

MJW
9-2-7890

Computer and Information Services Newsletter

Information Services

Volume 2, Number 10

April 1993

▽ Features

Scholarly E-Conferences, 6th Directory	229
E-mail Attachments, Part 2: Using Pine	232
LISTSERV: What Can It Do for Me?	235
Tap into Information with Telnet and FTP	238
Current Contents is on Gopher	245
Get It On Gopher	
Gopher Setup Service	247
Use Gopher for 24-Hour Service	247
Software Services	
Statistical Help	248
Central System News	
New PROOFreading Facility for VM/CMS	249
Numeric Keypad Data Entry with EDT	250
UNIX and our Kodak Printer	251
Bargains:	
New Site Licenses	254
SPSS for Windows v5.0	255
BITNET: Acceptable Use Policies	257
Free Information and Training	
Surf the Internet with E-mail and Gopher	258

▽ Book Center News

Sign Up for E-mail Notification	256
New - ZEOS Contenda Notebook	256
New - HP DeskJet Portable	256
\$75 Rebate	256
DeskWriter, DeskWriter C Rebate	256
Recent Price and Product Changes	
ZEOS and IBM	257
And Books, Too	258



Printed on recycled paper; mailed with Addressing and Mailing's Cheshire recyclable labels.



Scholarly E-Conferences, 6th Directory

Don Riley, Acting Associate Provost



Below is an E-mail announcement that I received from Diane Kovacs, the Team Coordinator for a project to update the list of available scholarly electronic conferences.

Such electronic conferences are an increasingly important way to obtain timely information on a variety of topics and to participate in national and international scholarly discussions. The E-mail announcement itself came to me as a result of my participation in one such electronic conference (known as a List Server) on Campus-Wide Information Systems (CWIS-L).

Communicating with List Servers has been a topic in previous issues of our newsletter. (You can access old newsletters from Gopher.) For more information you can also read *LISTSERV, What can it do for me?* in this issue.

▼ The Announcement

“ The 6th Revision of the Directory of Scholarly Electronic Conferences is available on the

LISTSERV@KENTVM

or

LISTSERV@KENTVM.KENT.EDU

→ continued on next page

and via anonymous FTP from

KSUVXA.KENT.EDU

in the library directory.

This announcement is extracted from the ACADLIST README file.

This directory contains descriptions of electronic conferences (e-conferences) on topics of interest to scholars. E-conference is the umbrella term that includes discussion lists, interest groups, e-journals, e-newsletters, Usenet newsgroups, forums, etc. We have used our own judgment in deciding what is of scholarly interest, and accept any advice or argument about our decisions.

Directory Team

Diane Kovacs

Team Coordinator

(Bitnet) dkovacs@kentvm

(Internet) dkovacs@kentvm.kent.edu

Gladys Bell

(Bitnet) gbell@kentvm

(Internet) gbell@kentvm.kent.edu

Paul Fehrman

(Bitnet) pfehrman@kentvm

(Internet) pfehrman@kentvm.kent.edu

Michael Kovacs

(Internet) mkovacs@mcs.kent.edu

Leslie Haas

(Bitnet) lhaas@kentvm

(Internet) lhaas@kentvm.kent.edu

Gerald Holmes

(Bitnet) gholmes@kentvm

(Internet) gholmes@kentvm.kent.edu

Jeannie Langendorfer

(Bitnet) jlangend@kentvm

(Internet) jlangend@kentvm.kent.edu

Amey Park

(Bitnet) apark@kentvm

(Internet) apark@kentvm.kent.edu

Kara Robinson

(Bitnet) krobinso@kentvm

(Internet) krobinso@kentvm.kent.edu

Files Available

ACADLIST README

(explanatory notes for the Directory)

ACADSTAC.HQX

(binhexed, self-decompressing, HYPERCARD

Stack of first 7 files - Keyword searchable)

ACADCOMP.HQX

(binhexed, self-decompressing, HYPERCARD

Stack of FILE8 and FILE9 - Keyword searchable)

ACADLIST FILE1

(Anthropology-Education) 53k

ACADLIST FILE2

(Geography-Library and Information Science) 91k

ACADLIST FILE3

(Linguistics-Political Science) 49k

ACADLIST FILE4

(Psychology-Writing) 54k

ACADLIST FILE5

(Biological Sciences) 43k

ACADLIST FILE6

(Physical Sciences) 43k

ACADLIST FILE7

(Business, Academia, News) 22k

ACADLIST FILE8

(Computer Science, Social, Cultural and Political Aspects of Computers and Academic Computing Support) 104k

ACADWHOL HQX

(binhexed self-decompressing

Macintosh M.S. Word version of all 8 files)

ACADLIST.CHANGES

(this is now empty due to difficulty of keeping up with the changes this time.)

How to Retrieve Files from LISTSERV

1. Send an e-mail message addressed to

LISTSERV@KENTVM

or LISTSERV@KENTVM.KENT.EDU

2. Leave the subject and other info lines blank.

3. The message must read:

GET Filename Filetype

(e.g., filename=ACADLIST filetype=FILE1 or HQX or whatever)

- 4. The files will be sent to you and you must receive them.
- 5. If you need assistance receiving, etc. contact your local Computer Services people.

The form of the message is

```
GET Filename Filetype
```

and our message would read

```
GET ACADLIST FILE4
```

How to Retrieve Files via ANONYMOUS FTP

1. Type

```
FTP KSUVXA.KENT.EDU
```

at your dollar sign prompt (VAX) or ready screen (IBM). If you are on another kind of system consult with your computer services people to find out the proper procedure.

2. When prompted for 'USERID,' type

```
ANONYMOUS
```

3. Your password will be your actual userid on your local machine.

4. Type

```
CD LIBRARY
```

5. Type

```
GET Filename.Filetype
```

(e.g., filename=ACADLIST filetype=FILE1 or HQX or whatever)

6. The files will be transferred directly into the directory you ftp'ed from. ”

Just send this one line. The rest of your message and mailing information will be blank, that is no subject, no cc notations, etc. You don't even need a signature. LISTSERV will get your E-mail address from the information (sometimes called a header) that is automatically sent along with all messages.

The Results

When you E-mail this *get* command, you will receive a list with entries from ADDICT-L to WWP-L (Women Writer's Project). The list also contains label codes. The codes and other information are explained in more detail in README notes.

Another Example

To get a copy of these README notes, send a separate E-mail message to

```
LISTSERV@KENTVM.KENT.EDU
```

with this *get* command as your message

```
GET ACADLIST README
```

Below is the README's brief explanation of the label codes.

- LN E-conference name
- TI Topic information
- SU Subscription information
- ED Edited? Yes or No
- AR Archived? if Yes, frequency, private=subscribers only
- MO Moderator, editor, listowner, manager, coordinator, etc.
- IA 'Official' institutional affiliation
- KE Keywords

▼ More Examples

Since many of our newsletter readers are new E-mail users and are unfamiliar with LISTSERV requests, we've expanded on the examples given above. For example, to get the information in File 4 (Psychology-Writing), internet users must send a precisely worded E-mail message to

```
LISTSERV@KENTVM.KENT.EDU
```

E-Mail Attachments

Part 2: Using Pine

Overview



Last month's E-mail attachment article discussed sending various files as POPmail enclosures. This month, we discuss sending enclosures or attachments using Pine.

Pine is the default E-mail utility on the machines commonly called staff (maroon.tc.umn.edu) and student (gold.tc.umn.edu). When you log in to use Pine, you should use the maroon and gold names. One question frequently asked about Pine is:

How can I use my E-mail account to send files to someone?

Pine users can send plain text files to anyone and anyplace that accepts Internet mail. To send binary files, Pine users must use Pine's attachment feature. However, you can only send binary files to E-mail systems that support MIME standards.

Binary versus Plain Text

Plain text files and binary files were defined in March's E-mail enclosures article. Briefly, binary files contain computer code and must be specially encoded before you can pass them from one system to another.

Plain Text: a **Ctrl** **R** Option

If you are not sure whether another mail system supports MIME attachments, you can use the *Read File* command to make the file part of the Pine mail message. This command works only for plain text files. Binary files will be corrupted at the receiving site.

The *Compose* window shows **^R** (**Ctrl**-**R** keys) as a *Read File* option when you select the *Message Text* field.

Binary Files: use Attachment Option

Pine 3.0's attachment feature takes plain text (or binary) files and sends them to the intended recipient in MIME format.

What is MIME?

MIME stands for "Multipurpose Internet Mail Extensions," a specification for including binary data in Internet mail messages. Until recently these messages were limited to ASCII (plain text) files. MIME-capable mailers, such as Pine 3.0, allow word processing documents, spreadsheets, programs, images, audio, and other binary data to be attached to a message.

Bad news: MIME-capable mail software is not yet widely deployed. Good news: MIME support is growing rapidly. If you need to send data to colleagues who use E-mail systems other than Pine, we strongly recommend that you check with them first to see if MIME is supported on their system. POPmail, PROFS, VMS's mail, and CMS's mail do not support MIME.

Specifying an Attachment

Using the attachment feature is easy. To send a file to a specific person, choose the *Compose* option from within Pine. Figure 1 shows a *Compose* window with one file name listed after "Attchmnt."

After you enter your file name on the attachment line, the Pine utility adds the full address. So when you type

```
cal.3211
```

Pine automatically replaces it with the full address (and the size of the file in kilobytes), for example

```
/home/cisuap/zero/cal.3211 (2.2 KB)
```

In the body of the mail message, you can include explanatory text, as we have done in Figure 1.

To send the message, use the **^X** command (the **Ctrl**-**X** key combination). The attachment is sent along with the mail message, and it is received as a separate file.

Forgot the Name?

Figure 2 shows how to search a list of file names to get the attachment's name to show up in your *Compose* window.

Size Caution

File space available to individual E-mail accounts is limited, so we recommend that you limit the size of the files you send to 32KB.

Figure 1: The Compose Window – Sending a MIME Attachment

```

To      : zorro999@staff.tc.umn.edu
Cc      :
Attchmnt : 1. /home/cisuap/zero/cal.3211 (2.2 KB) ""
Subject : My Lab Assignment
— Message Text —

This is my lab assignment for Calculus 3211, it is a plain text file.

^G Get Help   ^C Cancel     ^R Rich Hdr   ^K Del Line   ^O Postpone
^X Send       ^D Del Char   ^J Attach     ^U UnDel Lin  ^T To Files
    
```

Figure 2: If You Forget the File Name...

Step 1: "To Files"

If you do not remember the file name, use the *To Files* command to view a list of your files. This **^T** (**Ctrl-T**) keys) command is shown below and at the bottom of Figure 1. The *Compose* window shows this *To Files* option, *unless* you are in the "To" or "Cc" fields.

```

^G Get Help   ^C Cancel     ^R Rich Hdr   ^K Del Line   ^O Postpone
^X Send       ^D Del Char   ^J Attach     ^U UnDel Lin  ^T To Files
    
```

Step 2: Select the Name

Now that you have a list of files, use your keyboard's arrow keys to highlight the file name (or the directory name if the file is in a different directory). Press the **S** key to actually select the file name. Our sample files and the Pine commands you can select are shown below. We selected a file called `rfc1325.txt`. (Note: if you have a long list of file names, use the *Fwd Pg* (**Spacebar**) and *Back Pg* (**←**) options to move through the files.)

```

..          (parent dir)   Chap3          70 KB         News          (dir)
Pine.mac2   8.7 KB         lngraph.ps     29 KB         mail          (dir)
rfc1118     91 KB         rfc1325.txt   91 KB
    
```

```

? Help      C Cancel    R Rename     - Back Pg   D Del File  M Make Copy
S Select    G Goto Dir  W Where is   Fwd Pg
    
```

Step 3: It's Automatically Attached

Once you've selected the file name, Pine will return you to the Compose window and insert the complete address of the file you selected after "Attchmnt," as shown in the sample below.

```

To      : zorro999@staff.tc.umn.edu
Cc      :
Attchmnt : /home/cisuap/zero/rfc1325.txt
Subject :
— Message Text —
    
```

Receiving an Attachment

To receive an attachment, you begin by following the normal *View Mail* steps. Once you've selected the message, with attachment, that you want to view, you will see a message similar to the one shown in Figure 3. As you can see, the Pine message states that part 2 of the message is an attached file called "cal.3211." Press **A** to both save the attachment as a separate file and to see it.

