Electronic Mail at UNT

By Claudia Lynch, Benchmarks Editor (lynch@unt.edu)

On April 25, 1991 the Electronic Mail Task Force met for the first time. The Task Force was formed in March of 1991 at the request of Dr. Blaine Brownell, the UNT Provost and Vice President for Academic Affairs, and was charged to "evaluate, recommend, and implement a University-wide electronic mail system."1 Dr. Paul Schlieve, Associate Professor, Department of Technology and Cognition, College of Education, chaired this task force that reported to the Information Resources Council (IRC) as well as to the Provost. The "task of the force" was never easy, and Dr. Schlieve reported to the IRC on July 20, 1994 that "the Task Force has not been able to agree on one mail package, since there are irreconcilable differences between the various packages."2 Subsequently, the Task Force met again and after much deliberation decided on a set of recommendations to move forward to the IRC. On September 22, 1994 the final recommendations of the Electronic Mail Task Force were presented, they follow on page 3.


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UNIVERSITY OF NORTH TEXAS COMPUTER ACCESS AREAS: Spring 1995
Electronic Mail Task Force Recommendations

1. Use of NetWare Global Messaging to enable LAN-based applications to exchange mail via MHS and SMTP (including WordPerfect Office 3.1 on an interim basis).
2. Recognition of the need to support AOCE messaging as part of the Macintosh core operating system.
3. Implementation of an Interactive Mail Access Protocol (IMAP)-compliant mail system for student mail.
4. Pursuit of in-house development of integrated directory services.
5. Drop Pegasus mail and WordPerfect Office 3.1 as supported items.
6. Adopt cc:Mail as the centrally supported microcomputer E-mail package.

According to the IRC minutes for September 22, 1994, "there seemed to be some concern about the recommendation the Task Force was preparing to make so the Chair proposed the creation of a system by which a decision can be made on a campus-wide E-mail solution by the end of this semester. He proposed forming a new commission, taking the E-mail recommendation to the Communications Program Group, getting a broader campus-wide hearing and coming back to the Council at its November or December meeting with a final recommendation."1 At the end of the meeting, the Electronic Mail Task Force was declared officially dissolved.

Electronically Enabled Communications Commission

As you will see from reading the "Information Resources Council News" on page 22 of this issue, the new commission that was suggested on September 22, 1994 was formed and christened the "Electronically Enabled Communications Commission." The "executive summary" of the final report of that commission is found below. The Commission considered two products, cc:Mail and GroupWise, and stated that due to "familiarity, comfort, and perhaps lower training costs associated with the Novell product, GroupWise is recommended by the Commission for implementation as the centrally supported and administered electronic communication package."

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1 "Information Resources Council News," Benchmarks (Vol. 15, No. 6, pg. 16).

University of North Texas Information Resources Council
Electronically Enabled Communications Commission
Final Report
December 6, 1994

Introduction

Upon the presentation of the final report of the E-mail Task Force on September 22, 1994, the Council undertook a mandate to form a broadly based committee consisting of representative faculty, staff and administration from throughout the university. Potential membership was discussed and time table, direction and charge of what has become a Commission were set at the IRC Strategic Planning Committee on September 27. It was clear that electronic messaging, a concept broader than E-mail, was a critical university-wide consideration, and that a seamless, if not a single, communication system needs to be recommended by the Council. The Electronic Communication Commission was charged to:

- Provide a recommendation to the Information Resources Council for a strategic direction for electronically enabled communication to include but not be limited to, E-mail, calendaring, scheduling, electronic forms, and collaboration. Recommend action that will strategically position the university to achieve this long-term strategy.

Initial deadline dates included the production of a final report on November 15, 1994, with a recommendation being made by the IRC on December 13, 1994, and a recommendation to the Vice Presidents on December 15th of this year. An interim report was provided on December 15 in place of the final report, as important matters such as checking vendor references, conducting an equipment inventory, and determining related software, hardware, and staff costs need to be made. This is the final report provided to the Council. This document is provided for discussion at a special meeting of the Council on December 6. The Council will be asked to vote on a recommendation at its meeting on December 13, as scheduled. [The document was presented and approved at that meeting — Ed.]

Commission Membership

The Commission consisted of an Executive Committee of three non-voting members and ten voting members, who are broadly representative of faculty, staff and administrators throughout campus. The executive committee consists of:

- Raymond F. von Dran
  Dean, School of Library & Information Sciences and IRC Chair
- Cengiz Capan
  Director, College of Business Computer Center
Electronic Mail

- Bill Buntain
  Director, Network & Micro-computer Support Services

Commission members include:

- Jim Conover
  Asst. Professor, Business Administration
  College of Business
- Kathryn Colliver
  Assistant Dean for Fiscal Affairs
  College of Arts & Sciences
- Paul Dvorak
  Assoc. Professor, College of Music
- Larry Hoke
  Director, Purchasing
- Leah Knack
  Registrar Assistant
- Tom Irons
  Assoc. Professor, School of Community Service
- Patricia Moseley
  Professor, Elem., Early Childhood and Reading, College of Education
- Piaxy Moseley
  Information Technology Librarian
  Library
- Connie Newton
  Assoc. Professor, School of Visual Arts
- John Todd
  Assoc. Professor, Political Science
  College of Arts & Sciences/Faculty Senate

Commission Activities

The Commission held the following meetings, forums, and presentations since its inaugural meeting of October 6:

- October 13, 1994
  Commission meeting
  12:00-2:00 p.m.
- October 21, 1994
  Open Forum I & II
  8:30-11:30 a.m.
- October 25, 1994
  Commission meeting
  12:00-2:00 p.m.
- November 3, 1994
  Vendor Presentation
  12:00-5:00 p.m.
- November 4, 1994
  Commission meeting
  1:00-3:00 p.m.
- November 10, 1994
  Commission meeting
  12:00-2:00 p.m.

November 29, 1994
Commission meeting
8:30-10:30 a.m.
November 29, 1994
Commission meeting
3:00-5:00 p.m.

The minutes of each Commission meeting may be found in Appendix H.1

☐ User Survey: The IRC Strategic Planning Committee, on September 27th, reaffirmed the Council's original recommendation of July 20, 1994 that a user survey be undertaken. Bill Buntain, of the Computing Center, with the assistance of Cengiz Capan and others, developed a survey instrument which was reviewed by all Commission members (see Appendix A). The survey was administered to 3,343 university faculty, staff and administrators. The Commission received 649, consisting of 238 faculty responses and 411 staff responses. This response rate of nearly 20% is considered satisfactory for this type of mail survey. Respondents were surveyed in terms of the desirability of various types of applications and features of electronically-enabled communication systems. These responses (see Appendix B) were tabulated and applications and features ranked by faculty, staff and totals. Commission members feel that opinions solicited on the applications generally validate preferences on the parts of those surveyed. Later, public forums indicated that some of the impressions regarding features may have been misunderstood by those surveyed as a result of their own lack of experience in the use of electronic communications functions.

☐ Campus Open Forums: The Commission held two open forums on Friday, October 21, 1994, and publicized this event campus-wide both through flyers (see Appendix C) and E-mail. The open forum consisted of presentations on issues surrounding electronic messaging and discussion, feedback, and clarification of issues concerning messaging, applications and functions. Most Commission members were available for question and answer by attendees. Over 60 campus faculty and staff attended the forum (see Appendix D - presentation overviews).

☐ Vendor Capability Questionnaire: Both technical considerations and feedback from the campus community assisted the Commission in the formulation of questions which would be asked of prospective or potential vendors of proprietary electronic communications systems. The Commission decided to solicit responses from three vendors which provide large system operations. These included Lotus, Microsoft, and WordPerfect/Novell. Questions were reviewed by Commission members and sent to vendors asking for their written response and scheduling them for formal, public presentations on November 3, 1994 (see Appendix E - Questions).

☐ Vendor Presentation: Each vendor was asked to speak to their messaging strategy and long-term strategic plans in 1-1/2 hour presentations held at the University Union between 12:30 and 5:00 p.m. Vendors were instructed not to provide demonstration of features, as those features are available for observation and on file at the university campus. Each vendor responded in writing, although only one met the designated deadline. The final vendor response was received on Wednesday, Nov. 9, the day before the Commission was to meet and recommend a system (November 10). Vendors provided answers to questions, including list of references and a portfolio of material on applications, functions, and technical matters relating to systems architec-

1 All appendices are found in the complete report. To view this report, contact IRC Chair Dr. Raymond von Dran in the School of Library & Information Sciences.
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ture. The three vendors' responses can be found in Appendix F.

