FALL SEMESTER SCHEDULE EDITION

Fall '89 at the ACF

<table>
<thead>
<tr>
<th>Page</th>
<th>Typesetting</th>
<th>ALSO FEATURING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Notes on TeX and LaTeX</td>
<td>Software for Writing French 13</td>
</tr>
<tr>
<td></td>
<td>Microcomputers</td>
<td>Faculty Micro Lab Moves 14</td>
</tr>
<tr>
<td></td>
<td>New Micro Accounts Available to All Students 10</td>
<td>Support for Administrative Micro Users 14</td>
</tr>
<tr>
<td></td>
<td>Micro Facility Remodeled 10</td>
<td>Other Notes for Micro Users 14</td>
</tr>
<tr>
<td></td>
<td>Managing Departmental Computers 11</td>
<td>Graphics: Visualization Center Relocates 15</td>
</tr>
<tr>
<td></td>
<td>Fall '89 News Notes</td>
<td>Mainframes and minis: More VMS, UNIX Resources 15</td>
</tr>
<tr>
<td></td>
<td>Micros: Instructional Micro Lab Joins NYU-NET 13</td>
<td>Cluster Upgraded to VMS 5 15</td>
</tr>
<tr>
<td></td>
<td>Macintosh Price Reductions 13</td>
<td>X-Windows Terminals 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notes for IBM 4381 Users 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mathematica on UNIX 16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supercomputers: Upgrade Planned for CONVEX inside</td>
</tr>
<tr>
<td></td>
<td></td>
<td>back cover</td>
</tr>
</tbody>
</table>
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
998-3438
Education Building
998-3435
Warren Weaver Hall
998-3037
Third Ave. No. 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 For (bps)
NYU 53606 110 - 1200
53600* 110 - 2400
Off Campus 777-7600 110 - 1200
777-8178* 110 - 2400
995-3600* 110 - 2400

1 Via the NYU Computer System Selector (the MICAL Port Selector, or “switch”). If you dial 777-7600 and get no answer, please try 777-6030 or 777-8730, instead.
* Via NYU-NET, NYU’s campus-wide network.

NEW YORK UNIVERSITY
Washington Square Center

Guide to ACF user work areas and other facilities

User Work Areas:
14 Washington Place
Tisch Hall
Education Building
Third Ave. North

Consultants:
14 Washington Place
Tisch Hall
Education Building
Third Ave. North

Regular Hours

14 Washington Place
8:30 am - 11:30 pm
8:30 am - 5:30 pm
closed

Tisch Hall
8:30 am - 11:30 pm
8:30 am - 5:30 pm
closed

Education Building
8:30 am - 11:30 pm
8:30 am - 5:30 pm
closed

Third Ave. North
12 pm - 2 am
12 - 6 pm
12-6 pm

Consultants:
14 Washington Place
10 am - 9 pm
12 - 9 pm
closed

Tisch Hall
9 am - 9 pm
9 am - 5 pm
closed

Education Building
10 am - 9 pm
9 am - 5 pm
closed

Third Ave. North
(To be announced) *

Holiday Hours
Mon. - Fri. Sat.
closed closed
closed 9 am - 9 pm 9 am - 6 pm
closed 9 am - 9 pm 9 am - 6 pm
(To be announced)
closed closed
closed 9 am - 9 pm 10 am - 5 pm
closed 10 am - 9 pm 10 am - 5 pm
(To be announced) *

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

Notes: (1) The ACF’s public terminals on the B-level of Bobst Library are available during library and study hall hours.
(2) The ACF offices in Warren Weaver Hall are closed on University holidays.
(3) Currently, the Third Avenue North Residence Hall site is available only to students with "ACF Access Cards".

Please see inside back cover for information on student computer registration.
# Important Dates for ACF Users

## September

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 7</td>
<td>Individual account renewal applications are being accepted for fiscal year 1989 - 90.</td>
</tr>
<tr>
<td>Sept. 2, 3, 4*</td>
<td>(Sat., Sun., Mon.) Labor Day weekend all sites closed</td>
</tr>
<tr>
<td>Sept. 5 - 30</td>
<td>Students register for computer use for fall semester see inside back cover</td>
</tr>
<tr>
<td>Sept. 7</td>
<td>(Thurs.) ACF's summer hours end; regular fall hours resume see inside front cover</td>
</tr>
<tr>
<td>Sept. 7</td>
<td>(Thurs.) Fall semester begins.</td>
</tr>
<tr>
<td>Sept. 30</td>
<td>(Sat.) Rosh Hashanah regular hours**</td>
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## October

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Oct. 9</td>
<td>(Mon.) Yom Kippur regular hours</td>
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<tr>
<td>Oct. 9</td>
<td>(Mon.) Columbus Day regular hours</td>
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## November

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Nov. 7</td>
<td>(Tues.) Election Day regular hours</td>
</tr>
<tr>
<td>Nov. 11</td>
<td>(Sat.) Veterans' Day regular hours</td>
</tr>
<tr>
<td>Nov. 23*, 26</td>
<td>(Thurs., Sun.) Thanksgiving Day and Thanksgiving Sunday all sites closed</td>
</tr>
<tr>
<td>Nov. 24*, 25</td>
<td>(Fri., Sat.) Thanksgiving Friday and Saturday holiday hours**</td>
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## December

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<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>Dec. 11 - Jan. 22</td>
<td>Instructors apply for Spring 1990 Class Accounts, through the first day of classes.</td>
</tr>
<tr>
<td>Dec. 11 - 21</td>
<td>Students who expect Incompletes in fall semester courses should apply for computer account extensions. (Instructor's signature required.)</td>
</tr>
<tr>
<td>Dec. 13 - 21</td>
<td>Students with fall semester Class Accounts should archive all files they wish to save after Dec. 21.</td>
</tr>
<tr>
<td>Dec. 14 - 21</td>
<td>(Thurs. - Thurs.) Final examinations week regular hours, plus Sunday§</td>
</tr>
<tr>
<td>Dec. 21</td>
<td>(Thurs.) Student Class Accounts issued for the fall semester expire.</td>
</tr>
<tr>
<td>Dec. 22 - Jan. 1*</td>
<td>(Fri. - Mon.) Christmas - New Year's Recess see note below†</td>
</tr>
<tr>
<td>Dec. 22 - Jan. 21</td>
<td>Winter Recess see note below†</td>
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## January

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>Jan. 2</td>
<td>(Tues.) Christmas - New Year's Recess ends regular hours</td>
</tr>
<tr>
<td>Jan. 15*</td>
<td>(Mon.) Dr. Martin Luther King, Jr. Day see note below</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>(Mon.) Winter Recess ends; spring semester begins. Instructors, please apply for Spring 1990 Class Accounts, if you have not already done so regular hours</td>
</tr>
</tbody>
</table>

*University holiday

**See inside front cover for the ACF's regular and holiday hours.

§Toward the end of each semester, the ACF opens one or two sites on Sundays to help students with their end-of-term preparations. Hours and locations to be announced.