As shown below, when you press **A** Pine responds that you must enter an attachment number.

```
Enter attachment number to view or save (1 - 2) :
^G Help      ^C Abort
RETURN Enter
```

The attachment is part 2 of this message. When you type in the number, Pine asks if you want to view or save the attachment.

```
Save or View attachment? (s/v) [s]
^G Help      ^C Abort
RETURN Enter
```

When you type **S** to save the document, Pine responds

```
File (in home directory) to save attachment in:
^G Help      ^C Abort
RETURN Enter
```

At this point you can enter a new file name or press the **Return** key to use the same file name.

File Name Caution

When you upload or download files from your IBM-PC or Mac to use in the attachment feature, be careful of the names you give your files. Although file names can be quite long in the UNIX operating system where Pine is installed, some symbols will cause the receiving process to abort.

We strongly recommend that you use only letters, numbers, and the period symbol (.) or underscore symbol (_) in your file names. Using only these symbols helps assure that the recipient can read your file name and that you won't inadvertently use an "illegal" symbol. Names like *assignment_1* or *weekly.stats* are acceptable UNIX file names.

Figure 3: Attachment Received

```
Date: Tue, 8 Mar 1993 14:25:38 -0600 (CST)
From: zero0000@student.tc.umn.edu
To: zorro999@staff.tc.umn.edu
Subject:
Parts/attachments:
  1 Shown   1 lines  Text
  2         2.2 Kb   File "cal.3211", ""
```

```
This is my lab assignment for Calculus 3211, it is a plain text file.

[Part 2, "" Attached file "cal.3211" 2.2 KB]
[Can not display this part. Use the "A" command to save in a file]
```

```
? Help      M Main Menu  P Prev Msg   - Prev Page  F Forward    D Delete
O OTHER CMDS I Mail Index N Next Msg   SPACE Next Page R Reply      S Save
```

Help

Whether you're using the *Read File* command to send plain text files or the attachment feature, you can always get on-line help from within Pine. For example, when your cursor is in the attachment field and attachment is highlighted, press **Ctrl** **G** to Get Help.

Conclusion

When you send enclosures or attachments, keep these points in mind.

1. Sending copyrighted software as attachments is prohibited by most licensing agreements.
2. Don't send files that are larger than 32KB. The University E-mail system has space quotas for individual accounts. As resources become available, the limits will be increased.
3. Peak hours for E-mail traffic are Monday-Friday, 9-5.
4. If you send a file to a group of users, please consider mailing it outside the peak hours. Sending large mailings during off-peak hours helps spread out the volume of data that is mailed over the network.

If you have questions regarding Pine, you can always call the Central Systems or E-mail Help Lines.

Follow-up

Part 3 of our E-mail enclosures/attachment series will put together file and document transfer procedures that we've covered in parts 1 and 2. It will also include information from the FTP and Telnet article elsewhere in this newsletter.

LISTSERV: What Can It Do For Me?



A **LISTSERV** is a List Server. **LISTSERVs** are software utilities that allow electronic communications to be broadcast to subscribed users around the world. Although we've discussed this topic before (for example in February), this article contains additional information. It also tells you how you can start your own list.

A Little Background

LISTSERV is the name of this utility in **CREN** (formerly **BITNET**). **LISTSERV's** purpose is served in other networks, such as the Internet, by **NEWSGROUPS**. You may subscribe (receive) and send mail to both **LISTSERVs** and **NEWSGROUPS**.

The **LISTSERV** is generally centered around a common topic, and subscribers carry out discussions through electronic mail. The activity of a list can range from near zero to enormous amounts of mail.

How Do I Find Them?

You might ask "How do I find a **LISTSERV** to join?" or "Is there one on a particular subject?" There are a few ways to get a complete list of List Serves so you can find one that you want to participate in. Beware. This file is currently over 3,000 lines.

You can request that a list of all public List Servers be sent to you electronically. Make your request via E-mail. **BITNET** users can use the address listed below

```
listserv@bitnic
```

with no (or any) subject and include on the first line of the E-mail message (sometimes called note) the line

```
list global
```

University Internet users must add **.bitnet** to the **LISTSERV** address (and to all **BITNET** addresses), i.e.

```
listserv@bitnic.bitnet
```

If you send your note from an Internet address, the list will be sent to you as E-mail, a portion of which is shown in

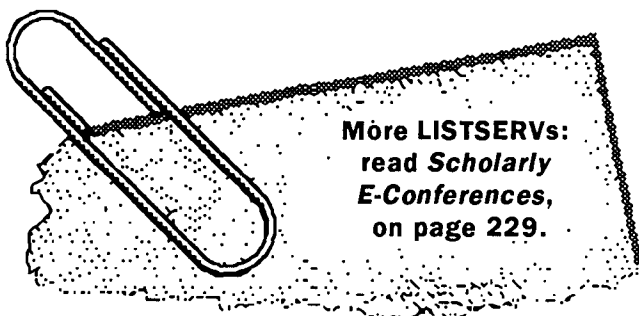


Table 1. If you send the request from a BITNET site, you will be sent a non-mail file called LISTSERV LISTS. You will need to RECEIVE this file in order to view, print or manipulate it.

The "Global" Listing

The file will contain the name of the list (for example "foodwine") and a brief description of the list. The file will also contain the node (BITNET or Internet) name for the computer that runs the LISTSERV (there may be more than one node). All the node names in Table 1 are BITNET names (internet addresses/names have the form listserv@uuu.xxx.yyy.zzz).

Table 1 also shows that one LISTSERV can handle several lists. LISTSERV@UBVM handles FNORD-L, WPCORP-L, and WPWIN-L.

You can find out more about a list and its members by sending the command below to the LISTSERV address, not to the list (List@Node) address. Again, the file you get may be very big. The form of the command in the note or the body of the E-mail message should be:

```
review list_name
```

for example

```
review foodwine
```

Where's the LISTSERV Address?

Table 1 does not include any LISTSERV addresses. The form for a LISTSERV address is

```
listserv@node
```

Examples

This means the LISTSERV address for the foodwine list is

```
listserv@cmuvm
```

The LISTSERV address for the sastun-l list is

```
listserv@ncsuvm
```

These are BITNET addresses. Internet users, such as those with staff and student E-mail accounts, must add .bitnet to these addresses, for example

```
listserv@cmuvm.bitnet
listserv@ncsuvm.bitnet
```

How Do I Subscribe?

To subscribe, send E-mail to LISTSERV@node with no subject and include on the first line of the E-mail message

```
subscribe list_name your_name
```

Table 1: Portions of List of All LISTSERVs

List Name	List@Node	Brief Description
FLYFISH	FLYFISH@UMAB	Fly Fishing Digest
FNORD-L	FNORD-L@UBVM	New Ways of Thinking List
FOODWINE	FOODWINE@CMUVM	Discussion List for Food and Wine
SASJOB-L	SASJOB-L@ALBNYDH2	SAS JOBS-SAS CLASSES/SEMINARS
SASPAC-L	SASPAC-L@UMSLVMA	SAS Public Access Consortium - SASPAC-L
SASTUN-L	SASTUN-L@NCSUVM	SAS Performance Testing Discussion
SATURN	SATURN@HEARN	Sun Ra and his Arkestra (avant-garde jazz)
SBC-EP	SBC-EP@UFRJ	SBC-EP - Forum de ensino e pesquisa da SBC
WIN3-L	WIN3-L@UICVM	Microsoft Windows Version 3 Forum
WPCORP-L	WPCORP-L@UBVM	WordPerfect Corporation Products Discussion +
WPWIN-L	WPWIN-L@UBVM	WordPerfect For Windows Discussion List
WP51-L	WP51-L@UOTTAWA	WordPerfect 5.1 Discussion Group List

Table 2: Some LISTSERV Commands

Info	<topic ?>	Get detailed information files
List	<Detail Short Global>	Get a description of all lists
REV (REVIEW)	listname <options>	Review a list
SET	listname options	Set personal distribution options
IND (INDEX)	<filelist name>	Obtain a list of LISTSERV files
GET	filename filetype	Obtain a file from LISTSERV

For example, to subscribe to the list called foodwine, Mike Rouge would type

```
subscribe foodwine Mike Rouge
```

Be careful. Do not send this subscription request to the address you use to correspond with the foodwine group (foodwine@cmuvm). Send it to the LISTSERV, that is

```
listserv@cmuvm
or listserv@cmuvm.bitnet
```

Other Options

If you do not want to belong to a list anymore, or if you will be away for a while and do not want your E-mail to build up, you can signoff of the list. To signoff from a list, send mail to LISTSERV@node and include on the first line

```
signoff list_name
```

For example:

```
signoff foodwine
```

By now, you get the idea of sending E-mail to a LISTSERV and including a one line command in the body of the note or E-mail message. Some other commands you might be interested in are listed in Table 2.

There are more commands you can send to the LISTSERV@node address. For a complete reference card of commands, send this command to LISTSERV@note

```
info refcard
```

or for a list of available documentation files send

```
info ?
```

Many LISTSERVs maintain archives of information, such as logs of past correspondence, files that are of interest to

the group, etc. You can send commands that request that lists of these files be sent to you. You can also use search commands to search for mail relating to a particular subject. If you are on BITNET using a VM system, such as our IBM/CMS, then the search can be interactive. Otherwise you must compose a search – a topic for another newsletter article.

You can even use FTP to transfer files from some LISTSERV sites.

Scholarly List Servers

For information about scholarly electronic conferences, read *Scholarly E-Conferences, 6th Directory* elsewhere in this newsletter.

Can I Start My Own?

You may request that we create a new list for a valid University function. Our St. Paul Services group manages the Central System VM1, an IBM mainframe running CMS, that supports the LISTSERV function. A few of the public LISTSERVs currently on the IBM/CMS machine are listed in Table 3. The Internet and BITNET node names are listed below. Note that the BITNET name has an “i” and a “1” (one) in it.

```
@VM1 . SPCS . UMN . EDU
@UMINN1
```

Table 3: Some LISTSERVs Maintained on our IBM/CMS

CROSS-L	Cross Cultural Research in +
HEBREW-L	Jewish & Near Eastern Studies
INT-LAW	INT-LAW Foreign and International Law
JUDAICA	Jewish & Near Eastern Studies
MUSIC-ED	MUSIC-ED Music Education
NOTIS-AR	NOTIS-AR Archives & Manuscripts Dis+
RLGLAW-L	RLGLAW-L RLG Law Library List

Some of the concerns or issues relating to new lists are:

- The creation and disk space for the LISTSERV is free to University of Minnesota faculty, staff and students.
- You may manage the LISTSERV from an account on the IBM/CMS machine or from a userid on another Central System.
- The list itself may be public (appears in the LISTSERVs LIST file) or it may be private. For private lists, only people you tell the name and address to can subscribe.
- You can review subscription applications and verify, say, membership in a certain society or group and then add an E-mail address or not.
- You can allow anonymous FTP to your list's files.
- You can select whether you want subscribers only to be able to post to the list.
- You can decide whether or not you want to edit postings before they go out to the list.

If you are interested in starting your own LISTSERV, contact the IBM/CMS Help Line by phone at 624-6235 or by E-mail at one of these addresses

helpdesk@vm1.spcs.umn.edu
consultant@vm1.spcs.umn.edu

Copies on IBM/CMS and VX

Because the file that lists all the public LISTSERVs and the "review" files that tell you more about the list and its members are so large, we have obtained recent copies and made them available on two of our Central Systems: the IBM/CMS system and the VX VAX system.