Based upon criteria expressed by faculty and staff in the campus-wide survey, and that agreed to by the Commission members and both central and college-based technical staff, the following technical and functional requirements were considered to be the minimum for consideration as a communication system:

- Directory Services via X.500 Compliant system
- Internet mail exchange via SMTP/MIME
- Sending and/or receiving messages via the Internet
- Sending and/or receiving university forms electronically
- Having a database which can be customized for storage and retrieval of documents for reference purposes
- Working with electronic mail from a home or portable computer by either dialing in via telephone or using the Internet
- Sending and receiving fax messages electronically via computer
- Using electronic bulletin boards
- Sharing data of various types in an ad hoc work group
- Tracking requests for service electronically
- Managing projects electronically
- Performing an automated check of the availability of resources such as rooms and equipment and scheduling their use via computer

Factors Considered by the Commission in Making Recommendations

The Commission considered the following factors in making its recommendation to the IRC and the university as a whole:

- Information on UNT's strategic direction for information resources, including UNT's "Vision for the Role of Information Technology" (Appendix I), the University's Strategic Plan, the IRC's Strategic Plan, and the current IRC Program Committee Strategies to achieve university information resources objectives.
- The Campus Wide Survey of user requirements, as well as feedback received at the Commission's Open Forums
- The minimum technical and functional requirements established by the Commission
- Responses to technical requirements and the questionnaire provided each vendor
- Materials provided by vendors
- Reference Check of Vendors—external user satisfaction, costs, and reliability (Appendix G)
- Systems' reliability and demonstrated scalability
- The economics of system implementation, maintenance, and training,
- Related equipment costs, software costs, project staff support costs, and other costs including training costs and costs associated with necessary desktop equipment upgrades.
- Current user comfort, including perceived costs associated with migrating users and technical support personnel from one system to another.

Recommendations Strategic Direction

In the Fall 1993 semester, a special committee was commissioned by the Information Resources Council to develop a vision for the role of information technology at the University of North Texas. This IRC Vision committee included in its vision a major focus on communication. The vision stated that technology tools need to be used to

1) provide all of UNT's community with a seamless exchange of information worldwide; 2) enable data-based planning and well-informed participative decision-making; and 3) facilitate university-wide cooperation and coordination by networking complex resources. This vision preceded the university's strategic vision and strategic plan.

Within the University of North Texas Strategic Plan, specific goals and objectives speak to the need for seamless, electronically-enabled communications. UNT's Goal #7, "to nurture a spirit of community and unity throughout the university," has as an objective 7.2, "to enhance communication within and across the university." This goal and objective have been supported by information resource strategies of the Council to

- establish compatible E-mail systems across the campus
- expand internal building networks to all campus facilities, and
- upgrade the communication network backbone.

UNT's Goal #6, "to provide high quality academic, financial, administrative and university services in support of the university's mission" was followed by UNT objective 6.4, "to develop more efficient and productive use of physical, financial, informational, and human resources to improve services." Specific information resource strategies to facilitate the reaching of this goal and objective include the establishment of an infrastructure to support electronic forms approval processes. UNT's Goal #3, "to promote the university's commitment to scholarly activity by insuring a climate where basic and applied research and creative activities flourish" resulted in Objective 3.1, "to improve facilities and equipment for research/creative activity, rehearsal, performance, and exhibition to enhance the university's competitiveness with other quality programs." An information resource strategy to facili-
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tate this objective is to “optimize UNT network server organization.” And
lastly, UNT Goal #1, “to help students realize their personal and career goals,
and to be competitive in the workforce of the future through innovative,
broadly-based undergraduate programs”, was reflected in Objective 1.5.
“to improve, enhance, and increase equipment, facilities, and information
resources required for quality academic programs” and resulted in an
information resource strategy to upgrade the communications network
backbone.

Both the information resource vision and the UNT Strategic Plan, coupled
with the opinions of UNT faculty and staff, as mirrored in the Information
Resource Survey taken by the Commission, indicate need and support for
an information resource strategy which encompasses a variety of functionali-
ties and applications. Thus, the
Commission recommends the following as part of a strategic direction for the Uni-
versity in this area:

- Implement a flexible, powerful, and expandable electronic communication solution that
  takes advantage of the fiber backbone that is already in place

- Use client-server solutions to distribute computing resources effectively.

- Include forms processing to increase the productivity of existing staff in a climate of shrinking
  budgets

- Include electronic conferencing and messaging to streamline and improve administrative
  interaction.

The Commission also recommends as a strategic direction that:

- equipment and services should be increasingly centralized within the university for the
  purposes of coordination, efficiency, and services. However, the commission also recog-

izes the need for continuing distributed support services, and the ability for departments
to decide on specialized equipment and software needs should not be infringed.

- workstations for both faculty and staff need to be addressed centrally, on a university-wide
  basis, and

- necessary equipment upgrades will need to be followed by additional support for their implementa-
  tion

- the management structure for computing and computer service should be defined from a
central base. Models should be explored at other universities which have proven effec-
tiveness.

**Recommended Action**

The consideration of the commission was thoughtful, with members willing in many cases to suspend the preferences which they had before they entered the deliberation process. Certain real reservations were raised about the reliability and scalability of Novell GroupWise. However, there were also real concerns raised regarding the comfort and ease of moving a large number of campus users from a product (Word Perfect) to which they have become familiar to the less familiar Lotus product. There would also be training costs as a result of such migration. It was decided that whatever the clear best choice would be, the Commission would recommend that choice. However, by the end of the deliberations of the Commission, it was believed that both products— cc:Mail and GroupWise— had concomitant trade-offs. In the opinion of the Commission, both systems were essentially similar, and each provided some special functionality not provided by the other. The reference checks for GroupWise led the Commission to believe that it was more reliable and stable than had been believed, and that reliability problems

may have been solved with its new version 4.1. Moreover, economic issues, such as upgrades of desktop workstations, were not significant factors to consider, since upgrades would soon be necessary regardless of the messaging product chosen, as a result of the natural obsolescence of equipment.

Since no compelling advantages were demonstrated on the part of either system, and since there was greater familiarity, comfort, and perhaps lower training costs associated with the Novell product, GroupWise is recommended by the Commission for implementation as the centrally supported and administered electronic communication package. However, this recommenda-
tion is made with specific caveats:

1. That this product be centrally administered and supported, and that a technical staff person undergo intensive training in installation, service and maintenance for the Novell Product GroupWise. This person would thus have a firm idea of its scalability and reliability, as well as an understanding of how to implement the system effectively.

2. That the Computing Center work directly with Novell to determine the most effective system architecture and server configuration.

3. That Novell GroupWise be implemented on a test basis during the Spring 1995 semester; that a report be made to the Council by May 1 concerning its reliability, scalability, and efficaciousness. After receiving complete GroupWise administrator training, should the Campus E-mail Analyst provide technical justification indicating that the product is not scalable to the needs of this University, then the "test" should be considered to have failed and the second part of the Commissions' recommendation be activated (i.e. going to the Lotus products) without waiting for the May 1 deadline.
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Forwarding Electronic Mail

By Andy Mears, E-mail Analyst Assistant (mears@unt.edu)

How do I get my E-mail forwarded to my other account?

Most people in the campus community have more than one computer system account. This has created a great deal of confusion for anyone trying to send a message but not knowing which address to use. This article will outline the steps necessary to forward your mail from each of the systems in use by the academic community. Because many of the users that will be reading this article have access to both PMail and WPO 3.1 mail, I will use these as my example accounts; remember that the User-ID and server reference that I use are for my accounts only.

The first thing to do is find out what accounts you have access to. Also I will be using the term “User-ID” to reference the name of the account you would use for logging into each of the systems. For example, my CC1 Novell server account User-ID is MEARS but my VAX, SOL, and CMS account User-IDs are AN25.

By default, if you have an account on a file server you should have access to PMail. If you have access to WPO 3.1 mail or any other mail package, your system administrator should have informed you. If you prefer to receive your mail at an account that uses something other than PMail or WPO 3.1 Mail then you will need to know your full Internet address and just fill in your preferred address instead of the addresses that I show as examples.

Most addresses are based around the User-ID and the name of the host systems that mail is received at. This is what my addresses look like at each system:

CC1 WPO 3.1 Mail: mears%ce1@wpo.unt.edu
CC1 Novell host: mears@cc1.unt.edu
Sol UNIX host: an25@sol.acs.unt.edu
VAX host: an25@vaxb.acs.unt.edu
CMS: an25@vm.acs.unt.edu

If you do not know what the Internet address is for your account to which you want your mail forwarded, then you can find out by either contacting your system administrator or the Computing Center.

PMail — From the Pegasus Mail (PMail) Main Menu, select the Preferences option then select the Edit Extended Features option. If this item is not available, then you will need to contact your network manager and request that the Extended Features option be enabled or that he/she forwards your mail for you. Once the Edit Features screen is displayed you will have the option to change the Autoforward and Internet AF. The difference between the two items is that the first item “Autoforward” will forward only the mail sent from another local PMail account that uses the address format server/User-ID such as CC1/MEARS. The Internet Autoforward will only forward mail that arrived from the Internet. Within each field you can enter the address to which you would like your mail forwarded. There is no need for special characters or punctuation. Here are some examples.

