Welcome Back!

By Dr. Paul Gandel, Senior Director of Academic Computing (gandel@unt.edu)

It's a new year at the University of North Texas and everyone at the Computing Center is looking forward to working with you to make sure that you achieve your educational and research goals for the year.

Since last fall, several changes were made to the academic computing environment that we feel will better meet your needs in the coming year. In addition to these changes, the Center has also implemented some initiatives that are designed to increase our ability to continually change as your needs change. We hope you find our new approaches more responsive to you.

Fall 1993

Here's what's new...

- Computing Support Services Information Office. To simplify the way you get support from the Computing Center, we created a new Support Services Information Office with one telephone number (565-2324) and one central location (ISB 119). Call or come to this single point of contact for all your computing needs, and if we can't get you an answer right away we'll be sure to put you in contact with the person who can.

The Information Office is supported by the Support Services Team, an active group of folks from all areas of the Computing Center. The Team works closely with the Support Services Information Office staff to constantly evaluate the quality of our services and to identify ways to continually improve them. To this end, we have implemented an automated tracking system that will enable us to more efficiently route your requests to the appropriate person and gives us the means for monitoring our effectiveness in answering your requests.
UNT COMPUTING CENTER ORGANIZATION AND FACILITIES

- **Academic Computing Services:**
  - Documentation Services
  - ISB 110 General Access Lab (817) 565-3048
  - Mainframe User Services
  - Research and Statistical Support Services
  - VAX/UNIX Systems (817) 565-4161

- **Network & Microcomputer Services:**
  - Data Communications
  - Microcomputer Application Support
  - Network Systems Support

- **Administrative Computing:**
  - Admissions Data Systems
  - Database/Central Programming Support
  - General Data Systems
  - NT/COM Fiscal Data Systems
  - NT/COM Payroll/Personnel Data Systems
  - Student Records Data Systems
  - Student Services Data Systems
  - Voice Response Applications

- **Mainframe Technical Services:**
  - IBM Operating Systems Software Support
  - Computer Operations

CONNECTING TO UNT COMPUTERS

Phone numbers for accessing UNT computing systems:

- 300-2400 BAUD: (817) 565-3300
- 2400-14,400 BAUD: (817) 565-3989
- 300-9600 BAUD: (817) 565-3461 HST protocol ONLY
- 300-2400 BAUD: D/FW METRO 792-2140

Area code 214 must dial 817 before the METRO #. Note: Dialing 1 before the area code will result in a long-distance charge.

<table>
<thead>
<tr>
<th>ACS Host Systems</th>
<th>CTX/DEKLETON LINES (#)</th>
<th>METRO LINES (UNMODEM)</th>
<th>INTERNET (CUTCP, NCSA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Mainframe (CMS, Academic COM-PLEITE)</td>
<td>CALL 3270</td>
<td>CONNECT VM3270</td>
<td>in3270 vm.unc.edu — OR — telnet vm3270.unc.edu</td>
</tr>
<tr>
<td>VAX (VMS)</td>
<td>CALL DEC</td>
<td>CONNECT DEC</td>
<td>telnet vax.unc.edu</td>
</tr>
<tr>
<td>Solomon (UNIX)</td>
<td>CALL 900</td>
<td>CONNECT SOL</td>
<td>telnet sol.unc.edu</td>
</tr>
<tr>
<td>Jove (UNIX)</td>
<td>N/A</td>
<td>CONNECT JOVE</td>
<td>telnet jove.unc.edu</td>
</tr>
</tbody>
</table>

Departmental Systems

- Computer Sciences Sequent (Ponder)
  - CALL 780
  - CONNECT PONDER
  - telnet ponder.unc.edu

- UNT Libraries' online card catalog
  - CALL 3000
  - CONNECT LIBRARY
  - telnet library.unc.edu

Set Data Bits to 7, Parity to S, and Stop Bits to 1. When dialing in, the autodial feature requires you to hit the RETURN key repeatedly after the connection is made so that the receiving modem determines the baud rate. When you see the prompt (# for local numbers, UNMODEM for the metro lines) you can enter one of the following commands to connect with the system of your choice.

ACS Host Systems

- CALL 3270
- CONNECT VM3270
- in3270 vm.unc.edu — OR — telnet vm3270.unc.edu

WHERE ARE THEUpperCase(UNT COMPUTER ACCESS AREAS): Fall 1993

<table>
<thead>
<tr>
<th>Day of Week</th>
<th>Willis</th>
<th>BA</th>
<th>ISB 110</th>
<th>Chilton 255</th>
<th>Chilton 116</th>
<th>GAB</th>
<th>Matthews</th>
<th>Music</th>
<th>Terrill, Wooten</th>
<th>ISB 205C</th>
<th>Lab Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday - Thursday</td>
<td>Open 24 hrs.</td>
<td>8 am - 11:45 pm</td>
<td>7:30 am - 12 MN</td>
<td>8 am - 10 pm</td>
<td>8 am - 12 MN</td>
<td>7 am - 10 pm</td>
<td>8 am - 10 pm</td>
<td>8 am - 12 MN</td>
<td>Noon - 10 pm</td>
<td>BA: 330, 332</td>
<td>Chilton: 255, 116 (Adap. Lab)</td>
</tr>
<tr>
<td>Friday</td>
<td>Open 24 hrs.</td>
<td>8 am - 8 pm</td>
<td>7:30 am - 9 pm</td>
<td>8 am - 5 pm</td>
<td>8 am - 5 pm</td>
<td>7 am - 5 pm</td>
<td>8 am - 5 pm</td>
<td>8 am - 5 pm</td>
<td>Noon - 5 pm</td>
<td>ISB: 110, 205C — graduate students only</td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td>Open 24 hrs.</td>
<td>8 am - 8 pm</td>
<td>9 am - 9 pm</td>
<td>10 am - 5 pm</td>
<td>2 - 8 pm</td>
<td>10 am - 5 pm</td>
<td>Closed</td>
<td>10 am - 5 pm</td>
<td>10 am - 5 pm</td>
<td>Matthews: 309</td>
<td></td>
</tr>
<tr>
<td>Sunday</td>
<td>Open 24 hrs.</td>
<td>Noon - 11:45 pm</td>
<td>1 pm - 12 MN</td>
<td>1 - 10 pm</td>
<td>2 pm - 12 MN</td>
<td>1 - 10 pm</td>
<td>1 - 10 pm</td>
<td>2 - 8 pm</td>
<td>1 - 10 pm</td>
<td>Murrill: 247, 134, Wooten: 120</td>
<td></td>
</tr>
</tbody>
</table>

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Back to School

UNIX system upgrade. In 1990, we purchased our first UNIX system—a Solbourne Sun/UNIX compatible multi-processor computer. We call the system “sol.” Since sol’s introduction, it has become the system of choice for many of the instructional- and research-computing needs of users. Sol’s popularity has increased demand for the system dramatically. To meet this ever-increasing demand, we’ve upgraded sol to a more powerful four processor Solbourne series 6 computer. These new processors provide sol with four times the computing power of the “old” sol system.

In addition, with sol’s two old processors, some other spare parts and a new chassis we’ve created a second UNIX system called “jove.” Jove will support general computing needs, freeing up the new and improved sol for researchers — for more intensive computing applications like complex statistics.

Networking. Over the past year, we’ve focused our networking efforts on improving high-speed access among all major campus computing resources and among all wide-area network resources—like the Internet and BITNET. We’ve achieved two important milestones in these efforts—the soon to be completed (September 1993) high-speed fiber backbone and initiation of a major wiring project that will connect offices and classrooms to the high-speed fiber backbone.

The high-speed fiber backbone links all major campus buildings. The backbone supports newer graphics-oriented applications and increases the capacity and reliability of our campus data communications.

Since a high-speed fiber backbone is useful only to the extent that people can connect to it, we’ve initiated a major wiring project that will connect offices and classrooms to the backbone. So far, more than one-third of all major campus buildings have been wired or rewired to take advantage of the new high-speed fiber backbone. We expect nearly all campus buildings to be wired by January 1994, with the remaining buildings completed by June 1994.

To enhance our backup services for UNIX, NetWare, and other platforms, we’ve installed a new 54-slot tape carousel to use with Legato NetWorker. NetWorker lets us provide backup services at substantial savings and allows easy recovery of anything on tape.

Transition from MUSIC to the CMS operating system. The transition from MUSIC to the CMS operating system on our mainframe computer is now complete. CMS is becoming one of the standard operating systems at universities and is being chosen by an increasing number of private companies. With CMS, UNT mainframe users now have a more standardized operating environment that offers a wider choice of applications and services at substantial savings — thanks to IBM’s Higher Education Software Consortium.

Campus-wide Information System (CWIS). Staff from Academic Computing Services and the Library are in the initial stages of implementing a campus-wide information system. Two components of the system we’re working on now are an electronic bulletin board and installation and customization of Gopher client/server software (see page 20 for more information about Gopher). We see these components as critical for allowing an efficient flow of information throughout campus as well as throughout the world.

The electronic bulletin board includes electronic discussions and notices of interest to the UNT community. The bulletin board uses public domain software to access a system called USENet NEWS.

University of Minnesota’s Gopher client/server software provides users with a common menu interface for retrieving documents and other information from UNT sources and from other universities and organizations.

As the CWIS develops, look for more information in upcoming issues of Benchmarks.

That’s an update of what’s been happening in the academic computing environment.

More to Come...

This year, we’ve got other initiatives in the works that will continue to improve the academic computing environment. They include:

- Improving dial-up facilities to network and host computing systems.
- Providing “seamless” communication among faculty, staff, and students with more effective E-mail solutions.
- Developing a more sophisticated electronic communication system that allows for electronic conferences.
- Developing an executive information system for accessing and analyzing institutional and research data.

As we begin a new academic year, we recognize that the real challenge for us continues to be developing support services and a technological environment that meet your needs at the lowest possible cost. Our strategy is to keep UNT’s computing environment varied and flexible so that we are able to quickly respond to your evolving needs and efficiently incorporate technological advancements. We also realize, however, that our most important objective is to understand your needs. Therefore, I urge you to let me know how academic computing can help you meet your academic goals with computing and networking technology.
Student Computing Facilities at UNT

By Eriq Neale, ACS General Access Lab Manager (neale@unt.edu)

The General Access Labs have been placed in strategic locations throughout the UNT campus. A list of labs and their locations is contained in the table on page 8. The hours that the labs are open vary from location to location. Lab hours can be found on the inside of the cover page of each issue of Benchmarks.

All of these labs have a number of IBM compatible computers on which students can run WordPerfect and other PC software. A few of the labs, namely the Academic Computing Services (ACS), College of Arts and Sciences, College of Education, and Willis Library, also have Macintosh computers with Microsoft Word and Microsoft Works installed. The College of Education lab also has a number of Apple II computers for students.

General Access Lab Policies are printed in the accompanying article on this page. Special note should be made of the following General Access Lab rules.

1. All students wishing to use a lab must have a valid UNT Student ID, Driver's licenses and meal cards will not be accepted.

2. Each student is guaranteed a minimum of one hour's use of a computer. If a lab has a waiting list, students in the lab will be asked to relinquish their computer if they have used it an hour or more. Those students may have their names put on the waiting list.

3. All student disks will be scanned for viruses in the labs.

4. No eating, drinking, or smoking is allowed in the lab facilities.

General Access Computer Labs Policies

Adopted February 4, 1992 by the General Access Lab Committee, Cengiz Capan, Chair

Mission of General Access Labs

General Access Labs are created (1) to provide computing access to all UNT students, and (2) to establish and strengthen college-wide support structures.

Admission into General Access Labs

The General Access Labs are supported and maintained primarily by student computer service fees and are available for use by current UNT students in support of their academic programs. A valid UNT ID is required for admission into any General Access Lab.

Use by UNT faculty and staff will be accommodated on a space-available basis. A valid UNT ID is required for admission into any General Access Lab.

All others desiring use of General Access Labs should direct requests to the appropriate College Lab Coordinator.

Operating Hours

General Access Labs should be open a minimum of 85 hours a week.

Exact hours will be reflected in the current semester's General Access Labs brochure.

Hours for the upcoming semester will be determined by midterm of the current semester.

General Access Labs will be open on all days that classes are held. Early closings (such as the day before Spring Break, Thanksgiving, etc.) and holiday hours (such as during Spring Break) must be posted at least one week in advance.

Lab Reservations

Reservations for orientations, workshops, hands-on demonstrations, etc.

In general, orientations, workshops, demonstrations, etc. held in the General Access Labs are discouraged after the first few weeks of the semester due to the high use of the labs by individual students.

Reservations will be granted at the discretion of the lab manager.

After the third week of class in any long semester, or the first week of class in any summer term, the total reservation time must not exceed 15% (for 100% of computers) of the total time the lab is open per week. For example, if a computer lab has 60 computers and is open 75 hours/week, the maximum number of hours that all 60 computers could be reserved is 11.25 hours/week. Alternatively, that same lab could allow only 30 computers to be reserved for a total of 22.5 hours/week.
Reservation requests for a General Access Lab area may be made only by faculty, TAs, and TEs of that lab's supporting college(s) and/or school(s). For example, an instructor from the College of Business Administration (COBA) may request to reserve a COBA General Access Lab, but not an Arts & Sciences General Access Lab.

The General Access Labs located in the libraries may not be reserved except by their own staff. These labs will be kept open as much as possible.

Individual Computer Reservations

The only computers which may be reserved are those which are "one-of-a-kind," i.e., they are configured differently than the rest of the lab computers. For example, if there is only one computer to which a plotter is attached, that computer may be reserved.

Staffing of Labs

Lab Manager

Every General Access Lab should have a full-time position for its Lab Manager. The Lab Manager is ultimately responsible for hiring, training, scheduling, and supervising lab monitors and managing the lab network.

Lab Monitors

Lab monitors will be on duty at all times in each General Access Lab area staffed at a level appropriate for level and demand. Job descriptions, payscales, skills requirements, training programs, and hiring and promotion procedures will be as consistent as possible between labs. All monitors will wear picture I.D. badges when on duty.

Classification

Most General Access Labs will employ Hourly Student Assistants, B1 code 1710, for lab monitors. These positions must be recruited through Student Employment. Hourly Student Assistants may work no more than 20 hours/week.

