

# acs academic computing services Newsletter

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November, 1989

## In this Issue

**MORE on CA**  
Display CYBER CA text files at your terminal conveniently with MORE. 261

**VMS 5.2 coming**  
We will upgrade our VX system to VMS Version 5.2 on December 17. 264

**Harwell meets VX**  
The Harwell subroutine library has been installed on our VAX VX. 265

**Take a course**  
Short courses in November cover SAS, graphics packages, and math and engineering software. 268

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**Fall Quarter  
Short Courses  
Still Available.**  
See page 268.

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**Holiday Hours**  
See page 266

## New MORE Command on CA

Steven Siirila  
SFS@UX.ACS.UMN.EDU

In the past there has been no easy way to display CYBER CA text files on terminal screens one screen at a time. This is because Telnet access to CA does not currently support the Hold Page terminal attribute, and most interactive access to CA is now accomplished through Telnet. (See the June 1989 Newsletter for details.) Therefore we have written a utility called MORE. This utility is very similar to the more command on our UX system. MORE allows you to examine a text file one screenful at a time on a video display terminal. It normally pauses after each screenful, printing --More-- at the bottom of the screen. When you press RETURN, the utility displays one more line of the file. Pressing the space bar displays one more screenful.

To use MORE on the CA system, type:

**MORE, filename**

where *filename* is the name of the file you want to display on your terminal. If you omit the file name, MORE will attempt to display a file called LIST. If the file you specified does not exist as a local file, MORE will attempt to display a permanent file by the same name. Note that when MORE displays a permanent file, it does not leave that file local to your job.

MORE can also be used to display more than one file. To do this, specify more than one file name in the command. For example,

**MORE, DATA1, DATA2, DATA3**

will display the files DATA1, DATA2, and DATA3 in the order specified in the command line. MORE will prompt you between each file to give you the opportunity to quit, skip files, etc. Another way to specify multiple files is to use wild-card characters. For example,

**MORE, DATA\***

will display all files with five-character file names beginning with the four characters DATA. Note that this differs from the more command on our UX

*continued on page 264*

# Help Page

## ACS HELP-LINES

### Central Systems (CA,NV,UX,VX):

626-5592 8 am to 5 pm, weekdays

### Artificial Intelligence:

625-8332 3 to 4 pm, weekdays

### Data Base:

626-1887 10 to 11 am, weekdays

### Graphics:

626-5592 8 am to 5 pm, weekdays

### Liberal Arts, Text Analysis:

625-8332 3 to 4 pm, weekdays

### Statistics:

626-1887 1 to 3 pm, weekdays

## Other HELP-LINES

### LUMINA (communications questions)

626-2272 8 am to 5 pm, weekdays

### Microcomputer and Workstation Networks Center:

626-4276 9 am to 4 pm, weekdays  
(Closed 12:00 to 1:30 pm,  
Monday, Tuesday, and Friday.)

## CONSULTING

### Walk-In

#### ACS, East Bank:

128C Lind Hall 10 am to noon and 1 pm to 4 pm, Monday through Friday

#### Microcomputer and Workstation Networks Center:

125 Shepherd Lab 9 am to 4 pm, weekdays  
(Closed from 12:00 to 1:30, Monday, Tuesday, and Friday.)

## Electronic Mail Consulting

Consulting is now available via the mail facility on all ACS systems (the CA, NV, UX, and VX). Send mail to user name CONSULT for questions after hours and for low-priority questions that are not critical to your immediate computing work. Replies will be sent to your account through the mail facility on your system.

## Instructional Computing Consultant

Department instructors may call 626-0200 for assistance in choosing ACS systems (CYBER/NOS, CYBER/VE, ENCORE/UNIX, VAX/VMS), software, and for answers to any other inquiries on using computers for instructional computing.

## COMPUTING INFORMATION CENTER

128A Lind Hall, 625-7397, MAD@UMNACUX, MAD@UMNACVX  
8 am to noon and 1:00 to 4:30 pm, Monday through Friday

**Computing account and grant applications** available for CYBER, ENCORE, and VAX computers.

**Short course enrollment.** Short course schedules and class descriptions available.

**Assistance in ordering vendor documentation.** Vendor documentation is not always available in the University bookstores and may be ordered directly from the company.

**Complete documentation collection.** Reference copies of vendor and all other documentation for ACS software.

**Free ACS documentation.** General information and central system information available.

**Computing Newsletters.** Subscribe to the *ACS Newsletter*. Newsletters from other computing centers are also available for reference.

