

Computer and Information Services Newsletter

This newsletter is an information resource for the University of Minnesota.

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▽ Computer Store News

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Hi-Touch Technology: Authenticity in the Learning Environment

Feb. 23, Bell Museum Auditorium, noon-2:30 p.m.
Technology can go beyond school exercises to engage the learner in exploring authentic samples of learning material. At the same time, technology creates more creative and flexible learning environments. The challenge to educators is to use technology to improve instruction within the new learning environments. Join the panel as they discuss and show how to implement and integrate technology throughout the entire spectrum of instruction.

Academic Computing & Information Technologies sponsors satellite broadcasts offered by the Institute for Academic Technology, a non-profit partnership between IBM and the Univ. of North Carolina at Chapel Hill. The sessions are free and open to the public. Call 626-9816 for more information.

Gopher (Experimental) Access to Online Transcripts



You can use Internet Gopher software to view course and grade information that is available in the online Student Access System. This means you don't need to set up special software, such as Telnet or 3270 terminal emulation, to view your grades.

Gopher access allows you to use your TurboGopher, Minuet, and maroon and gold Gopher client software to fill out an electronic form; Figure 1 shows a Macintosh sample of this simple form. The Gopher software uses the information you provide to identify you, find your grades, and display the results.

Once TurboGopher and Minuet users have the results, they can easily save the information and print it on their printer.

Where Is It?

To get to the section that lets you access your grade and course information, follow this Gopher path.

University of Minnesota Campus Information
Access to Grades and Course Information
Course and Grade Information (Experimental)

All the current options in the Access to Grades and Course Information Section are shown in Figure 2.



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Cheshire labels are recyclable.



Is It Slow? Is It Fast?

If a large number of people are trying to access the system at the same time as you, you may experience delays. In addition, how fast the system responds depends on the speed of the machine that contains the transcripts.

Why Gopher?

Since we expect many students will try to look at their transcripts online, an easy-to-support and use system is very desirable. Students are already using Gopher forms to activate their E-mail accounts and change their passwords on the E-mail system. The Gopher setup is very easy to use and easier to support than a terminal-based interface. Students do not need to find and configure special software to run a 3270 or VT100 terminal session to use Gopher. In December, Distributed Computing Services released a Gopher interface so students can access grades and course information. Rather than navigating a terminal-based system using pf or f function keys, the Gopher interface allows students to fill out a short and simple electronic form to look at their transcripts online.

Since we recently finished a first release of this software and we are still adding features, this should be considered an experimental service. Although it is experimental, we expect this service to be a useful alternative to terminal-session based access. We are interested in your feedback and suggestions for

Figure 1: Sample Form to obtain Grade Information

Course and Grade Information (Experimental)

Click on send after filling out the form. Send

This form will retrieve Course and Grade information from the Student Access System.

You **must** have previously set your password to use this form.

Student ID number:

...or...

Social Security Number:

Student Access Password:

Report Type:
 Recent Coursework
 Full Listing

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improving the system; to reach the gopher development team, send E-mail to

`gopher@boombox.micro.umn.edu`

TurboGopher Version 2 Tidbit

Those using TurboGopher version 1.x, instead of version 2.x, will see a slightly different form than the one presented in Figure 1; they'll see an *OK* button at the bottom of the form instead of the more convenient *Send* button at the top of the form.

Figure 2: Access to Grades & Course Information Options

Access to Grades and Course Information (from Student Access System)

1. About Gopher access to Course and Grade Information
2. Course and Grade Information (Experimental)
3. Set Initial Password for the Student Access System
4. Change Student Access System Password (Experimental)
5. Terminal Connections to the Student Access System/

Researching Computers Through the Libraries CD-ROMs

Nancy K. Herther, University Libraries

▼ The Info-Maze



This Fall the University Libraries distributed the latest edition of the directory of CD-ROMs available for searching in libraries across campus. The nearly 200 titles include full-text and bibliographic indexes to world literature

on virtually any topic that you could mention. After it was released, one faculty member asked for some advice on where to start, feeling that there were too many discs available! He asked for some help in getting started down the info-maze that exists today.

This month's column will try to give you a feeling for the variety and depth of these important resources and how they can be of use to anyone on campus needing information — on the job, for a class, for personal information, consumer shopping, or to enhance your research work here at the University.

▼ CD-ROMs on Campus

Most of our CD-ROMs are only licensed to us and the owner of the databases strictly controls access to them. So you may find that the discs are only available to current students, staff and faculty. Our CD-ROM collection is not available through the Internet or LUMINA. You must come into the various Libraries to use them.