†ACF offices in Warren Weaver Hall will be closed for the Christmas-New Year's recess (Dec. 22 - Jan. 1) and for Martin Luther King, Jr. Day (Jan 15). As we go to press, however, hours at the ACF's user work areas during the University's Winter Recess (Dec. 22 - Jan. 20) have not as yet been put into final form. Hours will be announced via our online news, notes, and bulletin board facilities, and will be posted at ACF sites.
ACF Tutorials

New computer users are welcome to take part in the ACF's introductory-level "walk-in" tutorials. These tutorials are scheduled for the first three weeks of every semester, and are free of charge.

To attend a "walk-in" tutorial, students or faculty must sign up about one hour in advance. Sign-up sheets are available at the operator's desk at the ACF site at which the tutorial is to be given. (See below for tutorials' locations.)

Faculty may also arrange tutorials specially for their classes or research groups. For IBM WYLBUR or VM/CMS, call Ivor Smith (998-3434); for all other systems, Frank LoPresti (998-3398).

Karel (Apple Macintosh)
Education Building, second floor.
(Students must bring a double-sided, double-density 3 1/2 inch diskette.)

Mondays
Sept. 11, 18, 25
10:00 am, 11:30 am, 3:00 pm
Tuesdays
Sept. 12, 19, 26
11:30 am, 1:30 pm, 4:30 pm
Wednesdays
Sept. 13, 20, 27
10:00 am, 11:30 am, 3:00 pm
Thursdays
Sept. 7, 14, 21, 28
11:30 am, 1:30 pm, 4:30 pm

MS-DOS (IBM PC)
Education Building, second floor

Tuesdays
Sept. 12, 19, 26
1:00 pm

Wednesdays
Sept. 14, 21, 28
6:00 pm

SPSS/PC+ (IBM PC)
Education Building, second floor

Thursdays
Sept. 14, 21, 28
3:00 pm

Microsoft Works (PC, Mac)
Third Ave. No. Res. Hall, basement
(ACF Access Card required.)

Fridays
Through Dec. 8:
2:00 pm (PC)
3:00 pm (Macintosh)

Electronic Mail (VMS, UNIX)
14 Washington Place, basement

Wednesdays
Sept. 20, Oct. 4, Nov. 8
2:00 pm

Introductory Lectures (Room 102, Warren Weaver Hall):

Mondays
Sept. 18, 25, Oct. 2
5:30 & 6:30 pm

Tuesdays
Sept. 21, 28, Oct. 5, 12
5:30 & 6:30 pm

Wednesdays
Sept. 22, Oct. 6, 13
6:00 pm

VMS (VAX)
14 Washington Place, basement

Mondays
Sept. 11, 18, 25
1:00 pm

Wednesdays
Sept. 13, 20, 27
4:00 pm

Smith (998-3434); for all other systems, Frank LoPresti (998-3398).

UNIX (VAX and SUN)
14 Washington Place, basement

Mondays
Sept. 11, 18, 25
6:00 pm

Wednesdays
Sept. 13, 20, 27
1:00 pm

Fridays
Sept. 15, 22, 29
4:00 pm

Saturdays
Sept. 16, 23, 30
11:00 am
(Saturdays at Education Building, second floor)

VM/CMS (IBM mainframe)

Upon request, by appointment; call Ivor Smith at 998-3434.
ACF Microcomputer Workshops

The ACF’s non-credit, half-day workshops in personal computing are open to NYU faculty, graduate students and administrative staff. This semester, the series of hands-on workshops for the IBM PC and the Apple Macintosh will feature sessions on desktop publishing, in addition to popular word processing applications, spreadsheets, database management applications, and graphics.

The workshops will be held at the ACF’s Education Building site, 35 West Fourth Street, second floor. Morning workshops will run from 9 a.m. to 12 p.m.; afternoon workshops, from 1 p.m. to 4 p.m. In order to accommodate as many registrants as possible, it may be necessary to share computers.

To cover the cost of course materials, there will be a $20 fee for each workshop. (The fee can be charged to a University account.)

TO REGISTER FOR THE ACF’S MICROCOMPUTER WORKSHOPS:

Please contact Henry Mullish at 998-3039 during the week of the workshop. If an answering machine responds, please leave your name, telephone number and department, and state your preference of workshop and date.

<table>
<thead>
<tr>
<th>Course</th>
<th>Morning Workshops</th>
<th>Afternoon Workshops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to WordPerfect 5.0</td>
<td>September 8, 15, 29</td>
<td>September 29</td>
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<tr>
<td>Intermediate WordPerfect</td>
<td>September 8, 15, 29</td>
<td>September 29, October 20</td>
</tr>
<tr>
<td>Intermediate WordPerfect</td>
<td>September 8, 15, 29</td>
<td>September 29, October 20</td>
</tr>
<tr>
<td>Advanced WordPerfect</td>
<td>October 27</td>
<td>November 10</td>
</tr>
<tr>
<td>Introduction to Lotus 1-2-3</td>
<td>September 22</td>
<td>December 1</td>
</tr>
<tr>
<td>Intermediate Lotus 1-2-3</td>
<td>September 22</td>
<td>November 10</td>
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<tr>
<td>Introduction to dBase III+</td>
<td>October 6</td>
<td>November 3</td>
</tr>
<tr>
<td>Intermediate dBase IV</td>
<td>November 3</td>
<td>November 3</td>
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<tr>
<td>Intermediate dBase IV</td>
<td>November 3</td>
<td>November 3</td>
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<tr>
<td>Introduction to MacDraw/</td>
<td>November 3</td>
<td>November 3</td>
</tr>
<tr>
<td>MacPaint and MacWrite§</td>
<td>January 5</td>
<td>January 5</td>
</tr>
<tr>
<td>Introduction to Microsoft Excel§</td>
<td>December 1</td>
<td>December 1</td>
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<tr>
<td>Introduction to Microsoft Works§</td>
<td>December 1</td>
<td>December 1</td>
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<tr>
<td>Introduction to Desktop Publishing</td>
<td>November 17</td>
<td>November 17</td>
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<tr>
<td>using PageMaker§</td>
<td>November 17</td>
<td>November 17</td>
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<tr>
<td>Intermediate PageMaker§</td>
<td>November 17</td>
<td>November 17</td>
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<tr>
<td>Introduction to Style and Grammar</td>
<td>October 27</td>
<td>October 27</td>
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<tr>
<td>Analyzers</td>
<td>October 27</td>
<td>October 27</td>
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</table>

* The WordPerfect Graphics workshops assume an introductory knowledge of WordPerfect.
§ For the Apple Macintosh. All other workshops for the IBM PC.
ACF Talks & Seminars*

Topics in UNIX
Warren Weaver Hall, Room 1302, 2:30 pm
This two-part "mini-course" on the use of the UNIX systems at NYU will be given by Gary Rosenblum. It is an intermediate-level follow-up to the ACF’s introductory UNIX tutorials, which will be offered this semester at the ACF’s 14 Washington Place site.