# acs

**Academic Computing Services**

Director, ACS: Michael Skow  
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Direct comments, suggestions, articles, and announcements to the editors, ACS, Technical Publications, 2520 Broadway Drive, Lauderdale, MN 55113, or call (612) 626-1828, or 626-1093. BITNET: SKB@UMNACVX, PMG@UMNACVX.

For a free subscription call (612) 625-7397, or send your name and address to the Computing Information Center, 128A Lind Hall, University of Minnesota, 207 Church St. SE, Minneapolis, MN 55455. BITNET: MAD@UMNACUX, or MAD@UMNACVX. On-campus address changes *must* include your department name and address.

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**HELP PAGE** 262

**SYSTEMS**

**CYBER CA**

New MORE Command on CA 261

**VAX VX**

VMS 5.2 Update in December 264

**SOFTWARE**

**Math and Engineering Packages**

Harwell Subroutine Library on VX 265

**HOLIDAY HOURS** 266

**CONVENTIONS** 267

**SHORT COURSES** 268

**PHONES/HOURS/LABS** 271

**VX will be upgraded to VMS 5.2 on December 17. See page 264.**

*continued from page 261*

system in that the wild card character only matches one character instead of any number of characters.

MORE also allows a number of options which must appear after a / delimiter on the command line. For example,

**MORE, DATA1/CC**

will display file DATA1 while stripping and interpreting Fortran carriage control characters in column one of each line in the file. This is useful for displaying files which have already been prepared for printing. Several other options are available on the MORE command. See the on-line document WRITEUP,COMMAND=MORE for more detailed information.

## VMS 5.2 Update in December

*Marisa Riviere*  
MARISA@UMNACVX

**T**he VX system will be updated to VMS 5.2 during winter break. Our current target date for the change is December 17.

This update does not seem to include major changes that will affect general users. On-line information about the update and test time schedules will be announced on the VX system notes.

# acs

## Harwell Subroutine Library on VX

Michael J. Frisch  
MJFRISCH@UMNACVX

**W**e have recently installed the Harwell Subroutine Library on the VAX VX machine. It is the same version we formerly had on the CRAY-1 but has been compiled in /G\_FLOATING double precision on the VAX. The library has nearly 300 subroutines that can solve numerical mathematics problems in the areas of differential equations, eigenvalues and eigenvectors, mathematical functions, geometrical problems, integer valued functions, sorting, linear programming, linear algebra, nonlinear equations, polynomial and rational functions, numerical integration, statistics, interpolation and approximation, and optimization and nonlinear data fitting. The library was obtained from the Harwell Laboratories of the United Kingdom Atomic Energy Authority.

We have run a set of test programs on most of the routines and they run satisfactorily.

The Harwell library is described in three documents: a Mini-Catalog, a Catalog of Subroutines, and two volumes of Subroutine Library specifications. All are on reserve in

the ACS Computing Information Center, 128A Lind Hall, 625-7397. Users can make photocopies of this documentation. There is a **MOREHELP LIBRARIES HARWELL** entry that has the same information that is in this article.

To access the library, use the command:

```
$ LIBS HARWELL
```

You normally only need to use the LIBS command once for each login. Note that you must declare all floating point variables to be used with HARWELL routines as **DOUBLE PRECISION** (or **REAL\*8**) and declare all complex variables as **DOUBLE PRECISION COMPLEX** (or **COMPLEX\*16**). Also, you must use the /G\_FLOATING parameter on the VMS FORTRAN command. (It can be abbreviated to /G.)

See **Example 1** for more information about the HARWELL library.

### Example 1: Sample Harwell Problem

Here is a sample problem using a procedure from the Harwell library.

```
c This is file HARTEST.FOR
c
c evaluate exp(z**2)*erfc(-iz)
c for complex z, z=x+i*y, x>0, y>0.
c use fc01ad to evaluate this function at 0.5+0.5*i.
implicit double precision (a-h,o-z)
x=0.5
y=0.5
call fc01ad(x,y,u,v)
print *,u,v
stop
end
```

*continued on page 266*

*continued from page 265*

The VMS commands to run this problem are:

```
$ LIBS HARWELL
$ FORTRAN /G HARTEST
$ LINK HARTEST
$ RUN HARTEST
```

The output from this run is:

```
0.533156630287872      0.230488203880762
FORTRAN STOP
```

## Holiday Hours for November and December

*Arvid Vangsness*

**I**n observance of Thanksgiving, ACS systems will run in unattended mode from 12 midnight Thursday, November 23, until 6 am Friday, November 24.

In observance of Christmas, our systems will run in unattended mode from 12 midnight Sunday, December 24, until 6 am Tuesday, December 26.

In observance of New Year, our systems will run in unattended mode from 12 midnight Sunday, December 31, until 6 am Tuesday, January 2.

