The ACSS Newsletter

Workstations

DEC University Discounts

Janet Eberhart
BITNET Mail: JME@UMNACVX

ACSS has negotiated several contracts with the Digital Equipment Corporation (DEC) to provide discounted software and hardware to University departments and researchers. Three hardware contracts cover discounts for DEC hardware. The Educational Software library and the right-to-copy program offer discounts on DEC software, including acquisition and maintenance.

In this article I'll summarize these new arrangements with DEC. If you want more details, please contact me at 626-1897 or via electronic mail.

"Star of the North":
U joins DEC University Workstation Consortium

Last April the University entered into a purchasing arrangement with DEC called the "Star of the North." The program was similar to the DEC University Workstation Consortium at other major universities. In this agreement, over a dozen VAXstations were ordered and two dozen MicroVAX and VAXstation owners have subscribed to the Educational Software Library. Because of the success of this program, the University has recently become a full-fledged member of the Workstation Consortium.

Hardware Discount

As a member of the Consortium, the University can purchase DEC workstations and servers at discounts of between 40 to 50 percent.

In This Issue . . .

Jill McAllister and Marisa Riviere tell you about **ALL-IN-1, an office automation system** running on our VAX VX.

On the CYBER CA, we're setting up a **new file archiving system**.

For statistics users we announce a **new edition** of the _Guide to Applications Packages: Statistics_, and Bruce Center describes **errors in SPSS^x Version 3.**

Pete Oberg introduces two new **conferences for data base users**, available on the CYBER CA and the VAX VX.

In liberal arts computing, Tom Rindflesch describes a research project in **natural language processing** and the ACSS resources that helped make it possible.

**New edition
of the
Statistics Guide
now available.**
(See page 47.)

Help Page

HELP-LINES

Mainframe (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

Microcomputer:

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

Statistics:

    626-1887   1 to 3 pm weekdays

Text Analysis:

    625-8332   3 to 4 pm weekdays

Text Processing:

    625-1391   10 am to noon, Tuesday,
                   Wednesday, Thursday

CONSULTING

Walk-In

East Bank:

128C Lind Hall; 10 am to 4 pm, weekdays;
7 to 9 pm Wednesday

West Bank:

140 Blegen Hall; 11:15 am to 1:45 pm, Tuesday;
12:15 to 3 pm, Wednesday and Thursday

Microcomputer:

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

Electronic Mail Consulting

Consulting is now available via the mail facility on all
ACSS systems (the CA, NV, VX, and UX). 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 ACSS 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, YZE6075@UMNACCA or MAD@UMNACVX

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 ACSS software.

Free ACSS documentation. General information, and
mainframe and microcomputer information available.

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

The program covers a wide variety of equipment ranging from the low-end diskless VAXstation 2000 with 19" monochrome monitor ($3,457) to the high-end VAXstation 3500 with 16 MBytes of memory, 8-plane color graphics, an RA70 disk drive and a TK70 cassette tape drive ($32,400). The new VAXstation 3xxx series are included in the program, as well as VAXServers, VAX-Station II/GPXs, and many workstation options. Each system includes a one-year hardware and software warranty and includes single-user licenses for VMS or Ultrix operating systems and 17 other products.

ACSS is negotiating additional special contracts that give University customers a 20 percent discount on other DEC equipment.

Workstation Software Library

The Educational Software Library lets subscribers borrow DEC documentation and software from ACSS. Subscribers are charged a fixed yearly fee, varying from $600 for a VAXstation 2000 up to $2,300. for a MicroVAX II. Currently the software and associated documentation in the library include some of the more expensive DEC products, such as Ada, as well as the familiar Fortran, Lisp, and Pascal. In all, 28 VMS and Ultrix products are included. Software updates are included in the yearly fee. Currently, only MicroVAX and VAXstation owners are eligible to subscribe.

Saving Money with the Consortium's Software Library

How much do you save using the Software Library?

Suppose you currently have a MicroVAX II running 8-user VMS, Fortran, end-node DECnet, and Pascal. You keep your products up-to-date. If you bought this service directly from DEC, the costs would be the following:

Product	License	media	Basic Service (per month)	(per year)
VMS	$6,300	$1575	$240	$2,880
Fortran	$3,255	$630	$47	$564
DECNet	$1,061	$735	$141	$1,692
Pascal	$2,977	$630	$47	$564
Totals	$13,593	$3570	$475	$5,700

By subscribing to the software library, you receive the right to use these four products and 25 other products, and get access to distribution copies of the software for a yearly $2,300 fee. In addition, you will have access to a set of manuals for these products and a 35 percent discount on the purchase of any of the documentation for products included in the library. As always, ACSS staff. will answer your questions.

Assuming you have already bought the licenses and media for these products, your savings will be $3,400 per year based on maintenance alone.

We expect to get significant discounts from third-party vendors by handling distribution and updates. Several vendors have expressed an interest in participating in such a program. The software library concept can also be used for distributing public-domain or University-wide licensed products. Two such products that we expect to be in the current distribution are the CMU version of TCP/IP for VMS, and PMDF (the Pascal Memo Distribution Facility). As licenses with vendors are arranged, we will inform you in future issues of this newsletter.

Documentation

Subscribers to the Software Library receive a 35 percent discount when ordering documentation for any of the software in the library through the Information Center. A set of the documentation is available at the ACSS Computing Information Center, 128A Lind. Additional manuals will be available for subscribers to check out.

Right-to-Copy: How much do I save?

Suppose you are maintaining software for a VAX 8600. The following chart compares a standard DEC service contract with the right-to-copy service contract.