Topics in UNIX (part I)
Tuesday, September 19
Topics in UNIX (part II)
Tuesday, September 26

Kermit Practicum: Connecting Home Computers with NYU Computers
Education Building, second floor, 2:30 pm
The communications software package "Kermit" will be discussed and demonstrated. Kermit, obtainable free of charge at NYU, provides a means of transferring files back and forth between your home computer and NYU computers, enabling you to use NYU computers to work on files developed at home, and vice versa.

Kermit Practicum (session I)
Thursday, September 28
Kermit Practicum (session II)
Thursday, November 16

Topics in VMS
Warren Weaver Hall, Room 1302, 2:30 pm
This intermediate-level "mini-course", given by Stephen Tihor, will be of interest to users of the VAX/VMS systems at NYU. Topics will include the structure of the VMS system, course-structured ac-

A Sampler of PC Software
Education Building, second floor, 2:30 pm
Henry Mullish will present a hands-on, introductory level, overview of a variety of software packages for the IBM PC, including WordPerfect 5.0, dBase III and Lotus 1-2-3. He will also demonstrate the use of WordPerfect to create a newsletter. Reservations are required; please call Henry Mullish at 998-3039.

PC Sampler
Thursday, October 5

Introduction to SPSS/PC+
Education Building, second floor, 2:30 pm
SPSS/PC+ is the PC version of SPSS (Statistical Package for the Social Sciences). Copies of this popular statistical package are available to NYU faculty, researchers, and graduate students at a reduced fee, via a site license agreement arranged by the ACF.

In this talk, Frank LoPresti will present a hands-on introduction to SPSS/PC+. He will touch upon preparation of data for inputting, simple data input statements, execution of procedures, and printing of output.

As only a limited number of PC's are available, attendees may have to share them.

Introduction to SPSS/PC+
Tuesday, October 24

Document Preparation with LATEX
Warren Weaver Hall, Room 1302, 2 to 4 pm
Given by John Kesich. TEX is a program designed to produce high-quality typeset documents. LATEX adds to TEX a collection of commands that simplify typesetting, by letting the user concentrate on the structure of the text rather than on formatting commands.

The first meeting will cover the typesetting of mathematical and non-mathematical documents using LATEX, with emphasis on macros, dealing with errors and navigating through the LATEX book. In the second meeting, topics suggested by those present at the first meeting will be discussed.

LATEX (part I)
Wednesday, October 25
LATEX (part II)
Wednesday, November 8

* All are welcome, and reservations are not required, unless otherwise indicated.
Internetworking at NYU
Warren Weaver Hall, Room 1302, 2:30 pm
The current status and outlook for data and video communications networks using the Internet at NYU will be discussed by Bill Russell. The Internet is a network of TCP/IP networks accessible from NYU via NYU-NET, NYU’s campus-wide network.

Internetworking at NYU
Tuesday, October 31

BITNET and BITNET Services
Warren Weaver Hall, Room 1302, 2:30 pm
BITNET is an international network of over 2000 computers at universities and research centers.
In this talk, Jeffrey Bary will demonstrate many of the features of the BITNET. Topics will include BITNET “file servers” and “Listerservers”, file transfers, connectivity and electronic mail, relays, electronic mail, and online “white pages”.

BITNET and BITNET Services
Tuesday, November 7

IBM and Apple Networks for Microcomputers
Education Building, second floor, 2:30 pm
Larry Mingione will speak about two popular microcomputer networks in use at the ACF’s Education Building site, AppleShare (for Apple Macintoshes) and Novell (for IBM PC’s).
In this overview of the two types of networks, he will touch on some of their differences and similarities. He will describe some of the essential tasks and concerns for administrators of small microcomputer networks, and will demonstrate a few basic network management routines and commands.

Networks for Microcomputers
Tuesday, November 21

Technical Seminar for System Administrators of NYU-NET Nodes
Warren Weaver Hall, Room 1302, 2:30 pm
This talk will be of interest to people who are responsible for the configuration and management of systems software on one or more computers or departmental networks attached to NYU-NET.
Bill Russell will discuss the use and configuration of name servers, of sendmail, and of the routing daemon, and other topics of importance in this area.
The talk assumes familiarity with system management concepts, and with the use of DECnet or TCP/IP, Telnet and FTP. Note that system performance optimization will not be covered in this talk. Although only VMS- and UNIX-based hosts will be covered in detail, the general principles will be applicable to all types of systems.

System Managers’ Seminar
Tuesday, November 14

Nota Bene
An Academic Word Processor and Database Manager
Education Building, second floor, 2:30 pm
Larry Mingione will speak on Nota Bene, a text processor coupled with a database manager, which runs on IBM PC’s.
This package is designed for researchers in the humanities who wish to have large amounts of text available for retrieval from within a word processor. Nota Bene allows the researcher to print many alphabets and search through entire hard disks of text using logical expressions.

Nota Bene
Tuesday, November 28

Computer Graphics at the ACF
Warren Weaver Hall, Room 1302, 2:30 pm
Jeffrey Bary will present a new collection of computer-generated videos and films produced as part of research projects at NYU since the Spring ’89 semester.

Film Showing
Tuesday, December 5

WordPerfect 5.0 Macros
Education Building, second floor, 2:30 pm
Henry Mullish will demonstrate how to dramatically increase productivity, when working in WordPerfect 5.0 on the IBM PC, by creating macros for common tasks. No previous knowledge of macros is required, although a knowledge of WordPerfect would be helpful. Reservations are required; please call Henry Mullish at 998-3039.

