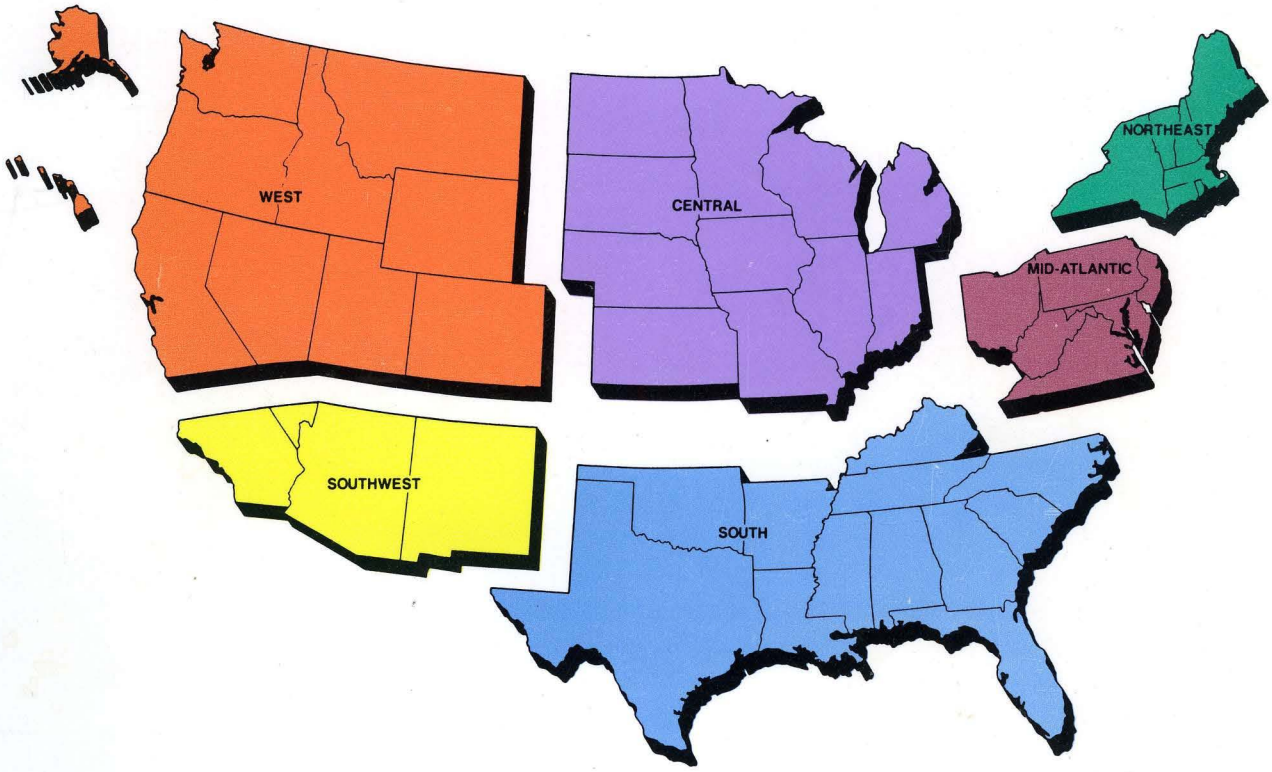
LUG NEWS



1988 Compendium of DECUS LUG Newsletters

Compiled by
Paula Sharick
National LUG Council Publications Coordinator
and
Kata McCarville Weber
Rocky Mountain VAX LUG Newsletter Editor

LUG NEWS

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TABLE OF CONTENTS

In the compendium, newsletters are grouped by region, and the sections are alphabetical by region name. Within each section, the newsletters are more or less randomly organized, due to the inconsistencies encountered when attempting to alphabetize by LUG name, newsletter name, and everything else we could think of.

In addition to the newsletters, each section includes information about the NLC Regional LUG Coordinator, other regional volunteers (if any exist), and a list of all LUGs and LUG Chairs in the region.

SECTIONS
(in the order they appear)

LUG News: A Gathering

by Paula Sharick
National LUG Council Publications Coordinator

Welcome to the 1988 Compendium of LUG Newsletters! As you page through this publication, you'll get a glimpse of the diversity of Local User Groups (LUGs) around the country. Some meet once a month, some once a quarter. Attendees range between 20 and 200 per meeting, and meetings vary from two hours to all day long. Membership varies from 30-600. Some LUGS publish one-page meeting announcements, and others publish incredibly professional newsletters with fancy masthead, regular columns, quality technical information, and great computer humor.

At any given time, there are approximately 150 active LUGs in the US, with new ones forming and old ones going away almost on a weekly basis. We at the National LUG Council (NLC), don't really know how many newsletters are published, but there certainly are more than the 30 or so included in this compendium. If you are publishing a newsletter, we'd love to get a copy. Add one of these two names to your master mailing list, and next year your newsletter will appear in this collection!

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Later in this section, you will find a list of all the newsletter editors whose publications are included here. As a new recruit, you may want to contact editors for information or to get a copy of other newsletters. Sharing material is a widely-established practice, and a great way to collect humor and other fun tidbits. We've tried to pick and choose among the newsletters we receive and show you some of the best examples. The Wichita Area LUG regularly publishes great computer humor! And look in the Northeast Region section for the Connecticut/Rhode Island/Massachusetts LUG (CRIMLUG) newsletter. "The Crime" is one of the most professional newsletters in our collection this year.

In the interest of brevity, we tried to eliminate redundancy and left out mailing pages, DECUS membership forms, and meeting announcements, although these are important parts of a LUG newsletter. We hope this compendium will give you ideas for improving your own LUG newsletter, or give you the courage to start one now that you know you aren't alone.

Field guide to national DECUS support for LUGS

by Paula Sharick
National LUG Council Publications Coordinator

Before being recruited to work on the National LUG Council, I was involved with the Rocky Mountain VAX LUG. We worked fairly independently, and until a couple of years ago, I was unaware of most of the National DECUS structure. In particular, I had no idea that a national committee existed to help LUGs all around the country. As far as I knew, the only DECUS involvement was to approve the license for my LUG from year to year.

Well, in the last nine months, I have found out a great deal about DECUS and the National LUG Council. I'd like to share some of what I discovered

with you. First off, as you will notice from the cover, LUGS are divided into 6 regions across the US. If the regional boundaries seem a bit unusual to you, they are! They were originally created to conform to DEC sales regions--as we all know, those change every June. The boundaries don't make much sense, but that's the way it is! They do serve to divide LUGs fairly equitably as far as regional support issues go, because LUGs tend to proliferate in areas of dense population or where high tech industries settle.

The first-quarter 1988 breakdown of LUGs by region is as follows:

Northeast	25
Mid-Atlantic	25
South	38
Southwest	25
Central	22
West	20

Each region has a representative on the National LUG Council. Representatives are elected for two-year terms by the LUG chairs from that region. One of the requirements for a Regional LUG Coordinator is serving on the "steering committee" of a LUG for at least one year.

This Compendium is divided into six sections, one for each LUG region in the country. There is a short biography of each Regional Coordinator at the beginning of each section, along with contact information.

Regional LUG Coordinators (called RLCs in the famous DECUS acronym fashion) are there for you--to help you form a LUG, restart a failing LUG, offer suggestions on newsletters, help liaison with the closest DEC office, and help you obtain a DECUS license, find funding for your newsletter and meeting announcements and recruit speakers. RLCs also provide guidelines on the activities that conform best with DECUS policies, and are charged with gathering input when LUG policies and procedures are being updated. They are your collective voice to National DECUS!

National LUG Council

The NLC exists to foster the growth and sense of community among LUGs across the US. A complete list of the NLC Executive Committee appears elsewhere in this volume. All LUG Chairs are also non-voting members of the NLC. Feel free to contact anyone listed for advice and assistance with your LUG's activities.

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Using DCS for intra-DECUS communication

All LUG Chairs are authorized to use toll-free access to the DECUS All-in-One communication system (DCS). As of early 1988, LUG Steering Committee members may also be authorized on DCS. DCS is one of the primary vehicles for communication among DECUS leaders. Your Regional LUG Coordinator sends out mail on a regular basis asking for opinions on policy issues before the NLC. You can also use DCS to communicate with other LUG leaders.

DCS is the master control center for all communication, and can be valuable to LUGS in several ways. Special budget requests can be handled electronically--a nice short cut. Information on NLC members is available through the IU function. You can communicate with your RLC via EM or EMSHRT. You can submit sessions for national symposia, change your mailing address for DECUS publications, and Kermit files up and down if necessary.

Training in using DCS is available at the Fall and Spring DECUS Symposia. You don't have to register, just show up for a quick lesson and a copy of the primer!

LUG SESSIONS AT NATIONAL SYMPOSIA

At each DECUS symposium, there are several sessions targeted specifically for LUG steering committees and LUG members. A meeting for LUG Chairs is always scheduled to give you the opportunity to meet other LUG Chairs and NLC members, ask questions, and get updated on the latest LUG issues. An agenda is usually prepared for the one- to two-hour semiformal meeting. Almost 100 LUG Chairs attended this session at the Fall 1987 DECUS in Anaheim. A LUG Chair can designate an alternate representative to attend the meeting, and I encourage you all to attend!

The NLC also sponsors a LUG Clinic, which lasts two or three hours. It's an informal, walk-in gathering and a place to meet both NLC members and other leaders. You can pick up lists of contacts for all LUGS in your region or the US, get answers to questions about LUG licensing, newsletter funding, find out where the closest LUG is, and get some "how-to" information about starting your own LUG. The LUG Clinic is a way to get plugged into the broader community of the National LUG network.

Once a year, the NLC also presents a LUG Newsletter Editor Session at a national symposium. This session addresses issues specific to newsletter editors, and features a formal presentation on hints and kinks for a successful newsletter. The presentation is followed by an open forum, in which all attendees are invited to contribute. As our newsletter editor mailing list grows, it will be made available at this session. Latest copies of the Compendium will also be made available.

DECUS SYMPOSIUM RIBBONS

At DECUS, there are ribbons for everything! Purple is the color designated for LUGS (no, we're not all Minnesota Viking fans!). LUG Chairs and Newsletter Editors can pick up a purple ribbon at registration or at one of the NLC sponsored sessions. When you see someone wearing a purple ribbon, you know s/he is involved in LUG activities, and you just may have something in common!

LUG CLUSTER DINNERS

At each DECUS symposium, the Regional LUG Coordinators usually sponsor a LUG Cluster Dinner immediately following the LUG Chairs meeting. These dinners are a way to meet other LUG Chairs in your region and to establish a rapport with your regional NLC representative. Typically both business and fun appear during dinner conversation, along with input on future plans, changes in LUG bylaws, and many computer jokes!

REGIONAL CONFERENCES

The NLC is busy working on a set of guidelines for Regional Conferences, which have been held at the local level for several years now. Regional Conferences are sponsored by one or more LUGs in the same area of the country, and are generally attended by 200 to 400 people. You may have seen mailings from the four LUGs that held Regional Conferences during first quarter of 1988.

These "mini" DECUS symposia provide an important and very well received service to the local community. Because the cost is significantly lower--registration fees range from $65 to $200--and no travel expenses are involved, companies often send many (up to 10!) of their technical staff to a local conference. Regional Conferences are an excellent opportunity to receive training at a fraction of the cost of formal seminars and provide an opportunity for networking with people in your area that may be involved in similar applications.

Some Regional Conferences have one track, others have up to 6 tracks in parallel, with sessions scheduled every hour of the day. LUGs in Minnesota, New Mexico, San Francisco, Seattle, and Rocky Mountain (Denver) have sponsored very successful Regional Conferences within the last two years. Others have been held in the Northeast, and interest in Regional Conferences continues to grow.

The NLC has a Regional Conference Coordinator to act as interface for the NLC, affected DECUS committees and staff, and sponsoring LUGS. A Regional Conference "Cookbook" is available from the DECUS office, and additional information on Regional Conferences can be obtained through the NLC and/or your Regional LUG Coordinator.

LUG AWARDS

Every year one LUG may be chosen by LDEC, the DECUS leadership organization, as the LUG of the YEAR. Nomination forms are mailed out about three months before the Spring DECUS Symposium and anyone can return the form. It's a nice way to be recognized for your volunteer efforts and the efforts of your dedicated steering committee members!

REGIONAL SEMINARS

The Seminars Committee within DECUS is making the Pre-Symposium Seminar (PSS) program available to LUGs. You can schedule one or more PSSs to coincide with a regularly scheduled meeting, in conjunction with a Regional Conference, or as a special LUG event. Once the initial contact is made with DECUS, you have only to give suggestions on a place and estimate probable number of attendees. The Seminars committee, through a Regional Seminar representative, will carry the ball from there.

TO SUM IT UP

These are just some of the activities and support services that NLC offers to the LUGs. There are several positions open for volunteers at the regional level. If you are interested in volunteering, need help with your LUG program, or have suggestions for services NLC could offer in the future, don't hesitate to contact your Regional LUG Coordinator.

HINTS FOR SUCCESSFUL NEWSLETTERS

compiled by Kata McCarville Weber, Computing Center, Colorado School of Mines, Golden, Colorado

This is a condensation of hints, tips and advice from three LUG newsletter editors, namely Earl Corey, Santa Barbara-Ventura-San Luis Obispo LUG; Ray Kaplan, Tucson Users Group (TUG); and Kata McCarville Weber, Rocky Mountain VAX Local Users Group (RMVLUG). Most of the information is taken from a panel discussion on how to do a LUG newsletter, given at the Fall 85 DECUS symposium. The session is available on tape (LUG002).

There is much work and energy expended in the production of a newsletter for any group. The payoff comes when the newsletter serves as the "glue" in your organization, making members feel included in the group even when they may not be able to attend all the meetings. The difficulties in producing such a document are many. None of the panel pretended to have all the answers, but they offered the benefit of their collective experience.

The tasks involved in producing a newsletter include:
--collecting or writing information to be included
--editing for content and proofreading
--merging text and illustrations in a master copy
--duplicating the newsletter
--maintaining the membership list
--distributing the newsletter to LUG members

Try to share the work by separating some of the tasks. Have the LUG appoint or elect volunteers to carry out these functions. You may also be able to get help from the local DEC office.

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BOLD BODY = WHAT DO I PUT IN THE NEWSLETTER?

The most frustrating aspect of putting together a LUG newsletter is probably thinking of things to print and attempting to get submissions from sources besides yourself. The panel had several suggestions.

First, make some decisions about the purposes of your newsletter. Is it to announce meetings, or summarize the previous meeting, to publish technical information, or what? Also pay attention to the character of your LUG. Is it a very professional organization, or very informal? Humorous or serious? Answers to these questions will help you make your newsletter a viable part of your organization.

--Use a logo or masthead to make your newsletter recognizable in a LUG member's mailbox.

--Always clearly label and date your newsletter.

--Number the pages.

--Include an issue number, or use some naming system, so that people can be sure they have not missed a newsletter, especially if publication is somewhat irregular.

--Always include a list of contacts for subscription information and membership applications.

Make the newsletter a little bit spicy, fun to read, and informative. Strive for accuracy and timeliness. You might try special theme issues on topics of particular interest to LUG members.

Try to have a number of regular items in the newsletter. These might include a Question-and-Answer Column, Hints and Kinks, or a column from the LUG Chair. Information about broken software is ALWAYS of interest, whatever the source.

Hold a question-and-answer session at a LUG meeting to identify some of the knowledgeable technical people in your LUG. People with special expertise (for example, in Fortran, DCL, Datatrieve, RSX...) can sometimes be flattered into authoring a regular column, and serving as a "resource" to members of the LUG--try printing a list of these people and their telephone numbers. People may protest modestly, but most of them like to see their names in print. Make sure articles are printed with by-lines. Local DEC people or other vendors may be willing to contribute articles of interest, but with the DECUS Commercialism Policy in mind, keep such articles strictly technical in nature.

An active LUG program supplies lots of material for newsletter articles. You can announce future LUG meetings, including background information on speakers and their topics. You can summarize past LUG meetings for those members who did not attend, helping your group stay in touch. Use as many names as you can, including folks who may be working behind the scenes with little recognition. Include thanks to sponsors who may supply meeting space, audio-visual equipment, or refreshments.

Ask at every LUG meeting for submissions to the newsletter, and print instructions on how to submit an article in each newsletter. Encourage submissions on magnetic media, or investigate using an electronic bulletin board or other central location to collect and assemble newsletter material via telephone file transfer. Telephone access to a central assembly area also allows more than one person to share the editing burden.

Keep an eye on who is doing what in the LUG. For example, if someone is putting in a new system, suggest that he or she might write an article about how things go, what works and what doesn't. You may need to cultivate people for some time before you start to get articles from them.

Other possibilities are reports from DECUS national or regional symposia aimed at readers who can't or don't attend the symposia and authored by those who can and do. Try to designate reporters and assignments before people go off to DECUS. Reviews of the software available on the DECUS SIG tapes make good newsletter articles. You can also include a calendar of coming events in your newsletter. Keep the focus narrow, either regionally or by subject matter, so the calendar is particularly useful to LUG members.

Anything that generates interest in the LUG may generate newsletter material. Contests may work, depending upon your readership. Try a contest to name your LUG, or the newsletter itself, or a competition to design a distinctive logo for your LUG. The logo might be used on t-shirts or coffee cups to be sold as a fundraising activity, as well as on the newsletter. Make up some stationery with the logo and use it to send professional-looking thank-you letters to speakers and others who contribute to the LUG, and their bosses. Use the logo to design a "Certificate of Appreciation" and use it.

Humorous articles help get the reader's attention, and make your newsletter stand out from the dry, technical material most of us must slog through. Cartoons are good, as are short pieces in the same vein as you might see at a DECUS Magic session. Some LUGs use a "Dear Abby" format for a humorous column. DEC trivia is another possibility. Watch for cartoons and humorous items posted on bulletin boards and in people's offices. Every company has a corporate joke monger--find him or her. Scavenge what you can from other sources, but don't violate copyrights.

Get someone on your editorial staff who doesn't know too much about computers. This will help keep down the level of jargon. Make technical articles understandable even to novices, if possible. These are the people to whom the newsletter material and LUG program can be of greatest value.

People are always interested in the dirty laundry. Try to dig up rumors and raw random data (as one national publication calls it). As long as you state that these are entirely unsubstantiated in fact, you may safely print them. Poke a little fun at things. A touch of the "dragonslayer" attitude can be helpful in making readers aware that your newsletter's purpose is truth and beauty, not advertising.

HOW DO I MAKE ALL THAT STUFF INTO A NEWSLETTER?

New possibilities open up every day in the world of graphics and publishing. For example, it is now possible to produce good xerographic reproductions of photographs very inexpensively, which could make a big difference in the look of your newsletter. Public-domain artwork ("clip art") is available for the cost of a photocopy at public libraries or in electronic form over many bulletin boards. Illustrations and text may be cheaply and easily reduced in size so more information can fit on one page. This helps cut duplication and mailing costs.

New desktop publishing techniques can help with newsletter production, too, but remember that the hardest work is getting the material together. Desktop publishing doesn't help with that, except that it can give you more time to work on content. It can also give you a more professional looking product at a much lower cost than typesetting.

Try to get some understanding of the capabilities that exist in the rapidly changing field of publishing, rather than struggling with outdated, labor-intensive methods. Find other newsletter editors in your area and get help from them. Search the LUG membership list for people who work in publications, and ask them for help. Ask at LUG meetings for volunteers who may have done publications work in the past. Hang out in art-supply stores and cultivate friendships with graphic artists and printers.

Your choice of duplication method may depend upon what is available to your LUG through donations, your budget, and the number of newsletters you must produce. Two common options are photocopying and offset printing. Some laser printers may have a lower per-copy cost than photocopy machines, and the output is nearly typeset quality.

The duplication method you choose will affect how you will put your master copy together. You might do old-fashioned paste-ups on boards, or you may be able to use one of the nifty new desktop publishers. Laser-printer or letter-quality dot matrix or daisywheel output may be suitable for master-copy text, or typesetting can be done inexpensively from your diskette, after you finish editing and proofreading.

You might want to look at electronic distribution, thus avoiding entirely the problem of duplication. Consider using a bulletin-board format for distribution of articles and other material, and then use just a postcard for notifying members of LUG meetings. Some service companies may be willing to sponsor such a bulletin board.

You can use regular mail to distribute your newsletter if it is duplicated on paper. Remember that only first-class mail is forwarded, and that third-class mail can be held for some time before delivery. Bulk-rate mailing can save money on postage, but requires a minimum of 200 pieces per mailing and considerable sorting and bundling (although it is a simple-minded process and some up-front work on how the mailing labels are printed can make it much easier). Investigate the many options for distribution by checking with companies in your area that do mail distribution for a living.

Maintain your membership list by asking members to send back a reply or contact you in some way every few years. Give them a reasonable amount of time to respond, then purge the list to keep mailing costs down. Your local DEC office may be willing to assist you with keeping a membership list, producing mailing labels, duplication of the newsletter and mailing. They will almost certainly be willing to distribute a LUG contact name and address to prospective new members through their sales organization. Encourage cooperation from DEC, and perhaps other vendors, by stressing the networking opportunity that the LUG represents, but keep the DECUS Commercialism Policy clearly in mind.

FUNDING

Try to solicit newsletter funding from corporations. This need not be directly in the form of money--you might ask for supplies or the use of a photocopier. A service company might make electronic bulletin board space available free to your LUG. In some cases it may be valid for people to work on LUG business on company time, as it is a professional society, after all. Your local DEC office may be willing to assist with production or distribution, but this dependence could compromise the editorial content of your newsletter.

LUGs may use other means to raise funds, including t-shirt sales, which can be bankrolled on fairly limited cash. Charging a subscription fee has been successful for some LUGs, but does increase the work for those coordinating the membership list. DECUS funds may be available to supplement these sources.

BEST WISHES

It is difficult, but rewarding, to produce a high-quality LUG newsletter. The newsletter can be an important component in a smoothly functioning LUG organization. It can serve to announce meetings, to disseminate written information that is of interest to LUG members, and to keep members in touch with the group even though they may miss a meeting or two. Investigate the resources that may be available. Be creative. And good luck!

CONTRIBUTING EDITORS

Hats off to these brave souls who essay forth to produce LUG newsletters. Their work is the heart of this compendium. If you like what they did, no doubt they will welcome your call asking how they did it. In some cases, newsletter editors are not credited by name--where this occurs, we have listed the LUG Chair.

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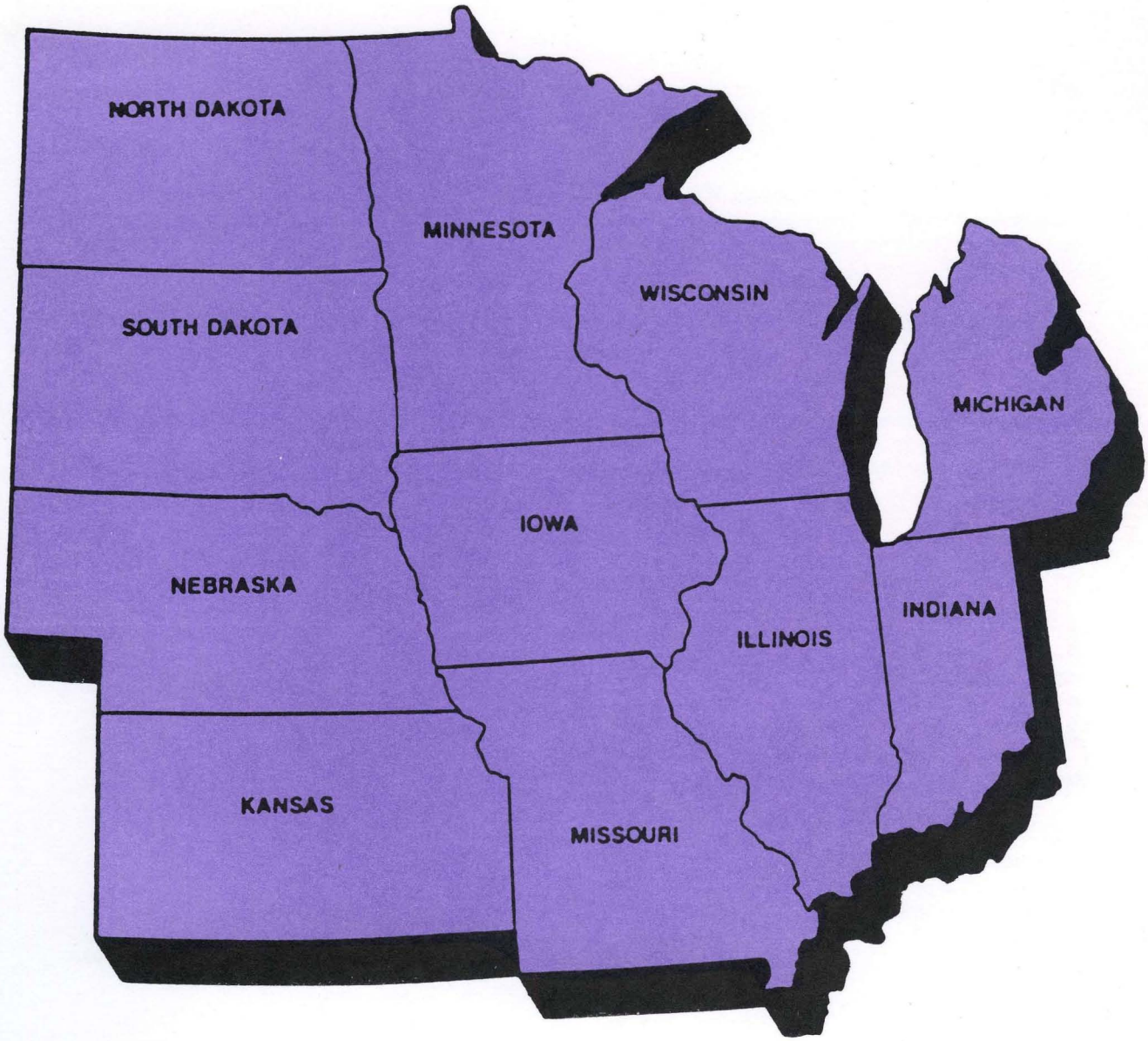

Central Region

CENTRAL REGIONAL LUG COORDINATOR

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John Livengood lives in Wichita, Kansas and has been active in DECUS for four years. He helped form the Wichita Area LUG in 1984, served as LUG Vice-Chair for two years and Chair for one and one-half years. He resigned the LUG Chair position in September 1987 to become the Central Region LUG Coordinator.

The Central Region has 24 LUGs, the newest of which is forming in South Dakota. Central has started planning for a Regional Conference, to be held in Kansas City, tentatively scheduled for 1989.

John met several of the Central LUG Chairs and/or their designated representatives at the LUG Cluster Dinner in Anaheim, Fall 1987. John organized a LUG Cluster meeting in Chicago attended by three LUG steering committees, and staffed a DECUS booth at the Wichita Users Fair. Keep up the good work, John!

REGIONAL TAPE COPY COORDINATOR

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Central Illinois LUG
William L. Wallace, East Peoria, 309-699-2682

● Chicago Area Microcomputer Personal/Professional Users Society
Chair: Tom Heuer, Westchester, 312-865-0300

Chicago Area Digital Users Society
Chair: Eugene W. Alpern, Morton Grove, 312-998-5950

Chicago Area Local Users Group (CHGALUG)
Chair: Osman Ahmad, Chicago, 312-567-3627 or 312-567-3604

Chicago Area Real-Time Society
Chair: David Gudewicz, Abbott Park, 312-937-8227

Indiana

Michiana LUG
Chair: Alan Hunt, South Bend, 219-232-3992

Iowa

Bi-State LUG
Chair: James Freeman, Mount Vernon, 319-895-8811

Central Iowa LUG
Chair: Terry Sward, West Des Moines, 515-225-6030

Skunk River LUG
Chair: Dennis Jensen, Ames, 515-294-7909 or 515-383-2258

Kansas

● Kansas City LUG
Chair: Lon Amick, Lenexa, 913-888-6222

● Wichita Area DECUS LUG
Chair: Charles Tollett, Wichita, 316-684-6883

Michigan

Greater Lansing LUG (GLLUG)
Chair: Michael McPherson, East Lansing, 517-353-9769

Michigan VAX LUG (MIVAXLUG)
Chair: James B. Fischer, Troy, 313-524-8887

Mid-Michigan LUG (MIDLUG)
Chair: Peter J. Sivia, Midland, 517-636-6656

South East Michigan LUG
Chair: James Downward, Ann Arbor, 313-769-8500

West Michigan LUG
Chair: Hank Vander Waal, Grand Rapids, 616-957-3353

Minnesota

Minnesota VAX LUG
Chair: David Meile, Minneapolis, 612-625-3694

Missouri

● St. Louis LUG
Chair: Ken Denson, St. Louis, 314-362-3353

Nebraska

Midlands LUG
Chair: Mark Olson, Bellevue, 402-291-8300

Wisconsin

Northeast Wisconsin LUG (NEWLUG)
Chair: Kevin J. Kurek, Fond du Lac, 414-921-7100

Southeastern Wisconsin LUG (SEWLUG)
Chair: Michael Hanus, Milwaukee, 414-778-3780

● indicates LUG newsletters contained in this volume

K C LUG NEWSLETTER

DECUS APRIL 1987

DIGITAL EQUIPMENT CORPORATION USER SOCIETY
KANSAS CITY LOCAL USERS GROUP

M E E T I N G N O T I C E

Date: Thursday February 19, 1987

Time: 7:30 pm

Place: Digital Equipment Corporation
1300 East 104th Street
Kansas City, MO 64131

Directions:
Take I-435 to the Holmes exit.
Go South on Holmes to 104th and turn East. Continue about 4 blocks East to the new office complexes. Digital is located at 1300 east.

TOPIC: Jon Rickman of Northwest Missouri State will talk on their plans for creating an "Electronic Campus" of over 2000 workstations throughout the campus. This will be supported by a VAXcluster.

ELECTIONS -- Election of officers for the LUG will be conducted at the April meeting. There was underwhelming enthusiasm for nominations in March. The LUGs needs your support and input. Consider if you might be willing to serve as one of the officers. The three positions are:

Chairman: Coordination with with the National DECUS and runs meetings.
Vice-Chairman: Arranges for upcoming programs and meeting sites .
Secretaty: Keeps the list of members and prepares the monthly mailings.

The SIG tapes from the National LUG Distribution Center are in the hands of the various librarians. If you want ont of the tapes contact the librarian and get a tape to him. It will be copied and then you can pick them up.

RT-11:(Fall 86) Harvey Cohen 753-7600 VMS:(86 A,B,C,D) Mike Mueller 926-6064
RSX:(S F 86) Steve Harrison 272-4579 RSTS: Fall 86 "

Spring DECUS Sypmosium -- April 27 - May 1 -- Nashville, TN.
The deadline for registration is April 8, 1987.

The LUG is planning a submission for the Spring Symposium tapes. If you have a program or two for submission, bring the program on magnetic tape to the April meeting. The programs will be collected and put on a single tape and delivered to Nashville.

DIGITAL ANNOUNCES NETWORK INTEGRATION PACKAGES FOR IBM PC'S

The IBM PC Network Integration Package allows selected IBM personal computers to participate in local area networks using VAC/VMS services for MS-DOS and other Personal Computing Systems Architectures (PCSA) products. Two variations of the package are available. The first provides full PCSA capability including MS-Windows, the on-line user information system, and terminal emulator. The second variation provides Ethernet connections and network services, such as file services and print services.

Digital has designed configurations to provide maximum flexibility while adding new features and functions for IBM PC's.

For more detailed information about this product or pricing, contact your local Digital Equipment Corporation Sales representative. (816)-941-3830

KCLUG OFFICERS:

Chairman	Lon Amick	888-6222
Vice-Chairman	Martin Van Swaay	913-532-6350
Secretary	Mike Mueller	926-4064

K C LUG NEWSLETTER

JULY 1987

DIGITAL EQUIPMENT CORPORATION USER SOCIETY
KANSAS CITY LOCAL USERS GROUP

M E E T I N G N O T I C E

Date: Thursday July 16, 1987

Time: 7:30 pm

Place: Holyland Christian Mission
2000 East Red Bridge Road
Kansas City, MO 64131

Directions: From I-435 South turn SOUTH on Holmes Road and proceed to Red Bridge Road (About 1 mile). Turn left (EAST) on Red Bridge and continue past the red stone bridge (about 1 mile). The mission is located on the North side of Red Bridge near Blue river Road. There is parking for visitors along the circular driveway located in front. The meeting will be in the lunch room.

TOPIC: Larry Blackwell will be our host for a site visit. They are running an 11/750 and MicroVAX II networked together and have a very large database. Larry will explain his configuration and operations.

Future Meetings:
August 20 -- United Micro Graphics

For the next school year, Mike Mueller will be going on sabbatical. This makes it necessary for someone else to produce the newsletter and the mailing labels for the monthly meetings. If you are interested in serving the LUG as the secretary, contact Lon Amick.

DEC ANNOUNCEMENTS

Digital announces MIRA (Microsystems Implementation of a Reliable Architecture) This features two duplicate master/standby MicroVAX II computer systems with no single point of failure. The system is designed for applications that demand continuty of operation.

Digital Educational Services is offering more VAX/VMX courses in August at the Kansas City Training Facility. The courses depend on interest and enrollment and cover basic topics like System Management, Utilities and Commands, etc. For mor information or to enroll contact Educational Services at (312) 640-5520.

For more detailed information about these products or pricing, contact your local Digital Equipment Corporation Sales representative. (816)-941-3830

KCLUG OFFICERS:	Chairman	Lon Amick	888-6222
	Vice-Chairman	Martin Van Swaay	913-532-6350
	Secretary	Mike Mueller	926-4064

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY
WICHITA LOCAL USER GROUP

ANUARY 1988 VOL 5, NO. 1

NEXT LUG MEETING

The next meeting of the Wichita Local User Group will be held:

Thursday, January 28, 1988, at 7:00 p.m.
at the Cessna Training Center
Wallace Plant (see map)

The program will be a review of the Fall Symposium and notification of the coming election for steering committee members.

Dr. Debug:

Why is there a quota on ASTs?

Sincerely,
ASTounded

Dear ASTounded:

All of the ASTs for a single process are queued by mode (Kernel, Executive, etc.) and then by order of arrival. Each AST is represented by an AST Control Block (ACB). The ACB is actually the first part of a larger structure (I/O request packet, lock block, etc.). These structures are allocated from the nonpaged memory pool. This pool is used by the operating system for its memory needs. So an ACB, and the AST it represents, is a system resource.

Since an AST is a system resource it is controlled via quotas. In general, quotas prevent processes from using up all of the system resources. In short, there is a quota on ASTs to keep resource hogs from crippling the system.