Some labs may be able to employ Hourly Student Academic Assistants, B1 code 1705. These positions need not be recruited through Student Employment, but Equal Employment Opportunity policies should be observed. Academic Assistants must be supervised by a member of the faculty.

The starting wages paid to lab monitors will be reviewed by the GALC annually.

Tuition Waivers

Students employed in General Access Labs are eligible for tuition waivers under the circumstances outlined in the following Personnel policy:

Students that are not titled teaching assistants or research assistants and are not verifiable on HRMIS at 50% time may be eligible for tuition waivers provided that:

1. The student is employed for the semester and will be working at least 20 hours per week.
2. The student must be employed by the 12th class day (4th in summer term).
3. The student must be employed in a job that is academically related to his or her major.
4. The student's job must be at least 51% interacting with other students, helping them academically.

Each waiver granted under this exception needs to have a statement of this pertinent information on the waiver form and must be signed by the department head. In signing this form, the department head is certifying that the student is eligible for the waiver under the above conditions, which attempt to approximate a position equivalent to teaching assistant, but which may not carry that specific title. The department head needs to be aware of the possibility that the waivers will be audited by either internal or external auditors, and that the responsibility for certifying to the eligibility lies with the department head who signs the waiver. Therefore, if a student subsequently leaves employment, the department head should contact the Bursar's office so that the waiver can be revoked if necessary.

Hardware and Software Platforms

In consultation with all college computing committees and the Deans, GALC will determine and recommend the basic hardware and software platforms to serve curricular needs of students.

Each lab is encouraged to employ hardware and software which is included on the UNT Supported Computing Items List and which is compatible with items found in other General Access Labs.

Sufficient documentation for available software will be accessible in each lab.

Novell NetWare will serve as the network operating system for all General Access Labs.

Efforts should be made to purchase new, or upgrade existing, equipment and software to state-of-the-art models and latest versions.

All labs will provide facilities for the utilization of different size and density diskettes.
Printing

Laser printing will be available in all General Access Labs.
Laser printing will be provided to UNT students ONLY, in support of their academic course of studies at UNT.
Laser printing will, when possible, be limited to FINAL copies of documents.
Only one final copy of any document may be printed on a lab laser printer.

Virus Protection

The Virus Protection procedures, determined by GALC in accordance with UNT Data Integrity and Computer Security Policies and Standards, will be followed in all General Access Labs.

Other Standards

The Network, Menu, and Communications Standards, determined by GALMAC in accordance with UNT Data Integrity and Computer Security Policies and Standards, will be followed in all General Access Labs.

Accessing UNT Host Computers From Home

By Darren Loher, Data Communications Analyst (Darren@unt.edu)

Did you know that computers at UNT like the VAX, sol, jove, ponder and the library card catalog system can be used from home? You can.

Please see DIALUP on page 7.

The Adaptive Computer Lab
A Lab for People With Special Needs

By LaNeVa Bjerle and Barbara Hall, School of Community Services

The Adaptive Computer Lab is equipped and staffed to meet the specific needs of UNT students with disabilities. This Adaptive Computer Laboratory, located in Chilton 116, opened in November 1991 under the auspices of the School of Community Services and General Access Computer Laboratories. The lab is not only a place where students can complete their assignments, but also a place to teach others about this kind of technology. Current equipment includes six IBM-compatible computers, two Macintosh computers, one Apple lThe computer, a Kurzweil scanner which reads printed material, a tape recorder Interface for Kurzweil, two speech synthesizers, three screen reading programs, three screen magnifying programs, three keyboard modifier programs, Perkins Brailler, a Braille printer, a thermoform duplicator (Braille copier), and a laser printer. The computers are connected to a network which can access all other University networks and large computer systems, as well as other computer systems across the world which are connected to networks such as the Internet, Bitnet, etc. Students with special adaptive equipment in their homes who have difficulty getting to campus can also access the Adaptive Lab (and hence, the world!) from their home computer via a telephone modem. This laboratory is a General Access Computer Lab; however, students with disabilities receive priority for the specific equipment they need.

Policies

The Adaptive Computer laboratory is a general access laboratory; however, students with disabilities are given priority when the laboratory is full or when a particular adaptive software/hardware is needed. Also, we maintain a library-type environment in order to enhance learning.

Equipment

- PC/KPR (Personal Computer/Kurzweil Personal Reader), a document scanner
  - (IBM)The Kurzweil performs OCR (Optical Character Recognition). It scans printed material in any nondecorative typeface in any point size and color (except red). The scanned text is converted into electronic text which can then be saved in any of fifteen different word processor formats. PC/KPR is helpful for people with visual impairments, as well as people with learning disabilities.
- Business Vision, a screen reader — (IBM) Vision reads electronic text on the screen and converts it to voice. It is capable of reading a word, sentence, paragraph, or a screen at a time. The DecTalk card that Vision uses for the voice has ten different voices which are all configurable by pitch, and speed.
- Business FOCUS, a screen enlarger — (IBM) FOCUS enlarges on-screen electronic text up to ten times and graphics up to sixteen times. It automatically scrolls text horizontally by word, sentence, paragraph, or screen. Colors can be natural or they can be forced to some optimal combination, such as Black on White or White on Black.
- VERTPlus (Voice Emulation in Real Time), a screen Reader — (IBM) VERT performs the same job as Business Vision but it is several years older.
Back to School

- **Duxbury**, Braille translation — (IBM) Duxbury converts any electronic text into Braille for printing on a Braille printer.
- **Romeo Brailor** — (IBM) The Romeo Brailor is a Braille printer. It takes a file that has been formatted for Braille printing and makes a hard copy of it. The printer will also print specially formatted graphics.
- **Access DOS** — (IBM) Access DOS is a keyboard modifier that provides:
  - StickyKeys — allows a user who is unable to press more than one key at a time to perform functions that require multiple simultaneous keystrokes (e.g., Control-Alt-Delete).
  - MouseKeys — allows a user who is unable to use a mouse to use the numeric keypad to move the cursor.
  - ToggleKeys — makes noise to indicate when the <NUMLOCK>, <CAPSLOCK>, or, <SCROLL LOCK> key is turned on or off.
  - Keyboard Response:
    - RepeatKeys — limits the auto-repeat function of the keyboard.
    - SlowKeys — slows keyboard response time.
    - BounceKeys — restricts the computer from accepting the same key more than once in rapid succession.
  - ShowSounds — prints a musical note on the screen every time the computer makes a noise.
- **PKey DVORAK** — converts a standard QWERTY Keyboard into a DVORAK keyboard for a one-handed typist (both right-handed and left-handed typists).
- **Easy Access, Keyboard Modifier** — (Macintosh) Easy Access provides StickyKeys, MouseKeys, and KeyboardResponse (see Access DOS above).
- **CloseView**, screen enlarger — (Macintosh) CloseView provides screen enlargement like FOCUS, but it isn’t quite as sophisticated as FOCUS.
- **outSPoken**, screen reader — (Macintosh) outSPoken provides speech synthesis for the Macintosh graphical user interface (GUI).
- **Hyper-ABLEDAtA** — (Macintosh) Hyper-ABLEDAtA is a database of products for people with disabilities. This CD-ROM provides pictures and, when appropriate, sound samples of a variety of products.
- **PC Anywhere**, remote dial-in — (IBM) PC Anywhere allows someone at a remote location to dial in through a modem and connect to our Local Area Network (LAN).
- **PostScript Laser Printer** — (IBM & Macintosh) The HPIISi allows us to print any document from either a Macintosh or an IBM. The PostScript option allows us to print documents in any size font. This makes it easy for someone with a visual disability to print enlarged copies of documents.
- **CCTV** (Closed Circuit Television) — Document enlarger.
- **Thermofax Duplicator** — Braille copier.
- **Perkins Brailor** — Braille typewriter.
- **4-Track Tape recorder** — Recorded textbook player.
- **2-Track Tape recorder** — Regular tape recorder.
- **Recorder interface for speech synthesizers**.
- **Apple IIe**.

DIALUP continued from page 6.

There are a couple of things you need to have at your home. A computer, a modem, and some software that will let your computer talk to your modem.

**Modems**

This is the device that lets you connect your computer to a telephone line. There are many brands of modems and lots of different models. The most important feature to understand about a modem is its speed.

The slowest modem you should consider buying today runs at 2400bps (bits per second). This means the modem can transfer approximately 240 characters per second. That’s certainly faster than most people can read text, but when transferring files, scrolling text or using graphics over the phone line, it’s slow. The trade-off is price. 2400bps modems are very affordable and can be purchased for as little as $50.

The fastest modems you can buy at retail stores run at 14,400bps. Their prices can range from $175 to $300 depending on where you go and what brand you buy.

At the time of this writing, the UNT dialups do not support anything over 2400bps unless you have a US Robotics HST type modem, in which case you can achieve 9600bps. However, all high speed modems are capable of running at the slower 2400bps speed. So when UNT does upgrade its dialups, you can take advantage of the higher speeds if you buy the faster modem now.

Sixteen 14,400bps modems are now in service and can be reached at 565-3989. Although any modem can connect to these modems, please use the 565-3300 dialups if you own a 2400bps modem.
Software
The Computing Center has a license to distribute Procomm Plus for DOS free of charge. If you have a Macintosh, you can get MAC-Kermit for free from the Computing Center. Just go to the ISB building (room 119) to get the software (You'll need your UNT ID.)

I've got a modem and some software, what next?
At the front of this newsletter is a table that gives the phone numbers and services available for those numbers.

☐ The main university dialup number is 817-565-3300.

☐ If you have trouble with it or if you have a US Robotics HST modem call 817-565-3461.

☐ If you are in Dallas, you can call a metro number, 817-792-4140. This is a DFW metro number located at UT Arlington. To avoid long distance charges, do not dial a 1 before the 817.

☐ To report problems with the dialups, call 817-565-2324. Please have a detailed description of your problem. It's much easier to fix a problem when we know what's broken!

I'm in; how do I get to a host?
Once you've gotten your modem to dial one of the UNT numbers, you should get some sort of connect message. Press <RETURN> several times until you see a # sign. You may now type the host name of the machine you wish to connect to. (A table listing the telephone numbers and the major hosts you may connect to is located on the inside page of this newsletter.)

The only exception to this is if you call the 3461 lines. They are connected to an older system that will be phased out within a year. You can only reach sytek hosts from this system and must type the word CALL before the number of the system you want to connect to.

An Index of Academic Computing Services
By Dr. Philip Baczewski, Assistant Director of ACS (ac12@unt.edu)

This article is intended to provide a general reference to services offered by the Academic Computing Services (ACS) organization within the Computing Center. For additional information you can also refer to the documents Welcome to the University of North Texas Computing Center, for a description of hardware and operating systems available on the host systems, as well as Policies and Procedures for Academic Computing, for the operating policies related to the host systems. For a list of programming languages and applications available on the host systems, refer to Host System Software: What We Have and What We Support. All are available at the Computing Center office (Information Sciences Building, room 119).

Academic Computing Services is the division of the University of North Texas Computing Center which exists to provide centralized computing support for instruction and research at UNT. Academic Computing Services provides access to host-based computing, wide area networking, and distributed computing technologies. We support a number of software products, including the principal statistical analysis packages in use by researchers and programming languages used for computing instruction. Towards these ends, we offer information in the form of locally written documentation, computing short courses, or personal consultations.

ACS contains five computing support areas as well as an administrative services component which also serves other areas of the Computing Center. While each staff member has a specialization within their particular area, you will find that often their expertise also includes topics from one or more of the other areas of ACS. This broad base of support helps maintain the greatest possible access to academic computing information as it pertains to the UNT environment. With this in mind, most consultation services provided by ACS are listed in the table on the following page, followed by the support area providing the service. (If a service you need isn't listed in the table, please call Support Services, they will connect you with the appropriate support area). The support areas and their associated managers are as follows:

☐ ACGAL: ACS General Access Lab (Erik Neale)
☐ AMUS: Academic Mainframe User Services (Dr. Philip Baczewski)
☐ AS: Administrative Services (Charlotte Ford)
☐ DS: Documentation Services (Claudia Lynch)
☐ RSPSS: Research and Statistical Programming Support Services (Panu Sittiwong)
☐ VUS: VAX/UNIX Services (Marc St.-Gil)

Any questions/concerns about Academic Computing Services in general should be directed to Dr. Paul Gandel, Senior Director of Academic Computing (565-3854). All staff can be contacted at 565-2324. VAX/UNIX services can also be reached at 565-4161 and the ACS General Access Lab can be reached at 565-3048. Please note that Academic Computing staff do not consult on student programming assignments, but do provide consultation assistance to faculty and staff in support of research and instruction.
### ACS Service Area

<table>
<thead>
<tr>
<th>Academic host systems</th>
<th>Specific Topic (if any)</th>
<th>ACS Support Area</th>
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<tbody>
<tr>
<td></td>
<td>HDS 8083 Mainframe</td>
<td>AMUS</td>
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<tr>
<td></td>
<td>Introduction to accessing systems</td>
<td>ACSCغال</td>
</tr>
<tr>
<td></td>
<td>Solbourne 900 series super-minicomputer</td>
<td>VUS</td>
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<tr>
<td></td>
<td>User-ID requests</td>
<td>AS</td>
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### Documentation Available from ACS

By Claudia Lynch, *Benchmarks* Editor and Documentation Services Manager (as04@unt.edu)

A cademic Computing Services is committed to providing quality services to the academic community here at UNT. Throughout this newsletter you will see references to various services available to faculty and students, and in many cases, staff members. One of these services is the production and dispersal of free documentation on a variety of topics of interest to computer users on this campus.

The documentation listed in this article (on the following page) is available to faculty, staff, and students — when appropriate — in ISB Room 119 — the UNT Computing Center main office. Additionally, notebooks containing most of these documents are in each General Access Lab for reference purposes. Please note that this list may not remain completely accurate for very long, since documents are continually being created and updated.

Another source of ACS documentation is the Gopher Campus Wide Information System (CWIS). We are in the process of adding our documents into Gopher at this time. To access ACS documents via Gopher, get into Gopher and follow the path: UNT Departments, Schools, and Colleges/Computing Center/Documentation ??.. See the article on page 20 of this newsletter for more information on Gopher.