If I wanted to forward just my local PMail to my WPO 3.1 Mail account I would enter the address: mears%cc1@wpo.unt.edu in the Autoforward field, or if I wanted to forward all my PMail to my Sol account I would enter: an25@sol.acs.unt.edu in both fields. Remember, there is no special punctuation necessary.
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WPO 3.1 — The forwarding feature is part of an internal control structure to which users do not have access. If you would like your WPO 3.1 mail forwarded to any other account then you will need to request that your network administrator add the forwarding information to your account. The most unfortunate drawback is that if your WPO 3.1 mail is forwarded then it will become inaccessible until the forwarding is removed. Another drawback is that Internet mail sent to a WPO 3.1 address that is forwarded will be bounced back to the sender.

VAX — VAX systems use a set command within the MAIL Program to establish the forwarding for an account. After logging into your VAX account and running MAIL, type the command:

```
set forward in "address"
```

In the `address` part type in the full Internet address of the account to which your mail will be forwarded. For example, if I were to forward my VAX account mail to my PMail address I would type the command:

```
set forward in "mears@cc1.unt.edu"
```

Or if I were to forward my mail to my WPO 3.1 Mail I would type:

```
set forward in "mears@cc1@wpo.unt.edu"
```

It is important that you enter the characters exactly as shown, there are three quotation marks ("" before and after the word `in` and a percent sign (%) just before the Internet address. Once this is entered any mail that is sent to your account will be forwarded to the account designated in the address part.

To check your forward address, type `SHOW FORWARD` from the MAIL> prompt.

Jove or Sol — If you have an account on either Jove or Sol then you need to create a file containing the address to which you want your mail forwarded. Once you log in to your account, you may use any of the text editors that are available or use the `echo` command. To use the `echo` command just type the following and fill in the `address` part with the address to which your mail is going to be forwarded:

```
echo "address" > .forward
```

This command creates a file and places the information that is in quotes in the file. For example, if I was going to forward my Jove or Sol account to my WPO 3.1 Mail then I would type the following:

```
echo "mears@cc1@wpo.unt.edu" > .forward
```

As soon as this is done all the mail sent to my Jove or Sol account will be forwarded on to my WPO 3.1 Mail account. It is important to note that there is a `period (.)` before the word `forward`. If you wish to use an editor then simply create a file named `.forward` and add the full Internet address to the file.

CMS — Forwarding your mail from your CMS account requires a number of commands that need to be entered from the command line or the "Ready" prompt. After logging in to your CMS account type the commands in the following order and enter your preferred E-mail address in the `address` part.

```
TERM CHARDEL OFF
TELL MAILER FORWARD ADD address
TELL MAILER FORWARD LIST
```

The third command will show you how the forwarding has been set, so that you can verify that your forwarding was registered correctly. For example, if I wanted to forward my CMS Mail to my WPO 3.1 Mail then I would enter the same commands but replace the `address` part with:

```
mears@cc1@wpo.unt.edu
```

BITNET: A Status Report

By Claudia Lynch, Benchmarks Editor (lynch@unt.edu)

We have been talking about dropping our BITNET connection since last year. As of December, 1994 we stopped paying CREN, BITNET's parent organization, for our connection. So far, CREN has not removed UNT from the BITNET routing tables, thus preserving our membership. At some point in time, probably in the near future, UNT will be removed and we won't be a BITNET site anymore.

As was stated in the article "Drop of BITNET Connection Likely" that appeared in the July/August 1994 issue of Benchmarks (Vol. 15, No. 4, pg. 8); once we are no longer a active member of BITNET, "only services which rely on interactive messages (sent via the CMS TELL command) will no longer be available. Most mailing list subscriptions will not be affected and LISTSERV services will still be accessible via a mail message." LISTSERV subscription addresses have been converted to the Internet format for the nodename for CMS (vm.acs.unt.edu) or the VAX (vaxb.acs.unt.edu).

Your Internet Address

If you haven't already done so, it is very important to begin using your Internet address when exchanging addresses with colleagues around the country or world.

- Your Internet address on CMS is: userid@vm.acs.unt.edu
- Your Internet address on the VAX is: userid@vaxb.acs.unt.edu

Userid is your CMS or VAX User ID. If you have questions about BITNET, please contact Dr. Philip Baczewski (baczewski@unt.edu, ISB 119, 565-2324).
Electronic Mail

Suggested Use of Group “Everyone” in WPO Mail

By Dr. Philip Baczewski, Assistant Director of Academic Computing (baczewski@unt.edu)

This is an edited version of an article that appeared in the September/October issue of Benchmarks (Vol. 14, No. 5, pg. 32).

The following suggestions are offered concerning the broadcast of messages to a wide range of on-campus E-mail recipients, and specifically, to the Word Perfect Office (WPO) Mail distribution group “EVERYONE.”

1. In general, use of any UNT electronic mail system should support the mission and goals of the University.

2. Since electronic mail to WPO group EVERYONE reaches a broad spectrum of faculty, staff, administrators, and students, it should be used with the same discretion as any other form of business communication distributed campus-wide. One should employ the same criteria as 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?

3. 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 NTFACTLY, 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.)

The Network Connection

By Dr. Philip Baczewski, Assistant Director, Academic Computing Services (baczewski@unt.edu)

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

Know Your Mail Header

If you have received Internet mail, you may have noticed all that stuff at the top which we technical types like to call the mail header. The part you usually notice may be the Date, To, From, and Subject: fields, but some other parts may be useful on occasion as well. The basic rules for constructing mail headers are known by most E-mail programs and are described in a document known as RFC 822 (RFC stands for Request for Comment and RFCs are numbered sequentially as they are published on the Internet). It is the standardization of these header fields that allow differing computer systems to easily transmit mail across the Internet.

By examining a typical message header, we can gain further understanding of the different fields and perhaps gain additional insight for interpreting messages which have delivery problems or a less than clear origin.

What follows below is a typical Internet mail header. It was part of a message sent to me by one of UNT’s former staffers. At first glance, it might seem quite a jumble, but by analyzing different sections, its interpretation becomes quite a bit easier.

Received: from UNTVM1 by VM.ACS.UNT.EDU (Mailer R2.07) with BSMTP Id 3111 Wed, 21 Dec 94 13:30:17 CST
Received: from is.rice.edu by VM.ACS.UNT.EDU (IBM VM SMTP V2R1) with TCP Wed, 21 Dec 94 13:29:46 CST
Received: from brigadoon.rice.edu by is.rice.edu (AA28265); Wed, 21 Dec 94 13:28:48 CST
Message-Id: 11928.AA28265@is.rice.edu
X-Sender: kevinm@is.rice.edu
X-Mailer: Windows Eudora Version 1.4.3
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Date: Wed, 21 Dec 1994 14:30:59 -0600
To: ac12@vm.acs.unt.edu
From: kevinm@is.rice.edu (Kevin Mullet)
Subject: Kermit snippet

It may help to examine this header in reverse. From the bottom up, the first part should be familiar:

Date: Wed, 21 Dec 1994 14:30:59 -0600
To: ac12@vm.acs.unt.edu
From: kevinm@is.rice.edu (Kevin Mullet)
Subject: Kermit snippet

The last section, shown above, has the date, sender’s address, recipient’s address, and the message subject. This is the easy part. The rest might need more explanation.

1 If you are interested in reading some RFC documents you can find them via a WWW browser at http://ds.internic.net/ds/dspglintdoc.html.
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Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

The above two lines indicate that the mail program used to send the message supports
the MIME protocol (allowing multimedia attachments). The first line shows the MIME version used and the second line shows the nature of any attachments, in this
case simply a text-only message.

Working our way up the header, we find the following two lines:

    X-Sender: kevinm@is.rice.edu
    X-Mailer: Windows Eudora Version 1.4.3

Any field starting with an "X" indicates an extension to the normal header fields.
Extensions can be inserted by the mail program (and sometimes by the mail program user) and provide information which may not be part of a standard header or which
might be useful to the receiving mail program when processing an incoming message. These two lines confirm the sender of the message and indicate what mail program was used to send it.

Every Internet message is given an arbitrarily assigned message identification and
this is shown in the following line:

    Message-Id: 11928.AA28265@is.rice.edu

You can see that the message ID above is partly formed from message date (941221
is derived from Dec. 12, '94) and ends with the originating node.

The first three lines of the header show the path your message took to reach you:

Received: from UNTVM1 by VM.ACS.UNT.EDU (Mailer R2.07) with BSMTP id 3111;
    Wed, 21 Dec 94 13:30:17 CST
Received: from is.rice.edu by VM.ACS.UNT.EDU (IBM VM SMTP V2R1) with TCP;
    Wed, 21 Dec 94 13:29:46 CST
Received: from brigadoon.rice.edu by is.rice.edu (AA28265); Wed, 21 Dec 94
    13:28:48 CST

There are actually three header fields defined here, each beginning with the "Received:
" header element. These are listed in the reverse order of actual transmission.
Examining these one at a time from the bottom up we can see the path that this message traversed to reach me.

Received: from brigadoon.rice.edu by is.rice.edu (AA28265); Wed, 21 Dec 94
    13:28:48 CST

The above line shows that the message started from a machine named "brigadoon.rice.edu" and was transmitted to "is.rice.edu".