WordPerfect Macros
Tuesday, December 12
# ACF Tutorials, Workshops and Talks

## September

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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</thead>
</table>
| **For further information** on microcomputer workshops, please see page 3; on tutorials, page 2; on talks and seminars, pages 4-5. Some events require registration, and there is a fee for microcomputer workshops. | **For other important dates for ACF users** — account registration and renewal, holiday schedule, and so on — please see page 1. | | | **Workshops:**
| **Labor Day - All Sites Closed** | | | | **Workshops:**
| **Tutorials:**
  - Karel, 10, 11:30, 3
  - VAX/VMS, 1
  - UNIX, 6 | **Tutorials:**
  - Karel, 11:30, 1:30, 4:30
  - MS-DOS, 1 | | **Karel, 11:30, 1:30, 4:30**
  - Fall semester begins.
  - ACF’s summer hours end.
  - Regular fall hours resume.
| **Tutorials:**
  - Karel, 10, 11:30, 3
  - VAX/VMS, 1
  - UNIX, 1 | **Tutorials:**
  - Karel, 11:30, 1:30, 4:30
  - SPSS/PC, 3
  - MS-DOS, 6 | | **Workshops:**
  - WordPerfect Intro, 9-12
  - WordPerfect, Intermed., 1-4
  - Tutorials: Karel, 1
  - Works, 2, 3 |
| **Tutorials:**
  - Karel, 10, 11:30, 3
  - VAX/VMS, 1
  - WYLBUR, 5:30, 6:30
  - UNIX, 6 | **Seminar:**
  - Topics in UNIX (I)
  - Tutorials:
  - Karel, 11:30, 1:30, 4:30
  - MS-DOS, 1 | | | **Workshops:**
  - WordPerfect Intro, 9-12
  - WordPerfect, Intermed., 1-4
  - Tutorials: Karel, 1
  - Works, 2, 3
  - UNIX, 4, VAX/VMS, 6 |
| **Tutorials:**
  - Karel, 10, 11:30, 3
  - VAX/VMS, 1
  - WYLBUR, 5:30, 6:30
  - UNIX, 6 | **Seminar:**
  - Topics in UNIX (II)
  - Tutorials:
  - Karel, 11:30, 1:30, 4:30
  - MS-DOS, 1 | | | **Intro Lecture:**
  - WYLBUR, 6 |

## October

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<thead>
<tr>
<th>MONDAY</th>
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<th>THURSDAY</th>
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</tr>
</thead>
</table>
| **Tutorials:**
  - WYLBUR, 5:30, 6:30 | **Seminar:**
  - Topics in VMS (I) | **Tutorial:**
  - Mail, 2 | **Tutorials:**
  - WYLBUR, 5:30, 6:30
  - Seminar: PC Sampler | **Workshops:**
  - dBase III+ Intro, 9-12
  - dBase III+, Intermed., 1-4
  - Tutorials: Works, 2, 3
  - Intro Lecture: WYLBUR, 6 |
| **Yom Kippur**
  - Columbus Day | **Seminar:**
  - Topics in VMS (II) | | **Tutorials:**
  - WYLBUR, 5:30, 6:30 | **Workshops:**
  - WordPerfect Intro, 9-12
  - WordPerfect, Intermed., 1-4
  - Tutorials: Works, 2, 3
  - Intro Lecture: WYLBUR, 6 |
| **Seminar:**
  - Topics in VMS (III) | | | | **Workshops:**
  - Microsoft Works Intro, 9-12
  - WordPerfect Intro, 1-4
  - Tutorials: Works, 2, 3 |
| **Seminar:**
  - Introduction to SPSS/PC | **Seminar:**
  - LATEX, (I) | | **Saturday tutorials:**
  - Karel - Sept. 9, 16, 23, 1 pm, 3 pm
  - UNIX - Sept. 16, 23, 30, 11 am
  - VMS - Sept. 16, 23, 30, 1 pm
  - See page 2 for a complete tutorial schedule and for information on registration and locations. |
| **Seminar:**
  - Internetworking at NYU | | | | **Tutorials:**
  - Works, 2, 3 |

**ACF/ NYU Newsletter, September 1989, page 6**
## November

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<tr>
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</table>
| 1      |         |           | 2        | Workshops:  
dBase IV Intro, 9-12  
dBase IV, Intermed., 1-4  
Tutorials: Works, 2, 3 |
| 6      | Seminar: BITNET and BITNET Services  
Election Day | 7 | Seminar: LATEX, (II)  
Tutoria: Mail, 2 | 8 | Seminar:  
Kermit Practicum |
| 13     | Seminar: System Manager's Seminar | 14 |       | 15 | Seminar:  
PageMaker Intro, 9-12  
PageMaker, Intermed., 1-4  
Tutorials: Works, 2, 3 |
| 20     | Seminar: IBM and Apple Networks for Microcomputers | 21 |       | 22 |       |
| 27     | Seminar: Nota Bene | 28 |       | 29 |       |

## December

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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</table>
| 1      |         |           | 2        | Workshops:  
Lotus 1-2-3 Intro, 9-12  
Microsoft Excel Intro, 1-4  
Tutorials: Works, 2, 3 |
| 4      | Seminar: Film Showing | 5 |       | 6 |       |
| 11     | Seminar: WordPerfect Macros  
Student applications for account extensions accepted through Dec. 21.  
Instructions' applications for Spring Class Accounts accepted. | 12 | Students with fall semester Class Accounts should archive all files they wish to save after Dec. 21, through Dec. 21. | 13 |       |
| 18     |         | 19 |       | 20 |       |
| 27     |         | 28 | Student Class Accounts expire. | 29 |       |

### Microcomputer Workshops in January:

- Jan. 5 - WordPerfect 5.0 Intro, 9-12; MacDraw/  
  MacPaint, MacWrite Intro, 1-4  
- Jan. 12 - WordPerfect 5.0 Intro, 9-12, repeated 1-4  
- Jan. 19 - WordPerfect 5.0 Intro, 9-12; Intermediate, 1-4

"ACF/ NYU Newsletter, September 1989, page 7"
Some Introductory Notes on TeX and LaTeX

What They Are, and How to Get Started With Them

The typesetting software systems TeX and LaTeX are available on the ACF’s VAX/VMS and UNIX computers.

TeX (pronounced "tek") was developed by Donald Knuth of Stanford University in the early 1980’s. His primary goal was to allow easy typesetting of mathematics; most people would agree that he has achieved this admirably. A second goal was that the software be highly portable — i.e., easily adapted to different types of computers. Today, there are TeX implementations for virtually every type of computer available, and — better still — all with a consistent user interface. Finally, TeX is sufficiently powerful and flexible that users can usually find a way to achieve any desired typesetting effect, though sometimes it does take a bit more work than one might like.

TeX is not a wordprocessor, but rather what is termed a mark-up language, which is to say that, to typeset a document, a TeX user prepares an input file containing the actual text with the TeX commands embedded in it. (Any wordprocessor can be used to prepare the file.) For example, if one wanted to change to an italic typeface, one would place the TeX command \it in the text; inserting a \rm would cause TeX to switch to a Roman typeface, which also happens to be the default (see Sample 1 in the accompanying box).

A Simpler System

LaTeX (pronounced "lah-tek") is a package of TeX macros developed by Leslie Lamport of Digital Equipment Corporation. It is generally considered simpler to use than TeX.

While TeX commands allow one to lay out any page in minute detail, TeX has no built-in notions of document structure. Macro packages like LaTeX provide this, and by doing so, in some sense streamline the process of typesetting a document.