It is unlikely that any tape requests or printing will be processed during these hours. Normal operations on all systems will resume at 6 am Friday, November 24, on Tuesday, December 26, and on Tuesday, January 2.

## Conventions

Throughout this and other ACS publications, we have adopted these conventions:

- Messages and prompts from the ACS computers appear in plain type, like this.
- Words that the computer systems replace with a specific name, value, or other information appear in *italic type, like this*.
- Commands you type at your terminal keyboard appear in **bold face type, like this**.
- Words that must be replaced by a specific name, value, or command that you type in appear in ***bold italic type, like this***.
- Comments to interactive sessions and program files are enclosed in { curly braces, like this }.

Here's an example:

***save, filename***

is a command you type in. You type ***save*** and replace ***filename*** with the name of your file. The system may respond with the message

*filename* ALREADY PERMANENT { An example of a system message. }

where *filename* will be replaced by the name of the file you attempted to save.

- The symbol <CR> refers to the carriage return (or RETURN) key on the terminal. The <CR> serves as a terminator for commands you type at your terminal. In most cases we do not show <CR>; we assume you know to type it after every command.

# Short Courses

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## ACS Central Systems Fall 1989

Central Systems courses are *free*. To register call 625-7397.  
Some classes have size limitations: Register early.

### Elective Courses

Using SAS (Statistical Analysis System)	Nov 13-16	MTTh	2:30-4:30 pm
Math and Engineering Software	Nov 13-15	MW	2:15-4:00 pm
Introduction to PicSure Graphics	Nov 28-30	TTh	2:15-4:00 pm

### Registration Information

**Limits:** Some central systems classes have limits to class size. Please try to register early to be sure of getting a place. If you decide to cancel from a class, please do so as soon as possible, so that we can make the space available to others.

**Registration:** Registration is located at ACS's Computing Information Center, 128A Lind Hall. (Hours: 8:00 am to noon and 1:00 to 4:30 pm, Monday through Friday.) To register call 625-7397. you can also register by electronic

mail—write to MAD@UMNACVX or MAD@UMNACUX or MAD@UMNACCA. Please call to cancel if you later decide not to attend, so we know how many to expect. Deadline for registering is 4 pm on the last working day before the class begins. For registration information, call 625-7397.

**Note:** Thursday and Friday, November 23-24, are University holidays. No classes will be held.



## Microcomputer and Workstation Networks Center

### IBM and Compatible Courses

Limited to 10 people.

FEES: 1) U of MN students, 2) U staff/faculty, 3) Non-University persons.

				(1) (2) (3)
Introduction to Micros-DOS Section 3	Nov 27-Dec 1	MWF	10:00-noon	\$40,\$50,\$80

Mastery of *Introduction to Microcomputers-DOS*, or equivalent knowledge,  
is required for the IBM courses listed below.

				(1) (2) (3)
Hard Disk Commands	Dec 5-6	TW	2:00-4:00 pm	\$40,\$50,\$80
Programming in dBase III	Nov 15-16	WTh	1:30-4:00 pm	\$40,\$50,\$80
Lotus Data Base Commands	Nov 21	T	2:00-4:00 pm	\$30,\$40,\$60
Lotus Macros	Nov 30	Th	1:30-4:00 pm	\$30,\$40,\$60
Beginning Excel	Dec 5-6	TW	10:00-noon	\$40,\$50,\$80
Introduction to WordPerfect 5.0 Section 3	Nov 27-28	MT	1:30-4:00 pm	\$35,\$45,\$85*

\**Introduction to WordPerfect*, A ComputerPREP, Inc. WordPerfect 5.0 Training Guide, is required for this class. You must buy this workbook at the Minnesota Book Center Electronics Desk before you come to class.

### Macintosh Courses

Hands-on. Limited to 10

				(1) (2) (3)
Macintosh Fundamentals Section 4	Nov 22	W	10:00-noon	\$10,\$10,\$10
Orientation for Macintosh Campus Network Users Section 3	Dec 4	M	11:00-noon	Free

## Short Courses

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Mastery of *Macintosh Fundamentals*, or equivalent knowledge, is required for the courses listed below.