Moving up our header example we see:

Received: from is.rice.edu by VM.ACS.UNT.EDU (IBM VM SMTP V2R1) with TCP;
    Wed, 21 Dec 94 13:29:46 CST

The computer, is.rice.edu transmitted the message to vm.acs.unt.edu (UNT's
academic mainframe). The Received field also shows what software facility handled
the transaction. In the parentheses above, we can see that this was received by the
IBM VM SMTP software (the Internet mail program).

Please see Headers on page 11.

WPO continued from page 9.

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 UNTGENERAL or UNTANNOUNCE 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.[

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 <F8>: 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.■
Electronic Mail

Headers continued from page 10.

Finally, the message gets to me:

Received: from UNTVM1 by VM.ACS.UNT.EDU (Mailer R2.07) with BSMTM id 3111; Wed. 21 Dec 94 13:30:17 CST

VM’s Mailer program is the software that actually delivered the message to my CMS User-ID. You will also notice that each “Received:” field shows the time that the mail transaction (the passing of the message from one computer system to another) occurred. If you think your mail is delayed in arriving, you can check the Received fields to see if it is getting “stuck” at some point along the way.

That’s the end of “Headers 101” and hopefully, this has been a revelation of some of that Internet “mystery.” You can find out more by reading RFC 822 or any number of Internet books that are available commercially. I can’t reveal all the Internet mysteries here, however. After all, you have to hold back some of those mysteries if you are going to be considered a guru.

List of the Month

Each month we will highlight one BITNET, Internet, or USENET Special Interest Group (SIG) mailing list. This month’s list...

IECC-HE via IECC-HE-REQUEST@STOLAF.EDU

IECC-HE — Intercultural E-Mail Classroom Connections in Higher Education — is a new mailing list intended for teachers seeking partner teachers in institutions of Higher Education for international classroom electronic mail exchanges.

This list was created due to the high volume of postings to the existing IECC [International E-mail Classroom Connection] mailing lists [now with almost 2000 participants in 30 countries].

The IECC [which serves as a “meeting place” for teachers seeking partner classes for international and cross-cultural electronic mail exchanges], IECC-PROJECTS [for people to announce and request help with specific projects that involve E-mail, internationally or cross-culturally] and IECC-DISCUSION [for general discussion about questions, issues, observations, etc. in the Intercultural E-mail Classroom] mailing lists remain unchanged.

To subscribe to this list, send a message with the word subscribe to iecc-he-request@stolaf.edu.

The Mail Bomber is Back

By Claudia Lynch, Benchmarks Editor (lynch@unt.edu)

Since 1978, someone has been mailing bombs to people associated with technology in some way, mostly university professors and commercial airlines. Two people have been killed and 23 injured in 15 attacks over the last 16 years. On December 10, after a hiatus of 6 years, the bomber struck again. This time his target was Thomas Mosser, a New York City advertising executive. Mosser was killed at his kitchen table as he opened the package.

The FBI has set up a toll-free hotline for people to call in any tips they may have about the bomber (1-800-701-BOMB). There is a $1-million reward.

They believe the bomber may work at a university. He is thought to be white, in his late 30s or early 40s, about 6 ft. tall, with fair hair, a thin mustache and glasses. He is probably quiet person, a “typical nice guy.”

UNABOM, as the FBI calls this case, background and update information is available at:

- World Wide Web: http://naic.nasa.gov/fbi
- Gopher: gopher://naic.nasa.gov/11/government-resources/fbi
- Anonymous FTP: ftp://naic.nasa.gov/

According to this update information, “Internet users are precisely the type of individuals that to date have been the recipients of explosive devices attributed to UNABOM; scholars and researchers.”

Staff Activities

Transitions

☐ New Employees since June, 1994:
  ◦ Stephanie Johnson, General Access Lab
  ◦ Sean Mills, Operations
  ◦ Denise Todd, Operations
  ◦ Steven Reeves, General Access Lab
  ◦ Phanit Laosirirat, ACS
  ◦ Aaron Price, ACS
  ◦ Lisa Sheehan, ACS
  ◦ Randy Galloway, E-mail Analyst
  ◦ Gail Greeney, Data Entry
  ◦ Sreedhar Donthula, General Access Lab
  ◦ Angela Lecare, Data Entry
  ◦ Mark Adams, Network and Microcomputer Services

☐ Employees Resignations since June, 1994:
  ◦ Mark Thacker, ACS
  ◦ Cynthia Koepp, ACS
  ◦ Lek Thanavibulpol, HRMIS
  ◦ Carol Coleman, Fiscal Systems
  ◦ Chris Williams, ACS
  ◦ Brenda Yu, Data Entry
  ◦ Betsy Mattucci, Data Entry
  ◦ Mike Wighton, General Systems

Publications and Presentations


Dr. Baczewski also had chapters published in two books recently. *Tricks of the Internet Gurus* (Sams)

Please see Staff on page 14.

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News From the CWIS/Gopher Hole

By Doug Bateman, CWIS Coordinator
dbateman@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, Sol, and Jove. It is also available in the General Access Labs and on various Novell file servers around campus.

New “Kid” on the Block

I seem to be fulfilling my own ideal of manifest destiny in regards to my employment with the Computing Center. In the beginning, I was a half-time, student employee at the Help desk where I was primarily working one-on-one with people doing battle with their personal computers. Now I am involved in helping UNT establish a place for itself in the miasma of the Internet, as well as helping all of you connect with the world. Ain’t America grand?

In case anyone missed it, I’d like to call your attention to the new name under the title of this column. My predecessor, Mark Thacker, has moved on to (allegedly) greener pastures as the resident Internet guru for the University of Texas Southwestern Medical Center in Dallas. I have recently been promoted into his position so I’d like to take an opportunity in this issue’s column to introduce myself. But rather than risk boring you right away, I’m going to save the introduction for later.

So, Where Are the Pointers?

Might as well stop reading now if all you were looking for was a list of pointers to World Wide Web (WWW) or Gopher sites. You won’t find them in this column this time, mainly because I have recently modified UNT’s WWW welcome page by adding a link to a document that contains over 2,000 WWW sites organized into over 50 categories by major subject focus. Since I can’t reproduce all of that information here, I’d feel a little foolish listing only a handful of sites here when there are thousands just a “click” away.

Don’t be too disappointed, however. I’ll have some for next time. And for those of you who do not know me very well yet, let me tell you that I often have a rather obtuse way of looking at the world, so I have a penchant for collecting the more offbeat, out of the ordinary, locations.

For example, care to spy on the office of the Director of the Center for Innovative Computer Applications (CICA) at Indiana University? Just travel to http://www.cica.indiana.edu/litbin/camera where one of the graphics programmers rigged a small video camera and trained it on the Director as a joke. A screen capture program updates an inline graphic periodically. (The director knows about it now and considers it an "innovative application" so has left it on, though it now points towards the door.)
Change is a Good Thing

Here's a word of “warning” to foreshadow the changes that lie ahead in the structure and electronic delivery of information from UNT's computing resources. Just about everyone who moves into a new job looks around at the way things "used to be done" and figures he or she can do better. Well, I'm no different in that regard—so I hope you are prepared to see some subtle and not-so-subtle changes in the coming months.

I look at my job as being more of a facilitator than an instigator. (I think that's where the "Coordinator" in my job title comes from.) So, when it comes to making information available via Gopher, WAIS, World Wide Web, or whatever, I intend to do my utmost to provide the best, most modern and efficient means for you—the student, the research assistant, the administrative assistant, the department head, the director, the dean, and yes even the Chancellor—to make the information you deem important available to all.

Certainly, I can't generate all of that information myself (even if I wanted to), so I am relying on all of you to call my attention to what is needed and to contribute.

What's Ahead

Since it was only a couple of weeks ago that we all went through the process of making resolutions for the new year, I thought I'd share some of the things I see happening this year in my particular area (first let me dust off my crystal ball):

It won't be much longer before everyone at UNT will have the capability of creating and serving up their own personal WWW "home page." This is high on my list for the coming year.

UNT will finally offer SLIP/PPP access to students, making it possible for you to make use of the latest and greatest graphical tools for exploring the Internet from your home, e.g. NetScape, Chameleon, etc. In (greatly) simplified terms, SLIP (Serial Line Internet Protocol) and PPP (Point-to-Point Protocol) are the preferred means of fooling your computer into thinking it is directly connected to the Internet.

Every college and department on campus will have its own place on UNT's web server. We'll see information listed such as descriptions of degree programs, faculty bios, courses offered, and current research being conducted within the department. (Another hot item for me.)

True on-line registration! I can see UNT augmenting its current telephone registration process by offering the capability of pointing your favorite web browser to the right page and filling out a registration form from the comfort of your own home.

(If I really should insert a disclaimer here, lest anyone get the impression that I actually have the power or authority to see that all of these things come to pass. These are just my opinions and/or hopes, folks.)

What's New

After prognosticating about what I hope to see happen on campus, let me tell you about a couple of things that are already in place. You can now find portions of the undergraduate and graduate catalogs, as well as the complete Spring '95 Schedule of Classes, on UNT's Gopher and WWW servers. This is really an exciting time we are traveling through as far as access to information is concerned.