	DEC	Right-to-copy
VAX/VMS	$525.00	$140.00
VAX Fortran	$72.00	$26.60
VAX Set Package	$359.00	$134.40
VAX CDD	$66.00	$25.20
VAX Datatrieve	$120.00	$43.40
VMS Documentation Update		$66.00
CDD Documentation Update		$9.00
Datatrieve Documentation Update		$8.00
Fortran Documentation Update		$8.00
VAX Set Documentation Update		$42.00
Additional CSC Contact		$191.00
	$1142.00	$693.60

You save $448.40 per month.

Right-to-copy

All other VMS systems are eligible to use the right-to-copy contract, which offers substantial savings on VMS software maintenance. The price reduction is possible since ACSS manages software contracts and other DEC services, thus taking the burden of administration from DEC. Contact Marisa Riviere (626-0268) for more information about the right to copy.

Consortium News

I attended the second bi-annual meeting of the Consortium early in November. At that meeting, announcements were made about lower fees for the software library, new Consortium pricing for the VAXstation 3xxx series and a new option for documentation discounts. We find that DEC has been very responsive to the concerns of Consortium members.

Some of the following issues that we discussed are likely to be resolved in the next few meetings:

Several Universities wished to extend the University VAXstation Consortium to include discounts for sale of workstations to full-time faculty, staff, and students. DEC is interested in doing this, but has yet to decide on handling of its Software Library for this group of users.

DEC currently has a pilot program testing the feasibility of extending the Software Library to cover all VAXes. They have not decided on pricing policies. University members felt a reasonable price could be determined by doing a study of the current cost to maintain VAX software on campus.

Finally, the attending University members said that the single thing that could make the program more successful at their site was to have still lower prices—especially for the software library.

Software Library Products

Ultrix Section
> Ultrix-32 includes X Windows, VAX C, NFS
> DECnet/Ultrix (End Node only)
> Lisp/Ultrix
> Fortran/Ultrix

VMS Section
> VMS includes VWS (workstation software), LAVc
> DECnet (End Node only)
> Ada
> Basic
> C
> CDD (Common Data Dictionary)
> Datatrieve (data base)
> Pascal
> DEC/CMS (Code Management System)
> DEC/MMS (Module Management System)
> DEC/SHELL (Unix shell)
> DEC/Testmanager
> FMS (Forms Management System)
> Fortran
> GKS/2b (Graphics)
> LAVc (Local Area Vax Cluster)
> Lisp
> LSE (Language Sensitive Editor)
> Notes (VAX Notes)
> OPS5
> PCA (Performance and Coverage Analyzer)
> Rdb (relational data base)
> Scan (text-processing language)
> SCA (Source Code Analyzer)
> WPS-PLUS (word processing)

ALL-IN-1: Office Automation and Other Useful Tools

Jill McAllister and Marisa Riviere
BITNET Mail: JLM@UMNACVX, MARISA@UMNACVX

ALL-IN-1, an office automation package from the Digital Equipment Corporation (DEC), is available on ACSS's VAX/VMS system, the VX. ALL-IN-1 contains several different features and provides a variety of tools. Some of these functions are more sophisticated than are usually needed in routine office automation work. For that reason, DEC calls ALL-IN-1 a *workstation*.

The ALL-IN-1 workstation is menu-driven: Each subsystem is available from the main menu, and then guides the user through its own menu for the separate functions of that subsystem.

The Subsystems

Some of these subsystems provide functions you have probably used before, such as electronic mail. ALL-IN-1 has its own mail subsystem, **ALL-IN-1 Mail**, which is different from VMS mail in that ALL-IN-1 Mail has more specific functions and features. This Mail links with another DEC product called DECtalk. DECtalk allows you to call in from any touch-tone phone (or a rotary dial phone if you have a hand-held tone generator), and listen to any ALL-IN-1 mail that is waiting for you. For instance, you can delete or answer your mail once you have read it with DECtalk. Besides accessing the new messages, you can also get into any of the mail folders which ALL-IN-1 sets up for you.

Another useful tool in ALL-IN-1 is the **desk calculator**. With this tool, you can perform on-line the usual functions of addition, subtraction, multiplication, division, and exponentiation. The calculator has three storage registers, and these registers give you nonvolatile memory. The numbers you store in them will remain there, even after you log off the system, and will be available for you the next time you use the desk calculator. You can also enter complete formulas and evaluate them. In addition, the desk calculator provides you with the following functions: absolute value, square root, sine, arcsine, cosine, arccosine, tangent, arctangent, factorial, nearest integer, radians to degrees, degrees to radians, common logarithm, natural logarithm, and modulo. The calculator screen display gives you a visual layout of a calculator, making this tool very easy to use.

The **Time Management subsystem** allows you to set up a calendar of upcoming meetings and appointments. You can set up a list of reminders that will appear on your screen on the appropriate days as you enter ALL-IN-1. Time Management also allows you to set up such things as a To-Do list and Action Items.

ALL-IN-1 provides you with a number of **directories**; you may create your own phone directory under the Personal Directory subsystem, entering names, phone numbers, addresses, and any other information useful to you. There is also a directory for nicknames, for distribution lists, and a corporate directory that you can use if you wish. (The corporate directory is not implemented because multiple organizations use the ALL-IN-1 package on VX. The corporate directory is for organizations that run ALL-IN-1 on their own VAXes or Micro-VAXes.) There is a directory of ALL-IN-1 users, however, that ACSS does maintain. You will see all of these directories listed on the Directories Menu.