Below are some other tips on using our CD-ROM collections.

Plan In Advance

Call ahead before you make the trip to the library in question. Describe your research question and get advice from the staff on which products (or what other information) would be best for you to check.

Reserve It

In most cases you may have to sign up to use the databases in advance because of the heavy demand for these resources. You may be able to sign up for these by phone.

Bring Formatted Disks

Most of our CD-ROMs allow you to download information to diskettes, so that you can take this information back to your offices as ASCII files to use on your own computers. Be sure to ask about any restrictions to downloading (diskette size, platforms, etc.) when you call. For example, diskettes must be preformatted before you come; we are not set up to do this for you.

We Charge for Printing

Other services or restrictions can be discussed as well. For example, in most cases we are now charging a nominal fee per page for printing from CD-ROMs. You will want to know this so that you can bring in change or arrange for a copy card in advance.

▼ News and Views

Let's take a look at how these marvelous resources could be used to study computers themselves — something of common interest to all readers of this newsletter!

**Most of our CD-ROMs
are only licensed to us
and the owner of the databases
strictly controls access to them.**

- ❓ Where is the telecom industry at today and where is it going?
- ❓ What is the impact of the Pentium debacle on Intel and the Intel platform?
- ❓ Will Microsoft be allowed to acquire Intuit and how would this affect the industry?
- ❓ Whatever happened to John Sculley?

Whether you are assigning a brief student paper or considering personal investments or which products your department will support, questions like these are common. And many of our CD-ROMs can help you get the answers that you need. For example:

Newspaper Abstracts Ondisc

Wilson Library Reference Services, 626-2227

This database provides indexing and brief abstracts to eight major national newspapers — including the Wall Street Journal, New York Times and major regional papers from 1985 to the present. This is a great way to look up information on the news of the day — stock analysis, news reports or commentary.

Wilson Reference also has the full-text of the Minneapolis Star Tribune on CD-ROM going back to 1987 for your use — which would be particularly important in looking at local companies or usage/trends.

Periodical Abstracts Ondisk - Research II Edition

Wilson Library Reference Services, 626-2227

This source gives indexing and brief abstracts to articles from over 1300 general-interest, scholarly and trade periodicals covering current events, social sciences, consumer-related topics, sciences, arts, etc.

If you want to know how the general press sees the NII or how computers are impacting education or the home, this database can get you started.

Wilson Reference also has the full-text of the Minneapolis Star Tribune on CD-ROM going back to 1987

Computer Select

Business Reference Service, 624-9066

This is a monthly disc containing full-text coverage of the most recent year's issues of *PC Week* and over 60 other leading computer industry publications, as well as indexing and abstracts to over 100 other periodicals. Specifications and company information is given for over 75,000 computers (both software and hardware) as well.

This is a great source for industry opinions, news releases, product reviews, etc.

Applied Science & Technology

Science and Engineering Reference Service, Walter Library, 624-0224

This source indexes about 400 English-language research and trade journals in the applied sciences from 1983-present.

If you would like to look at coverage from computer trade press or perhaps applications of technology in some other scientific field, here's a good place to start.

ABI Inform Global

Business Reference Service, Wilson Library

This database is considered one of the most important, basic resources for studying business and covers the business literature as well as giving excellent coverage of many trade and computer publications. Over 1,000 journals in all areas of business are included from all over the world.

If you want to know about business performance or trends in Asia, sales trends in Europe or how third-world countries are adopting new information technologies, here's a good place to start your research.

▼ Where to Put Your Money?

The Libraries also have databases on CD which give good information on industry trends and analysis of the performance of particular companies.

- Which on-line providers would make a good investment?
- Are technology stocks generally expected to do well in 1995?
- Can Microsoft's stock price continue to track Moore's Law?

To get industry reports on any industry or subset (e.g., microprocessors) you might want to start with:

INVESTEXT

Business Reference Service, Wilson Library

This source contains full-text of security analysts' reports on companies and industries. The reports in this database are excellent sources of information and commentary on how industries, companies and products are doing.

LASERD, COMPACT D/SEC and Disclosure/ Worldscope Global

*All are in Business Reference Service,
Wilson Library*

These sources provide financial and management information on publicly traded corporations in the U.S. and elsewhere throughout the world.

Want to see if investing in IBM is a good deal today? What does Microsoft's reorganization look like? Here's a great way to find out quickly.

▼ Product Catalogs

Want to find information on vendors you are dealing with or to identify companies selling products or services that may be useful to you? The libraries have a variety of good references on disc, including those listed below.

