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CONTENTS

Command changes

IBM's version 5.0 of CMS includes some commands whose names conflict with commands currently in use at SPCS. We had to rename the SPCS versions of these commands before installing CMS 5.0 (see "CMS 5.0" under Software Notes). The command changes:

Replace this command	With this command
GET	GETPROD
DROP	DROPPROD
CLEAR	VMFCLEAR

If any of your EXECs use these commands, they must be changed, too.

New Releases

SPSS^x 3.0 and SCA III will soon be available on our system. Their announcement will appear as a system note when you logon and will be posted on the SPCS Electronic Bulletin Board.

New CMS EXEC Class

We are presenting a new class this summer, and it's FREE! This class is directed toward more advanced CMS users and "Intro to CMS" graduates who want to dive right in.

The subject is the writing of CMS programs using the REXX and EXEC 2 languages. You are already familiar with running programs written in these languages: FILELIST is an EXEC 2 program, and each XEDIT PF key function is a REXX program. That gives you a hint as to the power these languages hold. This class won't have you writing such large programs right away, but you will be able to write your own useful, time-saving CMS programs.

CMS programs are usually called "EXECs" (we'll explain why in the class), and they can serve many uses. Mostly, EXECs save you time, but they can also do snazzy and amazing things for you along the way. Want to create user-friendly input prompts for your repetitive office tasks? Write an EXEC. Can't stand typing in those long commands over and over? EXECs are great for that. As our staff REXX expert likes to say, "If you can't do it in REXX, you probably didn't want to do it, anyway." Come find out how to do what you didn't think could be done!

Documentation Note 23: ACCSTAT

In response to popular demand, SPCS has released Documentation Note 23, "ACCount STATus Command (ACCSTAT)." ACCSTAT is a utility program that allows you to view your computer account balance information interactively. Pick up your copy at the Help Desk or Main Office.

HOLIDAY SERVICE

On the Fourth of July and Labor Day, our computers will be running but reduced service will be in effect. Tapes will not be mounted, printed output will not be distributed, and the Coffey Hall user area will be closed.

Software That Destroys
by Jim Cerny

The Potential Problem
Many computing newsletters and electronic networks have issued recent warnings about software distributed through public domain channels that looks useful (utilities) or entertaining (games), but which is actually intended to destroy your files or otherwise cause havoc. Most of the warnings are aimed at MS-DOS users because that is where the problem is most common. Sometimes these programs are called "the dirty dozen," though there are more than a dozen known examples. No system is immune to this type of attack, including Macintosh, VMS, and Unix/Ultrix systems.

What They Do
To the best of our knowledge, we have not had an attack from these programs at UNH (or SPCS*), but all the old sayings about a pound of prevention and an ounce of cure are true.

Some of these programs are Trojan horses which pretend to do something benign or useful. Often they are an attractive game or graphic display. Sooner or later (usually sooner) they wake up to do their damage. On multi-user systems, such as the VAX, where more sophisticated protection barriers are in place than on single-user PCs, a Trojan horse may only wake up when run by a user with special privileges so that it can take advantage of those privileges. Passwords are often a target on multi-user systems.

If the program is set to wake up at a future date and do its damage, it is called a time bomb. If it has the ability to copy or propagate itself many times onto other disks or diskettes, it is called a virus. If it attaches itself to some normal utility and gradually eats away at files as the utility is used, it is called a worm.

Many of the programs operate by erasing part or all of the disk directory information on your hard disk. For example, one MS-DOS program called NTROJ.COM purportedly is a utility to fight Trojan horses; in fact, it will erase the hard disk's file allocation table, but only if the disk is at least 50% full!

In other cases the attacker may alter a well-known file (e.g. COMMAND.COM) and hide the destructive code inside it. In many cases you can spot these because the file is not the correct size in bytes, but that is no guarantee.

Just a Christmas Tree
There was a virus distributed via BITNET in December, aimed at IBM systems. It was a file called CHRISTMA.EXEC that seemingly just displayed a Christmas tree on the screen. What it also did, however, was try to send a copy of itself to everyone on various local and network lists in the system, generally with great success. In a few cases IBM systems had to be shut down to eradicate all the copies.