If you would like to know (too much) about things like ACBs and the nonpaged pool, I would suggest getting a copy of VAX/VMS Internals and Data Structures (latest edition) from Digital Press.

Sincerely,
Dr. Debug

The nomination of steering committee members for the next election, as proposed by the current steering committee, is as follows:

Chair: Dar Schumann
Vice-chair: Jim Fullerton
Secretary: Sister Susan Welsby
Librarian: Dale Lutes
Newsletter: Bill Stephans

Remarks from the chair:

With the start of a new year, we can look forward to some challenges from DEC in the way of new software and from the LUG in the form of scheduling interesting meetings and the need for some new officers.

Early '88 should see the release of the "next version" of VMS and the introduction of Phase V DECnet. While VMS changes will affect only those who use VAXes, the DECnet changes will affect almost all of the DEC operating systems. Hopefully some of our members who were able to attend DECUS in December will be able to enlighten the rest of us on the coming changes.

Due to other committments, I plan on stepping down from the chairman's position after the next election. In addition to my position, one or two other positions may also be vacant. Therefore any one interested in serving as a member of the steering committee should contact me or another committee member to have his/her name placed on the ballot. The deadline for being placed on the ballot is February 28, 1988.

Sincerely,

Charles Tollett

Wichita LUG Steering Committee

Chair - Charles Tollett
9003 E. Harry #110
Wichita, KS, 67207
(H) 684-6883
(W) 526-9394

Vice-chair - Tom Stegman
1711 NW Parkway
Wichita, KS, 67212
(H) 721-6821
(W) 266-5627

Secretary - Joe Dunlavy
8721 Arthur Circle
Wichita, KS, 67207
(H) 688-0761
(W) 946-7108

Librarian - Dale Lutes
1213 N. Brunswick
Wichita, KS, 67212
(H) 721-0835
(W) 946-7109

Newsletter - Bill Stephans
14230 Spring Creek Dr.
Wichita, KS, 67230
(H) 733-2221
(W) 681-8266

At-large - Dar Schumann
#5 Son Court
Valley Center, KS, 67147

At-large - Tom Roberts
1806 N. Winstead
Wichita, KS, 67206
(H) 682-7811

Reg. LUG Coord. -John Livengood
4645 N. Hillcrest
Wichita, KS, 67220
(H) 744-2348
(W) 526-9380

New SIG tapes from the Fall, 1987 symposium are now available from the LUG Librarian, Dale Lutes. Contact him for your copy now!!!

Available tapes are:
TEX,KERMIT, and LN03 Fonts

DECUS

The Event Flag

Newsletter of the
St Louis Local Users' Group

St Louis Local Users' Group

Meeting

The next meeting of the LUG:

5.30 PM
Tuesday, January 11, 1988
at the Salad Bowl Restaurant
3949 Lindell Boulevard

LUG Elections • Edward D Jones Networking Project

The firm of Edward D Jones and Company is breaking new ground in the area of distributed office networking, and this month Michele Liebman will give us a description of exactly what they are doing — their plans, their hopes, and their strategies. Since their project involves hundreds to thousands of VAX processors all networked together, it should be a very interesting description indeed.

January is traditionally the month when the LUG elections are held. The positions that compose the steering committee have grown considerably beyond what's listed in our LUG charter, and so elections will be held for all positions found on the last page except that of Digital Liaison. Each position requires from four to twelve hours a month of volunteer effort.

Library

Please contact the LUG Secretary for a list of software tapes available to LUG members. As a rule, the complete list will no longer be printed in this newsletter, only announcements of new acquisitions.

LUG News[1]

Please post Page 3 conspicuously in your workplace so your associates can find out about the LUG meeting. Permission is granted to duplicate it, so feel free to really spread it around!

---

[1]**The Event Flag** is distributed once a month to all persons on the LUG mailing list. There is no charge for membership in the LUG; to get on the list, contact the Secretary at the address and/or telephone number listed at the back of this issue. Submissions to **The Event Flag** are subject to editing, and may be reprinted in other newsletters without notice. **The Event Flag** is prepared using Microsoft Word™ on a Macintosh Plus™ and LaserWriter Plus™.

Future Meeting Topics

Topics for the next couple of meetings:

February	System Management and Security (a repeat of October's ill-fated topic)
March	Workstations (Tom Kelley, Digital)
April	PDP Topics (possibly a case history of a migration from PDP to VAX given by Ken Denson)
May	Digital picnic and Open House (at the Digital branch office, not the Salad Bowl)
June	The Spring 1988 National Symposium

A/V Materials for LUG Meetings

The Salad Bowl restaurant has an extremely limited supply of Audio/Visual aids that we can make use of; in fact, all they have is a single projection screen. For this reason, would you consider chipping in a donation of, say, a dollar or two so that the LUG can buy some supplies to be owned in common? Or perhaps your firm might donate an old overhead or slide projector to the LUG? For on-line demonstrations, we'll still probably convene at the Washington University Medical School auditorium.

LUG Bulletin Board System

The probability of a St Louis LUG Bulletin Board system is getting greater all the time. So far, we have an offer of a system with dial-in lines, and software to run thereon (VAXnotes). Administrative details are all that remain to be worked out. (Such as what conference topics there should be, whether there's enough interest to do it at all, moderators for the conferences, whether each member gets a separate account – that sort of thing.) If you would participate in a LUG bboard system if it gets set up, please let the Steering Committee know! If no-one says they're interested, the project will be dropped.

Articles

An Example of TEX (Jon Elson, Washington University)

[Ken Coar says, "Well, I didn't get in touch with Jon in time this month to get a new copy of his article for inclusion. Stay tuned..."]

To find out more about TEX, contact TuGBoat (the TEX users' group) at

TEX Users' Group
P.O. Box 9506
Providence, RI 02940-9506

(401) 272.9500 x232

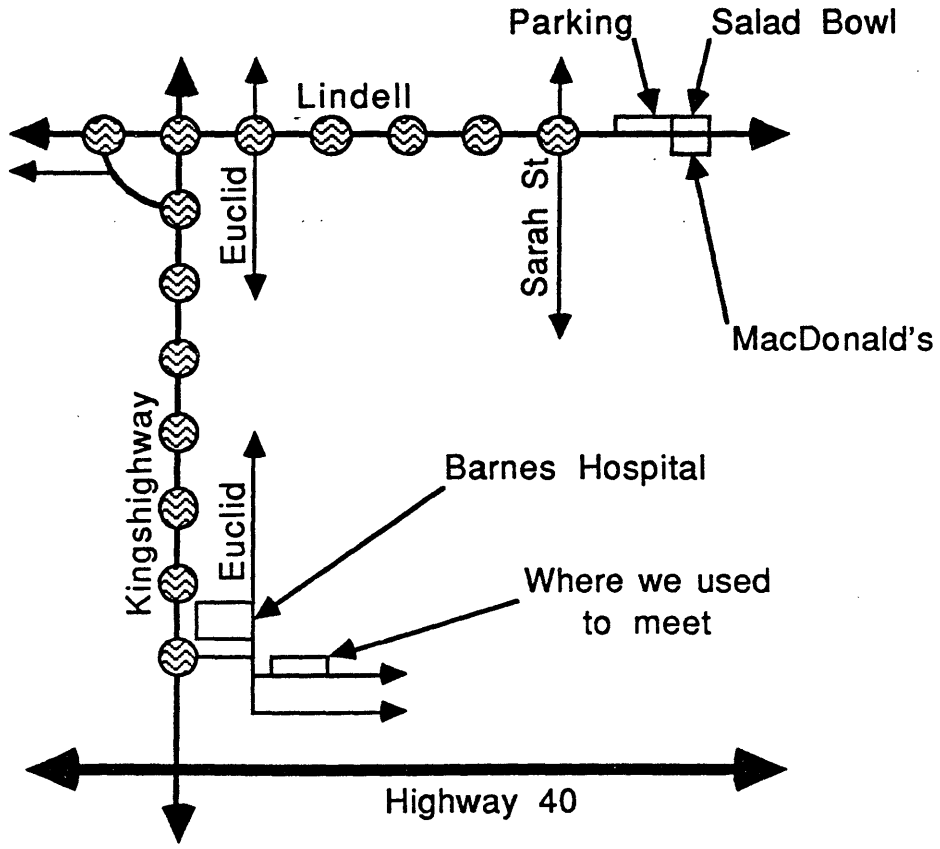
DECUS

St Louis Local Users' Group

Meeting
5.30 PM
Tuesday, January 12, 1988
at the Salad Bowl Restaurant
3949 Lindell Boulevard

LUG Elections • Edward D Jones Networking Project

Social hour starts at 5.30, and dinner informally begins at 6.00. After dinner, any LUG business is discussed, and then the floor is thrown open to allow attendees to ask questions or provide insights to the group at large. The meeting proper begins after this; we try to wrap things up by 9.00 PM.



Drawing is most definitely not to scale

SLLUG Software Library

Several of the DECUS Special Interest Groups generate tapes containing software donations from their members. These tapes are built, as a rule, twice a year, at the DECUS Symposia, and distributed through the National LUG Organisation to interested LUGs, which then make them available to their memberships. If you wish to have a copy made of one or more of them, bring one or more blank tapes to a LUG meeting - they will be returned at the following meeting with the requested data on them. Alternatively, you may send them direct to the LUG Librarian.

In any event, certain identifying documentation must accompany each tape to ensure it doesn't get lost in the shuffle. **Tapes which are not adequately documented become the property of the LUG.** The required information must be affixed to the tape reel in the form of an adhesive label, and consists of:

Your name
Your telephone during working hours
Your mailing address
The year of the symposium tape desired
The season of the symposium (Spring or Fall)
The SIG which produced the tape (VAX, RSX, &c.)
The desired tape format (BRU, DOS, VMS Backup, &c.)
The desired density (800, 1600, or 6250 bpi)
The reel number (1 of 3, 2 of 3, &c.)

Tapes which aren't properly labeled will not be accepted at the LUG meetings; if sent through the mail, they become the property of the LUG. Requesting data which is not on the library list also causes the tape to become LUG property.

If you want your tape(s) to be mailed to you when completed, you **must** include enough postage to cover the shipping costs. If shipping instructions are given, but no postage, the tapes will be brought to the LUG meetings for pickup instead. **Please note: Tapes which are not picked up within three meetings will become LUG property!**

Washington University has facilities to copy tapes from and to many different formats, including ASCII - EBCDIC conversion, density changes, and disk/diskette generation. For more information, please contact **Mark Freeman** at the Washington University Medical School.

LUG Steering Committee

President

Ken Coar
Digital Equipment Corporation
P.O. Box 27320
721 Emerson Road
St Louis, MO 63141
(314) 991.6540

Program Chair

Beverly Fay
City of St Louis
Department of Personnel, Room 100
1200 Market Street – City Hall
St Louis, MO 63103
(314) 622.4445

Digital Liaison

Tom Kelley
Digital Equipment Corporation
721 Emerson Road
P.O. Box 27320
St Louis, MO 63141
(314) 991.6211

Librarians

Recent SIG Tapes

Jon Elson
Department of Chemistry - Box 1134
Washington University
Lindell and Skinker
St Louis, MO 62130
(314) 889.6547

Archives

Mark Freeman
Washington University Medical School
660 S Euclid, MS 8094
St Louis, MO 63110
(314) 362.3354

Secretary / Newsletter Editor

John Roman
Monsanto Company
Mail Stop GG3I
700 Chesterfield Village Parkway
Chesterfield, MO 63198
(314) 537.7044

DECUS

The Event Flag

Newsletter of the
St Louis Local Users' Group

St Louis Local Users' Group

Meeting

The next meeting of the LUG:

5.30 PM
Tuesday, August 11, 1987
at the Salad Bowl Restaurant
3949 Lindell Boulevard

Local Area VAXclusters
Results of Last Autumn's Membership Survey (really!)
Selection of a new Secretary

Tom Kelley of Digital Equipment Corporation will be our speaker this month. He has prepared a presentation on Ethernet VAXclusters, otherwise known as Local Area VAXclusters or LAVc's (pronounced 'lav-SEE').

Unfortunately, Ken Coar (who has the data) was unable to attend the July meeting, so the membership survey results will be made available at this meeting instead.

With the election of the secretary to the presidency in June, we need someone to be the Secretary until January. If you're interested in the job, mention it at the meeting; if multiple people are interested, there'll be a quick special election. If no-one speaks up, someone will be appointed unless everybody *really* doesn't want it, like with a vengeance.

Library

Please contact the LUG Secretary for a list of software tapes available to LUG members. As a rule, the complete list will no longer be printed in this newsletter, only announcements of new acquisitions.

LUG News

Please post Page 5 conspicuously in your workplace so your associates can find out about the LUG meeting. Permission is granted to duplicate it, so feel free to really spread it around!

President's Message (Ken Coar)

I have resigned from my job with General Dynamics, and I am taking a position with the St Louis district office of Digital. Ordinarily, you might say 'So what?' (in fact, you might say it yet!), but this change may have an impact on the LUG.

DECUS policies currently state that DEC employees may not be DECUS leaders; the intent of the policy is to avoid 'conflicts of interest,' which might result in DECUS being steered by Digital rather than by the user community at large.

However, I was a user long before I was a DEC employee, and this seems rather discriminatory to me. I'm told that the policy will be reviewed by the DECUS Board of Directors in August, so maybe there will be a change. Ralph Stamerjohn, as our local Board member, would like to hear from you if you have an opinion on this subject.

There appear to be three basic alternatives:

a) We might hold another special election, and select a new president to finish the current term

b) I might complete the rest of this term, and just not stand for re-election in January

c) The DECUS Board might decide that DEC users are 'real' users, and the problem will go away.

Just for the record, I'd like to remain 'at my post,' as it were. I'm proud that you thought highly enough of me to elect me, and I'd like the chance to live up to it. However, the bottom line is really what (and whom) you, the members, want, so please think about it so it can be discussed at the August meeting.

Future Meeting Topics

Topics for the next few meetings:

September	ALL-IN-1 System Management, and an update on the DECUServe project
October	VAX/VMS System Management Seminar (by Digital)
November	Artificial Intelligence... possibly
December	open

This schedule is tentative, and may easily be changed if more popular topics are requested. November and December's meetings are still wide open, so if you have a favourite topic that you'd like to talk about, hear about, or (more specifically) hear Digital talk about, please let the Program Chair know about it. The meeting topics are driven by what **you** want to hear!

Call for Submissions

See your name in Print!

Any articles or notices that you would like to see included in **The Event Flag** should be sent to the LUG secretary (see the last page for the address) no later than the 15th of the month before the next scheduled LUG meeting.

Machine-readable submissions are vastly preferred, and may be in the form of RUNOFF source, raw text, or Macintosh diskette. Please include your name, telephone number during working hours, and (if you want the media back) sufficient postage (no cash, please) to return the submission. Submissions are subject to editing, and may be reprinted in other newsletters.

Editor's Lament

I'll bet that I'd get more submissions to **The Event Flag** if authors were bought dinner at the next LUG meeting... How do *you* feel about that? Would you write a brief article if your fellow members would buy you a dinner as thanks? What would it take to get your input? Think about it.

Articles

TeX (Jon Elson, Washington University)

I continue to await Jon Elson's article on TeX with bated breath. Perhaps if I bait my breath rather than bating it, I'll catch something... like the article, maybe?

Legal Protection Against Crackers (Ken Coar, General Dynamics)

At a computer security conference in Philadelphia this month [July], something interesting came up in terms of legal recourse against people who penetrate your system. Apparently, several locations have found it advisable to put up a message before, or immediately after, someone logs on:

```
This is a private system.  Unauthorised access or use is
prohibited.
```

Some would-be penetrators have evidently gotten out of charges by claiming that they 'didn't know,' or that they 'thought it was another system.' Hence the suggestion to put the warning right up front, in order to nullify such claims. It is highly recommended that you consult legal counsel concerning the presentation and content of such a message before putting one up.

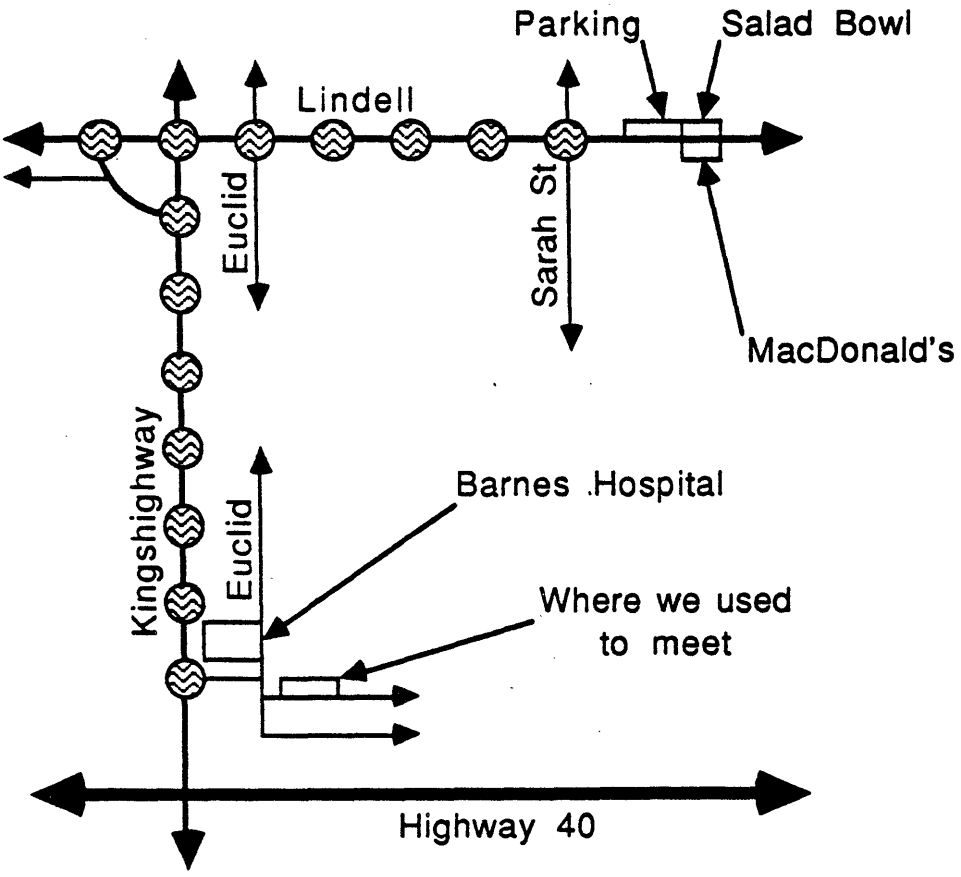
DECUS

St Louis Local Users' Group

Meeting
5.30 PM
Tuesday, August 11, 1987
at the Salad Bowl Restaurant
3949 Lindell Boulevard

Local Area VAXclusters – Survey Results – New Secretary

Social hour starts at 5.30, and dinner informally begins at 6.00. After dinner, any LUG business is discussed, and then the floor is thrown open to allow attendees to ask questions or provide insights to the group at large. The meeting proper begins after this; we try to wrap things up by 9.00 PM.



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LUG Steering Committee

President

Ken Coar
General Dynamics
12101 Woodcrest Executive Drive
Creve Coeur, MO 63141
(314) 851.4003

Program Chair

Beverly Fay
City of St Louis
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(314) 622.4445

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Digital Equipment Corporation
721 Emerson Road
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St Louis, MO 63141
(314) 234.2201

Librarians

Recent SIG Tapes

Jon Elson
Department of Chemistry - Box 1134
Washington University
Lindell and Skinker
St Louis, MO 62130
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Archives

Mark Freeman
Washington University Medical School
660 S Euclid, MS 8094
St Louis, MO 63110
(314) 362.3354

Secretary / Newsletter Editor

Ken Coar
General Dynamics
12101 Woodcrest Executive Drive
Creve Coeur, MO 63141
(314) 851.4003

The Rocky Mountain VAX Local Users Group is holding a regional conference in Denver on March 31 through April 1, 1988 at the Sheraton Denver Tech Center. This two day conference will cover VMS, Networks, Systems Management, Languages & Tools, Business, and Wizardry. If anyone is interested in attending, registration forms are available either from your steering committee or the RMV LUG P.O. Box 13963, Denver Co 80201, Attn: Kata Weber. Spend a fun two days in Denver and another fun two days at Stapleton trying to get home.

Wichita DECUS LUG Newsletter

Editor - Bill Stephans

Contributors - Charles Tollett
Jim Fullerton
Dr. Debug

Published monthly for DECUS
WICHITA LOCAL USER GROUP

P.O. Box 85
Wichita, KS, 67201

From an UPDATE.DAILY at a recent Symposium

With apologies to the Victim, and the RSX PAC, herewith we present
the PURPVAX theme song --
to the tune of "He's got the whole world in His hands"

He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,

He's got lotsa crud on his VAX.

He's got DEC star couplers, on his VAX,
He's got Briton Lee, on his VAX,
He's got full DECservice, on his VAX.

He's got expensive crud on his VAX.

He's got VMS, on his VAX,
He's got Datatrieve, on his VAX,
He's got real-time, on his VAX.

He's got slow crud on his VAX.

He's got office automation, on his VAX,
He's got All-in-fun, on his VAX,
He's got security up the ying-yang,
on his VAX.

He's got Management on his VAX.

He's got VAXElan, on his VAX,
He's got ANSI DIBOL, on his VAX,
He's got RPG, on his VAX.

He's got useless crud on his VAX.

He's got gigundo disks, on his VAX,
He's got max warp speed, on his VAX,
He's got unlimited POOL, on his VAX.

He's got some decent stuff on his VAX.

He's got Hurkle and Adventure,
on his VAX,
He's got Haunt and Dungeon, on his VAX,
He's got Rogue and Moria, on his VAX.

He's got production problems on his VAX

He's got FORTRAN II, on his VAX,
He's got TOPS-10 emulation, on his VAX,
He's got Findonet, on his VAX.

He's got bizarre crud on his VAX.

He's got 1000 users, on his VAX,
He's got 40 LAT servers, on his VAX,
He's got the King James Bible,
on his VAX.

He's got the whole world on his VAX.

He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX.

He's got lotsa crud, on his VAX.

WICHITA AREA DECUS LUG

NOMINATION FOR LUG OFFICER
1988-1989

I nominate _____
(please print)

for the office of: (circle one)
Chairman Vice-Chairman Secretary

Librarian Newsletter Editor

AUTHORIZIED ENDORSEMENTS (Three required)
Endorsements must be from current LUG members.

_____ _____
Signiture Member ID Number

_____ _____
Signiture Member ID Number

_____ _____
Signiture Member ID Number

FOLD AND MAIL BEFORE 28 FEBRUARY 1988

Joe Dunlavy, Secretary
Wichita Chapter DECUS
P.O. Box 780373
Wichita, KS 67278-0373

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY
WICHITA LOCAL USER GROUP
NOVEMBER/DECEMBER 1987 VOL 4, NO. 9

NEXT LUG MEETING

The next meeting of the Wichita Local User Group will be held:

Thursday, December 3, 1987, at 7:00 p.m.
at the NCR facility
3718 N. Rock Road

The program will be a presentation on various programming languages and their relative suitability for certain applications.

'Twas the night before implementation and all through the house,
Not a program was working, not even a browse.
The programmers all hung by their tubes in despair,
with hopes that a miracle soon would be there.
The users were nestled all snug in their beds,
while visions of inquires danced in their heads.
When out in the computer room there arose such a clatter,
I sprang from my desk to see what was the matter.
And what to my wondering eyes should appear,
but a super programmer (with a six pack of beer).
His resume glowed with experience so rare,
he turned out great code with a bit-pusher's flair.
More rapid than eagles, his programs they came,
and he cursed and muttered and called them by name.
On update! on add! on inquiry! on delete!
on batch jobs! on closing! on functions complete!
His eyes were glazed over, his fingers nimble and lean,
from weekends and nights in front of a screen.
But a wink of his eye and a twitch of his head,
soon gave me to know I had nothing to dread.
He spoke not a word, but went straight to his work,
turning specs into code; then turned with a jerk;
And laying his finger upon the "ENTER" key,
the system came up and worked perfectly.
The updates updated; the deletes, they deleted;
the inquires inquired, and closings completed.
He tested each whistle, and tested each bell
with nary a glitch; it all had gone well.
The system was finished, the tests were concluded.
The last minute changes were even included.
And the users exclaimed with a snarl and a taunt,
"It's just what we asked for, but not what we want!"

We still need articles of information for future newsletters! So, please — Pick up your pen, or put your fingers on the keyboard, and send in your articles because I'm running out of stuff to print. You can call me at (316) 681-8266 or send articles and/or suggestions to me at:

Bill Stephans
Beech Aircraft Corporation
M.S. 90-406
P.O. Box 85
Wichita, KS 67201

Remarks from the chair:

After this meeting, we'll have completed another year of DECUS activities. This has been a pretty good year and I believe we can look forward to an even better year in 1988. On behalf of the steering committee, I would like to take this time to thank each of you for your support of the LUG this year.

For those of you lucky enough to be heading to the FALL '87 DECUS meeting, HAVE FUN!!! Also, please consider sharing the information at the January, '88 meeting. Some (a lot) of us will be unable to attend due to lack of funds, work schedules, etc. If you are willing to do so, please contact me and let me know so I can work up the schedule for the meeting.

In closing, I have three final comments for 1987.

Go easy on the Thanksgiving turkey, have a very Merry Christmas, and a very Happy New Year.

Sincerely,

Charles Tollett

Wichita LUG Steering Committee

Chair - Charles Tollett
9003 E. Harry #110
Wichita, KS, 67207
(H) 684-6883
(W) 526-9394

Vice-chair - Tom Stegman
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Wichita, KS, 67212
(H) 721-6821
(W) 266-5627

Secretary - Joe Dunlavy
8721 Arthur Circle
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At-large - Dar Schumann
#5 Son Court
Valley Center, KS, 67147

At-large - Tom Roberts
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(H) 682-7811

Reg. LUG Coord. -John Livengood
4645 N. Hillcrest
Wichita, KS, 67220
(H) 744-2348
(W) 526-9380

New SIG tapes from the spring 1987 symposium are now available from the LUG Librarian, Dale Lutes. Contact him for your copy now!!!

Available tapes are:
RSX,VMS,KERMIT,Languages & Tools, and Office Automation

From the December,1986 RMVLUG

On the twelfth day of Christmas,
Digital gave to me:
Twelve FEs testing,
Eleven boards a-frying,
Ten tapes a-streaming,
Nine modems calling,
Eight disks accessing,
System accounting,
Six users using,
Five VAXen clustered,
Four system consoles,
Three DECservers,
Two terminals, and
A file in a directory.

Wichita DECUS LUG Newsletter

Editor - Bill Stephans

Contributors - Charles Tollett
Jim Fullerton
Dr. Debug

Published monthly for DECUS
WICHITA LOCAL USER GROUP

P.O. Box 85
Wichita, KS, 67201

Some of the more scholarly LUG members (that's everyone, right?) may be interested in adding to their personal library. Christmas is also rapidly approaching. I have a short list of books on a variety of topics which I have either read or am still reading, but are excellent in content and presentation. Note that you will most likely have to order any of these -- probably through your local bookstore. -- Jim Fullerton

1. The Sachertorte Algorithm, John Shorenguin, Inc, New York, 1986, $6.95, ISBN 0 14 00.8037 6.

   This is an excellent overview of software for novices as well experts. Topics include the design and use of user interfaces, correctness, programming as a literary activity, the inadequacy of testing, and false hopes about artificial intelligence.

2. Numerical recipes: The Art of Scientific Computing, William Press, et. al., Cambridge University Press, 1986, $39.50, ISBN 0-521-30811-9.

   The authors of Numerical Recipes strike a balance between theoretical numerical analysis texts and practical algorithms. They did this very successfully. A huge number of numerical topics are covered, and complete subroutines are given in ANSI FORTRAN-77 and ISO Pascal. There are also some guidelines for modifying code for use on VAXes, as well as other computers. This is an excellent reference volume.

3. The Science of Programming, David Gries, Springer-Verlag, 1981, $24.25, ISBN 0-387-90641-X

   A nearly classic text on programming methodology. Unlike the material covered in software engineering texts, this deals with the programming process itself. The approach is different too: instead of "debugging programs into correctness" as is the usual software engineering procedure, the author starts with the idea that programs should be written correctly from the start. This book explores the body of theory and practice in that field. A key idea is that one should program into a language, never in it.

4. The Art of C Programming, Jones and Stewart, Springer-Verlag, 1987, $18.50, ISBN 0-387-96392-8.

   This is a good introduction to the C programming language. The authors are careful to use clean code in their examples. Unlike most books on C, the authors do not use things you will learn about later in the book in examples early in the book. This keeps readers from falling into the C tar pit of unnecessary confusion and complexity.

Dr. Debug:

Here is a command procedure and FORTRAN program that works only if procedure verification is on (i.e., SET VERIFY).

```
     ...
$AS SYSOUT.DAT SYS$OUTPUT
$SH PROC/ACCOUNTING
$DEAS SYS$OUTPUT
$AS SYSOUT.DAT FOR004
$ RUN PRICE.EXE
     ...
```

```
      ...
       DO 999 I=1,8
       READ(4,10)A
        IF (I .LT. 3) GO TO 999
        IF(I .EQ. 6) GO TO 999
        IF(I .EQ. 7) GO TO 999
        IF(I .EQ. 4) READ(A,11)IBIO
        IF(I .EQ. 5) READ(A,11)IDIO
        IF(I .EQ. 8) READ(A,998)RAWMUS
998    FORMAT(26X,A8)
999    CONTINUE
10     FORMAT(A80)
11     FORMAT(24X,I6)
      ...
```

Sincerely,
Half-Price

Dear Half-Price:

The command procedure captures the SHOW command output by redirecting output to SYSOUT.DAT ($AS SYSOUT.DAT SYS$OUTPUT). The program reads the accounting information of interest from a fixed position in SYSOUT.DAT.

When procedure verification is off SYSOUT.DAT contains exactly the SHOW command results. When verification is on the SHOW command output is preceded by the line "$SH PROC/ACCOUNTING" because $SET VERIFY causes the command procedure to be echoed to SYS$OUTPUT during execution. Thus the accounting information is in a different position depending upon the verification state.

I see three possible solutions. First, make the program read the accounting information position independent. Second, capture the SHOW command results with the /OUTPUT[=file-spec] qualifier and read seven lines rather than eight. The third (and best) is for the program to call the SYS$GETJPI System Service routine to get the accounting information directly.

Sincerely,
Dr. Debug

Keep the torrent of cards and letters coming to:
Dr. Debug, 1806 N Winstead, Wichita, KS 67206.

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY
WICHITA LOCAL USER GROUP

OCTOBER, 1987 VOL 4, NO. 8

NEXT LUG MEETING

The next meeting of the Wichita Local User Group will be held:

Thursday, October 29, 1987, at 7:00 p.m.
at Kansas Newman College
Room A306
Sacred Heart Hall (Building # 1 on the map)

The program will be a presentation on Database Management systems and a report on LUG status by the Regional LUG Coordinator.

The meeting for November/December will be an open house at the Digital Office on December 3, 1987.

LAWS OF PROJECT MANAGEMENT

Compliments of AGS Management Systems

1. No major project is ever installed on time, within budget or with the same staff that started it. Yours will not be the first.

2. Projects progress quickly until they become 90 percent complete, then they remain at 90 percent complete forever.

3. One advantage of fuzzy project objectives is that they let you avoid the embarrassment of estimating the corresponding costs.

4. When things are going well, something will go wrong.
When things just can't get any worse, they will.
When things appear to be going better, you have overlooked something.

5. If project content is allowed to change freely, the rate of change will exceed the rate of progress.

6. No system is ever completely debugged: Attempts to debug a system inevitably introduce new bugs that are even harder to find.

7. A carelessly planned project will take three times longer to complete than expected; a carefully planned project will take only twice as long.

8. Project teams detest progress reporting because it vividly manifests their lack of progress.

We badly need articles of information for future newsletters! So, please — Pick up your pen, or put your fingers on the keyboard, and send in your articles! You can call me at (316) 681-8266 or send articles and/or suggestions to me at:

Bill Stephans
Beech Aircraft Corporation
M.S. 90-406
P.O. Box 85
Wichita, KS 67201

From the chair:

With John Livengood's promotion to the Regional lug coordinator's position, there has been a shifting of responsibilities within the Wichita LUG Steering Committee. As announced in the last newsletter, I have moved into the Chairman's position and Tom Stegman was appointed Vice-Chair. At the same time, the two at-large positions were vacated. By the LUG rules, I can appoint someone to fill the vacant positions without prior committee approval. However, I did not feel it was in the best interest of the LUG for me to follow that procedure. After a vote of the committee, I am pleased to announce the appointment of Mr. Dar Schumann, Farm Credit Services, and Mr. Tom Roberts, Boeing Computer Services, to the at-large positions. Both of these gentlemen have the skills and expertise the committee needs in order to better serve the LUG.

Another item of importance is the ballot, in this newsletter, concerning a change in the LUG By-laws. Please review the proposed change and return the ballot to Joe Dunlavy by November 30, 1987. The LUG committee feels this change is needed to correct a problem in the existing By-laws that surfaced during a recent meeting of the steering committee.

Sincerely,
Charles Tollett

Wichita LUG Steering Committee

Chair - Charles Tollett
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(H) 744-2348
(W) 526-9380

"FORTRAN is not a flower, but a weed. It is hardy, occasionally blooms, and grows in every computer."

Dr. Alan J. Perlis
Dept. of Computer Science
Yale University

Dr. Debug:

Why won't the following command procedure work?

```
$ temp_date:='f$extract(0,6,f$time())
$ mark_it=f$locate("-",temp_date)
$ month:='f$extract(mark_it+1,3,temp_date)
$ if mark_it .eq. 1 then day:='f$extract(0,1,temp_date)
$ if mark_it .eq. 2 then day:='f$extract(0,2,temp_date)
$ pdate:=="''month'_''day'"
```

The symbol pdate is still undefined by the end of the procedure.

Sincerely,
Dateless

Dear Dateless:

Here are two solutions, then I'll explain the problem. The first solution is to add a blank line to the command procedure just before the last line. Thus,

```
$  ...
$ if mark_it .eq. 2 then day:='f$extract(0,2,temp_date)
$ pdate:=="''month'_''day'"
```

The second solution is to remove the apostrophes from the beginning of the f$extract calls (except the first one) and to use regular assignment (=) instead of string assignment (:=).

```
$ temp_date:='f$extract(0,6,f$time())
$ mark_it=f$locate("-",temp_date)
$ month=f$extract(mark_it+1,3,temp_date)
$ if mark_it .eq. 1 then day=f$extract(0,1,temp_date)
$ if mark_it .eq. 2 then day=f$extract(0,2,temp_date)
$ pdate="'month'_''day'"
```

By leaving the substitution and string assignment on the first statement, the leading blank on the f$time result during the first nine days of the month is trimmed.

