



# SPCS Newsletter

June 1987

St. Paul Computing Services

University of Minnesota

## CONTENTS

VMSECURE	1
Time Grant Account Renewal	1
Modern Pool Changes	2
Distributed Printing	2
No More Card Storage	2
Computer Short Courses	3
SAS Notes	4
Consulting Corner	4
Data Entry Services	5
St. Paul Micro Lab	6
Statistical Clinic	7
General Information	8

## VMSECURE

### A New System for CMS Account and Minidisk Management

On Monday, May 18, 1987 SPACE and DIRMAINT (two utilities that allowed users to administer their own minidisk sizes and account customization) were replaced by a new facility named VMSECURE. Users may have noticed small changes to messages displayed at logon and that all of the DIRMAINT and SPACE commands have been removed.

New defaults have been initiated with the switch over to VMSECURE.

- All users will be prompted to change their logon passwords at least every 90 days. (Logon passwords may be 5 to 8 characters and may contain letters and/or numbers.)
- All users will have a disk space limit of 20,000K bytes applied to their account. This means you can create minidisks whose sizes total up to 20,000 (1K) blocks. You may request a higher disk space limit on a blue form.
- Minidisks created by a VMSECURE DISKSPACE ADD command are formatted with a default block-size of 4K (4096 bytes), not 1K (1024). The 20,000K byte limit is reached with only 4882 4K blocks. You may override the default block size via

the blocksize option on the VMSECURE DISKSPACE ADD command.

VMSECURE DISKSPACE, a local adaptation of the VMSECURE system, allows users to add, discard, and change the size of CMS minidisks, as long as their total space does not exceed the limit for their account. Other non-DISKSPACE commands allow users to change the default linkmode of a minidisk or to change the virtual address of the minidisk. Commands are also available for changing passwords (logon and minidisk) and for changing the user's own CP directory entry (i.e., your default logon storage, logical line editing symbols, etc.).

CMS minidisk management commands and the commands to change your passwords (logon and minidisk) are documented in online help files and in Documentation Note 4 (CMS Minidisk Management) and Documentation Note 2 (Changing Passwords). Online help may be obtained by entering:

help vmsecure tasks (for users with full screen terminals)

or

help vmsecure index (for users with linemode terminals)

You may modify your CP directory entry via a full screen, menu-driven system by using the VMSECURE USER command. There is online help available for each menu choice. For users with linemode terminals there are a variety of VMSECURE MAINT commands to use in place of the USER selections. VMSECURE USER and MAINT commands are fully documented in the VMSECURE User's Guide. This document is available for reference in the reference racks in 90 Coffey Hall and for sale in 50 Coffey Hall.

## Time Grant Account Renewal

By University of Minnesota policy, users are required to establish their eligibility for computer processing time grant support annually, (to ensure that departmental funds remain unavailable for computing).

To administer this policy, we are required to close all time grant accounts concurrent with our fiscal year cutoff. This year, the time grant cutoff will occur at midnight, Tuesday, June 30. Instructions advising time grant users of what they must do were mailed in May. If you have not received a copy of these instructions, please contact the Main Office, 50 Coffey Hall, 624-7788. Time grant users must return one of the two 'action' forms attached to the instructions before 10:00 AM June 30th. If a form is not returned, the time grant will be cancelled by default (cancellation results in the removal of userids and the irretrievable loss of permanent files).

## Modem Pool Changes

On Monday, May 18, 1987, the Telecommunications department changed the modem pool accessed by SPCS dial-in users. They installed 1200/2400 baud straight through modems. Users dialing in to the 624-4220 phone number can now use 2400 baud, but 300 baud access is no longer available at that phone number.

This change also provides better type-ahead responsiveness. For instance, now when you press the ENTER key, the logo will stop being painted on the screen and you will be advanced to the logon screen. You can also press PF7 any number of times and be advanced by that number of screens in FILELIST or in XEDIT. The autobaud problems with TPRINT may also now be solved.

## Distributed Printing

SPCS will extend the availability of the distributed printing facility.

