Please call the same number if you require additional information about any of
the following. We hope you will be able to join us.

**Multi-Media Software on the Apple Macintosh** (Friday, November 16,
2 p.m., Main Building, Room 509).

**Instructional Uses of the Computer in Mathematics** (Thursday,
November 29, 1:30 p.m., Warren Weaver Hall, Room 109).

**Beowulf: An Example of the Computer-Assisted Study of
Literature** (Friday, December 7, 2 p.m. Main Building, Room 509).

**HyperCard Training Course**—(Advanced, a two-day intensive workshop,
Thursday and Friday, January 17 and 18. Note that, as this newsletter goes to press,
these dates are still tentative.) Because the number of computers is limited, reserva-
tions are required: Please call 998-3058 to reserve a place.

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**Educational Television Series from Apple to be Broadcast at NYU**

**Spring ’91 Series Will Open with “Macintosh in the Classroom”**

Starting on January 24, Apple
Computer, Inc. will be launching
the new “season” of its Educa-
tional TV Series with “Macintosh in the
Classroom.” This first presentation will
be an examination of ways that comput-
ers are being integrated into the class-
room.

Apple plans to broadcast a total of
four shows during the Spring ’91
semester—one a month in January,
February, March and April. They will
be broadcast as videoconferences
available by satellite. The topics and
dates (all Thursdays) are as follows:

- **Macintosh in the Classroom**—January
  24, 4:00 p.m.
- **Administrative Solutions**—February
  21, 4:00 p.m.
- **Math and Data Analysis**—March 21,
  4:00 p.m.
- **Multimedia 201**—April 25, 4:00 p.m.

Plans are being made to broadcast
the series at NYU. The ACF will be
mailing flyers to all NYU faculty and
staff, and advertising the series in the
NYU Events Hotline. Additional details
will be included in the January issue of
this newsletter. For further information,
please call the ACF’s general information
number, 998-3058.
Course in Computer Technology for the Visually Impaired Is Offered

The Computer Center for the Visually Impaired at Baruch College is offering a new, free course for parents, teachers, and counselors working with the visually impaired. The course provides an introduction to microcomputers and adaptive systems available for the visually impaired.

The next course offered will run from January 8 through January 31, 1991 and will be repeated several times in the Spring 1991 semester. Classes will be two hours in length and will be held twice a week, with two additional hours of computer lab once a week, making a total of twenty-four class/lab hours. Class size will be limited to ten participants per session.

Course participants will learn to utilize speech synthesizers, large print software, and braille printers in conjunction with standard applications packages such as WordPerfect to perform typical office and educational tasks. The course, Partnership in Adaptive Computer Technology (PACT) is being offered free of charge to parents and professionals who work with blind and visually impaired individuals in New York and New Jersey. For more information, please call Judith Gerber at (212) 447-3070, or write to her at The Computer Center for the Visually Impaired, Baruch College/City University of New York, 17 Lexington Avenue, Box 515, New York, NY 10010.

—From a PACT flier submitted by Prof. Doris Aaronson, Psychology Department (FAS)

NCRIPTAL Announces Winners of Courseware Awards

The 23 winners of the fourth annual EDUCOM/NCRIPTAL Higher Education Software Awards competition were announced earlier this fall. The winning software presented new ways to teach accounting, engineering, humanities, foreign languages, writing, chemistry, mathematics, physics, and social sciences, and they included innovative ways to teach laboratory courses and large classes. Of the winners, ten were designated “Best.”

All received trophies and cash awards, at the opening ceremonies of EDUCOM '90 which took place in Atlanta this past October.

The trend among this year’s winners was software that transforms students from passive listeners to active learners. Winners in the professions—law, accounting, engineering, and journalism—simulated real-world settings, giving students practice in problem solving and decision making. Psychology and physics winners simulated scientific laboratories, reducing the time needed to get results, thereby letting students run multiple versions of experiments as scientists do. Other winners visually transformed data, simplifying phenomena and helping students to understand numbers or to observe and manipulate processes and structures inside cells and crystals.

NCRIPTAL is the National Center for Research to Improve Postsecondary Teaching and Learning. EDUCOM, a nonprofit consortium of over 500 colleges, universities and other institutions, was founded in 1964 to facilitate the introduction, use, and management of information technology in higher education.

The EDUCOM/NCRIPTAL Higher Education Software Awards Program was established in 1987 to improve the use of computers in educating undergraduate college students in the liberal arts.

—Extracted from an NCRIPTAL release.

(A list of the winning software and information on obtaining copies are available from the ACF; please call 998-3058.)
At the ACF's Instructional Microcomputer Facilities

News from the ACF's Education Building, Third Avenue, and Tisch Hall Sites

News at the ACF's instructional microcomputer facilities this fall includes a new policy for access to ACF microcomputers and longer hours of microcomputer availability. In addition, there are more PC's and an expanded selection of PC and Macintosh software available for use on them (see the boxes on this page and next).

An ACF Experiment in Free Access to Microcomputers

The ACF opened the Fall ’90 semester with a new policy allowing more open microcomputer access to NYU students, faculty, and staff.

Under the new policy, anyone with a valid NYU ID can obtain an ACF private microcomputer account allowing use, without charge, of the computer equipment and software at two of the ACF's microcomputer facilities. These include IBM-type and Apple Macintosh personal computers, laser printers, and a variety of software.

Obtaining a private microcomputer account has become a very fast and simple procedure. You bring your valid NYU ID to either of the two sites mentioned below during any of their hours of operation, and your account is established on the spot.

This popular new policy is one way in which the ACF is working to ensure that their microcomputer resources are more fully utilized by NYU students and faculty during all hours of operation and throughout the academic year. As the year progresses, the ACF may extend this experiment—for example, by adjusting facilities, hours of availability, and conditions of access to accommodate patterns of usage.

Currently, private microcomputer account holders may use the computers at the ACF's Third Avenue North Residence Hall lab (Third Avenue at 11th Street) on weekdays from 10:30 am until 1:30 pm—that is, fifteen hours a day—and on Saturdays and Sundays from 10:30 am to 5:30 pm. At the ACF's Education Building site, the computers are available to private micro account holders on Mondays through Fridays, from 8:30 am to 1 pm. Holders of ACF microcomputer accounts issued for specific academic purposes (individual and class accounts), however, have priority access at all times to the microcomputers at ACF sites (please see below for more on these accounts).

(continued on following page)

Software at the ACF's Instructional Micro Labs

The following software packages are available to classes and individuals using the micros at the ACF's instructional microcomputer facilities in the Education Building and at the Third Avenue North Residence Hall.

For the IBM PC

<table>
<thead>
<tr>
<th>Software</th>
<th>Version</th>
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<td>AskSam database</td>
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<tr>
<td>Atlas Graphics</td>
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<tr>
<td>Autodesk Animator</td>
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<tr>
<td>AutoSketch</td>
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<tr>
<td>DrawWare</td>
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<tr>
<td>DrawWare Nutrition</td>
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<tr>
<td>dBASE IV</td>
<td>3.5</td>
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<tr>
<td>DBMScopy</td>
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<tr>
<td>Dewar Assembler</td>
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<tr>
<td>Dewar Debugger</td>
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<tr>
<td>Dewar text editor</td>
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<td>Dewar visual text editor</td>
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<tr>
<td>Ecotalk</td>
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<tr>
<td>FTP file transfer</td>
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<tr>
<td>JUPAC Organic Chemistry</td>
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<tr>
<td>Jove text editor</td>
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<tr>
<td>Lotus 1-2-3</td>
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<td>MICRO-CAP II circuit analysis</td>
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<td>Micro-TSP</td>
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<td>Microsoft Excel</td>
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<tr>
<td>Novell documentation</td>
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<tr>
<td>Phar Lap 386 tools</td>
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<td>SETL2</td>
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<td>SPSS/PC+</td>
<td>5.0</td>
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<tr>
<td>SPSS/PC+ Data Entry</td>
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<tr>
<td>Statistics: Vector Mechanics</td>
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<td>Systeme-D French word processor</td>
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<tr>
<td>Telnet/TN3270</td>
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<tr>
<td>Turbo Assembler</td>
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<td>Turbo Debugger</td>
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<tr>
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</table>

Additional software can be added at the arrangement of instructors. For information on obtaining ACF microcomputer accounts for their classes, faculty members should contact the ACF Accounts Office (Room 305 Warren Weaver Hall, 998-3035). To discuss the instructional use of microcomputer software for your class, please contact Gary Chapman at the ACF's Faculty Microcomputer Lab, 998-3044.

Academic Computing and Networking at NYU, November 1990, page 7
(continued from preceding page)

As we go to press, the number of private micro account holders is increasing. Commuting faculty members and students are using these accounts as a convenient on-campus adjunct to their home computers. The accounts, along with the ACF’s program of workshops and tutorials, also provide an easy way for would-be microcomputer owners to try out different applications before investing in a particular machine or software product.