Here's the problem. An apostrophe tells DCL to perform a symbol substitution before the command is executed. In this case, if mark_it is equal to 1, "f$extract(0,2,temp_date)" substitutes to a string that ends with a minus sign "-", which is then interpreted as a line continuation. The continued line includes the assignment to pdate which doesn't get done. Using the symbol substitution is a bit slower but is an excellent debugging tool. Set verify and run the command procedure, the symbol substitutions will be done before the command is printed to the screen and executed. This allows you to directly examine what the procedure is doing. Using substitution in this way does require that you use different assignment operators and add and occasional quote.

And if I may be so bold as to suggest some other changes.

```
$ pdate == f$cvtime(,"ABSOLUTE","MONTH") -
           + "_" + f$cvtime(,"ABSOLUTE","DAY")
```

Sincerely,
Dr. Debug

Keep those cards and letters coming to:
Dr. Debug, 1806 N Winstead, Wichita, KS 67206.

Trading Post
Equipment only - no prices please

For Sale	RL02-AA Disk Drive DZ11-M 8 Line Terminal Multiplexer DHU11-M 16 Line Terminal Multiplexer Karlis Otankis - 946-4700
For Sale	VT55 graphics terminal w/o hardcopy unit Bill Gavin - 262-8271 ext. 300
For Sale	PRO 350 Neal Pfeiffer - 689-6719

Wichita DECUS LUG Newsletter

Editor - Bill Stephans

Contributors - Charles Tollett
Jim Fullerton
Dr. Debug

Published monthly for DECUS
WICHITA LOCAL USER GROUP

P.O. Box 85
Wichita, KS, 67201

Because so many users have asked for an operating system of even greater capability than VMS, DEC may announce the Virtual Universe Operating System - VUS.

Running under VUS, the individual user appears to have not merely a machine of his own, but an entire universe of his own, in which he can set up and take down his own programs, data sets, systems, networks, personnel and planetary systems. He need only specify the universe he desires, and the VUS sysgen program (SYSGOD) does the rest. This program will reside in SYS1.GODLIB. The minimum time for this function is 6 days of activity and 1 day of review. In conjunction with VUS, all system utilities have been replaced by one program (AUTOPROPHET) which will reside in SYS1.MESSIAH. This program has no parameters or options as it knows what you want to do when it is executed.

Naturally, the user must have attained a certain degree of sophistication in the data processing field if an efficient utilization of VUS is to be achieved. Frequent calls to non-resident galaxies, for instance, can lead to unexpected delays in the execution of a job. Through a cooperative venture, DEC, IBM, and IBM's wholly owned subsidiary, the United States, work is progressing on a program to upgrade the speed of light and thus reduce the overhead of extraterristrial and metadimensional paging. For the present, users must be careful to stay within the laws of physics.

VUS will run on any VAX equipped with Extended WARP Feature. HSC microcode level 80000 is also required. License fee is $20 million per cpu/nanosecond.

Users should be aware that DEC plans to migrate all existing systems and hardware to VUS as soon as their engineers effect one output that is (conceptually) error-free. This will give DEC a base to develop an even more powerful operating system, target delivery date 2001, designated "Virtual Reality". VRS is planned to enable the user to migrate to totally unreal universes. To aid the user in identifying the difference between "Virtual Reality" and "Real Reality", a file containing a linear arrangement of multisensory total records of successive moments of now will be established. Its name will be SYS1.est.

For more information contact your DEC sales representative.

WICHITA AREA DECUS LUG

PROPOSED CHANGE TO BY-LAWS
September 25 1987

4.11 Vacancy in office:

(UNCHANGED)
4.11.1 In the event of a vacancy occuring on the Committee, the chairman shall appoint a LUG member from names submitted to him for that purpose by the committee. The appointee shall serve the balance of the unfilled term for which he is appointed and shall not be prohibited from running for election to the committee in any subsequent election.

(UNCHANGED)
4.11.2 The office of Chairman, if vacated, shall be filled by a member of the committee elected by a majority vote of the committee.

(NEW)
4.11.3 The Steering Committee shall have the authority to remove a member from the committee. The motion to remove a member must be approved by a two-thirds vote of the entire Steering Committee and will be effective immediately. The results of such action shall be published in the next newsletter following the action.

MAIL THE COMPLETED BALLOT TO:

JOE DUNLAVY, SECRETARY
P.O. BOX 780373
WICHITA, KS 67278-0373

ALL BALLOTS MUST BE RECEIVED BY 30 NOVEMBER 1987.

OFFICAL BALLOT

PROPOSAL TO CHANGE THE BY-LAWS

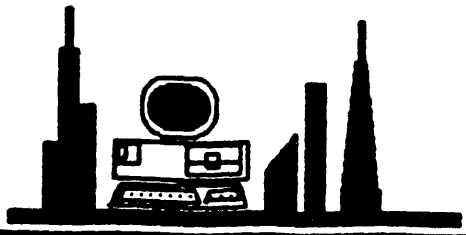
☐ FOR (INCLUSION OF PARAGRAPH 4.11.3)

☐ AGAINST (INCLUSTION OF PARAGRAPH 4.11.3)

README.1ST The CAMPPUS Newsletter

For owners and users of:

DEC Rainbow VAXmate
DEC Professional DECmate



This edition of README.1ST is probably larger than you're used to -- yes, yes, we realize that you haven't seen one since last July, but then again alot of things have been going on since last July that we've been trying to keep up with -- especially the introduction of the VAXmate.

This edition is devoted to upgrading the Rainbow, what seems to be DEC's forgotten personal computer. Tom Heuer, our LUG chairman, has been very busy upgrading his Rainbow. He has done alot of research into third-party vendors of hard disks and other peripherals and has been very gracious in sharing his experiences with the rest of us.

Also, starting in this issue, a series of articles on applications which just about everybody can use. It's called "The James Letters". The series is intended to help you develop applications for your DECmate or Rainbow with little or very little programming experience. You'll probably find this very helpful.

One thing that every member of the LUG should be made aware of: in the near future, we will be sponsoring a meeting devoted exclusively to your questions -- whatever they may be. It takes time to put a meeting like this together, so what we're doing is asking you for your questions in advance. We'll try to find the answers and give them to you at the meeting.

In any case, this issue is sure to be helpful to alot of you, so here's a run down of what's inside ...

CONTENTS

Enhancing Your Rainbow: The IDRIVE
by Tom Heuer

Running out of space on my trusty old 5MB hard disk, and finding that I needed to read big blue diskettes after all, I began looking into upgrading my Rainbow. The solution I decided, was to ask Santa to get me a neat gizmo called an IDrive Combo (sounds like an Italian sandwich). Santa must have been in a good mood because a large box was found under the tree containing the IDrive combo unit. On close inspection the device was found to be well made, consisting of a 20MB hard disk (Seagate ST225) and IBM format half-height 360Kb floppy disk drive. A cable for the diskette drive and a diskette containing executable files and a Dskpart3 formatting program were also provided.

Installation was fairly easy, since the documentation was well thought out. The unit slides into the slot where the second RX50 unit or DEC hard disk would mount. If you have a DEC hard disk subsystem that you are replacing, as in my case, the cables connect to the new disk drive without a problem. Be sure that you check the connections before closing up the system box, an improperly seated cable will return an error condition. The IDRIVE unit mounted on top of the hard disk, uses a special ribbon cable to connect to the C:/D: diskette drive connector. The entire assembly process went smoothly.

After reassembling and booting the system, you may use the Dskpart3 installation program provided to partition your hard disk, or reformat and partition the hard disk with another program. I selected the second option, since I wanted to reformat the disk to verify the presence of bad blocks. I had also heard that the Diskpart3 program was not as effective as other programs. Since the 20MB ST225 hard disk provided by Suitable Solutions is the same device as that sold by DEC (RD31), one may wish to use the DEC disk utility. However, unless you can borrow this from a friend, be aware that DEC will not provide their program unless you buy their

hard disk system (at an incredible price). This situation has spawned the development of several third party formatting programs. The one I selected is supposed to be one of the best available, and amazingly it's (free) in the public domain. Known as WUtil, (for Winchester utility) its creator must be a genius. It can format and partition hard disks with a capacity approaching 117MB, with as many as 15 partitions. For the disk doctors out there, it also allows the user to interactively examine contents of any disk sector, providing full information about disk operating characteristics and bad sector addresses. The utility is easy to operate, since it is menu driven. The most recent version (2.0) last dated September 1986, is available from a number of FIDO bulletin boards or as part of the Rainbow Freeware software distributed by Documentary Research. Based upon my experience, I highly recommend WUtil for use with your hard disk.

After formatting my hard disk, I had no block errors, which according to the people at Suitable Solutions can be expected since they are very selective about the disks they sell. I then partitioned the disk, restored the programs from the back up of my old hard disk, and was back in business. The entire process took nearly three hours, largely due to the formatting and restore operations.

Installation of the IDRIVE floppy disk drive, was much simpler. You just copy a IDRIVE.SYS file from the floppy provided, to your root directory on your hard disk, and modify your config.sys file to include a DEVICE = IDRIVE.SYS statement. Also it is important that your config.sys file include BUFFERS = 8 and FILES = 20 statements. Although I am not sure why this is necessary, the DOS default settings cause an error which defeats drive I:. I also found that it was necessary to have the MS-DOS mediacheck feature turned on so that non-Rainbow disks can be read.

So how does it all work? Super! The hard disk is faster than the old 5MB, and holds four times the data. The IDRIVE recognized as drive I: by the Rainbow, operates so quietly that I have to look at the indicator light to see if it is working (quite a contrast with the RX50).

How much will it cost to install such a system in your Rainbow? Santa tells me that the same system will cost normal folk about $750. If you also need a controller board, the same 20MB/IDRIVE configuration will cost about $1250. It is my understanding that this cost may be come down slightly, so check with Suitable Solutions when ordering to get the most current price. It should also be noted that Suitable Solutions will now offer CAMPPUS members a slight discount, so you may wish to check for details. Suitable Solutions, Inc., 467 Saratoga Avenue, San Jose, California, 95129, (408) 725-8944.

A Call for Questions

In the coming monts, the CAMPPUS LUG will be holding a joint meeting of the Chicago and Suburban groups -- it has been a long time since we've had one. One thing we're going to do is answer your questions about anything relating to the use of DEC PCs, DECUS, and DEC. Rather than trying to bring order to what may be a chaotic meeting, here's what we'd like you to do: in a letter or on a postcard, write down your question, whatever it may be and send it to the following address: CAMPPUS Q & A; C/O Jeanne Luptak; Digital Equipment Corporation; 1207 E. Remington Rd. Suite B; Schaumburg,

IL 60195. Your question will be referred to whoever we can find to answer it and the answer will be placed along with the answer to other questions in a journal to be distributed at the meeting. Some of the more interesting questions and their solutions will be discussed at the meeting while others will be put in README.1ST, but we will try to find an answer for every question we get. Expect the meeting to be held in late April or May. The more questions we get, the more informative the meeting will be for all of us. By the way, the deadline for the questions is March 31, 1987.

Enhancing Your Rainbow - Part 2: CLIKCLOK

by Tom Heuer

Have you ever wanted to be rid of the time and date entry detail when starting MS-DOS? Well you now can with the use of a nifty product from Suitable Solutions of San Jose, California (408 - 725-8944). Called the CLIKCLOK, this device consists of a special clock chip and battery mounted on a unique integrated circuit socket. The high quality device is provided with very clear documentation that "walks" you through the installation.

Installation is a snap! Taking normal handling precautions, just remove your motherboard from your Rainbow, remove a chip from its socket, insert the Clikclok device into the socket, and reinstall the removed chip on top of the Clikclok, in a piggy-back fashion. Reassemble your Rainbow, power up, add an instruction line to your autoexec.bat file, and load the provided executable file to your root DOS directory. Setting time and date requires the following command: CLIKCLOK mm/dd/yy hh:mm:ss, filling in the appropriate information, of course. Although the battery is supposed to be good for ten years, Suitable Solutions also warrants the device for the lifetime of your Rainbow.

So how much is this gizmo, you ask. It normally sells for only $62 plus shipping, but for CAMPPUS members the cost is only $55. A corporate rate of $50 each is also offered for firms that purchase ten or more. In this instance, however only one copy of the documentation and diskette containing the executable file is provided.

To order yours, send a letter explaining your affiliation with CAMPPUS, and a check for $55 plus $2 for shipping expense to suitable Solutions, 467 Saratoga Avenue, Suite 319, San Jose, California 95129.

The James Letters: No. 1

by Jim Christine

Dear Ken,

I just thought I'd drop you a line to tell you about the Rainbow. It's really a great machine. I've got two diskette drives, a monitor, and an LA50 printer. It was a real bargain, too. It made me feel all warm inside knowing that I got a quality computer for twice as much as the guy in the office next to me paid. It only came with 128K, but I bought a memory expansion board and a few chips. Now I've got 512K of RAM. One thing I should warn you about, the peripherals and upgrades cost a fortune -- damned closed architecture! (As an aside, I hear IBM is coming out with a closed architecture machine. Seems like they've only got a 42 percent share of the market (according to InfoWorld) Poor them! Now IBM users will know how Rainbow users feel.)

Anyway, I got a whole horde of diskettes -- data files and application programs -- in no time flat. Seems that there's alot of public domain software out there for the Rainbow, if you can find it. But that's another matter. The fact is the Rainbow is so expensive that I don't have any money left to buy a hard disk. What a shame! I'm saving my nickels and dimes. It'll take a while, but in the mean time, I'm using something that I thought up in order to manage my diskettes and get access as fast as (if not faster than) a Winchester drive.

You see, whoever put together the operating system for MS-DOS included a program called MDRIVE. It allows a person to turn a chunk of their RAM into what the Rainbow thinks is a diskette drive. Pretty neat, huh?

One of the things I had to learn was writing BAT programs, but it's not all that hard, really.

If you're going to try this, I'd suggest you use a new diskette. First, format the diskette and transfer the operating system to it. I found "FORMAT B: /S" works just fine. Next, use the MDRIVE command to create yourself a RAM drive. What I'd do is place the freshly formatted disk in drive A, and the MS-DOS disk in drive B. Then while the A drive is the default, give the command "B:MDRIVE". MDRIVE will ask you how much memory to allocate and will place a file called "MDRIVE.SYS" on the A disk. This file contains the necessary information to create the RAM drive, and the operating system will be looking for this file.

Now that you've got the RAM disk set up, copy any application program you want onto the A disk. Since I hate the ED editor, I used RDCPM to copy over the RED editor from CP/M over to MS-DOS and I use the AME86 public-domain utility to execute RED -- it works just fine!

Once the application is transferred, it's time to create an AUTOEXEC.BAT file. This is a file that is executed at the system boot time. Mine looks something like this:

```
date
time
load
```

What this is doing is setting the date and time, as always, and executing another BAT file called LOAD. LOAD.BAT looks like this:

```
copy ame86.* e:*.*
copy red*.*  e:*.*
```

This BAT file copies over the AME86 utility, and all the files associated with the RED editor over to the RAM disk called E:. I've also got a BAT file called UNLOAD which deletes the files from the RAM drive. I'm in the process of doing this for all my applications.

What all this stuff buys me is speed. You see, if I transfer the applications that I am running over to the RAM drive, then all the files are in one place -- memory. This means that they get loaded and executed faster than if they were on a diskette. Another nice benefit is the machine is quieter -- there's no "ee-aw-ee-aw" coming from the diskette drive.

In any case, I've probably taken up enough of your time. I know you're a busy guy. If you've got any questions for me, drop me a line in care of SPSS Inc., 444 N. Michigan, Chicago, IL 60611.

Next time, I'll let you know how the conversion is doing, and I'll tell you about the program I wrote to catalog my videotapes.

Until next time, your buddy, Jim.

Enhancing Your Rainbow - Part 3: "Rainbow Freeware" by Tom Heuer

Enhancing your Rainbow sometimes requires the use of software utilities to improve system performance and add operating features not available in most commercial packages. With many such useful utilities available in the public domain, the Rainbow owner has the opportunity to acquire software without significant cost. However for those users new to the public domain world, and new to bulletin boards where most programs are available, finding and selecting useful programs can be a very frustrating experience. Most public domain programs appear with cryptic names and vague descriptions which will scare off all but the most adventuresome user.

This situation has improved, thanks to the efforts of Bruce Jackson, a Rainbow enthusiast on the east coast. In his recently completed book entitled " RAINBOW FREEWARE", he has compiled a detailed assessment of over 160 public domain programs that will benefit the Rainbow community. Every serious user should obtain a copy for their reference library. It is designed as a practical working manual with detailed program descriptions, operating instructions, and user comments. The programs are divided into several sections including communications programs, disk and file managers, file archiving, text editors, games and graphics, and miscellaneous utilities. Freeware also includes a fairly extensive section on the use of FIDO boards, and the MSDOS operating system. All in all it is a very complete and useful work.

RAINBOW FREEWARE is published in a spiral bound format by the New South Moulton Press, 96 Rumsey Road, Buffalo, New York, 14209. It sells for $20 plus $2 for shipping expense, a bargain given the extensive amount of useful information contained in the book.

Copies of the programs described in Freeware are available from Documentary Research, Inc., a nonprofit research and educational organization. For $50 including all shipping costs, DRI will send a set of eight diskettes in a plastic library case, containing the most recent versions of the programs reviewed in Freeware, and a few programs not reviewed as well. I found this to be an excellent value, saving time and expense in down-loading files from the boards. Incidently the WUtil program discussed in my review of the IDRIVE unit was obtained from this source. A request for these diskettes should be sent with check or money order to Documentary Research, Inc. P.O. Box 163, Bidwell Station, Buffalo, New York 14222.

RAINBOW COMMENTARY by Tom Heuer

Thanks to the brilliant marketing gurus' at DEC, fewer and fewer software developers are supporting the Rainbow with new products. This long lamented situation, is due to DEC's decision to dismantle the Rainbow engineering group and abandon future hardware enhancements, which might have improved compatibility with other machines and offered increased processing power. Once DEC pulled the plug, the software developers abandoned ship in droves, leaving only a few firms with compatible products. So what do Rainbow users do about it? Work as a group to establish a recognizable market. Rally around the few remaining firms

by buying their products (instead of using bootlegged copies, although I'm sure nobody does that!), and even if your not in position to purchase these products, write letters to the software firms anyway, encouraging their continued support of the Rainbow. This approach has worked in the case of WordPerfect Corp., which was recently considering the abandonment of the Rainbow. I would like to encourage our user group members to express their feelings on this issue, by sending the CAMPPUS steering committee your comments. Provide the name of your favorite program which you would like to be supported. We will try to obtain names and addresses of the responsible firms, for the membership to write to, and maybe prepare and distribute a form letter to make it easier. Please leave a message on the CAMPPUS Fido (490-9206) or write to Jeanne Luptak, our DEC coordinator, at 1207 East Remington Road, Suite B, Schaumburg, Illinois 60173.

WordPerfect
by Tom Heuer

I have always been amazed at the number of word processing programs being sold on the market. Many operate poorly and are limited in capability. Even WPS, the system promoted by DEC is slow and cumbersome (and overpriced), despite the gold key editing. If you are dissatisfied with your current processor, or have simply out-grown its capabilities, then I would like to recommend that you consider WordPerfect. This program functions almost as its name suggests; perfectly. There will always be enhancements that will expand its capabilities, but even in its current form, it has got to be one of the best available for the Rainbow. Many who use it claim that it seems to have been written for the Rainbow's keyboard since the keystroke operation is so efficient.

This package contains a wide range of features that are easy to use. One of my favorites is the spelling checker. In most word processing programs the spelling check feature is an external operation requiring that you exit the current document to begin the spell feature. It tends to be slow and cumbersome and consequently is even avoided by some users. Not so with WordPerfect, where spelling is checked while within the document. When invoked, a one line menu appears at the bottom of the screen providing for a word by word, selected page, or an entire document to be checked interactively. When a incorrect spelling is detected, the screen splits with the text shown in the upper screen and alternative word choices shown in the lower screen. By pressing a letter key corresponding to a displayed word, the misspelled word is automatically corrected and the check continues. The process is extremely fast, unlike many other packages on the market.

I have summarized some of the many features of WordPerfect in the following list. I expect the list will get longer as they continue to improve and expand the capabilities of this package. In future articles I will discuss the use of some of these features in greater detail.

WordPerfect Feature Highlights

- Operates in an insert mode with typeover capability
- Color monitor capability
- Document outline creation
- 10,000 word thesaurus feature containing both synonyms and antonyms
- 100,000 plus word dictionary for spelling
- Indexing and Concordance
- Footnotes and endnotes
- Table of Authorities
- Redline and strike-out
- Paragraph numbering
- Math calculation capabilities
- Data record sorting
- Line drawing
- Newspaper style and parallel column page formatting
- Extensive macro capability
- Document merge and list processing
- Automatic hyphenation and formatting
- DOS shell for running utilities and programs external to WP
- Allows switching between two screens for editing two documents simultaneously
- Document summary reports
- Block manipulation functions
- On screen bolding and underline
- Converts documents to seven other word processing text formats
- Six separate printers and eight possible fonts are selectable from the print menu.
- Over 100 different printer characteristics included in a definition library for use in setting up print menu.

<DIR>

CAMPPUS, the Chicago Area Microcomputer Personal and Professional Users Society, is devoted to providing general information concerning the use of Digital Equipment Corporation (DEC) personal computers (PC) and word processors (WP).

Meetings are held at different locations in the suburban and downtown Chicago areas. For more information, call Jeanne Luptak at 312-490-2466

STEERING COMMITTEE

Chairman . . . . . Tom Heuer
Vice Chairman (Suburban) . . . . George Green
Vice Chairman (Chicago) . . . . Margaret Murphy
Secretary . . . . . Roy Sears
FIDO System Operator . . . . . Chuck Garrett
LUG Coordinator . . . . . Jeanne Luptak
Newsletter Editor . . . . . Jim Christine

This Local Users Group (LUG) is affiliated with the Digital Equipment

Computer Users Society (DECUS). LUG members need not be members of DECUS. Membership is, however, strongly encouraged. Membership in DECUS is free. For more information on joining DECUS, write: DECUS U.S. Chapter; Membership Processing Group; 249 Northboro Road, BP02; Marlboro, MA 01752

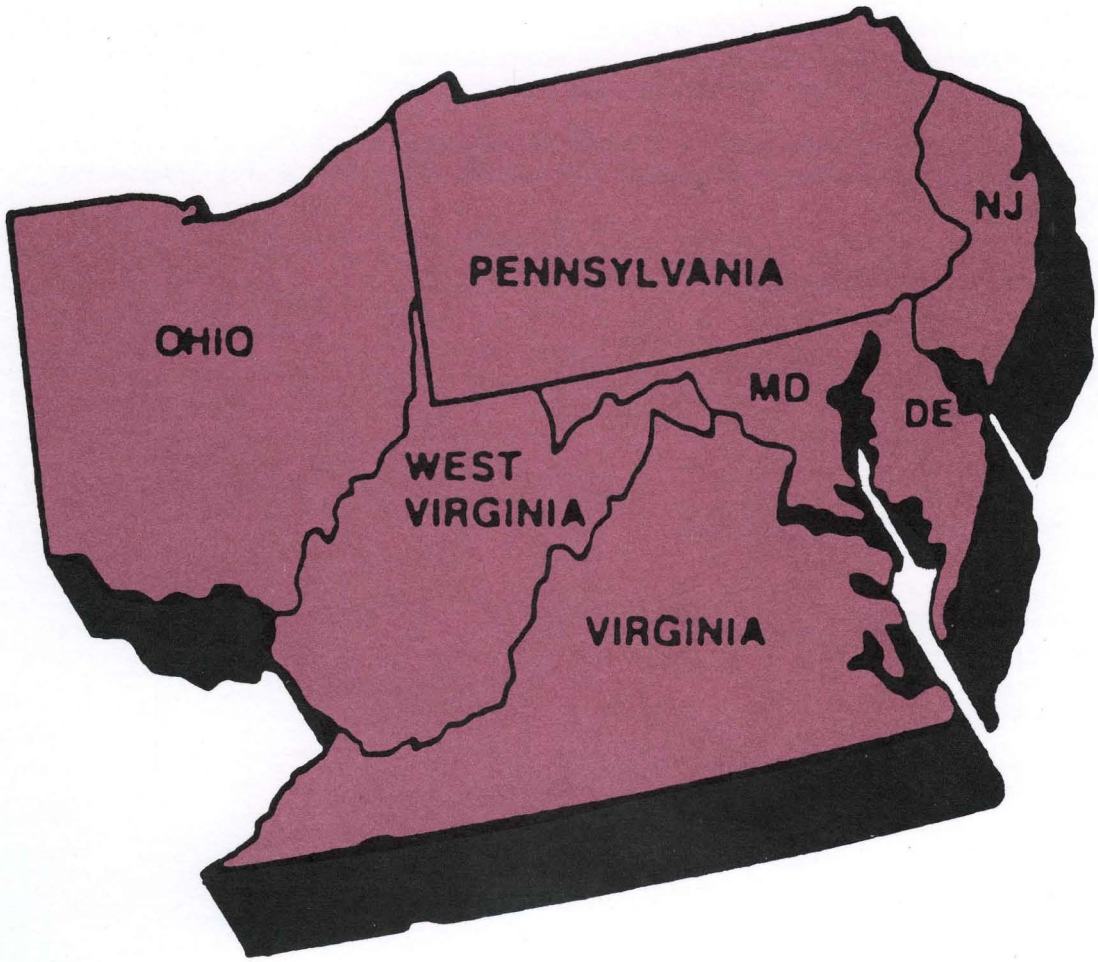
README.1ST, The CAMPPUS Newsletter, is provided free to all LUG members as well as DECUS membership and the general public. DECUS directives prohibit paid advertising in this publication

Correspondence to this newsletter should be directed to the editor: Jim Christine; C/O SPSS Inc.; 444 N. Michigan; Chicago, IL 60611

Submissions to README.1ST are always welcome and are acceptable in the following forms:

- Electronic Mail (FIDONET or other BBSs)
- 5-1/4" diskette (CP/M or MS-DOS ASCII files)
- Hardcopy (typed, please!)
- Sent via usenet to ihnp4!pyrchi!spsspyr!jimc

Items included in this newsletter are subject to editing; opinions expressed are not necessarily those of CAMPPUS, DECUS, or Digital Equipment Corporation. Items may be used freely in any other publication under the following provisions: 1) The source, including the author (if given) must be cited, and 2) a copy of the publication containing the items must be sent to the editor of this newsletter.



Mid-Atlantic Region

MID-ATLANTIC REGIONAL LUG COORDINATOR

John Engle
Ohio Oil Gathering
Frazeysburg, Ohio
614-828-2891
DCS: ENGLE

John Engle was elected Mid-Atlantic RLC in April 1987 and has been a DECUS member for five years. Before assuming his RLC position, John was active with the Licking and Muskingum Area (LAMA) LUG, where he held the Chair position for two years.

The Mid-Atlantic LUG Coordinator position is up for election as of March 1988, and John has volunteered to run again. Election results should be available at the 1988 Spring Symposium. Good Luck, John.

REGIONAL TAPE COPY COORDINATOR

Rick Sharpe
Toledo Edison
300 Madison, MS: 3180
Toledo, OH 43652
419 249-5000 ext. 7470

REGIONAL SEMINARS REPRESENTATIVE

Claude Thompson, Jr.
Babcock and Wilcox - NNFD
PO Box 785 - MS: 60
Mount Athos Road
Lynchburg, VA 24505
804 522-6512

MID-ATLANTIC REGION LUGS AND LUG CHAIRS

District of Columbia

National Capitol Area RT-11 LUG
Chair: Ned Rhodes, Arlington, Virginia, 703-534-2297

Washington DC Networks LUG
Chair: Major Gene LeClair, Arlington, Virginia, 202-695-5172 or 703-243-3752

Washington DC Office Automation LUG
Chair: Tom Orlowski, Washington, 202-939-9371

Washington DC Rainbow LUG
Chair: Dennis Fitzgerald, Seabrook, Maryland, 301-286-9584 or 301-459-1247

Washington DC UNILUG
Chair: Karl A. Nyberg, Vienna, Virginia, 703-281-2194

Washington DC Area VAX LUG
Chair: David I. Keller, Reston, Virginia, 703-264-8900

Maryland

Baltimore Area LUG
Chair: Judith A. Leasure, Sparks, 301-771-4950

Patuxent River LUG (PAXLUG)
Richard R. White, Hollywood, 301-373-2360

New Jersey

Seaboard PDP-11/VAX LUG
Chair: Tom Gerhard, Kingston, 609-799-4600

Ohio

Central Ohio LUG
Chair: Laurence Owens, Dublin, 614-764-2300

Dayton LUG
Chair: David Hittner, Dayton, 513-890-1800

Licking and Muskingum Area LUG (LAMALUG)
Chair: Jim Freeman, Granville, 614-587-0810

Ohio VAX LUG (OHVAXIO)
Chair: William A. Fleck, Findlay, 419-424-4143

Tri-State LUG
Chair: Harry Atherton, Cincinnati, 513-872-5341

VAXTOLEDO LUG
Chair: David H. Anderson, Northwood, 419-666-8800

Western Reserve LUG
Chair: Ron Beach, Cleveland, 216-581-5685

Pennsylvania

DEAD CPU LUG
Chair: Karen A. Startzenbach, Hershey, 717-534-9321

Lake Erie VAX/PC LUG
Chair: Tim Cordell, Edinboro, 814-732-2647

Penn State LUG
Chair: John F. Stitzinger, State College, 814-238-4311

Pittsburg Area LUG (PALUG)
Chair: Robert M. McFarland, Warrendale, 412-776-7556

Three Rivers VAX LUG
Chair: David Schmidt, Pittsburgh, 412-683-9533 extension 111

University of Pennsylvania LUG (UPENNLUG)
Chair: William H. Magill, Philadelphia, 215-898-4707

Virginia

Piedmont Area VAX LUG (PAVLUG)
Chair: Keith Chambers, Charlottesville, 804-978-6132

Southwest Virginia LUG
Chair: Mark Reynolds, Roanoke, 703-989-3301

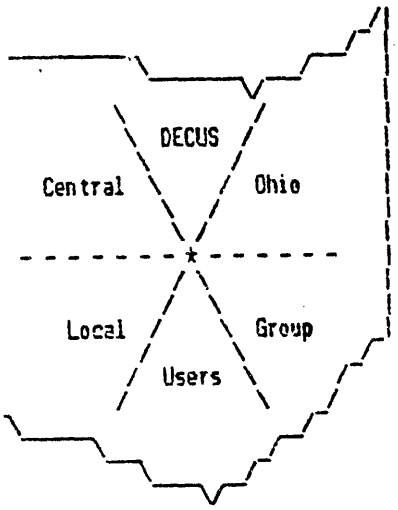
MID-ATLANTIC REGION LUGS AND LUG CHAIRS (continued)

Virginia Peninsula VAX LUG
Chair: John Young, Hampton, 804-865-4456

West Virginia

● **West Virginia DECUS LUG**
Chair: Marcus Hamden, Dellslow, 304-296-1473

● **indicates LUG newsletters contained in this volume**



Central Ohio Local Users Group

February Newsletter

Volume 8, Number 1

MARCH MEETING -- 3/4/87

MCL Cafeteria, 2491 E. Granville/Dublin Road
Capacity Planning, Tuning, Evaluation, and Performance

The first meeting of 1987 for the Central Ohio Local User's Group will be held on Wednesday, March 4 at the MCL Cafeteria, 2788 Dublin-Granville Road, in the Raintree Center. We have had several meetings there in the past. The meeting room is reserved for us until 10:00. Since the meeting will be held at 6:30 pm, we do not plan to relax and enjoy dinner beforehand. The Cafeteria provides the meeting room free of charge, so we should patronize them when possible.

Mr. Schumann Rafizadeh of MBA System Automation, will be the featured speaker. He will talk on "Capacity Planning, Tuning, Evaluation, and Performance." This is a topic that hits each of us in our jobs and you may not find a trick or two to apply at your site. See you there!

Group Purchase Plan Update

As announced in the last Newsletter, Digital has implemented a discount program for Rainbow, Professional, and DECmate software (and some hardware). Software is divided into two catagories (A and B), with each catagory having a separate discount schedule. Quantities may be combined to maximize the discount.

The catch? Simple: all software must be consolidated into one order, shipped to a single address, minimum order 10 packages (not all the same software), and the order must be accompanied with a check for the full amount of the order. An updated listing is included with the Newsletter showing the software, list price, and discount schedule.

For lack of a better system to handle the orders that will (no doubt) pour in from all of you, I will accept your checks (made out to "ROBERT LINDSEY, DEC SOFTWARE PLAN", for the discounted amount) for any items you want. I must receive the order before March 19 in order to get it to Digital. Shipping charges or additional discounts will be adjusted upon delivery of the items from DEC and invoices/refunds sent out to those who ordered. If there is not enough interest to place an order, I will (cheerfully) refund your money.

I will keep you informed of future changes in the program as I receive them from DEC. Digital is reviewing the program (and price structure) quarterly and continuing it as long as there is interest to justify it to Corporate.

DECUS Symposium

The Spring DECUS Symposium will be held at the Opryland Hotel, Nashville, Tennesee, from April 27 thru May 1, 1987. Plan to attend if at all possible. Nashville is just a short drive from Ohio (compared to Orlando or Anaheim!), and others from the LUG will be attending. If you plan to attend, call Larry Owens at 764-2300 and he will help coordinate any car-pools.

The Symposium are packed full of hundreds (yes, I said HUNDREDS) of sessions or topics ranging from "UNIX Generic File Systems" to "Small Business Accounting Products", "Software Licensing Approaches" to "PDP-11 Diagnotics", "Q-Bus Tape Choices" to "Data Management for VAX Clusters", and on and on ... If you have the chance, Nashville is so close, don't miss it!

New Members

Welcome to the following new members to COLUG:

David Ramey from Blacklick
Michael Hecht, Graphic Development Corporation, in Dublin
Jay Chose, Ohio Precious Metals, in Jackson
Kurt Sanders, Discovery Systems, in Dublin
Steve Zeoli, Oracle Corporation, in Birmingham, Michigan
Welcome back to Emerson Payne, Cooper Energy Service, in Mount Vernon

Editor Notes

Several months ago, Lancaster City Schools helped out a fellow RSTS/E user who had a bad RSTS Update tape. You know who you were (I have forgotten!) and you were interested in Lancaster's PDP 11/70 system. Well, I have a mirror-image of that 11/70 for sale and am interested in talking with you (or anyone else). Contact me ASAP at the address below!

Effective March 2, I have accepted a the position as Director or Computer Services for the South Eastern Ohio Voluntary Education Cooperative (SEOVEC, for short!), based in Athens. I will continue as the Newsletter Editor for COLUG as long as feasible, so keep sending in any items for the Newsletter, but note the new address and phone number at the end of the Newsletter.

