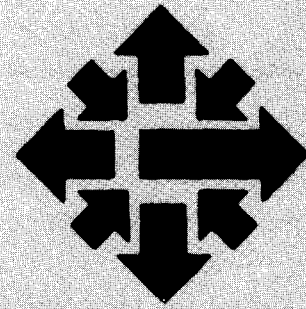


University Computer Center Newsletter

University of Minnesota
Twin Cities

February 1985
Volume 19, Number 2



CYBER Notes

MINITAB 82

The long awaited MINITAB 82 is now available on all the CYBERS as FUTURE,MINITAB. MINITAB is an easy, interactive statistical computing package. It is intended primarily for small data sets that can be stored in central memory and is particularly useful for instructional use with inexperienced users. This new version is a considerable improvement over the current version of MINITAB because of the following new features:

1. An extensive interactive HELP command has been added.
2. Fourteen subcommands have been added to REGRESS, along with the Durbin Watson statistic and the ability to store residuals, coefficients, and parameters in the worksheet for additional analysis.
3. MINITAB output can be written to an alternate file to be saved or routed later, rather than printed at the terminal (the OUTFILE command). INSERT, STORE, and EXECUTE now accept input from alternate files.
4. Data may be inserted between rows or at the end of the worksheet.
5. Many statistical procedures have been revised and expanded, from simple descriptive statistics to the analysis of variance. Subcommands allow users greater control over the method of analysis.
6. It is now possible to get simple statistics (i.e., the mean, sum, count, median, standard deviation, and sum of squares) of rows, as well as of columns.
7. The 'Exploratory Data Analysis' section (as in Velleman and Hoaglin, 1981) has been expanded to include more smoothing techniques, condensed plotting, coded tables, and a rootogram. 'Exploratory Data Analysis' is a non-traditional way of looking at data, originated by John Tukey (1971).
8. Stored commands may be nested and executed from alternate files. A very simple macro capability has been added to these commands.
9. A Kruskal-Wallis one-way analysis of variance has been added. This test is designed for ordinal data.
10. Comments may be embedded in the file with a '#' symbol.

Users are cautioned, however, that the two versions are not strictly compatible: worksheets that have been saved on earlier MINITABs cannot be retrieved by MINITAB 82 and vice versa. In addition, the continuation symbol '*' has been changed to '&' in MINITAB 82.

Users are also warned that, in our opinion, the new capabilities of MINITAB 82 have not been

adequately tested. Please refer problems to:

Dr. Bruce Center
215 Experimental Engineering
(376-2825)

References:

Velleman, P.F. and Hoaglin, D.C., *Applications, Basics, and Computing of Exploratory Data Analysis*, Duxbury Press, Boston, 1981.

Tukey, John F., *Exploratory Data Analysis*, Addison-Wesley, Reading, Mass., 1971.

GLIM

We have reinstalled GLIM 3.11 on the CYBER CA and MERITSS so that it will run in 63,300B (octal) central memory. (GLIM is an interactive generalized linear modeling package; it was discussed in the November 1984 issue of the *UCC Newsletter*.) This reduction in field length requirements will enable most MERITSS users to run GLIM without increasing their field length validation.

CRAY News

CRAY MPOS CHANGES

On February 24, we are changing MPOS (the Multi-Purpose Optimization System) on the CRAY to use new memory management routines. There should not be any change visible to the user as a result. We are also adding control statement parameter processing that will affect some users — those who use files other than the default files. (Although the CYBER version is not being changed now, it will probably be revised in the same way sometime in the future.) On February 24, the control statement for CRAY MPOS will be:

MPOS(I=ifile,L=lfile,S=sfile,D=dfile)

where

ifile is the name of the file containing the MPOS input. If the user doesn't specify this parameter, I=\$IN is assumed.

lfile is the name of the file containing the MPOS output. If the user doesn't specify this parameter, L=\$OUT is assumed.

sfile is the name of the file that MPOS uses to write the data generated from translating each problem input. It is also the file accessed when the GETFILE command is used. If the user doesn't specify this parameter, S=SVFILE is assumed.

dfile is the name of the file from which MPOS will read the alternate input data when the READ DATFIL command is used. If the user doesn't specify this parameter, D=DATFIL is assumed.

