
ST. PAUL COMPUTER CENTER

FISCAL YEAR CUTOFF

The fiscal year cutoff for Computer Center services will be 10:00 pm, Monday, June 25, 1984. June activities will be journal vouchered promptly. All services rendered after the cutoff date will be processed as July 1984 business. Users should update their accounts if changes have occurred to either designated budget numbers or the names of the personnel involved with the account.

TIME GRANT ACCOUNT CLOSURE

By University policy, users are required to establish their eligibility for computer processing time grant support annually, to assure that project 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 10:00 pm, June 25th. Instructions, advising time grant users of what to do, were mailed in early May. If you have not received a copy of these instructions, please contact the Main Office, 50 Coffey Hall, 373-0987. Time grant users must return one of the two 'action' forms attached to the instructions before 10:00 am, June 25th. If not returned, the time grant will be cancelled by default (cancellation results in the removal of access codes and the irretrievable loss of permanent files, etc.).

SUMMER SHORT COURSES

The St. Paul Computer Center will be offering short courses during the Summer Quarter. The User Orientation presentation introduces new and prospective users to the SPCC facility. Following a brief description of the hardware and software available at SPCC, a short tour of the computer center will be given.

The SAS course will cover the Statistical Analysis System (SAS), a comprehensive statistical package available on the IBM 4341 computer at SPCC. In addition to statistics, SAS provides software tools for data storage and retrieval, report writing, general programming, and graphics. Those people intending to use SAS from either MUSIC or CMS should be familiar with the respective system before attending the SAS course. A computer-based training package for SAS will be part of the course. Users not attending the short course may also have access to this self-study course. Those interested should obtain the handout named "Using CBT for SAS".

The MUSIC course will cover the McGill University System for Interactive Computing, an interactive operating system. The MUSIC operating system allows one to edit and save files, submit batch jobs to SAS, or run jobs interactively.

The CMS 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 NOMAD (a data base management system) may be accessed interactively through CMS.

S T . P A U L C O M P U T E R C E N T E R

The NOMAD demo introduces a Data Base Management System now available at SPCC. NOMAD is a fourth generation language, which may be used for data management, retrievals, application programming, report writing, and graphics. This demo will emphasize database description and organization using NOMAD2 syntax.

The CMS SCRIPT course will present the basic features of SCRIPT, a text formatting language that allows you to prepare finished typed material such as letters, reports, manuscripts and other similar documents. You can specify that text will be single or double spaced, right or left justified. SCRIPT can automatically insert page numbers and headings as well as do footnotes. Only the SCRIPT for CMS will be covered in this short course. Users interested in this course should be familiar with CMS.

The first hour of the MUSIC, SAS, CMS, and SCRIPT, short courses is lecture, and the second hour is a terminal session in which the students may apply what they have just learned. All courses will be offered on the St. Paul Campus.

The short course schedule for the Summer Quarter is as follows:

SHORT COURSE NAME	DATE		TIME
User Orientation	June 28	(Th)	3:00-5:00
Introduction to CMS	July 9,11,13	(M,W,F)	3:00-5:00
Introduction to MUSIC	July 10,12	(T,Th)	3:00-5:00
SAS. (Statistical Analysis System)	July 16,18,20	(M,W,F)	3:00-5:00
Introduction to NOMAD	July 17	(T)	2:30-5:00
Introduction to CMS	July 30	(M,W,F)	3:00-5:00
	Aug 1,3		
Introduction to NOMAD	Aug 2	(TH)	2:30-5:00
SAS (Statistical Analysis System)	Aug 6,8,10	(M,W,F)	3:00-5:00
Introduction to CMS SCRIPT	Aug 7,9	(T,TH)	3:00-5:00
Introduction to NOMAD	Aug 21	(T)	2:30-5:00

The User Orientation will be held in B35 COB (St. Paul Campus), with no registration required. To register for the other courses, please obtain and complete a short course registration form from SPCC (373-0987; 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 before the class begins. Sorry, no refunds are made after the class begins.

If you have questions about short courses, their cost, or registration, please call Mel Sauve or Diane Suski (373-0987).

If you have a group of 6 or more people interested in any of the short courses, SPCC can schedule a class just for your group. Please contact Mel Sauve at 373-0987 to make the necessary arrangements.

SCA - 83 - NEW STATISTICAL PACKAGE INSTALLED

The SCA-83 statistical package, distributed by Scientific Computing Associates, was installed recently under CMS. This package's core is that of the Wisconsin Multiple Time Series program, however, it has been substantially enhanced with new features.