Please see DOCUMENTATION on page 10.
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<td></td>
<td>Minitab</td>
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<td>SPSS</td>
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<td></td>
<td>SPSS-Macintosh</td>
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**DOCUMENTATION continued from page 9.**

**General Information**

- [1991 CRSP Data Information](#).
- *Academic Computing Services Handbook*. This document incorporates some of the other documents listed in the remainder of this article (currently being revised).
- *Host Systems Software - What We Have and What We Support*, Software Reference Material.
- *Introduction to the COMPUSTAT II Data Service*.
- *Supported Computing Items List (SCIL)*.
- *Welcome to the University of North Texas Computing Center*, Computing Center Informational Handout.
- *University of North Texas General Access Computer Labs Policies*.

**CMS Reference Material**

- *Introduction to the Conversational Monitor System (CMS)*.
- *An Introduction to Supervisor Privileged Commands for Classroom User-IDs on CMS*.

**COM-PLETE Reference Material (Administrative)**


Continued on page 11.
MVS Reference Material

- Introduction to IBM Job Control Language.

Statistical Packages

Miscellaneous


SPSS

- Introduction to SPSS.
- SPSS/PC+.

SAS

- Introduction to SAS.
- Introduction to SAS/UNIX.
- SAS-PC.

VAX Reference Material

- Introduction to VAX/VMS.
- Introduction to Instructor Privileges on VAX/VMS. Reference Material for Instructors with class accounts.
- Editing With EDT.

Solbourne Reference Material

- An Introduction to Display Editing with vi.
- Domain Name Service and BOOTP Request Guidelines.
- Introduction to E-Mail on the Solbourne.
- Introduction to UNIX.

Wide Area Network Reference Material

- Accessing On-Line Bibliographic Databases in the North Texas Area.
- An Introduction to BITNET.
- Gopher Information Providers Guide.
- Introduction to the Gopher Campus Wide System.

- Introduction to PC Gopher II — An IBM-PC Gopher Client.
- Making Connections.
- The Internet.
- THENET: The Texas Higher Education Network.
- Using CUTCP, Telnet, FTP, TN3270.

Communications

- Connecting Microcomputers to UNH Host Systems.
- Introduction to PROCOMM Plus.
- Using MS-Kermit.
- Using the 3270 Protocol Converter at UNH.

Microcomputers

Operating Systems

- Introduction to MacX.
- Introduction to Microcomputers, DOS (Disk Operating System), and Hard Disk Management.
- Introduction to Windows 3.1.

Text Processing

- Introduction to WordPerfect Version 5.1.
- WordPerfect 5.1: Advanced Applications.

WordPerfect Office/ Electronic Mail

- Pegasus Mail.
- WordPerfect Office 3.0: Notebook.
- WordPerfect Office 3.1 — Electronic Mail.
Statistical Computing at UNT

By Panu Sitiwong, Research and Statistical Support Manager (panu@unt.edu)

One of the main functions of Academic Computing Services is to provide statistical support to faculty and students at UNT. In order to achieve this goal, we have various statistical packages available for various computer hardware running under various operating systems. This article will point out all of the statistical packages which are available at UNT and make recommendations regarding the software and platform that will fit your particular need when you are uncertain about your choice.

Host System Statistical Packages

Academic host system computers consist of an IBM 3081 mainframe compatible computer and a Solbourne minicomputer. Currently, there are three major operating systems available to academic users: VM/CMS/XA, OS/MVS, and MUSIC/SP. The MUSIC/SP platform, however, is in the process of being phased out. The phasing out process began September 1, 1992 and is to be completed by August 31, 1993. Hence, this article concentrates only on the packages available on the other two platforms. The Solbourne computer is running the UNIX operating system. The following table shows statistical packages available on the three platforms.

<table>
<thead>
<tr>
<th>Software</th>
<th>UNIX</th>
<th>VM/CMS</th>
<th>OS/MVS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SAS Version 6.07</td>
<td>All</td>
<td>Base, Stat, ETS, OR, IML</td>
<td>Base, Stat</td>
</tr>
<tr>
<td>2. SAS Version 5.18</td>
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<td>Base, Stat</td>
</tr>
<tr>
<td>3. SPSS Version 4.1</td>
<td>N/A</td>
<td>Basic, Stat, Lisrel 7</td>
<td>Basic, Stat, Lisrel 7</td>
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<tr>
<td>4. Shazam Version 7</td>
<td>N/A</td>
<td>All</td>
<td>N/A</td>
</tr>
<tr>
<td>5. BMDP 90</td>
<td>N/A</td>
<td>N/A</td>
<td>All</td>
</tr>
<tr>
<td>6. IMSL Subroutines</td>
<td>All</td>
<td>N/A</td>
<td>Math, Stat</td>
</tr>
<tr>
<td>7. RATS</td>
<td>N/A</td>
<td>N/A</td>
<td>All Modules</td>
</tr>
</tbody>
</table>

Microcomputer Statistical Packages

There are a large number of microcomputer packages available at UNT. In fact, each department has adopted particular packages which are appropriate to their need and discipline. For example, the College of Business adopted Minitab PC for instructional use. The College of Arts and Sciences, on the other hand, has a site license for RATS PC to be used for its classes.

Academic Computing Services maintains a site license for SAS and SPSS products. Currently, SAS/PC version 6.04 and SAS/Windows version 6.08 are available. These two products include all of the SAS statistical modules. We also distribute SPSS/PC++ version 5.0, SPSS for Windows version 6.0, and SPSS for Macintosh version 4.0. All product packages are available from charge to all full-time faculty and staff at UNT, or they can be installed on any Novell Network on campus. Faculty, Teaching Fellows, Teaching Assistants, and Research Assistants may request to have the software installed on any PC that belongs to the university. Faculty may also have software installed on computers at their place of residence.

SAS/PC and SPSS/PC++ (as well as mainframe versions) are also available to faculty, staff, and students in all of the General Access Labs on campus. The Windows-based products will be available as soon as those labs are equipped with PCs with Windows software.

If you need to have any of the above packages installed on your microcomputer, you may contact one of the Academic Computing Services statistical consultants at (817) 565-2324, or you can mail your request to either PANU on the CC1 file server (CC1:PA NUN for WordPerfect Office Mail or panu@cc1.unt.edu on Pegasus mail) or panu@untvm1 on VM/CMS mail. The software will take a minimum of 20M to a maximum of 100M of hard disk depending on the software you request and the statistical procedure you want. You need to check your hard disk space to verify that you have enough space for the software since our installer will not be allowed to remove any file from your hard disk.

A Platform for Your Statistical Computing

Most of the time, the platform on which you run your statistical package is selected based on previous experience. This rationale is, however, in some cases contrary to the changes and development of computer systems. For example, MUSIC/SP will be deinstalled from the ACAD mainframe. This change will require all previous MUSIC/SP users to convert their mainframe work to run on either VM/CMS, UNIX, or microcomputers. This section will present some of the advantages and disadvantages of all of the statistical package platforms which are currently available or will be available at UNT in the near future.

Mainframe, Mini, and Micro

SAS uses at UNT have advantages over some other statistical packages since SAS is available on all three plat-
forms. SPSS users can select between SPSS on CMS, SPSS on OS/MVS, SPSS/PC+, SPSS for Windows, or SPSS for Macintosh.

General Guidelines for Choosing the Mainframe or Microcomputers

Microcomputers, most of which are 286 or above machines, are now widely available on campus. Most researchers on campus now have a microcomputer in their office. Microcomputer applications provide a suitable platform for your statistical computing comparable to the mainframe host system. This doesn’t mean that you will no longer need to use the mainframe for your statistical computing. Both platforms provide different advantages and disadvantages. This section will try to point out some of those advantages and disadvantages in order to help you make a selection on the platform that will run the software.

Microcomputer Platforms

There are several options available to you if you decide to use a microcomputer for your statistical computing. You may choose to run the software directly under the MS-DOS operating system, or you may want to invest in MS-Windows, or you may decide to use a Macintosh.

Both SAS and SPSS for microcomputers provide several advantages. These include:

1. Both SPSS and SAS on the microcomputer platform provide a menu system which you can use to compose your programs. This helps to minimize syntax errors. With the aid of such menu systems, it is possible for a novice user to compose a program without opening the manual.

2. Both SAS and SPSS provide excellent on-line help systems. All commands and syntax can be acquired from the help command.

3. Both systems have procedures that will allow users to incorporate the output into some other microcomputer program. For example, the Table Procedure in SPSS/PC+ or PROC Tabulate in SAS/PC are capable of producing a customized table for your data. The output can be directly included in a word processing program.

4. Graphic output from both packages can be directly incorporated into WordPerfect or DrawPerfect.

Both SAS and SPSS for Windows and for the PC platform currently take advantage of the Extended Memory System (XMS) and they are capable of using up to 16M of memory. This helps to eliminate some of the previous shortfalls of the microcomputer-based statistical packages such that both now have the same capabilities as their mainframe counterparts but with the Graphical User Interface (GUI). Hence, if you have a PC which is based on the 386 microprocessor or above, the Windows-based software provides an excellent platform for you. If you plan to upgrade your microcomputer to take advantage of the statistical packages under Windows, you will need to keep the following recommendations in mind:

- Plan to install a minimum of 6M of memory on your microcomputer. Both SAS and SPSS will run with less memory but with a performance degradation.
- Plan to install the math coprocessor (80x87) chip on your PC.
- If you plan to have the software installed on your hard disk, you will need at least a 120M hard disk for SPSS for Windows, and a 200M hard disk if you need a full version of SAS for Windows.
- Plan to have an EGA or above display.
- Plan to have a mouse installed on your PC.

One shortcoming of the microcomputer based statistical software is printing, especially if you attempt to generate a large printout on a dot matrix printer.

Mainframe Platform

Obviously, the main advantage of running mainframe statistical software is the ability to utilize a large database in your research. Secondly, if you don’t have a 286 or above microcomputer, the mainframe will provide a more powerful platform for your needs.

As mentioned above, statistical software is available either under OS/MVS or VM/CMS, or both. In some cases, you may not have any choice but to run your statistical analysis on the mainframe under one operating system. Where the choice is available, we recommend that you run your analysis under the VM/CMS operating system. There are several advantages to running the statistical software on VM/CMS as compared to OS/MVS. These advantages include:

- All of the above software can be run interactively on VM/CMS. In this environment, you will have a software interface similar to some of the microcomputers.
- Since the CMS operating system is interactive, all jobs submitted will be executed immediately.
- With the implementation of TCP/IP on VM/CMS, users have the ability to move data between the PC and the mainframe quickly. Therefore, a broader range of options can be selected.

This article did not discuss the UNIX platform since there is a limited amount of software available on the Solbourne. It is a good platform if you are using SAS or IMSL subroutine jobs which are numerically computation intensive.
Data Archives at UNT

By Panu Sittiwong, Research and Statistical Support Manager (panu@unt.edu)

Academic Computing Services has volumes of machine readable data available to all students and faculty members. These data are acquired from several sources including the Inter-university Consortium for Political and Social Research (ICPSR), Department of Labor, Center for Research in Security Prices (CRSP), Standard and Poor's (COMPSTAT), etc.

- **CRSP Data**: Once a year, UNT receives data from the Center for Research in Security Prices. The data include the:
  - Monthly NYSE and AMEX Returns and Master file;
  - Daily NYSE and AMEX Returns file;
  - Daily NASDAQ Returns and Master file;
  - Daily, Monthly, Quarterly, and Annual Markets Indices file; and

- **COMPSTAT II Data**: Similar to CRSP data, UNT receives, once a year, updates of COMPSTAT II data from Standard and Poor's. The current holdings include the:
  - Annual Primary, Supplementary, and Tertiary (Industrial and Research) file;
  - Annual Over the Counter file;
  - Annual Bank file; and
  - Annual Price, Dividends and Earnings file.

In addition, we are in the process of acquiring some quarterly data.

Academic Computing Services has the local information on how to access both the CRSP and COMPSTAT II data. These handouts can be picked up from the Computing Center main office (SB 119).

- **ICPSR Data**: Data from ICPSR constitutes the majority of the data archive at UNT. Currently, there are more than 200 data titles available locally at UNT. As a member of the Consortium, UNT students and faculty members can request any data made available from the ICPSR. Data available from ICPSR cover a wide range of subjects and disciplines including Public Opinion Surveys, Election Studies and Census data from both the U.S. and foreign countries, Congressional Roll Calls, the General Social Survey, Health Interview Survey, Consumer Expenditure Survey, Government Finance, World Economic Indicators, Population Surveys, EURO-BAROMETER, and many others.

Currently, we are in the process of making all of the information about the local ICPSR data available on the UNT Gopher system.

- **Data from Other Sources**: In addition to the above public data sources, you can acquire data by yourself. We can handle data on various media. If you plan to acquire a secondary data source by yourself, you may want to consult with Academic Computing Services concerning the method and medium to store data.

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Cartridge Tapes

The Wave of the Future on the Academic Mainframe

By George Morrow, Academic Mainframe Consultant (morrow@ccl.unt.edu)

The conversion from round reel tape drives to cartridge drives is presently taking place on the HDS 8083 mainframe computer (IBM compatible). The term round reel tape drive refers to the magnetic tape drives capable of reading and writing magnetic tapes stored on round reels—the most popular reels being those about 10 inches in diameter and containing 2400 feet of tape. These drives can also read mini-reels (round reels about 6 inches in diameter).

Here at UNT we are converting from round reels to cartridge tapes. Our HDS 7490 Cartridge Tape drives are fully compatible with IBM type 3490 magnetic tape subsystems. They can read or write the industry standard half-inch chromium dioxide cartridge tapes in IBM 3490 or IBM 3480 data format in either standard or compressed mode. At UNT the default compressed mode is used unless specified otherwise. The tapes are read and written at 18,000 bpi.

Since 2 1/2 to 3 round reel tapes can be written on one cartridge, the economies in both storage space and handling ease are significant.

Users are encouraged to request cartridge tapes whenever scratch or permanent tapes are required. This is done in JCL with the UNIT=TAPECR parameter.