- How many GIS developers are located in the Midwest?
- What companies make MPEG-2 compatible graphics boards?
- Are there any large VARs for minicomputers in the metro area?

**The American Business Disc
is a directory of over 10 million
U.S. businesses compiled from
telephone yellow pages.**

Dialog Ondisc Corporate America

Business Reference Service, Wilson Library

This source provides information on over two million U.S. companies with 20 or more employees and \$1 million in annual sales. You can search by company name, geographic location, SIC codes, etc.

So if you want a list of manufacturers of modems in Minnesota, here's a good way to find out fast.

INFOROM

Business Reference Service, Wilson Library

This is an electronic version of the printed ICP Software Directory and gives users information on available software — including platforms, descriptions, configuration requirements, contact data and pricing.

If you need a list of available products or need to check on a particular software package, this is a great place to look.

American Business Disc

Business Reference Service, Wilson Library

This is a directory of over ten million U.S. businesses compiled from telephone yellow pages. You can search using a variety of parameters, including: is the company private or public, SIC codes, credit rating, location, sales range, address.

**INSPEC and COMPENDEX are
two of the most critical, established
indexes to engineering and
technical literature.**

▼ Getting Behind the Technology

Our CD-ROM collections also include some excellent research-oriented databases to help you understand the principles behind the current computer products. Below is a sampling.

- ❓ What is the difference between C++ and Smalltalk approaches to OOPS?
- ❓ Do the new high density CD standard proposals include any that would be compatible with today's CD-ROM?
- ❓ What types of adaptive technologies are being developed to enhance screen clarity for the visually handicapped?

NTIS

St. Paul Central Library Reference Service - 624-1212 and BioMedical Library Reference - 626-3260

This is produced by the U.S. National Technical Information Service and provides indexing and abstracts to unrestricted technical reports from both U.S. and non-U.S. government-sponsored research. Cutting edge technologies and application areas — such as multimedia performance on networks or virtual reality applications — are well-covered here.

MATHSCI

Math Library, Vincent Hall, 624-6075

The electronic version of Mathematical Reviews and Current Mathematical Publications is a comprehensive bibliographic database of the world's literature on mathematics and its applications — including those in computer science and engineering.

This is an excellent starting point to see the types of software/hardware approaches being taken to study today's hottest research topics.

INSPEC and COMPENDEX

Science and Engineering Reference Service, Walter Library

These are two of the most critical, established indexes to engineering and technical literature. If you want to know about your 'black box,' current computing theory or future directions for holographic storage or virtual reality, here's a great place to get your research started.

COMINDEX

Wilson Library Reference Services

This is an index to the tables of contents of selected international communications journals — 37 in all — and gives coverage to issues involved in not only automated finding tools but the implications of global information networks and how interpersonal communication really works.

▼ Getting Down to Specifics

The Libraries also have a variety of other important databases, which may be even better starting points depending on the research that you have. For example:

Dissertation Abstracts Ondisk

Wilson Library Reference Services and Bio-Med Library

This will give you bibliographic access to doctoral dissertations (and some masters theses) completed at accredited North American universities as well as some coverage of major European universities.

ECONLIT

Wilson Library Reference Services

This gives indexing and abstracts to the professional and scholarly literature in the field of economics and allied disciplines.

If you want to look at the long-term impact of computers on our economy or the future of the 'Information Age,' this might be a good starter.

Science Citation Index

St. Paul Central Library Reference Service and Bio-Med Library

This covers 3,300 journals from all scientific disciplines and can be used to search by title, author, keyword, etc. It also allows you to trace how some new theory or idea is being received/developed in future articles, by looking at citation patterns for different articles. A fascinating approach to researching ideas.

ERIC

Education/Psychology Reference, Walter Library and St. Paul Central Library Reference Service

This is the most basic indexing source to educational literature.

If you want to learn more about computer-assisted learning techniques or how computers are being used in distance learning or K-12 education, here's a great place to look.

LEGALTRAC on INFOTRAC

Law Library, 625-4309

This provides access to citations from over 800 legal publications, including major law reviews, legal newspapers and journals.

If you want to know about copyright in the electronic publishing environment or new laws against hackers or recent federal NII efforts, here's a great resource.

PSYCLIT

Education/Psychology Reference in Walter Library, 624-4185 and Bio-Med Library

Want to know about computer phobias? What about the theory behind efforts to create personal navigators or designing screens and ergonomic work environments? Artificial intelligence is also covered well in this important database.