Advice
It is not our purpose to make you so paranoid that you will refuse all public domain software. We just suggest that you use reasonable caution. Know the source of your software. The operators of well-established bulletin boards try to weed out these programs. But, if you are suspicious, test the software on a floppy disk with your hard disk off-line. Finally, if worse comes to worse, and you do get caught, realize that this is yet another reason to have good backups of your files.

[Reprinted from ON-LINE, the newsletter of University Computing, University of New Hampshire, Jan/Feb 1988, v. 13(4):25 . This article can be found on the "Articles database of CCNEWS, the Electronic Forum for Campus Computing Newsletter Editors, a BITNET-based service of EDUCOM."]

* Editor's addition.

SOFTWARE NOTES

CMS 5.0

Release 5.0 of VM/SP is IBM's latest version of the operating system used on the SPCS computer system. On Tuesday, June 14, SPCS will begin using release 5.0 of the CMS component of VM/SP. We have been using the CP component since March, 1988.

We do not expect this change to negatively affect many users. There have been very few changes to existing commands. Most of the changes involve entirely new functions.

CMS Differences
There are several new commands. Some of them happen to have the same name as locally developed commands that have been in use at SPCS for several years. We have resolved this conflict by renaming our local commands.

The local CLEAR command was developed years ago when CMS did not offer a command which would clear a user's screen. An 'official' substitute has since been provided as part of CMS, but we did not press users (or ourselves, for that matter) to abandon CLEAR. CMS 5.0 now contains a command named CLEAR which is very different from our local CLEAR command. The old CLEAR command is most often used within EXEC files, so many users have not been aware that they are using the CLEAR command. When you use CLEAR with CMS 5.0 you will receive an error message in the form DMSCLR386E Missing operand(s) in situations where you previously did not receive error messages. (You may or may not see the DMSCLR386E part, depending on how you have EMSG set.) The CMS command that does what our local CLEAR command used to do is named VMFCLEAR. Users should replace CLEAR with VMFCLEAR.

Two other local commands, GET and DROP, also have conflicts with new CMS command names. We have renamed GET and DROP and expect most

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ST. PAUL MICROCOMPUTER LAB

Room B50 Central Library 624-3269

The SPCS Microcomputer Lab is open to U of M students, staff, and faculty. Entry to the lab requires a Microcomputer Access Card (available for $20.00/quarter at the St. Paul Bursar's Office). High quality printing is available using the Apple Laser Writer Plus, HP LaserJet Plus, or the HP ColorPro plotter. To use one of these printers, you'll need a Printer Access Card; they are available for $1.00 (good for 10 pages) at the Bursar's Office. The lab is operated on a first-come, first-served basis. Each user is limited to 2 hours/session, with a 2 hour waiting period between sessions.

Software available in the lab:

IBM	Macintosh	Apple IIe
Minitab	MacWrite	Appleworks
Statistix	Word	MousePaint
GLIM	File	MouseWrite
WordStar	MacPaint	
WordStar 2000	Chart	
WordPerfect	Multiplan	
Lotus 123	MacPascal	
dBase III	MS-BASIC	
Turbo Pascal	MacSpell+	
PC Paintbrush	MacTerminal	
	TinCan	

System configuration

12 IBM PCs with 640K memory

1 IBM PC/AT with 512K memory

6 Macintosh Plus with Mb memory

2 Apple IIe with 128K memory

2 PS/2 Model 50

Summer hours

Mon. - Fri.   9:00 AM - 4:30 PM

users to have already adjusted to that change. If you are still trying to use GET or DROP, please enter HELP UM GET or HELP UM DROP for details about these changes.

Users may also notice a minor change in the "ready" message that appears after each command is finished running. The old message is in the form:

```
R; T=1.03/1.56 14:18:33
```

The new message will be in the form:

```
Ready; T=1.03/1.56 14:18:33
```

NOMAD2 Version 4.5

A new version of NOMAD2 has been installed for testing. This is version 4.5 and it contains many new features. Windows, for those of you not already familiar with them, will be the first noticeable feature.

With window utilization, you can partition your screen (create rectangular boxes) for simultaneously viewing different pieces of information. The boxes may contain system windows which reflect information related to commands given, listings generated, output (printed items), history (previous commands), plus any number of user-defined information boxes for retaining and displaying information.

