

Profiles in Computing...

Adaptive Technology Lab Fills Specialized Computing Needs

The sign on the door of 151 Knight Library reads, *Adaptive Technology Lab*. Most students bustling by on their way to the neighboring Reference Library have probably never noticed the door or its sign, and the term "adaptive technology" may mean little to them. But to a small number of disabled students on campus, this door means a lot. It is their entry to specialized computer equipment that enables them to fully participate in the UO curriculum.

Although the lab is intended for use by UO students with a variety of disabilities, most current users are blind or vision-impaired, and the lab's technology is geared to their needs. When the Office of Academic Advising and Student Services first introduced adaptive technology aid in 1988, the "lab" consisted of one voice synthesizer in the Chiles Center Computer Lab, patronized by a single blind student.

From these modest beginnings, the lab has expanded to include two adaptive computer systems with standard keyboards (one IBM-based and the other, Mac-based), voice synthesizers and print enlargers, a Panasonic laser printer, a special braille printer that can reproduce low-level graphics as well as text, and a Kurzweil Personal Reader that scans books and transforms them into auditory format. In addition to reading books aloud, the Kurzweil Reader can produce audio cassette tapes or import audio-translations to a computer for later reference.

Lab technician/programmer Charlyn "Sharky" Jacaway recently collaborated with the Knight Library to make its *Janus* database available to lab users, and has installed the UO's Schedule of Classes online for their convenience. Users can also access UOnet, the campus network, and run VAX/VMS stat packages, printing out the results on lab printers instead of having to pick them up at the Computing Center.

Of some 200 students with disabilities on campus, 10 are currently using the Adaptive Lab frequently and five of these rely heavily upon it. Anticipating growing demand, the lab is slated to move into larger quarters in the new wing of the Knight Library once construction is complete. The new lab will consist of an equipment room and a small private reading room where students may listen to material read aloud without disrupting other library users.

Lab manager Hilary Gerdes, the UO's counselor for students with disabilities, stresses that, while the lab is able to significantly assist a number of disabled students, faculty should not assume that it can miraculously meet every need.

When designing courses, professors should recognize that adaptive technology lags far behind other computing developments, and that even the most advanced adaptive software might be inadequate to perform some coursework. Not only is adaptive software less sophisticated than mainstream technology, it often requires substantial modifications for use on UO computing systems. Such modifications can take a great deal of programming time and effort. Faculty are urged to submit syllabi and course packets as early as possible, coordinating their plans with Student Services to ensure that disabled students can take advantage of the material at the same time as their classmates.

Lab schedules are customized for each student, adjusting to both individual class schedules and the need to control traffic flow in the limited lab space. A trainer is on hand to instruct those who are unfamiliar with the specialized equipment. UO students wishing to use the lab should call Hilary at 346-3211.

Data Services Lab Debuts

UO faculty, staff, and students now have increased access to social science data, thanks to the debut of the Social Sciences Data Services Laboratory (DSL).

The new lab, located in the basement of PLC (Rooms 10 and 11), offers a wide range of valuable resources for researchers and students, including

- online social science data
- assistance in accessing and subsetting this data
- information on what data is available on campus
- a complete data archive system
- data documentation

The DSL will also manage the UO's membership in the Inter-university Consortium for Political and Social Research.

The lab is funded for new data purchases, and the Faculty Advisory Committee is currently soliciting data requests from faculty members. The committee will begin evaluating these proposals on February 1, 1992. Anyone interested in obtaining copies of social science data for research should contact Cathleen Leué at extension 6-4642 or 6-2547 for information on submitting data request proposals.

WHAT'S NEW ON THE VAX ?

VMS Password Security Tightens

Veteran VMS users are already familiar with having to change their passwords at least every six months. Now, the latest version of VMS (5.4), installed early in Fall Term, adds a further requirement: *old passwords may not be re-used.*

Apparently, some people have been dutifully changing their password every six months, only to immediately change back to the old one. This stratagem no longer works. Further, VMS 5.4 includes a dictionary of easy-to-guess passwords that it also refuses to accept.