Priority Access to ACF Micros

The ACF also issues two kinds of microcomputer accounts that give the holder priority access at all times to the microcomputers at ACF sites. These individual and class accounts are obtained through the ACF’s Accounts Office (Room 305 Warren Hall, 998-3035). There is no charge to the users of these accounts, but a special form must be filled out and, for students, an instructor’s signature is required. Please contact the Accounts Office for details.

Longer Hours at the Third Avenue Site

The hours at the ACF’s microcomputer facility in the Third Avenue North Residence Hall have been extended. The lab is now open from 10:30 a.m. to 1:30 a.m. weekdays; previously it opened at noon. Weekend hours (10:30 a.m. to 5:30 p.m.) remain unchanged.

Timely Use of Micros Is Urged

As we go to press, the ACF’s micro labs are accommodating all would-be users. While there are times of peak usage—usually during the evening, from about 7:30 to 10:30 pm—during most other hours there are almost always microcomputers available for use.

Hardware at the ACF's Instructional Micro Labs

The following microcomputer equipment is available at the ACF’s instructional microcomputer laboratories. All systems are connected to local networks linked to the campus-wide network, NYU-NET: MS-DOS equipment is connected locally by Novell-based networks, running over Ethernet, and Macintosh equipment is linked by AppleShare and AppleTalk running over LocalTalk media. For hours of operation, please see inside back cover.

Third Avenue North Residence Hall, basement (62 computers):

- 16 IBM PS/2 computers, model 30-286, with mouse, VGA color monitor
- 16 Zenith computers, model 286LP, with mouse, VGA color monitor
- 30 Apple Macintosh SE computers, with two floppy drives
- 1 Hewlett-Packard Laserjet III printer
- 2 Apple LaserWriter NT printers

Currently available to private micro account holders and to instructional/research users (students and faculty with individual and class accounts) during all hours of operation (see inside back cover).

Education Building, Second floor (90 computers):

- 35 IBM PS/2 computers, model 55SX, with mouse, VGA color monitor
- 25 IBM PS/2 computers, model 70, with mouse, VGA color monitor, numeric coprocessor, and joystick
- 10 IBM PS/2 computers, model 70, with mouse, VGA color monitor
- 20 Macintosh Plus computers
- 2 Hewlett-Packard Laserjet III printers
- 1 Apple LaserWriter NT printer

Available to private micro account holders from 8:30 a.m. to 1 p.m., Mon.-Fri., and to instructional/research users (students and faculty with individual and class accounts) during all hours of operation (see inside back cover).

Tisch Hall, Room LC-8 (23 computers):

- 10 IBM PS/2 computers, model 55SX, with mouse, VGA color monitor
- 13 IBM PS/2 computers, model 30, with monochrome monitor

Currently available to instructional/research users (students and faculty with individual and class accounts).

Access to ACF Micros. NYU students, faculty, and staff may use ACF microcomputers under three types of accounts, at no charge to the individual: private microcomputer accounts, individual accounts, and faculty accounts. The latter two types of accounts are issued for specific academic purposes and allow priority access to ACF computers. Please see the accompanying item for further details, or call the ACF’s general information number, 998-3058.

Be aware, however, that the number of computers is limited and that, if a lab is full and a priority access account holder arrives, then private account holders may be asked to leave their computers at short notice. The new policy of free microcomputer access is an experiment and there is some concern on the part of the ACF staff that the sites will become quite busy as the end of the semester approaches. We therefore urge our microcomputer users to try to do as much of their work as they can before the final weeks of the semester when an end-of-term crush could begin, and to take advantage of the lighter usage during “off-peak” hours at the ACF sites.
Hints For Using WordPerfect on the IBM PC

Some Useful But Undocumented Features in WordPerfect

There are so many useful features in WordPerfect 5.1 that I believe it will soon be very difficult to resist switching from whatever other word processing package you may be using on the IBM PC. To the person who has to deal with rather long documents, any technique for expediting the process is warmly welcomed.

Here are some features which, so far as I know, are not documented in the official WordPerfect 5.1 manual but are worth their weight in gold.

a) To move the cursor from the beginning of a paragraph to the next paragraph, press Ctrl, Down-arrow. Similarly, to move the cursor to the beginning of the previous paragraph, press Ctrl, Up-arrow. If the cursor is in the middle of a paragraph, pressing Ctrl, Up-arrow moves the cursor to the beginning of the current paragraph.

b) To move the cursor to the beginning of the next sentence, press Alt, Down-arrow. Similarly, pressing Alt, Up-arrow moves the cursor to the beginning of the previous sentence.

c) Suppose you have typed a block of text and then, as an afterthought, you decide to boldface it. What you can do is to place the cursor at the beginning of the text to be boldfaced, press either Alt-F4 or the F12 key to start the blocking operation, press the F6 key and the text becomes boldfaced and the highlighting disappears.

Suppose now you decide that the same text should also be underlined. Most people would then reposition the cursor to the beginning of the text, block the same way as before and press the F8 key. However, there is an alternative to this admittedly straightforward method. Instead of repositioning the cursor to the beginning of the text the second time, you can press Ctrl-Home Ctrl-Home. This automatically positions the cursor at the position it was in previously.

The same result is seen if you make any major move of the cursor. Pressing Ctrl-Home twice returns it to its original position.

—Henry Mulish

A New Version of SPSS/PC

Updates to be Available Under ACF/NYU Site License

SPSS is about to release version 4.0 of SPSS/PC+. The Academic Computing Facility expects to receive the ACF/NYU site license master copy sometime late in the fall semester.

All current recipients of SPSS/PC+ under our site license will be notified of the arrival of the new version, and the number of disks it requires, so that they can come for the updated version. There will be no charge for the update, but you will have to bring the sufficient number of disks to store the new version.

Obtaining SPSS/PC+

If you have not already obtained a copy of SPSS/PC+, you might want to get one under the reduced site-license rates. You are eligible to obtain a copy under the site license granted to NYU through the ACF if you are a faculty member, a member of the research staff, or a graduate student. Copies are distributed by the ACF's Faculty Microcomputer Laboratory (see box on following page for hours and locations). The charge for the current version is $100 for the Base module, $50 for the Advanced statistics module, and $50 for the Data Entry module, and you need ten, six, and seven diskettes respectively for these modules. Note that these charges and the number of disks required may change with the new version.

Some of the new features of Version 4 are the ability to add or change labels

(continued on following page)
Update on the ACF's Software Archive

The ACF has updated a number of items in our online archive of software. Most notable among these are the virus protection programs for Apple Macintosh and IBM personal computers. 

Disinfectant (for Macs) is at Version 2.2, while the SCAN series of programs (for IBM PC's) is at Version 67.

Disinfectant now comes with an "init" which provides hard disks with continuous protection against viruses. In the SCAN series of programs, VSHIELD can do much the same thing, but it must be used with caution since it can be incompatible with some DOS applications.

The ACF's Software Archive is an easy-to-access and virus-free collection of selected shareware and public domain software for IBM PC's and Apple Macintoshes. Software can be downloaded from the ACF's INFO system (a copy of Kermit is required). Enter CONNECT INFO at the NYU-NET prompt, select "Downloads" from the INFO menu, and follow the directions. Copies can also be obtained on floppy disk from the ACF's Faculty Micro Lab. Please call 998-3044 for an appointment and for information.

The ACF urges you to register any shareware that you acquire with the author and to pay any monetary contribution that he or she recommends.

---Reported by Gary Chapman

In the ACF's Faculty Microcomputer Lab

The ACF's Faculty Microcomputer Laboratory is a place where NYU faculty, research and administrative staff can learn about different kinds of microcomputer hardware and software, and obtain expert advice in the selection and use of personal computers, workstations, departmental networks, and related products.

The Lab is located in Room 316 Warren Weaver hall. Visits to the Lab are by appointment. Please call 998-3044 to arrange a time. Hours, between noon and 8 p.m., Mondays through Fridays, are usually available.

New Software

The following software items were either newly acquired or updated within the past few months. They are available for examination in the Lab.

<table>
<thead>
<tr>
<th>Software Product</th>
<th>Version</th>
<th>Company</th>
<th>For</th>
<th>Application Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kermit</td>
<td>3.01</td>
<td>Columbia U.</td>
<td>PC</td>
<td>Communications</td>
</tr>
</tbody>
</table>
| Clarkson Univ.
 University Telnet | 2.2D    | Clarkson    | PC  | Networking         |
| PC-XView         | 1.4     | gas         | PC  | Networking         |
| LAN Manager      | 2.0     | Microsoft   | PC  | Networking         |
| NetWare 386      | 3.1     | Novell      | PC  | Database           |
| SQL Server       | 1.1     | Microsoft   | PC  | Utility            |
| QEMM             | 5.1     | Quarterdeck | PC  | Utility            |
| Adobe Type
 Manager | 1.0     | Adobe       | PC  | Utility            |
| Apple System
 Software | 6.0.5    | Apple       | Mac | Operating System  |
| More             | 3.00    | Symantec    | Mac | Outline            |
| dBASEIV          | 1.1     | Ashton-Tate | PC  | Database           |
| Windows          | 3.0     | Microsoft   | PC  | Operating Environment |

Hardware

The following hardware is available for examination in the Lab.