				(1)	(2)	(3)
Introduction to MS Word for the Macintosh Section 3	Nov 13-14	MT	1:30-4:00 pm	\$35,	\$45,	\$85
Intermediate MS Word for the Macintosh Section 2	Dec 7-8	ThF	9:30-noon	\$35,	\$45,	\$85
Intermediate Excel for the Macintosh	Nov 20-21	MT	9:30-noon	\$35,	\$45,	\$85
Using Hyper Card Section 3	Nov 28-30	TTh	9:30-noon	\$35,	\$45,	\$85
Introduction to HyperTalk	Nov 29	W	1:30-4:00 pm	\$25,	\$35,	\$60
Introduction to Desktop Publishing—PageMaker Section 2	Dec 7-8	ThF	1:30-4:00 pm	\$35,	\$45,	\$85

### Registration Information

**Registration Procedures:** Short course registration is handled by the *Microcomputer and Workstation Networks Center*. You can register in person in 103 Shepherd Labs, Monday through Friday, 8 am to noon and 1 to 4 pm, or by mail. Classes are filled in the order registration is received. The deadline for registration is 4 pm on the last working day before class begins. Fees must accompany your registration. You can pay fees by cash, check, or a Journal Voucher.

**Cancellations:** If you cannot attend a class, call 625-1300 to arrange a refund and to enable us to contact people on our waiting lists. **Refunds:** No refunds will be made if you cancel your registration *within 48 hours of the beginning of the class*. However, if we must cancel a class, we will refund your registration in full.

For additional registration information, call the Microcomputer and Workstation Networks Center at 625-1300, or stop in room 103 Shepherd Labs.

# Phones/Hours/Labs

## ACS PHONE NUMBERS

Administrative Office: 626-1600  
HELP-Line 626-5592

**Access:**

ACS systems (CA,NV,UX,VX)	
3/12/2400 bps + 7/Even/1	626-1630
12/2400 bps + 8/None/1	626-1631
LUMINA	626-2206

**Accounts:**

CYBER CA, CYBER NV, ENCORE, VAX	625-1511
Computer Hours (recorded message)	626-1819
Computing Information Center	625-7397
Contract Services	625-2303
East Bank I/O, 128B Lind Hall	625-5082
Engineering Services	625-1595
Equipment Maintenance/Repair	625-1595
Graphics Software	626-5592
Information, Lauderdale	626-1600
Lauderdale Computer Room/Services	626-0550
LUMINA	626-2206
LUMINA Consultant	626-2272
Magnetic Tape Librarian	626-1838
Math and Engineering Packages	625-5830
Newsletter Subscription	625-7397
Permanent File Restoration	626-0595
<b>Public Labs</b>	
170 Anderson Hall	624-6526
140 Blegen Hall	624-5278
135 Classroom Office Bldg.	624-9226
4-204/4-250 EE/CSci	625-9081
121 Elliott Hall	624-0866
14 Folwell Hall	625-4896
306B Lind Hall	625-9032
B2 OMWL	626-2205
9 Walter Library	626-1899
MWNC Lab Manager (14 Folwell Hall)	625-7850
Publications Information	626-1093
Short Course Registration	625-7397
Shuttle Bus Service	625-9525
System Status (recorded message)	626-1819
West Bank Computing Services	624-0877

For the phone numbers of consulting services, see the Help Page.

## PUBLIC LABS TWIN CITIES CAMPUS

	Central System Printing	Interactive	Micro
<i>East Bank</i>			
ApH 117			X
Arch 148			X
CenH		X	
ComH		X	
DiehH 207, 270	L	X	X
EddyH Annex 54			X
EE/CSci 4-204/250	I	X	X
EltH 121	I	X	X
FolH 14, 14a	L	X	X
FronH		X	
LindH1	I	X	
LindH 26			X
LindH 128B	L	X	
LindH 306B			X
MasCanCtr M39		X	
MechE 308	I	X	
MoosT 8-425			X
Phys 130	Closed for Fall Quarter		
PioH		X	
SanH		X	
TerrH		X	
VinH 203			X
WaLib 9	L	X	X
<i>West Bank</i>			
AndH 170	L		X
BlegH 140	I	X	
MdbH		X	
OMWL B2			X
<i>St. Paul</i>			
BaH		X	
CentLib B40	I	X	
CentLib B50			X
ClaOff 135			X
McNH 69	L		X
Vet 436			X

I - Impact line printers.  
L - Laser printers.

## SYSTEM OPERATING HOURS

The CYBER CA, the CYBER NV, the ENCORE UX, and the VAX VX systems run continuously from 6 pm Sunday until 6 am the following Sunday. The systems are in unattended production mode each night from midnight until 6 am. It is unlikely that any tape requests or printing will be processed during these hours. Normal operations resume at 6 am each day except Sunday.

On the first and third Fridays of each month from 5 am to 7 am the CYBER CA and NV systems are unavailable. Low-rate hours are from 8 pm to 8 am Monday through Friday, and all operating hours on Saturday and Sunday.

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Address \_\_\_\_\_

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