While Computing Center staff would have preferred advance warning of this change from DEC, we appreciate the growing concern for password security. Individual password security is the foundation on which most of the rest of system security is based: it assures the account holder that no attacker is invading personal files and damaging valuable data; it provides system administrators with a meaningful audit trail and a way to assign responsibility; and it gives other users reasonable assurance that your network identity is accurate—i.e., that “you are really you.”

In this era of widespread internetworking, it is possible for literally millions of random outsiders to connect to the UO's VAXcluster. We all need to take reasonable precautions to make sure that we are not easy targets for the playful or malicious. Change your password regularly, and don't reuse old passwords. Choose passwords that are easy for you to remember but difficult for others to guess (one effective technique is to use an acronym for a memorable phrase, such as IHPBIUTA—I Hate Passwords But I Use Them Anyway). Never use a variant of your username or real name, or a common name or English word.

EVE Set As Default MAIL Editor

EVE, VMS's popular default text editor, was recently made the default editor for the MAIL utility as well, supplanting EDT. New VAX accounts for people who use VT-type terminals, like a VT320, or microcomputers emulating a VT, are being set up so that the EVE editor is automatically invoked whenever a SEND, REPLY, or FORWARD command is issued in MAIL.

In all accounts set up before November 19, 1991, and in new accounts for users with non-VT terminals, MAIL will continue to invoke its own basic line editor unless a VMS editor has been specifically requested. If you have one of these types of accounts and wish to request one of the VMS editors, first insert the following line in your LOGIN.COM file:

```
$ mai*1 := mail/edit:(send,reply,forward)
```

Then, run MAIL and select the editor you wish to use:

```
MAIL> set editor tpu    (for EVE)
      or
MAIL> set editor edt    (for EDT)
```

If you are editing a message in EVE and wish to exit the editor before sending the message, first type a DO command (Do or PF4 on VT320s, * on Macs, F4 on PCs) to generate a “Command:” prompt at the bottom of the screen. Then type a QUIT command. To exit EVE and send the message, type a Ctrl/Z. In both cases, you'll return to the “MAIL>” prompt.

If you are unfamiliar with EVE, we suggest you pick up a copy of the EVE reference card in the Documents Room (205 Computing Center). For more complete documentation on the EVE editor, consult DEC's *EVE Reference Manual*, in Volume 5C of the VMS General User reference series, and the *Guide to VMS Text Processing*, in Volume 5A. Both of these DEC manuals are available for study in the Documents Room.

Solving a VNEWS Posting Problem

If you've attempted unsuccessfully to post a VNEWS article, and get a set of error messages that looks like this

```
Error opening output file Sys$Login:News$Out.News. Post aborted.
Posting aborted.
Your message is saved in Sys$Login:News$Out.News.
```

you probably need to increase the number of versions of each file VMS retains in your main directory (the “version limit”) from the default (1) to 2 (or more). You can do this by typing

```
$ set directory/version-limit=2 sys$login
```

Once you've issued a command like this, VMS will retain the two most recent versions of each file instead of just one. If you increase the version limit, it's a good idea to purge your directory of old files from time to time by typing

```
$ purge sys$login:*.*
```

This reduces the number of file versions stored in your directory to one each. Also, if you still have an old, single-version NEWS\$OUT.NEWS lingering in your directory, delete it so that your next posting will create one from scratch. To do this, type

```
$ delete sys$login:news$out.news;*
```

.....

Attention, Mac Users— AppleTalk Upgraded to Phase II

In early February, 1992, the Computing Center's Network Services group intends to complete the upgrade of the University's campus AppleTalk Network from Phase I to Phase II AppleTalk. This change affects only those Macintoshes and AppleShare File Servers that are connected to the campus network via the ethernet. Users on LocalTalk networks will not be affected.

If you are not sure whether you are currently running Phase I or Phase II AppleTalk, or if you have other questions regarding this conversion, call Network Services at 6-4395, or send an electronic mail message to

nethelp@ns.uoregon.edu

Don't Fear 'Stoned' Virus — Public Domain Software Can Save You

A local computer virus infestation caused sufficient alarm to make the front page of the Register Guard's *City/Region* section recently. The virus, first detected about two years ago in major U.S. cities, is a strain known in computer circles as "Stoned," because of its onscreen message: "Legalize Marijuana."