Usually, when tapes come to UNT on round reels, they are copied to cartridge tapes that are under TMS (Tape Management System) control.

Remember the following designation to request the new cartridge tapes:

UNIT=TAPECR
Learning to Use XEDIT on CMS

By Cathy Hardy, Academic Database Administrator (cathy@unt.edu)

This is an edited version of an article that appeared in the September 1992 issue of Benchmarks, page 9.

Are you ready to learn, or brush up on, your CMS editor skills? Feeling comfortable with the editor can increase your productivity level and really make life easier. For instance, would you rather spend your time deleting each character in a line with the delete key, or type 'd' in the command line and remove the entire line with a simple key stroke (lesson 3)? Have you ever deleted a line that you want back (lesson 5)? Need to learn to use multiple screens (lesson 9)? The more you understand the editor's features, the faster you can accomplish your task, and the faster you can get out the door for pizza and a movie.

Self-Teach

For first-time (or rusty) users, try the on-line tutorial package, SELF-TEACH. SELF-TEACH has 15 lessons that you can use in any order, at any time. These lessons cover such things as XEDIT commands, XEDIT PROFILE, and a brief look at macros with REXX and EXEC 2. A list of the lesson topics is included in the SELF-TEACH introduction (on screen 2). Just type SLFTEACH at the CMS *Ready prompt. (Just s-l-f-t-e-a-c-h, don't put the 'e' in self.) You'll see this SELF-TEACH/IBM logo screen at the beginning of the introduction and at the beginning of each of the 15 lessons. The bottom line of the logo screen prompts you to press <PF3> to continue.

The screens for the lessons and introduction are generally set up with the title of the module on the first line (i.e. Introduction to Self-Teach, Tailoring Your Screen, Moving Through a File, etc.) and your location in that module in the top right corner. For instance:

```
Introduction to Self-Teach
Intro
1 of 7
```

The above headers the first 'page' of the introduction module showing you that you are on screen 1 and there are 7 screens in the introduction. Most screens are set up in this manner. The exercise screens are exceptions to this. They look like ordinary XEDIT sessions with no lesson title and no screen numbering in the upper right corner.

Each lesson module will have its objectives clearly stated on one of the early (usually the second or third) screens, as well as the approximate time needed to complete the lesson. For example, the first lesson (Tailoring Your Screen) has these objectives and time estimate:

- introduces you to the XEDIT editor and the basics of its commands
- explains the forms of the commands accepted by XEDIT
- explains the purpose of the profile used in XEDIT
- provides exercises to give you experience using the screen tailoring commands
- provides a list of IBM manuals that support XEDIT

This lesson should take approximately 25 to 40 minutes to complete.

By paging to the lesson's objective screen, you can determine if the lesson covers areas which interest you and decide if you have the time to really use the exercises as they were intended. These lessons are self-paced and can be as fast or slow as you need. You can, of course, leave a lesson at any time by using the <PF3> key to exit.

To begin lesson one, at the CMS Ready prompt, type:

```
SLFTEACH LESSON1
```

XEDIT Help

Already familiar with the editor? Want a quick check on a command? At the Ready prompt, type

```
HELP XEDIT MENU
```

for a list of XEDIT help topics. These include XEDIT commands, but not the hints and how-to's you'll find with Self-Teach. Self-Teach tells you how to use a forward slash in the prefix area (lesson 2) and you have to know to look in the "PREFIX topic for a '/' to know that this will set the new current line in XEDIT.

HELP is a good tool to use when you have at least a nodding acquaintance with XEDIT, but need some clarification on a particular command or subcommand.
A cademic Computing Services is offering the following short courses for the 1993 fall semester. Please preregister to attend. You may either fill out the form at the end of this newsletter or register on-line via Gopher. The Gopher form can be found in the path: UNT Departments, Schools, and Colleges/Computing Center/Short Courses. (Call 565-2324 if you have questions about Gopher.)

A maximum of 10 people will be admitted to each of the courses held in ISB 110. A maximum of 15 people will be admitted to each of the courses held in Chilton 255 and ISB 134B. FACULTY AND STUDENTS HAVE FIRST PRIORITY TO REGISTER FOR THESE CLASSES. Academic Computing Services reserves the right to cancel any course that has 5 or fewer people registered 3 days before the course is scheduled.

NOTE: All persons registering for hands-on (ISB 110, Chilton 255) HDS, VAX and/or UNIX courses should have current User-IDs for the system to which the course applies. Applications for User-IDs are available in the Computing Center main office (ISB 119).

HDS, VAX, AND UNIX COURSES

1. Introduction to CMS — CMS is an interactive operating system employed by academic users to access the Academic HDS/8083 IBM-compatible mainframe computer at UNT. CMS users have access to a variety of programming languages, a sophisticated text editing system, and several statistical analysis packages. CMS users can also submit batch jobs to the OSMVS system.

Three two-hour sessions, held in the Science Library (ACS General Access Lab ISB 110):
- Monday, September 13: 3-5 p.m. Instructor: James Yarbrough
- Monday, September 20: 3-5 p.m. Instructor: Philip Baczewski
- Monday, October 4: 3-5 p.m. Instructor: James Yarbrough

2. Introduction to IBM MVS Job Control Language (JCL) — This course provides an overview of IBM JCL for users who wish to further their knowledge in this area. It is useful to individuals who plan to run MVS batch jobs (e.g., SAS, SPSS-X) on the HDS IBM-compatible mainframe computer.

A two-hour session held in the Academic Computing Conference Room (ISB 134B):
- Thursday, September 16: 3-5 p.m. Instructor: George Morrow

3. Introduction to VAX/VMS — VMS is the interactive operating system used on the Digital Equipment Corporation (DEC) VAXcluster. The VAXcluster supports a variety of applications. The topics covered in this course include gaining access to the VAXcluster through the Local Area Network, logging in and out, changing your password, creating files and directories, creating login command files, using the EDT editor, defining logicals and symbols, and electronic mail.

A two-hour session held in the Chilton General Access Lab (Chilton 255):
- Wednesday, September 22: 3-5 p.m. Instructor: Staff

4. Introduction to UNIX — Take the plunge into the wonderful world of UNIX. This course will start with a short discussion of the history and evolution of UNIX covering both the "Berkeley Software Distribution" and "AT&T System V" variants of UNIX. Topics covered will be the basic necessities for using UNIX and use of some of the various utilities available in UNIX.

Two two-hour sessions, held in the Chilton General Access Lab (Chilton 255):
- Friday, September 24: 1-3 p.m. Instructor: Staff
- Tuesday, October 5: 3-5 p.m. Instructor: Staff

5. Introduction to the UNIX editor, vi — This course is recommended for individuals who want to learn the standard UNIX editor, vi.

A two-hour session held in the Chilton General Access Lab (Chilton 255):
- Wednesday, October 6: 3-5 p.m. Instructor: Staff
STATISTICAL PACKAGE COURSES

1. Introduction to SAS – This course is recommended for individuals who plan to incorporate statistical analyses into their research. The basic concepts of the SAS system are covered in this course. This course or prior knowledge of SAS is a prerequisite for all other SAS courses.

Two two-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):
- Tuesday, September 14: 2-4 p.m. Instructor: Panut Laosilirat
- Tuesday, September 21: 2-4 p.m. Instructor: Panut Laosilirat

2. Introduction to SAS on CMS – This course is recommended for individuals who plan to use SAS on the academic HDS IBM-compatible mainframe. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS datasets on a minidisk, importing/exporting SAS datasets and from other SAS systems, and preparing and submitting SAS jobs to OS/MVS. SAS is used interactively in this course. Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.

A one-hour session will be held in the Science Library (ACS General Access Lab, ISB 110):
- Tuesday, September 28: 3-4 p.m. Instructor: Panut Laosilirat

3. Introduction to SAS on UNIX – This course is recommended for individuals who plan to use SAS on the Solbourne minicomputer. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS datasets on a minidisk, importing/exporting SAS datasets and from other SAS systems, and preparing and submitting SAS jobs to OS/MVS. This class will utilize the SAS menus under the X Window System. Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.

A one-hour session will be held in the Science Library (ACS General Access Lab, ISB 110):
- Thursday, October 7: 3-4 p.m. Instructor: Panut Laosilirat

4. Introduction to SAS on Windows – This course is recommended for individuals who plan to use SAS on a PC using Windows. Prior knowledge of the SAS command language or attendance in the Intro. to SAS course is required.

A two-hour session will be held in the Chilton General Access Lab (Chilton 255):
- Tuesday, October 26: 2-5 p.m. Instructor: Panut Laosilirat

5. Introduction to SPSS – This course is recommended for individuals who plan to incorporate statistical analyses into their research and want to use SPSS on the academic HDS IBM-compatible mainframe. It emphasizes using SPSS from the CMS operating system. Topics covered include creating SPSS programs, reading data into SPSS programs, saving SAS data sets on a minidisk, importing/exporting SPSS data sets and from other SPSS systems, and preparing and submitting SPSS jobs to OS/MVS. SPSS is used interactively in this course.

Two three-hour sessions to be held in the Science Library (ACS General Access Lab, ISB 110):
- Monday, September 27: 1-4 p.m. Instructor: James Yarbrough
- Monday, October 11: 1-4 p.m. Instructor: James Yarbrough

6. Introduction to SPSS PC+ – This course covers the basics of using SPSS PC+, Version 4.0.1, for IBM and compatible PCs. Topics covered include using the menu and help interfaces in REVIEW, loading files, selecting variables and running statistical analyses. Emphasis will be placed on building files for execution interactively. Prior knowledge of the SPSS command language or attendance in the Intro. to SPSS course is required.

A two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):
- Tuesday, October 12: 2-4 p.m. Instructor: James Yarbrough

7. Introduction to SPSS on Windows – This course is recommended for individuals who plan to use SPSS on a PC using Windows. Prior knowledge of the SPSS command language or attendance in the Intro. to SPSS course is required.

A two-hour session will be held in the Chilton General Access Lab (Chilton 255):
- Friday, November 5: 1-3 p.m.
  Instructor: Panut Laosilirat

WIDE AREA NETWORK AND INFORMATION SYSTEMS COURSES

1. Introduction to Electronic Mail and Discussion Groups on CMS – This course will cover the basics of using CMS MAIL to send and receive electronic mail to both Internet and BITNET. The use of electronic mailing lists including BITNET LISTSERV will also be discussed. Prior knowledge of CMS is required.

A two-hour session, held in the Academic Computing Conference Room (ISB 134B):
- Thursday, September 30: 3-5 p.m.
  Instructor: Phillip Buczowski

2. Introduction to Electronic Mail and Discussion Groups on UNIX - This course will cover the basics of using elm or pine to send and receive electronic mail to both the Internet and BITNET. The use of electronic mailing lists including BITNET LISTSERV will also be discussed. Using USENET newsgroups via the mNews program on UNIX will also be explored. Prior knowledge of UNIX is required.

A two-hour session, held in the Academic Computing Conference Room (ISB 134B):
- Monday, October 18: 3-5 p.m.
  Instructor: Staff

3. Introduction to Internet Tools and Techniques - The Internet is a collection of related computer networks that link almost a million computers throughout the world. This course will cover file transfer, remote logins, use of on-line library catalogs at other universities, Archie, HYTELNET, Gopher, and many other Internet topics except electronic mail. Prior knowledge of at
least one of the following interactive operating systems is required: CMS, UNIX, MS-DOS.

Two one and one half-hour sessions, held in the Computing Center Conference Room (ISB 134B):
- Thursday, October 21: 3:30-5 p.m. Instructor: Staff
- Tuesday, November 2: 3:30-5 p.m. Instructor: Staff

4. Introduction to Gopher, a campus-wide information system - This course will cover the basics of using Gopher, from various hosts and microcomputers on campus, to access a vast array of information about UNT, other universities, and the world.

Two one and one half-hour sessions, held in the Chilton General Access Lab (Chilton 255):
- Friday, September 24: 3:30-5 p.m. Instructor: Mark Thacker
- Tuesday, October 19: 3:30-5 p.m. Instructor: Mark Thacker

5. Introduction to PC E-Mail and Discussion Groups - This course covers the basics of using electronic mail facilities on the PC, such as Pegasus Mail (Pinail), to communicate with others on the Internet and BITNET. Accessing USENET Newsgroups via Trumpet will also be covered.

A one and one half-hour session, held in the Academic Computing Conference Room (ISB 134B):
- Thursday, October 7: 1:30-3 p.m. Instructor: Erik Neale

6. Introduction to Internet Tools and Techniques on the Mac - This course covers Internet tools and techniques that are unique to the Macintosh environment. Prior experience using a Macintosh is required.

A one and one half-hour session, held in the Academic Computing Conference Room (ISB 134B):
- Monday, October 25: 3:30-5 p.m. Instructor: Sean McMain

**MICROCOMPUTER COURSES**

1. Introduction to Macintosh for Students - This course is recommended for students who want to learn about Apple Macintosh computers.

A two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):
- Wednesday, September 22: 3-5 p.m. Instructor: Sean McMain

2. Introduction to WordPerfect 5.1 for Students - Students who wish to use a word processing system to produce class papers and projects are encouraged to take this course. Prior knowledge of basic DOS commands required.

Two three-hour sessions, held in the Science Library (ACS General Access Lab, ISB 110):
- Wednesday, October 6: 2-5 p.m. Instructor: Sean McMain
- Monday, November 1: 2-5 p.m. Instructor: Sean McMain

3. Introduction to Procomm Plus - An overview of the Procomm communications package for personal computers or compatibles is presented for people who wish to access host systems from their PCs. Topics covered include setting communications and file transfer parameters, setting up and using Procomm's dialing directory, and connecting to UNT host computers through the local area network.

A one-hour session, held in the Chilton General Access Lab (Chilton 255):
- Tuesday, September 14: 4-5 p.m. Instructor: Erik Neale

4. Introduction to DOS for Students - This course is recommended for students who want to learn about using DOS on IBM PCs and compatibles.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):
- Friday, September 17: 1-3 p.m. Instructor: Erik Neale

5. Introduction to Pegasus Mail - This course is recommended for people, especially faculty and staff, who want to learn about using Pegasus Mail (Pinail) to communicate with others on campus and via the Internet.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):
- Friday, October 1: 1-4 p.m. Instructor: Mike Murdock

6. Computer Viruses and You - This course is recommended for anyone who uses a microcomputer and wants to protect their software and data against viral infections.