Thus,

MPOS.
will be the same as
MPOS(I=\$IN,L=\$OUT,S=SAVFIL,D=DATFIL)
and

MPOS(I=SAM,D=JOE)
will read MPOS input from file SAM
and MPOS data from file JOE.
See WRITEUP(MPOS), a 160-page
upper- and lowercase writeup, for
more information about MPOS.

(Mike Frisch)
(376-1636)

Mathematics and Statistics Packages

ALGORITHMS FROM ACM TRANSACTIONS ON MATHEMATICAL SOFTWARE

We now have on disk the ACM collected algorithms published in the journal *ACM Transactions on Mathematical Software*, starting with algorithm 493 from March 1975. We recently added algorithms 616-619, published in September 1984. They are:

- ALG616 Fast Computation of the Hodges-Lehman Location Estimator
- ALG617 DAFNE, A Differential Algorithm for Non-Linear Functions
- ALG618 FORTRAN Subroutine for Estimating Sparse Jacobian Matrices
- ALG619 Automatic Numerical Inversion of the Laplace Transform

All these algorithms are available to users on the FETCH file CALGOPL, which is a MODIFY program library.

The list of the available algorithms and control statements to obtain them are given in the WRITEUP obtained by the command

WRITEUP(CALGOPL)

The journal *ACM Transactions on Mathematical Software* is available in our Reference Room, 140 Experimental Engineering.

Sharad Gavali
(376-5262)

Recycling

Departments interested in recycling tab cards or white computer paper should contact Lesa von Munkwitz-Smith or Ron Fleagle at 376-5263. Paper and tab cards need to be sorted and boxed for pickup.

The Classifieds

FOR SALE

A teletype printer terminal (model 43KSR matrix), a Multi-Tech acoustic coupler (model FM 30), and a terminal stand with paper tray, phone shelf, and dustcover. The equipment is in excellent condition and is being offered as a package for \$725. Call John Murphy at 332-6660 (days) or 378-9368 (evenings).

The following RJE terminal parts are for sale: A PDP 11 (11/03LK SR-VXSSA-BA), memory (16 KW, 16 bit, MSV11-DD), dual floppy CTRLR (RSV21-BA), dual floppy disk drive (RX02), asynchronous CTRLR (DLV11-J), Printronix P300 line printer, line printer CTRLR (DLP1100 Data Syst.), bootstrap, diag, termi (BDV11-AA). Contact Alan R. Ek, College of Forestry, 110 Green Hall, St. Paul Campus, 373-0840.

Apple IIe computer and peripherals for interdepartmental sale. Price negotiable. Call 373-8126 for details. (Microbiology Dept.)

Winter Quarter Short Courses

INTRODUCTORY COURSES

PRICES: U. Student \$15, U. Staff \$25, Non-University \$35

- 090 Introduction to Micros: MS-DOS (Simin Hickman)
Feb 11-15 (MWF) 3:15-5 p.m.
- 130 XEDIT (Tom Kovarik and Jill McAllister)
Feb 11-15 (MTThF) 2:15-4 p.m.
- 150 Introduction to CRAY 1 & COS (Kurt Richards)
Feb 26-Mar 7 (TTh) 3:15-5 p.m.