The outbreak occurred in Lane Community College's Downtown Center, destroying several students' DOS computer files and conjuring fears of expensive, complex containment and eradication measures. In fact, such fears are unjustified. You may easily protect yourself from Stoned, and other such plagues, by installing easily-obtained, low-cost anti-viral software.

The Computing Center's Microcomputing Support Center in Room 202 maintains a public domain library that includes a range of anti-viral software and shareware. (Public domain software is free, whereas shareware commands a small fee.) These programs are designed to prevent, detect, and eradicate viral infections. If you need help copying or utilizing them, the Support Center supplies instructional handouts, and consultants are on hand to assist you.

You may access public domain software from UOnet, the campus network. PC users must be directly connected to UOnet (i.e., not connected via modem) and must have Novell drivers loaded. Those with Macs must be connected to UOnet via either AppleTalk or Ethernet, and must have AppleShare Workstation and MacTCP software installed. You may reserve time on a PC or Mac in the Support Center to access and copy public domain software if you need to. Call 346-4412 to make an appointment.

Winter '92 Workshops

Each term the Computing Center offers short introductory workshops on a variety of computer topics. These non-credit workshops are offered free of charge to University faculty, staff, and students. *Unless otherwise noted, pre-registration is required for most courses. To pre-register, call 346-1700.*

Pick up a flyer at either of the Center's reception counters for brief descriptions of the workshops and final scheduling information. If you have further questions, call Howard Loewinger at 346-1718.

Introduction to the VAX & Network Resources - 165 Computing Center
Tuesday, January 14 2 - 3:30 pm

Introduction to Electronic Mail (VMS MAIL) - 165 Computing Center
Repeated twice: Tuesday, January 21 2 - 3:30 pm
Monday, January 27 2 - 3:30 pm

Introduction to Electronic Mail (Eudora) - 329 Chiles Business Center (TBA)

Accessing & Using Network Resources - 245 Computing Center
Wednesday, January 29 1:30 - 3:30 pm

Sending Mail & Files Off-Site - 245 Computing Center
Thursday, February 13 2 - 3:30 pm

Introduction to the Macintosh - 185 Computing Center (Drop-in)
Repeated four Mondays: January 13 & 27 3 - 5 pm
February 3 & 10 3 - 5 pm

Merging and Sorting in WordPerfect - 165 Computing Center
Monday, January 27 10 am - noon

DOS 5 & Windows - 165 Computing Center
Repeated twice: Thursday, January 16 & 23 3 - 5 pm

Introduction to HyperCard 2.0 - 175 Computing Center
Repeated twice: Monday, February 17 & 24 3 - 5 pm

Introduction to System 7 - Chiles Business Center (TBA)

Introduction to NeXT Computers (Vendor Presentation) - 245 Computing Center
Tuesday, January 28 2 - 3:30 pm

Introduction to Excel for Windows (DOS) - 165 Computing Center
Tuesday, February 4 10 am - noon

Getting a 'Busy' Signal? New High-Speed Modems Improve Access

Increasing numbers of people have come to rely on modems to access campus computing systems from home. Phone lines have become overburdened, and more and more people have been getting busy signals when they try to dial in. To alleviate this problem, the Computing Center's Network Services group recently purchased and installed 16 new high-speed modems, retiring 11 older, slower, less reliable ones.

The Center now provides some 32 high-speed (9600-bps or higher) modems, all attached to terminal servers on UOnet, the campus network. All 32 are compatible with 1200-, 2400-, and 9600-bps modems; the newest 16 are also compatible with 300-bps modems and with the latest high-speed modem protocol, v.32bis. With the 11 retired modems goes the old "enter class" prompt, issued when a successful connection was

Need to Move Your Laserwriter?

Campus departments wishing to transport computing equipment to the Computing Center's repair site should note that the Physical Plant's "Handy Helper" service (described in the October 1991 issue of *Computing News*) does *not* move Laserwriter printers. If your office needs to transport a Laserwriter to the Computing Center repair site, call the Physical Plant's "Moving Services" department instead, at extension 6-2322.