Digital Publication for RSX

Digital has just released a new publication, "RSX: A Guide for Users." If you are interested, the flyer states that it is "a coherent, easy-to-read, user-oriented introduction to RSX!". For more information, contact Digital Press, 12 Crosby Drive, BUO/E94, Bedform, MA 01730. A copy of part of the flyer is reproduced in this Newsletter.

In Search Of . . .

Jay Chose, of Ohio Precious Metals, is looking for people with software for the PDP-8 systems. In particular, any ideas for spreadsheeting, laboratory, plotting, graphics, and office programs. Any information on software (for free, or even for sale), contact him at 305 Water Street, P. O. Box 605, Jackson, Ohio 45640.

Anyone out there working with a VT-180, the ROBIN micro? Dave Ramey is having a problem with some software and would like contacts that have experience with the Robin. I'm sure he's interested in software that is available, also. Any information, drop a line to 1253 North Wagoner Road, Blacklick, Ohio 43004.

MicroVax II users, Michael Hecht is interested in Kermit or other transfer software for the M/V II to other micro's. Other interests include cross-assemblers for chips, PC board layout/design software, and office programs or accounting/inventory packages. Know of any of these? Contact Mike at Graphic Development Corporation, 6175-W Shamrock Court, Dublin, Ohio 43017.

DECUS Calling

Jim Noonan informs me that DECUS has electronic conferencing software running on a MicroVax II in the Marlboro office, with 5 phone lines supporting dial-in capability. This service, called DECUServe, is just getting started and should act as a clearinghouse for discussion on DECUS topics. The service will be divided into catagories, along SIG interest lines, I assume, to help promote the use of the service to the membership.

There is an immediate need for "seed" users and moderators for the service. The early users will help provide feedback to DECUS about use of the service and benefits. Moderators will assure that only appropriate material is put onto the service and that it is properly catagorized.

Interested? The initial user base will be limited so the service can be evaluated and "tuned." Cost will be $25 for the balance of the year plus the phone call to Marlboro. Contact the National LUG for more information.

Final Notes

If you have submissions for the Newsletter (articles, requests, items for sale or trade, help, notices), send them to me! Make the Newsletter what you expec by participating.

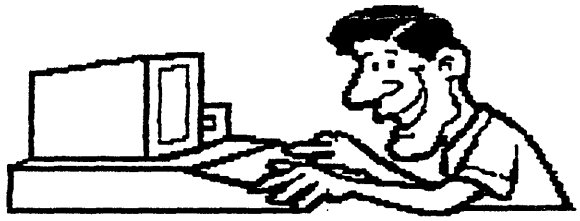
Rob Lindsey, COLUG Editor, S.E.O.V.E.C., 221 North Columbus Road, Athens, OH 45701 (614)593-7663.

See You At The Meeting On March 4 !

LAMA LUG

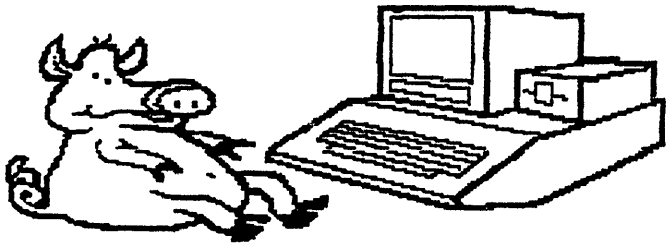
FROM THE PAGEFILE

This month's meeting will be a presentation by Jay Dee Harris from Clyde Digital Systems. He will be discussing many security issues including one that is often forgotten, The insider threat. Jay Dee will be showing us how to avert such problems along with how their software products can help with this important task. We will be holding the meeting at Ohio Oil Gathering Corporation office in Frazeysburg at 7:00 p.m. on Thursday, September 3, 1987. If you are in need of directions please call at 1-800-282-2470 between 8:00 a.m. and 4:00 p.m. Ask for John Engle.



Computer man calendar:

- September --> Sept 3, 1987 7:00 p.m. Clyde Digital. Meeting At OOGC.
- October --> TENTATIVE JCC



If you need LUG membership information, Call JO RICE, our LUG secretary at 427-2244. She can help you with the names and telephone numbers of our LUG members.

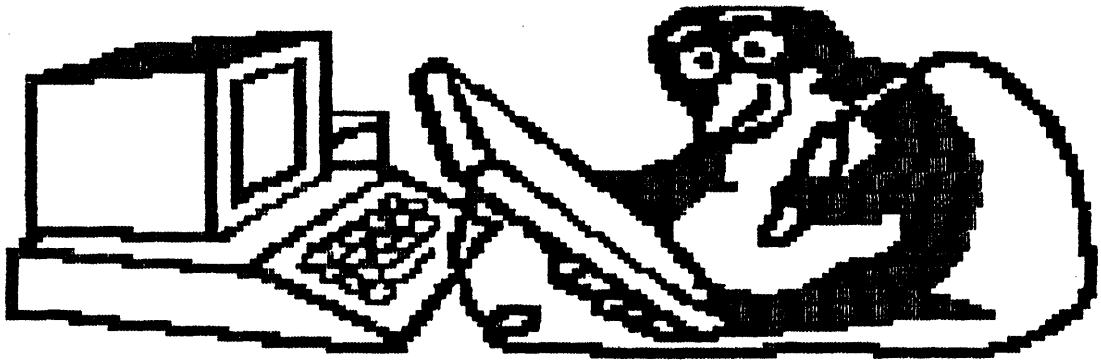
If you need more information concerning DECUS or meetings, call me (John Engle) at 1-800-282-2470 Monday thru Friday between 8:00 and 4:00 p.m.

Swapped out,

John Engle

Meeting time and place:
Where: Ohio Oil Gathering Corp. in Frazeysburg, Ohio.
When: September 3rd, 1987 7:00 p.m.
Need Directions call 1-800-282-2470.

Elections are coming up!!!!!!! So you need to be thinking about which office you or somebody you know would like to run for. There will be 2 more sessions of nominations for officers with elections being held in December at the December meeting. The offices that we will be nominating for will be the following: 1) LUG Chair, 2) Vice-Chair, 3) Secretary / treasurer, and 4) LUG Librarian. None of these offices take much more that 1 or 2 hours a month. Certainly not an incredible amount of time. Any of the offices can be run in a multitude of ways. The Lug Chair doesnt have to be the one to write the newsletters and find the speakers, That's the way I chose to do it!!!!



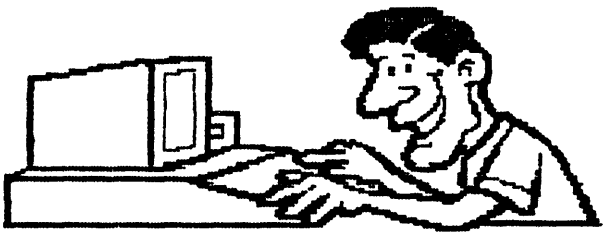
LAMA LUG

From the Pagefile

Welcome to autumn and all of the blustery weather. It seems like a good time to stay inside and type at the ol' VAX a while. This month we will be finishing up the nominations for steering comittee officers in plans for elections in DECEMBER. The National LUG Council has some neat plans for the LUGs in up and coming months so don't miss out on being involved with DECUS. Anahiem symposium is coming up in DECMEBER. You all should have received your registration packets by now. If not let me know and I will get one zipped out to you right away. Hope to see you all in California and Disneyland.

This months meeting wil be held at Kenyon College. We will be having a presentation on a product called RS/1. It is a statistical and graphics package that may make your life a night easier. I will also have the latest information form the National LUG Council and some of the results of the most recent WOODS meeting that I attended. If any of you are interested in hearing about an online DISK DEFRAGMENTER, please show up at the meeting. I will have some preliminary stats from this months running of the package we have up on the machince at OOGC. This is a very exciting product and probably by all rights should become part of VMS, it is that good.

I hope all of you have been able to get you name back on the mailing list as per our request as of the last newsletter. I hope you all were able to put down some suggestions of meeting topics that you would like to hear about.



Computer man calendar:

- November 5th, 7:00 p.m. Kenyon College - RS/1
- DECEMBER - ELECTIONS - place to be announced along with topic.

If you need LUG membership information, Call JO RICE, our LUG secretary at 427-5698. She can help you with the names and telephone numbers of our LUG members.

If you need more information concerning DECUS or meetings, call me (John Engle) at 1-800-282-2470 Monday thru Friday between 8:00 and 4:00 p.m.

Swapped out,

John Engle

See you in November at Kenyon.

OHVAXIO VIEW

Volume 3 Issue 3 **January 7, 1988**

MORE FREE SOFTWARE!

INSIDE THIS ISSUE:

OHVAXIO DECUS Local Users Group

Minutes

November 12, 1987

Cooper Tire & Rubber Company
Findlay, Ohio

The ninth meeting of the OHVAXIO DECUS Local Users Group was held at O.H. Materials Corporation at 6:30 p.m. There were twenty-four members present, including representatives from Bowling Green State University, Cooper Tire and Rubber Company, The Courier, Findlay College, Marathon Oil Company,

continued on page 10

There was an article in the December SIG Newsletter/OA SIG section that announced the availability of an OA SIG Symposium tape. Larry Gundy, our LUG Tape Librarian has a copy of this tape. Contact Larry for details on how you can get a copy of this FREE software. The files on this tape were submitted before the Fall '87 Symposium but are written for V2.2 of ALL-IN-1. There will be another tape created with files from the Fall '87 Symposium and Larry will get a copy as soon as it is available.

Some of the programs on this tape are:

- An ALL-IN-1 Phone Message Utility
- Files for WPS-PLUS/VMS file sharing
- Printer Table for the HP Laser Jet
- Modified Printer Tables for the LN03
- Tracking changes to ALL-IN-1 with an ALL-IN-1 utility
- Lots of utilities for ALL-IN-1 Users
- Lots of utilities for ALL-IN-1 Managers
- MANY MORE PROGRAMS AND TEXT FILES.

DECUS

VAX

From the Chair

The third session of the OHVAXIO LUG for the 1987 - 1988 year is being hosted by TERRA TECHNICAL COLLEGE of Fremont Ohio. We will have a presentation by Jon Krehbeil of Cooper Tire & Rubber Co. on his experiences at DECUS West along With some good Network Magic. This session will be followed by two extensive afterglow presentations by Terra Technical College; Computer Integrated Manufacturing and Fourth Generation languages in the manufacturing environment. I am looking forward to these subjects as well as the DECUS presentation.

The attendance has been lacking at the first two meetings; please accept the challenge to bring one new member as your guest to the January meeting. Kae has published the list of all members, review this listing and see who is not attending that should be and get them registered. The OHVAXIO is a high quality users group with a strong core of charter members. We must encourage and support its growth.

We have just finished the celebration of the Joyous Holiday season and the hopes for an improved future in the new year are bright. May you be a part of the light that brightens the new year for the LUG.

Hope to see you at Terra Technical College on January 14,1988 at 6:30 pm.

Bill Fleck
January 5, 1988

Help!

Yes, I do need HELP with the OHVAXIO VIEW. In this issue, Trace Roth has given me the kind of help which I need: ARTICLES!

When you solve a particularly hard or interesting problem, take an extra 10 minutes to write an article about your solution. (You have to write documentation anyhow, don't you?)

Thanks, in advance,

Dick Corner
Newsletter Editor

DECUS Fall '87 Symposium Session Tapes

Cooper Tire & Rubber has the following tapes of DECUS Fall '87 Symposium sessions. Contact Kae Sobczyk at 424-4283 if you would like to borrow any of these tapes.

Session ID	Title
DA017	Communications with Sensors and Actuators on the Plant Floor
DA019	Data Acquisition Over Ethernet using DECServer 100s
DM068	Tutorial for the Common Data Dictionary
N008	Understanding Ethernet
N009	DECNET-VAX Programming Tutorial
N010	What is Network Performance, Anyway?
N015	Modems, Multiplexers and Concentrators (The Evolving Network)
N018	Network SIG Magic Session
N091	Network Administration in a Multi-Department Environment
0003	WPS-PLUS is a System
0023	Capacity Planning for OA Systems
0055	Exploring Time Management
0057	Reducing the Risks in Customizing ALL-IN-1
0061	ALL-IN-1 Programming Tips & Techniques (2 tapes)
0075	Managing an ALL-IN-1 System with Datatrieve
P030	Personal Computing Systems Architecture Networking Overview
U011	A Guided Tour of TCP/IP
Y015	VMS Process Internals
Y019	Managing your MicroVMS System without a System Manager
Y054	A New System Management Architecture
Y058	VMS Terminal Driver Internals
Y140	Creating a VAX/VMS Utility
Y200	A Comparison of VMS Defragmentation Products

Submitted by Kae Sobczyk

Multiple New mail Function

by Trace G. Roth

I have written a small script to read all of the mail messages that are in the INBOX. This script will only read the unread mail messages. It allows you to keep returning to read the entire message, exit screen to go onto the next message, enter P to print the message just read, or enter A to answer the message just read. When the P or A options are used, that function is performed and then the next message in the INBOX is read.

This script is a script script so it must be called with the SCRIPT command as opposed to the DO command. This script was placed into the OA$SCP directory with the other ALL-IN-1 script script.

I have added an option to the electronic messaging menu (form EMC in OA$LIB:OAFORM) so that this script can be called from the menu. The option I have chosen is RMN for Read Multiple New mail. The name data for that option is SCRIPT GETMAIL. SCRIPT being the script command and GETMAIL being the name of the script file.

I have included the script below. Please feel free to use this script on your system. I am sure your users will like this option as much as mine have liked it. It is much quicker than entering RN for each new mail message to read.

I hope that this script will help you as you implement this type of a procedure on your ALL-IN-1 system.

If you need any further information from me, you can reach me at the listed phone number.

Trace G. Roth
Software Analyst
O.H. Materials Corp.
(419) 423-3526 x4152

Continued on page 5

ALL-IN-1 TO DO ITEMS BY PRIORITY; NOT NUMBER

By Trace Roth

I have written a Basic program and modified the name data of several forms to display and print the To Do list items in priority order.

The to do records are sorted by the DCL SORT command in priority and then number order. This command sorts all of the records in ACTITEM.DAT and writes them to a sequential file, SORT.DAT, that is read by the Basic program. If you look at the sort command, you can see which bytes of the ACTITEM.DAT records are the sort keys.

The basic program takes only the to do sorted records from SORT.DAT and writes a file, SORT_TODO.TMP, that is then converted into an index file, OUT_TODO.TMP, that can be used by the scroll functions in ALL-IN-1. The basic program simply formats the to do records and places a blank line between each priority. I have chosen to display item priority, number, status, and description. All of the files used are placed into the user's ALL-IN-1 directory by using the OAUSER logical that is set up when ALL-IN-1 is run.

When displayed, the OUT_TODO.TMP file is accessed directly and placed on either form DISPTD or form TMTDAC.

When printed, the SORT_TODO.TMP file is merged with a header file so that the data records are properly labeled. The index file OUT_TODO.TMP is not referenced in the print procedure. I have not set up anything to handle multiple page headings. I assume most users will not have more that one page of to do items. If you have more that one page, delegate some of the to do items or let me know how you handle multiple pages. That sounds like another item for your to do list.

If you do not have version limits placed on your users' directories, be aware that all four files created by these procedures will hang out there indefinitely along with all previous versions.

If you need any further information from me you can reach me at the listed phone number.

Trace G. Roth
Software Analyst
O.H. Materials Corp.
(419) 423-3526 x4152

Name data changed for form TMTD in OAFORM Changes are noted in bold. Only the necessary pa of name data is shown to minimize the number pages printed.

Continued on page

OHVAXIO MEMBERSHIP LIST

Name	Organization	Title	Phone	Extension
David W. Anderson	O.H. Materials	Supv.,Systems Dev.	423-3526	4324
Tammy M. Burrows	O.H. Materials	Computer Operator	423-3526	
Dick Corner	Findlay College	Director, Comp. Serv.	424-4503	
Keith Cramer	Marathon Oil Co.	Systems Analyst	422-2121	2654
David Crane	Cooper Tire & Rubber	Analyst/Programmer	423-1321	3565
Gail Dulgar	O.H. Materials	Adv. Prog./Analyst	423-3526	4112
Gary Eades	Seneca Wire & Man.	Mgr. Data Processing	435-9261	
Bob Ewald	Findlay College	Systems Analyst	424-4568	
William A. Fleck	Cooper Tire & Rubber	Mgr. Tech. Projects	424-4143	
John B. Frintz	O.H. Materials	Assoc. Prog./Analyst	423-3526	4378
Judy Genewich	Findlay College	Mgr. Admin. Comp.	424-4657	
Damon Grube	O.H. Materials	Prog./Analyst	423-3526	4390
Larry Gundy	Terra Tech. College	Director Comp. Center	334-3886	
Steve Herber	Bowling Green S. U.	Sr. Systems Prog.	372-2102	
William Ireland	Whirlpool Corporation	Sr. Mfg. Sys. Analyst	547-2140	
Jon H. Krehbiel	Cooper Tire & Rubber	Network Administrator	424-7300	
Ken Kutz	Bowling Green S. U.	Systems Programmer	372-7493	
Bob Lantosh	O.H. Materials	Adv. Systems Analyst	423-3526	
Barb Longberry	O.H. Materials	Supv., Software Dev.	423-3526	
John W. Naab	O.H. Materials	Oper. Network Mgr.	423-3526	4285
Donna Painter	Findlay College	Computer Programmer	424-4660	
Joe G. Podach	Centerior Energy	Lead Data Comm. Anal.	249-5000	7800
Ken Pulley	Philips ECG, Inc.	Mgr., Data Processing	523-4321	302
Marcus E. Rall	Cooper Tire & Rubber	Mgr. Systems Dev.	424-4190	
Trace G. Roth	O.H. Materials	Software Analyst	423-3526	4152
Hede Semimi	Findlay College	Instructor	422-8313	4670
Ed Sartore	Marathon Oil Company		422-2121	2594
James H. Schwab	Cooper Tire & Rubber	Comp. Operations Mgr.	424-4193	
Dave Siverling	O.H. Materials	Computer Operator	424-4949	
Brad Smith	O.H. Materials	System Manager	423-3526	4270
Kae Sobczyk	Cooper Tire & Rubber	Software Technician	424-4283	
Susan Treece	O.H. Materials	Systems Analyst	423-3526	4273
Michael L. Turnow	O.H. Materials	Director, MIS	423-3526	
Loren Wagner	Cooper Tire & Rubber	Software Technician	424-4186	
Gary Waltermire	Cooper Tire & Rubber	Tech. Prog./Analyst	423-1321	3484
Jean Warner	O.H. Materials	Secretary, MIS	423-3526	4225
Deb Wells	Bowling Green S. U.	Systems Programmer	372-2102	
Brenda Weslow	Seneca Wire & Man.	System Analyst	435-9261	
Gary Batts	DEC	Account Rep	891-5416	
Cloyce Carlen	DEC	Sr. Software Spec.	891-5426	
David Hudson	DEC		891-5415	
Mike Jacobs	DEC	Field Serv. Unit Mgr.	891-5400	
John Sidorski	DEC	Field Service Engr.	891-5445	

Multiple New mail Function

```
GETMAIL.SCP!
Written by Trace G. Roth - December 2, 1987!
!
Always go to EM menu.!
e
m{cr}!
!
Remind user of valid options.!
.
text 22,1,"Remember, you can use P RETURN to print or A RETURN to answer".
prompt 23,1,"any message read.  Press RETURN to continue. ".
label read_next!
!
Check if mail message flags unread mail messages.!
.
if mail:3:2 eqs "" then .goto exit!
!
Read New mail if there is unread messages.!
r
n{cr}.
label keep_reading!
!
Check to see if the current form is Electronic Messaging.Â
If it is, read the next new mail message if there is one.!
If it is not, there is more of the message to read.
!
.if oa$form_name eqs "EMC" then .goto read_next
!
! Get user input at end of message page.
!
.prompt 24,49,"or P to print this message. "
!
! See if user input P to print.
!
.judge "P{cr}"
.process {advance}
.fx get #print_document=oa$curdoc
.fx parse_user oa$user
.fx get #print_listfile=$parse_user_name:3 oa$curdoc_docnum
.fx do wpprint
.fx form emc
!
! See if user input A to answer.
!
.judge "A{cr}"
.process {advance}
.fx mail answer
.end_judge
!
! See if user input was carriage return.
!
.judge "{*}{cr}"
.exit
```

To Do Items by Priority, Not Number

continued from page 3

```
;;.TYPE;;

MENU /CHOICE=CHOICE/PRE_FUN='CAL INIT MONTH\.IF #CAL_SET_DATE NES "" THEN GET
 $TD_DATE_SAVE = #CAL_SET_DATE\.IF $TD_DATE_SAVE NES "" AND $TD_DATE_SAVE NES
 OA$TM_DATE THEN CAL SET DATE $TD_DATE_SAVE'/CLEAR/DATE=DATE/USER=USER/MAIL=
MAIL/MORE='TMTDDE,TMTD_MORE,TM'/GET=MONTH3,OA$TM_MONTH3;MONTH4,OA$TM_MONTH4;
MONTH1,OA$TM_MONTH1;MONTH2,OA$TM_MONTH2;MONTH,OA$TM_MONTH;MONTH5,OA$TM_MONTH5;
MONTH6,OA$TM_MONTH6;YEAR,OA$TM_YEAR;CDATE,OA$TM_DATE;DAY,OA$DAY;CUSER,OA$TM_
OWNER;MEETIN,OA$MEETING_COUNT_DISPLAY;SELECT1,$AM_SELECT1;SELECT2,$AM_SELECT2;
CDAY,OA$TM_DAY/HARD="To-Do List"/TITLE=TITLE/POST='GET #CAL_SET_DATE = ""'

;;C;;

DO TMCRETD\GET $TD_DATE_SAVE=OA$TM_DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET
 $TD_SEL2_SAVE=$AM_SELECT2\GET #TODOFLAG=0

;;D;;

.IF $AM_SELECT1 EQS "" THEN DISPLAY There is no item to delete\\\FORCE ELSE
 FORM TODOENT/MODE=DELETE/ONE_ENTRY/START="'T','TO DO LIST',$AM_SELECT1"\
IFEXIT\GET $AM_SELECT1=""\DISPLAY List item deleted\GET $TD_DATE_SAVE=OA$TM_
DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET $TD_SEL2_SAVE=$AM_SELECT2
\GET #TODOFLAG=0

;;E;;

.IF $AM_SELECT1 EQS "" THEN DISPLAY There is no item to edit\\\FORCE ELSE FORM
 TODOENT /MODE=CHANGE/START="'T','TO DO LIST',$AM_SELECT1"/ONE_ENTRY\GET
 $TD_DATE_SAVE=OA$TM_DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET $TD_SEL2_SAVE=
$AM_SELECT2\GET #TODOFLAG=0

;;R;;

.IF $AM_SELECT1 EQS "" THEN DISPLAY There is no item to read\\\FORCE ELSE FORM
 TODOENT /MODE=INQUIRE/START="'T','TO DO LIST',$AM_SELECT1"/ONE_ENTRY
```

Any following name data of TMTD unchanged.
Name Data changes for form TMTDAC in OAFORM. Changes are noted in bold.

```
;;.TYPE;;

MENU /CHOICE=CHOICE/CLEAR/DATE=DATE/USER=USER/MORE='TM,TMTD,TODOMORE,DISCAL'
/PRE='CAL INIT MONTH\CAL DISP GRAPH \GET #CAL_ADYCAL="1"
\.IF #TODOFLAG NE 1 THEN GET OA$DCL="@DISK$SYSTEM:[ALLIN1.BASIC]TODO.COM"
\\GET OA$DCL="RUN DISK$SYSTEM:[ALLIN1.BASIC]TODO"\\OA$CNV_TO_SCROLL
 OAUSER:SORT_TODO.TMP,OAUSER:OUT_TODO.TMP\\GET #TODOFLAG = 1'
/USER=USER/GET=MONTH,
OA$TM_MONTH;MONTH1,OA$TM_MONTH1;MONTH2,OA$TM_MONTH2;MONTH3,OA$TM_MONTH3;MONTH4
,
OA$TM_MONTH4;MONTH5,OA$TM_MONTH5;MONTH6,OA$TM_MONTH6;YEAR,OA$TM_YEAR;CDATE,
OA$TM_DATE;DAY,OA$DAY;CUSER,OA$TM_OWNER;MEETIN,OA$MEETING_COUNT_DISPLAY;CDAY,
OA$TM_DAY;DAY1,OA$TM_DAY1;DAY2,OA$TM_DAY2;DAY3,OA$TM_DAY3;DAY4,OA$TM_DAY4;DAY5,
OA$TM_DAY5;DAY6,OA$TM_DAY6;DAY7,OA$TM_DAY7;WEEK1,OA$TM_GRAPH1;WEEK2,OA$TM_
GRAPH2;WEEK3,OA$TM_GRAPH3;WEEK4,OA$TM_GRAPH4;WEEK5,OA$TM_GRAPH5;WEEK6,OA$TM_
GRAPH6;WEEK7,OA$TM_GRAPH7;HEADER,OA$TM_GRAPH_TITLE/HARD="To-Do list"/TITLE=
```

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To Do Items by Priority, Not Number

continued from page 7

```
OA$SCL_SET_FIELD 96,OUT_TODO.TMP,1,,DESC\OA$SCL_BOTTOM\OA$FLD_STAY

;;.GOLD T;;

OA$SCL_SET_FIELD 96,OUT_TODO.TMP,1,,DESC
\OA$SCL_FIRST_PAGE\OA$FLD_STAY

;;.GOLD B;;

OA$SCL_SET_FIELD 96,OUT_TODO.TMP,1,,DESC
\OA$SCL_LAST_PAGE\OA$FLD_STAY
;;.GOLD TAB;;

OA$SCL_SET_FIELD 96,OUT_TODO.TMP,1,,DESC
\OA$SCL_NEXT_PAGE\OA$FLD_STAY

;;.GOLD BS;;

OA$SCL_SET_FIELD 96,OUT_TODO.TMP,1,,DESC
\OA$SCL_PRIOR_PAGE\OA$FLD_STAY
```

Here are the name data changes made to all TMxx_PRINT forms in OAFORM. The same change has been made to all of these forms and the change is made to the TL option. Form TMTD_PRINT is used here as the example. Changes are noted in bold. Only the TL part of the name data is shown to save space.

```
;;TL;;

.IF #TODOFLAG NE 1 THEN GET OA$DCL="@DISK$SYSTEM:[ALLIN1.BASIC]TODO.COM"
\\GET OA$DCL="RUN DISK$SYSTEM:[ALLIN1.BASIC]TODO"
\\GET OA$DCL="COPY OA$BLP:TL_PRINT.BLP OAUSER:CALENDAR.TMP"
\\GET OA$DCL="APPEND OAUSER:SORT_TODO.TMP OAUSER:CALENDAR.TMP"
\\GET #TODOFLAG=1\DO TMPRINT
```

Here are the name data changes made to the TMTDDE and TMTD_PRINT forms. The same change has been made to both forms. Changes are noted in bold.

```
;;.TYPE;;

MENU /CHOICE=CHOICE/PRE='.IF #CAL_SET_DATE NES "" THEN GET $TD_DATE_SAVE =
 #CAL_SET_DATE\.IF $TD_DATE_SAVE NES "" AND $TD_DATE_SAVE NES
 OA$TM_DATE THEN CAL SET DATE $TD_DATE_SAVE'/CLEAR/DATE=DATE/USER=USER/MAIL=
MAIL/MORE='TMTD,TMTD_MORE,TM'/GET=CDATE,OA$TM_DATE;DAY,OA$DAY;CUSER,OA$TM_
OWNER;MEETIN,OA$MEETING_COUNT_DISPLAY;SELECT1,$AM_SELECT1;SELECT2,$AM_SELECT2;
CDAY,OA$TM_DAY/HARD="Display Events for To-Do List"/TITLE=TITLE
/POST='GET #CAL_SET_DATE = ""

;;C;;

DO TMCRETD\GET $TD_DATE_SAVE=OA$TM_DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET
 $TD_SEL2_SAVE=$AM_SELECT2\GET #TODOFLAG=0

;;D;;

.IF $AM_SELECT1 EQS "" THEN DISPLAY There is no item to delete\\FORCE ELSE
 FORM TODOENT/MODE=DELETE/ONE_ENTRY/START="T",'TO DO LIST',$AM_SELECT1"\
```

continued on page 9

To Do Items by Priority, Not Number

continued from page 8

```
IFEXIT\GET $AM_SELECT1=""\DISPLAY List item deleted\GET $TD_DATE_SAVE=0A$TM_
DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET $TD_SEL2_SAVE=$AM_SELECT2
\GET #TODOFLAG=0

;;E;;

.IF $AM_SELECT1 EQS "" THEN DISPLAY There is no item to edit\\\FORCE ELSE FORM
 TODOENT /MODE=CHANGE/START="T",TO DO LIST",$AM_SELECT1"/ONE_ENTRY\GET
 $TD_DATE_SAVE=0A$TM_DATE\GET $TD_NUMBER_SAVE=$AM_SELECT1\GET $TD_SEL2_SAVE=
$AM_SELECT2\GET #TODOFLAG=0
```

The reset of the name data is the same or changed as noted above.

```
$!    TODO.COM      Placed in [ALLIN1.BASIC]
$!    TRACE ROTH     DECEMBER 18, 1987
$!
$ SORT/KEY=(POSITION:226,SIZE:2)/KEY=(POSITION:18,SIZE:3) OAUSER:ACTITEM.DAT
 OAUSER:SORT.DAT/SEQUENTIAL
$ RUN DISK$SYSTEM:[ALLIN1.BASIC]TODO
$ EXIT
1 !   TODO.BAS      Placed in [ALLIN1.BASIC]
  !   TRACE ROTH     DECEMBER 1, 1987
  !
5   MAP (AI_REC) STRING AI_TYPE = 1,  &
            STRING FIL1 = 17,    &
            STRING AI_ITEM = 3,  &
            STRING FIL2 = 63,    &
            STRING AI_DESC = 65, &
            STRING FIL3 = 76,    &
            STRING AI_PRIO = 2,  &
            STRING AI_STATUS = 1,&
            STRING FIL4 = 141
   !
   !  Open the sorted data file from ACTITEM.DAT
   !
10 OPEN "OAUSER:SORT.DAT" FOR INPUT AS FILE #1, &
   ORGANIZATION SEQUENTIAL VARIABLE, MAP AI_REC
   !
   !  Open output file
   !
   OPEN "OAUSER:SORT_TODO.TMP" FOR OUTPUT AS FILE #2, &
   ORGANIZATION SEQUENTIAL VARIABLE, ACCESS WRITE, RECORDSIZE 80
   WHEN ERROR USE ERROR_ROUTINE
   FLAG=0
   FILL1$="                              "
   FILL2$="                              "
   !
   !  Until there are no more records in File #1
   !
20    UNTIL AI_TYPE = ""
         GET #1
   !
   !  See if the record is a TODO record
   !
         IF AI_TYPE = "T" THEN
   !
```

continued on page 10

To Do Items by Priority, Not Number

```
!  See if the priority has changed from last
!     record
!  If it has, move a blank line to output
!
       IF (AI_PRIO_LAST$ <> AI_PRIO) AND &
          (FLAG=1) THEN
             FILL_OUT$=FILL1$+FILL2$
             MOVE TO #2, FILL_OUT$
             PUT #2
       END IF
!
!  Move the designated fields to output
!
       TODO_INFO$=AI_PRIO+" "+AI_ITEM &
```

continued from page 9

```
             +" "+AI_STATUS+" "+AI_DESC
          MOVE TO #2, TODO_INFO$
          PUT #2
          AI_PRIO_LAST$ = AI_PRIO
          FLAG=1
          END IF
       NEXT
    END WHEN

    HANDLER ERROR_ROUTINE
       CLOSE #1
       CLOSE #2
    END HANDLER
40  END
```

Minutes: November 12, 1987

continued from page 1

O.H. Materials Corp., Seneca Wire, and Terra Technical College. Digital Equipment Corporation and Interleaf Corporation were also represented.

Trace Roth of O.H. Materials Corp. opened the meeting and introduced the speaker, Faye McNeely, from Interleaf. Faye presented the interesting subject of Electronic Publishing, the concepts of fast printing through your own computer system whether PC, workstation, or mainframe. The advantages of printing through Interleaf software were mentioned and also the concept of Interleaf working along side the traditional typesetting. Typesetters, pricing for typesetting, forms, and graphs were all discussed. Also Faye mentioned the fact that 256 levels of gray can be used for shading graphs. Multiple options are available on this system for paging, indexing, etc. for large manuals with graphs. Graphs can be incorporated into the text or done simultaneously with the text. Questions were welcomed during the presentation.

The business meeting followed with Past President Kae Sobczyk filling in for President Bill Fleck. Newsletter Editor Dick Corner of Findley College was also present. A short meeting included some introductory remarks for first timers on getting on the mailing list and information regarding purchasing the DECUS SIGs Newsletters, which often include reports from the DECUS Symposia, for the cost of $35 per year.

A letter from the Regional LUG Coordinator mentioned a change in getting funds from them. As the receipts are submitted the National LUG looks over our budget and then sends needed funds for postage and printing. They are now thinking of having a separate checking account in the name of the local LUG group and then have a certified audit if needed.

Another item for discussion was regarding the US DECUS Bylaws being changed as to the amount of membership for voting. The new bylaw would accept either 10% of membership votes or 1,000 votes which ever is greater. Our LUG does not have a preference on this issue.

Kae also mentioned that gifts obtained from Digital will be given for articles written for the DECUS and OHVAXIO newsletters.

Also Kae referred to a list of tapes needing to be given to Dick Corner to be published in the newsletter. Symposia tapes with free software are available from Tape Librarian Larry Gundy.

Kae said she would send to new interested parties a copy of the newsletter and an application to be a DECUS member.

The meeting was adjourned to refreshments and a demonstration regarding VMS Services for MS/DOS put on by Trace Roth, Operations Software Analyst at O.H. Materials Corp.

Our thanks to Faye McNeely for a great presentation, host site O.H. Materials Corp., and those guests who attended. Also a big thank you to Kae Sobczyk for her presiding over the meeting.

The next meeting will be held 14 January 1988 at 6:30 p.m. in Fremont, Ohio, at Terra Technical College. The cafeteria will be open if you would like to dine before the meeting right on campus.

Respectfully Submitted,
P. Jean Warner, for the Secretary

OHVAXIO MEETING

6:30 PM, Thursday, January 14, 1987

Student Services/General Technical Building
Terra Technical College
Fremont, Ohio

Presentation

Experiences at DECUS West and Network Magic

Jon Krehbeil
Cooper Tire & Rubber Co.

