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acs academic computing services Newsletter

Volume 24, Number 8 University of Minnesota, Twin Cities August, 1990

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Computing Information Center and Fraser Staff Moving to 1 Nicholson

Michael Dunham
MAD@UMNACVX

As we announced in our May issue, plans are under way to move our Computing Information Center (the CIC) from its current location in 128 Lind Hall to 1 Nicholson Hall in September.

All ACS functions now located in 128 Lind will be relocated to 1 Nicholson, including:

our reference room,
short course registration,
printing facilities,
consulting,
shuttle pickup and delivery,
distribution of free documents,
application forms for accounts, computing grants, and grant extensions,
ACS Newsletter subscriptions,
and others.

Hard-wired lab terminals will also be moved to 1 Nicholson.

ACS staff now located in Fraser Hall will move their offices to 1 Nicholson as well.

As we prepare for the move, make the move, and unpack at Nicholson, we will undoubtedly have to interrupt some or all of our CIC and Fraser services at times. We ask your patience during this period. All CIC and Fraser services will be operating normally in 1 Nicholson by the beginning of fall quarter. (We hope.)

Help Page

ACS HELP-Lines

Central Systems (UX,VX,VZ,CA):

Software (including Graphics, Databases, and Statistics Packages), Hardware, Networking
626-5592 8 am to 5 pm, weekdays

Artificial Intelligence:

625-8332 3 to 4 pm, Monday, Wednesday, Friday

Liberal Arts, Text Analysis:

625-8332 3 to 4 pm, Monday, Wednesday, Friday

LUMINA (communications questions):

626-2272 8 am to 5 pm, weekdays

Microcomputer HelpLine

626-4276 9 am to 4 pm, weekdays

Lauderdale Tape Library

626-1838 9 am to 3 pm, weekdays

Consulting

Walk-In Consulting

ACS, East Bank:

128C Lind Hall 10 am to noon and 1 to 3 pm, Monday through Friday

Microcomputer and Workstation Networks Center:

125 Shepherd Lab 9 am to 4 pm, Monday through Friday

Electronic Mail Consulting

Consulting is now available via the mail facility on all ACS systems (the UX, VX, VZ, and CA). 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 (ENCORE/UNIX, VAX/VMS, CYBER/NOS), software, and for answers to any other inquiries on using computers for instructional computing.

Computing Information Center

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

Computing account and grant applications available for ENCORE, VAX, and CYBER 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
Editors: Steven Brehe, Paula Goblirsch

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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. SKB@UMNACVX/SKB@VX.ACS.UMN.EDU, PMG@UMNACVX/PMG@VX.ACS.UMN.EDU.

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. MAD@UMNACVX/MAD@VX.ACS.UMN.EDU. On-campus address changes *must* include your department name and address.

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Contents

VMS Portability: Achieving Device Independence

Lawrence Liddiard and *Marisa Riviere*
LIDDIARD@UMNACVX, MARISA@UMNACVX

When you include file or device specifications in DCL procedures or programming code, it's important to make those specifications as device independent as possible. This will simplify and save time whenever your account or files need to be moved to a different system or device. This type of move may happen in the ACS VMS cluster for two reasons:

1. ACS may need to move users from one device to another
   - to free up space on a crowded disk,
   - to change the way space is allocated on a specific disk system,
   - to optimize the distribution of users and projects across several disks in the cluster, or
   - to compensate for hardware problems on a physical device.
2. Users may need to move their files to other accounts or other systems.
   - a departing group member transferring a project to someone else on the same system, or
   - carrying it to a different VMS system.

For many users such a move will not have an impact on their work. For others, who may have developed DCL procedures and programs that refer to their root, home, or default directory with device-dependent code, the move can be quite inconvenient because it requires you to modify or update those references.

It may not be your account that is moved, but that of a colleague's whose files you are using. Those files may be transferred to another device, or to the account of an individual who will be taking over that project. If you are using a colleague's files for your work, then using device-independent references for those files will also help you to adapt quickly to any new file situation.

