SPCS Newsletter

January 1988

St. Paul Computing Services   University of Minnesota

CONTENTS

ELECTRONIC COMMUNICATION

In last quarter's newsletter, we presented a new Electronic Communication system. Below is a brief review of its capabilities and some shor cuts for accessing the system.

What Electronic Communication offers

- Electronic mail - corresponding instantaneously with colleagues worldwide
- Bulletin Boards - information available for public access or for access by your own private group
- Conferencing - private access by a group for an ongoing discussion
- File transfer - transfer between the micro computer (IBM PC or Macintosh) and the mainframe (for central printing or for electronic communication)
- Electronic schedules or calendars - publicly or privately available schedules useful in scheduling meetings, etc.

- Online Directories - lists of electronic and conventional addresses for the public or for a private group

Want to type in a command?

The new system is completely menu driven; to gain access to the full-screen menu, enter:

    project-group

Certain functions from the system may also be accessed outside of the menu by one-line commands.

From CMS (the R; prompt), you may enter any of the following commands to perform the specific function.

To display the FILE TRANSFER screen (to copy files from the mainframe to the microcomputer or vice versa), enter:

    filetran

To display a menu of the bulletin board groups that you belong to, or to display the group screen directly, enter one of the following:

    bb-group <bulletin-board-name

    or

    confer-group <bulletin-board-name

The < (less than symbol) indicates that the parameter is optional. If you enter the command with no parameters (e.g., no bulletin-board-name), you will be brought into a menu of the bulletin boards that you belong to.

To display a menu of the directories for the groups that you belong to, or to display the group screen directly, enter the following:

    dir-group <directory-name <search-string

The < (less than symbol) indicates that the parameter is optional. If you enter the command with no parameters (e.g., no directory-name), you will be brought into a menu of the directories that you belong to. You must specify a directory-name, if you specify a search string.

Where can you learn more about this system?

SPCS has prepared a guide entitled "SPCS Electronic Communication User's Guide", available for $3.00 from the Main Office (50 Coffey Hall). There is also a free handout entitled "SPCS Electronic Communication Quick Reference" available from the Main Office and from the Help Desk area (90 Coffey Hall).

A GUIDE TO THE ETHICAL AND LEGAL USE OF SOFTWARE FOR MEMBERS OF THE ACADEMIC COMMUNITY*

Software enables us to accomplish many different tasks with computers. Unfortunately, in order to get their work done quickly and conveniently, some people justify making and using unauthorized copies of software. They may not understand the implications of their actions or the restrictions of the U.S. copyright law.

Here are some relevant facts:

1. Unauthorized copying of software is illegal. Copyright law protects software authors and publishers, just as patent law protects inventors.
2. Unauthorized copying of software by individuals can harm the entire academic community. If unauthorized copying proliferates on a campus, the institution may incur a legal liability. Also, the institution may find it more difficult to negotiate agreements that would make software more widely and less expensively available to members of the academic community.
3. Unauthorized copying of software can deprive developers of a fair return for their work, increase prices, reduce the level of future support and enhancement, and inhibit the development of new software products.

Respect

Respect for the intellectual work and property of others has traditionally been essential to the mission of colleges and universities. As members of the academic community, we value the free exchange of ideas. Just as we do not tolerate plagiarism, we do not condone the unauthorized copying of software, including programs, applications, data bases and code.

Therefore, we offer the following statement of principle about intellectual property and the legal and ethical use of software (see "Software and Intellectual Rights" on page 4). This "code" ---

intended for adaptation and use by individual colleges and universities --- was developed by the EDUCOM Software Initiative.

Questions you may have about using software

a. What do I need to know about software and the U.S. Copyright Act?
Unless it has been placed in the public domain, software is protected by copyright law. The owner of a copyright holds exclusive right to the reproduction and distribution of his or her work. Therefore, it is illegal to duplicate or distribute software or its documentation without the permission of the copyright owner. If you have purchased your copy, however, you may make a backup for your own use in case the original is destroyed or fails to work.

b. Can I loan software I have purchased myself?
If your software came with a clearly visible license agreement, or if you signed a registration card, READ THE LICENSE CAREFULLY before you use the software. Some licenses may restrict use to a specific computer. Copyright law does not permit you to run your software on two or more computers simultaneously unless the license agreement specifically allows it. It may, however, be legal to loan your software to a friend temporarily as long as you do not keep a copy.