Speaking of Short Courses

I can't let the opportunity pass to tout the Computing Center Short Courses that are being offered this semester. Please, please, please check them out and sign up. You'll find some very good courses being offered regarding the Internet, and even a trial course on Basic HTML (HyperText Markup Language) in anticipation of students creating their own WWW home pages. Look in the back of this issue for registration information, or come to the Support Services office in ISB 119, or look for on-line registration for these courses on UNT's Gopher and WWW servers. Don't miss this opportunity!

Personal Commercial Time

So, who or what am I? First, the reason I feel this necessary: I personally find it disconcerting to be reading something that is supposed to be authoritative without knowing something about the background of the author. Here's my story...

My first exposure to computers came in an honors mathematics class in my senior year of high school. Now, this wouldn't be very interesting at all of I didn't let you know that I graduated high school in 1968! Yes, I have been involved with computers longer than many of you reading this have been alive. <sighs> That's just one of the many crosses I have to bear.

I was lured from my first foray into higher education by my first professional job: programmer/systems analyst for a commercial firm. I have the dubious honor of having started my professional career as an RPG programmer on IBM System 360 mainframes. Punched card decks and all!

I have dabbled in contract programming, systems programming on time-sharing systems (hot items in the early 70's), independent consulting, retail sales of hardware and software, educational sales rep for
Apple and IBM dealers, and even a stint in very esoteric research and development work under government contract.

My computer involvement took a decade-long nose-dive thanks to Uncle Sam and the US Army, but I survived and didn’t lose too much of my “flower-child of the 60’s” outlook. While I didn’t make it to the original Woodstock, there were plenty of other rock festivals I did make it to. (My hearing hasn’t been the same since!)

My first personal computer was a Radio Shack TRS-80 Model III with a single floppy drive, no hard drive, and a whopping 32Kb of memory. Actually, that was more memory than the first IBM mainframe I worked on had! I graduated to a rock-solid Kaypro II CP/M system, which I still have by the way. And then it’s been one IBM-compatible and/or Apple Macintosh after another since.

Computers are my avocation as well as vocation, much to the chagrin of my teenage daughter. But I like them. They’re my friends. <woa!>

That’s enough of that and this is as good a place to stop as any. Look for more ramblings in the next issue and keep tuning in to the UNT Gopher and World Wide Web—you never know what you might find.

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**1995 Spring Short Courses**

**Academic Computing Services**

**University of North Texas**

**Computing Center**

- **Registration** — Academic Computing Services is offering the following short courses for the 1995 spring semester. Please preregister to attend. You may either fill out the form attached to this document or register on-line via Gopher. If registering via Gopher, the form can be found in the path: UNT Departments, Schools, and Colleges/Computing Center/Short Courses. (Call 565-2524 if you have questions about Gopher.)

- **Eligibility and Class Size** — Faculty and students have first priority to register for these classes. A maximum of 10 people will be admitted to each of the courses held in ISB 110 and ISB 235. A maximum of 15 people will be admitted to each of the courses held in Chilton 255 and ISB 201. Academic Computing Services reserves the right to cancel any course that has 5 or fewer people registered 3 days before the course is scheduled.

- **Hands-on Classes** — All persons registering for hands-on (ISB 110, Chilton 255) HDS 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). It takes several working days for a User-ID to be activated.

---

**HDS, VAX, and UNIX Courses**

- **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 OS/MVS system. You must have a current CMS User-ID to take this class.

Two two-hour sessions, to be held in the Chilton General Access Lab (Chilton 255):

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<tr>
<th>Date</th>
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<th>Instructor</th>
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<tr>
<td>Tuesday, January 31</td>
<td>2-4 p.m.</td>
<td>James Yarbrough</td>
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<tr>
<td>Friday, March 3</td>
<td>2-4 p.m.</td>
<td>Philip Baczewski</td>
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**Staff continued from page 12.**

Publishing) contains four chapters by Dr. Baczewski, while *Academic Libraries and Training* (Jai Press Inc.) contains one.

- **Dr. Panu Sittiwong**, Research and Statistical Support Manager for ACS, presented a paper titled “Implementing the SAS Executive Information System in the University Environment: The UNT Experience,” at the annual meeting of the South Central SAS Users Group in San Antonio, November 7-9.
**General Information**

- **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 for 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 235):

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<tr>
<td>Monday, January 30</td>
<td>2-4 p.m.</td>
<td>George Morrow</td>
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- **Introduction to UNIX on Jove and Sol** – This course starts 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. **You must have a current Sol or Jove User-ID to take this class.**

  Two two-hour sessions held in the Chilton General Access Lab (Chilton 255):

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<td>Friday, February 3</td>
<td>1-3 p.m.</td>
<td>Staff</td>
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<tr>
<td>Tuesday, March 21</td>
<td>2-4 p.m.</td>
<td>Staff</td>
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- **Intermediate UNIX on Sol and Jove** – This course is recommended for individuals who are familiar with UNIX and want to learn more about using it on Sol and Jove. **You must have a current Sol or Jove User-ID to take this class.**

  A two-hour session held in the Chilton General Access Lab (Chilton 255):

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<td>Tuesday, April 4</td>
<td>2-4 p.m.</td>
<td>Staff</td>
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**Statistical Package Courses**

- **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):

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<th>Date</th>
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<th>Instructor</th>
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<tr>
<td>Wednesday, February 1</td>
<td>2-4 p.m.</td>
<td>Panu Sittiwong</td>
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<td>Monday, March 6</td>
<td>2-4 p.m.</td>
<td>Phanit Laosirirat</td>
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**New CMS Documents Available**

The Academic Mainframe User Services area of ACS has produced two new CMS documents recently. “Introduction to CMS” provides a brief overview of the CMS operating system and is designed to be a quick introduction to using the CMS system. It replaces the document “Introduction to the Conversational Monitor System (CMS),” and is available in ISB 119.

“Using CMS at the University of North Texas,” is a larger, more comprehensive document. It can be purchased at the University Store for $4, which covers the cost of reproduction.

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**Jovian Update**

By Amos Gouaux, Jove System Administrator (amos@unt.edu)

As many already know, the ACS general access UNIX system known as Jove has been under a pretty heavy load. Fortunately, we are well underway with our plans to upgrade this system.

Previously, Jove was a Solbourne 702 with two SPARC 40MHz processors running a variation of SunOS 4.1.2. It is now a Sun SPARCserver 1000 with two SuperSPARC 50MHz processors running Sun’s latest operating environment, Solaris 2.4. Within the next couple of weeks, we’ll be adding two more processors and additional memory.

The most apparent change is the Solaris operating environment, which includes SunOS 5.4 and OpenWindows 3.4. However, the most heavily used applications have been ported to this environment. We have been expanding the "help" command to try to ease this transition. Check news on Jove for the latest details about this transition. If you have any questions or concerns about the new system, send mail to operator@jove.acs.unt.edu.
A New General Access Lab

By Aaron Price, Documentation Services Assistant (price@ccl.unt.edu)

People interested in computer art and desktop publishing will be pleased with the opening of the School of Visual Arts Computer Lab last semester. The new lab is located in the Art Building, room 231. They cater primarily to Macintosh users who are interested in computer graphics and design.

The lab was originally opened on a trial basis in Spring 1994 but was available to computer art students only. In Fall 1994, the lab became a General Access Computer Lab. This means that anyone with a valid student ID can use the lab.

Hardware

This semester the lab will have 14 Macintosh computers. Five of them are 7100 Power Macs and two are Quadra 650's. All seven are equipped with 17" monitors. The minimum amount of RAM in these computers will be 16 megabytes while most will have 20 megabytes or more installed. A scratch drive will be created so that students will temporarily have access to up to 2 gigabytes of disk space.

Each computer is hooked up to a CD-ROM drive and a Syquest SCSI drive that allows you to buy and use your own hard drive on their computers. This spring the lab will be replacing some of the current 5.25" 44 megabyte Syquest drives with 5.25" 200 megabyte Syquest drives. All the new drives will be compatible with the 44 and 88 megabyte disks.

There are also three flatbed color scanners available. They are hooked up to Macintosh computers with Ofoto scanner software installed.

Please see Art on page 17.

Courses continued from page 15.

1 Introduction to SAS for CMS, DOS & UNIX -- This course is recommended for individuals who plan to use SAS on the academic HDS IBM-compatible mainframe, DOS or Sol. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS data sets, importing/exporting SAS data sets to 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 two-hour session to be held in the Chilton General Access Lab (Chilton 255):

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<tr>
<td>Tuesday, February 14</td>
<td>2-4 p.m.</td>
<td>Panu Sittiwong</td>
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2 Introduction to SAS on Windows, OS/2, and X Window -- This course is recommended for individuals who plan to use SAS on a GUI interface. Topics covered include creating SAS programs, reading data into SAS programs, saving SAS data sets, and importing/exporting SAS data sets to and from other SAS systems. This class will also 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 two-hour session to be held in the Chilton General Access Lab (Chilton 255):

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<td>Tuesday, March 7</td>
<td>2-4 p.m.</td>
<td>Panu Sittiwong</td>
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3 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 SPSS data sets on a minidisk, importing/exporting SPSS data sets to and from other SPSS systems, and preparing and submitting SPSS jobs to OS/MVS. SPSS is used interactively in this course. You must have a current CMS User-ID to take this class.