Other features which may be of interest include:

1. Foreign key support -- A RULE statement allows masters and referenced masters to stay in sync.

2. CREATE FOR command -- Create formats for SAS, PC NOMAD2, and NOMAD2.

3. FILE command -- Establish the file identity and attributes of a file that is external to NOMAD2.

4. LIKE function -- Wild card searches.

5. Dot Notation -- Qualify database entities in any N2 command.

6. OPTION RKEY -- If RKEY fails, will allow user to tell NOMAD2 where to position.

7. OPTION DELETE -- Similar to OPTION RKEY in that it tells NOMAD2 where to position after a non-global DELETE.

8. OPTION CHKINDEX -- Allows NOMAD2 to reach information using the most efficient method.

This short command sequence will get you started:

```
GETPROD NOMAD2 TEST
NOMAD2 (VERSION TEST
N2
WINDOW ON
```

We will announce when version 4.5 becomes the current version on our system; it will appear as a system note when you logon and will be posted on the SPCS Bulletin Board.

PC SAS Version 6.03

Version 6.03 of PC SAS is now available through SPCS. To date, only the 5 1/4" format is in stock, but we hope to have the 3 1/2" format available quite soon. Three SAS microcomputer products are distributed by SPCS: PC Base SAS, PC SAS/STAT, and PC SAS/GRAPH.

University of Minnesota faculty, staff, and registered students may purchase any or all of these products. SAS microcomputer products may only be purchased with University of Minnesota budget numbers. These products are licensed on an annual basis, so there is a fee of $75 per year for each product. Use of these products is limited to academic studies and/or research and does not include any profit-making or commercial use.

Good-bye, Computer Cards

As of July 1, 1988, SPCS's Data Entry section will not read in or punch out computer cards. If you have any computer cards that need to be transferred to a form that will be readable in the future, you must have the conversion done before July 1. After July 1, card reading and punching can still be done at the ACSS Lauderdale site. If you have any data stored on computer cards at North Hall, contact Cleo Medlock (624-7297) as soon as possible.

Summer Short Courses

1988			July		SPCS	
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
3	4 Independence Day	5	6 CMS (Day 1) 3:00 - 5:00	7 Mail/BITNET 3:00 - 5:00	8 CMS (Day 2) 3:00 - 5:00	9
10	11 CMS (Day 3) 3:00 - 5:00	12 YTERM demo 3:00 - 4:00	13 CMS (Day 4) 3:00 - 5:00	14	15 Adv. CMS I 2:00 - 5:00	16
17	18 SAS (Day 1) 2:00 - 4:00	19 TinCan demo 3:00 - 4:00	20 SAS (Day 2) 2:00 - 4:00	21 Adv. CMS II 2:00 - 4:00	22 SAS (Day 3) 2:00 - 4:00	23
24 31	25 SAS/GRAPH 2:00 - 4:00	26	27 PC SAS 3:00 - 5:00	28	29	30

Not Shown: Introduction to NOMAD2 will be offered Thursday, August 4, from 3:00 - 5:00.

To register for short courses, please obtain and complete a registration form from SPCS. Return it to the Main Office prior to the start of the class. For most short courses we charge a modest fee; full payment is required with registration. No refunds will be made after the class begins.

Introduction to CMS

This short course introduces CMS (Conversational Monitor System), a high performance operating system that includes editors, utilities, language processors, text formatters, and application software, such as SAS and NOMAD2 (a data base). This course provides hands-on practice with CMS at a terminal, and includes a temporary class account.

MAIL Utilities and BITNET

This demonstration will cover the SPCS electronic communication system that provides electronic mail, bulletin boards, conferencing, file transfer between microcomputers and the mainframe, electronic scheduling of meetings, rooms and equipment, and easy to search online directories. You can communicate with colleagues around the world in literally seconds via BITNET. BITNET is an international network of over 400 educational and research institutions.

CMS Advanced Topics I

Previous registration in CMS class required. This class will cover the use of tapes, commands to request information about the computing environment, and the SPOOL command.

CMS Advanced Topics II

Previous registration in CMS class required. This class is an introduction to the CMS programming languages REXX and EXEC 2. Learn to make the power of these languages work for you -- save time, reduce errors, and relieve tedium. Previous programming experience may be helpful, but is not necessary.