c. If software is not copy-protected, do I have the right to copy it?
Lack of copy-protection does NOT constitute permission to copy software in order to share or sell it. "Non-copy-protected" software enables you to protect your investment by making a backup copy. In offering non-copy-protected software to you, the developer or publisher has demonstrated significant trust in your integrity.

d. May I copy software that is available through facilities on my campus, so that I can use it more conveniently in my own room?
Software acquired by colleges and universities is usually licensed. The licenses restrict how and where the software may be legally used by members of the community. This applies to software installed on hard disks in microcomputer clusters, software distributed on disks by a campus lending library, and software available on a campus mainframe or network. Some institutional licenses permit copying for certain purposes. Consult your campus authorities if you are unsure about the use of a particular software product.

e. Isn't it legally "fair use" to copy software if the purpose in sharing it is purely educational?

No. It is illegal for a faculty member or student to copy software for distribution among the members of a class, without permission of the author or publisher.

Software and Intellectual Rights

Respect for intellectual labor and creativity is vital to academic discourse and enterprise. This principle applies to works of all authors and publishers in all media. It encompasses respect for the right to acknowledgment, right to privacy, and right to determine the form, manner, and terms of publication and distribution.

Because electronic information is volatile and easily reproduced, respect for the work and personal expression of others is especially critical in computer environments. Violations of authorial integrity, including plagiarism, invasion of privacy, unauthorized access, and trade secret and copyright violations, may be grounds for sanctions against members of the academic community.

Alternatives to explore

Software can be expensive. You may think that you cannot afford to purchase certain programs that you need. But there are legal alternatives to unauthorized copying.

Site licensed and bulk-purchased software. Your institution may have negotiated agreements that make software available either to use or to purchase at special prices. Consult your campus computing office for information. Software available through insititutional site licenses or bulk purchases is subject to copyright and license restrictions, and you may not make or distribute copies without authorization.

Shareware. Shareware, or "user-supported" software, is copyrighted software that the developer encourages you to copy and distribute to others. This permission is explicitly stated in the documentation or displayed on the computer screen. The developer of shareware generally asks for a small donation or registration fee if you like the software and plan to use it. By registering, you may receive further documentation, updates and enchancements. You are also supporting future software development.

Public domain software. Sometimes authors dedicate their software to the public domain, which means that the software is not subject to any copyright restrictions. It can be copied and shared freely.

Software without copyright notice is often, but not necessarily, in the public domain. Before you copy or distribute software that is not explicitly in the public domain, check with your campus computing office.

A final note

Restrictions on the use of software are far from uniform. You should check carefully each piece of software and the accompanying documentation yourself. In general, you do not have the right to:

1. receive and use unauthorized copies of software, or
2. make unauthorized copies of software for others.

If you have questions not answered by this brochure about the proper use and distribution of a software product, seek help from your computing office, from the software developer, or publisher.

ACCount STATus COMMAND UPDATE

The ACCSTAT command allows you to view your account balance and charge record. Minor changes have been made to the screens of the command display since the last newsletter.

This electronic check of your account balance is your best defense against overdrafts of your computer time grant and should aid you in keeping track of your computer dollars. The ACCSTAT command, the prompts, and the output are shown below.

To initiate the command, enter the following:

accstat

The following information and prompt will appear on your screen.

```
Requested account statistics will reflect usage
charges beginning July 1, 1987 (beginning of fiscal
year) through 7:00 AM this morning.

If you wish different inclusive dates after July 1,
1987, then enter them.
(Example: 07/08/87  07/18/87)

Then press ENTER


R; T=0.02/0.04 14:34:23

14:35:02
MSG FROM ACCSTAT: Account information will be sent to your
reader.


PUN FILE 7777 FROM ACCSTAT  COPY 001 NOHOLD
```

A file named ACCSTAT LISTING has been sent to your reader. Use the RDRLIST command to view the file (or process the file as non-PROFS mail after you are done Opening [PF2] your electronic Mail).

What follows is a printout of a fictitious user's ACCSTAT LISTING file.