When using LaTeX, one selects a document style, for example with the command \documentstyle{book}, and by doing so, one sets various parameters, such as whether the output is double-sided and the sort of running heads that will be used. LaTeX also provides various “sectioning” commands, such as \part, \chapter, \section and \sub-section.

Each LaTeX command can result in the execution of a large number of basic TeX commands. For example, as illustrated in Sample 2, with a single command, one can cause LaTeX not only to insert the appropriate text in the document (with spacing and typeface determined by the document style which the user has designated), but also to keep track of the information required for a \tableofcontents command to produce a corresponding table of-contents entry.

Different document styles do different things. By selecting one or another document style, one can change the kind of page headings employed in your document, and reset various “counters” that are used by LaTeX in labeling figures, equations, and so on. The latter might be convenient, for example, if you wished the figure- or equation-numbers within each section of a document to start with “1”.

In addition to sectioning commands, LaTeX provides macros which make it simpler and faster to alter typesetting throughout a document. Font size commands, like \tiny, \small, \large and \huge, provide a good example. These are all defined relative to the base font size of the document, which is called \normalsize. By default, \normalsize is 10 points; however, this is easy to override with an option in the \documentstyle command.

Samples 1 and 2

1. The TeX input

\it

would produce:

an example of switching \rm typefaces

2. The LaTeX input

\section{An Introduction to Typesetting}

would produce:

0.1 An Introduction to Typesetting

and a subsequent \tableofcontents command would produce:

0.1 An Introduction to Typesetting
For example, `\documentstyle[12pt]{article}` will result in `\normalsize` being defined as 12 points; all the other font sizes that you have indicated in your document (by `\tiny`, `\large`, and so on) will be scaled automatically relative to your newly redefined base font size of 12 points.

A final improvement that LaTeX provides over plain TeX is the math mode symbol. In TeX, one begins and ends math mode with `. For example, the TeX input shown in Sample 3 would produce the output shown below it.

While, in this simple example, one can easily pick out the two `\$` signs that begin and end math mode, it is easy to imagine how difficult it might be to track down a missing `$` in a passage containing many mathematical expressions.

In LaTeX, while the `$` can be used to begin and end math mode, one also has the option of using a pair of macros, `\(` and `\)`, which get TeX to do most of the work required to match up pairs of begin-math-mode and end-math-mode commands. Sample 4 shows how the TeX input in Sample 3 could be rewritten in LaTeX.

### Some Other Notes

The major drawback to TeX (and consequently to LaTeX, as well) is that, at present, the software is very much batch-oriented. That is to say, one must first create an input file, and then run it through TeX, and finally print the result (or preview it on a screen). However, there is work underway — notably the VorTeX project at the University of California (Berkeley) — to develop a WYSIWYG interface for TeX, so that eventually a TeX or LaTeX user may be able to simultaneously typeset a document and view the formatted/typeset output on his or her screen.

TeX and, particularly, TeX-based macros like LaTeX, are gaining increasing acceptance, especially for the preparation of technical publications. For example, journals of the American Mathematical Association (AMS) now accept papers submitted as TeX, LaTeX, or AMSTeX source files, transmitted on disk or over electronic networks.

### Getting Started

Both TeX and LaTeX are available on all ACF VAX/VMS computers and on most ACF UNIX machines. On VMS, there is also a previewer, DVI2VDU, which can be used on Tektronix terminals. This previewer should soon be available under UNIX as well. Users on SUN systems can convert the TeX dvi output to PostScript, using the dvi2ps utility, and then use the PostScript previewer.

To get started using LaTeX, print out a copy of the `Local Guide` and follow the instructions in Section 1, Getting Started. There are two versions of the `Local Guide` available on ACF machines. The version on VMS machines is tailored for VMS, while a version tailored for UNIX is available on UNIX hosts. The commands which will print out a copy of each of these documents are shown in Sample 5.

You should also obtain the ACF document, `Some Notes on Typesetting with TeX and LaTeX`, available from the ACF's Documentation Office, Room 306 Warren Weaver Hall. `An Introduction to LaTeX`, by Michael Urban, is an excellent tutorial and sample book which can be purchased through the Documentation Office, as can Botway and Biemsdorfer's `LaTeX Command Summary`. The definitive reference on LaTeX is `LaTeX: A Document Preparation System` by Leslie Lamport; it is available at the NYU Book Center. Help with LaTeX is available from ACF consultant Eleanor Kolchin (Room 307, Warren Weaver Hall) or from John Kesich of the ACF Systems group.

— John Kesich with Estelle Hochberg

(John Kesich will be giving two talks on `LaTeX` this fall. Please see page 4.)
ACF Microcomputers Now Available to All NYU Students

New Type of Micro Account Experimentally Available

Until now, students could use ACF computers — mainframes, minis, or micros — only if they obtained a faculty-sponsored account. This year, NYU students who do not have a faculty-sponsored account — or who wish to do computing that is not related to a particular class or project — can use an ACF microcomputer, nonetheless! A nominal hourly fee will be charged for these special student microcomputer accounts.

Special Student Micro Accounts

The computers involved in this experimental program are located at the ACF’s Instructional Microcomputer Lab in NYU’s Third Avenue North Residence Hall, at 11th Street, and include about 70 IBM PS/2 and Apple Macintosh personal computers. (The micros at the ACF’s Education Building Lab will continue to be reserved exclusively for use by classes.)

The comprehensive software package Microsoft Works will be available with these accounts, providing integrated programs for word processing, spreadsheet manipulation, database management and other commonly needed functions. Also at the site are several laser printers from which printed output of better-than-letter quality can be obtained.

Students will need to show a valid NYU ID to purchase an ACF Special Micro Account and to use the Third Avenue facility. Details on charges, account purchase procedures and other pertinent information can be obtained from the ACF Accounts Office (Room 305 Warren Weaver Hall).

Faculty-Sponsored Accounts

As in the past, most students are also eligible for one or more faculty-sponsored class- or project-related computer accounts, charged to the department. Such faculty-sponsored accounts continue to be available on all of the ACF’s mainframes, minicomputers, microcomputers, and workstations, and may be used at any of the ACF sites and (in the case of the mainframes and minis) from the student’s home or office. A wide selection of software is associated with these accounts.

To apply for ACF computer use for themselves or their classes, faculty should contact the ACF’s Accounts Office, Room 305 Warren Weaver Hall (998-3035).

- Estelle Hochberg

Instructional Micro Lab Is Remodeled

The ACF has remodeled its instructional microcomputer facility on the second floor of the Education Building.