SAS (Statistical Analysis System)

Previous registration in CMS class required. This short course will describe the various

tools within SAS to do the following: information storage and retrieval, data modification and programming, statistical analysis, file management, and report writing. Along with presentations, a Computer-Based Training (CBT) facility (self-study courseware taken at a terminal) will be used to train registrants on how to use SAS. Temporary class accounts allow registrants to practice on their own.

Introduction to SAS/GRAPH
Previous registration in SAS class required. SAS/GRAPH is a graphics package (fully integrated with the rest of the SAS system) that has procedures that produce pictures, utilities for enhancing pictures, and a mechanism for storing and replaying pictures. This course will introduce the user to the capabilities of SAS/GRAPH for displaying data as 2D or 3D plots, charts , maps, text slides, and contour plots. Users will learn how to customize their displays.

PC SAS Overview
Previous registration in SAS class required. Because of our contract with SAS Institute for this product, only University of Minnesota faculty, staff, and registered students with a current fee statement may use these products.

This short course describes some of the features specific to the PC version of SAS. Topics covered include the display manager, windowing facility, and options that are not available in the mainframe version of SAS.

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

TinCan Demonstration
The TinCan Demo will introduce TinCan, a microcomputer system package that provides terminal emulation and file transfer utilities. The demonstration will cover installation, execution and use. SPCS distributes TinCan for a small charge and highly recommends its use with Apple Macintoshes for communicating with the SPCS mainframe.

Introduction to NOMAD2
This short course demonstrates NOMAD2, 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.

Computers in Classrooms

More than 100 instructional computing displays from 14 of the University's 18 colleges and professional schools (including SPCS) were on display May 11 and 12, in Coffman Union's Great Hall. The projects were the final products of project WOKSAPE, a collaboration between IBM and the University of Minnesota, intended to develop innovative projects in computer based instruction.

On display was the latest educational software for IBM personal computers. Faculty developers were on hand to let people see their software, try it out, and ask questions. Many of the programs are already being used in classes at the University. Since 1985, IBM has donated $7.5 million worth of IBM hardware and software to University faculty to foster new ideas and projects.

STAT CLINIC

125g Classroom Office Building
625-3121

The Statistical Clinic is staffed by graduate students in the School of Statistics and supervised by faculty members of the Applied Statistics Department. They provide statistical consulting to researchers at the University of Minnesota, generally without charge. Assistance on appropriate experimental design and methods, data analysis, and interpretation is provided by the Clinic.

Summer Hours: T - Th   9 - 12, 2 - 4

SERVICES

IBM Higher Education Software Consortium

The University of Minnesota recently signed agreements to participate as a member of IBM's Higher Education Software Consortium. This means that a broad spectrum of IBM system and application software will become available to the University, and that licensing fees for this software will be waived. After designating that the desired software is to be used for either instructional or research purposes, a University faculty or staff member may place orders for acquiring software products through a local contact, a Technical Support Coordinator.

The Consortium is a new and innovative component of IBM's evolving partnership with higher education. Its principal goal is to enhance the academic process through effective use of modern computer technology in teaching, research, and scholarship. Members will have access to broad-based groups of selected software, suitable for the midrange and advanced workstation environments for use in academic instruction and academic research. The initial software offering covers the following equipment families: RT/PC Engineering workstations, System 36 and 38, 9370 systems, and 4300 mainframes and above. The IBM Personal Computer family is not covered by this software offering at the present time.

Some of the benefits to Consortium Members:

1. Access to Consortium-sponsored forums addressing issues of common concern regarding the integration of computer technology into the curriculum.

2. Through user group meetings, share results achieved by other member Institutions.

3. Opportunities to work with IBM in the development of products applicable to the higher education instruction and research environments.

4. Opportunities for feedback to IBM regarding the use and performance of IBM software in an academic environment.

5. A forum for the exchange of instructional materials and demonstrations developed by Consortium Members.

The software currently available to Consortium Members is organized into three separate groups:

Group I (**System Platform Programs**): Certain operating system programs, languages, communication software, graphics, and other utility programs.