Customarily ACS notifies the file owners ahead of time when a change of device will take place and works with users to schedule the change at a convenient time. In a few emergency situations, electronic mail is used to notify users when the change will take place. This type of move is not common and normally it will affect only a few users each year.

This article presents some suggestions on how to make your DCL procedures and VMS programs portable. Although you may not encounter situations in which your working environment changes often, it still may be handy to consider some standard techniques that eliminate most of the updating work.

For code to be portable, it should execute without depending on a particular environment. Your home directory is part of an environment. It is the disk space, assigned by the VMS system, where all of your work is kept. Thus it is the major component of your environment. The home directory is composed of two parts: a device name and the root directory on that device. Devices on the ACS cluster have names such as USERA:, USERB:, and so forth. Your root directory name is usually the same as the name of your account or user name.

On the ACS VMS cluster, the full name of a home directory depends on the device name where the files are located. If your files are moved, the device name will be different, but the user (root directory) name will continue being the same. On other VMS systems, the names of the root or home directories may follow a completely different scheme, since each VMS site selects its own names.

Being familiar with your own root or home directories and others' and knowing how to refer to the files on those directories in a portable manner may save you time and help you achieve better working strategies. **Table 1** includes some comparisons of portable vs. device-dependent code.

The following sections contain some helpful tips and examples.

Referring to Other's Files

When referring to another user's files, define a logical name to use in all your references. If the files of that user are moved, he or she will let you know the name of the new home directory, and you will only need to change the logical definition once. The most convenient place to make that definition is in your login.com file.

An example: If I include in my login.com file the following statement—

```
$ DEFINE DATA_STATS USERA:[MORALES.STATS]
```

—I can make all references to my friend's software as device-independent as possible. If her files get transferred from one disk to another, I need only change the definition. Either interactively or within procedures, I can access any of the programs on my friend's subdirectory by referring to them as being on **DATA_STATS** as, for example:

```
$ RUN DATA_STATS:SORT_PROGRAM1
```

Referring to My Root Directory

When referring to your own root or home directory, use the SYS$LOGIN logical name definition, a standard part of VMS DCL. It will always point to your login device and home directory. For example, when I am writing a procedure file where I may need to return to my login root directory I should use the command:

```
$ SET DEFAULT SYS$LOGIN
```

instead of, in my case:

```
$ SET DEFAULT USERB:[MINE]
```

And better yet, to make things shorter for interactive work, I can define my own `RT` (**ReTurn**) command in my login.com file as:

```
$ RT :== SET DEFAULT SYS$LOGIN
```

and I will only need to type `RT` when I want to go back to my login directory.

Referring to Subdirectories

Some users may need to refer to subdirectories on their root directories. Unfortunately, there is no easy-to-use dynamic name definition provided by VMS to refer to those subdirectories. Users need to make their own logical and symbol definitions for this purpose. This is done by extracting the root directory's name and merging it with the default device's name.

To help with that extraction and merge, we created the **MYDEV** and **MYDIR** definitions on the ACS VMS cluster. These definitions point to each user's home device and root directory, respectively. A combination of both provides the right dynamic pointer. Please note how the proper DCL syntax rules are followed for the apostrophe used in the following symbol substitution examples:

The statement:

```
$ DIRECTORY MYDEV:['MYDIR]
```

will provide you with a directory list of your root directory. And:

```
$ DIRECTORY MYDEV:['MYDIR.SUBDIRECTORY_NAME]
```

will provide a directory list of the selected subdirectory. The same references apply for any other DCL commands.

If you use the ACS **MYDIR** and **MYDEV** definitions, you will not notice if your files are moved to another device. We will, of course, still notify you since you may have to let others know of the change. If you will be working at another VMS site, you will have to make your own **MYDIR** and **MYDEV** definitions. It is not very complex. The ACS HELP-Line consultant can provide you with that information if needed.