A two-hour session, held in the Academic Computing Conference Room (ISB 134B):
- Monday, October 11: 3-5 p.m. Instructor: Erik Neale

7. Introduction to Windows 3.1 - This course provides an introduction to the Windows 3.1 operating environment. Emphasis will be placed on using the mouse, control panel and file manager.

A two-hour session, held in the Chilton General Access Lab (Chilton 255):
- Wednesday, November 10: 3-5 p.m. Instructor: Sean McMain

8. Introduction to WordPerfect for Windows - An introduction to using WordPerfect in the Windows 3.1 operating environment. Topics covered include basic editing, printing and saving files, and using the pull-down menus, Help, Spell Check, and the Thesaurus.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):
- Tuesday, November 23: 9 a.m.- noon Instructor: Sandy Franklin


A three-hour session, held in the Chilton General Access Lab (Chilton 255):
- Tuesday, November 30: 9 a.m.- noon Instructor: Sandy Franklin
Computing Courses Offered Through the Personnel Office

The schedule for faculty/staff computing courses offered through the Personnel Office is listed below. Anyone wishing to take a course should contact Personnel at 565-4246 or go to Marquis 128 to pick up a registration form. Registration forms will also be in the back of the monthly Personnel Newsletter. All courses will be taught in the Chilton 255 computer lab.

<table>
<thead>
<tr>
<th>Month</th>
<th>Course</th>
<th>Date</th>
<th>Time</th>
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<tbody>
<tr>
<td>September 1993</td>
<td>Intro to Micros/ DOS</td>
<td>Sep 15</td>
<td>2-5 p.m.</td>
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<td>Intro to WordPerfect/DOS</td>
<td>Sep 16</td>
<td>2-5 p.m.</td>
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<td>Intro to Windows 3.1</td>
<td>Sep 21</td>
<td>9 a.m.-noon</td>
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<td>Intro to Pegasus Mail</td>
<td>Sep 23</td>
<td>2-5 p.m.</td>
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<td>Intro to WP for Windows</td>
<td>Sep 28</td>
<td>9 a.m.-noon</td>
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<td></td>
<td>Advanced DOS Techniques</td>
<td>Sep 29</td>
<td>2-5 p.m.</td>
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<tr>
<td>October 1993</td>
<td>Intro to WP for Windows 5.2</td>
<td>Oct 12</td>
<td>9 a.m.-noon</td>
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<tr>
<td></td>
<td>Intro to WP for Windows 5.2</td>
<td>Oct 12</td>
<td>2-5 p.m.</td>
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<td>Intro to Micros/DOS</td>
<td>Oct 13</td>
<td>2-5 p.m.</td>
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<td>Computer Viruses</td>
<td>Oct 14</td>
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<td>WP Presentations for Overheads</td>
<td>Oct 20</td>
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<td>Intro to WordPerfect/DOS</td>
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<td>WP Presentations for Overheads</td>
<td>Oct 27</td>
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<td>Intro to Pegasus Mail</td>
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<td>November 1993</td>
<td>Intro to WordPerfect/DOS</td>
<td>Nov 3</td>
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<td>Intro to Micros/DOS</td>
<td>Nov 4</td>
<td>2-5 p.m.</td>
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<td></td>
<td>Intro to WordPerfect for Windows</td>
<td>Nov 9</td>
<td>9 a.m.-noon</td>
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<td></td>
<td>Intro to Windows 3.1</td>
<td>Nov 11</td>
<td>2-5 p.m.</td>
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<td>WP Presentations/Overheads</td>
<td>Nov 16</td>
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<td>Intro to Pegasus Mail</td>
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<td>Advanced DOS Techniques</td>
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<td>December 1993</td>
<td>Intro to WordPerfect/DOS</td>
<td>Dec 1</td>
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<td>Intro to WP for Windows</td>
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<td>WP Presentations/Overheads</td>
<td>Dec 7</td>
<td>9 a.m.-noon</td>
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<td>Intro to Pegasus Mail</td>
<td>Dec 9</td>
<td>2-5 p.m.</td>
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<td>Intro to Windows 3.1</td>
<td>Dec 15</td>
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<td>Intro to Micros/DOS</td>
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Toward a Campus Wide Information System (CWIS)

By Mark Thacker, CWIS Coordinator (thacker@unt.edu)

Recently, the Computing Center moved me from being CCI LAN Manager to being Campus Wide Information System (CWIS) Coordinator. Below is an excerpt from the "CWIS Project Proposal" which was used to justify my new position. This explains a bit about what a CWIS is, the vision that the Computing Center has for it, the benefits, and its current availability.

**CWIS Defined**

A CWIS is defined as being a system which "allows the flow of information provided by campus groups for the benefit of people on the campus." One part of the CWIS provides a central location and access method to electronic forms for documents and services. Another part of the CWIS provides multiple areas to post and receive university related messages that normally require sending thousands of messages through intra-campus mail. These services would be available 24 hours a day from a variety of terminals and workstations on- and off-campus.

The two most relevant pieces of software that meet the goals of a CWIS are the University of Minnesota's Gopher client/server system and the public domain USENET NEWS system. Gopher provides a central storage of documents and links to services. USENET NEWS provides a bulletin board-like service maintained on a central machine. Discussions take place on a variety of topics and only a single copy of a message is kept by the central machine no matter how many people use the system.

Benefits
The CWIS provides many benefits and will most likely prove it useful when it matures. The CWIS should be used to:

- Assist in American With Disabilities Act compliance by providing documentation in a machine-readable form.
- Reduce hours spent searching for information by locating them under a single, organized, hierarchical menu system.
- Provide 24-hour, 365 days/year access to information even if the University is closed.
- Advertise University resources and information to potential students, faculty and staff located around the world.
- Provide easier electronic distribution of documentation and programs without the need to learn a separate communications program.
- Potentially decrease paper waste generated from document reproduction.
- Allow for publication of, and greater accessibility to, papers and research studies both locally and globally.
- Increase visibility for services or documents that are generally not well known to be available.

The Vision
In the ideal world, the CWIS would allow a student, faculty or staff member to access a wide variety of information through a common interface available at any networked electronic terminal/workstation, on- or off-campus. Journeys across campus or endless phone calls to try and find out information would no longer be a major inconvenience. People would be able to get access to all of these resources 24 hours a day via their desktop computers, General Access Labs or public kiosk; even people located outside of this University could connect to the system via the worldwide Internet network of computers. Someone would simply transverse a logical series of menus through the appropriate software to arrive at the document or service they need. The use and waste of paper to reproduce documents could be reduced with some possible fiscal savings. Information available in the CWIS would include University documents, academic calendars, campus services information, student/faculty/staff activities, newsletters, on-line library catalogs, campus maps, and electronic phone books with E-mail addresses. It would provide a central message posting system for general University related messages.

Even this vision is a bit conservative. With the introduction of inexpensive, speaker-independent voice recognition systems into microcomputers, one can imagine the CWIS evolving into a agent-based information retrieval system. In this system, someone would simply request “information about rain forests” and “graphical displays.” The System would analyze the speech, and produce references based upon their search criteria with graphics, movies and multimedia listed as preferable views of the information. This technology is still a couple of years away from being commercialized heavily, but UNT can prepare for it now by building the CWIS backbone.

Availability & Information
Gopher is currently available to users of the CC1, AB1, LIS, SLAB, SCS, COE, and LIBRARY file servers, the ISB 110 and Willis Library General Access Labs, and anyone who has access to any of the host systems including the Solbourne, Ponder, MVS, and VAX. In the future, expect to see Gopher appear on many of the Novell file servers, other General Access Labs, and in public kiosks. For those with a modem at home, dial the UNT dial-up lines (see the inside front page of Benchmarks for an exact telephone number listing), connect to the Solbourne, and enter gopher as your username. See Benchmarks, Volume 14 Number 4 for more information regarding Gopher and Gopher clients.

Should you want to start contributing information to Gopher, or want to learn more about Gopher or USENET NEWS, contact me, Mark Thacker, in the Computing Center at 565-2568, or send Internet mail to gopher@UNT.EDU.

News From the CWIS/Gopher Hole

By Mark Thacker, CWIS Coordinator (thacker@unt.edu)

This column covers features and resources available through the University's Gopher Campus Wide Information System (CWIS). Gopher is available on various UNT host computers including the VAX and Solbourne. It is also available in some of the General Access Labs, including ISB 110, and on various Novell file servers around campus.

USENET NEWS and Its Role in a CWIS

This article is a bit of a departure from the normal “News from the CWIS/Gopher Hole” subject matter. When I accepted the position of Campus Wide Information System Coordinator, I did so understanding that both Gopher and USENET
NEWS would be key components in a CWIS. Recent concerns about the use of E-Mail distribution groups (see the article on page 32) has brought more attention to USENET NEWS and other BBS environments. This article should explain my feelings on USENET and its role.

USENET NEWS is a system that allows users on a variety of platforms to contribute messages, data and (somewhat awkwardly) programs to a discussion list that may also be seen either locally or throughout the world. In this issue of Benchmarks, you will find an article by Erq Neale (on page 22) concerning the history, organization and technical backbone of USENET NEWS. I highly recommend that you read his article as it does a good job of explaining concepts that you need to know to understand USENET's role in the evolving CWIS.

Terms and Definitions

- **Discussion groups** — this is the hierarchy along which USENET breaks discussion groups by subject matter. The group names follow a convention whereby the subdivision of a group is indicated by a period. For example, comp.sys.mac is a group where messages concerning Macintosh computer systems are placed. The group comp.sys.mac.programmer is like the one above, but it is focused one step deeper towards the programmers of Macintosh computer systems. Groups can either be global in nature so that all readers in the world can contribute information, or they can be local and only seen by UNT readers.

- **TCP/IP** — the protocol used by various computer systems to communicate with the USENET NEWS server machine here at UNT. Note that this is the same protocol used by Telnet, FTP, Finger, Gopher, Archie and WAIS. Your machine (PC, Mac etc.) needs to be on the Ethernet backbone in order to run TCP/IP applications. Basically, if your machine is on Broadband — you are out of luck unless you login to one of the host systems (VAX, Solbourne, Ponder) from the Sytek system or from home on the dial-up lines.

- **NEWS server** — this is the machine that physically stores messages on USENET NEWS. On our campus, the Computing Center provides a NEWS server on Mercury, UNT.EDU. Your NEWS reader connects to this machine to retrieve articles for display and to post articles to the discussion groups.

- **NEWS reader** — each person wanting to read or contribute messages to a USENET group, must run a program that connects to the NEWS server from their computer. Currently, readers are available for the IBM-PC (Trumpton, or "net-news"), the VAX (ANUNews), the Solbourne (nm, m or possibly in) and soon, the Macintosh.

- **UUNCODE/UUDECODE** — these rather scary-looking terms are the methods used to change a binary file, like a WordPerfect document, program or graphics image, into a printable ASCII text file that is readable by all machines. USENET is limited in that it currently does not support message attachments or binary postings, so people must manually UUENCODE a file, and then post it to the discussion groups. People wanting to retrieve a file must save it first and then UUDECODE. Encoders/decoders are available for all platforms that NEWS readers are available for.

Where USENET Fits In

Now that you know the definitions, and have read Erq's article (hint, hint), you are ready to see how USENET can contribute to the CWIS project. Because USENET provides a messaging facility that is platform independent and because all messages are stored on a centralized server, it is very similar to Gopher. However, it focuses on making discussion groups, not resources and documents, easier to access. So USENET's role is to fill in the gaps where the read-only environment of Gopher falls short.

Information that is relatively static and should be available for reading by everyone would most likely belong in Gopher — for example, the short course schedule of the Computing Center. This information is static once it has been published and it is not very likely there will be on-going public discussions about it. However, requests for information, help, or matters of opinion, are items that typically generate a great deal of discussion.

If the University were debating a new policy and wanted to have a "public hearing" of sorts on it, USENET NEWS would be a great location. One copy of the message could be posted by someone so that upwards of 30,000 people could read it without it interfering with their normal electronic mail routine. Also, it would reach people who may not even have a Local Area Network-based E-Mail address. All the traffic and postings are kept visible to all, and in one central discussion group.

E-Mail vs. USENET

Recently, some users of one of the campus' electronic mail systems have posted messages to ALL users of that system. This causes several problems. For one thing, even if a user does not want to receive a message, it is sent to his/her mailbox. Secondly, there are duplicated messages on every file server that the message is sent to. Third, though the messages are sometimes important enough to be distributed to everyone, one LAN based E-Mail package simply doesn't deliver to everyone on campus. (See the article "Suggested Use of the Group "Everyone" in WPO Mail" on page 32 for more information on this topic.)

USENET NEWS helps solve some of these problems. First, when a message is posted to a group, only one copy of that message is kept on the USENET server. USENET does not keep up with "User-IDs" of people reading news. Instead, your individual NEWS reader
USENET: An Overview

By Eric Neale, ACS General Access Lab Manager (neale@unt.edu)

This is an edited version of an article that appeared in the February 1991 issue of Benchmarks (pp. 3-8) and in the November/December 1991 issue (pp. 9-12). Many UNT computer users are familiar with USENET, although they may not realize it. USENET newsgroups are accessible on the VAXcluster via ANU News and the Solbourne via the nn command.

The question "What is USENET?" is analogous to a query posed by Lucretius nearly 20 centuries ago: "What is the nature of the universe?" For indeed USENET is as vast and varied as the universe, and though we cannot grasp it in its entirety, we can identify and describe enough of it to fool ourselves into thinking that we understand it. But this minute understanding is sufficient for us to use USENET to our advantage. Whether we look for information or entertainment, USENET guarantees to both satisfy and boggle our minds. The remainder of this article attempts to provide the reader with enough background on USENET that he or she may attain a sufficient understanding to venture safely into this "mystical" realm.