Two three-hour sessions to be held in the Science Library (ACS General Access Lab, ISB 110):

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<tr>
<td>Thursday, February 2</td>
<td>1-4 p.m.</td>
<td>James Yarbrough</td>
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<tr>
<td>Wednesday, March 8</td>
<td>1-4 p.m.</td>
<td>James Yarbrough</td>
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4 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.

A two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):
General Information

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<th>Date</th>
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<td>Thursday, February 9</td>
<td>2-4 p.m.</td>
<td>James Yarborough</td>
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- **Introduction to SPSS on Windows** – This course is recommended for individuals who plan to use SPSS on a PC using Windows.

A two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):

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<tr>
<td>Thursday, April 6</td>
<td>2-4 p.m.</td>
<td>Panu Sitiwong</td>
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Wide Area Network & Information Systems Courses

- **Introduction to Internet Tools on CMS** – This course is intended for people who are actively using the CMS system and want to take advantage of the Internet tools that are available on that system. The course will cover sending Internet mail from CMS (including subscribing to mailing lists), using CMS TCP/IP tools such as FTP and TELNET, reading USENET News on CMS, using Gopher, and other topics. Knowledge of CMS is required for receiving the most benefit from this course.

A two-hour session held in the ISB 201, an SLIS classroom:

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<tr>
<td>Friday, April 14</td>
<td>2-4 p.m.</td>
<td>Philip Baczewski</td>
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- **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 be discussed. Using USENET newsgroups via the nn News program on UNIX will also be explored. **Prior knowledge of UNIX is required.**

A two-hour session, to be held in the Science Library (ACS General Access Lab, ISB 110):

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<td>Staff</td>
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- **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 login, use of on-line library catalogs at other universities, Archie, Gopher, and many other Internet topics except electronic mail and USENET News. **Prior knowledge of at least one of the following interactive operating systems is required: CMS, UNIX, MSDOS.**

Please see Courses on page 18.

Art continued from page 16.

In addition to the Macintosh computers, the lab currently has one Pentium based PC computer available for general use. This is expected to grow by at least two more in the Spring.

Applications

The applications that are supported in the lab all cater to computer art. Adobe Photoshop is installed for standard computer image manipulation and support. Macromind Director is available for computer animation. For desktop publishing, Aldus Pagemaker, Quark Express, Adobe Illustrator, and Aldus Freehand are installed among many others.

Policies

The lab follows most of the policies that the other General Access Labs follow. An exception is in the time limit, you are allowed two hours on a computer as opposed to the standard one when there is a wait.

Other Information

The Computer Art Lab is currently being connected to the campus wide Ethernet backbone. This means that full access to both the Internet and the Novell servers will be available. The process should be done early in the Spring semester. The Art Department also has set up a departmental file server (ART) that will free up more space on the computers for students to use.

If you have time this semester, stop by the new lab and try your hand at the exploding field of computer graphics and animation.

Spring 95 Hours

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<td>Mon.-Fri.</td>
<td>9 am-11 pm</td>
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<tr>
<td>Saturday</td>
<td>9 am-5 pm</td>
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<tr>
<td>Sunday</td>
<td>Noon-10 pm</td>
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</tbody>
</table>
Pentium Problems

By Aaron Price, Documentation Services Assistant (price@ccs.unt.edu)

Intel rocked the computer industry with the announcement of a flaw in their most popular computer chip, the Pentium Processor in late 1994. Soon after, on December 12, IBM, the world’s largest computer maker, decided to halt all shipments of computers that contain the flawed Pentium chip. ¹

Intel vs IBM

Intel’s position has been that on an average MSDOS, Windows, or OS/2 based computer the flaw would manifest itself once in 27,000 years. They added, however, for computers that are running programs heavy in mathematics the flaw would indeed be noticeable and the chips in those computers would be replaced by Intel.

On the other hand, IBM is maintaining that the probability of an average user to encounter an error is once in every 24 days. IBM continues to defend their decision by saying that there are millions of Pentium users worldwide. So a large number of users are encountering errors in their operations every day.

What is the problem?

On November 30, Intel released a scientific document that explained the flaw in the chip. The Pentium achieves its high speed by using new technology in many areas of the chip. One of those area is the floating point processor. It is this processor that is faulted.

¹ IBM just started shipping PCs with the Pentium chip in them again. Customers will have them replaced later, according to the company.

Courses continued from page 17.

Two one and one half-hour sessions held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, March 30</td>
<td>2:30-4 p.m.</td>
<td>Staff</td>
</tr>
<tr>
<td>Friday, April 7</td>
<td>1:30-3 p.m.</td>
<td>Staff</td>
</tr>
</tbody>
</table>

Introduction to Internet Services: Gopher, WWW (Mosaic), NEWS and Others - This course covers the use of various campus and Internet-wide browsing tools including Gopher, the World Wide Web and USENET NEWS. Emphasis on searching for information, proper use of these tools and tips on making your own information available to others on the Internet. This class will not concentrate on specific clients as much as concepts. The “Introduction to Internet Tools and Techniques” courses are recommended for specific computing platform information.

Two two-hour sessions held in ISB 201, an SLIS classroom:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, February 10</td>
<td>2-4 p.m.</td>
<td>Doug Bateman</td>
</tr>
<tr>
<td>Friday, April 21</td>
<td>2-4 p.m.</td>
<td>Doug Bateman</td>
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</tbody>
</table>

Creating a Home Page: Introduction to HTML Authoring - This course covers the use of HTML (a formatting language) to produce text that can be read by various World Wide Web (WWW) clients on the Internet. Familiarity with WWW concepts recommended.

A two-hour session held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, April 27</td>
<td>2-4 p.m.</td>
<td>Doug Bateman</td>
</tr>
</tbody>
</table>

Introduction to PC E-Mail and Discussion Groups - This course covers the basics of using electronic mail facilities on the PC to communicate with others on the Internet and BITNET. Accessing USENET Newsgroups via Trumpet will also be covered. Prior experience using Pegasus Mail is required.

A two and one-half-hour session, held in the ISB 201, an SLIS classroom:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, February 24</td>
<td>1:30-4 p.m.</td>
<td>Eric Neale</td>
</tr>
</tbody>
</table>

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 two-hour session, held in the Science Library (ACS General Access Lab, ISB 110):
Microcomputer Courses: General

1 Introduction to Macintosh for Students - This course is recommended for students who want to learn about Apple Macintosh computers.
A three-hour session, held in the Science Library (ACS General Access Lab, ISB 110):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, March 28</td>
<td>2-4 p.m.</td>
<td>Sean McMains</td>
</tr>
</tbody>
</table>

2 Introduction to Microcomputers & DOS - This class covers the hardware components of a personal computer (PC), the equipment used on campus, and different types of software. The final part of the class will deal with simple DOS commands needed when operating a PC (FORMAT, COPY, DIR, RENAME, DEL, ERASE, TYPE, CHKDSK, VER). You need to bring a 3 1/2" or 5 1/4" high-density diskette to be formatted.
Two three-hour sessions, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>Monday, February 6</td>
<td>1-4 p.m.</td>
<td>Sean McMains</td>
</tr>
</tbody>
</table>

3 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.
Three three-hour sessions, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, January 17</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
<tr>
<td>Tuesday, April 18</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
</tbody>
</table>

4 Introduction to Pegasus Mail - This course is recommended for people, especially faculty and staff, who want to learn about using Pegasus Mail (Pmail) to communicate with others on campus and via the Internet.
Two three-hour sessions, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, January 19</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
<tr>
<td>Tuesday, February 28</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
<tr>
<td>Tuesday, April 25</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
</tbody>
</table>

Please see Courses on page 20.

Pentium continued from page 18.

When a certain combination of digits are divided by each other then the resulting answer comes up flawed. The error would occur in the fifth or higher significant digit that is being processed. The result could be unnoticeable or catastrophic, depending on the program being run.

What does this mean to me?

Maybe nothing. In fact, many applications do not use floating point algorithms at all. The chance on your program being effected depends directly on the dependance the program has on mathematics. For example, database and file servers probably will never encounter this error. Spreadsheets and other low intensive math programs may encounter the error, but not very often (Depending on whether you believe Intel or IBM). You will have a significant chance of encountering the error if you are running math intensive software such as fractal programs, scientific programs, etc.

How can I fix it?

Intel has set up a hotline to answer questions and negotiate a replacement procedure if one is needed. After intense public pressure Intel has agreed to replace all Pentium chips free of charge. All you have to do is supply them with the defective chip. If you feel you may have a problem or if you just want more answers call toll free 1-800-628-8686.