The SCA-83 system is designed as integrated software for handling a wide variety of statistical analyses. Its capabilities include descriptive statistics, data plotting, data manipulation and editing, matrix operations, generation of pseudo observations for specified distributions or models, regression, and state of the art time series analysis. The system operates in both the interactive and batch modes.

Time Series Features

1. Easy specification for multi-parameter univariate and multivariate models.
2. Adaptive capability facilitating iterative model identification, estimation, diagnostic checking and forecasting for vector time series.
3. Inclusion of deterministic input series for vector models.
4. Principal component analyses for vector time series.
5. Flexibility for setting fixed value or equality constraints on parameters.
6. Newly developed identification method for mixed ARIMA models using extended sample autocorrelation function.
7. Comprehensive methods for identification of multiple-input transfer function models.
8. Optimal combination of conditional least squares and exact maximum likelihood estimation algorithms.
9. Ability to retain information of many models in memory.

Other System Features

1. Analytic operators and functions for vector/matrix manipulations.
2. Comprehensive linear regression analysis including weighted least squares and ridge regression.
3. Ability to handle user defined procedures.
4. Commands to save and retrieve the system's memory between user sessions.
5. Prompting level user aids ranging from brief explanations to tutorial.
6. Online HELP Facility.

To acquaint the user with SCA-83 and its operational use, the following is available:

SCA-83 Reference Manual	\$28.00
CMS Online HELP Facility (Type: "HELP UM SCA")	N/C

T E X T P R O C E S S I N G

DCF (composed of SCRIPT control words and GML tags) is a text formatting product designed for documents to be printed or displayed. It has many advanced formatting functions such as multi-column formatting, automatic generation of table of contents, title page and page numbering, facilities for drawing boxes and charts creating footnotes and producing numbered or bulleted lists. You can easily format

the same information in different ways for different audiences. The text entered by the user can be easily edited to reflect the output formatting desired.

There is a new draft document from SPCC, named SPCC DCF User's Guide. The basic SCRIPT control words and GML tags are presented with examples and exercises. This document is available for purchase for \$2.00 in Room 50 Coffey Hall.

The current printers available for DCF output are the IBM 3262 draft quality and the Lee Data letter quality, both located in Room 90 Coffey Hall, and the Laser printer at ADPD.

SAS NOTES

Graphics

Users who own an IBM PC with the asynchronous communications interface, the color graphics interface, and a color monitor may use their PC as a graphics terminal with SAS 82.3. The SAS Institute has distributed a group of BASICA programs which will turn the IBM PC into a graphics terminal in either high or medium resolution graphics modes. Images may be saved on disk and replayed at a later time. The device drivers make good use of the higher level graphics capabilities of BASICA (line, circle, paint, etc.). This results in short data transmission time for most images. More detailed written information will become available later. Users who would like to try this feature now, should ask for information at the SPCC Help Desk.

NOMAD2 NOTES

We have received and installed release 2 of NOMAD2. It is the FUTURE version and in order to gain access to this new release you must do the following:

Drop NOMAD2 if you have already linked to it.

```
drop nomad2
```

Issue the get command with the future option.

```
get nomad2 future
```

Use the version option on the NOMAD2 command.

```
nomad2 (version onomad2
```

This command only loads the new version, you must still enter the N2 or NOMAD2 command. You will be using the new version of NOMAD2 for the rest of your CMS logon session.

When you enter NOMAD2, your screen will appear similar to the following:

```
nomad2
(ONOMAD2 )
NOMAD2 version 200D 21Dec83
```

In order to quit out of NOMAD2, enter Q.

If you want to use the current version of NOMAD2 in the same CMS logon session in which you have used the FUTURE version, you must DROP NOMAD2, GET NOMAD2, and issue the NOMAD2 command with the version option before entering NOMAD2.

The sequence is:

```
drop nomad2
get nomad2
nomad2 (version nomad2
nomad2
```

Release 2.00 of NOMAD2 will be made the current version after further testing. Should you use this version and encounter any difficulties, contact the SPCC Help Desk.

There is a supplement to the NOMAD2 Reference Manual, named NOMAD2 2.00 Release Notes that indicates the changes and enhancements for the new release. The version 2.00 Release Notes are free to users who purchase, or who have purchased, a NOMAD2 Reference Manual.