PRINTTO, a new exec, is available to route a printout to a public laboratory (e.g., 125 Classroom Office Building, or 140 Blegen Hall). The syntax of the PRINTTO command is identical to that of the PRINT command, except for the second parameter, which must be a site-id. The syntax of the PRINTTO command is as follows:

```
printto site-id filename filetype <filemode ( options
```

The filemode is optional (as designated by the < symbol). The options are the same as those available for the PRINT command (e.g., cc, hex, linecount). For example, for file FEB YLD87 A to be

printed at 125 Classroom Office Building, the command would be:

```
printto r5 feb yld87
```

Site-ids are posted in each of the public labs.

If the communication link between SPCS and the CYBER is down, the file will be stored. It will print out when the link comes back up. Users may have to reset the printers at the remote sites if they are offline. (There are instructions for resetting on the wall of each lab near the printers.) We recommend that you send printouts only to the site where you are at the time, so you can set up the printer and retrieve your printout.

There is currently a 2,000-line limit for the printouts. If you send a larger file, it will be returned to your virtual reader.

The sites currently accessible are:

- Anderson 170
- Blegen 140
- Classroom Office Building 125
- Lind Hall 128
- Lauderdale
- O M Wilson Library 2

Please let us know your comments and suggestions (send a MAIL note to IJAN). SPCS does not take responsibility for lost printouts or the public laboratory machinery.

You may access SPCS from a Public Instructional Laboratory by selecting IB at the ACSSNET prompt. See Documentation Note 16, Connecting a Terminal through the Public Instructional Laboratories to SPCS, for a description of the terminals and a keychart.

## No More Card Storage

All cards stored in 6A North Hall must be removed by July 31, 1987. Cards in storage after that date will be disposed of. If you have cards or may have cards stored in North hall, please contact Linda Pichner or Cleo Medlock at 624-7297.

# COMPUTER SHORT COURSES

The following short courses will be offered by St. Paul Computing Services during the Summer Session.

SHORT COURSE NAME	DATE	DAY	TIME
Introduction to CMS*	Jul 13,15,17,20	(M,W,F,M)	3:00-5:00
CMS Mail and BITNET	Jul 16	(Th)	3:00-5:00
SAS (Statistical Analysis System)	Jul 21,23,28	(T,Th,T)	3:00-5:00
Introduction to NOMAD2	Jul 24	(F)	3:00-5:00
TINCAN Demonstration	Jul 27	(M)	3:00-4:00
PC SAS Overview	Jul 29	(W)	3:00-5:00
Intro to SAS/GRAPH	Jul 30	(Th)	2:00-4:00
CMS Advanced Topics	Jul 31	(F)	2:00-5:00
YTERM Demonstration	Aug 3	(M)	3:00-4:00

\* Additional Introduction to CMS classes will be scheduled according to 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 better times and days.

## 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.

## 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 & retrieval, application programming, report writing, and graphics.

## 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.

## 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 to 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.

### **YTERM Demonstration**

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

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

For the SAS/GRAPH class and the PC SAS Overview class, either previous registration in a SAS class or permission of the instructor is required. Because of our contract with the 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 SPCS (624-7788; 50 Coffey Hall). Return it to the Main Office, 50 Coffey Hall, 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).

## **SAS Notes**

The following new SAS manuals have arrived and are available for sale in 50 Coffey Hall and for reference in 90 Coffey Hall.

SAS Applications Guide, 1987 Edition - Updates and expands the original edition. This manual provides examples that show how to use base SAS software efficiently. One of the most valuable chapters is on reshaping your data (that is, changing variables to

observations and observations to variables).

SAS System for Linear Models, 1986 Edition - This is the familiar blue book - the first in the series of statistical applications guides. This manual covers the GLM, ANOVA, REG, MEANS, TTEST and NESTED procedures. The new edition has been revised to incorporate new features of Version 5 and to more clearly explain SAS linear models statistics.

SAS System for Regression, 1986 Edition - A new manual in the statistical applications series that describes and illustrates SAS regression procedures.