Items should be readied for pick-up by being clearly labeled with a department name, contact name, phone number, and detailed description of the problem. If the equipment is under warranty, you should also provide a copy of the purchase slip.

Unlike the Handy Helper service, Moving Services charges for its work. You can request a cost estimate at the time of your call.

If you have further questions about either of these Physical Plant services, call Susan Pinkus at 6-4403 or send Susan an e-mail message (username SPINKUS).

Modems (continued)

made. All callers now receive the standard UOnet network prompt, UOnet>, when a successful connection is established.

Beginning Monday, January 27, 1992, a new telephone access number will also take effect. The old modem numbers (346-4391, -4393, and -3565) are being replaced by a single new one, 346-5975, which supports a speed range of 300 to 57,600 bps. Those who use a modem in the 1200- to 19,200-bps range should continue to dial 346-2150 to minimize their chances of getting a busy signal. The table below summarizes these changes:

Phone no.	Center modem type	Speed range
346-5975	v.32bis	300-57600 bps
346-2150	v.32 with MNP5	1200-19200 bps

If you have set up scripts to automate the dialing process, make sure you change the phone number, if appropriate, and replace any commands that expect the obsolete "enter class" prompt with new ones that look for "UOnet>."

STAT CORNER

SAS Proc PHREG Available on OREGON

Statisticians wishing to perform Cox proportional hazards regressions (such as those once possible using the SUGI procedure PHGLM) will be pleased to learn that SAS now offers a new proc—PHREG—for this application. See *SAS Technical Report P-217* for details. This report is available for checkout or study in the Computing Center Documents Room (205).

Sun and Sys V Unix GIS Users— Try GRASS 4.0

Anyone looking for a low-cost geographic information system will want to know about GRASS 4.0, which was written by the U.S. Army Construction Engineering Research Lab (CERL). This package is available via anonymous FTP from Internet node UXC.CSO.UIUC.EDU in directory *pub/GRASS/4.0*. Two training/demo datasets ("Spearfish" [South Dakota] and "World") are also available from the same site.

GRASS and its attendant data are written in C, and requires about 120 MB when uncompressed. Systems on which GRASS is to be installed must run a version of UNIX that supports named pipes (fifos), such as Sys V UNIX systems or Sun's version of UNIX. (If you're unsure whether your UNIX system supports fifos, see *man mknod*.)

Graphics Tips—

Using NCAR Graphics on OREGON

NCAR Graphics is a 'one-call' graphics program intended to allow VAX Fortran users to easily generate data-driven graphics. Once you familiarize yourself with running even the smallest of NCAR jobs, you'll quickly become proficient at using the package.

If you wish to try a sample NCAR exercise to create a two-dimensional x-y line graph of a set of five values, see the VMS file SAMPLE.FOR. To access this file, type

```
$ copy ncar$disk:[ncar]sample.for *.*
$ for sample (compile the program)
$ ncargln sample (link with NCAR libraries)
$ run sample (run the program, creating GMETA.CGM)

$ ncartek (convert output to TEK 4014 form and
display it)

$ ncarps <tab> (convert output to PostScript, and...)
$ pas gmeta.ps (print the resulting file on SYS$LASER)
```

For further information, see the NCAR Graphics manuals in the Documents Room, or send an e-mail message to username JOE.

Exponent Graphics

Exponent Graphics is another graphics program available on OREGON that is somewhat comparable to NCAR. As it is still a developing product, be aware that the current installation may undergo some modification as certain limitations are worked out.

To see an Exponent example comparable to the preceding NCAR exercise, type

```
$ copy exponent$disk:[exponent]sample2.for *.*
$ for sample2
$ expolink sample2
$ run sample2
$ psp test.ps
```

(To set up Exponent for generating output to other devices, try changing the -3 in the CALL EFSPLT line to 0. Then, enter a ? when prompted for a list of devices.)

If you have further questions about Exponent, see the Exponent manual in the Documents Room, or send an e-mail message to username JOE.

- Joe St Sauver

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