St. Paul Computer Center Charges for Services Provided
For Account Number :2121 User Id:MNXX
For the Period 07/01/87 Through 12/16/87

Service Type	Unit	Quantity	Rate	DOS	CMS	Total
Central Process	Mins	2	13.41		$26.82	$26.82
Connect Time	Mins	65	0.01		$6.48	$6.48
Tape-Disk I/O	Thsn	10565	.000932		$9.85	$9.85
Central Memory	Kilo					$0.00
Reader I/O	Thsn	755	.000132		$0.10	$0.10
Punch I/O	Thsn	183	.000164		$0.03	$0.03
Printer I/O	Thsn	648	.000725		$0.47	$0.47
Disk Space	Mega	2.843	58.8428			$167.29
Magnetic Tape						$0.00
Data Entry	Hrs					$0.00
Programming	Hrs					$0.00
TOTALS				$0.00	$43.75	$211.04

See Notes Below:

Note 1
   The first 8 items above (Central Processor thru Disk space) are updated each morning between the hours of 8:00 - 9:00 am, Monday thru Friday. An exception to this is: the DOS operating system (rarely used by users without special education) is updated only at the end of the month. The last 3 items (Magnetic Tape, Data Entry, and Programming) are also currently updated only at the end of the month.

Note 2
   a) Central Processor and Connect time are shown in minutes.
   b) Device I/O's (Input/Output Read/Writes) are shown in thousands.
   c) DOS memory storage usage is expressed in kilobyte minutes.
   d) Disk storage space is expressed in millions of bytes assigned.
   e) Magnetic Tape is expressed in tape months (tapes stored for a full month).
   f) Programmer and Data Entry Services are shown in hours charged. The cost for Data Entry includes some equipment and supply charges.
   g) Varying rates are averaged (i.e. prime time vs. off hours).

PROJECT ASSIST CBI WORKSHOPS

Project Assist is a University-based service providing faculty with free consultation and assistance in the development of computer-based instruction (CBI). The following workshops are being offered during Winter Quarter, 1988.

- Introduction to Interactive Videodisc
- A Guide to Interface Issues: Possibilities and Pitfalls
- Developing CBI: Process and Resources
- Intermediate Screen Design
- Using Computers to Assess Student Performance

If you are interested in receiving their winter workshop brochure, please call Project Assist at 626-1090.

COMPUTER SHORT COURSES

The following short courses will be offered by St. Paul Computing Services during Winter Quarter, 1988.

SHORT COURSE NAME	DATE	DAY	TIME
User Orientation	Jan. 7	Th	3:00-5:00
Introduction to CMS*	Jan. 11,13,15,20	M,W,F,W	3:00-5:00
CMS Mail and BITNET	Jan. 19	T	3:00-5:00
SAS (Statistical Analysis System)	Jan. 21,26,28	Th,T,Th	3:00-5:00
YTERM Demonstration	Jan. 27	W	3:00-4:00
PC SAS Overview	Jan. 29	F	3:00-5:00
Intro to SAS/GRAPH	Feb. 1	M	1:00-3:00
CMS Advanced Topics	Feb. 2	T	2:00-5:00
TINCAN Demonstration	Feb. 3	W	3:00-4:00
Introduction to NOMAD2	Feb. 9	T	3:00-5:00

* Additional Introduction to CMS classes will be scheduled depending upon user demand. Look for announcements of extra classes in the SPCS User Room (90 Coffey Hall). If the listed course schedules are not convenient, please let us know of times and days that are better for you.

User Orientation

This short course introduces the SPCS facility to new and prospective users. Following a brief description of the hardware and software available at SPCS, a short tour of the computer center will be given.

Introduction to CMS (Operating System)

This short course will introduce the Conversational Monitor System, an operating system that allows one to edit and save files, submit batch jobs, and run jobs interactively. SAS and NOMAD2 (a data base management system) may be accessed interactively through CMS.

CMS MAIL and BITNET

This demonstration will cover CMS commands to send messages and files to other computer users at SPCS and, through BITNET, to other universities. BITNET is an international network of over 400 research and educational institutions through which electronic mail, files and messages may be sent.

SAS (Statistical Analysis System)

The SAS course will cover the Statistical Analysis System, a comprehensive statistical package that provides software tools for data storage and retrieval, report writing, general programming, and graphics.

YTERM Demonstration

The YTERM Demo will introduce YTERM, a micro computer system package that provides terminal emulation and file transfer utilities. SPCS distributes YTERM for a small charge and highly recommends its use with IBM PCs and compatibles for accessing the SPCS mainframe. The demonstration will cover installation, execution and use.

PC SAS Overview

The PC SAS Overview will cover some of the basic features specific to the PC version of SAS.

Introduction to SAS/GRAPH

SAS/GRAPH is a graphics system (fully integrated with the rest of the SAS system) that includes procedures that produce pictures, utilities for enhancing pictures and a mechanism for storing and replaying pictures.