Seminar Rooms, More PC’s

Two microcomputer seminar rooms have been added to the site. The new seminar rooms will be work areas for students who are using microcomputers in connection with particular courses. The rooms will also provide instructional environments, when needed, for ACF microcomputer tutorials, seminars and workshops. Occasionally, they may be made available to faculty for a seminar or special class session requiring the use of multiple personal computers. (Inquiries should be addressed to the ACF Accounts Office, 305 Warren Weaver Hall, x83035.)

There are 24 new IBM Model 55-SX PS/2 personal computers in one seminar room, and 20 Macintosches in the other. With the Model 30 IBM PS/2’s situated in the "bay" adjacent to the new seminar rooms, the ACF’s Education Building site now offers some 60 micros.

And at Third Ave. North. . .

An additional 70 Macintosh and IBM personal computers are available at the ACF’s second instructional microcomputer lab, in the Third Avenue North Residence Hall, at 11th Street. The computers in the Education Building’s seminar rooms are connected to NYU-NET and, via NYU-NET, to the ACF’s microcomputers at the Third Avenue North Residence site (see the related "News Note" on page 13).

Accessing the Micro Labs

The Education Building site is open only to students in classes for whom instructors have requested ACF microcomputer use (students with ACF “Class Accounts”) and to participants in ACF tutorials, workshops and seminars held at that site. The micros at the Third Avenue Residence Hall are available to students with Class Accounts, as well as to those who have obtained the ACF’s new Special Student Microcomputer Accounts (see the item on this page for details).

All terminals and terminal-related printers have been removed from the Education Building and placed at the ACF’s Tisch Hall and 14 Washington Place sites.

- Estelle Hochberg
Managing Departmental Computers

University departments are acquiring more computer products — more personal computers, workstations, printers, office networks, and so on. At the same time, departments are becoming increasingly dependent upon their computers and computer-related products for performing administrative and academic work.

Managing these growing computer resources, so that their use and expansion can continue in as trouble-free a fashion as possible, requires planning, care, and, in some cases, additional personnel.

Tasks and Concerns

Below, we have listed some of the most important tasks involved in departmental computer management. We have classified them as planning/policy, maintenance, and technical support tasks. Depending on the situation in your department, some of these tasks will be more important than others. The seriousness of a given task will depend partly on the purposes for which your department's computers are being used and the number of computers and computer users involved.

- **Planning/Policy**: Decisions on purchases, setting departmental standards, planning for growth.
- **Maintenance**: Inventory management (hardware, software, spare parts, supplies, departmental databases, services, etc.).
- **Technical Support**: Troubleshooting, user training, etc.

Hardware Inventory Form

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Serial number(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version:</td>
<td></td>
</tr>
<tr>
<td>Company:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Address:</td>
<td>Support name:</td>
</tr>
<tr>
<td></td>
<td>Phone:</td>
</tr>
<tr>
<td>Purchase date:</td>
<td></td>
</tr>
<tr>
<td>Vendor:</td>
<td>Cost:</td>
</tr>
<tr>
<td>Vendor address:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Vendor contact:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Purchased with:</td>
<td>check request</td>
</tr>
<tr>
<td>Owner of hardware:</td>
<td>purchase order</td>
</tr>
<tr>
<td>Location of device:</td>
<td>other</td>
</tr>
<tr>
<td>Location of manuals:</td>
<td>Local documentation?</td>
</tr>
<tr>
<td>Registration card sent?</td>
<td>Yes! In name of:</td>
</tr>
<tr>
<td>Warranty Period:</td>
<td>Expires:</td>
</tr>
<tr>
<td>Service Contract?</td>
<td>Yes! Onsite?</td>
</tr>
<tr>
<td>Whom to call for service</td>
<td>Phone:</td>
</tr>
<tr>
<td>Names of users:</td>
<td>Name of a guru:</td>
</tr>
<tr>
<td>Equipment Summary:</td>
<td></td>
</tr>
<tr>
<td>Type of screen:</td>
<td>Type of video adapter:</td>
</tr>
<tr>
<td>Floppy disk drives:</td>
<td>Hard disk drives:</td>
</tr>
<tr>
<td>Operating system version:</td>
<td>Memory installed:</td>
</tr>
<tr>
<td>Serial ports:</td>
<td>Parallel ports:</td>
</tr>
<tr>
<td>Boards installed:</td>
<td></td>
</tr>
<tr>
<td>Interrupts/ports used:</td>
<td></td>
</tr>
<tr>
<td>Attached devices:</td>
<td></td>
</tr>
<tr>
<td>Software installed:</td>
<td></td>
</tr>
<tr>
<td>Network address:</td>
<td></td>
</tr>
<tr>
<td>Special requirements for use (e.g. power requirements, special software):</td>
<td></td>
</tr>
</tbody>
</table>

ACF/ NYU Newsletter, September 1989, page 11
documentation), service contract and repair management, liaison with outside vendors of services (equipment rental, printing services, media conversion, etc.), provision of local documentation, training, dissemination of information to staff, data backup, maintenance of security, regular equipment maintenance, cleaning, software version control, liaison with other university units, technology surveillance (periodical literature, conferences).

• Technical support: Hardware installation, software installation, minor repairs, problem solving/troubleshooting.

### Staffing Considerations

One individual could be given responsibility for all three types of tasks, or, in most cases, a distinction could be drawn between the technical and the planning and maintenance roles.

In either case, it is necessary for personnel to have clear-cut responsibilities, as part of their jobs, with regard to computer management. Otherwise, important tasks may be performed irregularly or poorly, and whole areas of knowledge and experience can be lost with changes in personnel.

Each of the tasks and issues touched upon in this article could be discussed in great detail. The staff of the ACF Faculty Microcomputer Lab (998-3044) will be delighted to meet with departmental representatives to help plan appropriate strategies for their particular situations.

— Gary Chapman with Estelle Hochberg

To help you get started, we have included two sample inventory forms that can be used to keep track of your department’s hardware and software. Such forms, if filled out and kept up to date, can be of great value for planning purposes and for problem solving.

### Software Inventory Form

<table>
<thead>
<tr>
<th>Product name:</th>
<th>Version Number:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company:</td>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>Phone:</td>
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</tr>
<tr>
<td>Support name:</td>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Purchase date:</td>
<td>Cost:</td>
<td></td>
</tr>
<tr>
<td>Vendor:</td>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Vendor address:</td>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Vendor contact:</td>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Purchased with:</td>
<td>check request</td>
<td>purchase order</td>
</tr>
<tr>
<td>Number of copies:</td>
<td>Licensed for multiple users and/or network use?</td>
<td></td>
</tr>
<tr>
<td>Owner of software:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of original disks:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of archival copy:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location of manuals:</td>
<td>Local documentation?</td>
<td></td>
</tr>
<tr>
<td>Registration card sent?</td>
<td>Yes!</td>
<td>In name of:</td>
</tr>
<tr>
<td>Hardware or software requirements:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Names of users:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name of a guru:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACF/ NYU Newsletter, September 1989, page 12
Microcomputers

Education Building Micro Lab Connects to NYU-NET

By early September, about two-thirds of the microcomputers at the ACF's Education Building site will be connected to NYU-NET, the University's campus-wide network. The remaining micros are expected to be hooked up to NYU-NET by mid-semester.