Those with accounts on the IBM/CMS system can see the list by entering *LISTSERVES* after entering a *GETPROD PSSST* command.

To see the list on the VX VAX, enter *LISTDOC* and choose *NETWORKS*.

Acceptable Use Policies

Everyone who subscribes to or "owns" a LISTSERV should be aware of acceptable uses of these network resources. These BITNET policies are reprinted on page 257 of this newsletter.

Tap into Information with Telnet and FTP



Last Fall all full time members of the University's Twin Cities community got free access to the Internet. Our introduction of the E-mail system made other network services available to nearly 80,000 students, faculty, and staff at the University of Minnesota. Many of you are already using your Internet access for Electronic mail and Gopher services. What you may not know is that there are facilities to allow terminal sessions to remote computers and file transfers between computers.

People who picked up the SLIP version of the University's E-mail software package also got a copy of Telnet, software that lets you establish terminal sessions over the network. This article is for those SLIP users and others who want more information about NCSA Telnet, FTP, and anonymous FTP.

NCSA Telnet

With NCSA Telnet you can establish a high speed terminal session to a computer that is connected to the international Internet in much the same way that you might use a modem and communications software to connect to another machine. Of course, you'll need a valid user name and password in order to open a terminal session on a particular computer.

The National Center for Supercomputer Applications (NCSA) at the University of Illinois at Urbana-Champaign provides their Telnet applications for the Macintosh and IBM/MS-DOS machines as public domain (free) software. Telnet uses a network connection to establish a terminal session with another computer. To establish a terminal session, that other computer must also be running Telnet.

At the University of Minnesota, it is possible to establish terminal sessions with all of the Central Systems computers, including maroon.tc.umn.edu (staff) and gold.tc.umn.edu (student), as well as many departmental systems and other computers around the world.

VT100 and Other Features

Telnet supports the features listed below. You do not need to know about or use all the features to get Telnet to work for you.

- VT100/VT102 emulation
- Simultaneous logon to a number of computers
- Cut and paste between sessions
- Scrollback
- Ability to capture text to disk or the printer
- File transfer server
- Local printer support for VT100 emulation
- Color support
- Tektronix 4014 emulation
- RARP and Bootp for determining IP address
- Support for Linemode protocol
- Remote copy server (rcp) for use with UNIX hosts
- Keyboard and text output mapping
- Ability to dump screens to a capture file

Some computers allow guest access, that is you do not need an account on the machine to use it. When such access involves an FTP server, it is commonly referred to as an ANONYMOUS FTP site. Many public domain programs, routines, and text files are available via ANONYMOUS FTP.

Using Telnet

Terminal software like Telnet is different from microcomputer communications software, such as ProComm and TinCan. The biggest difference is that Telnet requires a network connection. Unlike microcomputer communications software, just having a modem is not enough.

Those who want more information about terminals can read the brief discussion, *What's a Terminal?*, at the end of this article.

A Network Connection is Required

To establish a terminal session using NCSA Telnet you must have a network connection. This might be through an on-campus connection, such as EtherJack or AppleJack, or through a high speed modem using SLIP (Serial Line Internet Protocol). You may also need additional support software like a packet driver, SLIP driver, or other network software. All of these items are available to users of IBM/MS-DOS systems and Macintoshes at no cost.

For more information about getting a network connection, see our *Network Connections* document, available from all Microcomputer HelpLines.

On IBM Computers

If you use an IBM/MS-DOS computer to establish a connection to a computer, you must use a *Crynwr Packet Driver* that supports the Ethernet adapter in your computer. (These drivers are discussed in more detail in our February 1993 *Ethernet Cards and Network Applications* article). The UMSLIP driver is a packet driver as well, although it works with a high speed modem rather than an

Ethernet adapter. Documentation is included to guide you through the process of setting up the drivers.

Once you have loaded the packet driver, type the following command:

```
telnet machine.name
```

This will establish a connection to the machine you have named. Note that you must specify the full machine name, for example

```
telnet maroon.tc.umn.edu
```

On a Macintosh

On a Mac you need to install and configure the MacTCP driver. It is available free to people within the University. Documentation is included to guide you through the configuration process.

Once MacTCP is in place, you can double-click on the NCSA/BYU Telnet icon to launch it. From the *File* menu, select *Open Connection* and enter the machine ID, for example

```
maroon.tc.umn.edu
```

TN3270 Terminals

Different mainframes communicate with different types of terminals. The Administrative Information Services (AIS) system is an IBM mainframe that communicates with 3270 terminals. People who need to establish a terminal session with AIS's system cannot use Telnet because it does not

support 3270 terminals. However, software called TN3270 can establish a terminal session with the AIS system. TN3270 is public domain software that is available from our IBM and Macintosh Information Servers.

After Connecting to a System

Once you've established a connection, you communicate with that computer using whatever commands that "remote" computer understands. This "remote computer" can be in the same room or on another continent.

At this point, you interact with this other computer as you might if you were using a program like *ProComm* or *TinCan* to emulate a terminal – with one major exception. Telnet uses FTP (File Transfer Protocol) to upload and download files. Modem communications programs usually use a protocol like Kermit or Xmodem.

What is FTP?

File Transfer Protocol, also called FTP, is a quick and reliable means of transferring files across the network. The concept behind FTP is somewhat like Kermit and Xmodem, protocols that some microcomputer users have encountered. Although FTP is built into the NCSA Telnet applications, stand-alone FTP applications are also available. Below we'll discuss using the built-in version on a Mac and an IBM-compatible.

Once you have initiated a Telnet session, you can invoke the built-in FTP. The FTP transaction involves two computers and at least one of the commands listed below followed by pressing the **Return** or **Enter** key.

```
put
get
```

On the Mac

Before using Telnet's built in FTP function, be sure FTP is enabled (a *File* menu option). To begin the FTP process, pull down the *Network* menu and select *Send FTP Command*. Using the EPX Central System as an example, you would receive responses similar to the ones shown in Figures 1 and 2. The results of selecting *Send FTP Command* are shown in Figure 1.

Figure 1: Transfer from Host to Microcomputer

```
epx% ftp -n 999.99.999.999
Connected to 999.99.999.999.
220 Macintosh Resident FTP server, ready
ftp>
```

You issue commands to the FTP process to perform the file transfer. The file we want to transfer is "Pine.bin." It is in our EPX "/mail" directory. To transfer it to the Mac we must type in "put" after the FTP prompt, as shown below.

```
ftp> put
```

You'll be asked for the names of two files: the *local-file* (in this case the file in the /mail directory) and the *remote-file*. We want the file on our microcomputer to be called "Pine.test2." We need to type in both names. The results of these two transactions are shown below.

```
(local-file) /home/ciszz/zero/mail/Pine.bin
(remote-file) Pine.test2
```

The whole sequence is shown in Figure 2. The four responses we provided are in italics and numbered. The system even reports how long it took to transfer the file.

To get a file that is on our Mac to our /mail directory, we must use the *get* command. If the file and the Telnet program are in the same place, e.g. both in the same folder, you can just type in the file name. In Figure 3 we transferred a file called "Mac2Pine.test" from our Mac to our /mail directory.

Figure 2: The Whole Sequence: Host to Microcomputer

```
epx% ftp -n 999.99.999.999
Connected to 999.99.999.999.
220 Macintosh Resident FTP server, ready
1 ftp> put
2 (local-file) /home/ciszz/zero/mail/Pine.bin
3 (remote-file) Pine.test2
200 This space intentionally left blank < >
150 Opening connection
226 Transfer complete
local: /home/ciszz/zero/mail/Pine.bin remote: Pine.test2
8841 bytes sent in 0.16 seconds (54 Kbytes/s)
4 ftp> quit
221 Goodbye
epx%
```

Figure 3: Transfer from Microcomputer (Mac) to Host

```
ftp> get
(remote-file) Mac2Pine.test
```

Better yet use Fetch, a stand-alone FTP application for Macintoshes. Fetch is easier to use and is discussed below.

On an IBM

Before starting up Telnet's built in FTP function, you must be sure FTP is enabled. You can toggle between *enabled* and *disabled* in the *Parameter* menu, which you invoke with the **[Alt][P]** key combination. If the transfer setting is not enabled, use the **[Tab][T]** key to change it. (To get to the *File transfer is* setting, use your keyboard's **[↓]** key.) To actually change the parameter, you must exit from the menu with the **[F1]** key. If you use the **[Esc]** key, the changes you made will not be saved.

Once FTP is enabled you begin the FTP process by using the **[Alt][F]** (file transfer) key combination. The rest of the process is similar to the examples shown in Figures 1, 2, and 3. In Figure 4 we transferred a file that is in the IBM's root directory. Other options may work with your IBM and host combination; consult the FTP documentation for specific details.

The FTP process will stop at a line that includes your IP address and user name, for example

```
Name (999.99.999.999: zero)
```

Respond to it by pressing the **[Return]** key.

Figure 4: Transfer from Microcomputer (IBM) to Host

```
epx% ftp -n 999.99.999.999
Connected to 999.99.999.999.
220 PC Resident FTP server, ready
Name (999.99.999.999: yourname)
ftp> get
(remote-file) IBM2Pine.tst
...
```

Other IBM Telnet menus use mnemonics. For example, to invoke the Help screen, use the **[Alt][H]** key combination.

When You're Done

Regardless of which machine you're using, when you are ready to stop the FTP process, type

```
quit
```

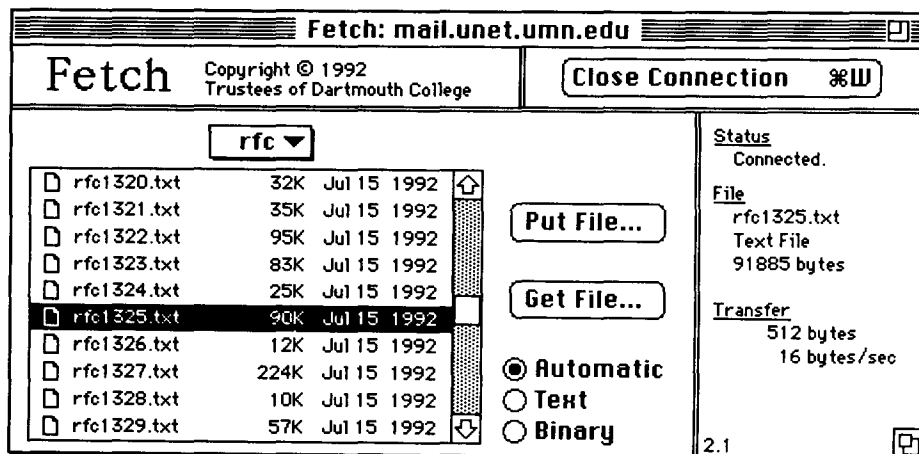
Or Use Stand-alone FTP

If you just need to transfer a file, you don't need to use Telnet to connect to another computer. You can use the stand-alone FTP programs. They're quicker than starting up Telnet. Fetch, the stand-alone FTP program for the Mac, is discussed below. The NCSA stand-alone FTP program for IBM-PCs is discussed below in the *Anonymous FTP* section.

The Fetch Application

We highly recommend Fetch. It is a public domain stand-alone FTP application that runs on the Macintosh. Fetch uses the Mac paradigm, making it easy to select files without typing complex file names. Fetch lets you click on a file name and "get" and "put" buttons to transfer files to and from your Macintosh, as shown in Figure 5.

Figure 5: Fetch, Mac Software that Supports FTP



You'll find Fetch in the same Mac Information Server *Communications* folder as Telnet.

We have not been able to find a comparable product for IBM/MS-DOS systems.

Anonymous FTP

Some computers allow guest access, that is you do not need an account on the machine to use it. When such access involves an FTP server, it is commonly referred to as an anonymous FTP site. Many public domain programs, routines, and text files are available via anonymous FTP.