This demo will introduce the user to the capabilities of the SAS/GRAPH package for displaying data as 2-D or 3-D plots, charts (bar, block, pie,or star), tables, maps (U.S. and Canada), contour plots, and slide presentations. Users will become familiar with the capabilities of SAS/GRAPH to customize displays.

CMS Advanced Topics

The CMS Advanced Topics class will present information on the use of tapes at SPCS, commands to request information about the user's computing environment, and the SPOOL command.

TINCAN Demonstration

The TINCAN Demo will introduce TINCAN, a micro computer system package that provides terminal emulation and file transfer utilities for the APPLE Macintosh. SPCS distributes TINCAN for a small charge and highly recommends its use with Macintoshes for accessing the SPCS mainframe. This demonstration will cover installation, execution and use.

Introduction to NOMAD2

The Introduction to NOMAD2 demonstration will introduce a Data Base Management System. NOMAD2 is a fourth generation language which may be used for data management, retrievals, application programming, report writing, and graphics.

For the SAS and CMS Advanced Topics, you don't need programming experience, but previous registration in a CMS class or permission of the instructor is required.

For the PC SAS Overview class and the SAS/GRAPH class, either previous registration in a SAS class or permission of the instructor is required. Because of our contract with SAS Institute for the PC SAS product, this class is open only to University of Minnesota faculty, staff, and registered students with a current fee statement.

To register for the short courses, please obtain and complete a registration form from our Main Office (624-7788; 50 Coffey Hall). Return it to the Main Office prior to the start of the class. Most short courses have a modest fee associated with them and require full payment with registration. Sorry, no refunds are made after the class begins.

If you have questions about short courses, their cost, or registration, please call Janice Jannett or Diane Suski (624-7788).

HAVE YOU SEEN THESE?

U of M Telecommunication Services - Data Communication Synopsis

The department of Telecommunication Services has published a revised edition of their communication synopsis. This document provides basic information on the data communication capabilities of the University-owned voice/data telephone equipment. The information provided makes the telephone system much easier to understand and many of the abbreviations for the equipment are explained. Individual copies of the report may be requested from the Telecommunication Department Help Line (625-0006).

Review of Microcomputer Labs and Special Services

The November 1987 issue of the Microcomputer Newsletter contained an article reviewing the existing Microcomputer Laboratories, services provided, and access policies. Please note that the St. Paul Central Library site has an Apple LaserWriter+, a Hewlett Packard Laser Jet Plus, and a Hewlett Packard ColorPro plotter.

SOFTWARE NOTES

PC SAS Renewals

SPCS sent out renewal inquiry forms in early November. If you are currently a licensed PC SAS user and have not received a form, please call the SPCS Main Office (624-7788). If you received a form and have not returned it, please fill it out and return it or indicate to SPCS that you do not wish to renew the product.

If you do not renew the PC SAS product, you must return the distribution set(s) and erase all PC SAS modules from your hard disk (de-install the product).

Licensees that returned their renewals were sent the expiration date update information. If you renewed the product, but have not received the update information, call the Main Office and request that another copy be sent to you. Note that for the expiration update to take effect, you must have installed the Zap Z02 diskette (distributed in Spring 1987).

SAS Institute has indicated that Version 6.03 of PC SAS will be shipped in mid-Winter Quarter. Licensed PC SAS users will receive further notification upon the product's availability. Look for an announcement of availability, enhancements, and new documentation in the SPCS bulletin board and in the next newsletter.

TinCan

TinCan is a terminal emulation and file transfer program for the Apple Macintosh. It provides full-screen access to the SPCS mainframe as well as error-correcting file transfer and local printing capabilities.

SPCS distributes TinCan for $7.00 to University of Minnesota full time students, and faculty and staff with at least a 50% appointment. All other users will be required to pay a total of $27.00 to cover the Yale University royalty charge.

The current release of TinCan does not work properly on the Mac SE or the Mac II. A new release is expected late in Winter Quarter. Watch for an announcement in the SPCS Bulletin Board.

CONSULTING CORNER

Q. Last week I tried to look at my electronic mail (using the PROJECT-GROUP command) and I received the message that my 191 A disk is full. I have been using electronic mail frequently and wish to continue, what can I do?

A. Electronic mail is stored on your private CMS 191 A minidisk in "mail log" files. As files, they take up space on the disk. There may be many other files on your disk as well; some are there just to run the Electronic Communication System and PROFS (the PRofessional OFfice System). Each note that you read in your PROFS mail is stored in your mail log file. Each note that you send out is stored in your note log file.