Computers

- Apple Macintosh II
- Apple Macintosh IICx
- Compaq 386/20
- IBM PS/2 Model 30
- IBM PS/2 Model 55
- IBM PS/2 Model 60
- IBM PS/2 Model 70
- IBM PS/2 Model 80
- Kaypro 10
- Zenith SuperSport Laptop

Drivers

- Apple SC CD-ROM
- Denon CD-ROM
- IBM 3363 WORM

New Software (continued from preceding page)

without affecting existing value labels, and to subset variables when bringing in a file or writing one out.

Data Entry II Now Available

The SPSS/PC+ Data Entry II module is now available under our site license. Data Entry is described as a fully integrated data entry, cleaning and editing tool with user-defined logic, rules and input screens. It allows you to create a spreadsheet or custom design a form for entering data into SPSS, dBASE, Lotus and other popular software.

Please see the preceding paragraphs for information on obtaining the Data Entry module.

---Gary Chapman

(SPSS/PC, continued from preceding page)
**Graphics**

**Movie.BYU for the Macintosh Is Available at NYU**

ACF Obtains Site License for Mac Version of Three-Dimensional Modeling Package

The ACF has obtained a site license for MacMOVIE.BYU, the Macintosh version of Movie.BYU, the three-dimensional graphics and animation package from Brigham Young University.

Movie.BYU has been available for several years on the ACF’s cluster of VAX/VMS computers. MacMOVIE.BYU, the first version of the program produced for a personal computer, has all of the modules and features offered by the VMS version. In addition, however, it offers the user-friendly Macintosh interface.

Anyone with a valid NYU ID may obtain a copy of MacMOVIE.BYU free of charge by bringing three blank floppy disks to the ACF’s Faculty Microcomputer Lab (open noon to 8 p.m. weekdays; please call 998-3044 for an appointment). Copies of the Movie.BYU and MacMOVIE.BYU manuals are available at cost from the ACF’s Documentation Office (Room 306 Warren Weaver Hall, or call 998-3036). It is recommended that you obtain both, since the Movie.BYU manual offers tutorials in the use of this three-dimensional modeling package.

MacMOVIE.BYU should be used on a Macintosh with a minimum of four megabytes of RAM.

—Reported by Ed Friedman

**Visualization Center Gets A NeXT**

A NeXT workstation has been added to the equipment in the ACF’s Visualization Center and is available to faculty, staff, and students who wish to explore the potential of the system. The characteristics of this machine are: eight megabytes of memory, a 40-megabyte hard drive, a digital sound processor, a microphone jack, and stereo output.

This machine, known locally as “grizzly”, has access to a “file server” with a large re-writeable optical disk drive.

The NeXT workstation was designed for use in higher education to develop interactive software and presentations. It has a user-friendly graphical interface; an accessible software development environment; and a variant of UNIX known as MACH. Sets of reference works such as Webster’s Dictionary and the works of Shakespeare are included.

Mathematica, a powerful educational and research tool is also provided. Programming languages available on the system include Objective C, GNU C, and FORTRAN 77 from the Absoft Corporation.

**About the Visualization Center**

The computer graphics equipment in the ACF’s Visualization Center (Room 317, Warren Weaver Hall) is available on request to faculty members, research staff and advanced students.

As we go to press, facilities include two IRIS graphics workstations (a 4D/80GT and a 4D/25G), an AED 1024 color graphics terminal, several color and monochrome graphics terminals and hard copy devices, and a Lyon-Lamb video animation system. There are also an Evans & Sutherland PS 390 system, as well as a Stardent mini-supercomputer with an advanced graphics subsystem.

For further information on the ACF’s Visualization Center, contact Ed Friedman (friedman@acfcluster.nyu.edu or 998-3051).

—Ed Friedman
Local Nets on NYU-NET

More Departmental Networks Link to Campus-Wide Network

A number of academic and administrative departments within NYU have been engaged in interesting and useful networking projects over the course of the past few months. They have been developing networks of departmental PC's and establishing connections between these local networks and NYU-NET, the University's campus-wide network.

The academic departments involved are Economics (FAS), Music and Music Professions (SEHINAP), and Sociology (FAS), while the administrative units are Personnel Services Division, Sponsored Programs, and the University Health Services. These are by no means the only departments whose local networks have NYU-NET links, but they are the most recent.

The ACF has been serving as consultant on these departmental networking projects—as it has, in the past, with others—and as partial installer of the networking gear both for the local and the NYU-NET connections. We asked individuals who are central to each department's networking project to let us know a bit about their networking activities and plans.

Why Network?

We will begin with a very brief overview of some of the reasons departments put together local networks of PC's and/or Macs and some of the benefits of linking them to larger networks.

Most of the time, departments create internal, "local" networks to allow members of each department to share programs, files, databases, printers and other departmental computer resources. Connecting the local network to NYU-

Using Existing Wiring to Connect

The new departmental networks described above are all taking advantage of NYU-NET's cabling—typically, in combination with twisted-pair Ethernet technology and a Novell NetWare network operating system—as a convenient way to connect personal computers located, say, in different offices on the same floor or several geographically separated departmental networks of personal computers.

Twisted pair Ethernet is a relatively new technology which is becoming popular for departmental networking at NYU. Essentially, it enables the use of NYU-NET cabling, already installed in departmental offices, and greatly reduces the necessity to install special wires for the departmental networks. (An article in the March 1990 issue of the ACF/NYU Newsletter describes twisted-pair Ethernets and their advantages; copies are available from the ACF's Documentation Office, Room 306 Warren Weaver Hall, 998-3036.)

To the right, an example of a departmental network using twisted-pair Ethernet:

In an NYU office, twisted-pair wiring runs from a PC (or a Macintosh) equipped with an Ethernet board to the data jack on the telephone "face plate" affixed to the wall.

From there, the wire continues to the phone closet where, at a wiring distribution panel, it joins wires from all the offices on the same floor of that NYU building. From the panel, the wiring connects to the "hub" of the network of departmental PC's connected via twisted-pair Ethernet.

If desired, the hub may then be connected to a "buffered repeater", which performs signal modifications that allow the local Ethernet to be connected to a broadband cable.
NET enables all PC users on the local network to exchange electronic mail and files not only with each other but also with individuals in other NYU departments and at educational institutions and agencies across the country and worldwide.

The NYU-NET connection also gives department members access to such other NYU-NET services as ACF computers and file servers and Bobst Library’s online catalog, BobCat, as well as to computers and information services off-campus via NYU-NET’s Internet connections and the NYU-NET modems. While it is possible to link each departmental personal computer separately to NYU-NET, once a departmental network has been established, it is usually more efficient and economical to establish just the one link—often called a "bridge"—between the local network and NYU-NET, instead.

A Pilot Project in Departmental Computerization

The Sociology Department's new network connections are part of a three-year project funded by the Faculty of Arts and Science and directed by Robert Jackson.

Professor Jackson characterizes the project as an experiment in computerizing an entire department. The project's goals have included the selection and development of a set of standardized personal computer software and hardware that would meet the needs of all members of the department working at various levels of computer expertise. All of the department's faculty and staff now use PC's widely in their academic and administrative work. In addition, a PC room is available for use by students in the department.

The local network and its link to NYU-NET are to be the next stage of the project. Until recently, the PC's were not networked locally, although many had separate, individual, connections to NYU-NET. As we go to press, all the networking hardware is in place and work is underway on the software for the network, the setup of the network itself, and the design of a new interface for the workstations, based on WordPerfect Office.

Networking Electronic Music Studios

Networking activity in the Department of Music and Music Professions (SEHNAP) is currently focused on

(continued on following page)
linking eight electronic music studios used by some 150 students in the department's programs of music and music technology.

The new local area network will enable interactive communication among the studios, allowing the software and devices in each of them to be accessed and used from the others. Currently, each studio is used for the performance of a different set of functions in the electronic composition, recording, synthesis and sound analysis of music.

Thus, eventually, the network will connect quite a variety of electronic devices and will mix Apple Macintoshes and IBM PC's. The departmental network's NYU-NET link will also allow access from every studio to ACF computers, and particularly to the ACF's Astronautics ZS-2 "super-minicomputer", where a synthesizing program has been installed for the use of the department. As we go to press, the "hub" studio has been completely networked and is in use.

In a future issue of this newsletter, Professor Kenneth Peacock, who directs both the music technology program and the networking project, will tell us more about applications of computers and networks to music at NYU.

