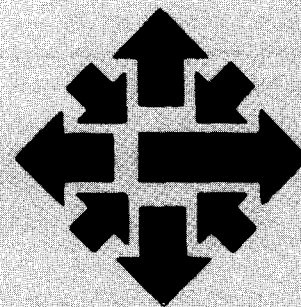


# University Computer Center Newsletter

University of Minnesota  
Twin Cities

April 1985  
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## Statistics Roundup

We have upgraded a number of our statistics packages recently. This article summarizes those changes and reports some new ones. We also report our findings on the relative costs of running several packages on the CRAY.

### SPSS: CRAY VS CYBER COSTS

In recent tests we found that SPSS is about 40 to 70 percent more expensive to run on the CYBER than on the CRAY for intermediate and large jobs. (The CRAY's one-million-word memory also permits you to run much larger problems than you can run on the CYBER.) Cost-conscious SPSS users may therefore find it worthwhile to run their large jobs on the CRAY.

It should be noted that the CRAY and CYBER versions of SPSS are not strictly compatible: The CRAY version corresponds more closely to the IBM version described in the McGraw-Hill SPSS manuals. The CYBER version is somewhat more flexible; its input format and file structure, for example, are not so restrictive, and it permits freer use of the keyword BLANK. It also contains a number of additional statistical procedures. See UCC's *SPSS 9.0 Update Manual* for details.

The CYBER on-line document WRITEUP,CRAY/SPSS describes the difference between the CRAY and CYBER versions and includes sample jobs. See also the December 1984 *Newsletter* for a brief description and examples.

### CRAY SHAZAM COSTS

SHAZAM 4.5, a sophisticated batch-oriented econometrics analysis package, recently became available on the CYBER CA and the CRAY. Our tests indicate that running a SHAZAM job on the CRAY costs one-third to one-half as much as on the CYBER. (See the March 1985 *Newsletter* on how to access SHAZAM.) For help with this program, users may contact

Professor Henry Hwang  
Department of Agricultural and  
Applied Economics  
130d Classroom Office Building  
(376-2936)

or

Professor Mark Pitt  
Department of Economics  
954 Management/Economics  
Building  
(373-4916)

### CRAY LISREL COSTS

Version 6.6 of LISREL, a maximum likelihood factor analysis package, is now available on both the CRAY and CYBER as FUTURE.LISREL. Our preliminary estimates indicate that large problems may cost as little as one-third as much to run on the CRAY as on the CYBER. For a sample CRAY LISREL job, see the November 1984 *Newsletter*.

We are offering a reward to the first five people who can find substantive differences between current and future LISREL.

### MINITAB 82

MINITAB is an easy, interactive statistical computing package intended primarily for small data sets that can be stored in central memory. It is particularly useful for instructional use with inexperienced users.

On April 1, MINITAB 82 became the default version of MINITAB on all CYBERS, and MINITAB 80 became the past version. This new version of MINITAB is a considerable improvement over the current version because of several new features, including the following:

1. MINITAB now contains an extensive interactive HELP command.
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 now has an OUTFILE command with which output can now be written to an alternate file to be saved or routed later, rather than printed at the terminal.
4. You can now insert data between rows or at the end of the worksheet.
5. Many statistical procedures have been revised and expanded.

The MINITAB 82 manual will be available during spring quarter in the Minnesota Bookcenter (Williamson Hall) on the University's East Bank. A preliminary version of this manual is

available online on the CYBERS; to get a copy, type

WRITEUP,MINITAB/L=MANUAL,PT=AS  
ROUTE,MANUAL,DC=LP,EC=A9,UN=site,  
BIN=bin

More about MINITAB 82 can be found in the February 1984 issue of the *Newsletter*.

### GLIM

GLIM 3.11 is an interactive generalized linear modeling package available on the CYBER CA and MERITSS. It includes a wide range of regression models, analysis of variance and covariance, contingency table analysis, and profit analysis.

GLIM users may now control the size of their work area by specifying

GLIM,SIZE=nnn

where nnn is the desired size of the work area in words. The default size is still 5000 words. You can use the \$ENV U directive to find out how much space is being used and how much there is left.

For more information about GLIM, see the November 1984 issue of the *Newsletter*.