ALL-IN-1 can be customized for specific sites. There are two subsystems reserved for site-specific applications. These are the **Business Applications** and the **Profession Specific subsystems**. In the future ACSS may install applications under these subsystems. If you are running ALL-IN-1 on a MicroVAX, you can customize your workstation by setting up you own applications.

Other Features

You can access VMS files and VMS mail with ALL-IN-1, although, by default, VMS and ALL-IN-1 are mutually exclusive. ALL-IN-1 also has extensive on-line tutorials to teach you how to use the features of each subsystem.

For More Information

In upcoming issues of this *Newsletter*, we will present other articles that describe specific features of ALL-IN-1 in detail. The first two articles will cover ALL-IN-1 Mail and DECtalk. DECtalk, in particular, will be offered on an experimental basis for users to evaluate.

All VMS users, with the exception of instructional accounts, are eligible to use this package. If you would like to be validated to use ALL-IN-1 or to use ALL-IN-1 plus DECtalk, call Jill McAllister at 626-1878.

The VI Editor on the VX

Alan Kaufman
BITNET Mail: Alan@UMNACVX

ACSS has installed a version of the well-known VI editor, written in VAX/TPU, on the VX system. (VI is a full-screen text editor, popular with UNIX users.) VI is available on the VX from the ACSS$UTIL directory. (Programs on the ACSS$UTIL directory receive low or minimum ACSS maintenance.)

To access VI, type

    $ @ACSS$UTIL_:[VI]VISETUP

Then, to edit a file with VI, type

    $ VI *filename.typ*

The VI set-up file will make the required definitions for you to access VI and its help library. It will also make VI your default editor for electronic mail and VAX/TPU. If you want to change this option and go back to the VMS default editor for mail, you have to deassign the VI logical name for mail by typing:

    $ DEASSIGN MAIL$EDIT

Help is then available by typing **VIHELP** or interactively while editing by entering **:HELP**. Also available on-line is a manual, prepared by the author of this version of VI. To print a copy of this manual, type

    $ PRINT ACSS$UTIL_:[VI.DOC]VI.MEM

New Permanent File Archiving System on the CYBER CA

Mike Pritchard
BITNET: MPP@UMNACCA
Internet: mpp@ux.acss.umn.edu

On Sunday, April 3, we plan to begin using a new permanent file archiving system introduced by Control Data Corporation at NOS 2.5.3-688. This new system replaces our current archiving system that purges files that have not been accessed in at least 30 days. This new archiving system makes the **ARCLIST** and **RELOAD** commands obsolete. We will keep these commands in the system until March 31, 1989 to allow files archived under the old system to be reloaded. The last archive using the old system will be performed April 1.

A big advantage of this new archiving system is that only your file data is released from the disk. The catalog information (file name, last access date, etc) are still present on the disk. This means that the **CATLIST** command now lists all your files — whether they have been archived or not.

To reload a file that has been archived under the new system, you only need to access the file, exactly as you would access a file that has not been archived. Your job will wait while your file is reloaded from tape. This should make your file available much sooner than under the old system, which only processed reload requests a few times each day.

Note that archived files will not be accessible during those times when the CA is unattended (for example, University holidays).

In the new system, **CATLIST** output indicates several files that have been archived to tape with parentheses around the file names, as in this example:

```
CATALOG OF   ABC1234         FM/CA      88/02/10. 16.20.53.  PAGE    1

INDIRECT ACCESS FILES


(ARCHOUT) (CCCCCCC) (FTEXT)   (RESTI)    (SYMBOLS) SYM3   TESTF
 ARTICLE  (DELETES)  MAIL      SCD        SYM2      TEST   TXEDMOD
 CATS      FSEPROC   PROCFIL  (SEQFILE)

DIRECT ACCESS FILES


 DATA      (MPPPL)   (TXEDINF)

11  INDIRECT ACCESS FILES ON DISK.  TOTAL PRUS =      514.
 1  DIRECT ACCESS FILE ON DISK.     TOTAL PRUS =      100.
 7  INDIRECTS ON ALTERNATE STORAGE. TOTAL PRUS =      141.
 2  DIRECTS ON ALTERNATE STORAGE.   TOTAL PRUS =     1507.
```

It may also be possible for your file to reside on disk and tape at the same time. *Each week* we will backup to tape all files that have not been modified in 30 days. If disk space is low, we will release the data space of files that have not been accessed in 30 days or that users request to store on tape, until we have opened up enough disk space.

You may also specify that you prefer that your file reside on tape by using the **PR=T** parameter on the **CHANGE, DEFINE, RETAIN,** and **SAVE** commands (e.g., **CHANGE,TEST/PR=T**). Files with this parameter set will be dumped to tape and released from the disks first *if* disk space is low or when we perform the weekly backups.

You can determine if a file has been backed-up to tape by looking at a full CATLIST output (**CATLIST,FN=***filename***,LO=F**). The following example shows a file that resides on disk and tape:

```
CATALOG OF   ABC1234      FM/CA     88/02/10. 16.20.59.  PAGE   1
     FILE NAME   FILE TYPE    LENGTH DN CREATION  ACCESS     DATA MOD
      PASSWORD   COUNT       PERM. SUBSYS DATE/TIME DATE/TIME DATE/TIME
      EXPIRES    LEVEL  PR BR AC RS
      CHARGE NO. PROJECT NUMBER


 1  TXEDMOD   IND. PRIVATE       2     88/01/20. 88/02/10. 88/01/20.
                         1      READ   16.30.53. 15.50.49. 16.30.53.
                      N   Y   N  DT
     SYSTEM

         1 INDIRECT ACCESS FILES ON DISK.  TOTAL PRUS =        2.
```

Notice the DT under the RS column. This shows that the file resides on disk (D) and tape (T). If the file resided only on tape, only a T would appear. Since the file has been backed-up to tape you may manually release the disk space with the **DROPDS** (drop disk space) command. For example, to release the disk space of the file in the above example you would use the command

DROPDS,TXEDMOD

The **DROPDS** command is fully documented in the *NOS Version 2 Reference Set*, Volume 3.