**Employee Records and Services**

Personnel Services Division is exploiting twisted-pair Ethernet technology and the campus-wide NYU-NET to link four small local Novell "sub-networks" in the departments of Salary Administration, Employment, Benefits and Records. As a result, all four networks will be able to share programs and information, like an employee database allowing online "lookup" and reports on some 16,000 employee records. In addition, the NYU-NET link will be used for receiving downloaded information from the University's central administrative mainframe computer and for electronic mail. There are also plans to link four Macintoshes.

Notes Scott Baker, the coordinator of the project, the twisted-pair Ethernet technology will mean local networks that are more easily maintained and that offer greater flexibility for reconfiguration and expansion. As an example, there are currently twenty-nine personal computers connected to the network, and there will soon be 42. Formerly, a new cable would have had to be laid for each personal computer that was added.

**Support of Research Funding Opportunities**

Ann H. Greenberg, Director of the Office of Sponsored Programs (OSP), notes that the OSP link to NYU-NET is immediately useful for electronic mail communications with funding agencies. The NYU-NET connection will provide the office with an on-line system for alerting faculty, departmental and program chairs, and administrators to funding opportunities, changes in procedures, and new regulations. The departmental network will facilitate the retrieval of information on existing and pending projects and funding sources needed by OSP staff. This enhanced access to information will improve the staff's ability to serve its University clients.

**Network Links for Health Services**

In the next two or three months, computers at the University Health Services' three locations will be linked via NYU-NET, again using twisted-pair Ethernet technology.

Project coordinator Michael Martino explains that currently each of the three sites has its own master database. Once the network links are established, staff will be able to exchange data and access a centralized database from all three facilities, and it will be possible to streamline procedures for scheduling appointments and managing client visits.

Plans to implement a fully computerized system of health histories for all NYU students will also be supported by the new network links. Once it is established, Health Services staff will have online access to up-to-date student health records, whether lookup is being conducted from the two University Place locations or from 3 Washington Square Village.

**To find out more . . .**

The ACF staff regularly provides consultation to departments, offering expert advice on the evolution of their plans for departmental and campus-wide networking. If you are interested in exploring the networking possibilities for your department, or are considering an individual connection from your office to the campus-wide NYU-NET, please call 998-3058; we will be happy to assist you.

—Estelle Hochberg, with Gary Chapman
Exchanging E-Mail with CompuServe and MCI Mail Users

If you are an experienced electronic mail user, you already know that addressing an E-mail message correctly can sometimes require a bit of care. While most of the time addressing E-mail is rather simple, it can become more complicated if you are corresponding with someone who is using a different type of computer to send and receive E-mail.

An article in the September 1990 issue of the ACF/NYU Newsletter introduced the subject of electronic mail addresses at NYU, and explained how one addresses E-mail to individuals at NYU and at other institutions on two worldwide academic networks, the Internet and BITNET. (For a copy, please call the ACF at 998-3058.)

However, you may need to exchange electronic mail with a colleague who uses the commercial E-mail services provided by CompuServe or MCI Mail. Here are the address formats that you and your correspondent can use, should this situation arise.

(Note: The following assumes that you are using a VAX/VMS computer—like the ACFcluster—or a UNIX computer, and omits addressing instructions for users of the IBM/CMS system at NYU. We plan to provide this information in a subsequent issue of this newsletter.)

Sending E-Mail to CompuServe

To send E-mail from a VAX/VMS computer at NYU, use the following address formats, replacing 1234567 with the CompuServe user number of the person with whom you are corresponding.

On a VMS computer (like the ACFcluster), use the format:
in%"1234.567@compuserve.com"
(remember to include the quotation marks, please!)

On UNIX, use
1234.567@compuserve.com

Note that the CompuServe user number consists of several numbers followed by a comma and then a few more numbers; in these E-mail address formats, the comma must be replaced by a period.

From CompuServe to NYU

Should the CompuServe user with whom you are corresponding wish to send you E-mail, he or she should use the following address format (at the “send” prompt):

>internet:name@computer.nyu.edu

replacing name with the familiar “name” portion of your NYU E-mail address (generally, your username), and computer with the computer on which you receive E-Mail. The “>” must be included.

Sending E-Mail to MCI Mail

Use the following address formats, replacing 1234567 with the MCI Mail user id number of the person to whom you are sending electronic mail.

On a VAX/VMS computer (the ACFcluster), use

in%"1234567@mciemail.com"

reminding to include the quote marks.

On a UNIX system, use
1234567@mciemail.com

From MCI Mail to NYU

The MCI Mail user with whom you are corresponding should type yourname EMS in response to the TO: prompt, where yourname is your full name, e.g., “John Smith”. To the EMS prompt, he or she should enter INTERNET and then, at the MBX prompt,

name@computer.nyu.edu

replacing name with the “name” portion of your NYU E-mail address (again, this is ordinarily your username) and computer with the name of the computer on which you receive your E-mail.

—Reported by Telly Mavroidis

Electronic Mail Accounts from the ACF

ACF Offers E-Mail to All NYU Faculty, Staff and Students

Any member of the NYU community can obtain an electronic mail account from the ACF. This includes all full and part-time faculty and staff members, all undergraduate and graduate students, in all schools and divisions of NYU, including the law, medical, and dental schools.

ACF electronic mail accounts (called E-Mail Accounts, for short) are for activities relating to academic endeavors only. You may use them to exchange electronic mail with E-mail users at NYU as well as at other univer-

(continued on following page)
A Networked "SIG" for Early English Scholars

BITNET Assists Study of England Before 1100 A.D.

ANSAXNET is a Special Interest Group using BITNET and associated university and research networks telecommunications systems for scholars and teachers of the culture and history of England before 1100 A.D. Persons interested in the later English Middle Ages and those interested in the early Medieval period throughout Europe are also encouraged to join the list. Currently, we have over 100 members in nine nations.

Members receive a directory of all our members in order to facilitate dialogues among small groups of members; access to ANSAX-L, a LISTSERV list which provides each member with the ability to communicate simultaneously with all other members of ANSAXNET; and a monthly electronic report to which members are encouraged to contribute announcements and information. This report often provides our members with new information about the use of computers in some aspect of their disciplines, as well as news of more conventional developments in the field. We also have projects underway to encode databases which members may use in their own work, and we provide access to the Dictionary of Old English at Toronto, the Fontes Anglo-Saxonici project at Manchester, SASLC ("Sources of Anglo-Saxon Literary Culture"), the Old English Newsletter, and Medieval Studies published by the Pontifical Institute at Toronto.

We would be glad to add your name to our directory and thus to make you a member of ANSAXNET. Membership is free to everyone with access to a BITNET node. Send an E-Mail note to Patrick Conner, U47C2@WVNVM.BITNET.

—Patrick Conner,
Department of English,
West Virginia University

(Professor Conner will speak at NYU on "Beowulf: An Example of the Computer-Assisted Study of English" on December 7, as part of the Colloquium Series on the Use of Computers in the College Classroom. For details, please see the item in "Instructional Computing", or call the ACF at 998-3058.)

Subscribing to ANSAXNET from an ACF Machine:

Users of the ACFcluster of VAX/VMS computers or of the ACF’s IBM/CMS system may subscribe to ANSAXNET using the following commands. On the ACFcluster, at the $ prompt, type (on one line):

SEND LISTSERV@WVNVM SUB ANSAX-L yourname

replacing yourname with your first and last name (e.g., John Smith).

On VM/CMS, use the command (again on one line):

TELL LISTSERV AT WVNVM SUB ANSAX-L yourname

(continued from preceding page)

Obtaining an Account

Faculty and staff members may request an E-Mail Account by sending an original letter on departmental stationary. Please use departmental letterhead that shows your department’s address and phone number. In the letter, please include your name, title, campus address and campus phone number.

Students will need a faculty sponsor. The sponsor must request the account for the student on department letterhead showing the department’s address and phone number. The letter should include the sponsor’s name, title, campus address, and campus phone number as well as the student’s name, address, and phone number (a campus address and phone number, when possible, please!).

Please send your letter via campus (interoffice) mail to: The Academic Computing Facility, Room 305, Warren Weaver Hall.

It will take a few days to establish your account, once we receive your request. When it is ready, we will let you (or your faculty sponsor) know via campus (i.e., interoffice) mail and send

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New Macintosh Models from Apple

Apple Combines Economy and Versatility in New Models

Apple Computer, Inc. recently announced three new models of the Macintosh that should be very interesting to members of the NYU community.

The three new models, the Apple Macintosh Classic, the Macintosh LC and the Macintosh Ilsi — together with two new Apple monitors, an Apple Ile card and several expansion cards — mark a major departure in Apple’s pricing and product strategy. With these models, Apple appears to have committed itself to substantially lower prices and margins in a dramatic attempt to gain greater market share. This departure should prove useful to anyone interested in lower priced, yet effective computers.

The Macintosh Classic is a less expensive version of the Macintosh SE. This compact model includes 1 megabyte of RAM and a 1.4-megabyte floppy SuperDrive, and is now available through NYU Book Centers for only $749. An expanded configuration with a 40 megabyte internal hard disk and 2 megabytes of RAM is also available for $1175. The Macintosh Classic Hard Disk 40 has proved to be one of our most popular sellers to date.