ADVANCED COURSES

PRICES: U. Student \$25-30, U. Staff \$35-45, Non-University \$60-75

- 520 Lotus 1-2-3 (Section 1) (Joanne Bergman)
Feb 12-14 (TTh) 2:15-4 p.m. \$25,\$35,\$60
- 525 Lotus 1-2-3 (Section 2) (Joanne Bergman)
Mar 12-14 (TTh) 2:15-4 p.m. \$25,\$35,\$60
- 540 Magnetic Tapes in NOS (Peter Oberg)
Feb 12-21 (TTh) 2:15-4 p.m. \$30,\$40,\$65
- 550 Advanced NOS (Kurt Richards and Jon Jamsa)
Feb 18-Mar 1 (MWF) 3:15-5 p.m. \$30,\$45,\$65
- 640 Beginning Pascal (Mike Pennaz)
Feb 18-Mar 1 (MWF) 2:15-4 p.m. \$25,\$40,\$60
- 570 TELL-A-GRAF Graphics (Bryan Senn)
Feb 25-Mar 6 (MW) 2:15-4 p.m. \$30,\$45,\$75
- 515 Multiplan and Chart for the Macintosh (Simin Hickman)
Feb 26-28 (TTh) 2:15-4 p.m. \$25,\$35,\$60
- 530 SPSS (Statistics Package) (Bruce Center)
Mar 4-8 (MWThF) 2:15-4 p.m. \$25,\$35,\$60

REGISTRATION: You can register at the UCC Reference Room, 140 Experimental Engineering (hours: 8:00 a.m. to 4:30 p.m., Monday through Friday). A self-service terminal for registration is located in the Reference Room. We accept mail registrations for an additional \$1.00 fee per class. (See WRITEUP,CLASSES=MAILREG for mail registration form.) The deadline for registration is Reference Room closing on the last working day before the class begins. You may

pay course fees with cash, check, signed University journal vouchers, or you can charge them to your non-instructional UCC user account.

REFUND POLICY: No refunds are made after the class begins. Refunds are made in the same form as the fee was paid, i.e., check, journal voucher, UCC account credit.

If you have questions about Short Courses or registration, call Jerry Stearns, 376-8806, or see WRITEUP(CLASSES) on the MERITSS or CYBER CA systems.

Index to Volume 18 (1984)