You may want to reload a file that has been archived without having to wait for it to become available. You can do this by using the **RT** (real time) parameter on the **ACQUIRE, ATTACH,** and **GET** commands. This will get the file data restored to disk and allow your job to continue processing. For example, to restore the disk copy of the file **SEQFILE** and **SYMBOLS** (from the first **CATLIST** example in this article) without waiting for them to be copied from tape, you could do:

GET,SEQFILE,SYMBOLS/RT

This command requests the file reload. You will have to use the **GET** command again to make the file local once the file has been loaded.

Note: If you used the PR=T option on the **CHANGE** command to specify that you prefer the file reside on tape, the file will still be a candidate for the weekly removal; otherwise the **GET** command will update the last access date to the current date.

Charges

We expect to charge much less for files that reside only on tape, although a rate has not yet been set. (we estimate this charge to be one-eigth to one-tenth of current disk charges.) Rates will be announced via NEWS on the CA when the information becomes available.

Advantages

The advantages of this archival and backup system are:

1. Users have more control over the archiving of files and the "disappearance" of files from their account.
2. The new system allows the user to reduce storage costs with the preferred resident parameter.
3. The backup is performed with two sets of tape for reliable storage.

Disadvantages

Unless you load files from tape in anticipation of times when the CA is unattended, it may not be possible for you to access files from tape at those times.

If you have any questions or if this change will cause problems in your use of the CA system, please call D. Bianchi at 626-1827.

Detailed Tape Error Messages on the CYBER CA

Steven Siirila
BITNET: SFS@UMNACCA
CA,NV,UX,VX: SFS

On January 20 we changed the meaning of the **PO=L** and **PO=M** parameters on the **LABEL** command. Before January 20, they were defined as follows:

PO=L   Made the system issue only the first and last error messages for each bad tape block. Numerous attempts were made to read each bad block, but only the messages for the first and last attempts were issued to the dayfile. This was the default.

PO=M   Made the system issue an error message for each attempt to read a bad tape block.

We have installed code from Control Data Corporation that changed the definition of these processing options. To minimize the impact at ACSS, we have also changed the default processing option to **PO=M**. The **new** definitions are as follows:

PO=L   Issues no error messages.

PO=M   Issues only the first and last error messages for each bad tape block. Numerous attempts are made to read each bad block, but only the messages for the first and last attempts are issued to the dayfile. This is now the default.

This change means that, if you were *not* using the L or M processing options on the **LABEL** command, *you will see no changes* in your tape jobs. However, if you were using the L option, you must either remove the parameter or change it to **PO=M** in order to keep getting error messages in your dayfile. If you are already using the M option, you need not make any changes.

ACSSVX: The VX's New DECNet Name

Marisa Riviere
BITNET Mail: MARISA@UMNACVX

The DECNet name and address of VX was changed on December 31. The change took place as planned with a minor modification: the originally selected name, UMACVX, was replaced by ACSSVX. We believe that this new choice is less likely to be confused with the BITNET name of VX, UMNACVX. (We were required to use names of only six characters, otherwise we would have used the BITNET name.)

How many names can a system have, after all? Many—one or more for each network or administrative function, for example. We hope that we will be able to limit the VX to the few names listed below:

Name	Use
VX	Used on ACSS-net and Tellabs (i.e., the name you use to log on to the computer from public terminal labs).
	In ACSS documentation and general reference.
	A local alias for VX.ACSS.UMN.EDU, and as such may be used for ftp, Telnet, and smtp (Internet mail).
VX.ACSS.UMN.EDU	Internet name (TCP/IP, ftp, Telnet, and smtp).
UMNACVX	BITNET name (for BITNET MAIL and the **SEND** command).
ACSSVX	DECNet name (for VMS Mail, Notes, Set Host, and other DECNet-layered products.).

The VX name will also continue to be accepted by DECNet-layered products for local references, such as Mail/Reply and NOTES, until December 31, 1988.

Charges for Connect Time via Ethernet Networks

R. L. Gulbranson

We have updated our accounting software to handle charging for central access connect time via various Ethernet-based networks (DECNet and Internet protocols). This billing change took place on February 1 and appears on journal vouchers after that date. This change affects all of ACSS's mainframe systems.

NOS/VE Command Format

Dave Bianchi
BITNET Mail: DJB@UMNACCA

This article is the second in a series describing the NV NOS/VE system.

This article discusses the NOS/VE command format. For more information on NOS/VE, please contact the ACSS Computing Information Center in 128A Lind Hall.

NOS/VE Names

NOS/VE uses names for commands, command parameters, files, catalogs, and so on. A name is any combination of alphanumeric characters and underscores (and some special characters like $) as long as the name does not start with a numeric character and does not have more than 31 characters. NOS/VE does not distinguish between upper- and lowercase characters in a name.

Some examples of NOS/VE names are:

```
new_data_file      user_123          DM_Commands
```

NOS/VE Commands

NOS/VE commands follow a general naming format. A command begins with a *verb* and is followed by an *object*. An object may be one or more words. The verb and all words in the object are separated by underscores.