If you have a UNT PC with a Pentium chip in it, you will be contacted by the Microcomputer Maintenance Shop so that they can replace the chip.
You can access official press releases and technical information about the problem from Intel's World Wide Web server at URL: http://www.intel.com/
Also, IBM's response can be accessed from their World Wide Web server at URL: http://www.ibm.com/
Pentium Problem Produces Plethora of Puns

The following jokes have been circulating on the Internet, following Intel’s announcement about the flaw in its Pentium chip.

The Top Ten Reasons To Buy a Pentium Machine
1. Your current computer is too accurate.
2. You want to get into the Guinness Book as “Owner of most expensive paperweight.”
3. Math errors add zest to life.
4. You need an alibi for the IRS.
5. You want to see what all the fuss is about.
6. You’ve always wondered what it would be like to be a plaintiff.
7. The “Intel Inside” logo matches your decor perfectly.
8. You no longer have to worry about CPU overheating.
9. You got a great deal from JPL.
10. And the #1 reason to buy a Pentium machine:
    - It'll probably work!

Q&A: The Pentium FDIV bug

Q: How many Pentium designers does it take to screw in a light bulb?
A: 1.999904274017, but that’s close enough for non-technical people.

Q: What do you get when you cross a Pentium PC with a research grant?
A: A mad scientist.

Q: What’s another name for the “Intel Inside” sticker they put on Pentiums?
A: Warning label.

Q: What do you call a series of FDIV instructions on a Pentium?
A: Successive approximations.

Courses continued from page 19.

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<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, January 24</td>
<td>2-5 p.m.</td>
<td>Sandy Burke, Andy Mears</td>
</tr>
<tr>
<td>Tuesday, April 11</td>
<td>2-5 p.m.</td>
<td>Sandy Burke, Andy Mears</td>
</tr>
</tbody>
</table>

E. Don't Get Stoned: 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 ISB 201, an SLIS classroom:

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, March 31</td>
<td>2-4 p.m.</td>
<td>Eriq Neale</td>
</tr>
</tbody>
</table>

Microcomputer Courses: WordPerfect

A. Introduction to WordPerfect 5.1 + (DOS) - This is an introduction to the basics of WordPerfect. It will include printing, cursor movement keys, delete and insert functions, Spellecheck and Thesaurus, basic formatting needs (i.e., changing margins, turn page numbering on, change to double space, centering, flush right, automatic system date, etc.). You will also learn how to block and move paragraphs of information from one location to another. Prior knowledge of basic DOS commands is required. Bring a 3 1/2” or 5 1/4” formatted high-density diskette.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>Tuesday, February 7</td>
<td>2-5 p.m.</td>
<td>Sean McMains</td>
</tr>
</tbody>
</table>

B. Transition from WordPerfect 5.1 to 6.0 (Windows) - This course is for those individuals familiar with WP 5.1, and who are transitioning to WP 6.0 Windows. Time will be spent on using the Windows version, going through the menu alternatives.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, January 18</td>
<td>9 a.m.-Noon</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

C. Advanced WordPerfect for Windows: Merge - This course will cover creating a form letter and a list of individuals to send it to. It will also cover the use of the envelope feature. Prior Knowledge of WordPerfect 6.0 for Windows basic commands required.

Two three-hour sessions, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, April 13</td>
<td>2-5 p.m.</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

Please see Puns on page 21.
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<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, May 2</td>
<td>2-5 p.m.</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

Advanced WordPerfect for Windows: Draw, Chart - This course will cover the use of the Draw package included with WP 6.0 and the Charting Editor. You will create some graphics, and edit others. Prior knowledge of WordPerfect 6.0 for Windows basic commands required.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>Tuesday, May 16</td>
<td>2-5 p.m.</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

Advanced WordPerfect for Windows: Tables, Math - This course will cover creating tables, manipulating tables, making a table from a spreadsheet file, and using the math features within tables. Prior knowledge of WordPerfect 6.0 for Windows basic commands required.

Two three-hour sessions, held in the Chilton General Access Lab (Chilton 255):

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>Wednesday, March 29</td>
<td>9 a.m.-Noon</td>
<td>Sandy Burke</td>
</tr>
<tr>
<td>Tuesday, May 9</td>
<td>2-5 p.m.</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

Introduction to WordPerfect 2.0 Presentations Overheads (Windows) - An introduction to the WordPerfect Presentations 2.0 for Windows environment for making overhead transparencies. We will create title charts, bullet charts, organization charts, and data charts.

A three-hour session, held in the Chilton General Access Lab (Chilton 255):

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<thead>
<tr>
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<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>Wednesday, February 15</td>
<td>9 a.m.-Noon</td>
<td>Sandy Burke</td>
</tr>
</tbody>
</table>

Puns continued from page 20.

Q: Complete the following word analogy: Add is to Subtract as Multiply is to
1) Divide
2) ROUND
3) RANDOM
4) On a Pentium, all of the above
A: Number 4.

Q: What algorithm did Intel use in the Pentium's floating point divider?
A: "Life is like a box of chocolates." (Source: F. Gump of Intel)

Q: Why didn't Intel call the Pentium the 586?
A: Because they added 486 and 100 on the first Pentium and got 585.999983605.

Q: According to Intel, the Pentium conforms to the IEEE standards 754 and 854 for floating point arithmetic. If you fly in an aircraft designed using a Pentium, what is the correct pronunciation of "IEEE"?
A: Aaaaaaaaaaaaaaaaaa!!

Top ten new Intel slogans for the Pentium:

1. 9.9999973251 "It's a FLAW, not a Bug"
2. 8.9999863362 "It's Close Enough. We Say So"
3. 7.999984160 "Nearly 300 Correct Opcodes"
4. 6.9999835138 "You Don't Need to Know What's Inside"
5. 5.9999835137 "Redefining the PC—and Mathematics As Well"
6. 4.9999890021 "We Fixed It, Really"
7. 3.999825917 "Division Considered Harmful"
8. 2.999523619 "Why Do You Think They Call It "Floating" Point?"
9. 1.9999103817 "We're Looking for a Few Good Flaws"
10. 0.999999999 "The Errata Inside"
Minutes provided by Sue Harrison, Recording Secretary

IRC Regular Voting Members: Ray von Dran, Library and Information Sciences (Chair); Cengiz Capan, College of Business, Jim Coppel, Graduate Student Council; Carolyn Cunningham, Student Affairs; Paul Dvorak, College of Music; Brian Forsman, UNTHSC Information Resources Council; Chuck Fuller, Fiscal Affairs; Larry Gleeson, School of Visual Arts; Don Grose, Libraries; David Hartman, School of Community Services and School of Merchandising and Hospitality Management; Sam Magill, UNTHSC Director of Information Technology Services; Steve Miller, Administrative Affairs; Tom Nevedl, Telecommunications (Ex-officio); Don Palermo, Academic Administration; Jean Schaebe, College of Arts and Sciences; Paul Schlieve, College of Education; John Todd, Faculty Senate; Virginia Wheelock, Associate Vice President and Director, University Planning and Institutional Research; Steve Williams, Undergraduate Student Association. IRC Ex-officio Nonvoting Members: Bill Buntain, Computing Center; Jim Cary, Microcomputer Maintenance Shop; Paul Gandel, Computing Center; Richard Harris, Computing Center; Coy Hoggard, Computing Center.

October 11, 1994

Instructional Technology Program Group

Paul Gandel reported that the Instructional Technology Program Group is going forward with the focus group study of how faculty use instructional technology. A stratified random sample of faculty has been chosen for the focus groups and the committee hopes to have the results by the Spring semester. Paul also reported that the Program Group is working with the Registrar’s office to conduct a room/space survey and hopes to have that completed by January or February. The data collected will be used in the scheduling of rooms for classes.

Cengiz Capan reiterated his concern that allocations for improving the classroom situations need to be made this year and urged the Program Group to bring their recommendation to the IRC as soon as possible.

Standards & Cooperation Program Group

Susan Pierce reported that the Standards & Cooperation Program Group is working on identifying the highest priority strategies to meet the goals of the 1995-99 Strategic Plan. The group would like to add two more strategies:

1. Come up with strategy that would ease UNT’s migration to the graphical user interface (GUI); provide a training program to enable all computers to migrate by a certain date; possibly setting a GUI standard; and

2. As people migrate to GUI, they may need or want to consider alternative basic desktop applications, and to save everyone a lot of pain, we could recommend a couple of suites of products and then provide training for those.

The Chair urged the Standards & Cooperation Program Group to go forward on a standardization of spreadsheet format. It was suggested that while everyone is moving to GUI this would be a good time to also set some standards in this area.

Administrative Program Group

Joneel Harris reported that the Administrative Program Group met on October 6 and invited the Strategic Planning Committee members to attend because of a presentation given by Bill Buntain on distributed databases and the infrastructure to leverage our mainframe resources.

Electronically Enabled Communication Commission

Ray von Dran reported that the Electronically Enabled Communication Commission met on October 6 and accepted its charge. He distributed a list of the members, as well as a list of tasks that the Commission has agreed to accomplish. He announced that there is an Open Forum scheduled for October 21, 8:30 a.m. - 11:30 a.m., in the University Union, Room 411, where Bill Buntain and Cengiz Capan will make a presentation of the issues and where those in attendance can offer their comments and opinions. The Commission is also in the process of developing a survey instrument which will be distributed to all faculty and staff.