Networking Services has information available via anonymous FTP. Some of the information is useful to beginning network users, such as *Answers to Commonly asked "New Internet Users" Questions*. This information is stored in a document with an rfc (Request for Comments) name: rfc1325.txt. Most rfcs are technical and come in different formats. A ".txt" name indicates its format is a plain text file. A few rfcs, such as rfc1325 and rfc1118, are not technical. Networking Services has a UNIX directory called rfc; it is used to store technical and non-technical rfcs. We'll use the file called rfc1325.txt for our examples.

A Central System Example

Figure 6 shows what we typed (except a password) to acquire rfc1325 via anonymous FTP. When you type in a password, it is blanked out on the screen. To be courteous when you use anonymous FTP, give your E-mail address as the password.

Figure 6: Transfer File from Remote Computer

Use your E-mail address as a password.

```
ftp mail.unet.umn.edu
anonymous
cd rfc
get
rfc1325.txt
/home/ciszzz/zero/mail/rfc1325.txt
quit
```

We did not begin this FTP process from a microcomputer. We used the FTP program on the machine that serves as a University E-mailbox; both the maroon (staff) and gold (student) machines also support FTP.

Figure 7 shows the whole sequence. We've italicized and numbered the information we typed. The system will stop at appropriate points and wait for you to enter information, for example "name." Since this is an anonymous FTP transaction, the name we typed in is *anonymous*.

Figure 7: The Whole FTP Transaction

Use your E-mail address as a password. Passwords are blanked out on the screen.

```
1  epx% ftp mail.unet.umn.edu
   Connected to mail.unet.umn.edu.
   220 mail.unet.umn.edu FTP server (Version 4.186 Mon Oct 19 15:14:55 CDT 1992) ready
2  Name (mail.unet.umn.edu:zero):anonymous
   331 Guest login ok, send ident as password.
3  Password:
   230 Guest login ok, access restrictions apply.
4  ftp> cd rfc
   250 CWD command successful.
5  ftp> get
6  (remote-file) rfc1325.txt
7  (local-file) /home/ciszzz/zero/mail/rfc1325.txt
   200 PORT command successful.
   150 Opening ASCII mode data connection for rfc1325.txt (91885 bytes).
   226 Transfer complete.
   local: /home/ciszzz/zero/mail/rfc1325.txt remote: rfc1325.txt
   91885 bytes received in 0.85 seconds (1.1e+02 Kbytes/s)
8  ftp> quit
   221 Goodbye.
   epx%
```

To get to the directory that contains the files we want, we used the

```
cd
```

(change directory) command and typed in the directory's name. After we typed *get*, the system prompted us for two things: the name of the file we wanted to transfer and what we wanted to name the "copy." Since we copied the file to the machine that serves as our University mailbox, the long name is appropriate.

Mac and IBM Examples

To use anonymous FTP on a Macintosh, we recommend that you use Fetch (discussed above).

On an IBM-compatible you can use the stand-alone FTP program that is packaged with NCSA Telnet. This stand-alone FTP is available on our IBM Information Service and is included in the SLIP version of the University's E-mail software package. To use this version to acquire the document we used in Figures 6 and 7, you would type the same stuff - except, the IBM version does not ask you for remote and local file names. It just asks the name of the file you want to acquire and transfers that file to your active directory, for example *c:\ftp*.

Gopher and Telnet

Gopher users who browse through the *Library Catalogs via Telnet* section will see that they can access libraries around the world. When you select a library name from this section, Gopher will automatically launch Telnet for you. But everything else you need to do may not be automatic or intuitive. Take care and take notes. Telnet and anonymous FTP, like an airplane, can whisk you to places where you don't know the language or the neighborhood.

We used this feature of Gopher to find the California section and select Stanford's library, as shown in Figure 8. Once connected we need to follow "Folio's" instructions.

Where Can I Get the Software?

The Telnet, FTP, and anonymous FTP software is available on the maroon (staff) and student (gold) interactive E-mail machines.

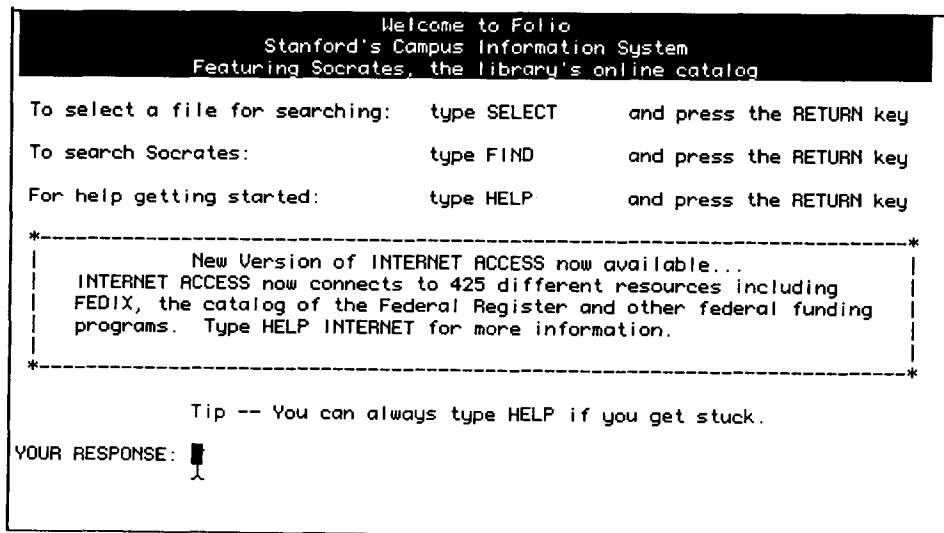
People who use IBM-compatibles and Macs can get the software mentioned in this article from all of our Micro-computer HelpLines. Many people already have this software. If you picked up our SLIP or network E-mail/Internet access packages recently, you probably have the most current versions of all the software.

Table 1 shows what software is available and the current version of each. (Modem users must have a hardware setup that supports the SLIP software.)

Table 1: Current Versions of Microcomputer Network Software

Network Software	Version	
	Macintosh	IBM/MS-DOS
NCSA Telnet	2.5	2.3.05
POPmail	2.07	3.1.8
TurboGopher/Gopher II	1.0.5	1.0
Fetch	2.1	n/a
NCSA FTP (stand alone)	n/a	2.3.05
MacTCP	1.1.1	n/a
— For Use with High Speed Modems		
MacSLIP/UMSLIP	1.5	1.7
Phone (SLIP Dialer)	n/a	1.4.5

Figure 8: Telnet to Libraries at other Institutions



Bring Disks

Bring disks to any Microcomputer HelpLine and you can get a copy from our Information Servers. How many disks you need depends on the disks' storage capacity.

- ❑ Mac: 3 to 4 800K disks or 2 to 3 1.4MB disks
- ❑ IBM/MS-DOS: 3 to 5 360K disks, 2 to 4 720K disks, or 1 to 3 1.2MB and 1.4MB disks

For a Mac

You can get a copy from our Mac Information Server in the following location:

File Server: >Mac Information, information
 Folders: *Communications* or *Student/Staff E-mail Project*

Since we have a restricted license to distribute MacSLIP, you must talk to a consultant to get this software.

For an IBM-compatible

You can get a copy of individual problems from our IBM Information Server in the following location:

```
p:\internet
```

To obtain the UMSLIP package, you can just type *slipdisk* at the p:\> prompt and follow the on screen menus.

Our March newsletter has information about the latest version of SLIP for DOS computers.

Incompatibilities

Some Telnet 2.3.05 users who have IBM's ValuePoint system reported green screens and locked up software. A solution is to recopy the mouse.com file (from the third DOS 5 disk) to the DOS directory – the conflict seems to be with the "mouse" software.

If Telnet 2.3.05 users who have a PC with a *monochrome* monitor see the cursor move on their screen but see no text, they need to use this MODE command:

```
mode co80
```

You should issue the MODE command before starting up Telnet.

What's a Terminal?

Terminals are dedicated, dumb devices. Their sole purpose is to telecommunicate with a "smart" computer, such as the E-mail computers maroon.tc.umn.edu and gold.tc.umn.edu. These smart computers are frequently called hosts and are mainframe computers or workstations, not microcomputers.

Besides an interface that connects the terminal to its host, today's terminals have a keyboard and a display screen – they might even have a mouse. You use the keyboard to issue commands or make requests. The commands you type in depend on what operating system the host computer uses. Our department's hosts (Central Systems) use these operating systems: UNIX, NOS/VE, Ultrix, VMS, and IBM/CMS.

Mainframe hosts (Central Systems) only know how to communicate with certain types of terminals, for example VT100, 3270, or Tektronix graphics. You can obtain microcomputer software that will emulate those and other terminals.

The job of microcomputer-to-mainframe communications software is to turn your computer into a specific type of terminal. Until your computer assumes this new identity, the mainframe hosts will not "talk" or "listen" to your computer.

Security Issues

Turning FTP on and putting your data on the network can involve security risks. (You can inadvertently turn your machine into an FTP server.) Currently Telnet for IBM/MS-DOS and Mac systems is distributed with FTP as a "disabled" feature. But turning FTP on is easy and is described above. For security reasons, when you quit Telnet, FTP is automatically disabled again.

The Telnet software for IBM/MS-DOS and Mac systems includes Telpass, a security utility program, and instructions on how to use Telpass. If you run Telnet from your own machine and use its *built-in* FTP feature, you will want to look at this software.

In an upcoming article we will address network security issues in more detail.

Current Contents is on Gopher

Douglas C. Lund, Manager, Integrated Information Center

What is Current Contents?

Have the rigors of research and the classroom left you precious little time to explore developments in your field? Wondering what your colleagues have been publishing lately? Current Contents can help.

Current Contents is a database designed to keep you up to date with what is being published in your area. Use Current Contents to identify journals of interest, view the table of contents of journals, or view the search results of articles matching research topics of interest. The database contains the contents data (title, author, journal name, etc.) and abstract of articles in over 6,600 different journals. It is one of the most comprehensive databases of its kind, covering a wide range of disciplines, including:

- agriculture, biology and environment sciences;
- arts and humanities;
- clinical medicine;
- engineering, technology and applied sciences;
- life sciences;
- physical, chemical and behavioral sciences; and
- social and behavioral sciences.

The database is updated weekly to keep it very current.

Browse Through the Database

You can browse through the database to locate articles of interest. Selecting a discipline such as physical, chemical and behavioral sciences will reveal the subject categories related to that discipline (astronomy, chemistry, engineering, geography, mathematics, oceanography, etc.).

After selecting a subject area, the journals associated with that subject area are displayed. Selecting a journal provides access to basic information about the journal. Within the specific issue of a journal are the table of contents, and the contents data / abstract for each article in that issue.

You can also search for articles of interest. A search can identify journals which are in a broad area of interest, for example, environmental science. The search could be refined by searching for articles relating to taxation. The search could further be refined to a particular week of Current Contents data, or possibly to a specific author or authors. Thus it is possible to retrieve a very large set of articles, or to narrow it down to a very specific small set of

articles. Because of this, Current Contents can be tailored to a wide variety of needs.

Current Contents and Gopher

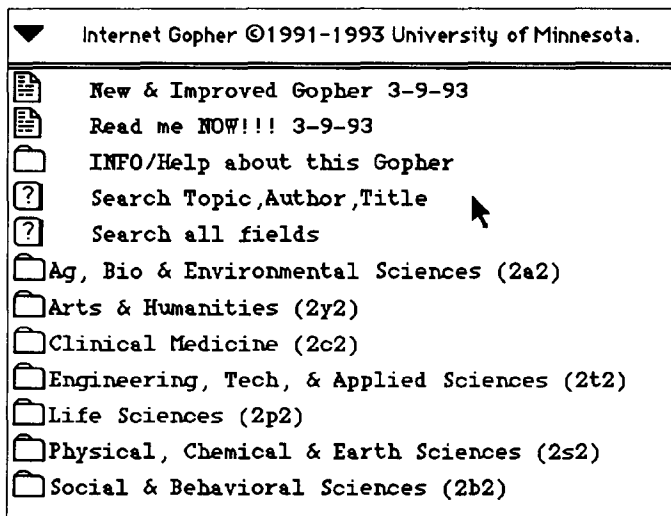
Current Contents is a joint project of the Integrated Information Center, University Libraries, and Computer and Information Services. It is a pilot project exploring the feasibility of using Gopher as the navigation and search tool for large databases such as Current Contents.