Common verbs that begin commands are: **CREATE, DELETE, DISPLAY, CHANGE,** and **SET.** Some examples of objects are: **FILE, VARIABLE,** and **PROGRAM_ATTRIBUTES.**

Some examples of NOS/VE commands are:

```
CREATE_FILE             DELETE_VARIABLE
EDIT_FILE               DISPLAY_PROGRAM_ATTRIBUTES
```

Abbreviating Commands

Commands can be specified by their full name or by an abbreviated name. The abbreviation is generally formed by using the first three letters of the verb, followed by the first letter of each word in the object:

Command	Abbreviation
CREATE_FILE	CREF
DELETE_VARIABLE	DELV
EDIT_FILE	EDIF
DISPLAY_PROGRAM_ATTRIBUTES	DISPA

Command Parameters

Commands often have parameters that let you select processing options. Parameters have the form: **PARAMETER=VALUE**. The parameter may consist of one or more words joined by underscores. Parameters can be separated from each other and the command name by either spaces or commas.

An example of a command (**SET_TERMINAL_ATTRIBUTES**) with a parameter (**TERMINAL_MODEL=VT100**) is :

```
$ SET_TERMINAL_ATTRIBUTES   TERMINAL_MODEL=VT100
```

Like commands, parameter names can be abbreviated. The abbreviation of a parameter is normally formed by using the first character of each word:

```
$ SETTA   TM=VT100
```

Parameter names can be omitted. However, parameters have a specific order within each command. If you use the parameter name to specify the parameter value, you can place them in any order. But, if you specify only the parameter value, you must use the proper order.

```
$ SET_WORKING_CATALOG   CATALOG=$USER
```

Since **CATALOG** is the first parameter of **SET_WORKING_CATALOG**, the same command can be specified as

```
$ SET_WORKING_CATALOG   $USER
```

Parameter Types

Each parameter is defined to be of a specific type, such as INTEGER or STRING. NOS/VE makes sure that you specify a value that is the correct type for the parameter. Types include NAME, INTEGER, STRING, BOOLEAN, and FILE.

Command Continuation

A command can be up to 65,535 characters long. To continue a command on a new line, end the current line with two periods (..) and press the RETURN key. The system then prompts you with ../ and you can continue the line. An example:

```
/set_working_catalog ..
../catalog=$user
```

NOS/VE – ICEM Update

Dave Bianchi
BITNET Mail: DJB@UMNACCA

We have installed a new version of ICEM-EDL on the NV system. ICEM applications installed are:

        ICEMEDL   Environment Manager
        ICEMDDN   Design drafting (includes DD, AD, NC, and solid modeling)

To use these applications, you need the following command library in your command list:

    :CADVE.ICEM.APPLICATIONS.APP$COMMAND_LIBRARY

and the following libraries in your program attributes list:

    $SYSTEM.C.VCF$LIBRARY
    $SYSTEM.C.LIBC

Use the **DISPLAY_COMMAND_LIST** command to verify that **APP$COMMAND_LIBRARY** is in your command list and **DISPLAY_PROGRAM_ATTRIBUTES** to check for VCF$LIBRARY and LIBC.

If **APP$COMMAND_LIBRARY** is not in the command list, use this command to add it:

    CRECLE :CADVE.ICEM.APPLICATIONS.APP$COMMAND_LIBRARY

If the above libraries are not in your library list, use this command to add them:

    SETPA AL=($SYSTEM.C.VCF$LIBRARY,$SYSTEM.C.LIBC)

When this is accomplished, enter the following command to define IM/DM libraries (needed by ICEM-EDL):

    :CADVE.DMROOT.DM$COMMANDS

The above three commands can be placed in your user prolog file to be executed upon login. To run ICEM-EDL, you can now enter:

    ICEM

Note: To use ICEM, you must be a registered user. Please contact David Hultgren of the Mechanical Engineering department at 625-8003 for access.

Printing Files on the CYBER NV

Peter Oberg
BITNET Mail: PJO@UMNACCA

Question: How do I get files printed from the CYBER NV system?

Answer: The CYBER NV is running the NOS/VE operating system. Output can be sent to a laser printer in 128B Lind Hall, Lauderdale Center, or 170 Anderson Hall. Each laser printer has its own defaults associated with the **PRINT_FILE** command.

By default, Lind and Anderson sites print on one side of a page only ("simplex" mode) on un-punched paper, with no shifting.

By default, the Lauderdale site prints on both sides of a page ("duplex" mode) on three-hole punched paper. Printing is also shifted a quarter-inch to allow for punched holes.

The PRINT_FILE Command

The **PRINT** command can be used in the forms **PRINT_FILE, PRINT_FILES, PRINT,** or **PRIF**. The format of the **PRINT_FILE** command is:

        PRINT_FILE *filename(s)* *option(s)*

Replace *filename(s)* with the name of file or files you want to print. Replace *option(s)* with those options you want to use. Some of the most commonly used options follow:

> **PRINTER_SITE=***code* (alias **PS=**) specifies the printer on which the file is printed. Replace *code* with the two-letter code of the printer you want to print on: The Lind Hall printer is **EA**, Anderson Hall is **EB**, and Lauderdale is **BC**. Only the Lauderdale printer can print duplex, shifted, three-hole- punched paper. The Lauderdale printer is the default printer.

> **OUTPUT_SITE=***code* (alias **SITE** or **OS=**) specifies the site to which your printed file will be delivered. The Lind 128 site is **EA**, the Anderson site is **EB**, and Lauderdale is **BC**. The default is BC.

> **OUTPUT_BIN=***bin* (alias **BIN** or **OB=**) specifies the number of the bin to which file will be delivered. Replace *bin* with the correct bin number. Bins at Lind Hall are numbered 401 through 448. Bins at Anderson Hall are labeled 155-271. Open bins at Lauderdale are numbered 97-144. If you do not specify a bin number, your output is placed in a general bin at the site you specified.