The Macintosh LC is Apple’s entry-level, color-capable Macintosh. This model, which includes 2 megabytes of RAM and a 40-megabyte hard disk, will be shipped in quantity by the beginning of March next year. The Macintosh LC offers built-in support for three Apple monitors—the new 12-inch RGB and monochrome displays, and the existing 13” color RGB Monitor. Any of these monitors can be attached directly to the LC without a separate video card. The Macintosh LC also provides two important new features: the ability to include

What’s New in Discount Prices at the Bookstore

Educational Prices at the NYU Book Store Make Computing More Affordable

This year, for the first time, Aldus is offering special educational prices. Under this new program, their desktop publishing program PageMaker can be purchased at the NYU Book Center for $199. Both the IBM and the Apple Macintosh versions of the software are available at the discounted price.

Borland products are also now available at an educational discount at the Book Center. Popular software from Borland includes the spreadsheet program Quattro Pro and the database management system Paradox. Borland products run on IBM and IBM-compatible personal computers.

Apple Computer, Inc. is offering a number of special Thanksgiving-Christmas “bundles” which allow you to take an additional $250 off the Book Center’s discounted prices. The special offer applies to most of the models in Apple’s Macintosh II series of personal computers.

The NYU Book Center offers a large collection of software for Macintosh and IBM-type personal computers, many of them at special educational prices. Personal computers are also available at substantial educational discount. Copies of the Fall 1990 price list are available at the NYU Book Centers’ Computer Department. You must have a valid NYU I.D. to be eligible for these special prices.

Reminder to Instructors:

If you plan to require or suggest the use of a particular item of personal computer software in your spring semester courses, please let the Book Store know at least six weeks before the semester begins. This will help ensure that the software will be in stock at the Book Store in sufficient quantity when your class needs it. Please call Jennifer King at 998-4672.
sound in many documents and, when equipped with the new Apple Ile expansion card, the ability to run many Apple Ile applications. It is even compatible with many Apple Ile drives and joysticks. The Apple Ile expansion card will be available for under $200 early next spring.

The Macintosh Ilsi is Apple’s most affordable Mac II system. One configuration is equipped with 2 megabytes of memory and a 40-megabyte hard disk. It is currently available from the Book Store, bundled with a 13” color monitor, for only $2840. For the “power user”, a 5 megabyte RAM, 80 megabyte hard disk, color configuration is also available for $3305. The Ilsi has many expansion capabilities. It features an internal expansion slot for either a NuBus card or a 030 Direct Slot card. This allows you to add an expansion card for communications, video or even coprocessing. The machine is fully upgradeable to 17 megabytes of RAM internally. The system also has built-in video support for four Apple monitors: the new 12-inch RGB and monochrome displays, the 13” existing AppleColor RGB monitor, and the Macintosh Portrait Display. Video expansion cards, which support other Apple and third-party monitors, are available as well.

Apple’s commitment to the flexible use of sound on low cost machines is new and intriguing. The Macintosh LC and Ilsi have been designed to input sounds from voice or other audio sources (e.g., CD-ROM, compact disk player, audio cassette player) and include them in documents and presentations. Both systems include microphones which use emerging application software that will support sound-annotated files. Apple is providing new system software that standardizes the way developers implement sound, and this is expected to make the new feature as intuitive and easy to use as the current Mac visual interface.

We believe that these new Macintosh systems are worth looking at closely. They can provide inexpensive, effective computing solutions for many academic and productivity needs. Please visit the Book Center Computer Department for more details.

—Jennifer King, Manager Computer Department, NYU Book Store (king@acfcluster.nyu.edu)

Second Annual Computer Fair Lights Up Loeb

Learning What’s Available, Telling Vendors What We Need

NYU students, staff and faculty turned out en masse for the second annual Computer Fair, held in the Loeb Student Center this past October 2nd and 3rd. Sponsored and organized by the NYU Book Center, the fair featured displays, samples, and demos from over twenty-five providers of...
personal computer software, hardware, publications, and services.

Vendors included Apple, IBM, Zenith, Aldus, Lotus Development, and Microsoft. A wide range of software for Macintoshes, PC's, and PC-compatibles were displayed, most available at special educational discounts from the Book Store.

Browsers at the Fair received hands-on demonstrations of the computers, printers, and software on display, and few visitors left empty-handed. Vendors' free "give-aways" included software demo disks, along with t-shirts, cups, and pens, and complementary coffee and breakfast were provided by the Book Center.

A day or so after the end of the fair, some 60 lucky visitors learned that they were winners in the Book Store's second annual Computer Fair raffle. Prizes included personal computer software, books, gift certificates, a camera, calculators, compact disks and a CD player.

Also at this year's fair was NYU's Academic Computing Facility. The ACF demonstrated electronic mail accounts, distributed schedules of their tutorials, and other educational events, and provided information about their services and computers.

What did the companies displaying their wares get out of the fair? Naturally, they hope to increase their sales, but events like the computer fair also provide them with a means of obtaining useful information from students and faculty about the computing needs of the academic community—input that, we hope, will help them to provide improved service and support for their University customers.

Computer Fair III? Same time next year, with a fresh assortment of computer wares and services. See you there!

—Jennifer King

### Purchasing Services

#### Maintenance Arrangements for Departmental Computers at NYU

The Purchasing Department has arranged support services with three personal computer maintenance companies for the 1990-91 fiscal year. Information brochures for Computer Maintenance Company, Key Systems and Lewis Business Machines were mailed recently to all faculty and staff. Additional copies are available from Purchasing Services (x81030).

All three companies cover a varied number of machine manufacturers including, but not limited to, IBM, Apple, Zenith, Dell, Compaq, Hewlett Packard, and AST. If your equipment is not listed in the brochures, please call the service companies or Purchasing for assistance.

These support services are intended for departmental computer equipment. Maintenance for personally-owned equipment should be arranged separately by the individual owner.

Annual maintenance agreements may be arranged by sending a Purchase Requisition to the Purchasing Department. For service requested on a per-call (time and materials) basis, Purchasing has supplied the service companies with work orders. When the technician arrives, he/she will ask for the department's account number and an authorized signator. A copy of the work order is left with the department, and the exact charge will show up on the department's ECR.

In addition, warranty service is offered through Key Systems on IBM and other equipment. Apple equipment under warranty can be serviced on-site by contacting Microcomputer Publishing Center at 463-8585; the charge is $65 per hour.

If you require additional information, please call Stephen Krause at extension 81032.

—Stephen Krause,
Senior Buyer,
NYU Purchasing Services Division
Computing at Stern

Computing at Stern

Computer Facilities at Stern's Undergraduate School

Stern Undergraduate students have the use of two computer labs at 40 West Fourth Street in Tisch Hall. One is in Room L100, off the building’s main lobby, and the other is on the Upper Concourse Lobby. These computer labs are open to all faculty, staff, and students of the Stern School of Business, Undergraduate College.

Software
The Computer Operations Department offers assistance to students in the use of various software packages, such as WordPerfect, dBASE, Quattro, Lindo, and Mystat. Other software programs used by faculty throughout Stern have also been installed.

Additional software available in the labs includes DesignAid, Turbo Assembler and Debugger, DacEasy, QSB, Prefcalc, CVSA, and DrawPerfect.

The labs are open Mondays to Fridays, from 9:15 am to 10:45 pm.

Equipment
The computer labs are equipped with IBM Personal System/2, Model 555X computers. There are approximately 36 computers in Room L100 and 25 computers in the Upper Concourse lab. All computers take 3.5 inch floppy disks. Hewlett-Packard laser printers are available. A 5.25" external drive is available for data transfer to 3.5"

Software Distribution
The Stern School has the authority to distribute the following software packages to all Stern students, free of charge: Mystat, Lindo, and dBASE III+ (Educational Version).

Other Functions
Facilities for visually impaired Stern students are available in Room L100.

The Stern Computer Operations Department also provides hardware and software support and training to all faculty, administrators, and staff of the Stern School of Business.

—Matthew Gee, Director, and Cecelia Poppleton, PC Lab Coordinator, Stern Undergraduate Computer Operations Department

How To Help Prevent Hard Disk Disaster

Advice from the Stern Undergraduate Computer Operations Department on Keeping Your Drive Fit

Hard disk malfunctions are like death and taxes, so it’s better to be prepared than surprised. The sooner you realize your hard disk is about to fail, the better your chances of preventing a minor breakdown from escalating into a full-fledged disaster.

Back Up Your Disk
The best protection against hard disk disaster is to back up frequently, preferably at the end of each day. A tape drive, a Bernoulli Box, or a second hard drive can make regular backup nearly effortless, but anyone with a copy of DOS’s BACKUP.COM utility can do the job using floppy disks. Third-party backup utilities can make the job even more painless. If you’re incorrigibly lazy and forgetful, you can put the backup command into the system’s AUTOEXEC.BAT file, so that your system will automatically back itself up when ever you turn it on.