The data is prepared by the Institute for Scientific Information (ISI) and sent to us weekly on magnetic tape. Since the magnetic tape version of Current Contents does not have its own search software, the organization and search engine for Current Contents within Gopher was created by Computer and Information Services staff member Steve Barstad. The database appears as any other Gopher, with the same Gopher browsing and search capabilities. (See Figure 1.)

Access to Current Contents

The Current Contents contract requires that the database be limited to the University of Minnesota, Twin Cities campus. Access to Current Contents is thus available

Figure 1: Current Contents on Gopher in Library, Reference Works Sections



through gopher clients which can be identified as part of the University of Minnesota. Any PC, Macintosh, UNIX (NeXT, Sun, etc.) client connected to the University network has access. In addition, any terminal gopher client which requires a user id (such as staff.tc.umn.edu, student.tc.umn.edu, vx.cis.umn.edu, etc.) will permit access to Current Contents.

Note: Since the gopher client consultant.micro.umn.edu is accessible by users outside the University, our contract will not allow access to Current Contents from there.

To access Current Contents from gopher, select

*Libraries, then
Reference Works, then
Current Contents*

Getting More Information

A complete users guide is available within the Current Contents Gopher, in the *Information about this Gopher* section. It is also available by anonymous FTP from

NEXT1.ACS.UMN.EDU

Log in as *anonymous*. Use your E-mail address as your password. The information is in the *pub* directory.

CD pub

You can *get currcont* as a text (.txt) or as a WordPerfect (.wp) version. The WordPerfect version requires a binary transfer. Both versions are shown below.

GET currcont.wp
GET currcont.txt

Figure 2: Partial Results of Search All Fields for Ethobotany

```

a0212814
-----
Author:   Kainer K.A. , Duryea M.L.
Title:    Tapping Womens Knowledge - Plant Resource Use in Extractive Reserves, Acre,
          Brazil
Source:   Economic Botany, Vol.46_4 1992 Oct-Dec
Page(s):  408-425
Language: English
Topic Words:
amazon ethnobotany minor_forest_products resource_management
tropical_forest

Abstract:
Tapping into the vast pool of existing plant resource knowledge is
the first step toward developing production systems that successfully
balance ecological, economic, and cultural concerns in the newly
formed extractive reserves in Acre, Brazil. Field research targeting
extractive activities by women in the forest communities identified
the most common species used by women, and documented specific
information on the management, collection, and processing of these
plants. The women demonstrate refined botanical knowledge and plant
management skills, exploiting over 150 wild and domesticated species
in their communities. They possess particular proficiency in
processing plants, especially species used for food, spices,
beverages, and medicines. Women also display a great desire to enter
the market economy, and have begun to test potential market products
on a small scale. As such they can play a key role in production,
diversification, and development of economically valuable plant
products, and ultimately in the success of the extractive reserves.

Reprint available from:
Kainer K.A.
Univ Florida
Dept Forestry
Gainesville, FL 32611

-----
Week02
Week2
ECON_BOTAN
2a2
Oct92-Dec92
5de5
KAINER_KA, DURYEA_ML
1KAINKA1 1DURYML1
3EN3

```

Training

Current Contents workshops are presented by the Integrated Information Center (IIC). The schedule is available in the

INFO/HELP about this Gopher

section of Current Contents. For more information, or to register for a workshop, contact the Integrated Information Center by E-mail at

IIC@IIC.UMN.EDU

or by phone at 626-9818.

Get It On Gopher

▼ Gopher Setup Service



If your organization has information you'd like to make available to the outside world, but you don't have the people, time, or equipment to set up your own Gopher server, we can help. You can "rent space" on our server and have us do the setup and maintenance. This

service is available to departments, student organizations, and individuals, and our rates are affordable. For more information, read our announcement in the March 1993 newsletter or phone 625-2303.

You can search the Book Center's on-line inventory using the usual Gopher full-text options. This lets you look up information even when you don't know part numbers. For example, many people need to purchase a SCSI cable to connect some device to their computer. If you search Electronic Ordering for the word SCSI, you'll be presented with the list shown in Figure 1. Select an item from that list, such as P/N M0207, and you will get more information on that specific part. Figure 2 shows that SCSI cable P/N M0207 costs \$30, and it is in stock.

Book Center Orders

You can copy the *Order Form* you'll find on Gopher to fax or E-mail an order to the Book Center.

Once you place an electronic order, the Book Center will contact you with a confirmation of your order (and the order number), once your order has been received and processed. To expedite this process, be sure to fill out the order form completely and include your phone number, E-mail address, and/or FAX number.

▼ Use Gopher for 24-Hour Service



The Computer Desk in Williamson Hall now offers some services 24-hours a day - via Gopher and E-mail.

Microcomputer Prices

Anyone can search the Computer Desk's database. This database contains the inventory for the Computer Discount Program. Searching the database is an easy way to find out part numbers, prices, and availability. Since the Book Center will update the database once a day, the information is quite accurate.

To look something up, go to Gopher's

Computer Information

section and select

Microcomputer Prices

This section has a new offering called *Minnesota BookCenter Electronics Desk Electronic Ordering*. Inside this Electronic Ordering section you'll find an order form, instructions on filling out the form, and the discount program's eligibility requirements.

Figure 1: Results of Searching for "SCSI"

```

▼ Internet Gopher ©1991-1993 University of Minnesota.
-----
P/N : M0206 SCSI system cable, connects CPU to first SCSI peripheral, (18 in
P/N : M0207 SCSI peripheral interface cable (3 feet), connects any two SCSI
P/N : M2538LL/A Apple HDI-30 SCSI system cable connects any Mac Powerbook to
P/N : M0208 SCSI cable extender (3 feet). Vendor : Apple Computer
P/N : M0332LL/A SCSI terminator for external drives and scanners. The comput
P/N : M2539LL/A Apple HDI-30 SCSI disk adapter enables use of the Powerbook 1
P/N : M2688/A Apple hard disk 80SC, 80 MByte hard disk (requires SCSI system
P/N : B0634LL/A Apple OneScanner with Accessory Kit (HyperScan v2.0 and Ofoto
P/N : M2710LL/A Apple CD-ROM 300 -requires SCSI system or peripheral cable an
P/N : B0993LL/A Apple Color OneScanner, 75-1200 dpi, w/Accessory kit (includ
P/N : B1029LL/A Apple Color Printer w/Accessory kit -color ink jet printer,
    
```

Figure 2: Information on a Specific Part

```

This section is from the document '/providers/bookstore/inventory'.
-----
P/N : M0207
SCSI peripheral interface cable (3 feet), connects any two SCSI
peripherals together.
Vendor : Apple Computer Inc.
Availability : in stock
Price : $30
    
```

Payments

Departments must provide the usual CUFS (College and University Financial System) information. Payment for faculty, staff and student orders may be in cash, cashier's check, bank check, money order, VISA, or MasterCard. Students can write checks up to \$500. Faculty and staff can write a check for the full amount of purchase.

The name on any form of payment, such as a check, must be the purchaser's. The Computer Desk cannot accept payment from friends or relatives of the purchaser.

7% Tax

All individual orders must include 7% sales tax; keep this in mind when you get your cashier's check, bank check, or money order. University departments do not pay sales tax.

Deliveries

No-stop shopping is possible for some departments. The Book Center will deliver departmental orders to offices on the Twin Campus campuses. Delivery is free for orders over \$250; otherwise the delivery charge is \$20.

For departments outside the Twin Cities campuses, the Book Center can ship your order via UPS. UPS delivery is not free.

Software Services

▼ Statistical Help

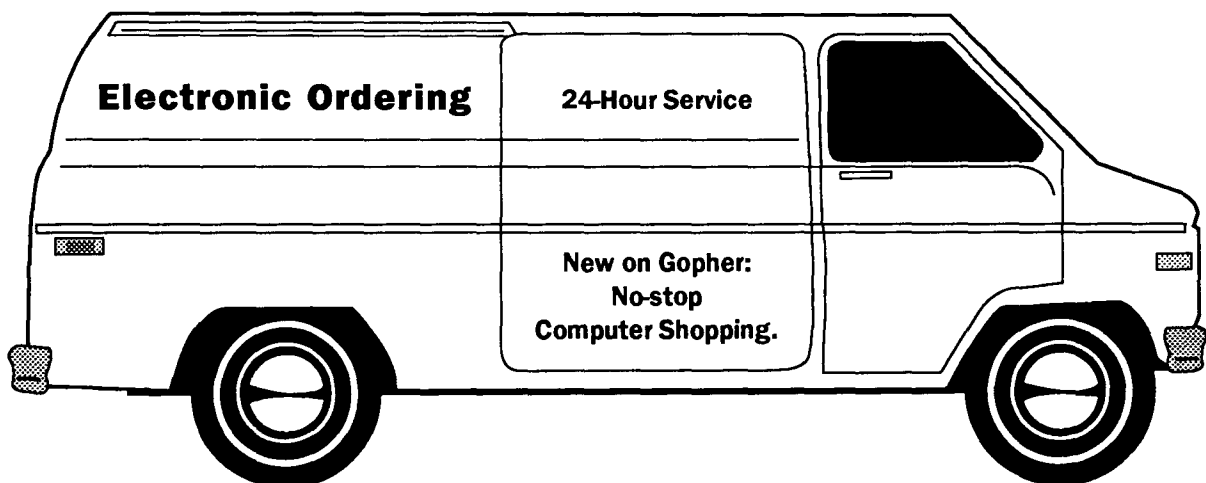


If you need help with projects involving statistical analysis, you may wish to consult with our Software Services statistics consultants. In addition to providing basic SPSS and SAS program setup, our contract consultants can help you solve a variety of statistical problems.

One common statistical area we handle is regression analysis. Regression analysis is sometimes used to develop equations from one sample of subjects and apply the derived coefficients (or weights) to the same set of predictors for other subjects in a different group to see if an outcome can be predicted.

For example, you might be interested in predicting whether or not a person is at high risk of having a stroke based upon a set of variables known to have a strong relationship to the event. Such variables might include weight, blood pressure, salt intake, etc. A typical well-known strategy is to collect data from a random sample of a population, develop a prediction equation, and then use the derived coefficients to assess whether a patient is at high risk.

While the methodology is straightforward, the mechanics of using various statistical packages are not always obvious. Applying the derived coefficients to one patient is easily accomplished by hand, but it becomes a laborious, repetitive process when performed manually for even 10 patients.



Our rates are among the lowest available for professional high-quality statistical consulting.

So, in order to use computers effectively in your analysis, you might ask questions such as:

- ▷ How do I select the most parsimonious model?
- ▷ Now that I've developed my model, how do I get the regression coefficients off the SPSS or SAS printout and apply them to new people of interest?
- ▷ How should I go about evaluating and refining my model?

These are the types of processes and questions our statistical group within Software Services can help you solve. Our statistical consultants have helped clients with a variety of projects. Some recent collaborations include:

- Analyzing results of clinical drug studies
- Investigating racial economic disparities
- Graphically presenting analysis of weed control for technical publication
- Reporting on a survey of small businesses for each county in Minnesota
- Analyzing survey data related to abuse in the workplace, legal gambling, and adolescent behavior

Reasonable Rates

Whether you are currently analyzing your data and need help, or are just beginning to contemplate a new direction for your research, please contact us about a free consultation. Our rates are among the lowest available for professional high-quality statistical consulting.