> **PRINTER_TYPE=***printer* (alias **PT=**) specifies the type of printer on which the file is printed. Your choices are **XEROX**, a laser printer at the specified printer site (Lind Hall, Lauderdale, or Anderson Hall), or **LP**, the line printer (uses 11 by 14 inches lined paper) at Lauderdale.

See the list of options in WRITEUP PRINT_FILE on the system for a complete list.

Examples

```
PRINT MYFILE SITE=EA BIN=436 PS=EA
```

The above command sends the file MYFILE to the Lind Hall printer (**PRINTER_SITE=EA** or **PS=EA**), where it is printed in the default mode of that printer. It is in landscape mode and simplex on unpunched paper, with no other options.

```
PRINT MYFILE OS=EA BIN=405 PT=LP
```

The command above prints MYFILE on the Lauderdale line printer and is sent to Lind Hall, and placed in bin 405. Remember that LP uses the CDC 512 line printer with 11- by 14-inch lined computer paper.

For more information, see the ACSS Brief *Getting Output from the CYBER NV* at the Computing Information Center, 128A Lind Hall, or on the NV system type WRITEUP PRINT_FILE.

Data Base Update

Data Base Conferences in CYBER MAIL and VX NOTES

Peter Oberg
BITNET Mail: PJO@UMNACVX

We now offer electronic conferencing for all data base users on the CYBER CA and VAX VX. This new feature allows the university's community of data base users to exchange ideas regarding data base strategy and the use of various data base packages on the CA and VX.

On the CA, use the topic called DATABASE within the MAIL utility. For further information on using MAIL on the CA, see WRITEUP,MAIL.

On the VX, use the conference called DATABASE_PACKAGES within the NOTES utility. For further information about NOTES on the VX, type the commands

```
$ TYPE ACSS$WRITEUP:VAXNOTES
```

or

```
$ EDIT/READ_ONLY ACSS$WRITEUP:VAXNOTES.LIS
```

The November *Newsletter* also had an article on using VAX NOTES.

Conferences can include tips on performing various tasks in each of the data base packages available on the CA and VX, tips on designing better models, or advice concerning the best package to use in a particular research project. You can also expand your contact base with those who work on the same data base package. If you have any questions about using the utilities, please write me at the above mail address.

Research on Natural Language Processing

Tom Rindflesch
BITNET Mail: TCR@UMNACVX

A team that includes faculty and graduate students in the Department of Linguistics is undertaking a research project the goa of whichl is to read and understand, as well as generate, technical documents. Principal investigators are Jeanette Gundel, Larry Hutchinson, and Michael Kac.

Wanted: A Program that Reads

The project began when Control Data Corporation (CDC) approached the Linguistics Department for help in designing a program to be used by their advanced electronic computer-assisted design department. They wanted a program that would first read and understand documents listing the general design requirements of an electronic product and that would then automatically produce specification documents (a more detailed description of the product) based on those design requirements. CDC has provided funding and support for the project.

The team has so far concentrated on the task of writing a program to "understand" the design requirement documents. A program can be said to understand an input text when it can apply rules which correctly assign structure to the linguistic units of the text. The goal, therefore, is to write these rules.

The research team divided the task of understanding the documents into a number of subtasks, based on the structure of language: discourse structure, semantics, syntax, and the lexicon. For each subtask, the team proceeded by first determining the characteristics of the linguistic units contained in representative texts. The results of this work provided the foundation for subsequent stages: writing the rules that could assign structure to the linguistic units within this subtask, and testing these rules on the representative texts.

Text Analysis

CDC provided a number of sample documents of the type they want processed. After discussion with the consultants in the Special Projects Group, the research team decided that concordance building and pattern matching and retrieval were two text analysis techniques that would be useful to them in determining the characteristics of the linguistic units in the sample documents. They thus decided to use the text analysis programs GENCORD (available on CA, VX, and MS-DOS) and TEXTAL (available on CA, VX, MS-DOS, and Macintosh) for this purpose. The information provided by these programs helped the researchers in formulating the rules needed to assign linguistic structure to the input texts.

The team then wrote a grammar interpreter in Lisp to apply the rules they proposed. As they wrote rules to assign structure to a particular linguistic unit, they again used GENCORD and TEXTAL to help determine which rules would best assign structure to that particular unit. This was accomplished by retrieving all occurrences of sentences containing the linguistic unit under scrutiny to see if the hypothesized rules assigned structure correctly. Rules found to be incorrect were changed and the process was repeated until the team obtained the desired results.

Errors in SPSS[x] 3.0

Bruce A. Center
BITNET Mail: BAC@UMNACVX

SPSS has provided us with a list of errors found in the newest version of SPSS[x] 3.0 on VX. Most of them are obscure. This is not to say that these are the only errors in SPSS[x] 3.0; they are just the only ones we know about.

SPSS[x] 3.0 was described briefly in the January newsletter. In order to access it, type:

```
$ SPSSX3/OUTPUT=outfile.ext   inputfile.ext
```

inputfile.ext contains your SPSSx commands. To access SPSS[x] 3.0 and type in your SPSS[x] commands interactively, type:

```
$ SPSSX3
```

The most serious known problems are as follows:

- In **CLUSTER** and **PROXIMITIES**, specifying the **power** keyword with odd-numbered values on the **measure** subcommand produces _incorrect_ results. If you want the power of one, use the **block** keyword on the **measure** subcommand.

- SPSS[x] system files cannot be backed up to tape using the VMS **COPY** command. Use **BACKUP** instead.