SAS System for Forecasting Time Series, 1986 edition - describes the use of SAS /ETS procedures for univariate and multivariate time series analysis.

Another publication of interest to SAS programmers will be Applied Statistics and the SAS Programming Language, Second edition, by Ronald P. Cody and Jeffrey K. Smith (\$19.95). This book is a practical "how-to" book of using SAS to analyze data. Check Books Underground, St. Paul Campus, for copies.

## **CONSULTING CORNER**

**Q:** I am using YTERM to dial in from home on an IBM PC. Occasionally, during my logon session to the IBM mainframe, my keyboard locks up, and I cannot continue my session. What can I do, short of turning off the machine and dialing in again, which, by the way, brings me back in CP READ status?

**A:** First about dialing in and coming into CP mode (CP READ in the status area). When you turn off your PC, without logging off, you disconnect your virtual computer from the mainframe. If you return within 15 minutes, you will be RECONNECTED (you will see this message instead of the prompt to PRESS ENTER TO CONTINUE). To get out of CP and back to CMS or the program that you were executing when you were disconnected, type in the word BEGIN or the letter B and press ENTER.

Many times you can avoid resorting to turning off your machine by resetting either the keyboard or the terminal. These resets may be accomplished by CONTROL key sequences.

Press the letter key while holding down the CONTROL key to perform the desired function.

CONTROL t Keyboard unlock.  
 CONTROL g Master reset - clears all character or transmission errors, refreshes the screen (also will exit INSERT mode).  
 CONTROL r Character error reset.

**Q:** My SAS dataset, named VEN1987.YLD, has the following observations and variables. How can I output three observations (one with each of the replicates) for each observation now in the dataset? A printout of the dataset follows.

LOC	TRT	YLDREP1	YLDREP2	YLDREP3
1	1	87.5	90.4	88.0
1	2	77.4	66.5	80.0
1	3	86.6	78.3	88.2

**A:** This type of problem is discussed, and examples are shown, in the SAS Applications Guide, 1987 Edition. A sample program to output three observations for each observation currently in the dataset is below.

```
DATA REPS.Y1987;
SET VEN1987.YLD;
  REP=1;
  YLD=YLDREP1;
  OUTPUT;
  REP=2;
  YLD=YLDREP2;
  OUTPUT;
  REP=3;
  YLD=YLDREP3;
  OUTPUT;
DROP YLDREP1 YLDREP2 YLDREP3;
```

PROC PRINT;

The LISTING output from this program would be:

OBS	LOC	TRT	REP	YLD
1	1	1	1	87.5
2	1	1	2	90.4
3	1	1	3	88.0
4	1	2	1	77.4
5	1	2	2	66.5
6	1	2	3	80.0
7	1	3	1	86.6
8	1	3	2	78.3
9	1	3	3	88.2

**Q:** I have a dataset, called REACT.TIMES, that has reaction times for each subject, and PRE and POST treatment on separate lines of the data. I need to create a new variable that is the difference between the pre and post treatment scores for each subject. How can I subtract the two scores for each subject?

The dataset is as follows:

OBS	SUBJ	TIME	REACT
1	1	PRE	17
2	1	POST	45
3	2	PRE	23
4	2	POST	35
5	3	PRE	14
6	3	POST	.

**A:** The following code would create an observation for each subject in this case, and there would be two separate variables, one POSTTRT and one PRETRT that would be able to be used in an assignment statement.

```
PROC SORT DATA=REACT.TIMES;
  BY SUBJ TIME;

DATA COMB.TIMES;

  ARRAY ALL(2) POSTTRT PRETRT;
  DO I=1 TO 2;
    SET REACT.TIMES;
    BY SUBJ TIME;
    ALL(I)=REACT;
    IF LAST.SUBJ THEN DO;
      DIFTIME = POSTTRT-PRETRT;
      RETURN;
    END;
  END;
```

PROC PRINT;

The printout would appear as follows:

OBS	POSTTRT	PRETRT	SUBJ	DIFTIME
1	45	17	1	28
2	35	23	2	12
3	.	14	3	.