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The Assign Command

When working with dynamic references, the ASSIGN command, in particular, deserves consideration since it helps to identify files that may be used from within programs. For example:

```
$ ASSIGN MYDEV:['MYDIR.TEST_DATA]INPUT_FILE.DAT MY_INPUT_FILE_NAME
$ ASSIGN MYDEV:['MYDIR.TEST_DATA]OUTPUT_FILE.DAT MY_OUTPUT_FILE_NAME
$ RUN MYDEV:['MYDIR.TEST_PROGRAMS]MY_PROGRAM
```

The program, if a Pascal program, for example, will have statements such as:

```
OPEN (INPUT_FILE, 'MY_INPUT_FILE_NAME')
```

or, if a Fortran program, will refer to the input file as:

```
OPEN (5, "MY_INPUT_FILE_NAME")
```

Please note that whereas **MYDEV** defines a logical name and can be referenced from within a program, **MYDIR** defines a symbol that can only be used within DCL commands. That is, statements such as the one below will not work:

```
OPEN (INPUT_FILE, 'MYDEV:[''MYDIR.TEST]INPUT_FILE.DAT' ) !THIS IS AN INVALID STATEMENT
```

Other similar tips for the VMS system are available in the Welcome WRITEUP within ListDoc.

Table 1: Device-Dependent Code vs Portable Code

Device-Dependent Code

```
$! The program "data_sort"
$! sorts data from logical name
$! "input_file" and writes to
$! logical name "output_file".
$!
$SET DEFAULT USERB:[MINE.DATA]
$ASSIGN YESTERDAY.DAT INPUT_FILE
$ASSIGN YESTERDAY_SORTED.DAT OUTPUT_FILE
$RUN USERA:[MORALES.STATS]DATA_SORT
$ASSIGN TODAY.DAT INPUT_FILE
$ASSIGN TODAY_SORTED.DAT OUTPUT_FILE
$RUN USERA:[MORALES.STATS]DATA_SORT
$!
$SET DEFAULT USERB:[MINE] ! RETURN
```

Device-Independent Code

```
$! assume $ Define Data_stats UserA:[Morales.Stats]
$!  and $rt :== set default SYS$Login are
$! in my login.com file
$! The program "data_sort"
$! sorts data from logical name
$! "input_file" and writes to
$! logical name "output_file".
$!
$SET DEFAULT MYDEV:['MYDIR.DATA]
$ASSIGN YESTERDAY.DAT INPUT_FILE
$ASSIGN YESTERDAY_SORTED.DAT OUTPUT_FILE
$RUN DATA_STATS:DATA_SORT
$ASSIGN TODAY.DAT INPUT_FILE
$ASSIGN TODAY_SORTED.DAT OUTPUT_FILE
$RUN DATA_STATS:DATA_SORT
$!
$RT ! RETURN
```

Time Limits on CA

Lawrence Liddiard
LIDDIARD@UMNACVX

The change from a CYBER 845 to a dual CYBER 830 means that an individual job takes about three times longer now. For SRU calculation, we changed the multiplier from 1.6 to .48 so that users with set SRU limits were not affected. But several users with production runs of defined times were inconvenienced by this change. Please inform us if you've had these problems and you will receive credit. Set your time limit using **SETTL** to three times longer to ensure completion.

More NETLIB Public Domain Mathematical Software

Michael J. Frisch
MJFRISCH@VX.ACS.UMN.EDU

The following item has recently been added to the list of libraries in the NETLIB electronic mail system for the distribution of the source code for public domain mathematical software:

GMAT	Tools for analyzing multiprocessing trace files generated by the Cray Compatibility library on the Alliant FX/8 computer.

To find out more about accessing this library and other NETLIB libraries, use the following command on the VAX VX:

```
$ LISTDOC
```

Once in ListDoc, select the category **MathEng_Software** and then the sub-category **Libraries**. In that sub-category, you'll find a document entitled NETLIB.