USENET, in its broadest sense, is a network of computer systems that exchange information among themselves. Unlike other networks, such as BITNET, MILNET, SPAN, or EUnet, to name a few, USENET provides much more than simple communication between computer sites. Instead, most people recognize USENET as its Newsgroups. These newsgroups provide several megabytes of widely varied information in the form of messages or articles to all systems connected to USENET daily. Users contribute messages to USENET of great or trivial importance, of serious or humorous intent, and of overbearing or minute size. Other users have access to these articles and may peruse them at their convenience, all without any "official" supervision. But to begin to really understand USENET, we should start at its origin.

What's Next for USENET

Look for me to start making more USENET NEWS readers available. I expect to be supporting both a Windows and Macintosh based client soon. Also, the use of USENET should rise as both the IRC subcommittee on news group content draws its own conclusion about some of the more questionable groups and local newsgroups are expanded.

If you have questions about USENET NEWS, or would like to obtain a NEWS reader, contact me at the Computing Center, or send mail to Gopher @unt.edu.
tions between systems have improved greatly, and the number of NEWS groups has grown from around 100 in 1983 to over 1,000 in 1991 to over 6,000 in 1993. Needless to say, the topics of discussion have changed from mostly computer or UNIX discussions to conversations concerning any topic under (and about) the sun. The processes governing USENET have become standardizd so that NEWS can be taken to platforms other than UNIX, which is helping to increase both the size and popularity of USENET. Though large and seemingly unstable, USENET grows and will continue to grow in the coming years.

News Delivery

News is still carried today as it was in the beginning: via phone modem. The early versions of the NEWS software allowed systems to make contacts with other systems by dialing their numbers directly. The site placing the call absorbed the cost of the transfer, either incoming, outgoing, or both. Even though the amount of traffic was significantly smaller then, 300 and 1200 baud modems were the only ones available, and the transfers could be very expensive.

Even today, the bulk of mail transfers in the Net takes place over 1200 baud connections. But USENET has taken advantage of communications technology along the way. A bulk of the communication path now takes place via the Internet and BITNET. By using these other communications methods, USENET News has become available to a wider audience. Now News can be read on VMS, MVS, MS-DOS, and other operating system platforms. This extended communication relies on the standards set forth in the RFC documents concerning USENET.

The early versions of the software made exclusive use of the UUCP (UNIX-UNIX Copier) transfer protocol that was part of the UNIX system software. This method is still used between UNIX sites, but other machines can use different ways to talk to USENET carriers. Some machines have special mail carriers that handle the USENET messages, since each message can be seen as a specialized mail message. Many USENET interfaces have been written for different OS platforms to be compatible with UUCP, to make the transition between systems smoother. For instance, a VMS machine might contact a NEWS feeder using UUCP to get its batch of mail, then transfer that News to other non-UNIX sites using Internet or BITNET mail, a faster, more efficient transfer for those machines.

Not all sites receive a full NEWS group feed, however. It is up to the administrator of a site to decide which groups or group classes the site will pull. Feeds are arranged generally by the administrators of two sites. If a site A requests a feed from site B, site A is limited to the groups that site B is currently receiving. The administrator of A could also request site B to get feeds on groups that site A wants, or site A could get feed with site C for additional feeds. In any case, sites B and C are obligated to not feed site A groups that it does not want; conversely, they are also not obligated to provide to A groups that it does want. As with everything else in USENET, it boils down to a matter of convenience on the part of the administrator.

Newsgroup Structure

In the early days of USENET, when traffic was small, articles were shared among systems in no organized manner. All articles were transmitted as they were received, and following a discussion relied heavily on following the subjects. Soon, though, the traffic became great enough that this process was no longer useful. Articles were organized into NEWS groups with a topic, patterned after the Internet mailing list organization. But where Internet mailing lists were structured, NEWS groups were not, and, for the most part, are still not. There are a few accepted practices and general guidelines governing the organization of the NEWS groups, but nothing is official. All "organization" is the product of NEWS group evolution. Still, there are definite areas that can be described.

Newsgroup Names

Since NEWS groups range in topic from the relative safety of using city leaves for garden mulch, to discussions of the latest TV show release to political systems in various parts of the world to the original UNIX discussions, the NEWS group name attempts to describe with clarity the topics of a particular NEWS group. For instance, comp.arts.movies carries discussions about movies and movie-making, and comp.cis.economics carries discussions about Middle Eastern events, and comp.ux.questions has participants asking and answering general questions about UNIX.

But there is a method even to this madness. NEWS groups are organized in a fashion similar to the Internet domain structure. For NEWS groups in many countries, there are seven general topic categories: "comp," "net," "misc," "sci," "talk," "news," and "rec." Each of these categories is broken down into subcategories by topic. The "comp" category is described as "topics of interest to both computer professionals and hobbyists, including topics in computer science, software sources, and information on hardware

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\[1\] The carrier of these definitions is the Request for Comment (RFC) document. These documents are a basis of standardization used by the Internet that USENET has adopted in its quest to become more like the Internet. Several RFCs were used to obtain information contained in this article. For a good explanation of RFCs, consult Ed Krol's "Hitchhiker's Guide to the Internet," included in the list of references.

\[2\] For a complete description of the Internet domain name structure, see the Computing Center handout "The Internet: an Introduction to the Use of the Internet at the University of North Texas" or "The Hitchhiker's Guide to the Internet; RFC 1118."
and software systems. Discussions of operating systems would fall under the general category of comp.os, with specific OS types falling under that, as comp.os.minix, comp.os.vms, and comp.os.msdos. Each category can have a subcategory, and while this can go to extremes, it does help to clarify the topic. For instance, comp.os.msdos has three subcategories: comp.os.msdos.apps, comp.os.msdos.misc, and comp.os.msdos.programmer. Other categories follow the same pattern. The “rec” category is described as “groups oriented toward hobbies and recreational activities” and has subgroups for discussions on musical topics in rec.music.beatles, rec.music.dementia, and rec.music.synth.

### Other Categories

There are several categories in addition to the seven mentioned above that do not receive worldwide distribution, have geographical or regional interest only, or have “nontraditional” topics. These categories include “alt,” “bionet,” “biz,” “clarinet,” “gnu,” “inet,” “pubnet,” “unix-pc,” “u3b,” and “vmsnet.” Of these alternative categories, the alt group has the largest following. Some sites include the alt groups as part of the complete feed of newsgroups. Other sites refuse to carry the alt groups. The alt groups have little topic organization, though the group naming does follow that of the major categories.

Whereas the major categories are somewhat predictable as to their topic content, the alt groups have just about anything. A few samples are provided in the table at right.

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>alt.aquaria</td>
<td>The aquarium &amp; related as a hobby.</td>
</tr>
<tr>
<td>alt.bbs</td>
<td>Computer BBS systems &amp; software.</td>
</tr>
<tr>
<td>alt.dreams</td>
<td>What do they mean?</td>
</tr>
<tr>
<td>alt.models</td>
<td>Model building, design, etc.</td>
</tr>
<tr>
<td>alt.rap-gdead</td>
<td>Fans of The Grateful Dead and Rap, Really.</td>
</tr>
<tr>
<td>alt.rhode_island</td>
<td>Discussion of the great little state.</td>
</tr>
<tr>
<td>alt.save.the_earth</td>
<td>Environmentalist causes.</td>
</tr>
<tr>
<td>alt.uu.*</td>
<td>Usenet University</td>
</tr>
</tbody>
</table>

### Groups in Moderation

Another classification that applies to all Newsgroup categories is Moderated status. A moderated Newsgroup has specific posting restrictions. Unlike an unmoderated group where anyone and everyone can post directly to the group, users must submit postings to the moderator of a moderated group. If the moderator approves the post, he or she will post it to the group. This can control the content of the Newsgroup to such a degree that the Newsgroup name indicates exactly what messages it contains.

In unmoderated groups, there is a tendency among users to stray off the topic or to get into large “flame wars” where users criticize each other or other items or people. These types of impertinent messages tend to scare off the user new to USENET, but eventually tempers will die down and discussions will return to “normal.” Moderated groups, however, avoid this problem (if it is actually a problem) altogether. Very few off-topic or “flame” articles get sent to the moderator of a group “since the mere knowledge that a posting will be reviewed and judged usually freezes frivolous users in their tracks.”

### Newsgroup Management

One of the joys and curses of USENET is the lack of management of the News- groups. At the same time, this state of organized anarchy provides a great deal of freedom and a healthy dose of chaos to the participants. This is one of the things that makes USENET so popular.

What little control there is over USENET exists in the form of the RFCs. These documents detail specific standards that must be followed for the machine to work. But the RFCs only dictate the format of the articles, the protocols used to deliver News, and the creation and removal of groups. Even in the case of the latter, these standards are really only guidelines that can be followed if full cooperation is needed.

### Moderated Newsgroups (again)

One such form of management is the concept of the moderated newsgroup. A repeat of the format of these Newsgroups is not necessary, but it is essential to point out that all sites getting feeds on a moderated group must agree to follow the rules of moderation. When the administrator sets up the feed for the moderated group, he or she must make sure to disable a user’s ability to post directly to the group. Instead, an option to send an article directly to the moderator instead of the group could be put in place. If a site refuses to follow...
Back to School

this restriction, the sites feeding it will be asked not to provide feeds for that particular group, and the site will be cut off from that group, if not from USENET altogether.

Creating a New Group

Looking at the list of newsgroups might lead one to believe that there is no policy on creating new groups, when, in actuality, that is not the case. The procedure for creating a new group is outlined in detail in Eliot Lear's "How to Create a New Newsgroup." The process is quite time-consuming and leaves many places for new group creation to fail.

The process begins with a "call for discussion" that is posted on news.announce.newsgroups and to any other groups related to the proposed new group. During the discussion period a charter for the new group is created and moderators, if any, for the group are named. The discussion lasts for a 30 day period. If no general agreement is reached during that time, the discussion may be continued in private mail until such point that problems have been resolved, at which time another call for discussion is posted including the revised information. If an agreement is reached within the 30 day period, a call for votes is posted.

The "call for votes" is posted on news.announce.newsgroups and any groups on which the call for discussion was posted. This should occur as soon after the end of the discussion period as possible. The call for votes must explicitly outline the voting procedure: where to send votes and the length of the voting period. It must not be more or less difficult to cast a particular vote over the other, and the voting period must last between 21 and 31 days. During the voting period, no discussion of the voting results may be posted. Additional calls for votes may be posted, including the IDs of those who have voted, but not how they voted. The charter for the new group may not change in any way during the voting period. Only votes mailed to the vote-taker are valid. No group votes, voting by proxy, or voting under multiple IDs are allowed.

After the voting period has ended, the vote-taker must post the results of the vote, including the IDs of all who voted and which vote they cast. This post is available for five days to make corrections in case of error. If the number of "yes" votes outnumbers the number of "no" votes by at least 100, and there is a two-thirds majority of "yes" votes, the new group is created. The vote-taker is then responsible for notifying the keeper of the master newsgroup list of the new group and its pertinent information.

This process does not guarantee the creation of the new group, however. Currently, there is a discussion in news.admin concerning a call for discussion and votes to create a new group that was done according to the "rules," but one of the individuals responsible for verifying the process has remained silent on the issue, and the group has been left to create. No matter what the outcome of this particular incident, there is almost a guarantee of a new policy concerning group creation being released to the Net.

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"List of Active Newsgroups." news.lists, no. <12402@medusa.cs.purdue.edu>, USENET, November 8, 1990.
"List of Moderators." news.lists, no. <12406@medusa.cs.purdue.edu>, USENET, November 8, 1990.
"The Internet: An Introduction to the Use of the Internet at the University of North Texas." Academic Computing Services, University of North Texas, Denton, Texas, August 1990.
"USENET," Horticulture (October 1988), 11-12.

Some Interesting USENET Statistics

During the last two weeks of August of 1993, 415,166 articles, totaling 813,176524 Mbytes (1023.453349 including headers), were submitted from 31,506 different USENET sites by 90,495 different users to 62,17 different newsgroups for an average of 58.084037 Mbytes (73.103811 including headers) per day.
The Network Connection

By Dr. Philip Baczewski, Assistant Director, Academic Computing Services and BITNET INFOREP (ae12@unt.edu).

This column is a continuing feature of Benchmarks intended to present news and information on various aspects of wide area networks.

A Peek into the Internet Toolbox

With the number and variety of Internet information resources growing seemingly at an exponential rate, keeping up with the means to access that information can sometimes be confusing. Most of us had our introduction to wide area networks by participating in some type of E-mail-based discussion list — usually a BITNET LISTSERV list. With expanded access to the Internet, we are no longer limited to using E-mail as our tool, but sometimes its confusing to know what does what. The software tools that we can use are now available on a number of platforms. If they are not already available to you, they may soon be accessible from the microcomputer in your office or lab. The following glimpse into the "Internet toolbox" will hopefully provide you with an overview of the types of information services available and the software you can use to access them.

E-mail, the Internet Hammer

I'm sure you've heard that old saw (so to speak) about if your only tool is a hammer then all your problems will look like nails. Many of us equate E-mail and the Internet, however, not all Internet activity can be done with E-mail. E-mail does remain, however, an important tool for information exchange. Internet E-mail allows you to communicate directly with people around the world. E-mail can also be your entrance to the world of mailing lists.

Electronic mailing lists allow you to personally subscribe to E-mail discussion groups and exchange information on a specific topic with people who share your interest in that topic. Most BITNET LISTSERV installations can be reached via Internet mail and a growing number of Internet-based mailing lists are coming on line as a result of some LISTSERV-like programs that have been developed for UNIX and other systems common to the Internet.

On the UNT campus, you can use Pegasys mail (P-mail) from a PC or Macintosh to send mail to the INTERNET and to BITNET nodes as well. Pegasus mail is installed on a number of the Novell file servers on campus. You can also send Internet mail from the CMS system on the Academic Mainframe, the VAX, and the Solbourne host systems, in most cases by using the MAIL command.

USENET News, an Internet Pry Bar?