Afterglow Presentations

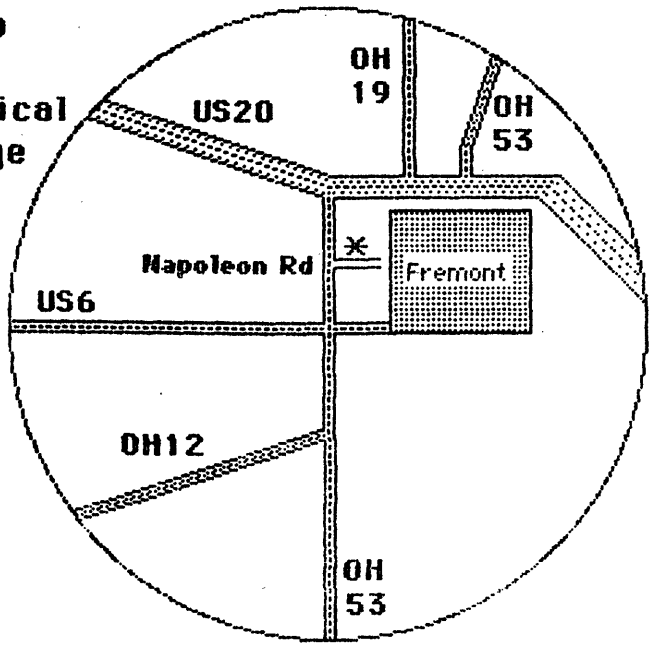
Computer Intergrated Manufacturing

Fourth Generation Languages in the Manufacturing Environment

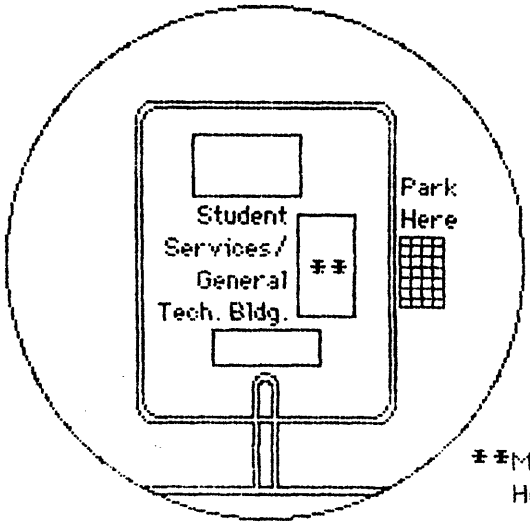
Terra Technical College

Note: Food will be available before the meeting at Terra's Food Service

Map to Terra Technical College



* Terra Technical College
Napoleon Rd. Campus



OHVAXIO VIEW

Volume 3 Issue 4 **March 4, 1988**

ADVENTURES IN INSTALLING VMS 4.6!

INSIDE THIS ISSUE:

From the Chair

The fourth session of the OHVAXIO LUG for the 1987 - 1988 is being hosted by Findlay College of Findlay, Ohio. There will be a presentation by ASK Computer Systems on the subject of Computer Integrated Manufacturing with special emphasis on its incorporation into smaller manufacturing operations. With the January meeting's after glow demonstration at Terra Technical College on CIM and this session, the subject of CIM should have a new perspective for the area manufacturers.

I am looking forward to this meeting as it represents a subject of great interest for the future of our area manufacturing. Also there were several subjects discussed other than those

continued on page 2

by:

Deb Wells
Bowling Green State University

On Saturday, January 2, 1988, we at Bowling Green State University decided to start the New Year off right by installing version 4.6 VMS on a VAX 8530.

Described here are some of the complications we encountered while trying to do this menial task. There was one documentation error in the release notes. The way our configuration is set up, to reboot the system, DEFBOO.COM calls BDABOO.COM which contains all the register settings. In the pre-upgrade procedure, the instructions said to change register 5 so that it contained a 1 when it actually needed to be left a 0. So when we did get to phase 5 and couldn't get the system rebooted, software support told us this was an error in the documentation.

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DECUS

VAX

FROM THE CHAIR

continued from page 1

isted on the agenda at our last meeting and this type of interaction is encouraged. Bring your questions and maybe someone will have an answer.

The attendance was greatly improved in January so let's keep the word out about the OHVAXIO LUG. It is a high quality users group. We must encourage its growth. Accept the challenge to bring at least one new potential member as your guest to the March meeting. Please take the time to review the list and see who is not a member that should be and get them registered.

Let's SPRING some new life into the OHVAXIO LUG. March is the time for nominations to the steering committee, VOLUNTEER for election to an office. It is most important that we grow beyond the core of charter members and that is done only if you Volunteer. SAY YES TO YOUR LUG.

The Hardware and Software portfolios were prepared at the January meeting. If your site was not included do it now and bring it along to the March meeting as well as your guest.

Hope to see you at Findlay College on March 10, 1988 at 6:30pm.

Bill Fleck

ADVENTURES INSTALLING VMS 4.6

continued from page 1

Even after correcting the register 5 the boot command procedure, the system still would not boot up version 5 VMS. Every time it got to the point where VMB.EXE is supposed to start, the system would hang. After spending three to four hours on the telephone with software support, they referred us to hardware support. Hardware support determined that our console copy of VMB.EXE must have gotten blown away. Our local office had the console floppies for version 5.0 so we couldn't copy VMB.EXE from the floppies and go on. By this time, it was 6:30 on a Saturday night. We had to notify the on-duty-manager that we desperately needed to get our hands on the console floppies. Just about this time, we began to realize that this problem seemed similar to the one encountered prior to installing version 5.0 (REV E) of the PRO 380 console software. Since we would have had to wait until someone brought down another copy of VMB.EXE, we decided to throw caution to the wind and try one of the remedies discovered in the pre-REV-E days - powering off and on the the VAX 8350. And glory be, the darn thing came up running version 4.6 VMS! We were able to continue with the rest of the installation. But we did still experience some of the old problems with the console. For example, the console hanging when the system is rebooting and having to clear restart flags; bringing the system up using SYSINIT; system not rebooting when an automatic reboot was requested. All of which had been solved by updating to version 5.0 (REV E) of the console software almost a year ago.

On Monday, January 4, the local field service engineer brought down the console floppies and we copied a different version of VMB.EXE onto the console device. Since then, we have had only one occurence of not being able to boot the system properly. We will be upgrading to version 7.0 of the console software

continued on page 3

REVIEW: AKCOUNT - VAX/VMS V4.x ACCOUNTING SOFTWARE

by
Larry Gundy

Source:
DECUS Library [VAX86c.AKCOUNT]

The AKCOUNT software has been designed to provide a VAX computer installation running V4.x of VMS operating system software with all the necessary accounting tools to charge users for resources used. The package includes all source code, associated help files, command procedures and installation notes.

This software was installed for testing at Terra Technical College. It executes as a batch job every Saturday night. When the job runs, the information from the system accounting file, plus listing files from DISKQUOTA and AUTHORIZE are merged together and written to a file "SYS$ACCOUNT:AKCOUNT.TOT". A report generator reads this file and creates detailed or summary type printouts.

The AKCOUNT software is installed in a subdirectory off the system manager's account. Because the AKCOUNT software must restart accounting as well as run various system images, it was convenient to use the power of the system manager's account with all its privileges. If in your installation, it is desired to place the software source code somewhere else, that is no problem because no logical names point to the source code directory. The only logical to be defined is SYS$ACCOUNT and it points to the location of the executable images for AKCOUNT.

All calculations for potential chargeback are based on modifiable portions of total replacement costs and yearly hardware and software maintenance costs. Several cost areas include: prime and non-prime time rates for both CPU and BATCH usage, buffered and direct I/O's, page faults, and disk blocks in use.

The report generator is designed to run interactively to produce either detailed or summary reports. These reports will include specified time intervals, be limited to users from within an /ACCOUNT=account, and provide for six sort orders. A reasonable HELP facility is provided. The documentation provided from the DECUS tape is well done, and as always, the price is very affordable when compared to other products on the market.

ADVENTURES INSTALLING VMS 4.6

continued from page 2

soon.

We also discovered that when users tried to login on a VT100 under 4.6 VMS the terminal appeared to be hung. We are using Emulex CS41 multiplexors emulating DMF32's with all of the hardwired terminals set to be autobaud detected. It seems the terminals were not getting autobaud detected correctly. Per software support's suggestion, we dropped back to version 4.5 of the YCDRIVER.EXE which seemed to clear up the problem. We have submitted an SPR on the subject of hung terminals under 4.6 VMS.

After talking to software support in Colorado, we felt very reassured to hear that no two VAXES boot the same. (So what's all the hype about being able to port a VMS operating system over to any ol' VMS machine?)

GOOD LUCK!

OHVAXIO MEMBERSHIP LIST

Name	Organization	Title	Phone	Extension
David W. Anderson	O.H. Materials	Supv.,Systems Dev.	423-3526	4324
Tammy M. Burrows	O.H. Materials	Computer Operator	423-3526	
Dick Corner	Findlay College	Director, Comp. Serv.	424-4503	
Keith Cramer	Marathon Oil Co.	Systems Analyst	422-2121	2654
David Crane	Cooper Tire & Rubber	Analyst/Programmer	423-1321	3565
Gail Dulgar	O.H. Materials	Adv. Prog./Analyst	423-3526	4112
Gary Eades	Seneca Wire & Man.	Mgr. Data Processing	435-9261	
Bob Ewald	Findlay College	Systems Analyst	424-4568	
William A. Fleck	Cooper Tire & Rubber	Mgr. Tech. Projects	424-4143	
John B. Frintz	O.H. Materials	Assoc. Prog./Analyst	423-3526	4378
Judy Genewich	Findlay College	Mgr. Admin. Comp.	424-4657	
Daman Grube	O.H. Materials	Prog./Analyst	423-3526	4390
Larry Gundy	Terra Tech. College	Director Comp. Center	334-3886	
Steve Herber	Bowling Green S. U.	Sr. Systems Prog.	372-2102	
William Ireland	Whirlpool Corporation	Sr. Mfg. Sys. Analyst	547-2140	
Jon H. Krehbiel	Cooper Tire & Rubber	Network Administrator	424-7300	
Ken Kutz	Bowling Green S. U.	Systems Programmer	372-7493	
Bob Lantosh	O.H. Materials	Adv. Systems Analyst	423-3526	
Barb Longberry	O.H. Materials	Supv., Software Dev.	423-3526	
John W. Naab	O.H. Materials	Oper. Network Mgr.	423-3526	4285
Donna Painter	Findlay College	Computer Programmer	424-4660	
Joe G. Podach	Centerior Energy	Lead Data Comm. Anal.	249-5000	7800
Ken Pulley	Philips ECG, Inc.	Mgr., Data Processing	523-4321	302
Marcus E. Rall	Cooper Tire & Rubber	Mgr. Systems Dev.	424-4190	
Trace G. Roth	O.H. Materials	Software Analyst	423-3526	4152
Heda Samimi	Findlay College	Instructor	422-8313	4670
Ed Sartore	Marathon Oil Company		422-2121	2594
James H. Schwab	Cooper Tire & Rubber	Comp. Operations Mgr.	424-4193	
Dave Siverling	O.H. Materials	Computer Operator	424-4949	
Brad Smith	O.H. Materials	System Manager	423-3526	4270
Kae Sobczyk	Cooper Tire & Rubber	Software Technician	424-4283	
Susan Treece	O.H. Materials	Systems Analyst	423-3526	4273
Michael L. Turnow	O.H. Materials	Director, MIS	423-3526	
Loren Wagner	Cooper Tire & Rubber	Software Technician	424-4186	
Gary Waltermire	Cooper Tire & Rubber	Tech. Prog./Analyst	423-1321	3484
Jean Warner	O.H. Materials	Secretary, MIS	423-3526	4225
Deb Wells	Bowling Green S. U.	Systems Programmer	372-2102	
Brenda Weslow	Seneca Wire & Man.	System Analyst	435-9261	
Gary Batts	DEC	Account Rep	891-5416	
Cloyce Carlen	DEC	Sr. Software Spec.	891-5426	
David Hudson	DEC		891-5415	
Mike Jacobs	DEC	Field Serv. Unit Mgr.	891-5400	
John Sidorski	DEC	Field Service Engr.	891-5445	

OHVAXIO MEETING

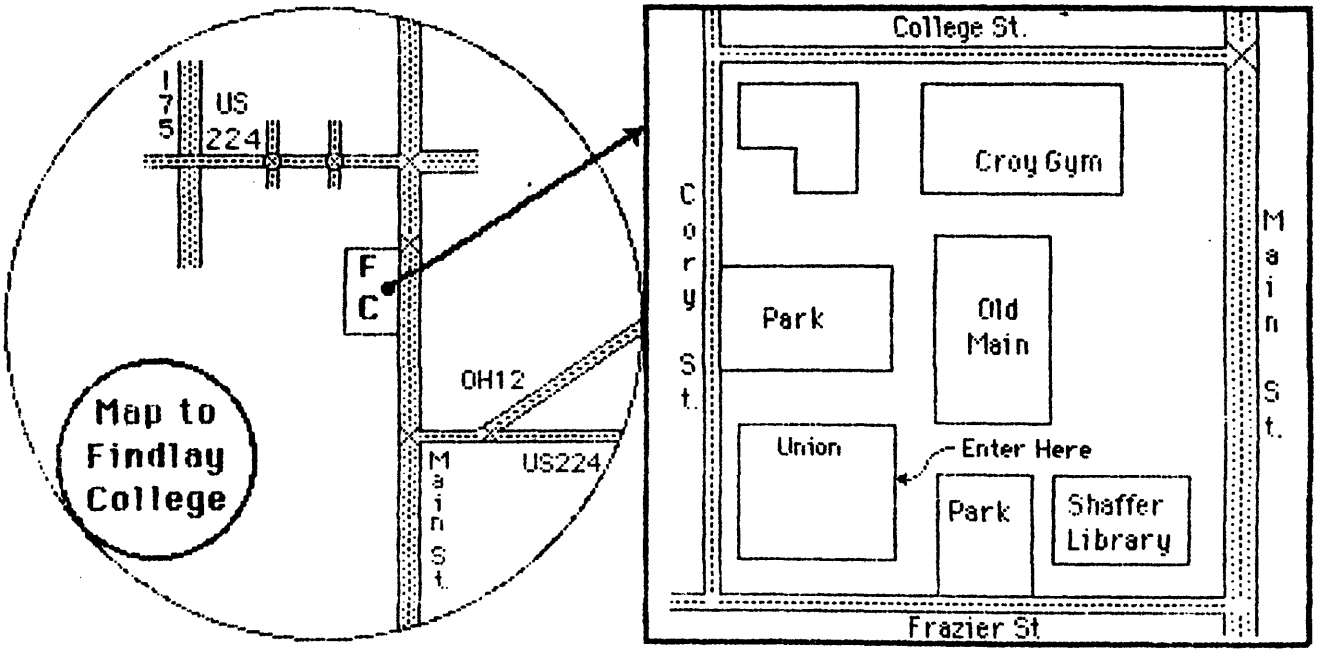
Thursday
March 10, 1988
6:30 PM
The Gold Room
Alumni Union
Findlay College

Presentation:

Computer Integrated Manufacturing in Small Manufacturers

presented by

ASK Computer Systems Corp.



IN THE QUEUE

NEWSLETTER OF THE VAXTOLEDO DECUS LUG

Volume 1 Number 1 February 1988

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Next Meeting:

Date: Thursday, March 24, 1988
Time: 5:30-8:30 p.m.
Location: LOF Technical Center
1701 E. Broadway
Toledo, Ohio 43605

Featured Speaker:

Faye McNeely, Interleaf Company

Topic:

Desktop Publishing
Interleaf System

OFFICERS

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Benny Wong
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Membership Coordinator
Dave Stiger
NFO Research, Inc., 666-8800

CALENDAR

Meeting Agenda

5:30-6:30	Social Hour
6:30-6:45	Welcome
6:45-7:15	LUG Business
7:15-7:30	Open Forum
7:30-8:15	Featured Speaker
8:15-8:30	Open Forum/Q&A

Meeting Dates

March 24, 1988	LOF Tech Center
May 26, 1988	Davis Bessie (tentative)
July 21, 1988	Site Not Determined
September 22, 1988	Site Not Determined
November 17, 1988	Site Not Determined

SUBMITTING ARTICLES

SUBMITTING NEWSLETTER ARTICLES

All VAXTOLEDO members are encouraged to submit articles to the newsletter. If you are considering such a submission, please follow these guidelines:

1. There is no restriction on topics, although articles should be of interest to VAX users in the Metro Toledo Area.
2. There is no restriction on the size of the article.
3. It is suggested that articles be submitted on a floppy diskette (IBM PC compatible) in straight ASCII format with a maximum column limit of 70. We use the WORDPERFECT system here at NFO to assist in setting up the Newsletter, so if you have access to that particular word processor, it is preferable to the straight ASCII format.
4. As a last resort, you can always submit an article on paper. If you decide to do that, we can't accept it unless it's typed. Make sure that you include your name and phone number.
5. Please observe the following additional restrictions:

   NO indenting
   NO centering of text
   NO double columns
   NO special characters
   NO underlining

6. If you have any questions or comments, please forward them to:

   Bob Dilworth
   c/o NFO Research, Inc.
   P.O. Box 315
   Toledo, Ohio 43691
   (419) 666-8800, Extension 3219

WELCOME TO THE FIRST EDITION OF IN THE QUEUE

Bob Dilworth
NFO RESEARCH, INC.
P.O. Box 315
Toledo, Ohio 43691
(419) 666-8800, Extension 3219

As Newletter Editor for VAXTOLEDO LUG, I'd like to welcome all of you to our first edition of IN THE QUEUE. Through the Newsletter, we hope to provide a forum for the exchange of information among VAXTOLEDO members; information that will prove useful in all of our various professional endeavors. The Newsletter can be a very powerful tool in the exchange of ideas. It can be used as a forum to work through common problems and to provide everyone with a chance to suggest his or her own particular solution. As is always the case, however, the quality and quantity of information is dependant on you, the membership.

It is our goal to provide, in each issue, something of interest for all levels of VAX users. We're a diverse group of people with many specializations. It's important, therefore, to make sure that as many of those specialized interests as possible are addressed throughout the year. The last thing we'd want to do is to cater to one group over another; we have too much to learn from each other for that.

So . . . what does all this means in practical terms? Well, I suppose it means a couple of things. First and foremost is the invitation to all of you to consider writing an article for the Newsletter. If you have a solution to a particular problem, chances are that someone else has had the same problem and may be looking for a way out. Submit an article about the problem and how you solved it, and you'll be passing along the knowledge you've gained to someone else.

Secondly, we've planned the Newlsetter in such a way as to ensure that a wide variety of issues are presented. In each issue for instance, we plan to have a variety of columns and articles that will cover such diverse topics as programming techniques, software available from our VAXTOLEDO LUG Library, upcoming regional VAX-related events, and letters to the editor. Additionally, each issue will contain a feature profiling one of the companies participating in the LUG. We're also planning a Q&A type column that can be used as a handy forum to discuss whatever issue is hot at the moment. Our local DEC reps have even agreed to get in the act and write a column entitled "DEC'S CORNER" to let us know what is going on in the way of new products and services. That still leaves plenty of room for all of you to fulfill your wildest dreams and become a published author. Simply follow the guidelines for submitting articles printed on page 1 of every issue and you'll soon see yourself in print.

Before I close I'd like to give special recognition to Diana Shaffer of NFO's Word Processing Department. The layout and look of this newsletter is a tribute to her professionalism and creativity. If she hadn't been helping us put this together, it just wouldn't have looked as good as it does now.

Once again, welcome to VAXTOLEDO LUG and especially welcome to edition Number 1 of IN THE QUEUE. I'm always open to suggestions, always willing to publish something, and always willing to try new ideas. Simply give me a call and we'll go from there!

FROM THE CHAIR

Dave Anderson
NFO RESEARCH, INC.
P.O. Box 315
Toledo, Ohio 43691
(419) 666-8800, Extension 3204

Happy new year and best wishes to all of the VAX-TOLEDO LUG membership for a safe and prosperous 1988!

As with all new organizations, it seems that just getting the ball rolling is the most difficult part. I'd like to ask each and every member to get INVOLVED in the VAXTOLEDO LUG. This is a volunteer organization, and only with your efforts, will we make 1988 a successful VAXTOLEDO LUG maiden year. So please, introduce yourself to me or other members of the Steering Committee or even give me a call (666-8800 work or 893-0600 home). We need your support!

I would like to thank all of the VAXTOLEDO LUG members who have volunteered their time and efforts to get the VAXTOLEDO LUG off to a great start. A special pat on the back goes to Bob Dilworth (Newsletter Editor) for his efforts in getting this newsletter to press. It looks great!

In future newsletters, I'd like to use this column as a forum to keep the membership informed of the many happenings of the VAXTOLEDO LUG and of DECUS in general. I hope you find the information useful and please, if you have any comments, suggestions, criticisms, etc., pass them my way.

PRELIMINARY GUIDELINES FOR VAXTOLEDO LUG TAPE LIBRARY

Les Bothast
LIBBEY OWENS FORD
1701 E. Broadway
Toledo, Ohio 43605
(419) 247-4286

One of the major benefits of active participation in a Vax LUG is access to the tape library. Eventually, the library will contain software developed locally by you the membership, as well as software developed nationally and distributed through DECUS. The library will become more organized as the LUG itself becomes more organized, but for now the following guidelines will apply.

We'll receive the current batch of tapes from the regional tape librarian approximately two to three months after any DECUS symposia. At this point, we'll be requesting only VAX tapes. If sufficient local interest develops for PDPs or something else, we'll see about requesting those tapes as well. If any of you out there have VAX software that you'd like to deposit in our local software library, please give me a call at (419) 247-4286. We haven't worked out all the details yet for local additions to the library.

Once we receive the current batch of DECUS tapes, I'll notify all of you through this column in the newsletter. To receive a copy of the DECUS software, as well as any locally written software, I'm suggesting the following procedure:

1. Bring me a tape onto which I can copy the software. 6250 BPI tapes are preferred, as you'll only need one reel. If you want to use 1600 BPI media, you'll need two reels.
2. Please make sure that the tapes are initialized (erased) before you turn them over to me. I'm suggesting this to make sure that you don't inadvertently give me a tape that contains sensitive or proprietary data.
3. Bring the blank tape(s) to a VAXTOLEDO LUG meeting and turn it over to me there. We'll work out method at that time to get it back to you.
4. Please be advised that VAXTOLEDO LUG makes no guarantees regarding the usefulness or the safety of the software you receive from the library. As is the policy of DECUS, use of the software is entirely at your own risk.

If you have any questions, comments, suggestions, or if you have a nifty piece of software you'd like to submit, don't hesitate to give me a call at (419) 247-4286.

TECHNICAL TIDBITS

COBOL - Reference Modification

Bob Dilworth
NFO RESEARCH, INC
P.O. Box 315
Toledo, Ohio 43694
(419) 666-8800

With the possible exception of sliced bread, one of the more useful additions to the COBOL language (at least for my money) has been reference modification. Without reference modification, each character string would have to be declared an array via the Occurs clause (a minor pain, but a pain nonetheless), and accessed accordingly. The miracle of reference modification, however, allows the programmer to access any portion of any PIC X data item, and do whatever tickles his or her fancy with it. Let's see how it works.

First, we'll set up a string:

THE-STRING PIC X(80)

Let's say you want to display characters 40 through 50 on the terminal. All you'd have to do is:

DISPLAY THE-STRING (40:10)

In accessing the substring composed of characters 40 through 50 of THE-STRING, the above line of code specified the substring's starting position (40), followed it by a colon (:), and followed the colon with the number of characters that were to be displayed (10).

The starting position and the number of characters to access may also be expressed symbolically. For example, if we set up a couple more data items, say START-POS and NUM-CHARS, and moved 40 to START-POS, and 10 to NUM-CHARS, our display line would change to:

DISPLAY THE-STRING (START-POS:NUM-CHARS)

Not only can the starting position and number of characters be expressed symbolically, but each can be part of an array. Suppose that START-POS was itself an array indexed by INDX. Our display statement would change to:

DISPLAY THE-STRING (START-POS (INDX):
NUM_CHARS)

Rather than a DISPLAY of the data, let's move it to another address. First, we'll set up anther string.

HOLDING-AREA PIC X(10)

This time, let's move characters 5 through 7 of THE-STRING to characters 8 through 10 of HOLDING-AREA. Assume that data items H-STRT and H-NUM have been previously declared, and contain the values 8 and 3 respectively. START-POS(INDX) contains the value five. The COBOL line:

```
MOVE THE-STRING (START-POS(INDX):H-NUM) TO
    HOLDING-AREA (H-STRT:H-NUM)
```

will accomplish the trick.

Reference modification, then, is a very useful tool in COBOL programming. It saves loads of time in set up, and provides instant sub-string access for any PIC X data item.

COBOL - The CONTINUE Statement

Bob Dilworth
NFO Research, Inc
PO Box 315
Toledo, Ohio 43694
(419) 666-8800

When one is writing programs, one often discovers little gems that make the job much, much easier. Many times those little gems are intuitively obvious to other colleagues, but more often than not, they're not (obvious, that is). So, for what it's worth, here's a little gem that saves me a lot of time.

Consider the situtation in which you need to find the first nonblank character in a string. Complicate that task a little further by defining the first nonblank character as any character other than a "+" or a "-". Any other nonblank is allowed.

The following swatch of code will accomplish your mission.

```
PERFORM VARYING INDX FROM 1 BY 1 UNTIL
  (INDX = STRING-LEN) OR
  (THE-STRING(INDX:1) GREATER THAN " " AND
   THE-STRING(INDX:1) NOT = "+" AND
   THE-STRING(INDX:1) NOT = "-")
     CONTINUE
END PERFORM.
```

When the In-Line PERFORM concludes, data item INDX will contain the starting position of the first non-blank character that meets the above conditions. The CONTINUE statement serves as a dummy line between the PERFORM and the END-PERFORM as COBOL requires.

As I mentioned before, this type of routine has saved me a considerable amount of grief, and I use it and its brothers a lot.

(Have a tidbit you'd like to pass on? If it works for you it'll work for others. Don't be afraid to share what you know. Call Bob Dilworth with your idea at (419) 666-8800, Extension 3219, or follow the article submission guidelines on page 2 of the newsletter and simply send it in.)

DEC'S CORNER

Rob Shick
DIGITAL EQUIPMENT CORP.
1701 Holland Road
Maumee, Ohio 43537
(419) 891-5400

A Brief History of the Local Digital Office

When Howie Obrig, Field Service Manager, opened the first Digital office in 1971, I doubt that he could have imagined the growth in store for DEC. Over on Monroe Street in Sylvania, the entire Digital "crew" consisted of Howie and three engineers. That seemed to be enough to handle the PDP-8s at Owens-Illinois and the "BIG" DECsystem 10 at Chase Brass.

As the VAX became an industry standard and Digital's products became more varied and complex, the local office needed to expand. About ten employees worked out of the Dartford Road office with sales reps still driving to Toledo from Detroit. Within two years, Digital had outgrown that office and relocated to Tomahawk Drive in Maumee. Interest in the VAX and PDP product lines was growing by leaps and bounds. Digital management in Detroit decided it was time to give Toledo its very own sales representative.

Nick Markus, a legend in his own time, was brought in as the lone ranger of DEC sales in 1983. Nick proved that the greater Toledo area provided great prospects for Digital and definitely deserved a complete sales team. Nick must have been right, because now there are ten sales reps!

Soon after Nick arrived, Pat Fox was transferred from Digital's Indianapolis office to be the local Sales Manager. He brought along a young upstart named Pat Campbell to help offload the tiring Nick Markus. Pat Fox has since moved back to Indianapolis, and Don Trojan has been the Sales Manager since the Fall of 1986.

With the growth in Sales came new customers like Champion Spark Plug, OH Materials, and Davis Bessie, along with other loyal DEC users such as NFO, LOF, Trinova, O-I, Cooper Tire, Teledyne, and many others. This growth, mainly in VAX systems, produced a need to expand the local software services and field service staffs.

Since Cloyce Carlen was hired as the first local software rep, DEC has added six more members to the Toledo Team. Digital is now selling and delivering software services from the local office.

From three engineers in 1971 to about 13 now, the quality of field service is a major reason for Digital's success in the Toledo area. Recently, the local office was rated among the best in the country in customer satisfaction. This came about because of a lot of hard work under the direction of Steve Graves and Dave Hudson and, of course, the engineers. Last year, Mike Jacobs was named Field Service Manager and is continuing the tradition of excellent service in the greater Toledo area.

Digital would like to invite its customers to visit the new Digital office at 1701 Holland Road in Maumee. The office now houses 35 employees and is still growing. DEC appreciates the opportunity to contribute to the newsletter and strongly supports the VAXTOLEDO LUG.

TRUE FACTS

Did you know that all DEC upgrades are field tested before they are released? Did you also know that DEC actively recruits test sites from among its customers? I know what you're thinking now (or at least I think I do): "Really?!" "How do I get on the list, and what do they have available for testing?"

I spoke with Cloyce Carlen about this very issue, and he reports that each office receives memos and other announcements from DEC Central letting them know which test-ready software is ready for beta sites. Recently (as of January 22, 1988), the following software was ready for beta testing:

A 3270 Terminal Emulation package for the PC. Any potential beta test sites must have DECNET/SNA Gateway and be running PC DOS and (note the "AND" here) DECNET DOS.

A 3270 Terminal Emulation package for ULTRIX/ULTRIX Workstations. Potential beta sites must be running DECNET/SNA Gateway and DECNET ULTRIX.

Unfortunately, the beta test offer expired February 2, 1988, well past the time you'll see this blurb in the Newsletter. The point of all this, however, is to let those interested know that DEC actively looks for beta test sites for new and upgraded software. If your site is interested, give the DEC office a call at 891-5400. When you're done with the testing, maybe you'll will even consider writing a Newsletter article about your experience.

MEETING NOTES

Denise Dearden
STERLING ENGINEERED PRODUCTS
1715 Indian Wood Circle
P. O. Box 98
Maumee, Ohio 43537-9998

DISCUSSION TOPICS

The first VAXTOLEDO LUG meeting was led by Pete Ford of NFO Research, Inc. Chair, Dave Anderson and Vice Chair, Rick Smith were unable to attend. Meetings will be held bimonthly; newsletter publication will follow on the alternate month. Meeting time is slated for the third Thursday, 5:30 to 8:30 p.m., unless otherwise scheduled. This month's meeting was held at the United Way Building, downtown Toledo (with ample FREE parking). The social hour with deli tray and soft drinks was provided by NFO.

By-Laws were ratified with a show of hands. Accepting the By-Laws officiates the appointment of officers to term until nominations are opened on April 1, 1989. Two at-large members from the LUG may be appointed by the Chair to the Steering Committee. Accepting the By-Laws also requires each member of the VAXTOLEDO LUG to hold DECUS membership.

Members of the Steering Committee were introduced. Membership Coordinator, Dave Stiger, requested all members to complete the VAXTOLEDO LUG Interest Form as well as the DECUS membership form for those that need to apply.

Librarian, Les Bothast, vowed to maintain a catalog of available software materials, to accept software from members for distribution to others, to provide upon request a copy of software to a member on their own initialized tape, and not to distribute copyrighted information or programs. VAX SIG tapes from the last symposia will be available within the next few months.

Newsletter editor, Bob Dilworth, encouraged contribution of material for the newsletter in the form of articles, rough drafts, or phone calls. He stated the overall tone of the newsletter will be humorous, it will contain an question and answer column, tips, technical information, and whatever anyone wishes to write about. It is possible that in the future, text contributions may be made electronically via floppy diskettes or dial-up modem (why are there no dial-down modems? -ed.).

Bob Schall NFO Research, spoke on the advantages of being a DECUS member.

Our next meeting site: The Steering Committee suggests that LUG meetings be sponsored by member employers. Employers will provide a meeting place, offering the opportunity for LUG members to view other DEC VAX installations. The deli tray, chip and dip, or coffee and doughnuts (or is it donuts?) are not required, but much appreciated. Work on your managers!

Our next meeting topic is Desktop Publishing. Contact Benny Wong at Sterling Engineered Products with your interests/ideas for future program topics.

Anyone interested in forming a SIG (Special Interest Group)? Contact Dave Anderson at NFO (666-8800).

DEC sales and support representatives, both hardware and software, were present for conversation after the meeting.

PROGRAM NOTES

The program speaker was Cloyce Carlen, DEC Principal Software Specialist, who spoke on VAX/VMS V5.0. Here's what he had to tell:

Installation

- VMS V4.7 is required for upgrade to V5.0.
- -Installation security of V5 is tighter. At login, the operator will be prompted to change the password or disable the account.
- Vax volume shadowing on local area VAX clusters needs to be reinstalled in 5.0.

Technical Changes and Information

- V4.7 is the last version for VAX 11/782 processors.
- Modification to ANALYZE/ERROR and the TA 79 in the cluster environment.
- TA 78s can be upgraded.
- In AUTOGEN, the DEQNA software controller will enable packet summing to avoid data file corruption. Field services will upgrade the DULQA.
- VMSIMAGES.DAT will be created automatically.
- BATCH/PRINT will no longer count nonprinting characters.
- PRINT/NOFEED will count lines per page.
- DEFINE/FORM/SHEETFEED for LQP02's is back (it was lost from V4.5).
- The COBOL runtime library will have ANSI 1985 standards.
- DECnet-VAX device protection will be restored after terminal link on asynch DECnet.
- LATSYM (I always wondered about this one - whew! -ed.).
- System service call $GETLKI, get lock info, will report buffer information for a use's buffer too small. $PRxxxDEF, processor register definition, will get internal process registers (and none too soon! -ed.).
- SET HOST/HSC will allow /LOG in the new version.
- SET TIME/CLUSTER is a new feature.
- [SYSn.SYSEXE]CLUSTER.DAT will allow a SYS$SYSROOT for each VAX cluster.
- VMB.EXE has improved reliability on boot and crash logs. UETP, user test procedure, has been modified.
- V5.0 offers a VAX cluster performance advisor (and next thing you know they'll be sending in troops -ed.).
- Multiple CPU memory sharing vs. the master/slave concept (this deserves some comment, but I can't think of one -ed.).
- Able to start and stop individual CPU's in a multiple environment.
- Parallel processing will be supported.
- Local area VAX cluster to use boot node and alternate nodes.
- MicroVMS and VMS will be one (one what? -ed.).
- BACKUP utility will prevent initialization of a new disk.
- Multiple Standalone BACKUPs may be done.
- Dual port failover is a new feature, perform own mount.
- ACLs for batch queues, queue performance enhanced.

THANK YOU, Cloyce Carlen, for your informative and entertaining preview to VAX/VMS version 5.0!