User Survey Results, Part 3: More Comments and Responses

In this article we present the remainder of the users' comments we received in this year's user survey, along with staff responses to those comments. We published the first set of comments and responses in our July issue and we summarized the numerical ratings users gave our services in our May issue.

Grants and Central Support

Michael Skow
MMSKOW@UMNACVX

The ACS grant system is ridiculous! As a graduate student with no research grant, in one year I have used around $4-5,000 in computer dollars, and have to get 4 to 5 grants a year to cover this cost. With approximately 200 data and system files, every several months I would have to make all my files (before FTP) and re-run approximately 150 files to recreate system files (SPSSX) as they do not transfer, which usually costs me several hundred computer dollars! This is a crime! This has been so frustrating over the last four years that I am now running most of my jobs on a micro.

What's even MORE annoying, however, is that I can't afford to run my jobs during day hours, when I'm working with my data, but have to go home and run jobs in my free time in the late evenings. However, since everyone has learned how to run delayed batch jobs after 8 pm, I have waited HOURS for small batch jobs run after 8 pm, and even after midnight! This forces me to use the on-line SPSSX to get my jobs run (the results of which are necessary to run the following jobs), which is, of course much more expensive than day-time batch jobs. This is EXTREMELY obnoxious, and makes it impossible to rely on the VAX for results of analyses due in several days time. Results of on-line SPSSX jobs are much bulkier and cost more to print, unless they are edited in a costly, time-wasting manner.

I came from a university where computer services are free to everyone, terminals are available across campus, the HELP-Line and computing services operated 24 hours a day, and which, five years ago, had VAX and UNIX systems with full-screen editors (vi, emacs, etc.) with LOTS of documentation of EVERYTHING, free! . . . Computers should cut work time, not add stress.

> The grants system appears to work well for 90 percent of the 2200 participants. Although it is annoying for some of the remaining ten percent, grant extensions are available from the Computer Grants Committee, as you know. Less than one percent of grant users receive insufficient computing funds through this program. You apparently fall in this last category.
>
> During the past several years, funds for computer grants have remained constant, our computing revenues have declined, but use has increased. As a consequence, we have been forced to cut back our level of service in some areas. One bright note is that our systems will be returning to a 24-hour-per-day, seven-day-per-week operation. We are also planning an upgrade to our VMS service this fall that should provide more capacity and give you better turnaround on batch jobs. Finally, beginning July 1, lower VMS and UNIX computing and file storage rates will enable your grant dollars to go further.

It is crucial for the university to provide more sufficient financial support to the ACS, which is equally important as our library system. As a long-time user of our academic computing services and systems, I have been deeply impressed by the excellent performance of the ACS staff. Especially when in special need, I always get expertise, help, and guidance with much thoughtfulness and effectiveness. The University has been rewarding the best performances by faculty members teaching and doing research, which, I strongly believe, should be extended to include the ACS staff.

> Thanks. We needed that.

The next three comments are from three different users. Because they're about related topics, we've grouped them together and provided a single response.

Perhaps I want too much for nothing but it seems that grants are used up very quickly. My only other experience with this was at the U of British Columbia, Canada, where the "funny money" was cheaper and seemed to last longer. Perhaps what is needed is a bulk rate package, say $80 for $2000 funny money.

A friend at a major eastern university where mainframe computing is free commented to me that access to mainframe computing should be as cheap and easy as to a library in today's research environment. It is something to ponder!

At a research University, faculty computing costs (exclusive of printing, tape purchase, etc.) should be a free good.

> I agree that computing services should be free. But this is not a decision ACS can make. Additional central funding would be needed to replace the "serious money" with more "funny money." We will continue to try to have this included as a high priority item in University planning. Meanwhile, we will take advantage of newer technology with lower costs and pass these savings on to you in the form of lower rates.

As someone who has worked at an organization such as ACS (at Indiana University), I am interested in finding ways to improve how universities help people use computers. The fee structure at the University, combined with other disincentives, discourages students and staff who are non-users or novices from learning how to use mainframe computers. While the system at IU is not without flaws, it does go a far way to encourage these people to use computing resources. If you are interested, I would be glad to talk with someone about it.