National Trade Data Bank

St. Paul Central Library Reference Service and Government Publications Library, Wilson Library

This is one of my favorite databases! If you've never had the chance to wander through a government depository collection — yes, it does sound dull, but it isn't — try this CD-ROM.

Our government funds the most amazing variety of research — basic, practical and applied. I once found an 8+ page report on the microprocessor marketplace in Japan which included an analysis of trade barriers and a discussion of how to break into the Japanese markets; it included a list of top shows and conferences and listed top companies in order by market share and even gave future growth predictions!

▼ And this is Just for Starters

Stop in any library on campus to get more information on these and other CD-ROMs on campus. Or you can access the entire CD-ROM directory through the Library's LUMINA gateway (either through Gopher or dialing into LUMINA).

I'm sure that I've left out as many critical resources as I have included in this brief overview. But hopefully I've been able to make my point. If you need to do research, you need to make the Libraries your starting point! Whether you start with a CD-ROM disc, LUMINA, one of our LUMINA-mounted databases, a journal or book, the Libraries have the resources to help you in your research, schoolwork or in your job assignments here on campus.

Stop in one of our Libraries and ask the staff to help you get started. Libraries staff are also happy to help arrange special class sessions to help your students as they begin their class papers or research projects. Just give us a call!

For more information, feel free to contact me as well: Nancy K. Herther, Manager, Integrated Information Center, 7 Walter Library, East Bank, 624-2020; Internet: nherther@iic.lib.umn.edu.

Computer Store: 625-3854

You can charge your purchases on your MasterCard, Visa, and Discover accounts.

▼ Computer Discount Program



The Computer Discount Program is available not only to departments but also to students and staff, subject to the eligibility rules of the program. The Computer Store is located in the East Bank Book Store in Williamson Hall. During Spring, Winter, and Fall quarters the Computer Store is open • Monday-Friday 8:30-6:00 • Saturday 10-4.

7-Day Protection

Your purchase price is protected for 7 days from the time you receive your product. If the price drops during that time, you can bring in your receipt for a refund. The Computer Store offers a one-week money back guarantee on hardware and on any software on which the seal has not been broken. Of course, you must present your sales receipt; a few other common sense restrictions also apply.

Free E-mail Updates

To get product and price change bulletins for the products sold through the Computer Store sent to you electronically, subscribe to the *Bookstore prices* list by sending E-mail to:

request@boombox.micro.umn.edu

Use Gopher for 24-hour Service

Use Gopher to search our database to find part numbers, prices, and product availability. "Electronic Ordering" options are available on Gopher:

University of Minnesota Campus Information
 Department and College Information
 Minnesota Bookcenter electronic desk
 Computer Information
 U of M Microcomputer Prices
 BookCenter Electronic Desk

▼ H-P Change

The Computer Store no longer sells Hewlett-Packard computers but will continue to sell H-P printers, scanners, and other peripherals.

▼ Compaq

In early January the Computer Store added Compaq computers to those it carries through the Computer Educational Discount Program. One of Compaq's distinguishing features is the TabWorks software, which is discussed below.

The discount program includes the Presario desktop and Contura portable series of computers. The Presario 500 series is a complete package in that it includes a built-in 14-inch color monitor. For the other models in the Presario series, you must purchase a separate monitor. The Contura 400 family weighs 5.7 pounds and includes a built-in 3.5-inch 1.44MB floppy drive. The Contura Aero family weighs less but does not come with a built-in floppy drive. You can use its PCMCIA slot to plug in an external 3.5-inch 1.44MB diskette drive, a standard Aero feature. The color Contura Aero weighs 4.2 pounds; the monochrome models weighs 3.5 pounds.

In Stock and Demo Units

As shown in Table 1, the Computer Store stocks the Contura 440CX and these Presario models: CDS 724, 924, and CDS 924. The units that are not carried in stock may be special ordered. All the models come with a 3-year warranty.

The Microcomputer HelpLine in Shepherd Labs will have demonstration units of the three "in-stock" Presario models.

Presario

Compaq has several series of computers under the Presario name. All the models come with a single 3.5-inch 1.44MB diskette drive and a keyboard. They also come with a mouse and a standard set of interfaces: parallel, serial, mouse, video, keyboard, and a gameport.

If the model has "CD" as part of its name, then the Compaq has a CD-ROM drive installed in it. The 600 series, however, does not follow this naming scheme. The models with "TV" as part of their name come with a TV tuner card; they are video and cable television ready.