ALL SYSTEMS BULLETINS		Micro sales and support	55	U of M micro users group	
Minnesota joint computer conference ..	3	Gopher computing at UCC	77	February meeting	11
HELP-line: new hours	47	Focus on supercomputers: chemical		How to get your micro to communicate	
Rate changes	60	engineering & materials science	95	with our computers	24
COMPUTER STORE		Econometric software	99	Micro users group meetings	25
Winterizing your floppies	4	GRANTS FOR RESEARCH		Apple Macintosh at the micro lab	33
Computer store	13	Grants primer updates	5	Micro users group meetings	33
Computer paper for printers	26	News from ORD	13	New addition to the micro research	
Disk storage	32	Bilingual education	25	lab	39
Expanded micro disk selection	51	Corporate support report	31	Micro users group—May meeting	39
The price of success	68	Business and international education ..	31	Three new utility programs for the	
Computer store is no more	78	National diffusion network program ..	31	Zenith Z100	50
CONSULTING		National institute of education	32	Micro users group—June meeting	50
Room change	11	Ethics and values	32	Micro sales and support	55
Statistics phone change	67	Carnegie corporation	32	Expanded help-line hours	59
In-person consulting	78	Argonne universities association	32	New graphics software for the IBM-PC	
CRAY NEWS		EDUCOM computer literary project ..	32	and Zenith Z-100	59
University users discount	3	Regional education labs and		Microcomputer sales and support	79
COS and CFT will change in March	9	research centers	39	Microcomputer systems group	83
COS/CFT upgrade March 18	20	Renew UCC grants now	49	New version of COM	100
April fools	31	CRAY grants available July 1	49	A newsletter of our own	101
COS moves to version 1.12	37	Midwest regional educational lab	58	NON-NUMERIC COMPUTING	
NSF funds CRAY researchers	63	Visiting professorships for women	58	January lecture	5
SUBMIT videotape available	72	Alfred P. Sloan foundation	68	April lecture	31
Relative efficiency of CRAY FORTRAN		Minnesota supercomputer institute		May lecture	38
functions	73	grants	79	Summer consulting	58
Permanent datasets on CRAY mass		GRAPHICS		PROFESSIONAL SERVICES DIVISION	
storage	89	TELL-A-GRAF/DISSPLA users group	58	Professional services division	13
COS/CFT upgrade to version 1.13	97	Dicomed D47 service	101	Professional services division	83
Permanent dataset storage charges	98	ISSCO users group	102	PROGRAMMING LANGUAGES	
CYBER NOTES		HELP-LINE		M77, version 2.5	21
New CYBER 845 installed	2	HELP-line: new hours	47	M77 error message writeup	34
SUPIO going away	2	Hours extended	67	New Pascal version	48
Charge uniformity revisited	3	IMS JOURNAL		New M77 version	48
SUPIO going away	11	January SIR users group meeting	3	Squeezing CRAY FORTRAN algorithms ..	57
New ARCHIVE	11	Phone consulting time change	11	Pascal version 4.0	72
Is there an MD in the house?	11	SIR users group—March	25	Relative efficiency of CRAY FORTRAN	
The CYBER 845: first month's use	17	INDEX TO VOLUME 17 (1983)		functions	73
SUPIO disappears March 17	20	MATH AND STATISTICS PACKAGES		FORTRAN at UCC	81
Watch your asterisks	20	Linear equation solver for ill-scaled		M77 news	81
Interactive procedures and NOS 2 CCL ..	43	systems	4	LISP news	81
Track limit problems	46	TSP changes	22	Pascal at UCC	81
NOS 2 interactive procedure directives ..	56	MATLAB: matrix instructional package ..	22	C on the CRAY	91
CB family will be moved Sept. 3	64	LINDO: linear programming package ..	22	The CRAY's C compiler	100
Organizing your interactive session		New edition of IMSL	23	SHORT COURSES	
with procedures	65	BMDP82	47	Winter quarter short course schedule ..	5
DATA BASE UPDATE		MINNLIB additions on the CYBERS	48	Winter quarter short course schedule ..	14
Call for papers	50	EISPACK version 3	67	Spring quarter short course schedule ..	34
Call for papers	58	SPSS version 9.0	71	Spring quarter short course schedule ..	40
DOCUMENTATION DATA		LISREL VI on the CYBERS	71	Summer short course schedule	51
Welcome & getting started	33	LINDO changes	72	Summer short course schedule	60
GENCORD writeup	38	Harwell subroutine library on CRAY ..	72	Lotus 1-2-3	68
The CYBER guide	84	Algorithms from ACM Transactions		Fall quarter short course schedule	74
Mathematics and engineering	84	of Mathematical Software	72	CRAY classes for super computers	85
The guide to CRAY computing	84	Algorithms from ACM Transactions		Fall quarter short course schedule	85
Other UCC documents	84	of Mathematical Software	83	Fall quarter short courses	92
CYBER guide supplement now available ..	91	GLIM	91	TELENET NEWS	
ENGINEERING SERVICES		LISREL VI on the CRAY	91	TERMINAL NOTES	
Monitor fan-out box	48	SPSS on the CRAY	98	New research cluster	20
GENERAL FEATURES		SPSS and LISREL	98	Research cluster changes	81
The university's computing future:		MERITSS		RIE network changes	81
part I	1	MERITSS: peaks and prospects, 1984 ..	29	TEXT PROCESSING	
University computing: interim		Expanded hours	38	New version of Scribe	84
management	5	Lab changes	80	UTILITY PROGRAMS	
November questionnaire results	12	MICROCOSM		CRAY CATALOG	23
Professional services division	12	New improved micro software	4	CYBER DRESS	23
Computer crime will be prosecuted ..	19	U of M micro users group January		VAX SERVICE	
The EDUNET connection	25	meeting	4	SPSS removed	58
Conference on computers and writing ..	31	Micro HELP-line moves	11	New VMS version	91