> I have been following the computing-related developments at Indiana and other institutions. We strive to have the financial wherewithal to offer excellent barrier-free services. We are also continually looking for ways to provide higher quality service within our current means. I would be happy to talk to you or anyone else who has suggestions on improvements we could make.

UNIX and CYBER Systems

David Bianchi
DJB@UMNACCA

Having better possibilities on CA for full-screen editing would be a tremendous advantage.

> While we understand the advantages of having a better full-screen editor on NOS, we do not have the resources for such a project and we no longer develop software for the NOS system, which was frozen at NOS 2.7.1 and now has a limited lifetime. Our VMS and UNIX systems both have full-screen editing capabilities if your applications can be moved to those systems.

Your systems are not reliable at all because of the frequent system downs and time limits on file transfers.

> We are working to improve in this area. We are currently in the process of installing a UPS (Uninterruptible Power Supply) for some of our critical systems and we are always working with

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the vendors to improve our systems' stability. The fact that we continue to upgrade our systems to provide the latest software occasionally affects the stability of our systems.

As for the problem of hitting resource limits: it is not possible to anticipate the special resource needs of users. We must impose limits based on average usage, but if you talk to us about your special needs, we can minimize these kinds of inconveniences.

My personal use of ACS (VX and UX in particular) is really limited to E-mail (external mostly), instructional, and things like DI-3000 and TeX (although I doubt that I'll be using either very much since we have TeX on our department PC LAN and my Mac machines are much easier for most graphics. What I have not been able to use ACS very much for is my own research, which is computationally intensive—the reason is your rates! I go to MSI Crays for that work. I'd personally like to see the CYBERs removed so you could use those resources on expanding UNIX service in some way.

We have been putting more emphasis on the UNIX and VMS services; however, the NOS and NOS/VE services must also be maintained to provide those services not yet available on UNIX or VMS, such as CAD/CAM applications on NOS/VE and the extensive magnetic tape capabilities on NOS. We also need to continue providing NOS service for those users for whom it would be expensive to convert their applications to run on another system. However, by freezing NOS, we are able to reduce the resources needed to maintain the system and can utilize those resources elsewhere.

As a user of the frozen/orphaned CA system, I need: 1) information on when it will likely disappear, 2) which system to move to get the same sorts of functions (M77, SPSSx, and tape utilities), and 3) instruction to get me up to speed on the OS I move to. Hopefully, these issues will all be addressed in the *ACS Newsletter* in a timely and clear manner.

1) We plan to support NOS service as long as there is a significant use of the system. We plan to give at least one year notice before discontinuing NOS service. As stated in the June 1990 *ACS Newsletter*, summer 1992 is the earliest that ACS would stop providing this service. 2) Both our UNIX and VMS systems provide Fortran 77 compilers and SPSSX. VMS currently has tape utilities, and we are in the process of evaluating a tape management package for our UNIX system. 3) ACS provides free short courses on using our UNIX and VMS systems, and our Help Services group can assist you during this transition.

Mainframes should maintain automatic conversion utilities to allow binary files (such as PC-based dBase III or IV) or Lotus worksheets or other file formats) to automatically be converted to a mainframe software package—after the PC file is uploaded to the mainframe—or the utility could also convert mainframe files to one or more PC-based software file formats, for downloading to PC, e.g., graphics and database packages.

ACS will support mainframe utilities for PC applications provided such utilities exist and if the costs can be justified by sufficient use. If utilities like those that you describe exist, please let us know about them, so that we can investigate installing them on our systems.

Being able to use relational expressions in search criteria, when using an editor, is sometimes a great time-saver; also, a feature enabling alignment of columns of numbers within text is very useful. In general, it would be useful to have a set of utilities for parsing lines of text; merging files columns of text on a line-by-line basis; justifying text (left, right, and at special character positions); etc. Future suggestion: A timesharing mainframe should be able to allow users all of the capabilities of networked PCs; this includes: spreadsheets (similar to Lotus) [without RAM limits]; and all other PC software.