There is also a supplement to the D. McCracken book, A GUIDE TO NOMAD APPLICATIONS DEVELOPMENT. The Supplement McCracken NOMAD Guide provides the details on using the educational databases illustrated in the McCracken document. Nearly all of the databases used in the McCracken Guide are accessible and you may either enter your own NOMAD commands or use the NOMGUIDE commands to call up the examples page by page, as you follow along in McCracken.

NEW PRINTER AVAILABLE

SPCC recently installed an IBM 3262 line printer, which operates at 360 lines per minute with upper and lower case. This additional printer was acquired for several reasons: 1) to handle increases in print loads, 2) to satisfy the demand for draft quality printing of text files, and 3) to increase turnaround.

This new printer is located in Room 90A (user work area near the Help Desk). When listings are routed to the 3262 printer (identified as PRINTER2), users can tear off their listings but are reminded to place other user's printouts that may be attached on the grey shelf provided.

S T. P A U L C O M P U T E R C E N T E R

A 6 line banner message is printed on a leading page for each separate file sent. This banner identifies the USERID, DATE, TIME, and number of records printed.

To send files to be printed on this printer, use the IBMROUTE spool exec.

An example of using IBMROUTE to send a file to print is:

```
ibmroute printer2 prt
print square fortran
spool printer close
ibmroute
```

You may also include an IBMROUTE statement in jobs sent through batch.

Time slot limitations have been set for the 3262 printer, according to the number of lines in your print file. This schedule will be posted next to the printer. If a print file exceeds the current line limit, it will be sent to the system printer (all upper case) unless it is CLASS M. Very large printouts (over 10000 lines) will only print early in the morning and late in the evening. CLASS M files (see the class parameter on the IBMROUTE command) will print on the 3262 printer only according to the appropriate time slot for that size file.

An example of issuing the IBMROUTE command with the class paramter is:

```
ibmroute printer2 prt class m
```

Further information may be obtained by issuing the IBMROUTE command with a ? (question mark). The help file will be displayed and several examples presented. There is also a SPCC document which covers the use of the IBMROUTE command, named IBMROUTE.

C M S N O T E S

Important Notices for CMS USERS

Spool File Space

Beginning July 15, 1984, SPCC will implement the policy of limiting CMS Spool file residency to one month. Spool files (virtual reader, punch and print files) will be automatically purged the morning of the same calendar date the following month, or on the first when there is no corresponding day in a shorter month.

Soon after the implementation of this policy, we will begin charging for Spool disk storage space. We have not finalized our charging algorithm for this, but expect that it will be of a tiered structure, and will probably be more expensive than normal disk rates. Expect a system message announcement when these rates are established.

Archive Facility

We will begin charging for archive file storage with our July billing. The billing rate for archived files is \$3.00 per megabyte (1 million characters) per month. Note: The Archive storage rate is one sixth of the standard disk storage rate (\$18.00/megabyte/month).

GET COMMAND

As many users already know, the GET command in CMS accesses many disks that contain optional software products, such as SAS and NOMAD. In order to obtain a list of all of the products that are available with the GET command, the user should type in:

```
get productlist
```

The current output from the GET PRODUCTLIST command is:

```
get productlist
```

NAME	VERSION	DESCRIPTION
SAS	- PAST CURRENT	- STATISTICAL ANALYSIS
NOMAD2	- TEST CURRENT FUTURE	- DATABASE - REPORT WRITER
PROFS	- CURRENT	- ELECTRONIC MAIL
N2TOOLS	- PAST CURRENT	- NOMAD2 DEVELOPMENT AIDS
N2EDUCDB	- CURRENT FUTURE	- NOMAD2 SAMPLE DATABASE
LICUR	- CURRENT FUTURE	- NOMAD2 ERROR REPORTING
NOMGUIDE	- CURRENT FUTURE	- NOMAD2 MCCRACKEN EXAMPLES
GLIM	- CURRENT	- STATISTICAL ANALYSIS
IIPS	- CURRENT	- COMPUTER BASED TRAINING
N2DEMO	- CURRENT FUTURE	- NOMAD2 DEMO DATABASES
N2SNAP	- CURRENT FUTURE	- NOMAD2 DEMO DATABASES
SCA	- CURRENT	- TIMESERIES STATISTICS

SPACE SAVING HINTS

Running out of room on a CMS minidisk is a common problem. Two ways to try to beat the space crunch are:

- o Change the record format (RECFM) of Fixed RECFM files to Variable record length (V). The RECFM attribute is listed for each file in the output of the FILELIST command or in the output of the LSTFILE command with the DATE option.