Hard disk hazards range from vibration to power surges to the ravage of age. Fortunately, there are symptoms of impending trouble and many ailments are preventable, with the help of specialized hard disk utilities such as the Mace Utilities, hTEST/hFORMAT, the Norton Utilities, PC Tools, SpinRite, and Disk Technician. If you heed the warning signs and take appropriate actions, you can minimize inconvenience and prevent data loss.

Use CHKDSK Regularly
Ever wonder why your hard disk sometimes seems to hold less than it used to? Or why the end of your monthly progress report is suddenly tacked onto

(continued on page 22)
A Microcomputer Center Opens at Bobst

What began four years ago as a small word processing unit in the Library’s Avery Fisher Center has since evolved into a full service microcomputing facility, which made its debut this September on the B-Level of Bobst Library.

The new Microcomputer Center houses close to 70 IBM-compatible and Macintosh computers—all linked by a Novell network—and offers access to NYU-NET, high quality laser printing, and over a dozen software programs (see box).

In addition to these general applications, the Center plans to expand its software collection to include subject-based instructional software, bibliographic management programs, and other packages that support the University curriculum and enhance Library services.

To ensure that the Microcomputer Center’s services are available to all populations at NYU, the Library is working to integrate computing technologies that are particularly useful for disabled students and faculty. Braile printing and LP-DOS, which facilitates large print display, are currently available, and plans are underway for the Library’s new Kurzweil Reading Machine for speech synthesis and scanning to be placed in the Center.

Equipped with both an IBM and Macintosh classroom, the Center is an ideal setting for group instruction by NYU departments and programs. The classroom facilities are currently used most frequently by SEHNAP’s desktop publishing, computer art, and education technology programs. The Library plans to take advantage of the interactive classroom setting to build on its program of instruction in the use of new information technologies, such as online searching. Classrooms may be scheduled on a single session or semester basis—for information contact Melanie Dodson, Head of Information and Data Services, at 998-2454.

For more information about the Bobst Library Microcomputer Center—its rates, hours and services—pick up Information Bulletin 17, available in the library.
—Melanie Dodson and Genine Babakian
(Melanie Dodson heads Bobst Library’s Information and Data Services. Genine Babakian is Special Events Coordinator at Bobst.)

Using Computerized Reference Sources at Bobst

Online Information Retrieval Available at Bobst Library

Over the last year, Bobst Library has added a number of computerized research tools that can be accessed directly by all Library users. Electronic reference sources, including magazine and newspaper indexes, financial data, and scientific and medical information, are searchable in one of two formats: through a compact disk (CD-ROM) linked to a microcomputer; or via a remote online database.

Computerized information retrieval offers many advantages to the researcher:
• Online sources usually encompass a range of years, providing a speedy alternative to checking individual annual volumes.
• Key terms can be combined in order to retrieve a unique subset of items.
• Refining and limiting techniques—such as using truncation (wild card) symbols, or restricting results to specific years, languages, or sources—offer a quick and convenient way to expand or

(continued on following page)
narrow a search.
• Search results can be printed immediately or downloaded to a diskette for incorporation into other documents.

Library users can search the following computerized sources in the Reference locations listed. While these products are designed to be as user-friendly as possible, library staff are always available for assistance. (In the following list, “Reference 7” refers to the reference section on the seventh floor of Bobst, and so on.)

**ABI/Inform**
Article abstracts from business and trade journals. (Reference 7)

**Academic Index (InfoTrac)**
Multi-disciplinary index useful for general research—covers journals, magazines, and the last six months of the New York Times. (Reference 1)

**Dissertation Abstracts OnDisc**
Abstracts of doctoral dissertations completed 1861 to 1988. (Reference 1)

**Dow Jones News Retrieval Service**
Business information on publicly held U.S. companies. (Reference 7)

**ERIC (1966-1982)**
An index to articles and research reports covering the field of education from 1966-1982. (Reference 7)

**Government Publications Index (GPO)**
U.S. government publications from 1976 to present. (Reference 7)

**Medical Connection**
An interactive online system gives access to 30 databases in medicine, technology, and the sciences. (Reference 9)

**National Newspaper Index**

**Public Affairs Information Service**
Indexes articles, books and government documents in public administration, public policy, foreign relations, urban studies, and related subject areas from 1972 to present. (Reference 7)

**PsycLIIT**
Citations and abstracts in psychology and behavioral sciences from 1974 to present. (Reference 7)

**RLIN (Research Libraries Information Network)**
Online catalog including combined holdings of over 100 research libraries and archives across the country. (References 1, 7, and 9)

—Melanie Dodson and Genine Babakian

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your report on wheat rust future?
Chances are your hard drive is a victim of “lost clusters” or “cross-linked” files. Although these problems have different roots, CHKDSK is the common key to their resolution. Warning signs include a grinding sound from the hard disk when reading a file, and a DOS “abort, retry, fail” message when reading or copying a file. A disk cluster is “lost” when the file allocation table (FAT) records it as being in use but it’s not claimed by any file. Clusters typically go wandering when the PC loses power while data is being written to the disk, or when you turn off the PC without exiting the program properly.

Lost clusters won’t damage the hard disk, but over time they can soak up disk area. You can identify lost clusters by running DOS’s CHKDSK utility. To reclaim the clusters, run CHKDSK with the /F (FIX) parameter. CHKDSK/F will pull the lost clusters into sequentially numbered files starting with FILE0000.CHK, and save them in the root directory. Open these files, and you may discover parts of documents you didn’t save properly, bits of deleted files, or fragments of program files. You can’t do much with the latter, but the other data can be examined, deleted, or saved for further use.

However, if two files try to claim the same cluster or chain of clusters—that is, if they are cross-linked—a great deal of data could be corrupted. Run CHKDSK to find the files in this interlocked state. To untangle them, copy the files to different file names and then delete the originals. You may be able to salvage documents and other ASCII files from all of this, but don’t use cross-linked .EXE and .COM files; reinstall them from your master floppy disks.

—Matthew Gee
Director, Stern Undergraduate Computer Operations Department

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Academic Computing and Networking at NYU, November 1990, page 22
Online Information About the ACF's Data Base Archive

Accessing Info About Data Sets' Contents, Codebooks, and Use

An important service of the Academic Computing Facility's Data Base Archive is to maintain a collection of data sets which it obtains from several sources, such as the U.S. Bureau of the Census, the Inter-University Consortium for Political and Social Research, the Roper Data Center, the International Monetary Fund, and others. These data sets are obtainable as machine readable data files (MRDF's), stored on computer tapes in the ACF's tape libraries and available in several formats to students, faculty, and research staff. The MRDF's can be accessed and analyzed on either the ACF's IBM mainframe or the ACF's cluster of VAX/VMS computers, or they can be extracted for use on an IBM-type personal computer or Macintosh.

The contents of these files generally must be interpreted through the use of codebooks which are provided by the suppliers. Most of these codebooks have been produced by the ACF as printed documents which are available in the Bobst Library stacks.

The following is a guide to several on-line sources of information about the MRDF’s and their associated codebooks.

The ACF's INFO System

On NYU-NET, at the “>>” prompt, type CONNECT INFO. When you see the word “success”, press <Return> and follow the instructions until you are placed in the “Main Menu” of the INFO system. To learn about the Data Base Archive's resources, select FACILITIES from INFO's Main Menu; then select DATABASES, to reach the "Databases Menu".

Now, if you wish to learn about Data Base Archive facilities and procedures in general, type FULL: you will receive a list of topics and instructions on reading about them. If you are interested in a particular data-set, and you know its number, then at the "Topic?” prompt, type STUDIES; when you receive the "Studies Subtopic?” prompt, type the four digit number of the desired study.

It is possible also to search for study descriptions by entering a keyword to represent a topic of interest. To do this, return to the “Database Menu” and type INDEX. Follow the instructions to start a search for study descriptions which contain the keyword that you provide. (Binary searches, such as, for example, typing the words “health” and “attitudes” in order to select only descriptions containing both words, are not currently supported.)

From an ACF Cluster Account

From a VAX/VMS account on the ACF cluster, type the word INFO at the $ prompt, and you will be placed in the Main Menu of the Info system; then you (continued on following page)

Data Sets Recently Acquired by the DBA

The following data sets have been acquired recently by the ACF's Data Base Archive. (The ICPSR numbers, included below for your convenience, are reference numbers assigned by the Inter-University Consortium for Political and Social Research, the organization from which these sets were obtained.)

- Physical Violence in American Families, 1985 (ICPSR 9211). This is a follow-up survey to compare estimates of the incidence of intrafamily physical violence with estimates obtained in an earlier survey, Physical Violence in American Families, 1976 (ICPSR 7733).
- World Tables of Economic and Social Indicators, 1950-87 (ICPSR 9300). This file was obtained by ICPSR from the World Bank; it contains economic

and social indicators for 136 countries. An earlier version of this file, dated 1950-1981 (ICPSR 8197), is still retained because some variables in the earlier study are not contained in the later one.
- Monitoring of Federal Criminal Sentences, 1987-1989 (ICPSR 9317). This is a file of federal criminal court cases received by the United States Sentencing Commission.