> Mainframe editors and utilities have many of the editing capabilities you mention. But we disagree that a mainframe should be just a large PC. Micros should be used for what micros do best, and mainframes used for what mainframes do best. The kind of redundancy you suggest is not cost-effective.

It is very important to me that you continue to support the CYBER/NOS system for at least 5 years. It would be very helpful to have available Digital's IBM-PC Node support software for the VAX. ACS-written VAX documentation would be nice.

> As I mentioned above, we plan to support NOS service as long as there is significant use of the system, we will give at least one-year notice before discontinuing NOS service, and we will support NOS until at least summer 1992. We cannot, however, guarantee that we will support NOS for five years, and we encourage you to begin transferring your work to another system as soon as possible. An ACS guide to VMS is currently being prepared for fall quarter.

Regarding files printed out at Lauderdale with PRINT command, it would be quite useful to have the filename printed on yellow sheets—especially when I'm printing several similar files. (Note this service exists on the Lind Hall printer.)

> All files printed on the XEROX 8700 printer have yellow banner pages with the file name printed in small print near the bottom of the page. While not as prominent as the file name on the PostScript printer output, it is on the banner page.

Software

Michael J. Frisch
MJFRISCH@VX.ACS.UMN.EDU

Latex is hard to learn and difficult to use in merging text and figures. Is there anything else?

> We don't have anything other than LaTeX and TeX for merging text and figures on our mainframes (although you could do hand editing of PostScript output from the DVI2PS or DVIALW utilities that translate TeX DVI files to PostScript; you would combine this with PostScript you generate somehow from the figures you want to merge). Presently, the best solution is microcomputer programs, particularly on the Macintosh, that are quite good in this area of text/figure merging.

Please have a workshop on LaTeX.

> Due to budget cuts, we no longer have a staff member knowledgeable in LaTeX who could run such a workshop. If other users are interested in such a course, we will try to find someone on campus who could do the job. Contact the ACS Computing Information Center, 128A Lind, 625-7397 and leave your name and the course you would be interested in.

Statistics

Bruce Center
BAC@UMNACVX

I only use the ENCORE now and then for instruction. You lack modern statistics packages, like S.

> The S package is on the ENCORE. To access S, type S at the interactive prompt. A manual for S is available in the Computing Information Center in 128A Lind Hall.

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Graphics

Michele Lewis
MAL@UMNACVX

Calcomp plotting software is too old. If it is possible, please get an updated version.

> I don't know what software on your system, NOS/VE, you're referring to—the graphics software on VE includes Teklib and some CAD/CAM packages. The majority of our supported software is on the VAX. We recommend using the VAX for any serious graphics work.

Despite Michelle Lewis's best efforts, the mess with the plotting (loss of the Varian Statos) has set back my research program at least two months. This is not meant as a reflection on Michele Lewis, as I judge that she has done the best she can under awkward circumstances.

> The Varian Statos plotter was around for years and had been the object of a lot of homegrown graphics software that was written specifically for the plotter—especially the Plotpac software. We were no longer able to find maintenance for the Varian, so the decision was made to replace it. This entailed a lot of attempts to convert both our homegrown software and the programs of several users. Unfortunately, this user had a large program that relied heavily on the Varian and made its conversion difficult.

We still miss the Tellagraf graphics package.

> The Tellagraf graphics package was removed three years ago, when budget constraints forced us to cut back on the amount and variety of software we were able to offer. The PicSure graphics package was retained. It provided better support for our output devices and was felt to be functionally equivalent to Tellagraf.

Supply a custom written program for beginners and occasional users for PLOTing purpose.

> The PicSure graphics package is an ideal package for beginners. It does not even require programming skills. PicSure is an interactive program that uses English commands to create charts and graphs. The manual is well-written and easy to follow. PicSure is available on the VAX.