- You cannot **SPAWN** from within SPSS[x].

- **EDIT** does not work with matrix input.

- **PEARSON CORR:** The manual incorrectly states that the default value for the **STATISTICS** command is **DESCRIPTIVES.** There is _no_ default value for the **STATISTICS** command; this _remains unchanged_ from version 2.2. If you want descriptive statistics, specify **STATISTICS=DESCRIPTIVES.**

Interested readers can get a full list of known errors by contacting me on VX mail (BAC), BITNET (BAC@UMNACVX), or by phoning me at 625-2538.

SPSS[x] 3.0 is documented in the _SPSS[x] User's Guide,_ 3rd Edition, SPSS Inc., Chicago, Illinois, 1988.

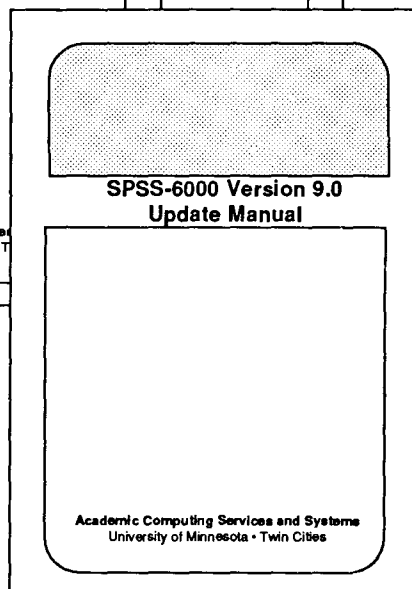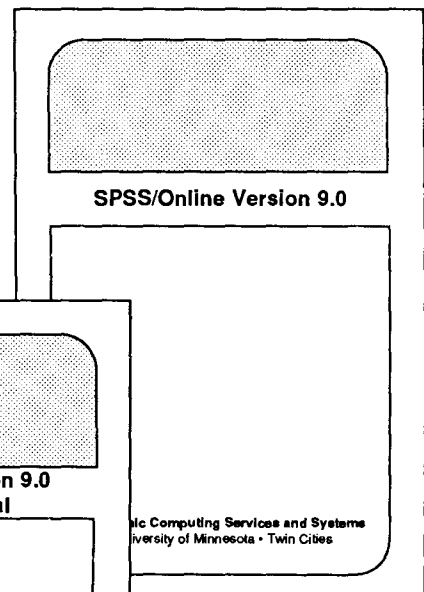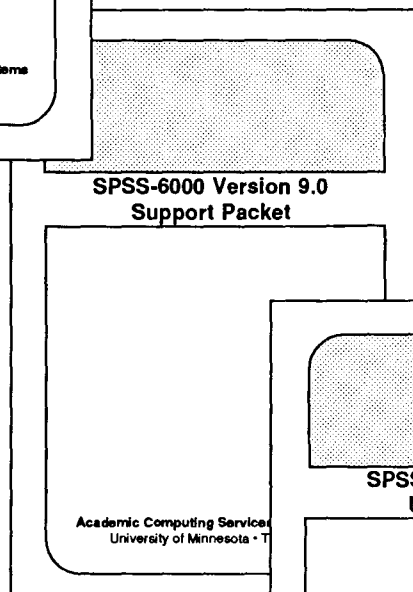# New Manual for Statistics Users

Paula Goblirsch
BITNET Mail: PMG@UMNACVX

The second edition of ACSS's _Guide to Application Packages: Statistics_ is now available. You can buy a copy at the Student Bookstore, 310 15th Ave. SE, in Dinkytown. The University book-stores can also order this manual or any of our manuals for you. All users of statistics packages on the CYBER CA, VAX VX, ENCORE UX, and microcomputers should be familiar with the information in this new _Guide._

Guide to Application Packages:
Statistics

Academic Computing Services and Systems
University of Minnesota • Twin Cities
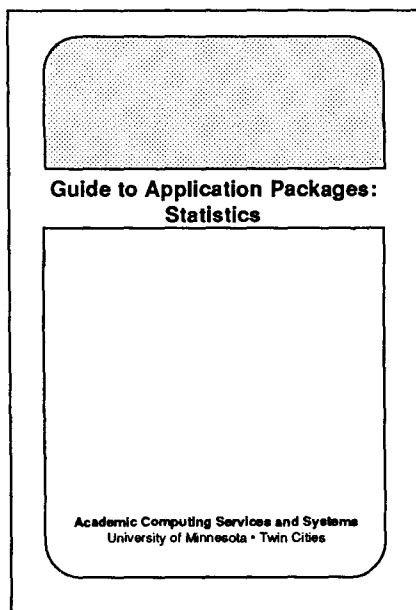
**Guide to Application Packages: Statistics**

Now Available

SPSS-6000 Version 9.0
Support Packet

Academic Computing Services
University of Minnesota • T

SPSS/Online Version 9.0

ic Computing Services and Systems
iversity of Minnesota • Twin Cities

SPSS-6000 Version 9.0
Update Manual

Academic Computing Services and Systems
University of Minnesota • Twin Cities

Other

ACSS

Statistics

Manuals

Available

Change in the LIBS Command

Michael J. Frisch
BITNET Mail: MJFRISCH@UMNACVX
CA,UX,VX Mail: MJFRISCH

On February 29, we are changing the **LIBS** command on the VAX VMS system so that if you have your own library, then the default file type will be assumed to be .OLB. This differs from the past where no default was assumed. Thus, if you have a library SAM.OLB on your current directory, you can now use

```
$ LIBS SAM
```

as the command to declare SAM a library for the LINK loader (rather than LIBS SAM.OLB that was formerly required).