Group II (**Engineering CIM Systems Programs**): IBM and vendor programs used in teaching engineering and manufacturing processes.

Group III (**Business Application Programs**): Programs used in developing course materials for a variety of Business School curricula.

The software from Group I must be used at least 80% of the time for academic instruction and/or research to be eligible. Software Groups II and III must be used solely for academic instruction and/or research.

For more information about the Consortium and how it works (what software components are included, how to order products, what equipment the software runs on, etc.) contact the local Consortium's Technical Support Coordinator: Mel Sauve, 50 Coffey Hall, 624-6765.

Time Grant Renewal

By University policy, grant users are required to annually establish their eligibility for computer processing Time Grant support. To administer this policy, we are required to close all Time Grants at the end of the fiscal year (June 30, 1988). After your Time Grant account is closed, **you will lose all permanent files** stored on your userid. If you have a Time Grant account through SPCS, you must turn in a Time Grant Renewal Form before July 1, 1988 to save your permanent files. If you have not yet received renewal instructions, call or stop in right away.

SAS User's Group

The Twin Cities Area user group welcomes any new or prospective individuals or company members. If you have any questions about the group or wish to join, contact Sue Uram (291 - 6150). If you want to be on the mailing list, call Peg Cassavant (483 - 7339).

Beyond BITNET

Until recently, users had to use the MAIL command to send messages to non-BITNET users. Recent enhancements to the PROFS software and installation of advanced communications utilities make this communication possible from within PROFS.

You can send PROFS mail to users on another computer only if that computer is running TCP/IP software. In your PROFS note, you must address the note to SMTP, a special userid, and include the .ddn command in the body of the note. The syntax of the .ddn command is:

```
.ddn host(userid)
```

where **host** represents the TCP/IP address of the computer your colleague uses.

You must know and use the recipient's TCP/IP address. Below is an example of the .ddn command being used on the SEND A NOTE screen from the Send Mail function of the Project-Group Main Menu:

```
            SEND A NOTE
Send To: SMTP
From: Mark White
Subject:
.ddn ux.acss.umn.edu(fyi)
 --- text of the note ---
```

The sample note is being sent to userid FYI on the UX system of ACSS at the University of Minnesota (UMN). (This computer also has a BITNET address. It is always better to use the BITNET address on the Send To: line than to use the .ddn command. We use this TCP/IP address only for example. If you have a BITNET address for your colleague, use it!)

Note:
 • Do not use a BITNET address in the .ddn command.
 • The .ddn command must start in column 1 on any line after the Subject.
 • The case of the address is preserved, so use capitals as needed.
 • You cannot place text on the same line as the .ddn command.
 • You can put more than one TCP address on the .ddn line, or use more than one .ddn line, to send the note to multiple recipients.

Consulting Corner

Q. When I'm using PC SAS, I would like to print the Display Manager OUTPUT window on my printer. How can I do that?

A. Type the following command from the Command Line (the ===>) of the OUTPUT window:

```
FILE 'fileid'
```

where **fileid** is a complete DOS filename. You must use the single quotes as shown, not double quotes ("). This command saves the contents of the entire session in the specified DOS file. Print it as you would any other DOS file. If you specify PRN as the fileid, the contents will be saved **and** printed on your local printer at the same time.

Q. I am using SAS on the mainframe computer. I have a data set in which each company has more than one observation, but not always the same number of observations from one company to the next. I want to eliminate a company if ANY of its observations has a missing value for a specific variable. How can I delete all observations for those companies?

A. The key is to sort the data set by company AND the particular variable that may be missing. Then any missing value -- for that variable, for that company -- will be at the top of the company's group of observations. Then a simple "flag" variable can be used to indicate whether that company has a missing value. The rest of the company's observations are sequential, and can be deleted based on the flag. This example deletes a company if any value of FPCT is missing:

```
DATA AA;
    INPUT COMPANY YEAR PCT FPCT;
PROC SORT;
    BY COMPANY FPCT;
DATA BB (DROP=FLAG);
    RETAIN FLAG;
    SET AA;
    IF (FPCT =.) AND
        (FLAG NE COMPANY)
    THEN FLAG = COMPANY;
    IF COMPANY=FLAG THEN DELETE;
RUN;
```

Q. I have more than 7000 observations of raw

data, but I can't put them all in one file because XEDIT can't handle a file that large. Can I put my data in more than one file and still get SAS to read it in correctly?