You may accomplish the change in either of two ways. In XEDIT, issue the RECFM V command. For example:

```
xedit thesis script
```

```
recfm v
```

The second way is to use the COPYFILE command with the RECFM and TRUNC options. For example, for a file named THESIS SCRIPT:

copyfile thesis script a (recfm v trunc

- o The PACK option on the COPYFILE command may also be used to store a file in a smaller space. In order to read the file, you must use the UNPACK option on the copy file command first. An example is:

copyfile thesis script (pack

Leave the file stored.

When you want to use the file, use the UNPACK option on the copyfile command.

copyfile thesis script (unpack

You must not change a file that has been stored in a PACK format, because the UNPACK routine will be unable to reconstruct the original file.

WHAT TO DO IF THE COMPUTER CRASHES

While SPCC Computer down time is minimal, users should be aware of practices that will protect them in the event of the computer system going down.

If you are Editing a file over a long period of time, issue the SAVE command at strategic intervals (every half hour to hour if you are inputting data, or after 20 or 30 changes).

You can also use the AUTOSAVE N (n stands for a number) while in XEDIT. This will automatically SAVE your file after N input lines, changes, or deletes. If no other AUTOSAVE file exists, the filename and filetype are:

1 AUTOSAVE

If an AUTOSAVE file exists, the filename is the next available number. When AUTO-SAVE is in effect, the XEDIT commands SAVE and FILE will erase the corresponding AUTOSAVE file.

If the system crashes during an editing session, you can rename the AUTOSAVE file and resume editing. The file will reflect all changes made up to the last AUTOSAVE.

D A T A E N T R Y

The turnaround time for Data Entry varies with the workload. Currently, an average sized job (500 - 1000 records) takes less than a week to complete.

For further information about current turnaround time, cost estimates, preparation of data or source documents, contact Linda or Cleo at 376-9222. Account numbers may be obtained at 50 Coffey Hall.

Unless you have made special arrangements with SPCC to purchase tapes, they should be returned to Data Entry as soon as you are finished with them.

ST. PAUL COMPUTER CENTER

STATISTICAL CLINIC

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, until classes start in September, are:

Tuesday-Friday : 10:00-2:00

Room: 125g COB

Phone: 376-3845

REDUCED RATES FOR OFF-HOUR USERS

Computer processing performed after 5:00 pm daily (Monday thru Friday) and all day Saturday receives a 25% reduction on 3 billable components: Central Processor Time, High Speed Input/Output (disk and tape), and Connect Time.

ACCESS TO FACILITIES

ST PAUL COMPUTER CENTER

SPCC hours, locations and telephone numbers:

Main Office	: 50 Coffey Hall 373-0987	8:00 am - 4:30 pm
Users Room and	: 90 Coffey Hall	7:00 am - 10:00 pm M-F, and
Computer Hours (1)	: 90 Coffey Hall	8:00 am - 4:00 pm Sat
Help Desk	: 90 Coffey Hall 376-4602	10:00 am - 12:00 pm M-F
		1:00 pm - 4:00 pm M-Th
		1:00 pm - 3:00 pm F
Data Entry	: 6 North Hall 376-9222	8:00 am - 4:30 pm
Interactive Dialup Number:	376-5820	

(1) After hour and Saturday access to the Center may be achieved by using the tunnel passageway from the Student Center.

Note: SPCC will be closed Wednesday, July 4, and Saturday, September 1 through Monday, September 3, for holidays.

S T . P A U L C O M P U T E R C E N T E R

MERITSS SYSTEM CONNECTION TO SPCC

Users can now gain access to the IBM 4341 computer system at SPCC through the MERITSS System (Interactive Instructional Labs). There are now six ports dedicated to this type of communications traffic. Those wishing to utilize this type of access can obtain the handout named "Using SPCC's IBM Computer from the MERITSS System" from our Main Office (1 page, no charge).

CLASSROOM OFFICE BUILDING INTERACTIVE INSTRUCTIONAL LAB HOURS

	Doors Unlocked	Doors Locked
	-----	-----
Monday -- Friday	8:00 am	10:00 pm
Saturday	9:00 am	1:00 pm

Should you be the last person out of the Lab during the hours shown above, please leave the doors unlocked (SPCC personnel are responsible for locking doors at the designated times). Thank you.

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.

WALTER LIBRARY
UNIVERSITY ARCHIVES
11 WALTER LIBRARY
MPLS CAMPUS