The ACF's other instructional microcomputer facility, located in the Third Avenue North Residence Hall, has been connected to NYU-NET for nearly a year. With the Education Building site joining the network, users of Macintoshes or PCs at either micro facility will now be able to access such NYU network resources as BobCat, ACF mainframes and minicomputers, and the NYU-NET dialout modems.

As another benefit, users at the ACF's two micro facilities will be able to access file servers at either site. Thus, a student using a Macintosh in the Education Building will be able to access (with appropriate validation) a program or file located at Third Avenue North, and vice versa.

It will also now be possible to transfer files (by way of NYU-NET) directly between Macintoshes and PCs at the two sites.

ACF support staff members are pleased about an additional benefit. They will be better able to monitor and troubleshoot our microcomputer networks from locations around the campus.

While the Education Building site has had networks of Macintoshes and IBM PC's for several years, these two small "local" networks were isolated from each other as well as from NYU-NET, the campus-wide LAN. The local microcomputer networks at the ACF's newer Third Avenue North Residence Hall site have been connected to NYU-NET virtually since that site's opening in January 1989.

Price Reductions on Macintoshes for Students, Faculty, and Staff

Apple Computer is offering new price reductions on Macintosh products for educational institutions.

This new price roll-back — a 39% reduction off list prices — makes it possible for NYU faculty, administrators and students to purchase Macintosh computers at the NYU Book Center at considerable savings.

For example, a Macintosh Plus package, including a mouse, HyperCard software, system software (6.03), and a keyboard, normally retails for over $1,200. At the Book Center, the same package is listed at $963, while the Macintosh SE is priced at $1,645, without hard disk. Savings on other Apple products are comparable.

For more information, please contact the NYU Book Center (998-4672, 18 Washington Place).

New Software May Assist Students of French

As we go to press, the ACF's Faculty Microcomputer Lab has acquired a copy of système-d Writing Assistant for French. The software combines basic wordprocessing capabilities with online access to language reference materials, including a bilingual dictionary with example sentences and a concise grammar. It can generate all inflected verb forms at the student's request.

Instructors and students of French will be able to examine système-d at the ACF's Third Avenue North Residence Hall site, where it will be installed by early September on the IBM PC file server. It was developed at Cornell University by James S. Noblitt, Donald F. Sola, and William J. A. Petty. For more information, please contact Gary Chapman at the ACF Faculty Microcomputer Lab, 998-3044. (For information on accessing the ACF's Third Avenue North site, please see item on page 10.)

(continued on following page)
Faculty Microcomputer Lab Relocates

The ACF Faculty Microcomputer Lab recently moved from Room 317 to Room 313, across the corridor in Warren Weaver Hall. The telephone number remains 998-3044.

Larger quarters were needed to accommodate the Lab's continued acquisition of microcomputer equipment and of a variety of software and printed source materials.

Support for Administrative Microcomputer Users

The University Computer Center (UCC), in cooperation with the Academic Computing Facility (ACF), has begun to provide assistance for administrative microcomputer users.

The UCC recently appointed Jonathan Oh as a microcomputer support specialist. Mr. Oh has had a number of years of experience working with microcomputer users in the financial community, as well as at the Stern School of Business.

He is housed at the ACF's Faculty Microcomputer Lab, where he is available to provide advice on hardware and software acquisitions and connections to NYU-NET, and to offer general assistance with problems encountered by NYU administrative personnel with their microcomputers.

Mr. Oh can be reached between the hours of 9 and 5 at the ACF's Faculty Micro Lab (extension 83043).

The UCC is responsible for computer support of University administrative services. The ACF, as our readers will know, is the University's central academic computing resource, offering computing for purposes of instruction and research.

Virus-Protection for Microcomputer Software and Data

The ACF's Faculty Microcomputer Lab staff will check your Macintosh disks for viruses. Here, you may also acquire, free of charge, copies of Disinfectant and Vaccine for the Macintosh and FLU_SHOT+ for the IBM PC. (Please bring a blank disk.)

To arrange for an appointment at the Faculty Micro Lab, please call 998-3044. As a rule, disks that contain only data do not need to be checked.

Students who wish to have their disks checked for viruses may bring them to the ACF's instructional microcomputer facilities in the Education Building and the Third Avenue North Residence Hall, where Disinfectant and Vaccine are also distributed to students who bring blank disks.

An article in the May 1989 issue of this newsletter contains further information about viruses. Reprints are available from the ACF's Documentation Office, Room 306 Warren Weaver Hall. For your convenience, we repeat the following recommendations, many of which were extracted from an article in PC Magazine:

• Backups are the primary safeguard against viruses. Make frequent backups of your data, and use several sets of backup disks in rotation.
• Write-protect floppy disks wherever possible.
• Use caution in downloading from bulletin boards.
• Make your program files (.COM and .EXE files on IBM-type PC's) read-only.
• Do not lend program disks.
• If you have a hard disk, never boot from a floppy disk. If you do not have a hard disk, write-protect your floppy boot disk and never boot off a different floppy.
• Do not let other people use your microcomputer.
• Do not use illegal copies of software which have had their copy-protection removed.

From left: ACF Systems Group member John Kesich and ACF statistical programming consultant Bert Holland. Photos by Jeffrey Bary.
Software Distributed at the ACF's Faculty Microcomputer Lab

Qualified members of the NYU community may obtain the following microcomputer software packages at the ACF's Faculty Microcomputer Lab. There is no fee unless otherwise indicated.

- Disinfectant (for Macintosh).
- FLUSH+ (for PC).
- Kermit (for Macintosh and IBM-PC). Please bring 1 blank diskette.
- Macintosh Operating System (for distribution to owners of older versions of the Mac system). Please bring your copy of the Mac operating system and 4 blank diskettes.
- NCSA Telnet (for Macintosh and IBM-PC). Please bring 1 blank diskette.
- ProComm (for IBM-PC). Please bring 1 blank diskette.
- SAS (for IBM-PC). Please bring 29 blank diskettes.
- SPSS/PC+ and Advanced Statistics module (for IBM-PC). Please bring 15 blank diskettes to receive both the base package and the Advanced Statistics module. The fees are $100 for the base package and $50 for the Advanced Statistics module.

Graphics

ACF's Visualization Center Gets New Home

The ACF Visualization and Computer Graphics Center has been consolidated and moved to Room 317 Warren Weaver Hall. Facilities available in this room include the IRIS 4D/80GT graphics workstation, the AED 1024 color graphics terminal, several color and monochrome graphics terminals and hard copy devices, the Lyon-Lamb video animation system, the Panasonic videodisk recorder/player and the Dunn film camera.