Michele Lewis did a great job for us at the time of the loss of the Varian.

> Thanks!

Contract Services

Cheryl Vollhaber
CLV@UMNACVX

1) We're having problems with TinCan file transfer (on Macs), and getting conflicting answers or no answers from Ma Micro and the ACS HELP-Line.

2) Add a consultant-for-hire. We'd pay someone to come out, set up hardware and software, and train users. We don't have time to fuss with problems. E.g., interface with EXTEND (MES), COAs Harvest, auto log-on, how to save and print, to run printer, etc. Text editors.

> The Contract Services section can help with various TinCan transfer problems. The consultants are available on an hourly basis ($35.00 an hour) to help with some of the setup problems. However, they are not set up to consult on the areas such as EXTEND (MES), COAs Harvest, auto log-on, and how to run printers. Contract Services focuses on modifications to mainframe packages (such as VX and CA). For information on the services that are available, call 625-2303.

Communications

Paul Tranby
PDT@UMNACVX

It takes me an average of 2 to 3 attempts to dial in to the CYBER from my lab. I've been told that this is due to bad hardware supplied by the vendor who installed the new in-house system. It is becoming tiring!

> We'd need more information to determine exactly which part of the connection process is causing your problems. There are a number of possibilities. First of all there might be a slight incompatibility between your modem (if you are using a modem) and those in the modem pool at the Telecommunications Department. The Telecommunications Department staff that supports the modem pool can help you determine if this is the case.
>
> If you are dialing in from outside the University phone system, you might also be suffering from a noisy phone connection between your local exchange and the University. The Telecommunications Department can also help you isolate these problems.
>
> If you are having trouble with the autobaud process (getting into the terminal server), try waiting five seconds after connection before pressing the RETURN key to synchronize the equipment. Noise generated during the connection process sometimes starts the autobaud process out incorrectly; then you need to press RETURN more to get the terminal server banner.
>
> We are currently looking into this problem and hope to find a way to eliminate this connection noise. If you have problems like this, call our HELP-Line or call me at 626-0815, and we'll help isolate the problem.

Lind Hall Facilities

Michael Dunham
MAD@UMNACVX

I would like to see Lind Hall open longer hours on Saturday and also have some doors in Lind open so we don't have to run through the EE building. ACS has done a good job in continually upgrading facilities. Thanks for all you've done.

> Our Saturday hours for ACS's Lind Hall I/O station are currently 10 am to 2 pm. We established these hours several years ago because of University budget retrenchment and staff reductions. Prior to that, Saturday hours in the old Experimental Engineering building were somewhat longer (10 am to 4 pm). During the coming fiscal year and, with our impending move to 1 Nicholson Hall, I will be looking into the possibility of again increasing Saturday hours at the new site.
>
> Your concerns about access to Lind Hall on weekends are well taken. I am aware of this problem and have been for some time. My answer will not alleviate the situation. The building is not officially unlocked by University Physical Plant on weekends because no classes are scheduled on Saturday or Sunday. For the remainder of the summer, try the south or north (ramp and automatic door for handicapped access) ground level entrances. Micro Lab attendants from 26 Lind unlock these doors during the hours that the microcomputer labs (26 and 306B) are pen. Their hours generally overlap with ours. The main entrance (Church Street) and the east entrance (across from EE/CSci) will always be locked on weekends.
>
> At this writing we have not worked out the situation for our new location in 1 Nicholson.
>
> Thank you for the compliment about ACS's facilities. ACS staff will continue striving to provide the academic community and our off-

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campus clients with the best computing services and facilities possible within our budget. We are constantly looking for ways to improve or enhance the computing environment on campus. Your suggestions, recommendations, and comments on our services are always welcome and invaluable in setting goals and objectives that meet your needs.

West Bank Facilities

Richard Hotchkiss
HOTCHKISS@UMNACVX

We need either upgraded access to mainframes on West Bank or free micro lab for student assignments.