TELLAGRAF Departing from VX June 12

Michele Lewis
BITNET: GRAPHICS@UMNACVX

On June 12, 1988, we will remove the graphics package TELLAGRAF from the VX. After June 12, TELLAGRAF users should use Precision Visuals Inc.'s graphics package PicSure, which has features similar to or superior to TELLAGRAF. Budget considerations make it difficult to justify supporting two similar graphics packages.

You will find some advantages in using PicSure. For example, PicSure has more hardcopy output devices available — the Xerox laser printer and the Versatec color electrostatic plotter.

ACSS is offering assistance in converting your TELLAGRAF programs to PicSure. If you would like help, or have questions concerning the removal of TELLAGRAF, please call Michele Lewis at 626-0314. For more information about PicSure, you can also refer to the introductory article in the March 1987 issue of this *Newsletter.*

■■

Conventions

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

- Messages and prompts from the ACSS 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.

■■

Academic Computing Services and Systems

Winter Quarter Short Courses
1988

(MICROCOMPUTER COURSES)

General

Overview; no hands-on. Limited enrollment.

Strategies for Networking Micros
and Workstations

Feb 18	Th	1:30-4 pm	FREE

Macintosh Courses

The following Macintosh class is demonstration only! **No hands-on.**

Preparing A Dissertation
on the Macintosh

Mar 9	W	9:30-noon	$15,$25,NA

(ACSS Short Course Information)

Prerequisites: Please note any prerequisites for the class you are interested in. Instructors will not be able to review any prerequisite requirements. If you need more information on short courses, call the Computing Information Center at 626-7397.

Limits: All microcomputer classes and many mainframe classes have limits to class size. Please try to register early to be sure of getting a place. If you decide to withdraw from a class, please do so as soon as possible, so that we may make the space available to others.

Registration: Registration is located at the ACSS Computing Information Center, 128A Lind Hall. (Hours: 8:00 am to 4:30 p.m., Monday through Friday.). Fees must accompany registration. Mail registrations will be accepted. Deadline for registering is 4:00 p.m. on the last working day before the class begins. Please call and give us your name if you plan to attend a free class: also call to cancel if you decide later not to attend, so we know how many to expect. We reserve the right to cancel a course if registration is insufficient. For registration information call 625-7397.

Fees: Fees following microcomputer courses above are for 1) University students, 2) University staff and faculty, and 3) non-University persons. Course fees may be paid by cash or check, or *include* a signed University journal voucher with registration information. Fees must be paid at the time of registration.

No refunds will be made after the class has begun. A penalty—reduction of the refund—will be assessed if you withdraw from a class within three days of the beginning of the class.

See the upcoming March issue of the *ACSS Newsletter* for the Spring Quarter Short Course Schedule.

Phones/Hours/Labs

ACSS PHONE NUMBERS

Administrative Office: 626-1600

HELP-Line 626-5592

Access:
CYBER (CA)	626-1620
CYBER (NV)	626-1622
ENCORE (UX)	626-1681
VAX (VX)	626-1641
RJE (2400 baud)	626-1656
RJE (4800 baud)	626-1663

Accounts:
CYBERs, 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	627-4357
Equipment Maintenance/Repair	627-4357
Graphics Software	626-5592
Information, Lauderdale	626-1600
Lauderdale Computer Room	626-0550
Lauderdale Services	626-1838
Magnetic Tape Librarian	626-1838
Math and Statistics Packages	625-5830
Micro Information	626-4276
Newsletter Subscription	625-7397
Permanent File Restoration	626-0595
Project Assist	626-1090
Public Labs (Managed by ACSS)	
170 Anderson Hall	624-6526
90 Blegen Hall	624-1387
14 Folwell Hall	625-4896
306B Lind Hall	625-9032
130 Physics	625-6820
9 Walter Library	626-1899
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

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

PUBLIC LABS
TWIN CITIES CAMPUS

Location	Batch	Interactive	Micro
East Bank			
ApH 204			X
Arch 148			X
CenH		X	
ComH		X	
DiehlH 207, 270		X	X
EddyH Annex 54			X
EltH 121, 124	P	X	
FolH 14, 14a	P	X	X
FronH		X	
LindH 26		X	
LindH 128B	P	X	
LindH 306B			X
MasCanCtr M39		X	
MechE 308		X	
MoosT 8-425			X
Nich 109			X
Phys 130		X	X
PioH		X	
SanH		X	
TerrH		X	
VinH 4		X	
VinH 203			X
WaLib 9		X	X
West Bank			
AndH 170	P		X
BlegH 90			C
BlegH 140	P	X	
MdbH		X	
OMWL B2	P	X	X
St. Paul			
BaH		X	
CentLib B50			X
ClaOff B22			X
ClaOff 125E	P	X	
McNH 69			X
Vet 43B			X

P means printer only. C means classroom use only. For more information see WRITEUP,LABS.

SYSTEM OPERATING HOURS

	CYBER (CA), ENCORE (UX), VAX (VX)	CYBER (NV)	Low Rate
M-F	7 am - 4 am	7 am - 1 am	8 pm - 4 am, 7 am - 8 am
Sat	4 am - 9 pm	7 am - 10 pm	all operating hours
Sun	6 pm - 4 am	6 pm - 1 am	all operating hours

Contents

The **ACSS**
Newsletter

**Academic
Computing
Services and
Systems**

Technical Publications
100 Lauderdale CF
University of Minnesota
2520 Broadway Drive
Lauderdale, Minnesota 55113

ROBERT ESTELLE

UNIVERSITY ARCHIVES

10 WaLib

Deliver to current occupant.