Some of the equipment that was in Room 313 prior to the move has been distributed to other ACF sites; in particular, the AED 512's and the AED 767 graphics terminals were moved to the ACF's 14 Washington Place site.

The Evans & Sutherland PS 390 system will remain in Room 319, and will continue to be available to researchers for molecular modeling and for other graphics applications.

IRIS Workstation Upgraded

The IRIS has been upgraded with additional memory and disk storage, as well as new graphic input devices. The machine now has 32 megabytes of physical memory and over a gigabyte of disk storage. The new input devices are a track ball and dials, and buttons which allow the user to control and manipulate the images on the screen with greater ease. A stereo viewer is also available, which will permit the user to see stereoscopic images as if they were in three dimensions, creating an illusion of depth.

Graphics on a Stellar Mini-Super

A recent arrival to the Visualization Center is the Stellar mini-supercomputer, with its tightly coupled graphics sub-system. The Stellar promises to complement and augment the graphics and computing resources available, through the ACF and its Visualization Center, to NYU faculty, researchers and students.

The new state-of-the-art computer system is in the process of being installed, configured and enhanced, and will be ready for use early this fall. A brief article on the Stellar is planned for the November issue of this newsletter.

Cluster's Operating System Is Upgraded to VMS Version 5

Again, as we go to press, the operating systems of the ACF's cluster of VAX/VMS computers are being upgraded. VMS Version 5 is an important upgrade, affecting the speed of the machine and the ability of software running on it to take advantage of the multiprocessing offered by the ACF's new VAX 6330, as well as of other advanced technology.

Once the new system is installed and tested, VMS users are expected to find the transition to Version 5 a fairly seamless one, and to enjoy a number of

(continued on following page)
the new system's enhancements.

- For example, an automatic password change feature, forcing the replacement of an expired password, will help VMS 5 users to avoid inadvertently locking themselves out of their accounts.

- A number of DCL commands make it easier to track jobs and obtain queue information.

- Convenient new features of the DEC MAIL utility under VMS Version 5 include the ability to send a message to both primary and copied addressees (via the \CC\ROMPT qualifier to the SEND, REPLY, and FORWARD commands).

- An updated version of the full-screen editor EVE, supplied with VMS 5, is considerably enhanced, with over 47 new or augmented commands.

Further information is available online. Type "HELP V5" for information on new features of VMS 5. New features of MAIL and EVE are detailed in those utilities' internal help facilities. In addition, copies of the DEC VMS 5.0 New Features Manual are available in the reference racks at all ACF sites.

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**X-Windows Terminals Under Consideration**

The ACF is experimenting with several X-Windows terminals, "smart" graphics display stations running "windowing" software.

Windowing is a feature which enables you to move easily among several applications that you may be running simultaneously on one or more computers. Each application or session is displayed in a separate "window" on your screen. As you work, you can alter the location and size of each window to your convenience.

The terminals under examination at the ACF are sophisticated devices that are being considered initially for specialized uses in the sciences, or for complex document preparation.

Windowing is supported on most ACF UNIX machines, and will soon be supported on the ACF's cluster of VAX/VMS computers.

A relatively new technology, windowing is perhaps more familiar to users of some microcomputers and special workstations.

An article on X-Windows is planned for the next issue of this newsletter.

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**Some Notes for Users of the IBM Mainframe**

For WYLBUR users:

- Version 5 of LIMDEP has been installed on MVS for use from the WYLBUR system.

- The disk pack BOBST2 has been added to the storage space available to WYLBUR users for their files.

- Data sets that have not been used during the past year, or that are associated with USERID's that have not been renewed, were archived to tape. Requests to have them restored should be made to the ACF consultants in Room LC-7 Tisch Hall (998-3434).

For users of VM/CMS:

- Version 5.16 of SAS was removed from the VM/CMS system; SAS 5.18 is now the default version.

- SAS/FSP (Full Screen Product) has been installed on VM/CMS. SAS/FSP procedures combine the convenience of interactive full-screen, menu-driven facilities for data entry, for editing, and for data retrieval with SAS programming capabilities.

Among the procedures provided by SAS/FSP are FSCALC, a full-screen spreadsheet procedure; FSBROWSE, for displaying data in a SAS data set; and FSEDIT, for entering and editing observations directly in a SAS data set (including the use of customized screens).

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**Mathematica is Available on ACF9**

A UNIX version of Mathematica has just been installed on ACF9.

Mathematica is a mathematical package from Wolfram Research, Inc., that combines numerical, symbolic, and graphical computation within one environment.

The version on ACF9 can be used from any terminal; the output of the graphics subsystem, however, must be displayed on a Tektronix-type terminal or terminal emulator. (These terminals are marked with a yellow band at ACF sites.)

A Macintosh version of Mathematica is available at the ACF's instructional microcomputer facility in the Third Avenue North Residence Hall.

Reference copies of the Mathematica book have been placed at the ACF's sites in the Third Avenue North Residence Hall and 14 Washington Place. Copies can be purchased at many book stores or directly from the book's publishers, Addison-Wesley.
CONVEX Mini-Super To Be Updated

The ACF's CONVEX C1 is about to be updated to a C210. Informal benchmark tests at the ACF indicate that the C210 will be at least three times faster than the C1.

The CONVEX, which runs a UNIX 4.3 BSD operating system, is informally styled a "mini-supercomputer" because it offers many of the features of a true supercomputer, but at a fraction of the speed. The machine provides an environment in which large, number-crunching, suitably vectorizable programs can be developed for eventual use on supercomputers at national supercomputing centers. FORTRAN or C programs involving vector and matrix calculations are particularly suitable for development on the CONVEX.

Faculty or graduate students who are interested in working on the CONVEX, or in obtaining computing time on a supercomputer at an NYU-affiliated national supercomputer center, should contact the ACF Accounts Office (Room 305 Warren Weaver Hall).

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Student Registration for Computer Use

Students whose courses are associated with Class Accounts on the ACF's VAX/VMS and UNIX systems must register for computer use. (Class Accounts on the IBM computer are obtained for students by their instructor.) To register, students must bring their class cards and a valid NYU I.D. to the 14 Washington Place operator's desk, from Sept. 5 to Sept. 30 during the following hours:

Mon. - Fri. 9 am - 11 pm

Students in courses using the ACF's Macintosh and IBM personal computers must obtain an ACF Access Card. To do so, please bring your class card and your valid NYU I.D. card to the operator's desk at the Education Building site.

Information About The ACF:
To find out more about the ACF, call 998-3058. If we cannot answer your question, we will find an ACF staff member who can.

Credits
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