Most of the old Z29 terminals in 140 Blegen have been replaced with the VT100 compatible Microterm terminals. While there was a possibility that 140 Blegen would become a micro lab, this is no longer the case. Other space for another micro lab on West Bank has been found and will be set up within a year. Micro labs will not be "free" until so funded by the legislature or when a micro fee is included in your tuition and, of course, it is not really free then.

Holiday Hours for September

Donna Strovers

In observance of Labor Day, ACS systems will run in unattended mode from 15 minutes after midnight the morning of Monday, September 3, until 1 minute after midnight, Tuesday, September 4. It is unlikely that any tape requests or printing will be processed during these hours. Normal operations on all systems will resume at 1 minute after midnight, Tuesday, September 5.

ACS PHONE NUMBERS

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

Access:	
ACS systems (UX,VX,VZ,CA)	
3/12/2400 bps + 7/Even/1	**626-1630**
12/2400 bps + 8/None/1	**626-1631**
LUMINA	**626-2206**
Accounts:	
ENCORE, VAX, CYBER	625-1511
Computer Hours (recorded message)	626-1819
Computing Information Center, 128A Lind	625-7397
Contract Services	625-2303
East Bank I/O, 128C Lind Hall	625-5082
Engineering Services	625-1595
Equipment Maintenance/Repair	625-1595
E-mail	625-1543
FAX	626-7440
Graphics Software	626-5592
Information, Lauderdale	626-1600
Lauderdale Computer Room	626-0550
LUMINA	626-2206
LUMINA Consultant	626-2272
Math and Engineering Software	625-5830
Microlab (WBCS-170 Anderson)	624-6526
Newsletter Subscription	625-7397
Permanent File Restoration	626-0595
Public Labs (with ACSnet)	
140 Blegen Hall	624-5278
B40 Central Library	no phone
207/270 Diehl Hall	624-3128
4-204/4-250 EE/CSci	625-9081
121 Elliott Hall	624-0866
14 Folwell Hall	625-4896
1 Lind Hall	625-0801
128C Lind Hall	625-5082
308 Mechanical Engineering	625-7352
130 Physics	625-6820
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
Tape Librarian/Operations Services	626-1838
West Bank Computing Services	624-0877

PUBLIC LABS
TWIN CITIES CAMPUS

	Central System Printing	Interactive	Micro
East Bank			
ApH 117			X
Arch 148			X
CenH		X	
ComH		X	
DiehlH 207/ 270	L	X	X
EddyH Annex 54			X
EE/CSci 4-204/250	I, L	X	X
EltH 121	I, L	X	X
FolH 14, 14a	L	X	X
FronH		X	
LindH 1	I	X	
LindH 26			X
LindH 128C	L	X	
LindH 306B			X
MasCanCtr M39		X	
MechE 308	L	X	
MoosT 8-425			X
Phys 130	L	X	X
PioH		X	
SanH		X	
TerrH		X	
VinH 203			X
WaLib 9	L	X	X
West Bank			
AndH 170	L		X
BlegH 140	I	X	
MdbH		X	
OMWL B2			X
St. Paul			
BaH		X	
CentLib B40	I	X	
CentLib B50			X
ClaOff 135	L		X
McNH 69			X
Vet 436			X

I - Impact line printers.
L - Laser printers.

SYSTEM OPERATING HOURS

The ENCORE UX, VAX VX, VAX VZ, and CYBER CA systems run continuously from 6 pm Sunday until 6 am the following Sunday. The systems are in unattended production mode Saturday and Sunday 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 system is unavailable. Low-rate hours are from 8 pm to 8 am Monday through Friday, and all operating hours on Saturday and Sunday.

ACS Newsletter Subscription Request

Send to **ACS Computing Information Center, 128A Lind Hall, 207 Church St. SE, Minneapolis, MN 55455**

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Room __________ Building ______________________________

U. S. Mail

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University of Minnesota Affiliation

Department ☐ Faculty ☐ Staff ☐ Student ☐ Alumni ☐ Other ☐

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