PHONE NUMBERS

<p>Access:</p> <p>CYBER(CA)—10, 30 cps376-5730 —120 cps376-5706</p> <p>MERITSS(ME)—10, 30 cps376-7730 —120 cps376-7120</p> <p>VAX/VMS(VA)—(autobaud)376-9770</p> <p>Budgets373-2521</p> <p>Computer-Aided Instruction376-2975</p> <p>Computer Hours (recorded message)373-4927</p> <p>Consulting</p> <p> HELP-line376-5592 7 a.m.-7 p.m., Monday-Friday</p> <p> Statistics Packages376-1761 1-2 p.m., Monday-Friday</p> <p> Data Bases376-1761 10-11 a.m., Monday-Friday</p> <p> Microcomputers376-4276 9:30 a.m.-noon and 1:30-4 p.m., Monday-Friday</p> <p> Text Processing376-2944 1-4 p.m., Monday-Friday</p> <p>Contract Programming376-1764</p> <p>Data Base Applications376-1764</p> <p>EDUNET Liaison373-7745</p> <p>Engineering Services376-1023, 376-8153</p> <p>Equipment Purchase/Information376-8153</p>	<p>Experimental Engineering I/O373-4596</p> <p>Graphics Software638-0541</p> <p>HELP-line376-5592 7 a.m.-7 p.m., Monday-Friday</p> <p>HOURS-line (recorded message)373-4927</p> <p>Information, Experimental Engineering373-4360</p> <p>Information, Lauderdale373-4912</p> <p>Instructional Labs376-2703</p> <p>Instructional Services373-7745</p> <p>Lauderdale Computer Room373-4940</p> <p>Lauderdale Services638-0523</p> <p>Lauderdale Services Manager373-7538</p> <p>Lauderdale Users' Room373-4921</p> <p>MECC Liaison373-7745</p> <p>Newsletter Subscription376-1491</p> <p>Permanent File Restoration376-5605</p> <p>Professional Services Division (PSD)376-1764</p> <p>Project Assistance376-1764</p> <p>Reference Room373-7744</p> <p>Remote Batch (RJE) Services376-2703</p> <p>Short Courses376-8806</p> <p>Shuttle Bus Service376-3068</p> <p>System Status (recorded message)373-4927</p> <p>Tape Librarian: see Lauderdale Services</p> <p>Text Processing Services376-2943</p> <p>User Accounts373-4548</p>
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OPERATING HOURS

	CYBER (CA)	Low rate	CRAY (CR)	MERITSS (ME)	VAX (VA)
M-F	7 a.m. - 4 a.m.	8 p.m. - 4 a.m.	7 a.m. - midnight	7:45 a.m. - 3:30 a.m.	8 a.m. - 6 a.m.
Sat	4 a.m. - 5:15 p.m.	4 a.m. - 5:15 p.m.	7 a.m. - 5 p.m.	7:45 a.m. - 3:30 a.m.	24 hours
Sun	4 p.m. - 1 a.m.	4 p.m. - 1 a.m.	4 p.m. - midnight	4 p.m. - 3:30 a.m.	24 hours

PUBLIC LABS—TWIN CITIES CAMPUS

Location	Batch	Interactive	Micro	Location	Batch	Interactive	Micro
<i>East Bank</i>				<i>West Bank</i>			
Arch 148		X	X	BlegH 25		*	
CentH		X		BlegH 90	X		
ComH		X		BlegH 140		X	
DiehlH 270, 207		X		MdbH		X	
EltH 121, 125		X		OMWL 2		X	
EltH N640	X			SocSci 167			X
Exp Eng 130		*					
FolH 14, 14a	X	X*	X	<i>St. Paul</i>			
LindH 26	X	X		BaH		X	
MechE 308		X		ClaOff 125	X	X	
Physics 69		*					
SanfH		X					
TerrH		X					
VincH 4		X					
WaLib B9		X					

* Research cluster; access to CYBER CA and VAX/VMS
 X in interactive column indicates access to MERITSS

Contents

CYBER Notes		Mathematics and Statistics Packages	
MINITAB 82	9	ALGORITHMS FROM ACM TRANSACTIONS...	10
GLIM	9	Recycling	10
CRAY News		The Classifieds	10
CRAY MPOS CHANGES	10	Winter Quarter Short Courses	11
		Index for 1984	12

Michael M. Skow, Acting Director

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Comments, suggestions, articles, and announcements should be directed to the editor, 227 Experimental Engineering, (612) 376-1491.

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