One use of a pry bar is to open Pandora's box, and sometimes it seems that USENET and Pandora's box have a lot in common. USENET is a system of exchanging mail-like messages and relies on a network of "server" machines around the world to accomplish this exchange. Rather than personally subscribing to discussion groups as you do with mailing lists, access to USENET news is accomplished by using a "news reader" which is a program that can copy messages from a server machine and present them to you. You can read the messages of your choice, reply to messages, and post your own messages to specific "newsgroups." Although their functionality is similar, news readers usually act independently of E-mail programs, and so with few exceptions, you cannot access USENET News by using your favorite mail program.

The number of newsgroups available via USENET news continues to grow and is currently over 2000. In order to make it easier to find a particular discussion topic, newsgroups are organized into hierarchies. For example, COMP is a collection of groups that is devoted to topics of computing. COMP.SYS is a further subdivision, including groups that discuss particular computer systems. And under COMP.SYS we can find several groups whose names start with COMP.SYS. AMIGA, a set which is devoted to various topics of the AMIGA computer. The ALT hierarchy serves as a catchall for some of the less regulated discussions, and this hierarchy has stirred some controversy for some of the subject matter that is discussed, hence the Pandora's box reference.

In order to support the exchange of information on the UNT campus, we have created a UNT hierarchy for specifically UNT-oriented topics of discussion. Topics currently include a "general" discussion area and an area for announcements of events. More UNT groups will be added as more people begin to "read news" at UNT.

News readers are available on most of the ACS host systems. ANUnews is a program on the VAX which will allow you to read news. nn is its equivalent on the Solbourne. A program called NNR is available on CMS, however, this program is still under development.

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1 For further clarification about the relationship of mail and USENET news, see "News From the CWIS/Gopher Hole" on page 20 of this newsletter.

2 For a more detailed explanation of USENET news hierarchies, see "USENET: An Overview" on page 22 of this newsletter.
and some features may not operate correctly from time to time. A program called Trumpet is available for reading news on a PC that is attached to the UNT campus network. Work is underway to be able to offer a supported news reader for the Macintosh as well.

Gopher, "Internet Duct Tape"

Gopher is a software package which provides access to a wide variety of on-line information and Internet services from one standard user interface. It is often described by the people who work supporting it as "Internet duct tape" because it can hold together a large number of Internet resources in one "package." Gopher is also widely in use as a Campus-wide Information System (CWIS). A CWIS is designed to provide on-line information to faculty, staff, and students of a university. It has the potential to serve as a unified source for the kind of information necessary for a university's operation, such as class schedules, faculty/staff/student directory, policy documents, upcoming events, etc.

Gopher presents information in a "read-only" format. For example, it is possible to provide messages from USENET news groups within Gopher, however, since Gopher is read-only, it is not possible for the end user to respond to any of those messages or to post new messages. Gopher does allow you to save its on-line documents in your personal storage area so that they can be edited, sent elsewhere via E-mail, or printed.

Gopher can be accessed by using the GOPER command on CMS, the VAX, and the Solbourne. A program called PCGopher III is available for use on PCs, and a program named Turbo Gopher is available for the Macintosh. Gopher will soon be available on a number of departmental Novell networks and in the General Access Labs. You can also try out the UNIX Gopher client by accessing the Solbourne

UNIX system ("soil") and logging in as "gopher" (no password).

Closing the Box

The above discussion does not cover all Internet software tools; however, these three are perhaps the most used and the most confused. It is important to know what each of these tools can and cannot help you accomplish in order to make the most effective use of Internet information resources. A familiarity with all three can open up a world of information access that hardly existed even a few years ago. If you need more information about any of the programs mentioned above, contact your file server manager or Computing Center Support Services (565-2324).
Books About the Internet Available at the Library in ISB

By Cynthia Koepp, Benchmarks Assistant Editor (koepp@cc1.unt.edu)

A number of books have been added to the UNT Libraries' collection of books about the Internet. You might want to 'check out' some of the titles listed below. They are all available in the Information Science Library (ISB).

- **Exploring the Internet: A Technical Travelogue** is written by Carl Malamud. In the preface he describes his book as a a narrative description of the people and networks I encountered during my travels. In my visits, I saw something the ITU and the rest of the standards bureaucracy seem to have missed. The Internet is here and it is not an academic toy.” The book is written in an engaging style, similar to Clifford Stoll’s “Cuckoo’s Egg” story, and, as in that book, you can be effortlessly introduced to elements of the big Internet picture.

- **Library Resources on the Internet: Strategies for Selection and Use** was published in 1992 by the American Library Association. It's a slender document in itself, but it points you to a lot of other print and electronic resources, and was designed to be a brief introduction to using the Internet to access library catalogs (OPACs). Included are references for: getting started, road maps/travel guides, and readings on libraries and network resources. One of the appendices shows sample interfaces for the major library OPAC systems—so you can tell what search software they use and/or how customized a particular OPAC is. You will also find basic information on using Telnet and FTP. Library Resources is available on 7 Day Reserve, or you can get your own copy via anonymous FTP.

  To do this: ftp to dla.uccp.edu
  Log in as: anonymous
  Give your E-mail address as your password
  Then type: cd pub/internet
  Then type: get libcat-guide
  Then type: bye

- **Zen and the Art of the Internet**, by Brendan Kehoe, is now also available in the ISB, on 7 Day Reserve. It is also an introductory book about the Internet, and Chapter Eight, “Things You’ll Hear About,” includes a lot of computer lore as well. I tried getting the older version from the FTP site at cs.widener.edu, but wasn’t able to log in anonymously. I wouldn’t be surprised if an older version of this title isn’t still out there somewhere.

- **Crossing the Internet Threshold: an Instructional Handbook** by Roy Tennant, John Ober and Anne G. Lipow, is an introductory book that includes helpful exercises—Beginner’s and Advanced—which allow you to test your abilities at, for example, using FTP, Telnet, or LISTSERV. There’s an annotated bibliography, and a section on ways to keep current on Internet affairs. It’s on 3 Day Reserve.

- **The Whole Internet: User’s Guide & Catalog**, by Ed Krol, is a substantial book on using the Internet, with most topics getting a chapter’s attention, including “Dealing With Problems.” There is also a collection of additional resources grouped by subject. Since examples are explained using UNIX commands, you can learn a little about UNIX as well. This book is noncirculating copy.

- **The Internet Companion: A Beginner’s Guide to Global Networking** by Tracy Laquey, is similar to The Whole Internet, and it is available on 7 Day Reserve.

- A final beginner book which will also be on 7 Day Reserve is Internet: getting started by April Marine.

- The Internet System Handbook is written as a reference for the “competent engineer, manager, and administrator,” and is edited by Daniel Lynch and Marshall Rose, who confidently state “One of the Editors believes that this book will find a prominent place on your bookshelf, the other believes that you will lock this book in your desk every night.” It’s available on 7 Day Reserve.

- The Internet Message: Closing the Book with Electronic Mail by Marshall T. Rose, is another technical book that is on 7 Day Reserve. The preface says that it was written as a graduate-level text and/or professional reference.

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**Benchmarks Publication Schedule Changed**

Due to budgetary constraints, Benchmarks will henceforth be issued on a bimonthly basis. The number of issues produced per year will be decreased from nine to six.

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**Gone But Not Forgotten**

MUSIC/SP Service Terminated August 31, 1993
FAVORS
Financial Aid Voice Response System

By Jana Crews, Programmer, Student Services Data Systems Team

The Financial Aid Office has recently enhanced their voice response application FAVORS. FAVORS can be used by students, faculty/staff as well as other outside institutions needing information related to Financial Aid services. Of course, the greatest benefit is for the increasing number of financial aid applicants at UNT. The projections for 1992-93 are for 13,500 applicants with approximately 8,500 receiving between 28 and 30 million dollars total.

Original FAVORS

The original FAVORS was implemented in 1988. Although it fulfilled some of the early needs of the financial aid population, it had become inefficient for many. After researching some of the problems and concerns voiced by students and staff which used the system on a daily basis, it was decided to rewrite the software. The successful installation of the new hardware for the integrated voice response (IVR) system also brought about improvements that the financial aid software needed to take advantage of. [A diagram of the Financial Aid Voice Response System is on page 31.]

New FAVORS

The new FAVORS has been in operation since October 1992. It was brought up first as a pilot program with information being sent to a small group of Financial Aid recipients. With positive feedback from this group, the original FAVORS was disabled and the new system fully operational November 1992. In general, FAVORS is available from 7:00 a.m. through 7:00 p.m. Monday through Friday by dialing 565-2016.

Financial Aid has a diverse population that it serves including the financial aid applicant, financial aid recipients — new and continuing, other universities, financial institutions and other educational institutions such as the Dept. of Education. The new FAVORS is designed to be user-friendly for both the occasional and the frequent caller. The system has logically structured menus for the inexperienced caller as well as the ability to enter codes (bypassing menus) for knowledgeable callers. The coded portion of the system was designed to be similar to the teleregistration system with which students are already familiar.

FAVORS Menus

The menu portion of the system is illustrated in the figure below. It is divided into four main groups:

1. STATUS addresses the questions and problems of current financial aid applicants and recipients.

The STATUS category handles the majority of financial aid callers. It is accessed by entering the student's Social Security number, birth date, and the semester code. It can be used to list complete or incomplete documents. Completed documents will inform the student which forms or transcripts have been received and processed. Incomplete documents will list forms and transcripts which are still outstanding due to errors or missing information and those which have not been received. STATUS can be used by applicants or recipients to determine the next step in processing their application/award. Callers will be told depending on their records whether they have been awarded, whether documents are outstanding, or whether they have been denied aid. In addition, they might hear a message with a date asking them to check back after a process has been completed. In other cases the caller may even be transferred to an individual in a specific area for more detailed information. Another feature within STATUS is the ability of first time loan borrowers to complete their Loan Management Counseling entrance interviews using the telephone versus attending a half-hour video presentation. STATUS will allow recipients to hear information on the awards they have been given and students denied aid will hear the reasons for denial. Awarded students may select an option to hear payment information as well.

2. TRANSCRIPTS is the section used by students or institutions with questions concerning either the receipt or the transmittal of financial aid transcripts.

The Financial Aid TRANSCRIPTS menu option allows callers to request that transcripts be sent to other schools as well as to check to be sure that the transcripts were sent. Additionally they can check to see if transcripts have been received from other colleges or universities. Callers can also ask that blank transcripts be sent to them.

3. The INFORMATION selection is useful for first time borrowers of financial aid by giving details on requirements and types of loans.

For the first time borrower or person wishing to apply for financial aid, the INFORMATION menu item would be helpful as far as answering
questions about different types of loans/grants. This section will also give
information concerning minimum academic requirements and verification
requirements.

OTHERS is a section of miscellaneous information which is further subdivided
into questions from students and nonstudents.

The OTHERS category consists of answers to frequently asked questions by
students and nonstudents which don’t fall into any of the previous areas. Some of
the selections will transfer the caller to an individual knowledgeable in the related
area. Finally, if callers can’t find an answer to a question within FAVORS, they
may call the direct telephone line to the Financial Aid Administrative staff which
is 565-2302.

FAVORS Sample Scenarios

For the continuing Financial Aid recipient or a student familiar with teleregistration,
the following scenarios might be helpful in becoming adept at using the action
request codes to maneuver quickly through FAVORS.

An enrolled student that has applied or received Financial Aid would probably want
to check the status of their loan/check.

Dial FAVORS 2 0 1 6
Select touchtone 1
Select STATUS 1
Enter Semester (Spring) 2
Enter SSN 9 9 9 9 9 9 9 9 9
Enter Birthdate 9 9 9 9 9 9
Next Step in Processing 1 3
List Awards 2 1
End Call **

An enrolled student that has applied for Financial Aid would probably want to check
the status of their application.

Dial FAVORS 2 0 1 6
Select touchtone 1
Select STATUS 1
Enter Semester (Spring) 2
Enter SSN 9 9 9 9 9 9 9 9 9
Enter Birthdate 9 9 9 9 9 9
Next Step in Processing 1 3
Incomplete Documents 1 2
End Call **

Conclusion

The Financial Aid Office and staff are always looking for ways to improve the
services provided. The Student Services Data Systems team of the Computing Center
would like thank the following groups — Asst. Director of Financial Aid (Deborah
Arnold), Telecommunications Manager (Tom Newell), Voice Response Applications
Team Leader (Nancy Fisher) and all of the individuals in the respective groups
for their combined efforts to bring about this current enhancement to FAVORS as
well as future ones. In the immediate future there are plans to add the capability to
FAVORS to allow students to accept or reject awards that have been offered. Other
areas or functions that may be added to FAVORS include the handling of Short-Term
Loans as well as the scheduling of appointments with Financial Aid counselors.

Staff Activities

Employees Honored

The following employees have been honored for their years of
State service:

- Richard Harris, Associate Vice President for Computing — 30
  years of service.
- Coy Hoggard, Senior Director of Administrative Computing - 25
  years of service.
- George Williams, Team Leader, General Data Systems — 20 years
  of service.
- Sue Harrison, Administrative Assistant — 10 years of service.
- Michael Graham, Computer Operations — 5 years of service.
- Shauna Graham, Computer Operations — 5 years of service.
- Paul Koldjeski, Programmer, Database/Central Programming Support
  Team — 5 years of service.
- Rong Wang, Programmer, Payroll/Personnel Data Systems — 5
  years of service.

Transitions

The following people have been hired since June 1, 1993:

- Academic Computing Services:
  Charlotte Ford.
- Data Communications:
  Darren Loher, Blair Copeland.
- General Access Lab:
- Production Control:
  Ahmad Barakat.
- Support Services:
  Douglas Bate,
  David Wright.

The following people have resigned since June 1, 1993:

Please see STAFF on page 32.
Information Resources Council News

Minutes provided by Sue Harrison, Recording Secretary

IRC Regular Voting Members: Ray von Dran, Library and Information Sciences (Chair); Chengzhi Capan, College of Business; Carolyn Cunningham, Student Affairs; Paul Dworak, Faculty Senate; Brian Fioreman, TCOM Information Resources Council; Chuck Fuller, Fiscal Affairs; Larry Gleason, School of Visual Arts; Don Grose, Libraries; David Hartman, School of Community Services; Royce Lumpkin, College of Music; Sam Magill, TCOM Director of Information Technology Services; Steve Miller, Administrative Affairs; Tom Newell, Telecommunications (Ex-officio); Don Paleromo, Academic Administration; Jean Schaeke, College of Arts and Sciences; Beth Schlagel, School of Merchandising and Hospitality Management; Paul Schlieve, College of Education; Virginia Wheless, Associate Vice President and Director, University Planning and Institutional Research. IRC Ex-officio Nonvoting Members: Bill Buntain, Computing Center; Jim Curry, Microcomputer Maintenance Shop; Paul Gandel, Computing Center; Richard Harris, Computing Center; Coy Hoggard, Computing Center.