VAXTOLEDO Q+A

(VAXTOLEDO Q + A is your forum for questions and answers. If you've got a nagging problem or question that just won't go away, chances are someone out there has the answer! Send in the question, and we will print the answer as soon a we receive it.)

I have tried to combine two RMS indexed files with the same format using the CONVERT utility without success. The result is an empty third file with allocated space equal to the sum of the two. What is the most efficient way to merge two like RMS files?

Denise Dearden, Sterling Engineered Products (891-2515)

MEMBERSHIP UPDATE

Dave Stiger
NFO RESEARCH, INC.
P.O. Box 315
Toledo, Ohio 43694
(419) 666-8800. Extension 3213

I am pleased to announce that attendance at the kickoff meeting of the newly formed VAXTOLEDO LUG was comprised of 38 members representing 17 companies and businesses. Among those represented were KMS Fusion, Inc., Albert Kahn Associates, Owens Illinois, Libby Owens Ford, AVCA Corporation, EOS, Toledo Edison, Kasle Steel, NFO Research, Inc., SSOE, Nafziger Computer Services, Sterling Engineered Products, BGSU, Sensor Associates, G.P.I., Strategic Research & Consulting, and Digital Equipment Corporation. Not bad for starters!

I would like to apologize to those of you who received late notices due to ZIP code errors and also to those of you who did not receive notices at all. If you did not return the VAXTOLEDO LUG Interest Form, if it was lost in the mail, or if you are not a current DECUS member, then you most likely would not have been added to the VAXTOLEDO LUG mailing list. We are attempting to reach non-DECUS members at various sites by distributing notices through the local DEC office. We appreciate their efforts and ask that you too help spread the word to other potential members.

Now, how exactly do you become a member of the VAXTOLEDO LUG? Simple! Either contact me by phone or mail, or see me at one of the regularly scheduled bimonthly meetings, and all you will need to do is fill out a VAXTOLEDO LUG Interest Form. This in turn supplies us with some personal information about yourself and also some additional information related to your areas of interest and expertise. For those of you who are not DECUS members, you can also obtain an Application for Membership Form to fill out, and I will forward it on to the DECUS U.S. Chapter Membership Processing Group.

We hope to see many new as well as returning faces in the up and coming months. Through everyone's efforts, we look forward to our membership's continued growth and prosperity. Be looking for a notice sometime in early March for the next VAXTOLEDO LUG meeting.

A FEW NOTES FROM YOUR PROGRAM CHAIR

Benny Wong
STERLING ENGINEERED PRODUCTS, INC.
1715 Indian Wood Circle
Maumee, Ohio 43537
(419) 891-3923

First of all I'd like to take this opportunity to thank Cloyce Carlen for his time and effort in preparing his informative speech on VMS 4.7 and 5.0. I hope that everyone got something out of the presentation.

The speaker for our next meeting, scheduled for March 24, 1988, will be Ms. Faye McNeely from Interleaf Company. She will be talking about desktop publishing in general, and about Interleaf and its own DTP system in particular. Hope to see you there!

Last but not least, I'd like you to spend some time and fill out the questionnaire attached to the newsletter. This will help me in arranging future speakers and topics according to your interests.

Again, welcome to the VAXTOLEDO LUG, and if you have any ideas/ topics that you would like to share with other members, don't hesitate to give me a call.

CREATING USER-DEFINED TEMPLATES WITH LSE

Pete Ford
NFO RESEARCH, INC.
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Toledo, Ohio 43691
(419) 666-8800

At our shop, NFO Research Inc., we recently evaluated a new digital product, LSE (Language Sensitive Editor). The attributes of this package are numerous; however, this article will address only the most noteworthy. Some of the nicer features include multi-screen editing (similar to EVE) and compilation and review of source code from within the editing session. Although these features are commendable, the one I feel is most remarkable is the language-sensitive feature.

The language-sensitive feature enables the user to pull into his editing session a model of the statement he is working on, leaving only the variable names to be filled in. For example, if a programmer working in COBOL needed to add an "IF" condition to his source code, he would only have to type "IF," make sure that the cursor was positioned immediately after the "F" in "IF," and then expand the statement by hitting CNTRL "E". LSE would produce:

IF {conditional-expression}
THEN
{then-clause} [ELSE {else-part}]
[END-IF]

As one can see, this makes coding much quicker and more error-free. In the above example, phrases enclosed by "{}" are mandatory and are to be replaced by the user. Phrases or statements enclosed by "[]" are optional and may be omitted from the text file. All COBOL statements are available for expansion as are the system calls prefixed by SYS$, STR$, SMG$, and LIB$. What is also remarkable is that the calls are available in a multitude of languages (COBOL, BASIC, Fortran, C, and Pascal). For example, if in editing a BASIC program the user were to enter STR$POS., he would, after expanding STR$POS with a CNTRL "E," be given the choice of:

STR$POSITION or STR$POS_EXT

After choosing one or the other, the call would be built as:

```
CALL str$pos_extr ( &
{destination_string}, &
{source_string}, &
{start_position}, &
{end_position})
```

Using this type of tool not only leads to more error-free code, but will also:

1) Help maintain a coding standard across the programming department.

2) Help inexperienced programmers learn a language.

3) Allow programmers working in unfamiliar languages to save time normally spent searching the pertinent manuals.

Another of the advantages of the LSE editor is that it allows the user to define his own language. In-house procedures and their syntax can be captured in LSE templates and be available to all users. As I further explain the development of language templates, two issues come to bear.

First, one must choose the type of in-house programs/procedures that will benefit most from LSE templates. Such procedures should have one or more of the following characteristics:

1) They should have a structured format that would lend themselves to modelling. (This is because the more common the text needed for statements, the more LSE can aid by filling in text for the user.)

2) The frequency of its use and number of users. As this number increases, the more the LSE templates help enforce a common structure among users. Additionally, with a large group of users, LSE becomes more of a teaching and training aid.

3) Finally, due to LSE's ability to document variables, the in-house package should have some need of clarification of fields or user input. Any of these three reasons could be reason enough to create a language template for an in-house package.

The second issue is a basic knowledge of the building blocks of the template. In addition to defining the language statements, there are two main LSE units that also need definition. The first three units are types of placeholders, and the second are units called tokens. These four units, working in conjunction with each other, allow the user the flexibility to create a variety of templates from a sophisticated language to a simple memo sheet.

PLACEHOLDERS

As stated earlier, there are three major types of placeholders. The first is the nonterminal placeholder. This placeholder, when expanded, will place text into the current editing buffer. This text could be any length and could contain other placeholders which could also be expanded (such as the "[ELSE {else-part}]" in the "IF" condition above).

The second placeholder type is the terminal placeholder. This placeholder, when expanded, will not deposit text into the buffer but will give an explanation at the top or bottom of the screen as to what type of information is expected. For example, in the STR$POSITION example above, expanding "{start_position}" with a CNTRL "E" would produce the following LSE prompt: the actual data you want to pass to parameter START-POSITION.

The last type of placeholder is the menu type. When expanded, this placeholder will display list of options from which the user may select. In our "IF" condition example at the beginning of this article, if the placeholder "{then-clause}" were expanded with a CNTRL "E," a list of every COBOL statement would be at the users reach. Upon selection, the option chosen would be inserted into the user's text buffer.

TOKENS

Tokens are expandable words that are not bounded by either "[] or {}." The "IF" statement at the beginning of the article is an example of a token. Expanding a token with a CNTRL "E" gives you a choice of multiple statements that match the portion of the token you entered. The STR$POS example mentioned above demonstrated how a token was used to provide a choice of two calls. On the same note, expanding STR$ alone would make the entire range of STR$ library calls available.

MERGING THE PIECES

The last part is the definition of the language statement which links all the tokens and placeholders together. Take for example a language called "XCOM" that we will use as an example. After examining the following language definition of "XCOM," several of the language's parameters will be discussed. XCOM was chosen as the language name because the example templates will involve some DCL statements.

```
DEFINE LANGUAGE XCOM -
/IDENTIFY_CHARACTERS = -
"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890" -/INITIAL_STRING =
"[XCOM-START]" -
/FILE_TYPES = (.COM,.CMD) -
/TAB_INCREMENT = 8 -
/REQ = ("{","}") -
/REQL = ("{","}...") -
/OPT =
("[","]") -
/OPTL = ("[","]...") -
/PUNCUTATION_CHARACTERS = ".,'+-=/*"
```

The above statements define the language called "XCOM." Let me give a quick overview of the parameter statements used.

/IDENTIFY_CHARACTERS Tells the system what characters may be used in token & alias names.

/FILE_TYPES Is used to control what language should be used in conjunction with LSE editing session. In this example, any file with the type of .com or .cmd will automatically use these templates.

/INITIAL_STRING This is only used when the file is being created. It will deposit the text "[XCOM-START]" in the text buffer.

/OPT & OPTL These are the delimiters for the placeholders "[]" & "[].. " that are optional in nature. The trailing 3 periods on the second example instructs to repeat the option again after expanding.

/REQ & REQL Like the optional, these delimit placeholders but are mandatory.

/PUNCTUATION_CHARACTERS These are used to control what are bounds for the next word.

A PRACTICAL EXAMPLE

Now that we have the language defined, it is time to set up a few templates. The first will be for our initial string "XCOM-START". It will be defined as a nonterminal type, as we wish to have the ability to expand it further.

```
DEFINE PLACEHOLDER XCOM-START -
/LANGUAGE XCOM -
/TYPE NONTERMINAL
/DESCRIPTION = "START UP OF THE XCOM LANGUAGE"
"$! {NAME-OF-COM-FIL}"
"$! {DATE-CREATED}"
"$! {AUTHOR}"
"$!"
"$ [STATEMENT]"
END DEFINE
```

When "[XCOM-START]" is expanded with a CNTRL "E," it will look like this:

```
$! {NAME-OF-COM-FIL}
$! {DATE-CREATED}
$! {AUTHOR}
$!
$ [STATEMENT]
```

Now what is needed is to create placeholders for each of the informational fields that need to be filled.

```
DEFINE PLACEHOLDER NAME-OF-COM-FIL -
/LANGUAGE = XCOM -
/TYPE = TERMINAL
"NAME OF THE COMMAND FILE"
END DEFINE

DEFINE PLACEHOLDER DATE-CREATED -
/LANGUAGE = XCOM -
/TYPE = TERMINAL
"DATE THE FILE WAS CREATED"
END DEFINE

DEFINE PLACEHOLDER AUTHOR -
/LANGUAGE = XCOM -
/TYPE = TERMINAL
"NAME OF THE INDIVIDUAL"
END DEFINE
```

As with all terminal type placeholders, they will print the text at the top of the screen as an aid to the user when expanded with a CNTRL "E." These could be multiple lines if necessary, as there is no limit to the number of informational lines that can be displayed. It should also be noted that expanding these types of placeholders will not deposit any text in the user's current buffer.

This leaves the last expandable field, "[STATEMENT]," from the original expansion. We'll make this placeholder a menu type via:

```
DEFINE PLACEHOLDER STATEMENT -
LANGUAGE = XCOM -
/TYPE = MENU
"SET-VER" = /TOKEN
"SET-NOVER = /TOKEN
END DEFINE

DEFINE TOKEN SET-VER -
LANGUAGE = XCOM -
```

```
/DESCRIPTION = "TURN ON VERIFICATION DURING RUN"
"$ SET VERIFY"
END DEFINE

DEFINE TOKEN SET-NOVER -
LANGUAGE = XCOM -
/DESCRIPTION = "TURN OFF VERIFICATION DURING RUN"
"$!"
"$ SET NOVERIFY"
"$!"
END DEFINE
```

For reasons of brevity, I'll only show two options in the menu, but be advised that there is no limit to the amount of choices allowed. If this placeholder were expanded, it would give the user either the choice of the contents of the set-ver token or the set-nover token. Also note that more than one line can be inserted into the text buffer from the token. It should be remembered that because these last two choices are tokens, they can be expanded directly from the text buffer without the placeholder "[statement]."

SAVING THE TEMPLATE

To save and utilize this newly created template, the user must follow these steps:

1) Create your template in a file with the extension ".LSE". For this example, the name of our file will be XCOM.LSE.

2) Put your tokens and placeholders in that file. Note that there may be many languages in this file not just the one you created this time.

3) At the LSE command line, enter the string "DO." This will compile your language. At this time, it is possible to go to another buffer and after setting language to the new language, test your variables.

4) To save this language, a "save environment" command must be issued before ending the editing session. This will create a binary file with the same name as your file, but a file type of ".ENV". This file is necessary to have your language available for general use.

5) The final step to make this language available for all users is to create a system logical that replaces the system logical LSE with:

```
lsedit/environment = device:[directory]XCOM.ENV.
```

Now when ever any user evokes LSE and is editing a .com or .cmd file, the new templates will be available in that session.

There remains features not mentioned in this report that should be noted from the manual before trying to build templates. Hopefully, this article will give you a basic understanding and an appreciation for LSE.

VAXTOLEDO LUG INTEREST INQUIRY QUESTIONNAIRE

Please check the type of topics in which you have an interest.

___ UNIX

___ VMS Hints and Kinks

___ Networking Hardware

___ Networking Management Systems

___ Personal Computing

___ Capacity Planning Strategies

___ Software Change Control

___ Others _____

___ Desktop Publishing

___ Systems Security

___ Programming Tools

___ All-In-1 Tips

___ Mass Storage

___ Graphics

___ Real-Time Processing

Please tell us if you'd like to present any topic.

___ Yes, I can present a topic on _____

___ No, I cannot present a topic now.

Name _____ Title _____

Company _____

Address _____

Phone _____

Return to: Benny Wong
Sterling Engineered Products, Inc.
1715 Indian Wood Circle
Maumee, Ohio 43537

Or simply bring to the next VAXTOLEDO LUG meeting.

LUG NOTES

Newsletter of the Washington Office Automation Local Users Group (WOALUG) Sept. 30, 1987

OASIS

Many of you who came to the Nashville Symposium had the opportunity to hear about a new service for DECUS members interested in Office Automation - the Office Automation SIG Information System (OASIS). OASIS is a way for you to ask OA related questions of other users, and share your experiences or expertise with others. OASIS is a free (you pay for the phone call) service located on a DECUS MICROVAX which combines the Notes and Videotext products so that subscribers can carry on information exchanges on a variety of topics.

OASIS is now available for your use. The majority of the introductory information and documentation will be found on-line once you have successfully logged in, applied for and received your account. (This is a painless process).

THE EXPERTS BOOK

It's in the mail! The Experts Book, a listing of your WOALUG colleagues and their areas of expertise, is now ready for distribution. You should be receiving your copy, if you haven't already, any day now.

The WOALUG Steering Committee Needs You!

Editor's Note: In an effort to recruit new steering committee members we would like to give you an idea of the kinds of things the current members do, and still have time to participate. We will continue to print short biographies of the committee members in the issues to come. Please feel free to call current members with questions if you are interested in joining the group.

Tom Orlowski

Tom is the WOALUG Chairman, in addition to his position as the Director of Information Resource Management for the American Council on Education (ACE). At ACE, Tom is responsible for consulting, information system planning, as well as all data processing, office automation, and electronic network resources and support. He began his work in computers as a programmer in 1967.

Tom retired from the Army as a lieutenant colonel in 1985.

WOALUG STEERING COMMITTEE

Chairman
Thomas J. Orlowski 202 939-9371

Vice Chairman
Anita Russell 202 477-2557

Program Chairman
Gene LeClair 202 695-2240

Newsletter Editor
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Steering Committee Representatives
Jack Best 202-566-7963
Marc Nodell 202 473-2044

DEC Representative
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Sherry Goldstein 301 459-7900

COUNTERPART'S CORNER
NEWLY ANNOUNCED

WPS-PLUS/DOS Version 2.0

In July, Digital announced a new version of WPS-PLUS/DOS which brings it's Gold Key style editing to the level of functionality found in the feature-rich WPS-PLUS ALL-IN-1 and WPS-PLUS/VMS software for the VAX environment. WPS-PLUS/DOS is now available for users of VAXmate, Rainbow, IBM PC/XT and IBM PC/AT.

New Features at a Glance:

- o Spell checker and verifier
- o Footnoting
- o Redlining
- o Change bars
- o Automatic paragraph numbering
- o Table of contents generation
- o Wide document edit and print capabilities
- o Improved terminal emulation (that includes LAT and DECnet support)
- o File cabinet drawers and menu
- o Enhanced print capabilities
- o Access to other MS-DOS applications from the WPS-PLUS/DOS Main Menu

DECmate/WPS Version 2.3

Also announced in July, the newest version of DECmate/WPS has many enhancements to existing features, as well as new features! With this latest release, you will be able to edit text and retain previously defined character attributes. For example, if you need to edit a bolded word, bolding will be applied to corrections. Automatic footnoting included automatic pagination, full control block control from within the main text and footnote text, as well as automatic numbering. The footnoting feature provides full support for LN03 printers.

Automatic UDK Creating captures keystrokes as you use them. This is done by placing the keystrokes in a temporary holding area. Once you are satisfied the UDK is to your liking, transfer the stored keystrokes to the UDK of your choice. You can use this feature from either within the Main Menu or within a document.

DECmate II users with a hard disk, and DECmate III Plus users can now perform a full system search for a particular title or even words within titles. With this feature the system will produce a subindex of all documents containing the title, word or words you requested. And it will do it system-wide.

A brand new feature is included in this release of software: user definable "widow and orphan" control. This will allow you to define standards for paragraph endings and beginnings providing you with a more polished final document.

Other features/enhancements include short-cuts at the Main Menu to by-pass submenus, a list processing GO-TO-RECORD command, line drawings displayed on screen and editable, and DEC Multinational Character Set displayed, edited and printed.

WPS-PLUS/VMS V2.1 and DECpage V2.1 will now support the PrintServer 40 (LPS40) using the ANSI translator, which translates ANSI format into PostScript format. The PrintServer 40 is a PostScript printer, but with the aid of the ANSI translator will produce virtually the same output as that of an LN03. These products DO NOT currently support PostScript.

WPS-PLUS/VMS Support

When printing a WPS-PLUS/VMS document on a PrintServer 40, the document destination must be an ANSI queue and the printer type must be LN03. WPS-PLUS uses the default input tray and output bin when printing to the PrintServer 40.

DECpage Support

DECpage, an option to WPS-PLUS/VMS and ALL-IN-1, is a high-quality text formatter which produces output to Digital's laser printers. When printing DECpage documents on a PrintServer 40, via the ANSI translator, there are a few exceptions where the output will not be exactly that of an LN03.

- o When printing literal text that is too wide for the page, the LN03 truncates the line, dropping the extra characters. The PrintServer 40 automatically wraps the line of text so that the extra characters appear on the next line.

- o The PrintServer 40 positions text 3 picas higher (1/2") on the page than with the LN03. Users can modify the placement of the text on the page using the User Definable Styles Option of DECpage.

- o LN03 logos CAN NOT be output to the PrintServer 40 using the ANSI translator.

The 29 resident PostScript typefaces in the PrintServer 40 are not usable with DECpage. DECpage utilizes the default input tray and output bin when printing to the PrintServer 40.

WOALUG BULLETIN BOARD

****

WOALUG Classifieds

Company in McLean, VA has 15 positions, clearable to secret, using two VAX networks with All-In-1. Position responsibilities will include programming, customizing off the shelf software, network installation, design and maintenance. For more information contact Bill Russell at 301-883-0886

****

CALENDAR OF EVENTS

OCTOBER

29 Washington Area Network Local User's Group (WANLUG) meeting. DEC's Corporate Offices in Landover from 12:30 P.M. to 2:00 P.M.

NOVEMBER

3 Washington Office Automation Local User's Group (WOALUG) meeting. DEC's Corporate Offices in Landover from 12:30 P.M. to 2:00 P.M.

24 Washington, DC Area VAX Local User's Group. Location to be determined.

DECEMBER

7-11 DECUS US Fall 87 Symposium, Anaheim, CA.

Q & A

DECMATE TO IBM PC DOCUMENT TRANSFER

Q. How do I connect my DECmate to an IBM PC, in order to transfer a document?

A. A DECmate/WPS user can send and receive documents to and from an IBM PC user running WPS-PLUS/DOS. The same cable that is used for DECmate to DECmate transfer is required - a BC22D cable. The following script, called an EZCOM script on the DECmate, will enable the connection for you.

1. Create a document called "script" on the DECmate. Type in the following (exactly as it appears):

```
NOSCREEN
TYPE HOST 33'[2!"
SCREEN
TYPE SCREEN LF&LF&'The IBM/PC is now in AX
mode, type DX at the Main Menu to start the transfer.'&CR&LF
TYPE SCREEN LF&'Returning to Main Menu,
please wait...'
WAIT 12
MENU
```

Q & A cont'd...

2. After the script has been created on the DECmate, put the PC in CO mode, just like you would for the VAX AX transfer.

3. Then type "LG script" on the DECmate. The PC will be put into AX mode, and the instruction message will be displayed on the DECmate.

4. "The IBM/PC is now in AX mode, type DX at the Main Menu to start the transfer.

   Returning to Main Menu, please wait..."

5. The script will pause for you to read the message, then return to Main Menu, where you type DX. The DECmate will then be ready for you to initiate the transfer.

***

DISKETTES & DOCUMENTS

Q. What does it mean to initialize a diskette?

A. Before a diskette can be used, it must be appropriately formatted for the system on which it is to be used. Initializing erases any previous information or formatting on the diskette and provides the format required by the system being used. It is during this initialization process that you are prompted to give your diskette a name.

Q. I verified a brand new diskette and it has errors. What happened?

A. You must first initialize the diskette, then verify it.

Q. I created a document on my diskette and called it **87 Fiscal Chart**, but after I Gold-Filed it, it disappeared from my index and my diskette. What happened?

A. Don't begin document names with numbers in DECmate WPS. Problems, like losing the document, may occur if you do.

   Note: Don't begin document names in WPS-PLUS with numbers either -- if you transfer the documents from WPS-PLUS to diskette you'll have problems.

Q. What are some tips for handling diskettes?

A. Never write on the diskette label with anything but a soft tip pen.

   Never lay diskettes down without first putting them in their envelopes.

   Keep diskettes away from all magnetic objects (including paper clips and paper clip holders).

Q. When copying a diskette onto a brand new floppy, do I have to initialize the new floppy?

A. No*. Copying will overwrite (erase) anything that is on the new diskette.

   * Although it is not necessary, it is recommended that you initialize your diskette to avoid possible diskette errors in the future.

Q. Can I copy to more than one diskette at a time?

A. No.

Q. How can I see an index of my system diskette?

A. At the Main Menu type **I O** (type I followed by a zero -- not the letter O) to see the index of the system diskettes.

LUG NOTES

Newsletter of the Washington Office Automation Local Users Group (WOALUG) June 12, 1987

DECUS a Perspective
by Joe Sciuto, Area LUG Coordinator

Editor's note: The following economic rationalization was assembled by one organization in its attempt to justify sending employees to participate at a DECUS Symposium. The results of the analysis was an increase of 300% in symposium attendees from the organization. We have included it here as an aid to you in increasing your organizations participation.

Our Organization has established a substantial economic commitment to Digital equipment and software with its acquisition of our current computer system. In addition to the equipment we have purchased, the equipment we will be purchasing will be Digital compatible. Further, we have acquired, with the system several compilers, software and communications packages which are Digital specific. Essentially what this implies is that we are very much a Digital shop.

Having made this commitment, it is in our best interest to become as knowledgeable and proficient in the environment as we possibly can. The semi-annual Digital Equipment Computer Users Society (DECUS) symposia are by far the most cost effective and efficient means to acquire this knowledge and proficiency.

The symposia consists of five days (8-14 hr. per day) of continuously running multiple presentations, given primarily by either products developers or users who have extensive experience, and open discussions between Digital users and Digital representatives. Topics span the entire spectrum of user interest including current hardware features and capabilities, planned developments, software applications and common user problems and solutions. It is possible to get the functional equivalent of about three formal courses taken at a training center. Additionally, the symposium is physically managed in such a way as to promote the interaction of users with common interests. This interaction is conductive to the formation of informal mutual assistance relationships that are continued through the coming years providing a lasting benefit to both the attendee and the organization.

The cost of a DECUS symposium is $400.00 plus travel costs totaling approximately $1000/per person. Compared to the average cost of Digital training locally of $1300/person/class, which only deals with subject area and only lasts 6 hr./day, the DECUS symposia is extremely cost effective as far as benefits derived. Any person intending to manage or utilize ADP resources in our current operating environment would be well advised to attend a minimum of one symposium per year.

CONGRATULATIONS!

Mira Bengen (Price Waterhouse) is the winner of the "Name the Newsletter Contest." Thank you Mira for submitting the winning entry "LUG NOTES". To all of you who submitted entries "We thank you for your support."

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CORNER
What is DECUS?

DECUS is an acronym derived from the full name: Digital Equipment Computer Users Society. The purpose of DECUS is to promote the exchange of information among users of Digital Equipment Corporation products.

DECUS was established in March of 1961, four years after the founding of Digital. Since those early days, DECUS has grown into an international organization with over 70,000 members worldwide. Currently the U.S. membership is approximately 50,000.

SIGs -- SIGs are Special Interest Groups, and each is formed around an area of common interest. SIGs exist for a variety of hardware, operating systems, languages, application and marketing areas. SIGs publish newsletters, organize meetings at symposia and provide an effective, focused communication channel between Digital and the users. The U.S. Chapter publishes a monthly newsletter containing newsletters from all of the Special Interest Groups.

LUGs -- LUGs are Local Users Groups that are formed to provide DECUS members in a specific geographic area with the means to communicate among themselves and with Digital. LUGs sponsor meetings, and provide an information exchange mechanism among local users and between users and the local Digital office.

Symposia -- DECUS conducts two major symposia each year. Information exchange is the underlying reason for any service or activity offered under DECUS auspices. DECUS symposia are the most intense forms of this exchange. A symposium is a 5 day event consisting of formal presentations, tutorials, clinics, and one-on-one hallway discussions.

The old adage "you get what you put into it" is definitely true when speaking of DECUS symposia. At symposia, attendees can seen and find help to solve current problems, learn from other people, exchange information with peers and have access to the largest technical resource available under one roof. Digital demonstrates its support for DECUS by sending many of their top technical and marketing folks from every product area.

It is important to note that many of the symposia speakers are day today users of Digital products. They are people like yourself: analysts, system managers, operations personnel, programmers, department managers and others. People from single cpu sites to multi-cpu and multi-vendor sites. They are people who, in using systems every day, have learned or developed better ways to use the tools at their disposal. All of the speakers are volunteers, acting in the true spirit of DECUS -- exchange of information to benefit all.

This year, Spring DECUS was held April 27 to May 1 in Nashville, Tennessee. Fall DECUS will be held December 7 to 11 in Anaheim, California.

Program Library - DECUS also maintains a Program Library which contains over 1,300 active software packages. The Library distributes programs submitted by members like yourself who are willing to invest a little extra time in order to share their accomplishments with other DECUS members. Their efforts have made the DECUS Library a valuable source of a wide range of useful programs.

The WOALUG Steering Committee Needs You!

Editor's Note: In an effort to recruit new steering committee members we would like to give you an idea of the kinds of things the current members do, and still have time to participate. We will print short biographies of the committee members in the issues to come. Please feel free to call current members with questions if you are interested in joining the group.

Cathy Hotka

Cathy is WOALUG's Membership Chair. She is Coordinator of the Information Center at the American Petroleum Institute, where she is responsible for the training program, terminal support, software support, new hardware acquisition, and user outreach. Her first exposure to computers was in December of 1983, when someone put a DECmate II on her desk and said "Here. Learn this."

Cathy is on her second career, after working in politics for six years.

WOALUG BULLETIN BOARD

****

WATCH THIS SPACE!

WOALUG Classifieds

In future editions we will feature a listing of Washington area OA position openings. If you have any openings, or know of any, please submit brief job descriptions and pertinent information and we will print them in the newsletter.

****

ANNOUNCEMENTS

YOU SHOULD HAVE BEEN THERE!...is the name of the next WOALUG meeting. The meeting will be a panel discussion by WOALUG members who attended DECUS, in Nashville, Tennessee, last April. Each panel member has information on a different area of DEC products discussed in DECUS symposia. Office Automation, VAX Networks, Publishing, and small stuff (VAXmates, DECmates, Rainbows, etc). If you, also, attended DECUS please bring copies of helpful procedures, printer tables, etc. to hand out to the audience.

***

THE EXPERTS BOOK

Need to make your Xerox 3700 work with WORD-11? Need advice on the best way to do multicolumn printing in WPS? Looking for suggestions for streamlining All-In-1?

WOALUG is putting together a listing of your WOALUG colleagues and their areas of expertise; PHONE A FELLOW WOALUG MEMBER AND ASK FOR ADVICE! We would like to you in the book. A survey sheet will be circulated at the next WOALUG meeting on July, 7. If you cannot attend please call Cathy Hotka at 682-8381 and a survey will be mailed to you.

***

CALENDAR OF EVENTS

JUNE

23 Corporate Electronic Publishing seminar. Third and final session. To be held at the DEC's Applications Center for Technology in Landover from 9 A.M. to 3 P.M.

25 Washington Area Network Local Users Group (WANLUG) meeting. To be held at DEC's Corporate Offices in Landover from 12:30 P.M. to 2:00 P.M. Working Lunch.

JULY

7 WOALUG MEETING. "You Should Have Been There." To be held at DEC's Corporate Offices in Landover from 12:30 P.M. to 2:00 P.M. Bring your lunch.

Deadline for newsletter entries. Bring them to the WOALUG meeting.

Q & A

Q. Is it possible for me to use my IBM/PC, or PC clone with All-In-1 and not use WPS+/PC.

A. Yes. If you have a terminal emulation package which allows you to access a VAX you can log into All-In-1 and use its features. The GOLD-Key is F1 and the GOLD functions are the same keys you use on a DEC keyboard. You will need to experiment with the cursor movement keys and record which keys do what. Some of the functions on the movement keys will require that you hold down the SHIFT key and some will not. Contact Deborah Jones 939-9369 for a list of WPS keys on the IBM keyboard.

Q. In DECmate WPS, is there a limit to what the paste buffer will hold?

A. Yes. The paste buffer will hold up to 7,500 characters (or about two pages). If you select more than 7,500 characters to be cut. DECmate moves only the first 7,500 characters into the paste buffer and leaves the rest of the text in the document. DECmate then sounds the beeper and removes the select marker.

HELPFUL HINTS

- How to remove more than two pages of text using DECmate WPS.

  1. Press the **SEL** key, then the **SPACE BAR**, then the **CUT** key.
  2. Position the cursor at the beginning of the text to be removed.
  3. Press **SEL** again.
  4. Position the cursor after the last character of the text to be removed.
  5. Press **GOLD REPLC** (the apostrophe key). The specified text will be removed and replaced with the space from step 1.

- GOLD HALT stops most WPS GOLD functions.

  Example GOLD HALT will stop GOLD ADVANCE, GOLD BACKUP, searches, list processing, and pagination. However, it will not stop GOLD TOP (T) or GOLD BOTTOM (B).

  In WPS+ All-In-1, GOLD HALT will stop GOLD T or GOLD B and, CTRL-C is used in place of HOLD HALT to stop list processing.

- Exiting Rainbow Office Workstation.

  When using your Rainbow you can exit and reenter Rainbow Office Workstation (ROW) without having to give your Username and Hostkey each time.

  1. Edit the second screen of your User profile and enter the word COMMAND for your Business Application.
  2. Enter E: for your Drive under Business Application.
  3. Press the DO key to exit your User Profile and save your changes.

  When you want to exit the ROW to use DOS or other software type **BA** and press RETURN at the Main Menu. To reenter ROW just type EXIT and press RETURN at your PC prompt ... Example: **E>EXIT<CR>**.

WVLUG DECUS Newsletter

vol. ??, no. 1 September 21, 1987

October Meeting to Feature "Desktop Publishing"

Contents

Calendar of Events

Sep 22	Pittsburgh VMS/RSX11M DECUS LUG meeting
Oct 22	WVLUG DECUS meeting on "Desktop Publishing"
Dec 7-11	DECUS U.S. Winter Symposium in Anaheim, CA
Apr 8-9	West Virginia Mountain State Computer Fair in Morgantown, WV; sponsored by WVNET.
May 16-20	DECUS U.S. Spring Symposium in Cincinnati, OH

WVLUG Still Exists

Just when you thought it was time to start a DECUS chapter in West Virginia . . ., it so happens that the existing WVLUG has been working on reorganizing and reactivating. Under the direction of the current Steering Committee, the WVLUG charter has been saved and the group is being resurrected for your benefit. It's impossible to be all things to the diversity of members in agencies/corporations/academic institutions out there all across this State, but if we can at least get you interested, we'll see where things head from there . . . .

WVLUG Meeting: "Desktop Publishing"

What's all this about "Desktop Publishing"??? The WVLUG Steering Committee asked themselves this same question at a recent meeting and realized that, with our limited knowledge of the topic, we all had a lot to learn. So, here's our (and your) opportunity. A meeting has been organized for ***Thursday, October 22nd,*** 1987, at the ***Holiday Inn in Bridgeport*** (roughly the central part of the State, and enough - two - major roads intersect there, so we all should be able to get there reasonably easily).

In the morning session, papers will be presented on the software that drives desktop publishing. A business meeting will be held during lunch, which will be hosted by DEC. During the afternoon, presentations will be held on the printers and other hardware, along with a question-and-answer panel and a hands-on session to really get you enthused.

Details are presented on the attached announcement. Preregistration is requested (and expected), so that you may be accommodated for lunch. There will be a small registration fee ($2.00) to cover incidentals. Please return the preregistration form to the address listed by Tuesday, October 13th. See you there!!!!

Business Meeting Agenda

While we have you as a captive audience during lunch, we intend to conduct a relatively short business meeting of the WVLUG. We really will attempt to keep it short because we don't want to take much time from your getting acquainted with other WVLUG members at your table.

- A major topic of discussion will be the possibility of splitting WVLUG into northern and southern chapters. This is based on a sufficient core of individuals interested in maintaining and supporting (i.e., read: "working on") two separate chapters. The biggest problem that we face as a single chapter is geographic in nature: it is so difficult to assemble a membership in which nearly everyone is facing a 1-to-4-hour drive to attend a meeting. What do you think?? How willing are you to get involved and take on some responsibility?

- Election of officers will be held. Consider beforehand nominating interested individuals for the positions (Chairman, Secretary, Treasurer, Tape Librarian, and two Members-at-Large), which serve for two-year terms. Rich Hudson has indicated that he will not run again for

Chairman. Contact him if you are interested in serving on the Steering Committee in one of these positions or if you wish to nominate one of your colleagues.

DECUS Tapes: How Do I Get Them?