## 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 (e.g., 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.) Converting tape to cards or cards to tape (depending upon card condition).
- 4.) Providing hard copy 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 tapes (which will run on IBM, CYBER, or other mainframe computers), or on 3.5" or 5.25" diskettes. Special arrangements can be made to purchase tapes, or they can 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 from the St. Paul Bursar's office. The cost of the card is \$20.00 per quarter.

Laser printing is available on the Apple LaserWriter Plus and HP LaserJet Plus. A Laser Printer Access Card (available at the St. Paul Bursar's office for \$1.00 and good for 10 pages) is required in addition to the Microcomputer Access Card.

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

13 IBM PCs (8 - 256K, 2 - 512K and 3 - 640K). Each PC has 2 disk drives and is connected to a Epson FX80 printer via a switch box. Some PCs have an 8087 Math Co-processor and Graphics capabilities.

1 IBM PC/AT with 2 disk drives (360 and 1.2 M), 512K.

6 Macintoshes (2 - Plus, 4 - 512K). Each Mac has an external disk drive and is connected to an Imagewriter printer via a switch box.

2 Apple IIe (128K) with 2 disk drives, connected to an Imagewriter printer via a switch box.

### Software (Available for in-lab use only)

<b>IBM</b>	<b>Type</b>
Minitab	Statistical
Statistix	Statistical
WordStar	Word Processor
WordStar 2000	Word Processor
WordPerfect	Word Processor
Lotus 1-2-3 Release 1A & 2	Spreadsheet
dBase III	Database
Turbo Pascal	Programming Language
<b>Macintosh</b>	<b>Type</b>
MacWrite	Word Processor
MacPaint	Graphics
Word	Word Processor
File	Database
Chart	Graphics
Multiplan	Spreadsheet
MacPascal	Programming Language
TinCan	Telecommunication
MacTerminal	Telecommunication
MS-BASIC	Programming Language
MacSpell+	Spelling Checker
<b>Apple IIe</b>	<b>Type</b>
Appleworks	Word Processor, Spreadsheet, Database
MousePaint	Graphics
MouseWrite	Word Processor

## SPCS Microcomputer Lab Hours

### **Regular School**

M-Th 8:00 am - 8:00 pm  
F 8:00 am - 5:00 pm  
Sat CLOSED  
Sun 6:00 pm - 10:00 pm

### **Summer & Quarter Break**

M - F 9:00 am - 4:30 pm  
Sat CLOSED  
Sun CLOSED

## **Statistical Clinic**

Room: 125G Classroom Office Building  
Phone: 625-3121

The Statistical Clinic, on the St. Paul Campus, 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. However, more difficult problems will be referred to an Applied Statistics faculty member.

The consulting hours of the Statistical Clinic for the Summer are:

Tuesday - Friday  
10:00AM - 2:00PM

## **MICROCOMPUTER PRODUCTS**

**SPCS distributes the following microcomputer products:**

**For the IBM PC:**

**YTERM** a full screen terminal emulation package

**PC/SAS** a statistical analysis package

**For the APPLE Macintosh:**

**TINCAN** a full screen terminal emulation package

For more information, contact the SPCS Help Desk  
(90 Coffey Hall, 624-6235)

## General Information

Main Office	50 Coffey Hall	M - F	8:00 AM - 4:30 PM	624-7788
User Rooms and Computer Hours	90 Coffey Hall	M - F Sat Sun	7:15 AM - 7:00 AM 8:10 AM - 4:00 PM 2:40 PM - 10:00 PM	
Help Desk	90 Coffey Hall	M - Th Friday	9:00 AM - 5:00 PM 9:00AM - 4:00PM	624-6235
Data Entry Interactive Dialup	6 North Hall	M - F	8:00 AM - 4:30 PM	624-7297 624-4220

**Note:**

After hours, Saturday, and Sunday access to the Center May be achieved by using the tunnel passageway from the Student Center. After 10:00 PM, access may be obtained thru the St. Paul Central Library.

The DOS operating system will be shut down at 10:00PM Monday - Friday.

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.

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

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