If you use electronic mail frequently and do not attend to (print or download and then delete) your notes, these files will gradually enlarge and you may run out of space. If you wish to review your notes and delete some, see the "SPCS Electronic Communication User's Guide" (or your own project's user guide) under Read Mail and/or Reviewing Notes. If you wish to save your notes or for any other reason need more minidisk space, see Documentation Note 4, "CMS Minidisk Management". You can change the amount of minidisk space assigned to your SPCS account with a one-line command. Ask at the Help Desk if you have any questions regarding the process of viewing and deleting your notes or changing your minidisk space.

DATA ENTRY SERVICES

The Data Entry Section of St. Paul Computing Services is open from 8:00 to 4:30, Monday through Friday, in Room 6 North Hall.

Services include:

1.) Punching and verifying data from most types of source documents (i.e., coding sheets, questionnaires, etc.). If needed, 80-column coding sheets may be obtained from the Data Entry Section.

2.) Providing assistance in preparation of source documents for acquiring the most efficient data entry.

3.) Conversion of tape to cards or cards to tape (depending upon card condition).

4.) Hard copy available from tape or cards (depending upon card condition).

Jobs are done on a first-come, first-served basis. Turnaround time may vary with the workload. Output is available on

- cards,
- 800/1600/6250 bpi tape (which will run on an IBM, CYBER, or other mainframe computer),
- 3.5" or 5.25" diskettes,
- or we can send it to your mainframe account.

Special arrangements can be made to purchase tapes, or they will be loaned out for a maximum of 60 days. Tapes not returned within that time will be charged to the account.

For information about current turnaround time, cost estimates or other questions, contact Linda Pichner or Cleo Medlock at 624-7297. Account numbers for services may be obtained at 50 Coffey Hall or by calling Diane Suski at 624-7788.

ST. PAUL MICROCOMPUTER LAB
Room B50 Central Library
Phone: 624-3269

The St. Paul Computing Services Microcomputer Lab is open to U of M students, staff and faculty. Access to the lab requires a Microcomputer Access Card, which is available in the St. Paul Bursar's office. The cost of the card is $20.00 per quarter.

High quality printing is available to our users on the Apple LaserWriter Plus, HP LaserJet Plus, and HP ColorPro plotter. To use these printers, a Printer Access Card is required in addition to the Microcomputer Access Card. This card is also available at the St. Paul Bursar's office; it costs $1.00 and is good for 10 pages.

The Microcomputer Lab is operated on a first-come, first-served basis. Each user is limited to 2 hours per session, with a 2-hour waiting period between sessions. (More time is allowed if there is no demand for the machines.)

System Configuration

12 IBM PCs with 640K memory, 1 IBM PC/AT. Each PC has 2 disk drives and a monochrome monitor. Some PCs have an 8087 Math Co-processor installed and/or Graphics capabilities. Printing is available on the Epson FX80 dot matrix printer or HP LaserJet Plus.

6 Macintosh (2 Plus, 4 512K Enhanced). Each Macintosh has an external disk drive. Printing is available on an Imagewriter dot matrix printer or LaserWriter Plus.

2 Apple //e with 128K and 2 disk drives. Printing is available on an Imagewriter dot matrix printer.

Software (Available for in lab use only)

IBM	Type
Minitab	Statistical
Statistix	Statistical
GLIM	Statistical
WordStar	Word Processor
WordStar 2000	Word Processor
WordPerfect	Word Processor
Lotus 123 Release 1A & 2	Spreadsheet
dBase III	Database
Turbo Pascal	Programming Language
PC Paintbrush	Graphics

Macintosh	Type
MacWrite	Word Processor
Word	Word Processor
File	Database
MacPaint	Graphics
Chart	Graphics
Multiplan	Spreadsheet
MacPascal	Programming Language
MS-BASIC	Programming Language
MacSpell+	Spelling Checker

	Type
MacTerminal	Telecommunication
TinCan	Telecommunication

Apple //e	Type
Appleworks	Word Processor, Spreadsheet, Database
MousePaint	Graphics
MouseWrite	Word Processor

Lab Hours

Regular School
Mon - Thur	8:00 am - 8:00 pm
Fri	8:00 am - 5:00 pm
Sat	CLOSED
Sun	6:00 pm - 10:00 pm

Summer & Quarter Break
Mon - Fri	9:00 am - 4:30 pm
Sat	CLOSED
Sun	CLOSED

Winter Holidays
Tue - Thur	Dec. 29-31	9:00 am - 5:00 pm
Fri-Sun	Jan. 1-3	CLOSED

STATISTICAL CLINIC

Now also on West Bank!