The ACF's Data Base Archive (DBA) acquires and stores data files for instructional and research purposes at NYU. Assistance in the use of these data files is also provided by DBA staff to NYU faculty, researchers and graduate students. The DBA currently holds and catalogs some 700 studies represented by over 2000 data files. More are being acquired continually at the request of researchers at NYU. For additional information on the DBA's services, or for help in making use of them, please contact ACF consultants Bob Yaffe (998-3402) or Bert Holland (998-3401).

—Bert Holland
may proceed as described above.

From a WYLBUR Account
From an IBM/WYLBUR account type the words HELP ME DATABASE. Then follow the instructions that are presented. Choosing “3- STUDY NUMBERS” will permit you to browse through the titles of the studies that are available and to select study numbers for which you would like to see fuller descriptions. There are also options that allow you to see sample programs using DBA data for statistical analyses.

Searching BobCat for Codebooks
One can search BobCat, Bobst Library’s online catalog, for information about machine readable data files held at the ACF’s Data Base Archive and their corresponding codebooks available at Bobst. From NYU-NET type CONNECT BOBCAT and press <Return>. (From an ACFCluster account, type the instruction TELNET BOBCAT). Once you are connected to BobCat, press <Return> to display BobCat’s main menu (“ALL *CHOOSE SEARCH” should appear in the upper right corner of the screen).

To limit your search to records describing machine readable data files, type 7 or LIM, then 2 or MED to limit by media type. From the MEDia menu, select 4 to search MDF (Machine Data Files). This LIMIT selection can be “chained” by inserting a forward slash between commands, e.g., 7/2/4.

From this point, an author (principal investigator), title, or subject search may be initiated. Or, select BobCat’s new Boolean feature (BOL) to search by a single keyword or a combination of keywords, e.g., “pollution and opinion”. To obtain a complete list of MRDF’s and codebooks listed in BobCat, select the Advanced Boolean Search (ABS) command and search the phrase “computer file” in the title index, e.g., t:computer-file.

MDF records in BobCat provide the study number of the data set and a call number for the associated codebook. The FULL record includes a detailed description of the study. Descriptions of machine readable data files held by other institutions may be located through the RUN database, available in Bobst Reference Centers.

---Bert Holland and for BobCat, Melanie Dodson of Bobst Library

Data Access, Data Management

New Sociology Department Course To Offer A Guide Through the Maze

Advances in computer technology over the past 20 years have drastically changed the research environment for social scientists and other professionals. New and sophisticated methods for accessing, retrieving and managing data have been introduced. These have moved data access and data management from mere ancillary support functions to a more central role in statistical data analysis. Data access and data management deserve serious examination.

In the Summer of 1991, July 1-August 9, the Sociology Department (FAS) will be offering a unique new course. Data Management For Social Scientists and Professionals will provide a six-week fast-paced and up-to-date overview of the technical issues involved in accessing and managing data with computers. Participants will receive intensive hands-on technical training, utilizing the newest software packages for data access and management available on the Academic Computing Facility (ACF) mainframes and microcomputers. They will also have access to and work with the collection of social science datasets available in the ACF’s Data Base Archive.

What will the course cover?
Participants in this course will be introduced to a wide range of techniques and strategies for locating, accessing, managing, and restructuring data with mainframe computers and PC’s and for uploading and downloading between them. Included are: hands-on experience entering data, converting data from one machine readable form to another, managing large files on mainframes and PC’s, managing complex internal file organization, moving data between SPSS-X, SPSS/PC+ and SPSS Data

(continued on following page)
New Features of SAS Version 6

The First in a Series of Notes on the New Release

SAS 6.06 has been installed on the ACF's cluster of VAX/VMS computers and on the IBM mainframe's MVS/WYLBUR system, and it will be available on IBM/CMS in the near future. This note is the first of several describing some of the changes that have been made in the latest version of SAS.

An Overview

Version 6.06 contains a considerable number of changes, many of which are relatively minor. Among the more important changes, however, are (1) a new "architecture", (2) new "engines" for reading and writing files, (3) the introduction of the WHERE statement and of indexing for SAS data sets, (4) provisions for running larger jobs on certain computers, and (5) introduction of several new procedures, including PROC CALIS, which analyzes linear structural equations, and PROC LOGISTIC which performs logistic regression. (The same changes appear in SAS/PC, which is currently at Version 6.04.) Many of these changes will be transparent to most users, and most old SAS programs will run on Version 6.06.

It should also be noted that there have been reports of problems with the new version—not so much of computing errors as of greatly increased processing times and memory requirements. Because of this, Version 5.18 will be retained on ACF computers for some time and will be available for those who prefer to use it, instead.

Users are urged, though, to try Version 6, which does have several improvements to recommend it.

On VAX/VMS, where Version 5.18 is the current default, to invoke Version 6, you must first enter the command:

@NYUSLIB:SAS606

On IBM/WYLBUR, the instruction

// EXEC SAS

will execute Version 6, whereas

// EXEC SAS#

will execute Version 5.

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New Data Set Formats

Under Version 6, SAS data sets are distinctly different from those produced by earlier versions. For most users, this fact will have little impact because Version 6 of SAS can “recognize” both types of data sets and can apply the appropriate SAS “engine” to read them.

Problems would arise, however, if one tried to use SAS 5.18 to read a Version 6 data set, or if one wanted to use SPSS(X) to process a SAS data set; at present, the only SAS data sets that can be read by SPSS-X Version 3 and SPSS Version 4 (the “X” is no longer included in the name) are in the SAS Version 5 data format.

On the other hand, until recently, one common reason for using SPSS(X) to read a SAS data set was to employ SPSS(X)’s RELIABILITY procedure to calculate Cronbach’s alpha. In SAS Version 6, however, PROC CORR can calculate that coefficient.

Producing Version 5 Data Sets With Version 6

Should you need to create a Version 5 SAS data set when using Version 6 of SAS, the following commands must be used:

```
LIBNAME libref VS ‘directoryname’;
DATA librefSAS_data_set_name; [etc.]
```

For example, on VAX/VMS, the following commands would create a Version 5 SAS data set named ‘chorale.ssd’ in the user MEHTA’s subdirectory named BACH:

```
LIBNAME XYZ VS ‘[MEHTA.BACH]’;
DATA XYZ.CHORALE; [etc.]
```

On IBM(WYLBUR), the following would create a Version 5 SAS data set with the internal name ‘chorale’ in an IBM file named WYL.ME.HTA.BACH:

```
// JOB
// EXEC SAS
//SYSIN DD *
LIBNAME XYZ VS ‘WYL.ME.HTA.BACH UNIT=DISK VOL=ACFUO1 SPACE=(TRK,(1,2)) DISP=(NEW,CATLG)’;
DATA XYZ.CHORALE; [etc.]
```

(In the IBM instructions, note the absence of the usual output JCL, and of comma separators in the LIBNAME instruction. Also note that there is no SER= for the volume.)

—Bert Holland

Accessing BMDP 1990 on the IBM Mainframe

BMDP release 1990 has recently been installed on the ACF’s IBM WYLBUR system. The following JCL instructions can be used to access it.

```
// EXEC BIMED  Executes BMDP programs
// EXEC BIMEDT  Executes BMDP programs with user-supplied FORTRAN transformations, and creates a load module which can be saved.
// EXEC BIMEDITG Executes BMDP programs with FORTRAN transformations, but do not create a load module.
```

For further information, please contact the ACF statistical consultants in Room LC-7, Tisch Hall (998-3434).

—Ivor Smith
Using Shell Mode in Emacs

For UNIX Users, A Powerful Tool, Rarely Exploited

This note is intended for the dual purpose of acquainting persons already familiar with the editor emacs with a powerful capability that is rarely exploited, and to persuade UNIX users who do not use emacs that it might be worth trying.

From within emacs it is possible to issue commands to the login shell, but there is also a so-called “shell” mode, in which a sub-shell is created in its own window and in which the complete range of shell commands may be entered.

Advantages

There are a number of advantages to working on complex interactive programs this way. First, a complete record of the session is being kept and may be examined at any time. Second, if complicated commands are being entered—as may be the case with, e.g., MACSYMA—they are easily edited. (After all, the work is being done “in” a powerful editor.)

Complex entries which must be repeated can be “yanked”.

It is true that UNIX possesses a “script” facility which maintains and preserves a record of a session, but the script cannot be examined till after it has been terminated—one cannot examine a script while it is still recording. Also, script has no editing facility.