JULY 20, 1993

Approval of the new IRC Charge has been reported to the Information Resources Steering Committee. Other items discussed at the most recent IRC Steering Committee meeting were the use of course fees for support of different functions and the Board of Regents’ action. Harris reported to the Steering Committee on the USENET NEWS Group and touched on the issues involved. He told them that a committee had been formed to address all the issues, and the Steering Committee concurred with IRC’s decision to do nothing about the Internet News in the interim.

Ray von Dran reported that the membership of each of the Program Groups is not complete at this time. He will attempt to have the rest of the members appointed during the month of August, so that the committees can begin meeting in September.

A “vision” of the future of information resources ...

Virginia Wheless reported that the University Planning Council has increased its size in order to provide more adequate representation of the University, including the Associate Vice President for Computing, and incorporating the present Space Committee and the Critical Issues Committee as subcommittees of the UPC. Two other committees that play an important role in the planning process but that will not be actual UPC subcommittees are: 1) the Facilities Master Planning Committee, which now has several UPC members on it; and 2) the Information Resources Council which has four UPC members on it. Wheless reported that the Space Committee is working on selling $10.2 million in tuition bonds which will be used to build new buildings; however, it does not have set priorities on what would be in the best interest of the University to start on first. Therefore, the UPC will be asking the IRC for a “vision statement” for the future of information resources at this institution, as well as one from the Libraries.
The Chair suggested that, since the IRC will be asked for this vision statement, it would be a good idea to get started on its preparation. Von Dran appointed an ad hoc committee to develop the vision statement for information resources, with a preliminary report ready for the IRC to consider in September and then vote on in October. The Chair named the following persons to serve on the ad hoc committee:

1. David Shrader, Chair (College of Music)
2. Kathleen Swigger (Computer Science faculty)
3. Celia Williamson (Chair of Information Technology Committee)
4. Cangiz Capan (BCIS faculty)
5. Sue Byron (Libraries)
6. Ginny Anderson (Controller)
7. Paul Gandel (Academic Computing)
8. Jon Young (CECS faculty)
9. Carolyn Cunningham (Financial Aid)

Ray von Dran will call the committee together and give them the charge to review the University Strategic Plan and address what should be done (not how it should be done, nor who should do it). Virginia Wheeleless pointed out that the vision statement should be guided by the University's mission statements and added that the UPC is also preparing a vision statement. Discussion followed with consensus regarding the above named ad hoc committee and its charge.

The future of networking

Paul Gandel spoke to the council regarding the future of the Internet, and distributed three maps which depicted the NFSNET Backbone Network as well as the Sesquinet and THENet Texas networks. He explained that the networks are changing and that the Internet will just have five supercomputers on it and will not allow anything but supercomputer traffic over the network. It is uncertain what will happen next; however, Sesquinet and THENet are preparing a proposal to present to two different providers (such as MCI) in order to find out which one they want to do business with. He explained that the government is saying that electronic mail is really a public utility function, whereas it has been considered an educational function until now. UNT has been paying Rice University for the Sesquinet service at the rate of $14,000/year for just the T1 line, which doesn't even include the cost of services.

Gandel suggested that UNT be looking for local nonprofit organizations who may want to hook into the Internet through the University, which would help offset the cost of the services.

Enhanced video projection

Ray von Dran reported that a demonstration of enhanced video projection equipment potentially to be installed in the Main Auditorium is tentatively scheduled for Sept. 3, 10, or 17, depending on availability of equipment. Von Dran stated that the Information Technology committee is planning to meet prior to August 6 to provide input, as requested. Roger Simon and a committee working on providing equipment for this classroom will welcome input from anyone in the University community who has an interest in this classroom.

General Access Lab Committee

Cengiz Capan reported that the General Access Lab Committee has met twice in July to work on its FY94 budget, and distributed the most recent Budget Worksheet, which shows the net effect of the $25/credit hour fee increase. Capan recommended that the funding, based on the basic formula, be distributed to the various Lab Accounts and then have G alc review all of the requests and projects to decide how the excess needs to be appropriated. Some of the requests on the table are funding for the School of Visual Arts, expansion of Library Lab facilities, application servers, equipment upgrades, and software site licenses.

The Council agreed to approve the GAL budget as presented.

The General Access Lab policy regarding student and nonstudent access was discussed, since there have been some continuing students, who are not actually enrolled for summer sessions, who want access to the labs. The policy currently states that if a student is completing an "I" in a class taken in a previous semester, they can acquire permission from their department for access to the labs. In other situations, students are also being told to get approval from their departments first and are then being allowed access. Capan stated that Philip Buszewski, a G alc member, is reviewing the current policy and procedures in order to make any needed changes. This issue was discussed at the most recent G alc meeting, also, and an avenue for appeals was agreed upon by G alc, and amended by the IRC, as follows:

1. Lab Manager
2. Account Holder
3. Chair of G alc
4. Chair, IRC

It was also clarified that when a student appeals to a Lab Manager or Account Holder, and is given access, that permission is related to all the Lab Managers, so that the student can have access to any or all of the labs. Further discussion followed regarding Ph.D students working on dissertations but not enrolled in classes, as well as alumni who wish to use the labs. It was concluded that people can get permission to use the labs by using the appeal system noted above; and that the concern of the G alc is that students who are currently enrolled and paying fees be assured of space when they wish to use the labs.

Fiber optic wiring project

Bill Buntain reported that the next phase of the fiber optic wiring project to extend to the PEB, McConnell Hall, Physical Plant, Health Center, Services Building and the Coliseum is underway. Bid specs for wiring the Art Building, Music, Willis, Wooten,
ITEC, ISB and the Union should be out within a week. They have been working on the Chemistry and Biology Buildings and will continue with those and a couple of other small exceptions, with an estimated completion of February or March 1994. The following buildings will probably be handled internally: Kendall Hall, Marquis Hall and the Services Building. Estimates are being prepared for the costs of wiring the following buildings not included in the Internal Building Networking Project: Highland Hall, Sullivan Center, Edwards Hall, Chestnut Hall, Music Annex, Physical Plant, and Matthews Hall Annex.

Other news from Network and Microcomputer Support

Buntain also reported that a bid is out for the WordPerfect Customer Advantage Program, which is an extremely cost-effective way to provide WordPerfect upgrades to campus users. This was done using Prop II funds, with the hope that the IRC will approve it when they are presented with the final FY94 budget. He stated that WordPerfect 6.0 is now on the market so if anyone is thinking of upgrading, they might want to wait until this purchase order is in place, which he anticipates will be August 1. He said they are trying to get a clarification on whether or not copies of WordPerfect software bought under this program can also be used at the user's home, without having to buy a second copy.

Bill Buntain reported that his area has written four papers which deal with critical issues facing the University, one of which addresses the issue of establishing a baseline of hardware and software across campus. A second paper deals with the issue of server deployment and user support with a view toward campus-wide E-mail; a third paper deals with strategic issues regarding integration of various applications; and a fourth paper addresses software licensing compliance.

Buntain also distributed a memo announcing the Computing Center's cut-back on maintenance of some Sytek and 3270 communications equipment it had been maintaining for all departments on campus. The plan is to cycle out the equipment and use those items as spares.

Buntain asked that the IRC Steering Committee be made aware of the issues just presented, as well as the need for funding.

E-mail Task Force

Paul Schlieve reported that at the last meeting of the E-mail Task Force, it became clear that the issue was too confusing to come to a decision. Since then, the Microcomputer Support Staff in the Computing Center has been working to evaluate three E-mail packages: WordPerfect Office, Pegasus Mail and CC Mail. The IRC passed a motion to approve the addition of four members to the task force: 1) Cathy Cobb, 2) Cengiz Capan, 3) Ginny Anderson, and 4) and an Arts & Science faculty member to be named.

It was pointed out that the task force has been charged to choose an electronic mail system, not a specific product, so the end result may be several products. Schlieve stressed that the success of the E-mail task force's work will be closely associated with Bill Buntain's proposals.

A WPO Mail Tip

Many people complain about the interruption caused by WPO Mail's notification. As a sender of a WPO Mail message, you can specify that your message NOT notify the recipient (press -FS-, Message, Notify, No). In this way, the recipient will not be aware that a new message has arrived until he/she enters the WPO Mail program. Also, be aware that the "incoming message" notification feature is configurable (i.e. it can be disabled for your network account); contact your network manager for more information.

WPO continued from page 32.

one would use in judging whether to send out an on-paper memo to all faculty and staff: Is the message of sufficient interest to be broadcast to a general population? Is it informational, or does it request information from a wide variety of individuals? Is it University-related business?

When appropriate, distribution groups smaller than WPO Mail's EVERYONE should be used to distribute messages. For example, other groups are available (press -FS-, and select Groups), such as NTFACHTY, the group containing UNT faculty who use WPO Mail. (Unfortunately, these groups are greatly in need of "cleaning up," however, you may still find your target audience in one of them.) Messages can also be sent to all users on one particular Novell host file server. Personal groups, listing a number of individuals, can be easily created, modified, and shared with other users.

For some types of messages, alternatives to E-mail broadcasts should be used. USENET News is a facility which supports mail-like discussion groups. UNT has some local USENET groups, such as UNT.GENERAL or UNT.ANNOUNCE which may be used for general inquiries or announcements. Additional local groups can be created if there is a need. Gopher is a system which can allow departments to submit information for general viewing. Both of these facilities are still being developed on our campus and may not yet be available on your file server. Contact your network manager or Computing Center Support Services (ext. 2324) for more information.

Remember, WPO's EVERYONE does not include all members of the University. Even among all network computer users, there are many who communicate exclusively via other mail systems such as Pegasus Mail.
Computing Center Short Course Registration Form

Please complete this form and return it AS SOON AS POSSIBLE if you wish to attend any of the short courses listed below. You may also register on-line via Gopher or over the phone by calling (817) 565-2324. FACULTY AND STUDENTS HAVE FIRST PRIORITY TO REGISTER FOR THESE CLASSES. A VALID USER-ID IS REQUIRED FOR CLASSES MARKED WITH AN ASTERISK (*). Academic Computing Services reserves the right to cancel ANY course that has 5 people or fewer registered 3 days before the date of the course.

NAME: _______________________________
DEPT: _______________________________
PHONE: _______________________________
SSN: _________________________________

Staff: ____________________________
SUPERVISOR SIGNATURE: __________

I wish to attend:

- Intro. to CMS (ISB 110)*:
  - Monday, September 13: 3-5 p.m.
  - Monday, September 20: 3-5 p.m.
  - Monday, October 4: 3-5 p.m.

- Intro. to IBM JCL (ISB 134B):
  - Thursday, September 16: 3-5 p.m.

- Intro. to SAS on UNIX (ISB 110)*:
  - Thursday, October 7: 3-4 p.m.

- Intro. to SAS (ISB 110)*:
  - Tuesday, September 14: 2-4 p.m.
  - Tuesday, September 21: 2-4 p.m.

- Intro. to SAS on Windows (Chilton 255):
  - Tuesday, October 26: 3-5 p.m.

- Intro. to SAS on CMS (ISB 110)*:
  - Tuesday, September 28: 3-4 p.m.

- Intro. to E-Mail Etc. on CMS (ISB 134B):
  - Thursday, September 30: 3-5 p.m.

- Intro. to Internet Tools (ISB 134B):
  - Thursday, October 21: 3:30-5 p.m.
  - Tuesday, November 2: 3:30-5 p.m.

- Intro. to PC E-Mail & Discussion Groups (ISB 134B):
  - Thursday, October 7: 1:30-3 p.m.

- Intro. to Pegasus Mail (Chilton 255):
  - Friday, October 1: 1-4 p.m.

- Intro. to DOS (Chilton 255):
  - Friday, September 17: 1:3 p.m.

- Computer Viruses and You (ISB 134B):
  - Monday, October 11: 3-5 p.m.

- Intro. to WordPerfect for Windows (Chilton 255):
  - Tuesday, November 23: 9 a.m.-Noon

- Intro. to WordPerfect Presentations (Chilton 255):
  - Tuesday, November 30: 9 a.m.-Noon

- Intro. to UNIX (Chilton 255)*:
  - Friday, September 24: 1-3 p.m.
  - Tuesday, October 5: 3-5 p.m.

- Intro. to VAX/VMS (Chilton 255)*:
  - Wednesday, September 22: 3-5 p.m.

- Intro. to vi (Chilton 255)*:
  - Wednesday, October 6: 3-5 p.m.

- Intro. to SPSS (ISB 110)*:
  - Monday, September 27: 1-4 p.m.
  - Monday, October 11: 1-4 p.m.

- Intro. to SPSS on Windows (Chilton 255):
  - Friday, November 5: 1-3 p.m.

- Intro. to SPSS PC+ (ISB 110):
  - Tuesday, October 12: 2-4 p.m.

- Intro. to E-Mail Etc. on UNIX (ISB 134B):
  - Monday, October 18: 3-5 p.m.

- Intro. to Gopher (Chilton 255):
  - Friday, September 24: 3:30-5 p.m.
  - Tuesday, October 19: 3:30-5 p.m.

- Intro. to Mac Internet Tools & Techniques (ISB 134B):
  - Monday, October 25: 3:30-5 p.m.

- Intro. to Procomm+ (Chilton 255):
  - Tuesday, September 14: 4-5 p.m.

- Intro. to Macintosh (ISB 110):
  - Wednesday, September 22: 3-5 p.m.

- Intro. to Windows 3.1 (Chilton 255):
  - Wednesday, November 10: 3-5 p.m.

- Intro. to WP 5.1 (ISB 110):
  - Wednesday, October 6: 2-5 p.m.
  - Monday, November 1: 2-5 p.m.
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