Room: 125G COB	Room: 25 Blegen
Phone: 625-3121	Phone: 625-8313

The Statistical Clinic is staffed by graduate students of the School of Statistics, and supervised by faculty members of the Applied Statistics Department. The Statistical Clinic provides statistical consulting to researchers at the University of Minnesota, generally without charge. Assistance on appropriate experimental designs and methods, data analysis, and the interpretation of results are part of the mission of the Clinic.

Many statistical problems can be handled completely by the personnel in the Clinic. More difficult problems will be referred to an Applied Statistics faculty member.

Winter consulting hours of the Statistical Clinic:

West Bank	Tue., Thur.	10 AM - 4 PM
St. Paul	Mon., Wed., Fri	9 AM - noon and 2 PM - 4 PM
	Tue., Thur.	9 AM - noon

ONLINE CONSULTING: Questions? Ask ICON

A fast and convenient way to get your questions answered is to send them to ICON, the new SPCS Online Consultant. ICON is a special staff userid. We encourage you to send questions to ICON anytime you cannot come to Coffey Hall, or when you are logged on in the evening or on weekends.

An SPCS staff member checks for questions on ICON every hour from 8 a.m. to 5 p.m., Monday - Friday. He or she will respond to you immediately, with an answer or an acknowledgement (in which case we'll send an answer as soon as possible).

How to send questions to ICON

• If you are not already using a PROFS Main Menu, enter PROJECT-GROUP to start one. (If you do not have PROFS authorization, simply ask for it at the Help Desk or the Main Office at 50 Coffey Hall, 624-7788.)

• Press PF3 to Send Mail.

• On the Send to: line, enter ICON.

• On the From: line, enter your name.

• On the Subject: line, enter a subject heading (this is optional).

• On the next line, begin typing your question(s). Be as descriptive as possible. Include your phone number in case we need to call you rather than send PROFS mail to you. Give the names of files which pertain to your question that you will also send to ICON.

• You can use the Tab key to advance to the next line and do your own formatting, or you can press PF6 to format the text of your question when you're done typing.

• Press PF7 to Send it all to ICON.

• Press PA2 (clear MORE... status) to return to the Main Menu.

• Press PF12 if you want to exit the Main Menu.

• To send a file (e.g., a SAS program or SASLOG file) to ICON: from the FILELIST screen, type: SENDFILE / ICON next to the name of the file.

HOLIDAY HOURS

There will be normal operating hours and services during holidays except for the following special times:

<div align="center">

Reduced Service*
12/23/87 midnight	-	12/26/87	8 am
12/27/87 10 pm	-	12/29/87	7 am
12/31/87 8 pm	-	1/ 2/88	8 am

</div>

Enter HELP UM SCHEDULE for a list of the normal operating hours.
* Reduced service means that tapes will not be mounted, printed output will not be distributed, and the Coffey Hall user area will not be open.

GENERAL INFORMATION

Main Office	50 Coffey Hall	M-F	8:00 AM - 4:30 PM	624-7788
User Room and	90 Coffey Hall	M	8:00 AM - 5:30 AM	
Computer Hours*		T-F	5:30 AM - 5:00 AM	
		Sat	8:10 AM - 4:00 PM	
		Sun	2:40 PM - 10:00 PM	
Help Desk	90 Coffey Hall	M-Th	9:00 AM - 5:00 PM	624-6235
		F	9:00 AM - 4:00 PM	
	140 Blegen Hall	M	2:00 AM - 5:00 PM	624-5278
		Th	9:15 AM - 12:15 PM	
Data Entry	6 North Hall	M-F	8:00 AM - 4:30 PM	624-7297
Interactive Dialup				624-4220

*On Saturday, Sunday and after hours on weekdays, Coffey Hall is closed. Use the tunnel passageway from the Student Center to gain access to the center. After the Student Center is closed, access may be gained through the St. Paul Campus Central Library.

Note: The CMS batch system goes down at 12:00 AM (midnight) and is brought back up at 12:15 AM Monday through Friday, it goes down at 3:45 PM on Saturdays, and 9:45 PM on Sundays.

See the note on page nine regarding special holiday hours.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex, national origin, handicap, age, or veteran status.

St. Paul Computing Services
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1420 Eckles Ave.
St. Paul, MN 55108