Using Shell Mode

The way in which the shell is invoked and used is as follows. Enter “esc-x shell”. That is, press, in sequence, the "escape" key (labeled "ESC" on most keyboards) then the letter "x", and then type the word "shell". After a brief wait, the screen will clear. The shell prompt (“%” for c-shell users who have not set their prompt variable, “$” for users of the Bourne shell, or your usual prompt) will appear, and the cursor will be positioned where it should be. The “mode” line will indicate a buffer name of *shell*.

Commands may now be entered as for the login shell. For some work, it may be necessary to “inform” the shell, by means of source, where certain commands are located. Aliases in the ~/.cshrc file should work. Once this is accomplished, the rest is as simple as entering commands in the usual fashion.

There are several points to be observed. Firstly, even though a shell is being run, anything entered is being processed through emacs, and if a key combination is entered which is recognized by emacs as an emacs command, it will respond. This is avoided by using the “quoted-insert” emacs command, i.e., “Aq” before such entries. Secondly, remember that the operation is taking place in a full-screen editor in which the cursor can be moved anywhere in the buffer without invoking a shell command. (This, of course, is one of the main reasons for using shell mode.) To leave the prompt for whatever purpose and then return is very simple. The prompt is the last character in the buffer and can always be reached by going to the bottom of the buffer with the command “esc->” (executed by pressing the ESC key, followed by the “>” key).

Finally, when the work is complete simply quit shell mode with the command “exit”. The flag “Process shell finished” will appear, and the shell prompt will disappear. However, the buffer still has the name *shell*. At this point text-mode should be entered via the command “esc-x text” in order to facilitate editing the file.

But Check CPU Time!

There are two important things to be observed and checked. Firstly, running a program in shell mode adds overhead to that program. For instance, running MACSYMA in top-level is itself expensive in terms of CPU time; the same program run in shell-mode will increase the CPU time somewhat because emacs processes everything and must construct the proper sequence of instructions.

Secondly, for the same reason, when you run your program, it will be slightly slower.

The first few times that you use this scheme you should observe whether you are slowed down unduly and check your account usage and balance for undue drain of resources.

Further information on the process may be obtained by querying comment@acf4 and harvey@acf4.

-Alex Harvey

(Alex Harvey is a physicist who works with Prof. Engelbert Schucking of the Physics Department (FAS).)
With the upgrade of the ACF cluster’s operating system to VMS Version 5.3-2, at the beginning of the semester we installed quite a number of utilities, tools, and other application programs. Here are a few.


- **For scientific and vector computations support:** FORTRAN Version 5.4, FORTRAN/High Performance Option Version 1.0 (manual and automatic vectorization & parallelization), VAX DEBUG-Multi Processor Option Version 5.0, Digital eXtended Mathematics Library Version 0.6 (BLAS support), VMS Vector emulation code Version 1.0 (slow; to be used for testing).


- **Miscellaneous packages:** VAX Notes Version 2.1, VAX GKS Version 4.0, ANU News version 6.0, VAX VideoText Version 4.0.

  Additional DEC products are expected to be installed later this semester.

  We have posted a full list of the newly installed software on the ACF cluster’s electronic bulletin board facilities: in response to the $ prompt, type BBOARD, then type HELP if you need instructions in the use of the BBOARD facility.

  Information on most of these programs is available in the DEC online HELP: at the $ prompt, type HELP software replacing software with the program of interest (e.g., HELP LISP). For more information please send electronic mail to COMMENT or contact an ACF consultant.

  —Reported by Stephen Tihor

(E-Mail, continued from page 16)

you the information you will need to get started using your E-Mail Account.

**What These Accounts Do (And Don’t Do)**

E-Mail Accounts only provide electronic mail service. They do not provide printing, file exchange from a personal computer, word processing or any other services that are normally available with accounts on ACF mainframes and microcomputers. If you require these additional services, please contact the ACF Accounts Office (998-3035) for information about other types of ACF accounts.

If you have any questions about E-Mail Accounts, please call 998-3058.

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**Supercomputer Access at NYU**

**National Supercomputing Systems**

Applications for time at National Science Foundation supercomputing centers can be obtained through the ACF. Computing systems available at these centers include: CRAY Y-MPs, IBM 3090-600fs, Connection Machines, Intel iPSC/860 and N-CUBE 2. Short blocks of “seed” time can be easily and quickly acquired.

For more information, contact Ed Friedman (998-3051; E-mail: friedman@acfclu.nyu.edu) or Jeffrey Bary (998-3049; E-mail: bary@acfclu.nyu.edu). NSF application forms are available at the ACF Accounts Office (Room 305, Warren Weaver Hall, 998-3035).

**Local Supercomputing Systems**

The ACF’s CONVEX C210 system offers a “mini-supercomputer” environment in which large vectorizable programs — written in FORTRAN or C — involving vector and matrix calculations can be developed for eventual use on supercomputers. The Astronautics ZS-2 “mini-super” can also be used to prototype large scale computational problems. A Stardent (Stellar) “mini-super” is also available for advanced scientific visualization and high-speed computation. All of the above resources can be used to run moderate sized production codes.

Faculty, researchers, and graduate students should contact the ACF Accounts Office (Room 305, Warren Weaver Hall, 998-3035) for time on any of the locally available systems.

—Ed Friedman
Important ACF Telephone Numbers

| General Information (ACF)          | 998-3058 |
| Account Information               | 998-3035 |
| Computer Status (recording)       | 998-3433 |
| Computer Documentation            | 998-3036 |
| Faculty Microcomputer Lab         | 998-3044 |
| Tape Librarian                    | 998-3452 |
| Applications Consultants:         |          |
| 14 Washington Place               | 998-3399 |
| Tisch Hall                        | 998-3434 |
| Education Building                | 998-3435 |
| Warren Weaver Hall                | 998-3037 |
| Third Ave. North Res. Hall        | 998-3500 |
| Computer Operators:               |          |
| 14 Washington Place               | 998-3457 |
| Tisch Hall                        | 998-3409 |
| Education Building                | 998-3421 |
| Warren Weaver Hall                | 998-3456 |
| Third Ave. North Res. Hall        | 998-3504 |

Dial-in Access to ACF Computers

If calling from: 
- NYU Dial 53600* For (bps) 
  300 - 2400
- Off Campus 995-3600* For (bps) 
  300 - 2400

*Via NYU-NET, NYU's campus-wide network. 
(If there is no answer at this number, or if your modem connects but you do not receive the NYUMODEM> prompt, try any of the following numbers: 995-4331, 4332, or 4333. Please use these numbers only if you experience problems with 995-3600!)

Dial-in Access to ACF Computers

1. Warren Weaver Hall
   251 Mercer St., 3rd floor
2. Tisch Hall*
   40 W. 4th St., lower concourse
3. 14 Washington Pl.
   basement
4. Education Building*
   35 W. 4th St., second floor
5. 715 Broadway
   (IBM tapes only)
6. Third Ave. No. Residence Hall*
   75 Third Ave., basement

*ACF Access Cards may be required for use of the microcomputers at these sites. For information, please call 998-3058.

NYU Trolley route includes (6); weekdays, every 15 minutes during the academic year. ACF terminals are located in (2) and (3); microcomputers are at (2), (4), and (6).

Hours at ACF Sites

<table>
<thead>
<tr>
<th>User Work Areas:</th>
<th>Regular Hours</th>
<th></th>
<th>Holiday Hours*</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Washington Place</td>
<td>Mon. - Fri. 8:30 a - 11:30 p</td>
<td>Sat. 8:30 a - 5:30 p</td>
<td>Sun. closed</td>
</tr>
<tr>
<td>Tisch Hall</td>
<td>8:30 a - 11:30 p</td>
<td>8:30 a - 5:30 p</td>
<td>closed</td>
</tr>
<tr>
<td>Education Building</td>
<td>8:30 a - 11:30 p</td>
<td>8:30 a - 5:30 p</td>
<td>closed</td>
</tr>
<tr>
<td>Third Ave. North</td>
<td>10:30 a - 1:30 a</td>
<td>10:30 a - 5:30 p</td>
<td>10:30 a - 5:30 p</td>
</tr>
<tr>
<td>Consultants:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Washington Place</td>
<td>10 a - 9 p</td>
<td>12 p - 5:30 p</td>
<td>closed</td>
</tr>
<tr>
<td>Tisch Hall</td>
<td>9 a - 9 p</td>
<td>9 a - 5 p</td>
<td>closed</td>
</tr>
<tr>
<td>Education Building</td>
<td>10:30 a - 9 p</td>
<td>10:30 a - 5:30 p</td>
<td>closed</td>
</tr>
<tr>
<td>Third Ave. North</td>
<td>10:30 a - 1:30 a</td>
<td>10:30 a - 5:30 p</td>
<td>10:30 a - 5:30 p</td>
</tr>
</tbody>
</table>

*A final schedule will be posted via our online news and bulletin board facilities.

Note: The ACF offices in Warren Weaver Hall are closed on University holidays.
Featuring:

- Instructional Computing
- Microcomputers
- Network Notes
- Social Science Computing
- Library Computing
- From the NYU Book Centers