Built-in Modem

All models, except for the 600 series, come with an internal 14.4 fax/data modem that runs at 14.4 bps (bits per second) for both fax and data. The 14.4 modem occupies a custom slot in the Compaqs; it works with the SLIP (internet protocol) software that the University distributes. The 600 series comes with an internal 2400 bps data/9600 bps fax modem.

CD-ROM Drive

The CD "player" in the Compaq plays both computer multimedia CDs and music CDs. The software that makes the CD-ROM drive work is already installed on the Compaq; it automatically sets up the CD-ROM drive as drive D.

Preinstalled Software

All the Presarios come with MS-DOS 6, Microsoft Windows 3.1, TabWorks, and the Compaq Learning Center.

The 500, 700, and 900 series Presarios also come with Works for Windows, Microsoft Encarta CD, Quicken for Windows, Home Survival Toolkit, KidSoft CD, and other software.

Contura

Many of the features of the Contura 400 and Contura Aero series are contrasted in Table 1.

Input Devices

Although the smaller, lighter Contura Aero does not come with a built-in floppy drive, the keyboard is

95% size. The Contura 400 series has a full-size keyboard with a tilt feature and a palm rest. The Aero has an integrated trackball (mouse); its buttons are on the right-hand side of the case. The 400 series has a center-mount trackball with centered buttons.

Preinstalled Software

The Aero and 400 families come with MS-DOS 6, Microsoft Windows 3.1, TabWorks, Compaq Learning Center, Online documentation, and Lotus Organizer. The Aero also comes with WinLink Transfer.

Interfaces

The Contura 400 family comes with these interfaces: enhanced parallel, serial, external monitor, external keyboard/pointing device, and AC adapter. The Contura Aero family comes with: enhanced parallel, serial, AC adapter, and Convenience Base for external expansion. An optional docking base is also available for the 400 series.

TabWorks

One of the distinguishing features of the Compaq computers is the software that is bundled with the machines: TabWorks, software that is similar to Windows' Program Manager.

The look of the TabWorks interface will be familiar to anyone who works with papers. The face of TabWorks is a 3-ring binder, complete with multiple tabs. Each tab is a page that can contain icons (items) for applications and documents. You also have a desktop-like section that works as a holding area for items that don't have a "home." To start up an application on a tab-page or in the holding area, you double-click on it.

The TabWorks "book" is organized. It has a *Contents* tab; select it to see a Table of Contents of the items in the book. The *Index* tab lists all the items in alphabetical order.

Across the top of your screen you will see these menu choices: File, Tab, Page, Item, Options, Help. When you want to add a new item, you can select *New* from the *Item* menu. You can help automate this process by using *File Tracking* from the *Options* menu.

Table 1: Compaq Presario and Contura

* Items marked with a * are In Stock *							
Presario	CPU	Speed MHz	Hard Disk (MB) Installed/Max	RAM (MB) Installed/Max	CD 2x	VRAM (MB) Min/Max	Discount Price
▼ 500 Series: all-in-one-design; 8KB internal cache; <i>built-in 14-inch SVGA color monitor</i> integrated 16-bit stereo sound 2 ISA (8/16 bit) expansion slots							
<input type="checkbox"/> CDS 520	486SX2	66	420 / 525	4 / 64	y	512K /-	\$ 1,565
<input type="checkbox"/> CDTV 520	"	"	"	"	y	"	1,690
<i>Monitor: the 600, 700, 800, and 900 Compaq Presarios do not come with a monitor.</i>							
▼ 600 Series; desktop design; 8KB internal cache preinstalled sound board provides 16-bit sound 3 ISA (full-size 8/16-bit) expansion slots							
<input type="checkbox"/> 660	486SX2	66	340 /-	4 / 56	y	-	\$ 1,105
<i>Modem: the 500, 700, 800, and 900 Compaq Presarios come with a built-in 14.4 bps data/fax modem.</i>							
▼ 700 Series: desktop design; 8KB internal cache that is upgradable to 128KB integrated 16-bit stereo sound 3 ISA (8/16 bit) expansion slots							
<input type="checkbox"/> CDS 720	486SX2	66	420 / 525	4 / 100	y	1 / 2	\$ 1,380
<input type="checkbox"/> CDS 724	486DX2	"	"	8 / 100	y	"	* 1,660
▼ 800 Series: minitower design; 8KB internal cache; optional 12KB external cache preinstalled sound board provides 16-bit sound 5 ISA (full-size 16-bit) expansion slots							
<input type="checkbox"/> CDS 860	486SX2	66	340 /-	8 / 64	y	-	\$ 1,475
▼ 900 Series: minitower design; 8KB internal cache that is upgradable to 128KB integrated 16-bit stereo sound 5 ISA (8/16 bit) expansion slots							
<input type="checkbox"/> CDS 920	486SX2	66	420 / 1.05GB	8 / 100	y	1 / 2	\$ 1,565
<input type="checkbox"/> CDTV 920	"	"	"	"	y	"	1,750
<input type="checkbox"/> 924	486DX2	"	"	"	no	"	* 1,520
<input type="checkbox"/> CDS 924	"	"	540 / 1.05GB	"	y	"	* 1,750
Contura	CPU	Speed MHz	Hard Disk MD	RAM (MB) Installed/Max	PCMCIA Slots Type II/Type III	Battery Life (Hours)	Discount Price
▼ Contura with Color Screens							
<input type="checkbox"/> 400CX	486DX/2	40	250	4 / 20	2 Type II (stacked) or 1 Type III	3.5-5.5	* \$ 3,040
<input type="checkbox"/> 400C	486DX/2	"	"	"	"	"	2,395
<input type="checkbox"/> Aero 4/33C	486SX	25	250	"	1 / none	2.5-4	1,845
▼ Contura with Monochrome Screen							
<input type="checkbox"/> Aero 4/25	486SX	25	170	4 / 12	1 / none	4-6	1,105