(Bruce Center)

## The Classifieds

### FOR SALE

Hewlett-Packard 9845B desktop computer with 190K RAM, 40 graphics, assembly ROM, HP BASIC, and Pascal. Also 8/P drive, thermal printer-plotter, input printer, digitizer, payroll software. Price negotiable. Contact:

Dr. Pierre Robert  
Department of Soil Science  
University of Minnesota  
St. Paul, MN 55108  
(612/376-9183)

# Spring Quarter Short Course Schedule

## INTRODUCTORY COURSES

PRICES: U. student \$15, U. staff \$25, Non-University \$35

010	Introduction to Computer Terms (Jerry Larson) April 8-12 (MWF)	3:15-5 p.m.	
020	A Taste of Computing (staff) April 15-19 (M-F)	3:15-5 p.m.	
040	Introduction to VAX/VMS (Bryan Senn and Jerry Stearns) April 23-May 7 (TTh)	2:15-4 p.m.	
050	Beginning NOS (Cyber NOS) (Jon Jamsa) April 22-May 3 (MWF)	3:15-5 p.m.	
090	Introduction to Micros: MS-DOS (Simin Hickman) April 22-26 (MWF)	2:15-4 p.m.	
130	XEDIT (Tom Kovarik and Jill McAllister) May 6-10 (MTThF)	2:15-4 p.m.	
150	Introduction to CRAY 1 & COS (Kurt Richards) April 23-May 2 (TTh)	3:15-5 p.m.	
200	Databases for the Mac (Simin Hickman) May 21 (T)	2:15-4 p.m.	All \$15

## ELECTIVE COURSES

PRICES: U. student \$25-35, U. staff \$30-50, Non-University \$50-100

515	MultiPlan/Chart for MAC (Simin Hickman) May 7-16 (TTh)	2:15-4 p.m.	\$25-\$35-\$60
520	Lotus 1-2-3 (Dave Larsen) May 14-16 (TTh)	2:15-4 p.m.	\$25-\$35-\$60
530	SPSS (Statistics Package) (Sharon Alberg) May 20-24 (MWF)	3:15-5 p.m.	\$25-\$35-\$60
540	Magnetic Tapes in NOS (Peter Oberg) May 14-23 (TTh)	2:15-4 p.m.	\$30-\$40-\$65
550	Advanced NOS (Kurt Richards and Jon Jamsa) May 13-24 (MWF)	3:15-5 p.m.	\$30-\$45-\$65
560	DI-3000 Graphics (Jill McAllister and Bryan Senn) May 29-June 10 (MWF)	2:15-4 p.m.	\$30-\$40-\$70
620	COMPASS (CDC Assembler) (Tom Kovarik and John Larson) May 20-June 3 (MWF)	2:15-4 p.m.	\$30-\$40-\$70
640	Beginning Pascal (Mike Pennaz) May 13-24 (MWF)	2:15-4 p.m.	\$25-\$40-\$60

REGISTRATION: You can register at the UCC Reference Room, 140 Experimental Engineering (hours: 8 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 fee per class. The deadline for registration is Reference Room closing on the last working day *before* the class begins. You may pay course fees by cash, check, or with a signed University journal voucher, or

you can charge fees 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 about registration, call Jerry Stearns, 376-8806, or see WRITEUP(CLASSES) on the MERITSS or CYBER CA systems.

## Microcosm

### AVAST YE: FAIR USE AND SOFTWARE PIRACY

The issue of software piracy is a messy one for microcomputer owners and users. Computer software is often easy to copy and the temptation to duplicate a friend's software can be difficult to resist. But unauthorized copying is both morally and legally wrong. Many software developers (like Lotus Development) prosecute organizations and individuals for unauthorized use of software and for good reason. Software developers have a legitimate right to compensation for their products; unauthorized duplication of their software deprives them of

compensation and is also theft of their property.

Nor does the price of software justify unauthorized copying, because the cost of software piracy, though initially borne by the software developer, is ultimately paid for by legitimate users. Furthermore, the money paid for a software product represents a license fee for the use of one copy. Reproducing computer software without authorization is a Federal offense, in violation of the U. S. copyright law. Civil damages for unauthorized software copying can be as much as \$50,000 or more and criminal penalties include fines and imprisonment. And bills have been introduced in Congress to strengthen

the law and increase these penalties.

If you purchase a software package, by the strictest interpretation of copyright law you are legally entitled to make backup copies for use on a single machine. This includes making backup copies with one of the many copying programs that override the manufacturer's copy protection.

If you choose to ignore the law by reproducing and using unauthorized software copies, you open yourself (and, if you are faculty or staff, the University) to the possibility of prosecution. UCC does not condone software piracy, so our Microsystems Group does not answer questions for users of unauthorized software copies.

### 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	
DiehIH 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

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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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