Call Us

You can reach us by calling:

Software Services at 625-2303
St. Paul Services at 624-0758

Central System News

▼ New PROOFreading Facility for VM/CMS



The IBM VM1 machine now has a new proofreading facility available; its called **PROOF**. It checks the words in a document or mail message for misspelled words; however, it can also help you to perform other proofreading tasks, like grammar checking. Here are some of the features of the new **PROOF** facility:

- Built-in thesaurus (provides synonyms).
- Highlights words that have possibly been used out of context.
- Highlights awkward or unnecessary phrases.
- Highlights words that are above a specified reading level.
- Can use special purpose dictionaries, such as medical and legal.
- Allows you to create personal, non-standard dictionaries.
- Proofreads documents in other languages.

Try PROOF from within CMS by typing

```
proof fileid
```

at the Ready; message, where *fileid* is the filename, filetype, and filemode of a document.

If you want to proofread the body of a mail message before you send it, or if you want to proofread a file while editing (within XEDIT), simply type

```
proof
```

on the command line (the '====>' line). The PROOF screen will highlight the misspelled words, and display a list of PF keys on the bottom of the screen. By default, typing in PROOF provides you with spell checking only; other functions are available by using an option (see the on-line HELP for more information). Once in PROOF, you can select a PROOF function by pressing the appropriate PF key:

- PF1 **Help**
displays help on PROOF.
- PF2 **Split**
splits current line at cursor location.

- PF3 **Aid**
gives suggestions for changing the spelling or context of the word or phrase located under the cursor position
- PF4 **Unlock**
unlocks the file so you can type like you are editing.
- PF5 **Newtop**
makes the line under the cursor the top line on the screen.
- PF6 **Synonym**
gives suggestions for synonyms of word under current cursor position.
- PF7 **Backward**
moves back in the file.
- PF8 **Forward**
moves forward in the file.
- PF9 **Addenda**
saves the 'misspelled' word to a personal dictionary.
- PF10 **Next**
gives next misspelled word, or odd context.
- PF11 **Previous**
moves to the previous word or phrase.
- PF12 **File**
saves the PROOFed file.

If you press PF3 and none of the suggested changes will work for you, simply press PF3 again to toggle you back. When you are finished, press PF12 to save your changes or type

```
quit
```

on the command line to cancel your changes.

More information is available by entering

```
help proof
```

or by calling the IBM Central Systems Help Line at 624-6235.

▼ Numeric Keypad Data Entry with EDT



Recently, someone asked me if there's a way to enter data using the numeric keypad in the VMS EDT editor. I said no, but it could be made to be done with some effort. Later, I talked to our VMS systems staff who helped me prepare the files needed to make the capability available. I'll call it the NUM LOCK feature because it's similar to the IBM PC NUM LOCK key.

EVE, not EDT, is the Preferred Editor

But first a digression. The VMS systems staff pointed out that EVE is now the preferred editor on VMS. It already has a command, SET KEYPAD NUMERIC, for using the keypad to enter numeric data. However, the user wanted to stay with EDT so I went ahead anyway.

VT100 and Friends

Keep in mind that keypad data entry is intended for VT100 terminals or their emulators (plus other DEC terminals in the VT200, VT300 and VT400 line).

The PC communications program PROCOMM is an exception. It uses the keypad for cursor control, and maps the keypad to function keys in a way that makes it difficult for data entry. Fortunately, most other communications programs like Kermit, Tincan, and NCSA Telnet work fine or can be made to work okay.

Using NUM LOCK

To use the NUM LOCK feature, you need to type a command once at the beginning of an interactive session:

```
$ DEFINE EDTSYS C:\$UTIL:EDTINI.EDT2
```

(This command tells EDT to use the file EDTINI.EDT2 as its startup file. You could also put the command in your LOGIN.COM file.) Then, start up EDT in the usual way. It will give you a message "0 lines moved" and it puts you directly into screen editing mode, as if you'd entered the C (or CHANGE) command.

To select the keypad for data entry, enter

```
GOLD N
```

(PF1 followed by N). This is like the NUM LOCK key on the IBM PC, but there is no light to tell you that it's on. If

you need to use the keypad for traditional screen editing, enter

GOLD M

(PF1 followed by M). You can switch back and forth as needed.

The NUM LOCK feature allows you to enter digits from the keypad.

NUM LOCK Key What it does

<input type="checkbox"/> (period)	enters a period
ENTER	enters a new line (like the <input type="checkbox"/> key)
<input type="checkbox"/> (comma)	enters a + (plus) sign
<input type="checkbox"/> (hyphen)	enters a - (minus) sign
PF4	deletes the character to the left of the cursor (like the <input type="checkbox"/> key)
PF2 and PF3	remain the same, HELP and SEARCH

Denouement

After I built this NUM LOCK feature, I wanted to see whether people would like it. I asked one of our staff members to try it out. As I explained what it does, he showed me his method. He uses EDT mostly in line mode rather than screen mode. When he types I (for INSERT) in line mode, he can use the keypad for data entry. (To terminate insert mode, use .) However, he can only delete characters in the current line, and he needs to use the key off the keypad. My NUM LOCK has a key on the keypad and has a plus sign key there, too. The arrow keys can be used to move within and between lines. The effort to switch between modes is about the same. He can use C (or CHANGE) to switch to screen mode or to switch to line mode. I use GOLD N to switch to NUM LOCK, and GOLD M to switch back to full screen editing.

Moral

So what's the lesson here? You have to ask the right question at the right time. Otherwise you may work hard to get a nearly equivalent answer. But now you and I know how to enter data with the keypad in EDT in either line mode or screen mode. If you have further questions, please contact me by phone or E-mail.

— Mike Frisch 625-5830, mjfrisch@vx.cis.umn.edu

UNIX and our Kodak Printer

Attention All UNIX Users



When you print a file from our UNIX system, staff.tc.umn.edu, or from other networked UNIX systems at the University, you can use the special capabilities of our Kodak CENTRAL printer. Depending on which printer capabilities you want to use, you must add an

`@document`

line to the beginning of your PostScript file or add certain parameters to your `lpr` command.

In this article we'll explain using basic commands for stapling your printed output and using two different kinds of paper in a single print job. For further information about the UNIX `lpr` command or information about creating PostScript files, see the appropriate on-line document:

```
man lpr
man enscript
```

Stapling Your Printed Output

When you want to staple an entire job, just add the `st=` parameter to the `lpr` command. If you need to staple parts of your file, add additional information to your file instead.

In this example, assume your output file is a book containing chapters. You want to define the page numbers for these chapters and staple each chapter separately. To do this, you'll add an `@document` command to the beginning of your file that contains the following options:

```
chaptersaresets on
```

This instructs the system to apply any selected options to chapters rather than to the entire file.

```
staples front
```

When your file is printed in portrait mode on one side of the page, this command will put one staple in the upper left corner of each set.

```
staples back
```

If your output is in landscape mode, use `staples back` to staple in the upper left corner.

staples both

To put two staples along the left edge of portrait documents or the top edge of landscape documents, use *staples both*.

chapters (2 4 6 9 12)

The page numbers are the last page of each chapter or section. In this example, your file is 12 pages long and the command creates five stapled sets — pages 1-2, 3-4, 5-6, 7-9, 10-12.

We will also add the option *language ultrascript*, which gives us some useful flexibility in adding these commands to the file.

In our example, then, we'll print a PostScript file that is 100 pages long, and we'll print it on white unpunched paper as portrait one-sided output.

Now let's assemble the command to staple sections within a separate file.

As you may know, when you convert the file to PostScript, the first two characters of a standard PostScript output file will be

```
%!
```

The next step is to add some printer-specific information to the front of the file, before the `%!`. Using a text editor, create a simple text file that contains the `@document` command shown in Figure 1.

Then concatenate this text file with our PostScript file, so the `@document` string is appended before the `%!` of the PostScript file.

Finally, send the modified file to the printer *central*, specifying simplex printing on white paper without three-hole punching. The UNIX `lpr` command would be:

```
lpr -Pcentral -Csite.bin:np,s filename
```

Stapling Limitations

There are a few limitations that you should remember about stapling: the maximum number of sheets we can staple is 50. If you define a logical set with the *chapters* command that is greater than 50 pages, that set will not be stapled. Any sets before or after the non-stapled set will be stapled as you requested.

If you have a logical set of only one page, the printer will not staple the page, but the rest of the job will run correctly.

Combining Paper in a Single Job

Using different kinds of paper in a single job is quite simple if you don't need other finishing options, like staples or covers. In the examples that follow, you'll use one kind of paper for most of your job — this is called your *body paper*. At intervals you want to insert and print on a different kind of paper, called your *insert paper*. In a separate text file, create an `@document` command with the following parameters:

```
slip (2 4 6 8 12 13)
      where the page numbers indicate the pages that
      will be printed on the insert paper.
```

```
lowerpaper (type size weight)
      where the type, size and weight are numeric codes
      defined by Kodak. (We will provide you with this
      information.) This is your body paper.
```

```
upperpaper (type size weight)
      where the type, size and weight are numeric codes
      defined by Kodak. (We will provide you with this
      information.) This is your insert paper.
```

Comment Messages

You may also want to add

```
comment "Please add special paper in upper tray"
```

This comment message is displayed for the operator when the job starts to print. Comment messages are also useful to specify paper types that are not predefined. The maximum length of the comment is 80 characters.

Figure 1: `@document` command

```
@document (language Ultrascript, chaptersaresets on, staples front, chapters (2 4 6 9 12))
```


Letterhead and Bond Example

In the following example, our file uses letterhead paper and cotton bond paper, and the letterhead is the first page of each logical letter. There are 25 pages in the file and the logical letters can be 2-5 pages in length. The letterhead will be the insert paper.

To make this happen, create the `@document` command shown in Figure 2 in a text file. Then concatenate the two files so the `@document` command is before the `%!` of the PostScript file.

The page numbers indicated in the `slip` parameter indicate the placement of the letterhead paper, which is standard 8.5 by 11 inch, twenty-pound paper. The operator will receive a message, defined in the comment, before the job starts. The `lpr` command you use will be:

```
lpr -Pcentral -Csite.bin:s filename
```

You could use `pageduplex off` in the `@document` command instead of the "s" in `lpr`. If you put any paper parameters, such as `np` or `pt=` in the `lpr` command, they will be overridden by the (lowerpaper) parameter in the `@document` command.

Stapling and Two Kinds of Paper

In the final example, we'll combine stapling and using two kinds of paper. We'll print a large duplex PostScript file containing a number of chapters or sections. The first page of each section will be printed on a different paper and will be printed on the front of the insert paper. Each section will be stapled. Use the `@document` command from the earlier section on stapling, but add the following parameter:

`covers front`

This command specifies that the first page of each chapter will be printed on alternate paper stock as defined by the `upperpaper` command.

Your entire command, when concatenated with your PostScript file, will look like Figure 3.

At this time the Kodak can only print covers in simplex mode (that is, on one side of the cover page). So if your print job request is for duplex printing, the covers will nonetheless print simplex, and the rest of the set will print duplex.

For More Information: 626-1661

Talk to Peter Bartz (at 626-1661) for information about available paper sizes, weights, and types (including colors) and the corresponding numeric codes.

Print Samples Available

You can also request a print sample from our Kodak printer. Samples are available at all our computer help lines or by calling 626-1661.

What About VMS and Other Systems?

We're working on new software that will make it easier to access the Kodak's capabilities from our VMS systems, and we will develop software for other systems. A future article will have more information on printing from other computer systems.

Figure 2: @document Command for Letterhead and Bond

```
@document (lowerpaper (01 02 02), upperpaper (08 02 02), slip (1 3 5 9 11 13 17 23)
comment "Pls put dept letter in upper tray and bond in lower")
```

Figure 3: The Entire Command

```
@document (chaptersaresets on, pageoffsetting off, staples front, covers front, chapters
(2 4 6 9 12), (lowerpaper (01 02 02), upperpaper (08 02 02), slip (1 3 5 9 11 13 17 23)
comment "Pls put dept letter in upper tray and bond in lower")
%!
{the rest of your PostScript file follows here}
```

Bargains

▼ New Site Licenses



We have new information about discounts for four software products. These discounts are available to University of Minnesota departments but not to individual employees or students. Three of the products are for those who use UNIX systems: Motif 1.2, Transcript, and S-PLUS. The Mathematica site license is available for all computers that run Mathematica.