December 13, 1994

Working Meeting and EECC

It was acknowledged that the IRC had held a working meeting on December 6, 1994, to discuss the final report and recommendation of the Electronically Enabled Communication Commission

IRC Meeting Schedule

The IRC generally meets on the third Tuesday of each month, from 2-4 p.m., in the Administration Building Board Room. All meetings of the IRC, its program groups, and other committees, are open to all faculty, staff, and students.
There were no minutes recorded at that meeting.

The final report of the Electronically Enabled Communication Commission (EECC) was presented by the Chair for discussion. It was suggested that an implementation task force be formed to assist with the pilot project of setting up GroupWise in several areas of campus. Lengthy discussion followed during which the council generally agreed that an advisory group would be helpful to Bill Buntain in administering this pilot project; however, the group consented to allow Bill to consult with, and organize the appropriate people across the campus to assist in the implementation of the project. It was also agreed that in each department on campus there should be a contact person for Bill Buntain to deal with, who would then keep his/her department informed at all stages and phases of the GroupWise implementation. The final report and recommendation of the EECC was approved.

Program Groups’ Goals, Objectives, Strategies & Action Plans

Susan Pierce opened discussion of the draft document she had distributed electronically prior to the meeting which combined all of the IRC Program Groups’ Goals, Objectives, Strategies and Action Plans. Susan pointed out that she had marked the strategies in the document which directly support the university priorities set by Chancellor Hurley in a recent memo to the faculty and staff. Susan asked members to review the document to determine if it really presents the biggest critical issues for the coming year. In response to a suggestion from the floor, Susan agreed to split the document into two separate ones - one showing the Goals, Objectives and Strategies, and the second one showing the action items. The Strategic Planning Committee will meet in early January to review all of the comments received by that time. A new draft document will then be distributed to the Council for adoption at its January 17th meeting.

Software Licensing

Richard Harris reported that the Internal Auditors had made a report to the President’s Staff concerning software licensing compliance, and distributed two documents:

1. Guidelines for Software Licensing Compliance, and
2. a memo from Internal Audit Department concerning an audit of University departments.

Richard explained that Phil Diebel had asked him to chair a committee to study this issue and make a recommendation to the IRC Steering Committee about what the university needs to do to implement a university-wide policy. Mr. Diebel suggested that Larry Hoke from Purchasing and Tim Edwards from Internal Audit be on the committee and that the committee report through the IRC. The Chair then asked Claudia Lynch, and John Todd to serve on this committee in addition to Larry Hoke, Tim Edwards, and Richard Harris, and be ready to make a report to the Council at its January 17 meeting.

Free Maple V Demo Available

By Dianna Laakso, Computer Support Assistant

Maple V - Interactive Computer Algebra System, Mathematica’s leading competitor, is a powerful and efficient symbolic math software package with capabilities ranging from exploratory learning in math education to research problems in quantum chemistry.

Among its other features, Maple V provides sophisticated scientific visualization, programming, and documentation capabilities, including the ability to work with standard mathematical notation. Maple V runs on many platforms including DOS/MS-Windows, Macintosh, NeXT, LINUX, IBM RS/6000, Sun 4/Sparcstation, and Sequent Symmetry. Free demos for DOS/Windows, Macintosh, and UNIX are available via anonymous FTP from ftp://ftp.maplesoft.on.ca/pub/maple/

General information on Maple V is also available via the World Wide Web at http://daisy.waterloo.edu/

U.S. Postal Service Experiments With E-mail

From EDUPAGE (12/22/94) — an electronic summary of news items on information technology.

The U.S. Postal Service is experimenting with a system that would allow it to optically scan the data from business reply cards and send it electronically to mail-order and subscription houses. The service would make reply cards more competitive with 800 numbers, which are costly to maintain. The Postal Service plans to offer the new service in the second half of 1995 (Wall Street Journal 12/22/94 A1).
National Educational Computing Conference NECC '95

NECC '95, the 16th annual National Educational Computing Conference, announces invited keynote speakers for conference scheduled for Baltimore, MD, June 17-19, 1995.


NECC '95 is sponsored by the National Educational Computing Association (NECA), comprised of 15 educational, scientific, and professional associations, and is hosted by Towson University in cooperation with the Maryland Instructional Computer Coordinators Association.

John R. Phillipo, Executive Director of the Center for Educational Leadership and Technology, and Frank Knott, Chair of the Maryland Governors' Instructional Technology Board, are confirmed speakers for the event.

The theme of the 16th annual NECC is "Emerging Technologies-Lifelong Learning," referring to all the ways learners and teachers use technology in the educational process today, and how they may be using it in the future. The conference provides a forum for discussing and sharing ideas, techniques, and research findings among educators and administrators in both training and education.

Research papers, workshops, poster and project sessions, classroom demonstrations, and research seminars representing all academic disciplines and levels in the educational system and all phases of computer education—including business and industry training—have been solicited from the national and international educational community.

The NECC '95 Conference Chairperson is Doris Liddke, Towson State University. The NECC '95 Program Chairperson is Keith Miller, Sangamon State University.

An exhibit area will be part of the conference, providing attendees a place to obtain information on the latest hardware, software, and publications for use in the academic environment. Applications for exhibit space and vendor sessions can be obtained from:

Paul Katz
Exhibits Management
University of Oregon
1787 Agate Street
Eugene, OR 97403-1923
phone: 503/346-3537
fax: 503/346-3509
E-mail: pkatz@oregon.uoregon.edu

Further information on attending and registering for the 1995 National Educational Computing Conference is available from:

Donella Ingham
NECC/NECA Coordinator
1787 Agate St., Eugene
OR 97403-1923
phone: 503/346-2834
fax: 503/346-5890
E-mail: NECC95@ccmail.uoregon.edu
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# 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.

| NAME: ______________________________ | FACULTY ___ STAFF ___ STUDENT ___ |
| DEPT: ______________________________ | UNDERGRADUATE ___ GRADUATE ___ |
| PHONE: ______________________________ | MAILING ADDRESS: ________________ |
| SSN: ______________________________ | USER-ID: ________________________ |

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<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
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<td>Introduction to Microcomputers &amp; DOS</td>
<td>Tuesday, January 17</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
</tr>
<tr>
<td>Introduction to Microcomputers &amp; DOS</td>
<td>Tuesday, April 18</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
</tr>
<tr>
<td>Transition WordPerfect 5.1 to 6.0 for Windows</td>
<td>Wednesday, January 18</td>
<td>9 a.m.-Noon</td>
<td>Chilton 255</td>
</tr>
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<td>Introduction to Windows 3.1</td>
<td>Thursday, January 19</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
</tr>
<tr>
<td>Introduction to Windows 3.1</td>
<td>Tuesday, February 28</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
</tr>
<tr>
<td>Introduction to Windows 3.1</td>
<td>Tuesday, April 25</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
</tr>
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<td>Introduction to Pegasus Mail</td>
<td>Tuesday, January 24</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
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<tr>
<td>Introduction to Pegasus Mail</td>
<td>Tuesday, April 11</td>
<td>2-5 p.m.</td>
<td>Chilton 255</td>
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<td>Tuesday, February 7</td>
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</tr>
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<td>Monday, January 30</td>
<td>2-4 p.m.</td>
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</tr>
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<td>Introduction to CMS</td>
<td>Tuesday, January 31</td>
<td>2-4 p.m.</td>
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</tr>
<tr>
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<td>1-3 p.m.</td>
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<tr>
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<td>1-4 p.m.</td>
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<tr>
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<tr>
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<td>ISB 201</td>
</tr>
<tr>
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<tr>
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<td>9 a.m.-Noon</td>
<td>Chilton 255</td>
</tr>
<tr>
<td>Introduction to PC E-Mail &amp; Discussion Groups</td>
<td>Friday, February 24</td>
<td>1:30-4 p.m.</td>
<td>ISB 201</td>
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<tr>
<td>Introduction to SAS: Windows, OS/2 &amp; X-Window</td>
<td>Tuesday, March 7</td>
<td>2-4 p.m.</td>
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<td>Tuesday, March 28</td>
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<td>Thursday, March 30</td>
<td>2:30-4 p.m.</td>
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</tr>
<tr>
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<td>Chilton 255</td>
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<tr>
<td>Course</td>
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<tr>
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<tr>
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<tr>
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<td>Advanced WordPerfect for Windows: Merge</td>
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<td>2-5 p.m.</td>
<td>Chilton 255</td>
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<tr>
<td>Advanced WordPerfect for Windows: Merge</td>
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<td>Chilton 255</td>
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<tr>
<td>Introduction to Internet Tools on CMS</td>
<td>Friday, April 14</td>
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<td>ISB 201</td>
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<tr>
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<td>Chilton 255</td>
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<td>2-5 p.m.</td>
<td>Chilton 255</td>
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