Well, those DECUS tapes about which you've been reading are currently available through the WVLUG of DECUS. We have tapes from recent meetings in DECUScope through the Winter Symposium of 1986. Contact Verne Britton of WVNET (837 Chestnut Ridge Road, Morgantown, WV 26505; phone: 293-5192) to make arrangements for copying the tapes you desire. We'd like to thank Tom Williams for obtaining the tapes from DECUS for the WVLUG but he now feels that WVNET has far better facilities for copying the tapes than he could do. So, he's transferred that responsibility to Verne Britton.

TECH-TIPS

This column of the Newsletter is designed for technical tips of any type that might be of interest to a number of our members. Tom Williams at Alderson-Broaddus College has volunteered (!!) to prepare/screen/edit subject material for this column. If you wish to send him some suggestions or copy, he will be glad to verify your "tip" and select one or more to feature in this column.

News from Other LUGs

A joint meeting of the Pittsburgh VMS and RSX11M LUGs will be held on Tuesday, September 22 at 6:30 p.m. at the Holiday Inn on Brinton Road in Braddock Hills. "Disk Fragmentation and Management of Disk Storage and Related Performance Issues" will be presented by Clay Prestia of RAXCO. Anyone interested in attending should contact Darlene Miletic (412/244-7851).

Membership Audit

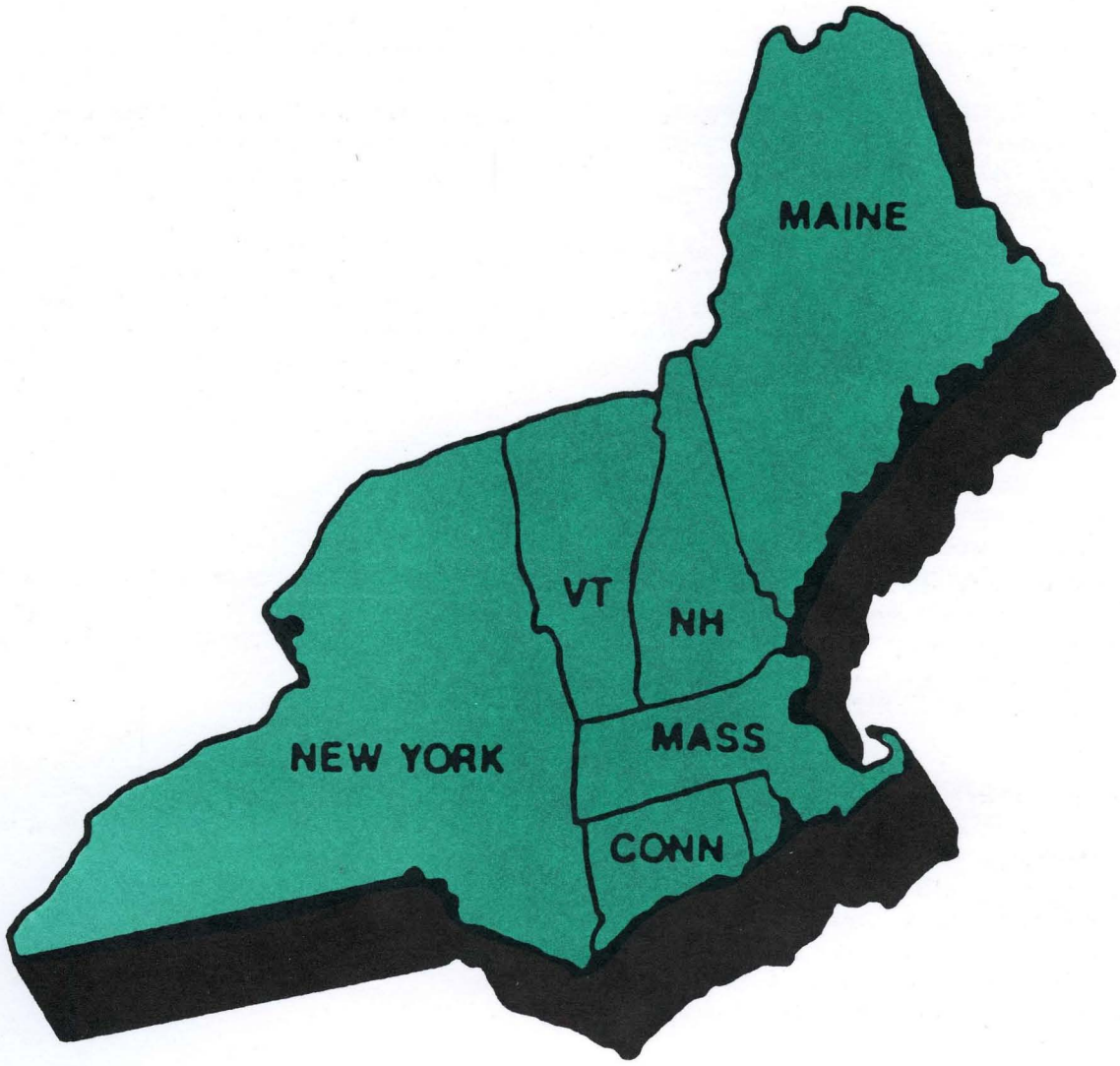
The existing mailing list for the WVLUG was archaic, at best, considering the mobility of people in the computing profession. So, we obtained from the National LUG Organization a more recent list that includes all DECUS members with West Virginia addresses (plus some in other states with West Virginia zip codes . . .). Unfortunately, we still know of several people who have moved and not changed their addresses with DECUS. This new version was used to mail out this newsletter.

If the address by which this newsletter ultimately reached you needs to be corrected, please send the correction to Chapter Secretary Mary Behling. Don't delay -- do it today!! After all, we do want you to receive the next newsletter in a timely fashion prior to the meeting in October. If we have missed someone who should be on our mailing list to receive announcements of activities, contact Mary about that, too.

Joining DECUS

Membership in DECUS (as all of you know) is one of the last great bargains around; what can be better than free? But do your colleagues/associates know that?? Why not encourage them to join??

Chapter Secretary Mary Behling has a supply of membership application forms that she's dying to clear out of her file cabinet (she needs the space for current projects . . .). So, help Mary (and your associates) out: encourage your colleagues to contact her for a membership form. You all will benefit!



Northeast Region

NORTHEAST REGIONAL LUG COORDINATOR

Gary Griswold
Anitec Image Corp.
Webster, New York,
607-774-3333
DCS: GRISWOLD

Gary Griswold has held the Northeast RLC position for two years and maintains excellent communication with the Northeast Region LUGs through his quarterly newsletter. Prior to becoming RLC, Gary helped form the Greater Rochester Area LUG and held the Chair position for two years. Gary also served as Program Chair for the Northeast Regional Conference held in 1986.

Gary is looking to fill the positions of Assistant Regional LUG Coordinator and Regional Newsletter Editor. Contact Gary if you are interested. Gary has offered to serve another term at Northeast RLC and is running for re-election at the time of this publication. Good Luck, Gary!

REGIONAL TAPE COPY COORDINATOR

Dennis Costello
Cornell University
National Submicron Facility
G02 Knight Lab
Ithaca, NY 14853
607 255-2329

REGIONAL SEMINARS REPRESENTATIVE

David Straitiff
University of Buffalo
Dept. of Psychology
Park Hall
Buffalo, NY 14260
716 689-8093

An Open Letter to Northeast Region LUGs

DECUS membership within the Northeast Region exceeds 10,000. Of these members, 25% work for a single, large corporation based in the Boston area. A significant percentage of the remaining "public" members belong to LUGs. There are 25 licensed LUGs in the region, ranging in membership from 40 to over 500, for a total of 5300 LUGgies in the Northeast region.

Not all LUGs publish a newsletter. Publication of a newsletter requires commitment from one or more people to publish on a regular basis. Many LUGs publish a one-page meeting notice, or postcard, which is sufficient for most LUGs. Two Northeast LUGs don't even publish a meeting notice. They are sufficiently well connected that members check a local bulletin board for meeting notices.

All LUGs in the region have between two and twelve meetings per year. Some LUGs are very technically oriented, and all cover a good variety of management issues. You will find an incomplete sampling of the topics covered in Northeast LUG meetings in 1987 in the June 87 Regional Newsletter.

This list was intended as an addition to the "1001 Suggestions for a Good LUG Meeting," a publication of the National LUG Council. There are a number of suggested meeting topics in this letter. Sharing these with your Steering Committee usually generates enough ideas to plan meetings for a whole year!

One of the outstanding NLC projects within this region (or any region) is the SIG tape distribution. At each symposium, the SIGs assemble a large collection of user software and distribute the resulting tape(s) through the National LUG Council and the DECUS Program Library. The Northeast Region Tape Coordinator, Dennis Costello, distributed 31 tapes from the Nashville Symposium to LUGs. LUGs participating in the distribution now just send Dennis a box of tapes with necessary labels. He is able to turn a copy back to the LUG within 48 hours of receipt. Good job, Dennis!

There are tentative plans for a Regional Conference next year in New England. The last one, held in 1986 in Boston, was very satisfying to all attendees. The next conference is planned to include at least one Regional Seminar. Kate Emery, the Northeast Seminar Representative, currently has plans for two other seminars in our region.

The Northeast region consists of New England and New York State. You will recall from junior high school social studies that the folks who lost their way to Virginia settled this area. This experience may have engendered a dislike of travel in Northeasters. To this day, most people who live within the region consider 50 miles to be a LONG trip. The Regional LUG Coordinator has a goal of supporting an effective LUG every 50 miles, to accommodate the wishes of the local population. A look at the list of existing LUGs in the region shows there is a lot of spadework and support to be provided!

I hope this has given you some idea of what constitutes the Northeast LUG Region. Check out the sample of newsletters from our region, and don't forget to send me a copy if you aren't doing so now. Look for my Regional Newsletter every quarter, and call if you aren't getting a copy. I'll put YOU on my mailing list!

Sincerely,

Gary Griswold
Northeast Regional LUG Coordinator
National LUG Council

NORTHEAST REGION LUGS AND LUG CHAIRS

Connecticut

CONLUG
Chair: Winston Tellis, Fairfield, 203-254-4000

Connecticut Valley LUG
Chair: Debra A. Barberi, Hartford, 203-273-1104

● Hartford Rainbow Users Group
Chair: Kimon N. Karath, Farmington, 203-677-7701 extension 11

New Haven Rainbow LUG
Chair: William B. Leng, Hamden, 203-397-4625 or 203-865-3553

South Eastern Connecticut VAX LUG
Chair: Larry Hayden, Groton, 203-441-4280

● Stamford LUG
Chair: Jerry Oberle, Stamford, 203-357-8800 extension 261

Maine

● Maine LUG
Chair: Penny M. Peterson, Westbrook, 207-856-6911

Massachusetts

BARE LUG
Chair: Mark Bornstein, Marblehead, 617-631-1030

● Greater Boston Area VAX LUG
Chair: Ronald McKenna, Milton, 603-885-4493

MIT LUG
Chair: Michael Patton, Cambridge, 617-253-6061

New England Territory LUG
Chair: Richard Epstein, Arlington, 617-643-1375

New York

● Central NY LUG
Chair: Jim English, Syracuse, 315-477-6380

Eastern New York DECUS LUG (ENYLUG)
Chair: Leo D. Geoffrion, Saratoga Springs, 518-584-5000 extension 2208

Greater Rochester Area LUG
Chair: James W. Wilson, Rochester, 716-475-6241

Ithaca Minicomputer LUG (IMLUG)
Chair: Wade Schuette, Ithaca, 607-255-6300

Long Island LUG
Chair: Bill Person, Stony Brook, 516-246-8283

New York Commercial Cluster LUG (NYCCLUG)
Chair: Stanley M. Rose, New York, 212-250-2320

State University of New York LUG (SUNYLUG)
Chair: John R. Pope, Canton, 315-386-7420

● Twin-Tier LUG
Chair: Stan Schultes, Corning, 607-974-6865

Upton LUG
Chair: Zohreh Parsa, Upton, 516-282-4748

Western New York LUG
Chair: Dave Straitiff, Amherst, 716-689-8093

Rhode Island

● Connecticut/Rhode Island/Massachusetts LUG (CRIMLUG)
Chair: Samual B. Whidden, Providence, 401-272-9500

Naval Underwater Systems Center LUG
Chair: Nancy M. Wright, Newport, 401-841-4236

Vermont

Upper CT Valley LUG
Chair: Paul Hurst, Chester, 802-875-2156

Vermont Installations and Associates LUG
Chair: Joy Veronneau, Winooski, 802-655-2000 extension 2226

● indicates LUG newsletters contained in this volume

Digital Equipment Computer Users Society

DECUS, U. S. Chapter
219 Boston Post Road, (BP02)
Marlboro, MA 01752

U. S. Activities (617) 480-3259 or 3302
Finance & Admin. (617) 480-3634
Library (617) 480-3521

D E C U S N o r t h E a s t M e m o r a n d u m

To: NorthEast DECUS Leaders

From: G. L. Griswold
Date: 01-MAR-88
Dept: National LUG Council
1187 Severn Ridge
Webster NY 14580
(716) 872-3522
DECUS #: 116875

Subject: Thoughts for the Last Quarter...

========== Management Council ==========

The MC liked the LUG Activities Policy, now its up to the NLC Executive Committee to push it out the door! (Yes, we're working on it!) Thanks much for your input to the draft process! The rationale behind the policy is to give LUG Chairs greater latitude in running a LUG. The following from a report to the MC:

The NLCEC discussed the subject of LUG AUTONOMY during the October Woods Meeting in Santa Barbara. Basically, we are trying to establish the LUGs as professional groups within the computer industry who have definite responsibilities to both DECUS and their membership. We want to encourage their independence, as well as to develop a healthy inter-dependence with DECUS.

Brainstorming LUG POLICIES

1. Freedom to raise funds
2. Make NLC known to LUGs
3. Let LUGs know what is available
4. Improve recognition of local efforts
5. Newsletters for NLC
6. Speaker Bureau
7. Money for LUGs to get speakers
8. Identify LUG members by their membership profile
9. Usefulness of Regional Coordinators' meetings
10. Freedom to spend money
11. Advertising in LUG Newsletters
12. Help LUGs with PR
13. Promote existing DECUS Products
14. Direct interaction between SIGs and LUGs
15. Communications => Inter/ LUG
16. Regional Seminars => for stronger LUGs
17. Local DEC Support for LUGs
18. National recognition of LUG Chairs
19. Free and open membership
20. Free services for LUG membership
21. Autonomy of LUGs
22. "Real work" passed to LUGs from DECUS. Use LUGs as DECUS task force
23. LUGs keep local focus

ISSUES RE: BRAINSTORMING ITEMS

1) "FREEDOM TO RAISE & SPEND FUNDS"

- Taxes (LUGs are not non-profit)
- Reporting/Accountability
- DECUS Funding (relative to local funds)
- Insurance, etc. covered by Digital
- Dissolution => What happens to LUG's assets?
- Bonding of LUG treasurer
- LUG Funding:
    1. Digital - local office subsidy
    2. DECUS - budget requests
    3. LUG fund raising

PROBLEM => with LUG Advances:
- slow expense reporting by LUG
- large outstanding balances from DECUS treasury

That's some of the thought behind LAP. Keep watching for results!

========== **New LUGChairs!** ==========

Bill Person has taken the leadership of Long Island LUG from **Fred Scholldorf.** Thanks for great leadership, Fred! You'll be greatly missed. Fred was the chair of LILUG for the last two years. His budget for the last two years has been accurate within ten dollars! It really takes that long to be an efficient LC. There is a learning curve...

========== **Other New People** ==========

The press of business and other things have caused **Kate Emery** to resign as our Regional Seminars rep. She has done a great job in getting the Seminars process moving in our Region. We now have Seminars scheduled for Burlington, Buffalo, Hartford and Boston over the next year. Thank you, Kate, for a job well-done.

The Seminars rep is responsible for maintaining communication with the LUGs, assisting them in presenting Seminars and assisting in the running of the Seminars Committee. It is not a small job! I am pleased to announce that the responsibility of representing this Region will be immediately adopted. **Dave Straitiff**, the Chair of WNYLUG, will be attending to the job as of this month. Dave is currently the Computer Facilities Manager for the Speech Research Laboratories at SUNY Buffalo. He has been professionally involved with DEC computers for about the last five years and a DECUS member for four years. He has been actively involved with WNYLUG for three years and is also the owner of a consulting firm which specializes in VAX systems management assistance.

David M. Straitiff
Speech Research Laboratory
Department of Psychology
State University of New York at Buffalo
Park Hall
Buffalo, NY 14260
(716) 689-8093

========== "Old" LUGChairs! ==========

A few job changes have occurred or will occur shortly within the Region. Deb Barberi, CVLUG Chair, is now employed in the Advanced Technology Center of Aetna. Jerry Oberle, Stamford LUG Chair, will shortly begin a new positon at Survey Sampling, Inc. The best wishes to you both in your new positions! Use DCS IU for new 'phone numbers and addresses.

========== "Old" Phone Numbers ==========

For your convenience and reference, here, in one place, are all the leadership 'phone numbers you should need...

Dennis COSTELLO	Regional Tape Copy Coor.	607-255-2329	Ithaca NY
Anne FOLEY	LUG Council & LDEC	617-480-3289	Marlboro MA
Gary GRISWOLD	NorthEast Reg. LUG Coor.	716-872-3522	Webster NY
Shelli KEISLING	NLC Administrator	617-480-3288	Marlboro MA
Dave STRAITIFF	Reg Seminar rep, SympCom	716-689-8093	Buffalo NY

========== Tape Copy! ==========

The latest rumor for SIG tapes from Anaheim is as follows:

VMS - 3@1600 or 1@6250: [vax000...], [vax87c...], [vax87d...], [vax87e...]
RSX - 1@1600
Kermit - 2@1600 or 1@6250: 120,000 blocks!
L&T - will be present, details still unknown
RT - unknown
< OA - maybe > OA86 is available...

The VMS, RSX, and Kermit should show up here about mid-March.

Please send blanks ahead of time for the tapes you'll be interested in, with all the usual accouterments: return address label(s) and a note listing what you want and at what densitv.

-dpc

Later than latest rumor:
From: Bob (Sky Scum) Perry 25-Feb-1988 12:58 EST

Subject: First Fall '87 SIG tapes are in the mail
1) newest KERMIT distribution tape (1)
2) the RSX distribution tape (1)
3) the VMS distribution tapes (2).
6 savesets: VAX000,VAX87C,VAX87D,VAX87E,RSX87B, and GCPP.
The last two are the RSX SIG contributions in VMS BACKUP format and the GNU C++ compiler sources that Glenn Everhart was so kind as to include.
Please direct all inquiries, questions, compliments, complaints to:

Dennis Costello
National Nanofabrication Facility
G02 Knight Lab
Cornell University
Ithaca, NY 14853
(607) 255 2329

Cincinatti Plans

The NLC is trying a slightly different format this Symposium. Instead of scheduling the LUG Clinic in some Campground, we will have it in the NLC Suite. The Clinic has always been an informal affair and a suite looks like it is more suitable to the kind of activity that takes place. In addition, we hope to have some open hours for the Suite so you can drop in and take a load off your chests, minds and feet for some chat-time with your RLC. Read Update*Daily for meeting times, locations...

The Wednesday LUG Chairs' meeting, in response to overwhelming requests, has been expanded to two hours, somehow. This not only gives us more discussion time, but will allow for some additional material as well. Bob Perry, NLC Tape Copy Coor., will present a quick tutorial on getting the info off the tapes onto your system.

I expect to see a good turnout from NorthEast. This is the geographically closest Symposium to us in four years. A NorthEast Leadership dinner meeting will follow the LUGChairs' meeting. Reservations for that dinner are solicited herein. Just hang onto the sheet of paper until your plans are definite... No other invitation will be forthcoming!

SEMINAR NEWS!

I suspect the first item is no news to anyone, but...

Burlington (VT) Seminars March 7&8, 1988

Interfacing Your Device to VMS:
Device Drivers, CONINTERRS and other means...
Instructor: James McGlinchey
AND
Introduction to Artificial Intelligence
Instructor: Art Beane

Registration closed February 17th.

Item 2: Buffalo, NY Seminars
Seminars are tentatively scheduled for June 6, 7 & 8.

Local Area Vaxcluster Update for Vaxcluster Managers
Instructor: David MacArthur

Concepts of Site and System Management: A discussion and Overview
Instructor: Tim Frazer

Tuesday, June 7th
Planning a Campus Network
Instructor: Michael Greene

Wednesday, June 8th
VMS Tuning: Rules of Thumb
Instructor: Daniel Esbensen

The availability of the above, of course, depends on registration. This is the first opportunity we've had in WNY to take advantage of the Regional Seminars Program. Please support it!

========== **Addendum to Meetings of the NorthEast** ==========
Last Spring, I published all the NorthEast meeting topics of which I was aware. I have since become aware of others...

BARELUG
Dos Tips & tricks, Art Worsh, Sigma Corp.
The Vaxmate, DEC PC Group
Wutil and hard disk usage/tech tips, Tony Camas
Secret Guide To Computers, author Russ Walter
DECUS SIGS, Fritz Howard
Msdos tips and Traps, Part Two, Art Worsh

========== **Library News** ==========
You all received a Mid-year Library Catalog a month or two ago. Since that time, there have been some changes...

V-SP-59 DATATRIEVE/4GL SIG Library Collection has been revised with additional material in the All-in-1 and System Management areas. SC Code: MC, VMS Backup format

V-SP-69 AMIGA Utilities Collection 2, new, from the prolific Glenn Everhart. SC Code: PC, TC, VMS Backup format

PRO-171 DSKDIR: Diskette Directory Utility produces a searchable database of diskette directories. SC Code: JA, P/OS format

UX-102 KIC2 v2 interactive 2D color graphics editor.
SC Code: ED, MA, TAR format

UX-SP-101 OCT Tools v1 libraries for VLSI design. SC Code: EC, ED, PC, TC, TAR format Note: EC refers to BDSYN-BDSIM User's Guide, ED refers to Berkeley CAD Tools User's Manual.

The above information is extracted and SEVERELY abstracted from a Library Status Report. These also list the annotated content of SIG tapes submitted to the Library. Library Status Reports are published about twice a month. They are sent out via the Internet (an umbrella network that covers ARPAnet, CSnet, MILnet, BITnet, and some others) and usenet. I am sure there is SOMEONE in your LUG that has access to one of these services. Perhaps you could help your LUG members who use the DECUS Library as a source of material, keep up to date by distributing this material at meetings? Thanks to **Dave Straitiff** for the idea!

========== **DECUScope** ==========
On the 18th of last month, I began to receive 'phone calls out of the blue. I receive <u>many</u> phone calls, so not much was made of the experience that day. Friday morning I received three more telephone calls, all from Massachusetts, all wanting information on the nearest LUG. I asked the last of three what had prompted the call. Aha! I was able to track the delivery of DECUScope quite closely. Just as Bill Hancock's phone became attached to a NETWORK, mine had become attached to DECUScope delivery. DECUScope hit Rochester on Monday. I received mine Wednesday...

more...

It was gratifying to know that there were all those people out there who were interested enough in finding a LUG, they took the immediate initiative to call, given a resource. It was not so gratifying that I had the displeasure of being unable to recommend a LUG program of which I was totally ignorant. I do read your Newsletters and meeting announcements! The following is a list of LUGs who regularly send me material. If your LUG isn't listed, **please** contact your mailing list person...

Boston VAX, CNYLUG, CRIMLUG, CVLUG, ENYLUG, HRUG, IMLUG, LILUG, Maine LUG, NHRUG, NYCCLUG, TTLUG, VIALUG, WNYLUG

========== **Communication** ==========

Last quarter, I published some DCS LOGIN dates for your information. Some of you were embarassed enough to login and found you even had some mail. Dusty, but MAIL! For comparison's sake, this quarter I've included my favorite leadership group. The reason I'm asking you all to check in once in a while is that there are some timely announcements I would make over DCS IF I felt they wouldn't clutter up disk space for the next two years. I wouldn't feel the need to print this quarterly memorandum, either! I believe LUG Chairs could make good use of DCS to notify your neighbors of an interesting meeting as soon as you are aware of it. These login dates include regional leadership as well as LUG chairs. That's why there are 28 dates. I'm proud to say that every LUG Chair in the region still has DCS privileges!

> INNAME > @NLC		> INNAME > @North East
1-FEB-1988 20:01	17-NOV-1858 00:00	15-JAN-1988 09:40
2-FEB-1988 15:30	12-NOV-1986 13:31	25-JAN-1988 21:21
5-FEB-1988 13:08	9-FEB-1987 15:32	26-JAN-1988 11:49
5-FEB-1988 18:05	19-MAY-1987 15:54	27-JAN-1988 16:15
7-FEB-1988 19:37	2-JUN-1987 21:31	31-JAN-1988 11:41
7-FEB-1988 22:33	22-JUL-1987 13:42	4-FEB-1988 19:04
8-FEB-1988 13:16	30-JUL-1987 17:12	5-FEB-1988 11:52
8-FEB-1988 10:23	1-SEP-1987 08:31	5-FEB-1988 17:00
8-FEB-1988 13:43	20-OCT-1987 13:34	7-FEB-1988 23:40
8-FEB-1988 14:34	30-OCT-1987 13:24	7-FEB-1988 23:53
8-FEB-1988 10:06	3-DEC-1987 15:34	8-FEB-1988 20:14
8-FEB-1988 15:44	1-JAN-1988 12:32	8-FEB-1988 12:12
8-FEB-1988 11:37	4-JAN-1988 16:09	8-FEB-1988 15:12
8-FEB-1988 09:39	8-JAN-1988 13:31	8-FEB-1988 15:44
8-FEB-1988 12:59		

(17-NOV-1858 00:00 → 12-NOV-1986 13:31: 2 ------->; 9-FEB-1987 15:32 → 19-MAY-1987 15:54: weeks!)

Next quarter I'll publish the Southern Region list alongside NorthEast. I wonder which will look better?

========== **Subject: Meeting Sites** ==========

A couple 'a months back, I requested some input from LUG Chairs in order to write an article on acquiring a meeting site. The replies were so personable, they deserve publication without rewriting. Herewith are the contributions of **Deb Barberi**, **Dennis Costello** and **Stan Schultes**. Testimony from the successful and a few ideas which may apply to your situation...

---------- CVLUG --------- ATTACHMENT ----------

We have done very well so far. First of all, we are finally beginning to acquire a list of sites who would like to host a meeting. I can only attribute that luck to our rich source of companies and types of business in this area. Certainly, the insurance companies are beginning to come forward as well as some of the manufacturing companies.

But our best success has come with getting vendors and consulting groups to pay for hotel sites for our meetings, along with coffee and goodies. We sell this concept based on one benefit to the company-- They get a great big THANK YOU to our newsletter mailed to 200 DEC users in the Connecticut region, and an Announcement / Thank You at the meeting they sponsor. Often if a vendor presents a technical discussion of a product, they are asked if they would sponsor the meeting for us. It works and I believe everything we have done fits the commercialism policy.

That's our best idea. We have also used the local DEC ACT for one meeting and hope to do that again. We are lucky to have a very active and helpful Digital counterpart.

We're one of the fortunate LUGs to have NO PROBLEM.

---------- TTLUG -------- ATTACHMENT ----------

We started having our meetings at a local Community College, didn't cost us anything because we had some of the faculty on the steering committee. Then we moved to the local public library since the snow situation to get up to the CC was a concern. That was also nice because the facility was comfortable, and they supplied the coffee.

Now we're at the local Business Development Center. Once they wanted to charge us; we didn't go there. Then 2 things happened. We have a CGW person who is trying to help push the BDC's image who offered to pay for the facility out of his budget (verrry nice!!). Then DEC came back with an offer from the BDC director that we could use the facility for free because we were a worthwhile organization to push their business, raising community consciousness to their cause. < I think I detect some LUG counterpart activity... >

So there we be, lots of help from the locals!

---------- IMLUG -------- ATTACHMENT ----------

of our problems. Since the Chair has always been a college employee, it has always been a simple matter to reserve a classroom of appropriate size, since there is sure to be one open at the time we want, especially since lectures are predominately in the mornings.

---------- DETACHMENT ----------

All right, now we've tried to cover SITE. For the June Newsletter, why don't <u>WE</u> address the subject of program? What isn't in "1001 Suggestions" that SHOULD be? This assumes you have read "1001 Suggestions" in order to determine what should be excluded from discussion. "1001" is not copyrighted (or if it is, no one will pros/persecute you for copying it). Make some copies for your Steering Committee and have a good discussion of what works for you and what doesn't. Then let me know about it!

========== New DCS CMDs ==========

There are new functions on the EM and EMSHRT menu that allow a user to read new mail(RND), read(RD), and print(PD) without the distribution information. You may use the SHD option to view addressees. The RN, R, and P functions are still also available.
< Great additions, cuts the frustration factor and connect time! >

========== UNVAXmail for DCS ==========

The following DCS tip is from Dolores Pilitz, ALL-IN-1 System Manager

To have ALL-in-1 be your mail destination you should have "ALLIN1" in the mail destination field of your profile record. There may be occasions when you would have to import VMS mail. This would occur when the sender of the mail message is in VAXmail and sends mail to GRISWOLD instead of TOPAZ::MRGATE::"TOPAZ_MRMBX::GRISWOLD". When ever you are in VAXmail and you want to send mail to another users ALL-IN-1 account you must use the addressing scheme TOPAZ::MRGATE::"TOPAZ_MRMBX::USERNAME". Just as when an ALL-IN-1 user wants to send mail to a VAXmail account they must use the scheme - USERNAME @MRGATE @TOPAZ. You can avoid having to import any VAXMail by forwarding all your VAXmail to your ALL-in-1 account. Do this by entering the following command in VAXmail.

SET FORWARD TOPAZ::MRGATE::"TOPAZ_MRMBX::GRISWOLD".
< Is this in the DCS manual? >

========== VAX Tip ==========

HINTS AND BUGS

Last year when I was down to DEC's Bedford training facility, the subject of backups and the slowness of the process was discussed. One of DEC's performance teams had just completed a study on this and recommended the following qualifiers when doing backups.

$BACKUP/REWIND/BUFFER=5/BLOCK=32768/DENSITY=1600{6250}

For incremental backups use:

$BACKUP/REWIND/RECORD/FAST/BUFFER=5/BLOCK=32768/DENSITY=1600{6250}

Also, a bug was reported in the SYSGEN utility. Don't use the <TAB> key within any of the commands! If the operating system sees the TAB, it'll ignore the line. We found this out the hard way in SYSTARTUP.COM, when after issuing a valid SYSGEN command, we tabbed over to line up comments. The line wasn't read. This was confirmed by Colorado Software Support.

As far as I know none of the above have been published (released) by Digital.

< The above was published in the pages of All Hands on DEC, the newsletter of Maine LUG. (author unknown) >

========== DCS Tip ==========

I have heard comment that some of you with strange or foreign terminals have difficulty operating on DCS. One of the first presentations to users is:

Do You Wish To Set Terminal Characteristics [Y/N] y

```
 { No escape sequences are used prior to this query!
A boring SH TERM follows: }
Terminal: _LTA1537:   Device_Type: VT100          Owner: GRISWOLD

   Input:   1200      LFfill:  0      Width:  80      Parity: None
                       {       etc. and THEN: }

            Select Terminal Type from the Following:

                1) LA100                10) VT55
                2) LA12                 11) VT100
                3) LA120                12) VT101
                4) LA34                 13) VT102
                5) LA36                 14) VT125
                6) LA38                 15) VT131
                7) LQP02                16) VT132
                8) VT05                 17) VT200
                9) VT52                 18) UNKNOWN<-- HIGHLY
                                                customizable!

 Type (by number): 17
Width: 80
Page Length: 24
Form Capability for attached printer [Y/N] n
End of Line Wrap [Y/N] y

Terminal: _LTA1537:   Device_Type: VT200_Series  Owner: GRISWOLD
                           etc.
```

========== Book keeping ==========

Most of you have been doing GREAT! You've reported your expenses on a continual basis and I know your requirements exactly. You will be fully funded for next year. Since at the time of budget submission, I had two quarters of data, I simply multiplied that data to estimate next year's level of supplementary funding. Most of you will have no problem with that.

We are fast approaching the end of the fiscal year. Please plan to report your expenses on June 15th. That way all, well, most all, of this year's expenses will be allocated to this year. If you have a bill or two that must be paid after the 15th, just put in a small report in July, please.

Regards,

Gary L. Griswold
NorthEast Regional LUG Coordinator
National LUG Council Executive Committee

RESERVATION for NorthEast
Leadership Dinner Meeting
Spring 1988 Symposium
Cincinatti OH
Wednesday May 19th.

Please return this form not later than **May 9th, 1988.**

To: NorthEast Regional LUG Coordinator
Jenney Systems Associates
1187 Severn Ridge
Webster NY 14580-9144

[_] I will attend the NorthEast Leadership Dinner Meeting in Cincinatt

[_] I cannot attend, but _____ will be representing our LUG at this meeting.

The location of the Meeting will be announced at the LUG Chairs meeting (starting 5pm on Wednesday, May 19th.

[_] I will be unable to attend the LUGChairs meeting, please notify me or my representative of the meeting arrangements via my Symposium Leadership Folder.

Name_____ LUG _____

Phone (____) ____-_____

Signature: _____ Date _____

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ALL HANDS ON DEC

NEWSLETTER OF THE DIGITAL EQUIPMENT USERS GROUP
MAINE CHAPTER

==========

Volume 1 November 1987 Number 3

==========

Hello! We're Still Here!

It has been just a year since we have had our last Local User Group Meeting. I'm afraid time and good intentions got the better of us. Not one looking for an out, but with the moving up of the date of the DECUS Spring National Symposia, the great flood of '86, and Cosmic Convergence (among other weights) things just didn't get done.

The Maine LUG leadership finally got together on October 26 to plan. First item of business was the reluctant acceptance of resignations from Sue Abercrombie, Will Turgeon, and Paul Bernard. It happened that all were having outside pressures for their time and could not continue in their roles. Their many years of service will be missed.

Picking up the ball is Penny Peterson, who will take the reins as Chairman. Alan Butler will become Vice Chairman and Bob Bernstein will take Alan's place on the board of directors. Penny's previous position of Secretary is vacant and waiting for voluneers, as is a Directors position vacated by Paul.

We will be having our Fall LUG meeting, albeit late, coming in January. See inside for details.

For all Rainbow users who feel left out in the cold, fear not. The DECUS Personal Computer SIG has compiled a library of 3,000 public domain programs on 60 diskettes for the Rainbow and VAXMate. These programs are available to members for a media charge. Our library does not currently contain any PC programs. If you have some to donate or would like to have the LUG purchase these programs (dependent on interest), contact Andy Tabor. As a member you should have received the 1987/1988 DECUS program Library Software Abstracts, which describes the programs and contains ordering information. If you are a DEC PC hacker and looking for others to share information with, send all pertinent information to me and I'll publish a listing in a future newsletter. All this reminds me of a poem from a lamenting user...