More detailed information and lots of diagrams are available in the *TabWorks Quick Start Guide* that comes with Compaqs. The software also comes with a *Guided Tour*; it is available through the *Help* menu.

Documentation

The machines come with a videotape and a series of small booklets that include: *Quick Setup*, *Understanding how your computer works*, *Quick fixes for common computer problems*, and *How can I start printing?* Compaqs also come with a *Microsoft Windows & MS-DOS 6 User's Guide* and other specialized guides. The video tape is "designed to be a brief overview" that "offers helpful tips and information." The machines that come with Microsoft Works also come with a MS Works manual.

The Upgrading and reconfiguring your computer booklet includes many diagrams and tables; such as the jumper setting you need to reset if you forget the systems' password. (Compaq comes with a *Security Management* option that lets you set up a password that must be used whenever anyone starts up the computer.)

More Information

Memory upgrade charts and "QuickSpecs" product descriptions and other information is available on the Compaq Web Server at

URL <http://WWW.Compaq.Com>

Sticker Shock: a 5-year Sample



We think the numbers speak for themselves in illustrating the improvements in hardware prices and capabilities in the last five years.

▼ IBM Portables

Then, May 1991: for \$3712 you could buy a 7.7 pound IBM L40 SX laptop with a monochrome monitor, a 20MHz 386SX CPU, 2MB RAM, and an 80MB hard disk.

Now: for \$3630 you can buy a 6.1 pound IBM ThinkPad 755CS with a passive matrix color screen, a 75MHz 486DX4 CPU, 4MB RAM, and a 170MB hard disk.

▼ IBM Desktops

Then, August 1991: for \$4356 you could buy an IBM Model 80-A16 with a 25MHz 80386 CPU, 4MB of RAM, memory cache, and a 160MB hard disk.

Now: for \$2375 you can buy an IBM Performance Series 6482X4F with a 100MHz 486DX4 CPU, 8MB RAM, and 364MB hard disk.

▼ Mac Portables

Then, January 1990: for \$4,100 you could buy a 15.75 pound Mac Portable with a monochrome display, a 16MHz 68000 CPU, 1 MB RAM, and 40 MB hard disk. An optional 2400 baud modem was \$320.

Now: for \$1955 you can buy a PowerBook 520 with a monochrome screen, weighing 6.3 lbs with a 50/25MHz 68LC040 CPU, 4MB RAM, and a 160MB hard disk.

Now: for \$4385 you can buy a PowerBook 540c with a color screen, weighing 7.3 lbs with a 66/33MHz 68LC040 CPU, 12MB RAM, a 500MB hard disk, and a modem.

▼ Desktop Macs

Then, January 1990: for \$2,040 you could buy a Mac SE with a built-in monochrome display with an 8MHz 68000 CPU, 1MB RAM, and an 20MB hard disk.

Now: for \$1,005 you can buy a Performa 475 with an 25MHz 68LC040 CPU, 4MB RAM, a Performa monitor, a 160MB hard disk, and a 2400 bps modem.

Then, January 1990: for \$5,295 you could buy a Mac IIci with a 25MHz 68030 CPU, 4MB RAM, and an 80MB hard disk.