Motif 1.2

We have source code for Motif 1.2 available for UNIX-based systems. There is no charge for this software.

For HP-UX 8.05 and OSF/1 1.0.3

This release contains full sources and documentation for OSF/Motif™, revision 1.2. This release builds and runs on the two OSF/Motif reference machines, the Hewlett-Packard 9000/700 running HP-UX 8.05 and the DECstation 3100 running OSF/1 1.0.3. Version 1.2 includes new features and documentation as well as code corrections and bug fixes that have been made since Motif™ 1.1.

Transcript 4.0

The source code for Transcript 4.0 is available for UNIX-based systems. There is no charge for this software.

Transcript is a product that allows you to print to Post-Script printers and plotters.

S-PLUS

S-PLUS is a statistical system that runs on a variety of UNIX-based computers. It emphasizes data analysis and graphics. Using the S language, you can look at data, produce a wide range of plots, and perform mathematical computations. Quick feedback from S enables you to learn and understand. Easy-to-use facilities allow you to organize, store, and retrieve all sorts of data.

Besides providing interactive data analysis, S is an advanced general programming environment. S functions and data organization make applications easy to write. Interfaces to the UNIX system commands and to code written in C or FORTRAN add to the power of S.

Site License Fees

The University offers server licenses to departments for \$850 per server. This single license will allow an entire department to make unlimited use of the product. The requirements are that the software may only be used by the individual department and that you must purchase at least one copy of the documentation from StatSci, the software vendor. Annual maintenance fees will be \$550 or less, depending on the number of departments that purchase licenses.

Mathematica

The University's Mathematica discount is available for all available computer platforms. Mathematica is a general software system for mathematical and other applications. It handles numerical, symbolic, and graphical computations, and has a built-in programming language.

You can use Mathematica as

- A numerical and symbolic calculator where you type in questions and Mathematica prints out answers.
- A visualization and sound generation system for functions and data.
- A high level programming language in which you can create programs, large and small.
- A modeling and data analysis environment.
- A system for representing knowledge in mathematical and technical fields.
- A control language for external programs and processes.
- A high-level shell for file, text and data manipulation.
- A way to create interactive documents that mix text and animated graphics with active formulas.

At press time we did not have pricing for Mathematica on the various computer platforms.

Obtaining the Software

Our department office in Room 190 Shepherd Labs, phone 625-1300, handles most of the site licenses we administer. Contact our Shepherd Labs office for a contract for Mathematica and S-PLUS.

To obtain the source code for Motif 1.2 and Transcript, contact Phil Kachelmyer at phone 625-6821 or by E-mail at phk@boombox.micro.umn.edu.



▼ SPSS for Windows V5.0



In our January 1992 newsletter we announced that we have a site license for SPSS for Windows 5.0. The SPSS discount is available only to those who can pay for the package with a University budget number; that is, the software is not available to individual students, faculty, or staff. More detailed licensing information is available in the January article.

This article describes some of the features of SPSS for Windows.

Overview

SPSS for Windows 5.0 uses the same commands as the Central Systems version of SPSS. This is an exceptionally easy-to-use, full featured statistical analysis package. It is a full implementation of the Central Systems' version and can be run from a menu system, a syntax window, or in batch mode. The software also possesses excellent graphics capabilities.

SPSS for Windows comes as a Base module. Two optional modules, Professional Statistics and Advanced Statistics, must be purchased separately. When installed, statistics commands from the Professional and Advanced modules are added to the Base menus.

System Requirements

The minimum requirements for running SPSS for Windows are

- A 286 processor (386 or higher is recommended)
- 4MB of RAM (8MB or more is recommended)
- Windows 3.0 or higher
- IBM/MS-DOS 3.0 or higher
- 25MB of free hard disk space
- An EGA, VGA, or Hercules video card

Currently licensed SPSS/PC+ users may exchange their diskettes for SPSS for Windows diskettes at no cost.

Basic Capabilities

This package is primarily menu driven, although you can open a syntax window. You can run SPSS from this syntax window if you wish to use the old SPSS commands. The help menus are very good and easy-to-use as well. Data can be entered into a spreadsheet or read from external

files. The Base system manuals are for novice and seasoned SPSS users.

The amount of data you can use depends on the RAM present on your system. There are no set limits to the number of variables or numbers of cases in your data sets. You must determine whether the data set is too large to complete statistical runs in a reasonable amount of time.

Data can be imported from or exported to several formats, including Lotus 1-2-3, Excel, dBase, Oracle, and SQL. Standard character data can be handled in free or fixed formats, so data is easily transferable between packages.

SPSS for Windows has an excellent selection of mathematical, statistical, and logical transformations which are easy to access. However, if you run COMPUTE statements from the syntax window, the values will not appear in the data spreadsheet until after you run a statistical procedure.

Graphics are excellent. Three-dimensional plots and spin-plots are available, although the spin-plots spin quite slowly. Plots can use color and can be edited for presentation quality graphics.

Statistics

If you purchase all three modules, SPSS for Windows is a full service statistics package. The Professional Statistics module contains the following procedures: Alscal, Factor, Reliability, Cluster, Proximities, Discriminant, and Quick Cluster.

Advanced Statistics contains: Loglinear, Matrix, Survival, Hiloglinear, Nonlinear, Manova, Probit and two new procedures, Kaplan-Meier survival analysis and Cox Regression.

Those familiar with SPSS/PC+ and SPSS for the Macintosh will note that the procedures in the Professional Statistics module are spread between the Base and Advanced Statistics modules in the PC+ and Mac versions which don't have a professional statistics module.

Manuals

Manuals are special orders, and you must purchase them separately at the Minnesota Book Center, in Williamson Hall. Manuals for the Base system cost \$33, and manuals for the Professional Statistics and the Advanced Statistics modules cost \$25 each.

Book Center News: 625-3854



The offers listed here are made to University departments, employees, and students, and are subject to the eligibility rules of the Computer Discount Program. The Computer Desk in Williamson Hall is open Monday–Friday from 8:30 am to 5:30 pm during the Fall, Winter, and Spring quarters. For more complete descriptions of the products listed here or of those available through the discount program, consult our handouts. Paper handouts are available at all Microcomputer HelpLines. Electronic versions are available on Gopher.

▼ *New* – 24-Hours-A-Day Service

Read about our new Gopher ordering and inventory look-up options on page 247.

▼ Sign Up for E-mail Notification

You can get product and price change bulletins for the products sold through the Computer Desk via E-mail. To be added to the mailing list, E-mail a request to:

`request@boombbox.micro.umn.edu`

Once you are on the mailing list, you will receive notification via E-mail as soon as we have new prices or products.

▼ *New* – ZEOS Contenda Notebook

ZEOS added a new product to its line: the Contenda. The Contenda is a 3.9 pound 80386SL notebook that runs at 25MHz. It comes with an 80MB hard disk but no floppy drive, although you can plug in an external floppy drive. The Contenda's keyboard has a built-in trackball as well as 80-keys and an embedded numeric keypad. You can expand its memory to a maximum of 10MB. Its other fixed features are:

- Video: 640 x 480 VGA backlit LCD display; supports 64 shades of gray; .23 dot pitch; Sharp 7.4-inch diagonal; supports simultaneous co-display with an external VGA monitor.
- Power Supply: up to 4 hours of battery power; plus a full range AC-DC Adapter – AC110-240V to DC; the NiMH (Nickel Metal Hydride) battery is removable and rechargeable; quick charge in two hours.
- I/O ports, one each: serial, parallel, keyboard, external video, external floppy drive, internal fax/modem.

Table 1, ZEOS Contenda

Part	Memory (MB)	Hard Disk (MB)	Price
Pkg 1	2	80	\$ 1420.25
Pkg 3	4	80	1895.25
— #3's price includes MS-DOS 5.0, Windows 3.1, Lotus Organizer, an extra battery, a nylon carrying case, and an internal 2400 bps Data Modem (with 9600 bps send FAX and 4800 bps receive FAX capability)			

Selected Options

	Price
• VGA Color Monitor <i>with Notebook purchase</i>	\$ 379.05
• External 3.5" Floppy Drive (proprietary port)	94.05
• Extra Battery	94.05
• DC-DC (Car) Adapter	46.55

▼ *New* – HP DeskJet Portable

Hewlett-Packard's DeskJet Portable Printer is a thermal transfer inkjet that prints at 300 dots per inch – and uses plain paper. The Computer Desk's discount price is \$350.

The DeskJet Portable prints at 167 cps in letter quality mode (about 2 ppm) and 240 cps in draft mode (about 3 ppm). The printer comes with a parallel interface, a power module and cable, as well as Courier, CG Times, Letter Gothic, and Univers fonts. This 7.5 pound (with sheet feeder) printer is available for test drives in the Microcomputer HelpLine in Shepherd Labs.

\$75 Rebate: March 3, 1993 to June 30, 1993

If you buy a DeskJet Portable and one of these accessories, HP will give you a \$75 rebate:

- C3004A Worldwide Rapid Recharger for \$75
- C3050A Carrying Case for \$75
- C3003A Rechargeable Battery for \$37
- C3005A 50-sheet Cut-sheet Feeder for \$75

We recommend the cut-sheet feeder; without it we found it difficult to feed the paper in straight. When you pick up a portable, you can also pick up a rebate certificate at the Computer Desk. You must mail the form to HP and include your proofs of purchase.

▼ DeskWriter, DeskWriter C Rebate

Note — *this offer expires April 30, 1993*

HP's DeskWriter series is packaged specifically for the Macintosh. If you purchase a DeskWriter (2279AT) or DeskWriter C (C2113A) between October 1, 1992 and

April 30, 1993, you can get a \$50 rebate from Hewlett-Packard. The Computer Desk's discount prices are: \$340 for the DeskWriter and \$575 for the DeskWriter C.

When you pick up an eligible DeskWriter, you can also pick up a rebate form at the Computer Desk. You must mail the form to HP and include your proofs of purchase.

▼ **Recent Price and Product Changes**

ZEOS decreased the prices for its Freestyle/SL Notebook. IBM discontinued the Model 57SLC and dropped prices on their PS/2 and ValuePoint lines. IBM also dropped the price for their Model 300 Notebook.

Table 2, Selected Price Changes

Part	Memory (MB)	Hard Disk (MB)	New Price
ZEOS Freestyle/SL Notebook			
Pkg 1	2	60	\$ 1610.25
Pkg 2	6	120	2085.25
Pkg 3	10	180	2560.25
IBM PS/2s			
50MHz 56 486SLC2 and 57 486SLC2			
9556-0B6	8	104	\$ 1655
9557-0BA	8	212	1980
33MHz 76 486 and 77 486			
9576-0U6	8	104	\$ 1950
9577-0UF	8	400	2710
66MHz 77 486DX2			
9577-0NA	8	212	\$ 2710
9577-0NF	8	400	3145
Model 300 Notebook			
2615-065	4	80	\$ 1710
2615-067	4	120	1879
IBM PS/ValuePoint Systems			
325T #6384-XXX			
-C20	2	80	\$ 810
-C40	2	170	970
425SX #6384-XXX			
-F20	8	120	\$ 1090
-F23	4	120	970
-F40	8	170	1250
-F43	4	170	1130
433DX #6384-XXX			
-M40	8	120	\$ 1470
-M43	4	120	1360
-M50	8	212	1635
433DX2 #6384-XXX			
-W52	8	212	\$ 2070
-W53	4	212	1950
SVGA Color Monitors			
6312, 14-inch			\$ 370
6319, 15-inch			520

BITNET: Acceptable Use Policies

In our May 1992 newsletter we published the *Acceptable Uses of NSF Backbone Services*. Here are the policies that state how you can be a responsible user of BITNET services. Everyone who subscribes to or "owns" a LISTSERV should be aware of these policies.