A. Yes. You will need to use the EOF option on your INFILE statements. Also be sure to include a FILEDEF for each data file. The EOF option specifies a label, which must appear elsewhere in the data step. SAS continues processing at this label when it reaches the end of the data file. This example reads three raw data files, one after another.

```
CMS FILEDEF IN1 DISK FILE1 DATA F;
CMS FILEDEF IN2 DISK FILE2 DATA F;
CMS FILEDEF IN3 DISK FILE3 DATA F;
DATA LONG;
    INFILE IN1 EOF=LABEL1;
    INPUT X Y Z;
    RETURN;
    LABEL1: INFILE IN2 EOF=LABEL2;
    INPUT X Y Z;
    RETURN;
    LABEL2: INFILE IN3;
    INPUT X Y Z;
RUN;
```

A related problem is when each observation of your raw data is too wide (e.g., many variables) to comfortably use XEDIT. Then you can create more than one data file and have SAS input one observation by reading the first variables from one file, the next group of variables from another file, and so on. This example reads three files "side-by-side". Note: ALL OF THE DATA FILES MUST HAVE THE SAME NUMBER OF LINES.

```
CMS FILEDEF IN1 DISK FILE1 DATA F;
CMS FILEDEF IN2 DISK FILE2 DATA F;
CMS FILEDEF IN3 DISK FILE3 DATA F;
DATA WIDE;
    INFILE IN1;
    INPUT A B C;
    INFILE IN2;
    INPUT X Y Z;
    INFILE IN3;
    INPUT R S T;
RUN;
```

NOMAD2 Open Forum

The NOMAD2 Open Forum welcomes any new or prospective individuals or company members. If you have any questions about the group or wish to join, contact Don Graw (624 - 7788).

TPRINT Problems

There have been a few calls in the last quarter reporting problems with the TPRINT command. TPRINT allows local printing from an IBM PC or Macintosh, running YTERM or TinCan, respectively. TPRINT is apparently still working correctly with small files (100 or so records), but with longer files the terminal locks after a few pages of output, and the user may be disconnected from the system.

If you need to print long files, it is better to download the file and print it from DOS.

Downloading has another advantage: it takes less time. You can switch from a mainframe session to PC mode in YTERM by typing <Ctrl> <Break>. To return to your mainframe session, just enter T from DOS. Your mainframe session will resume where you left off. In TinCan you can switch from mainframe mode to Mac mode by choosing Quit from the FILE Menu. To return, re-open TinCan and press ENTER.

Questions? Ask ICON

A fast and convenient way to get your questions answered is to send them to ICON, the 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).

HAVE A HAPPY FOURTH OF JULY!

General Information

Main Office	50 Coffey Hall	M - F	8:00 - 4:30	624-7788
Help Desk	90 Coffey Hall	M - Th	9:00 - 5:00	624-6235
		F	9:00 - 4:00	
	140 Blegen Hall	M	2:00 - 5:00	624-5278
		Th	10:00 - 1:00	
Stat Clinic	125g COB	T - Th	9:00 -12:00	625-3121
		T - Th	2:00 - 4:00	
Micro Lab	B50 Library	M - F	9:00 - 4:30	624-3269
Data Entry	6 North Hall	M - F	8:00 - 4:30	624-7297
Interactive Dialup				624-4220
Operations				624-3482

Computer Hours
- From 8:00 a.m. Monday to 4:00 p.m. Saturday
  (except 5:00 a.m. to 5:30 a.m. Tuesday through Saturday)
- Sunday 2:40 p.m. to 10:00 p.m.

Note: User rooms (90 Coffey Hall) are open during Computer Hours, but after 6 p.m. and on Saturday and Sunday, the outside doors to Coffey Hall are locked. You can still get to the User Room through the tunnel from the St. Paul Campus Library or the Student Center. If these entrances are closed, special admission may be arranged by calling Operations.

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, national origin, sex, handicap, age, or veteran status.

St. Paul Computing Services
50 Coffey Hall
1420 Eckles Ave.
St. Paul, MN 55108