Now for \$3845 you can buy a PowerMac 8100/100 with a 100MHz 601 CPU, 16MB RAM, a 1000MB hard disk, and a CD-ROM drive.

▼ Printers

Then, February 1990: for \$2485, you could buy an 8 ppm, 300 dpi H-P LaserJet Series IID with two 200 page input trays and 640K memory.

Now: for \$1960, you can buy a 16 ppm, 600 dpi H-P LaserJet 4V, with one 100-sheet paper tray, one 250-sheet paper source, and 4MB memory.

Now: for \$2355 you can buy a 16 ppm, 1200 dpi LexMark Optra Lx with one input tray of 200 sheets, and 4MB RAM.

Keeping Up-to-Date by E-mail

by subscribing to discussion lists

▼ Delivered Directly to Your Machine



Many people use their University Internet accounts to subscribe to electronic mailing lists. Typically this function is handled by software that works without human intervention. The software (such as Listproc, Majordomo, and LISTSERV) automatically E-mails individual messages or grouped messages to subscribed users. We've covered aspects of this topic in previous issues (List Servers in February 1993, LISTSERV—What Can It do for Me? in April 1993, Netiquette in September 1993, and Unsubscribe tips in June 1994.)

In recent months we've received announcements about two new lists, Doc-Talk and H-CLC, that may interest some of our readers. Both lists are moderated.

Moderated versus Unmoderated

In a moderated list, someone (for example the "owner") screens E-mail that is sent to the list, weeds out inappropriate messages, and passes the rest on to the subscribers. Unmoderated lists tend to generate a lot of traffic because everything that is sent to the list is passed on to everyone on the list.

▼ Doc-Talk



The intended audience of the Doc-Talk list is graduate students completing masters and doctoral theses, as well as to their advising faculty. The information below is excerpted from the welcome to

Doc-Talk message that all new subscribers receive.

What's Discussed

This list provides graduate students with information about their dissertations and theses beyond that normally presented by institutions. Doc-Talk presents abstracts of original articles on how to do a thesis from the reference bulletins Dissertation News and Thesis News, which are published by the Association for Support of Graduate Students. The

list also provides extracts and reprints of other articles of interest, as well as reviews of resources, answers to students' questions pertaining to their theses, and current notices of deadlines for thesis-related grants and conferences at which students can present thesis research.

Additionally, Doc-Talk presents a forum in which dissertation problems can be shared and resolved. Often ASGS will conduct surveys on the experiences and perceptions of students undertaking their theses, and will present survey results via the list.

What Is ASGS?

The Association for Support of Graduate Students (ASGS), which produces and sponsors this discussion list, is a service organization comprising master's and doctoral students, graduate student organizations, and graduate-degree-granting institutions.

Sample Messages

We briefly subscribed to Doc-Talk to sample the discussions. Excerpts from two of these discussions are listed below.

Terrified of Orals

Someone asked a question that included this statement:

"I'm about to defend what I've written and I'm terrified! Do you have any advice about this second stage of completing the master's thesis?"

Doc-Talk's response included reading the article named below and offering specific advice.

A good place to start would be to read Sally Kuhlenschmidt's article "Teaching Students to Manage the Oral Defense" (*Teaching of Psychology* 19, 2 (April 1992): 86-89) which breaks the preparation into two parts: learning to cope with anxiety and understanding the oral exam. Her

approach to coping with anxiety involves acknowledging feelings, restructuring ways of thinking about the oral defense, and learning ways to manage the feelings. Understanding the exam entails learning about the nature of it, how to prepare for it, and ways to approach questions.

Bibliographic Databases

Someone asked:

“Does anyone have experience using one or more of the commercially produced bibliographic data-

bases, e.g., End Notes Plus, Reference Manager, Pro-Cite, AskSam, Papyrus, etc? If so, which seems most suited for general academic usage?”

The Doc-Talk moderators invited responses from subscribers and posted the replies in subsequent posting. The replies include information on those packages as well as other packages students had found helpful, such as Library Master, jeepersw.zip (for Windows), and Taglink, an extension to EndNotes.



Figure 1: Blank H-CLC Questionnaire

BIOGRAPHY TEMPLATE

Please type your information to the right of the tags below. Please leave the tags (such as "<Name>") intact!

Name should be surname first, as in: Blume, Anna.

Any long item may be continued on following lines; please break lines only at word boundaries. If desired, you may use "<P>" to mark paragraphs, and "<Item>" to mark list items.

NOTE: Line breaks and indentation may be modified.
NOTE: Don't say just "APA" for an association – there are several.