BITNET and CREN

(Corporation for Research and Educational Networking)

CREN networks are for the use of persons legitimately affiliated with CREN Member or Affiliate organizations, to facilitate the exchange of information consistent with the academic, educational and research purposes of its members. All individuals affiliated with CREN Member or Affiliate organizations are responsible for seeing that their communities are aware of these guidelines, and that the guidelines are followed, both in letter and in spirit.

CREN networks are, at the discretion of the institutions involved, open to use by students enrolled at participating CREN Member or Affiliate educational institutions.

Use of CREN networks shall:

- Be consistent with the purposes and goals of the networks
- Avoid interfering with the work of other users of the networks
- Avoid disrupting the network host systems (nodes)
- Avoid disrupting network services

Acceptable Use of the Networks

The following examples may help users of the networks apply these principles in particular cases.

- Messages that are likely to result in the loss of recipients' work or systems are prohibited.
- CREN networks are not to be used for commercial purposes, such as marketing, reselling bandwidth, or business transactions between commercial organizations.
- Advertising is forbidden. Discussion of a product's relative advantages and disadvantages by users of the product is encouraged. Vendors may respond to questions about their products as long as the responses are not in the nature of advertising.
- CREN networks may be used for the provision of services which support the needs and purposes of the CREN networks, and for which a charge is made, if the network is an optional mechanism for provision of this service for which no additional charge is made, and as long as the use of the service is consistent with the bandwidth of the network and the forwarding hosts. Providers of such information may be non-profit or for-profit organizations.
- Any communication which violates applicable laws and regulations is not allowed.*

Users of CREN networks are expected to be responsible in their use:

- "Chain letters," "broadcasting" messages to lists or individuals, and other types of use which would cause congestion of the networks or otherwise interfere with the work of others are not allowed.
- Users are requested to minimize the transmission of large files in order not to degrade network performance. Files up to 1 MB should be able to traverse most of the network.**

CREN Members or Affiliates are expected to take reasonable measures (given the constraints of technology and management) to ensure that traffic using gateways between CREN networks and other networks conforms to these guidelines.

Final authority for CREN acceptable use policies lies with the CREN Board. It is the responsibility of member representatives to contact the CREN Board, in writing, regarding questions of interpretation. Until such issues are resolved, questionable use should be considered "not acceptable."

- * In particular, messages and data sent to destinations outside the US must satisfy the Department of Commerce regulations (either be within the GTDA guidelines for information which may be generally transmitted or have the required license).
- ** See the file BITNET FILESIZE on LISTSERV@BITNIC for CREN guidelines on file size and handling.

1/1/93 LISTSERV@BITNIC CREN NET_USE

And Books, Too



If you cannot find the computer books you want in the Book Center's Reference section, tell us what books you want to buy. Send specific titles or areas of interest to: Maureen O'Brien, 160 Williamson Hall, Minnesota Book Center, 231 Pillsbury Drive SE, Minneapolis, MN 55455.

▼ Here Is What's New

The prices listed here are suggested retail prices. The amount you actually pay will be less because you will receive a 10% discount at the cash register.

- ✓ *Internet: Getting Started* by Marine, a Prentis Hall publication for \$28.
- ✓ *Internet: Mailing Lists* by Hardie (editor), a Prentis Hall publication for \$26.
- ✓ *Mastering Paradox for Windows, Special Edition* by Simpson, a Sybex publication for \$29.95.
- ✓ *A Quick Reference Guide to Lotus 1-2-3, Version 2.4 for the IBM* by Blanc, a DDC publication for \$8.95.

Free Information and Training

Surf the Internet with E-mail and Gopher

In the Fall of 1992 Computer and Information Services began providing free E-mail accounts to all University Twin Cities' faculty, staff, and students registered in a degree program. We are also providing the training and support for nearly 80,000 people.

E-mail Short Courses

Our classes explain what E-mail is, how it works on the Internet, and how to access E-mail using different computers, configurations, and software. Our Spring Quarter E-mail training schedule is listed here.

Our Spring *Short Course Bulletin*, mailed in March, lists other Internet-related courses. Electronic copies of the bulletin are available on Gopher in the *Computer Information* section.

Spring Training

Place & Time	Dates
East Bank	
2-620 Moos Tower	April 7
Wednesdays	14
2-3:30 pm	21
	28
	May 5
	12
	19
	26
West Bank	
130 Blegen Hall	April 9
Fridays	May 7
2-3:30 pm	June 4
St. Paul	
110 Green Hall	April 20
Tuesdays	May 18
3-4:30 pm	June 1

Help: Computer and Information Services

▷ Distributed Services and Planning

Phone

Help Line Hours

Computer Services Information

625-1555

anytime

If you do not know which computer service number to call, dial the Computer Services Information Line.

Central Systems

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

Qualified users can apply for grants to cover some computing-related costs.

- EPX (UNIX), NVE (NOS/VE), UZ (Ultrix), VX and VZ (VMS) 626-5592 Monday-Friday 9 am to 4 pm
1 Nicholson Hall Walk-in Consulting Monday-Friday 10 am to 4 pm
- VM1 (IBM/CMS), 99B Coffey Hall Walk-in Consulting 624-6235 Monday-Friday 9 am to 4 pm
- MEDLINE (MinnesotaMEDLINE on NVE) 626-8366 Monday-Friday 9 am to 4 pm

Microcomputers and Workstations

Software, hardware, peripherals, local area networks 626-4276 Monday-Friday 9 am to 4 pm

- East Bank 152 Shepherd Labs above above
- West Bank 93 Blegen above Tue. and Fri. 1-4, Thur. 9-noon
- St. Paul 99B Coffey Hall above Mon. and Fri. 9-12, Wed. 1-4 pm

E-mail, Statistics, and LUMINA

- E-mail: call for help using your University account 626-7676 Monday-Friday 9 am to 10 pm
Walk-in help available in most campus Public Computer Facilities.
- Statistics: Microcomputer and Central Systems 626-5592 Monday-Friday 9 am to 4 pm
- LUMINA: call if you have trouble connecting 626-2272 Monday-Friday 9 am to 4 pm

General Information

Acting Associate Provost with Special Responsibility for Computing & Information Systems on the Twin Cities Campus

Donald R. Riley 626-9816

Computer and Information Services

Distributed Services and Planning Shih-Pau Yen
Engineering Services Don Clark
Networking Services Lawrence Liddiard
Software Services and Operations Lee Croatt
St. Paul Services Mel Sauve
Central System Accounts, IBM CMS 624-7788
EPX, NVE (includes MEDLINE), UZ, VX, VZ 6-8366
Disability and Computing Services, voice 6-0365
TDD 6-0569
Equipment Repair and Warranties (Engr. Serv.) 5-1595
Faculty Resource Center (to make an appointment) ... 5-1300
Kodak Printer Service 6-1661
Network Addresses (130 Lind Hall) 5-8888
Public Computer Facilities (obtaining access) 5-1300
Software Services (includes contract programming) .. 5-2303
Data Entry, Minneapolis 6-8351
Data Entry, St. Paul 4-7297
Gopher Setup 5-2303
Statistics 5-2303 or 4-0758
Tape Librarians (Central Systems)
EPX, NVE, UZ, VX, VZ (Lauderdale Comp. Facility) .. 6-1838
VM1 (IBM/CMS in St. Paul) 4-3482
Training, Course Registration (190 ShepLab) 5-1300



Other Departments

Computer Desk, Williamson Hall Book Center 625-3854
(also Gopher's Microcomputer Prices/Electronic Ordering)
AIS (Admin. Info. Services) Customer Assistance 4-0555
Supercomputer Center Help (3030 SCC) 6-0808
Telecommunications, Networking Services
Information 6-7800
Repair 5-0006

Access Information


SLIP: 2400/9600 626-1920

SLIP: ADI-100 & ITE (with MKO) 3-0291

-  Terminal settings for these systems are 8-1-N (8 data bits, 1 stop bit, no parity) unless otherwise noted. The number you dial may depend on the modem's bps or baud rate.
-  Dial-in Server: 626-0300, -1200, 2400, -9600
- At 9600 Telecomm supports V.32 and MNP level 5 error correction.
- On campus ADI-100 and ITE setups use 626-2400.

 Internet addresses.


LUMINA: 300/1200/2400 625-6009 

LUMINA.LIB.UMN.EDU 

E-mail & Internet, Twin Cities (...TC.UMN.EDU)


Interactive, Students GOLD.TC.UMN.EDU 

Interactive, Faculty/Staff MAROON.TC.UMN.EDU 

SLIP/POPmail... .. STAFF.TC... & STUDENT.TC... 

Gopher (log in as gopher)

300, 1200, 2400, 9600 see *Dial-in Server* 

CONSULTANT.MICRO.UMN.EDU 


Consulting via E-mail: *low priority Central System ques*


Format CONSULT@MACHINE.NAME.UMN.EDU


Example CONSULT@EXP.CIS.UMN.EDU 

PUBINFO (tn3270 only) PUBINFO.AIS.UMN.EDU 

EPX, NVE (includes MEDLINE), UZ, VX, VZ

300, 1200, 2400, 9600 see *Dial-in Server* 


300/1200/2400 at 7-1-even 626-1630 


EPX or UZ or VX or VZ or NVE.CIS.UMN.EDU 


EPX, NVE (includes MEDLINE)

up to 19.2 campus data phone 6-2400 

VM1 (IBM/CMS) at 7-1-even

1200/2400 624-4220 

up to 19.2 campus data phone 4-4220 

VM1.SPCS.UMN.EDU 

Please be legible. Help us keep our costs down by using a campus mailing address whenever possible. Thanks.

Newsletter Subscription Request

Add

Cancel

Change

Name _____

If University of Minnesota Twin Cities Campus Mail:

Do not use your office address; Campus Mail only delivers bulk-mailed items with department addresses.

Department _____

Building _____

Room _____

If U. S. Postal Service:

Address _____

City _____

State _____

Zip _____

University of Minnesota Affiliation. Please check one box.

Department

Faculty

Staff

Student

Alumni

Other

E-mail and FAX Options: You can also send us your subscription requests by fax or E-mail. Fax a subscription request "coupon" to 612/625-6817 or E-mail your request to this internet address: newsletter-subscription@boombox.micro.umn.edu

Computer and Information Services

The University of Minnesota is committed to the policy that all persons should have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

© 1993 University of Minnesota

Permission granted to copy for non-commercial purposes, provided we receive acknowledgment and a copy of the document in which our material appears. Text only copies are available electronically on the *Computer Consultant (gopher)*. This issue was produced 4/2/'93 using a Mac, a LaserWriter, and PageMaker. It was printed by the University Printing Department.

Limited Free Subscriptions

This newsletter is an information resource for the University. Subscriptions are free but are mailed only within the U.S. Funds are provided by the Minnesota Book Center, which does not represent any manufacturer, distributor, or retail outlet and is not responsible for any error or change in price, description, or availability with respect to any product or service.

Free E-mail Services (also see *Book Center News*)

- We receive notices of software and hardware fixes, seminars, helpful hints, and various computer related items from many sources. This information may be of immediate importance or interest to the University community. To make this information available in a timely manner, we periodically send out E-mail "news" bulletins. To subscribe to this service, send E-mail to: news-request@boombox.micro.umn.edu
- POPmail users can receive notices about updates and upgrades by sending E-mail to: popmail-news-request@boombox.micro.umn.edu

Computer and Information Services Newsletter

University of Minnesota
Room 190, Shepherd Labs
100 Union Street SE
Minneapolis, MN 55455-0421

Nonprofit Organization
U.S. Postage
PAID
Minneapolis, MN
Permit No. 155

University Archives

10

WaLib

Published Monthly By

Computer and Information Services

Distributed Services and Planning

Managing Editor, M. Kelleher [mary@boombox.micro.umn.edu]