<Date of biography>
<Name>
<Institution>
<Department>
<Title>
<Email>
<Phone>
<Address>
 <Line>
 <Line>
<Country>
<Postal Code>
<Professional Associations>
<Interests (key words)>
<Are you interested in serving on the editorial board of H-CLC>
<Are you interested in writing reviews for H-CLC>
<Are you interested in representing H-CLC on conferences>
<Are you interested in becoming a co-moderator of H-CLC>
<Are you interested in taking responsibility for one of the services provided in H-CLC's fileserver>
<Biographical sketch (ca. 100-500 words)>

- - Please mail to JNTOLVA@ARTSCI.WUSTL.EDU

▼ Humanities On-Line:

Computers In Literacy



H-CLC is a LISTSERV. Below are excerpts from an announcement we recently received about this new list.

H-CLC is an international electronic seminar for researchers, teachers and editors of literature in all languages — ancient and modern — who are interested in the application of computer related approaches to literary studies. H-CLC is sponsored by H-Net (Humanities On-Line), the National Endowment for the Arts, Michigan State University, and a team of volunteers.

H-CLC Encourages Collaboration

The purpose of H-CLC is to encourage collaboration of scholars by giving them the opportunity to discuss projects and to share information and experience. H-CLC offers a platform for the discussion of projects in progress and methodological issues as well as technical and administrative problems arising from the application of computing to literary criticism. H-CLC acts as a meeting place for software designers and users in the areas of analysis, editing, encoding and representation of literary texts, and it posts calls for papers and information about pertinent new products and services.

H-CLC maintains a fileserver that contains resources like bibliographies, reviews, syllabi, conference announcements, information about job openings and scholarships, and a preprint exchange.

H-CLC's fileserver and the preprint exchange in particular, accommodate the rapid development of computer hard and software, computer applications in literary criticism, hypermedia, and their theoretical implications, with which print media can not keep up. It also expands the range of publishable research,

so as to include e.g. experimental projects or students' term papers. In addition, contributors can receive feedback for papers in preparation from a very specified critical audience. The preprint exchange is ordered by subject and can be searched efficiently. Twice a month, abstracts of the latest contributions will be posted on H-CLC.

Subscription Info

To become a member of H-CLC, please send a request to be added to the list of subscribers and a completed questionnaire with a brief statement about your activities in the field (a cut and pasteable template is provided at the end of this message) to the editors at the following address: JNTOLVA@ARTSCI.WUSTL.EDU

The Questionnaire

We're reproduced the questionnaire in Figure 1; Figure 2 shows a sample filled-out biography. You can copy Figure 1's plain text information from our Gopher server and E-mail it to them if you're interested in joining the H-CLC list.

Figure 2: Sample Filled out H-CLC Questionnaire

```

<Date of biography>      1994-11-30
<Name>                   Blume, Anna
<Institution>           Dada State University
<Department>            Comparative Literature
<Title>                  Lecturer
<Email>                  ablume@howdy.dada.edu
<Phone>                  (999) 555-1212
<Address>                209 Schwitters Hall
    <Line>                 Hannover, CA
    <Line>
<Country>                USA
<Postal Code>           92699-0209
<Professional Associations> ACH, ALLC, American
    Philosophical Association, American Philological
    Association
<Interests (key words)> Chinese literature, sound
    poetry, neural networks
<Biographical sketch (ca. 100-500 words)>

```

— discursive, 1st-person biography would go here —

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Software, hardware, peripherals, local area networks	626-4276	M—F 9 am to 4 pm
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<input type="checkbox"/> West Bank 93 Blegen	above	above 1 pm to 4 pm
<input type="checkbox"/> St. Paul 58 Biological Sciences Center	above	above 1 pm to 4 pm

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These systems require a user name and password, which you get when you open an account.

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E-mail and LUMINA

- E-mail: call for help using your University account..... 626-7676 M—F 9 am to 4 pm
Forgot your password? Staff: call 626-8366. Students: go to any Computer Facility – e.g., 14 Folwell, 26 Lind, 305 McNeal, HHH 50. Troubleshooting: if Maroon or Gold are down, you'll hear a status report at 626-1819.
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Williamson Hall Book Center 625-3854
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Statistics Services	5-2303
System Status	6-1819
Tape Librarian	6-1838
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_FolH5-4896 _Lind6-0856 _McN4-5367 _HHH4-6526 +more	
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Supercomputer Center Help, 3030 SCC	6-0808
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Networking Services Repair	5-0006
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up to 19.2 campus data phone 3-2400 

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Computing and Information Services

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