Blue, blue, blue
Big Blue gives me the blues...
DEC can make computers, but
can't sell them.
IBM sells them, but
they can't make them.
Oh! I'm blue, blue, blue
over Big Blue!

Secretary's Report: 1986 Fall LUG Meeting
Penny Peterson

The Fall LUG meeting, held on Tuesday, November 4, 1986 was sponsored by the Research Department of the S. D. Warren Paper Company in Westbrook.

The afternoon began with a brief business meeting. First, the treasurer, Marty Dwyer, reported on the LUG's financial status. The balance was $249.45 (before paying the afternoon's bills). Next, the group approved the proposed changes to the membership section of the bylaws. Under the revised membership laws, anyone who lets three years pass without taking part in any LUG activities will be removed from the active membership list. The chairman, Sue Abercrombi, told the group that the Executive Committee of the LUG had previously approved a change to the librarian section of the bylaws, which states that the librarian shall not transfer software to sites located outside the United States. (Any requests from non-U.S. sites must go through the national organization rather than our local group.) Will Turgeon, the vice chairman, concluded the business portion of the meeting with an announcement about the LUG questionnaire database. He distributed the results of the hardware/software survey to members who had turned in a questionnaire.

The host site (S. D. Warren Research Lab) kicked off its section of the meeting with a brief videotape that illustrated the papermaking process. Then, Dwight Smith presented a "case history" of the Research Lab's upgrade from a VAX-11/750 to a VAXcluster consisting of the 750 and a new VAX 8300.
An overview of the VAXmate and Digital's Personal Computing Systems Architecture was presented by George Dooley, a senior software support specialist from Digital's South Portland office. George also brought along a VAXmate for the group to look at.

Finally, the group watched a videotape of the speech given by Rear Admiral Grace Hopper (retired) at the Spring DECUS U.S. Symposium in Dallas. The videotape was the last item on the agenda because none of the other speakers wanted to follow Admiral Hopper, with good reasons. Her speech was so interesting and inspirational that many people in the audience didn't realize that it lasted eighty minutes. In addition to giving us her views on future problems and opportunities in computing, Admiral Hopper regaled us with stories from her many years in the field.

During Happy Hour, which followed the videotape, people enjoyed retelling Admiral Hopper's stories. Several people especially liked her advice regarding good ideas: If you have a good idea, go ahead and act on it, because it's easier to apologize than to ask permission. Happy Hour was also enlivened by a round of drinks from Jayne Cross of Digital.

The Election Day evening concluded with dinner. In the spirit of the day, here are the final results: The Republican candidate (Prime Rib) swept the race with 18 votes and the Independent (Broiled Halibut) captured second place, edging out the Democrat (Chicken) 9 votes to 6.

DECUS Maine LUG –Fall 1987 Meeting

Host Site: Digital Equipment Corporation
Augusta, Maine

Date: January 14, 1988

Topic: Networking

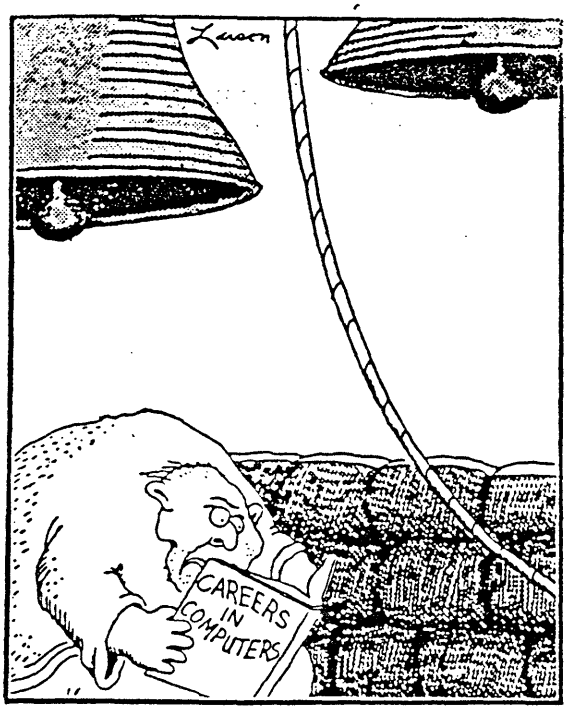
Plan to join us Thursday, January 14 in Augusta.

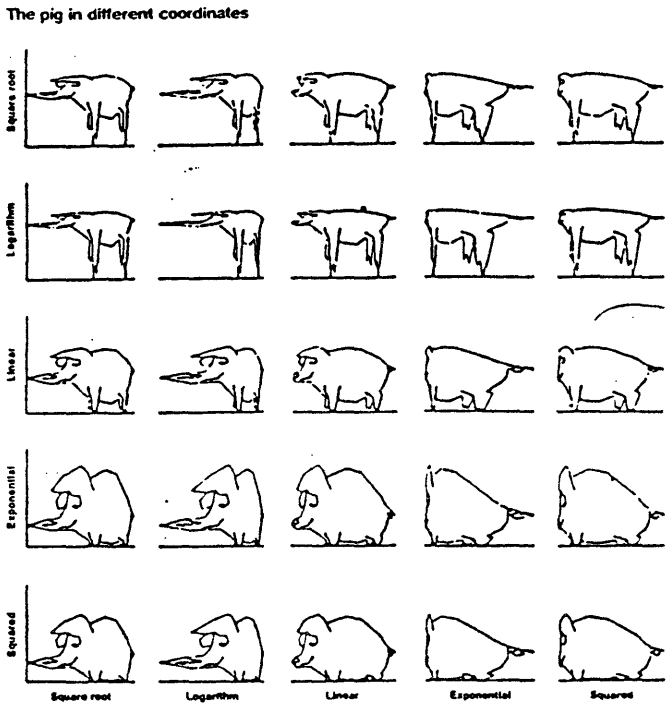
Directions: From Maine Turnpike; continue North on I-95.
Take exit 31B to Civic Center Drive.
Drive about 1 mile to 500 Civic Center Drive.

Registration: 1:00 and 1:30
Program: 1:30 to 2:30
Tour: 2:30 to 4:00
Cocktails: 4:30 to 5:30
Dinner: 5:30 to 7:30

Our program will include an overview of networking and how the Augusta plant uses the network to communicate world wide. A demonstration of the technology will conclude the presentation. A plant tour is planned afterwards. This promises to be interesting program. I hope you get a chance to take advantage of this unique opportunity. See you

Digital's Augusta plant manufactures network and communication products and fabricates cabinets for all U.S. sales.





HINTS AND BUGS

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For incremental backups use:

$
BACKUP/REWIND/RECORD/FAST/BUFFER=5/BLOCK=32768/DENSITY=6250
{1600}

Also, a bug was found in the SYSGEN utility. Don't use the tab key within any of the commands! If the operating system sees the tab, it'll ignore the line. We found this out the hard way in SYSTARTUP.COM, when after issuing a valid SYSGEN command, we tabbed over to line up comments. The line wasn't read. This was confirmed by Colorado Software Support.

As far as I know none of the above known bugs have been published (released) by DEC.

A Network in Maine

Jim Campbell

The University of Maine is currently exploring ways to provide access for Maine citizens to the Micronet/Novanet network. This network will provide a variety of educational opportunities and resources via PC's for the people of Maine. Plans include making calalogs of the University libraries available on-line and providing access to the Plato system, among other services. The Plato system has been in existence for 15 years and currently includes over 22,000 interactive courses for self instruction or for use by teachers at all levels of education. It also has an extensive bulletin board and mail system. Access to the Plato network requires being assigned an access sign-on which must be provided by the university. At present, calls must be placed at Orono to go on the system. Discussions are underway with some school bulletin boards and users groups to provide local access in some parts of the state, but at the moment, no local access lines are available. A Plato Access Disk (PAD) is also necessary to utilize the system. PAD's are currently available for the IBM-PC's and compatibles, for MacIntoshes and for a few other machines. No one that I have contacted knows of a PAD available for DEC PC's. If anyone knows of one, please write to me or to this newsletter.

If you would like more information on the network and its possibilities, contact Jim Austin at the Office of University Innovations. Alumni Hall, University of Maine, Orono, Maine 04469, telephone (207)581-1582.

Jim is a Rainbow user and can be contacted at P.O. Box 128, Orland, Maine 04472

Maine LUG Officers
(Until Spring 1987)

Chairman:
Penny Peterson
S.D. Warren Paper Co.
89 Cumberland St.
Westbrook, Maine 04092
856-6911

Vice Chairman:
Alan Butler
Maine Yankee Power Company
P.O. Box 408
Wiscasset, Maine 04578
882-6321

Treasurer:
Martin Dwyer
Accudata/CSG
9 So Belfast Ave
Augusta, Maine 04330
662-4769

Librarian:
Andrew Tabor
Bicknell Photo Service
71 U.S. Route 1
Scarborough, Maine 04074
775-3126

Newsletter Editor:
Gary Clement
S.D. Warren Paper Company
Westbrook, Maine 04092
856-6911

Secretary:
VACANCY

Directors:

Mona Moody
Marine Coloids - Division of FMC
P.O. Box 308
Rockland, Maine 04841
594-4436

Jim Whyte
Maine Yankee Power Company
P.O. Box 408
Wiscasset, Maine 04841
882-6321

Robert Berstein
Portland Water District
225 Douglass Road
Portland, Maine
774-5961

Because of a partial reorganization we are in immediate need of a Secretary and a Director. If you are interested in one of these positions, or would like to have your name included for consideration for any position in the up coming spring election, please contact Penny Peterson at 856-6911. You must be a DECUS member. If you still have not joined, take a few minutes to fill out and mail the free application in this newsletter.

Maine LUG Site Questionnaire

It's time again to update our LUG's Site Database. Please fill out the following form and either send it back with your dinner reservations, bring it to the meeting, or send it to Gary Clement. The purpose of this questionnaire is to help our members locate sites that may be of help in time of trouble or need. The time spent now will save a great deal of searching later when you receive information on media that's incompatible with your site and want it transferred to something you can use, find your system under water (remember the flood) and need to get vital information from your backups (you do backup your system, don't you?), or want an opinion on purchasing a software package or equipment. This information will be for members use only and will not be circulated to outside parties.

Company Name:_____
Address:_____
_____
_____

Town:_____
Telephone:_____
Contact:_____
Business:_____
CPU's:_____
_____

Operating Systems:_____
_____

Disks Drives:_____
Terminals:_____
_____

Tape Drives:_____
Printers:_____
_____

Network Equipment:_____
_____
_____

Modems:_____
Other Devices:_____
_____

Compilers:_____
Other software:_____
_____
_____

Comments:_____
_____

ALL HANDS ON DEC
Maine DECUS Local Users Group
c/o Gary Clement
S.D. Warren Paper Company
Research Department
Westbrook, Maine 04092

Paula Sharick
NLC Publications Chairman
Wildwood Associates
1490 Wildwood Lane
Boulder, CO 80303

Library Notes

Andy Tabor, our program librarian, has the following DECUS public domain software on hand. If you want to obtain copies of the program tapes, send a blank tape for each copy with return postage and the form include at the back of this newsletter to Andy at Bicknell Photo service, 71 U.S. Route 1, Scarborough, Maine 04074.

Operating System	Date
RSTS	
	Spring/Fall 83
	Spring 84
	Fall 84
	Spring 85
RT11	
	Spring 84
	Fall 84
	Spring 85
RSX	
	Spring 82
	Fall 83
	Spring 83
	Fall 84
	Spring 85

Operating System	Date
VMS	
	Spring 84 Vol 1
	Spring 84 Vol 2
	Fall 84 Vol 1
	Fall 84 Vol 2
	Spring 85 Vol 1
	Spring 85 Vol 2
	Spring 85 Vol 3
	Fall 86 Vol 1
	Fall 86 Vol 2
	Fall 86 Vol 3
	Fall 86 Vol 4

The CRIME

The Newsletter of CRIMLUG

The Connecticut, Rhode Island, Massachusetts DECUS Local Users Group

Volume 2, Number 2 **February, 1988**

For information about CRIMLUG and *The CRIME*, contact Sam Whidden, American Mathematical Society, 201 Charles St. P.O. Box 6248, Providence, RI 02940; (401)272-9500

MEETINGS

By Barbara Horgan, Southeastern Massachusetts University

Thank You To Digital

On behalf of the Program Committee of CRIMLUG, I would like to express our appreciation to Digital for its support of our local users group. DEC management was able to free up **Chuck McCann** so that he could give a presentation for our January networks meeting. In addition to this, DEC has provided resources, with short notice, for our Field Service meeting and for our PC issues session planned for February. Digital has also offered us space for meetings in their East Providence office once renovations are complete. We appreciate the cooperation and partnership that we have experienced in our dealings with Digital. Thanks for your help!

Barbara Horgan

Editor's Note: The decision was made at the January meeting to establish a semi-permanent meeting site at the Narragansett Bay Commission for the next several months. We expect a permanent site to become available at Digital Equipment Corporation's East Providence office sometime this summer. CRIMLUG also wants to thank **Frank Laffey** *and the Narragansett Bay Commission for their generosity, having a consistent location for our meetings seems to be the best route to take...*

FEBRUARY MEETING
PC ISSUES

Wednesday, February 17, 1:00p.m.
Narragansett Bay Commission
Providence, R. I.

This month's meeting will focus on PC to VAX networking. We have speakers from DEC, Logicraft, and SUN Microsystems. **Lee Knoch**, Senior Networks and Communication Consultant for DEC from the Northeast area, will describe VAX/VMS services for MS/DOS and also MACIntosh to VAX connectivity. **Courtney Heitmiller** from Logicraft will analyze three products: Cardware, Dataware and Grafvax. A speaker from SUN will discuss PC-NFS (Network File System). At the end of the meeting our speakers will form a panel for a question and answer session.

It should be an exciting, informative meeting. Remember that all are welcome at CRIMLUG meetings, feel free to bring along anyone interested in PC topics.

See you in our new meeting place at the Narragansett Bay Commission in Providence. Directions follow.

Directions to Narragansett Bay Commission, Waste Water Treatment Facility
Two Ernest Street
Providence, R.I. 02905
(401)-277-6780

From route 95, exit at the Thurbers Ave exit. (Yes, you're finally going to leave the road at the infamous Thurbers Ave curve.) Follow the signs to Allens Avenue (not Eddy Street). At the light at Allens Avenue, turn right. Follow Allens Ave for 1/2 mile to the intersection of Ernest St. Turn left at that light. (Note that the Providence Public Works building and the Prov Police horse garage are at this corner as land marks.) Follow Ernest St, past first right and as road bears right, you'll see signs to the Treatment Plant on the left. (Across the street from Hudson Asphalt Company.) Park in the lot and the conference room is on the second floor.

MARCH MEETING
SYSTEM SECURITY

Wednesday, March 16, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

From a poll of attendees at the January networks meeting, it seems that VMS security is a topic of interest to many of our members. Other security issues, including network security, government security issues such as Tempest shielding and NSA security levels, and physical security (computer room, disaster recovery, etc.), did not generate as much interest as VMS security. We plan to focus our security meeting primarily on software, but we will deal with hardware issues also as time permits. Our agenda and speakers have not been finalized yet so if you have an idea or a possible speaker please be sure to contact one of our program committee members listed at the back of each CRIME issue.

APRIL MEETING
STORAGE TECHNOLOGY

Wednesday, April 20, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

Please note that this is again a DAYTIME meeting. Our springtime topic will be an analysis of different kinds of storage technology, both old and new. What is the best medium for you? The program will include vendors' presentations on optical technology alternatives as well as a discussion of tape media by one or more of our CRIMLUG members. It should be an interesting debate and discussion of storage options.

MAY MEETING
ELECTRONIC MAIL

Wednesday, May 25, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

Do you want to avoid telephone tag, correspond with colleagues across the country and the world electronically, have access to on-line bulletin boards, newsletters and discussion groups on every conceivable technical and not-so-technical topic? If so, global electronic mail is for you. CRIMLUG has members who are well versed in the joys and difficulties of electronic mail and are willing to share this knowledge with you at our May meeting. Watch for details in the next few CRIME issues.

SUGGESTED TOPICS FOR 1988

JUNE 22	-	VAX/VMS Support and Training
JULY 20	-	VMS Version 5 ?
AUGUST 17	-	Text Processing on the VAX
SEPTEMBER 21	-	VAX Cluster Management
OCTOBER 26	-	DECNET, the latest version
NOVEMBER 23	-	Software Services
DECEMBER 21	-	AI/Expert Systems

This is our tentative list of topics for the rest of 1988. What do you think? If you have any additional ideas for topics or subtopics or if you have a potential speaker, or any other ideas, please let the steering committee know, either at our meetings, electronically, or over the phone. The names, phone numbers and electronic addresses of the steering committee appear in the back of every issue.

This list appeared in last month's newsletter but I'm repeating it so you'll have another chance to review these topics and offer input. At the Anaheim DECUS symposium, at least two other topics of major interest came up: DECWindows and Digital's proposed new software licensing policies. We will try to schedule these topics soon as either main or subtopics for our CRIMLUG monthly meetings. Let me know if you're interested.

By the way, make sure to put in a request for a copy of the Fall Decus Symposium trip report available from **Don Borsay**. Even if you didn't go to Anaheim you can get a synopsis of some of the major sessions from members of CRIMLUG.

Thanks.

Barbara Horgan

Meeting Notes

CRIMLUG's January meeting, hosted by GTECH in Warwick, R.I. was devoted to Network issues. A capacity crowd turned out for **Chuck McCann's** presentation (which was a good mixture of tech/humor - *Remember TLA's?*) closing with a question and answer period. Let me know if you'd like a copy of his slides. I'll just run through some of the topics discussed:

- Digital's Network Strategy
- Multi-Vendor Networking
- Network Connectors
  - Unshielded Twisted-Pair Ethernet
  - DECserver 500
- DECnet System Services
  - Distributed File and Queue Services
  - VAX RPC
- DESNC - Secure Network Controller
- Message Transfer Services - MAILbus
  - Translation to other Mail Systems
  - Toolkit to interface your own Mail System
- Network Planning
- Network Management Tools
  - SPM - Software Performance Monitor
  - Ethernim - Network Integrity Monitor
  - TSM - Terminal Server Monitor
  - LTM - LAN Traffic Monitor
  - NCP - Network Control Program

If you missed this one, try to get to the next meeting. They really are putting together excellent programs for us! Be sure to bring any hardware/software/systems questions with you for the Clinic (question and answer session by members) at the end of the meeting.

Karen Goldsmith

VAX/VMS System Management

By **Nancy Kaull**, American Mathematical Society

The following was extracted from the Usenet newsgroup comp.os.vms and was submitted to the CRIMLUG newsletter by **Don Borsay**

Subject: Thoughts On Sequencing Of RA Type Devices On HSC Requestor Cards.

John Macallister has asked the following question regarding the mixing of RA81 and RA82 type devices on the same requestors in an HSC.

We're installing an HSC50 and have a mixture of RA81/RA82 disks. To balance the load it would be necessary to mix RA81's and RA82's on the

same controller. Any known problems with this given that the disks have slightly different access times?

While it 'sounds' right to mix the RA81 and RA82 devices on the various requestor cards in an HSC I STRONGLY recommend AGAINST it. If this is suggested by your local field service office, suggest to them they read the internal DEC mail from DEC West Disk gurus. The HSC code SHOULD be at rev. level 3.5, or 3.51 if you have shadowed devices, and there is a SPECIFIC order to the requestors now. I talked about this order in a past article of mine and some problems (horrors) I have been having.

The order is as follows. CPU
CI Link Module
Requestor Card(s) For Tape Devices
Requestor Card(s) For RA81 Devices
Requestor Card(s) For RA82 Devices

Now there is nothing you can do about combining RA81 and RA82 devices on the same requestor card when crossing from one type to the other. If the above sequence is not followed, the result, at least in my case, was somewhere between 1 and 100 'SDI Collision' errors per day. DEC resequenced my requestors and devices and there has not been a 'SDI Collision' error for weeks.

The other area that you will be finding out is that the HSC50 just isn't fast enough setting up the commands for the faster drives. The PDP11 inside the HSC is performing I/O decomposition, sequencing and disk management. We have RA81, SI83C and SI93C drives and in comparing the 'throughput' between an HSC50 and 70 the 70 will perform 10 to 20% more I/O's then the 50. It also needs to be pointed out that the actual transfer of data to/from the disk/CI is NOT done by the PDP11, but is performed by the bit-slice processors on the requestor cards themselves. In summation, with the faster drives, more I/O's can be completed in the same period, and this creates a new bottleneck, that being the HSC. If Shadow Set software is in use the bottleneck can be worse because extra comparisons are done in generating the 'sequencing' of I/O command packets to the disks so that you receive the data from the disk that has it closest at hand.

It has never been said, that I know of, that VAXClusters are easy to understand. This area proves it once again. Hope the information helps.

Paul D. Clayton - Manager Of Systems
TSO Financial - Horsham, Pa. USA
Address - CLAYTON%XRT@CIS.UPENN.EDU

NetWorks

PMDF, The Key to VMSnet and Beyond

By **Don Borsay**, Raytheon Submarine Signal Division

Much of this article is based on information provided in pmdfdist.mem, distributed with PMDF-822 V2.4.

Various mail systems, using various mail protocols, make up what is called "the net". The Pascal Memo Distribution Facility (PMDF) contains channel programs for each of these various mail protocols, and therefore, provides an integration and control point for various mail systems.

Within each channel program, the inbound mail protocol message is converted to RFC822 (where necessary), with all addressing being domain-based. After the message is imported, a configuration file helps determine what addresses might be rewritten, and what output channel program to run. The output channel program converts the message into the associated mail protocol, addressed to the next hop or destination system.

The current version of PMDF for VAX/VMS, called PMDF-822 V2.4, uses the standard VMS MAIL facility as its user interface and provides support for the PhoneNet asynchronous dialup protocol, DECnet, DECnet-based MAIL, JNET (a product of Joiner Associates Inc., this is an implementation of the IBM RSCS networking system for VAX/VMS), SMTP over TCP/IP (accomadating the Tektronix, Wollongong, Carnegie Mellon University, and SRI Multinet implementations for VAX/VMS), SMTP over an arbitrary I/O channel, and PSIMail as transport mechanisms. Sources are provided, so site-specific channel programs can be developed.

PMDF-822 is used to perform the PhoneNet function of the National Science Foundation's Computer Science Network (CSNET) on VAX/VMS systems. PMDF's interface to JNET provides a powerful MAIL interface to the RSCS-based BITNET network.

PMDF is a subset of the Multi-channel Memo Distribution Facility (MMDF), developed by the Department of Electrical Engineering at the University of Delaware. MMDF is available on all 4.3BSD UNIX systems, so

PMDF can be used to transfer messages from VMS systems to UNIX systems over arbitrary terminal line connections. Currently, a UUCP channel is under development, providing connectivity to UNIX systems running with sendmail.

Usually, PMDF is available for cost of distribution ($50) from **Ned Freed** at The PMDF Project, Computing Services, Harvey Mudd College, Claremont, CA 91711. Ned has kindly allowed PMDF to be provided from the CRIMLUG Tape Library. All CRIMLUG has to do is provide Ned with the name and address of each member getting a copy.

The distribution includes the complete Pascal source and executables for PMDF, PhoneNet and the various interfaces to other transport mechanisms. It does not include code for the transport facilities themselves such as JNET, DECnet or TCP/IP; these are separate licensed software products available from other vendors.

PMDF may be installed on as many systems as desired at a single site. Redistribution of PMDF to other sites is prohibited. PMDF will not be distributed and is not available via network FTP or Internet MAIL.

There is a PMDF mailing list to be used for discussing PMDF bugs, features and futures. Simple bug fixes and enhancements are distributed via the list. Please send requests to be placed on the list to rpmdfymir.bitnet. Submissions to the list should be directed to ipmdfymir.bitnet. Queries for information about PMDF should be directed to qpmdfymir.bitnet.

Using PMDF, a modem, and a phone line, you can become part of the ever growing Ad-Hoc VMS User's Network. Contact **Don Borsay** at (401) 847-8000 x3867 for details on how to get PMDF.

Artificial Intelligence

AI: Read more about it!

By **Duane Costa**, University of Rhode Island

One or two CRIMLUG associates have inquired about sources of AI reading materials. That sounded like a good excuse to dedicate the next few columns to a summary of AI publications. This month I will cover AI journals. In a future column I will provide a list of AI book publishers.

I make no claim that the list given below is complete, but it includes all the AI publications I know about. Some of my info is over a year old so the subscription rates may not always be accurate.

The journals I recommend most for the casual AI reader are AI Expert, Artificial Intelligence Review, and CACM. Artificial Intelligence (The International Journal) covers heavy-handed treatment of basic research. All the AI business newsletters listed below are outrageously expensive with the exception of AI Today. All subscription rates given below are for individuals, one year, U.S. dollars.

AI Capsule
- Rate: $195 per year
- Frequency: Monthly
- Address: The Winters Group
  Suite 920, Temple Bldg.,
  14 Franklin St.
  Rochester, NY 14604
- Comments: Gives you lots of hot AI business news in capsular summaries. Expensive!

AI Expert
- Rate: $37 per year
- Frequency: Monthly
- Address: 500 Howard Street
  San Francisco, CA 94105
- Comments: Geared toward non-academicians. Nice, readable articles. Well worth the price. Software can be down-loaded over the phonelines. Very showy. Only drawback - lots of ads.

AI Magazine
- Rate: $25 per year (includes membership in AAAI)
- Frequency: Quarterly
- Address: AAAI
  445 Burgess Drive
  Menlo Park, CA 94025-3496
- Comments: A benefit of membership in the American Association for Artifical Intelligence. Good articles. Not too many ads.

AI Today
- Rate: $29.95 per year
- Frequency: Monthly
- Address: 104 Frame Road
  Elkview, WV 25071
- Comments: "The publication of applied artificial intelligence for business and industry."

Slender (about 40 pages per issue).

AI Trends
Rate: $295 per year
Frequency: Monthly
Address: 6900 E. Camelback Rd.
Suite 1000
Scottsdale, AZ 85251
Comments: An AI industry bulletin with inside info. Very slender (about 16 pages per issue). Very expensive.

Applied Artificial Intelligence Reporter
Rate: $98 per year
Frequency: Monthly
Address: ICS Research Institute
P.O. Box 1308-EP,
Fort Lee, NJ 07024
Comments: Industry-oriented. Slender (about 24 pages per issue).

Artificial Intelligence Review
Rate: $23 per year
Frequency: Quarterly
Address: Blackwell Scientific Pub. Ltd.
Osney Mead,
Oxford, OX2 0EL
UK
Comments: British journal. Nice review articles. Not too commercial. Recommended.

Artificial Intelligence: An International Journal
Rate: $50 per year for members of AAAI. (Uncertain of rate for non-members)
Frequency: 9 issues per year
Address: Elsevier Science Publishers B.V.,
Journals Department
P.O. Box 211
1000 AE Amsterdam,
The Netherlands
Comments: The primary publication for basic AI research.

Communications of the ACM (CACM)
Rate: $30 per year
(Included as part of member dues of $65)
Frequency: Monthly
Address: Association for Computing Machinery, Inc.
11 W. 42nd St.
New York, NY 10036
Comments: This well-respected computing journal contains many good AI articles.

Expert Systems Strategies
Rate: $247 per year
Frequency: Monthly
Address: 1100 Massachusetts Avenue,
Arlington, MA 02174
Comments: "Newsletter for managers and developers of expert systems." Slender (about 25 pages) and expensive.

Expert Systems User
Rate: $210 per year
Frequency: Monthly
Address: Cromwell House,
20 Bride Lane,
London EC4 8DX
UK
Comments: "The professionals' guide to knowledge-based systems." About 30 pages with lots of space devoted to ads.

IEEE Expert
Rate: $12 per year to IEEE Computer Society members. Nonmember rates available on request from the publisher.
Frequency: Quarterly
Address: IEEE Headquarters
345 East 47th St.
New York, NY 10017
Comments: More academic-oriented than commercial-oriented.

Intelligent Systems Analyst
Rate: $275 per year (ouch!)
Frequency: Monthly
Address: P.O. Box 366
Village Station
New York, NY 10014
Comments: "The management report on intelligent systems technology and applications." Slender (about 20 pages).

Knowledge Engineering
Rate: $275 per year
Frequency: Monthly
Address: Richmond Publishing Corp.
P.O. Box 366
Village Station,
New York, NY 10014
Comments: Another wallet-buster. Very slender (about 16 pages).

LISP Pointers
Rate: Free!
Frequency: Six times per year (during a good year)
Address: Mary S. Van Deusen, Editor

IBM Watson Research
P.O. Box 704
Yorktown Heights, NY 10598
Comments: I've only received one issue since subscribing six months ago, but I can't complain considering the cost!

Release 1.0
Rate: $395 per year (A real bargain!)
Frequency: Not sure but I think it's monthly.
Address: EDventure Holdings Inc.
375 Park Avenue, Suite 2503
New York, NY 10152
Comments: Inside business scoops, etc. Slender (about 30 pages). Let's see, that works out to about a buck per page.

The Spang Robinson Report on Artificial Intelligence
Rate: $295 per year
Frequency: Monthly
Address: P.O. Box 1432
Manchester, MA 01944
Comments: "The artificial intelligence business newsletter." Slender (about 20 pages).

Input/Output

Input/Output presents users' questions, answers, and short notes describing problems or techniques of general interest, or letters on any relevant topic. If you have such an item, send it to the Editor for Input/Output.

By **Don Borsay**, Raytheon Submarine Signal Division

VAX C on VMS 4.6

By **Jerry Leichter**, Yale University

Extracted from the Usenet newsgroup comp.os.vms

There is a bug in the VAX C library for VMS V4.6 which breaks the connection between unget() and scanf() (and perhaps other input routines, I'm not sure). If you unget() a character, getchar() will see it, but scanf() will ignore it.

In case you are wondering what kind of code change could produce this strange effect, I did, too. It seems that the Draft ANSI C standard added a new function to fflush(): Flushing an input file discards any ungotten character. A side-effect of making this work caused the bug described.

Programmers' Workbench

By **Karen Goldsmith**, American Mathematical Society

Programming in DIBOL

Submission By **Jim Slavin** and **Georgia Moridi**, Shawmut Mills

DIBOL, or Digital Business Oriented Language, is one of DEC's programming solutions to business data processing. Below is a basic outline of a DIBOL program, followed by an example. It illustrates the simplicity of the language and the ease with which a date conversion might be accomplished.

```
; SKELETON OF A DIBOL PROGRAN
;
; MAIN PROGRAN
; RECORD STATEMENT 1
; FIELD DEFINITIONS
; .
; .          DATA DIVISION
; .
; RECORD STATEMENT N
; FIELD DEFINITIONS
; .
; .
; .
; PROC
; .          PROGRAN DIVISION
; .
; .
; END
;
; The main program calls the external subroutine
; ''cnvrt'' to change the format  of the date.
;
;          MAIN PROGRAM, called DATE
```

```
;
record var
date, d6, 011988    ;The date
;var to hold the converted date
cnvdte, all
terch, d1,     1        ;terminal channel

proc
;calls the routine to convert the date
   xcall cnvrt (date, cnvdte)
;
;open the terminal
open(terch,o:p,'tt:')
;
;display the date
writes (terch,cnvdte)
;
;close the terminal
close terch
end
;
;EXTERNAL SUBROUTINE
; SUBROUTINE STATEMENT
; ARGUMENT DEFINITIONS
;
; RECORD STATEMENT N
; FIELD DEFINITIONS
; .
; .
; .
; PROC
;    .
;          .
;          .
; END
;
;Two arguments are passed down
;to the subroutine:  OLD and NEW
;
; EXTERNAL SUBROUTINE
;
;convert the date format
;
SUBROUTINE CNVRT

        old,    d               ;date (mmddyy)
        new,    a               ;date (dd-mmm-yy)

record olddte                   ;old date format
        mm,     d2              ;month
        dd,     d2              ;day
        yy,     d2              ;year

;new date format
record newdte
        day,    a2              ;day
        ,       a1,     '-'
        month,  a3,             ;month
        ,       a1,     '-'
        year,   d2              ;year

record
        mname,12a3,'Jan','Feb','Mar'
&                 ,'Apr','May','Jun'
&                 ,'Jul','Aug','Sep'
&                 ,'Oct','Nov','Dec'
proc
olddte = old
;
;move day to new format
  day = dd
;
;move year to new format
year = yy
;
;move month to new format
  month = mname (mm)
;
;return new date
new = newdte

return
end

;This is the way to compile, link,
;and run the program
;
$Dibol date
$Dibol cnvrt
$link date,cnvrt
$run date
19-Jan-88
$
```

For those unfamiliar with DIBOL, the above example is meant primarily to illustrate the basic structure of DIBOL programs. The language provides the usual set of program control statements, relational operands, and yes, a system services interface. At Shawmut Mills we program almost exclusively in DIBOL; our applications range from order entry and inventory control to an interactive punch clock and accompanying payroll system. DEC continues to support and enhance the DIBOL language, and we have found that it satisfies our current needs quite well. If you have questions about DIBOL, or would just like to swap ideas, tricks, subroutines or what-have-you, please feel free to contact either **Jim Slavin** or **Georgia Moridi**, (617) 588-3300.

The Library

The Tape Librarian's report

By **Don Borsay**, Raytheon Submarine Signal Division

The CRIMLUG Tape Library is a collection of tapes the Connecticut, Rhode Island, Massachusetts (DECUS) Local Users Group requests from the main DECUS Program Library, as well as assorted user contributions. Tape copy requests will be accepted for any tapes in the CRIMLUG Tape Library, with no cost to CRIMLUG members, other than postage. Refer to *The CRIME*, Volume 1, Number 7, for a complete list of catalog entries. The following entry is a new addition. See elsewhere in this newsletter for a description of PMDF.

No. Description

15. Pascal Memo Distribution Facility (PMDF) 2.4, Jul/87, BACKUP format
Order (1C32) - one 1200 ft /1600 BPI tape;

All DECUS entries are available from the DECUS Program Library, and should be documented in "U.S. Chapter DECUS Program Library SOFTWARE ABSTRACTS" catalog. The local entries are documented in a handout, available from the Tape Librarian.

Tape copy requests will be accepted for any tapes in the CRIMLUG Tape Library, with no cost to CRIMLUG (or other DECUS) members, other than postage.

The Tape Librarian and Raytheon Company will only provide the resources for copying the tapes, and will not incur any expenses for postage of user requested tape copies.

For each tape or set of tapes desired, label an equal sized tape with your name, organization, mailing address, and tape request code. Mail the labeled tapes in a tape mailer, including return address labels and return postage stickers. Send to:

Raytheon Company
Submarine Signal Division
1847 West Main Rd.
Portsmouth, RI 02871-1087
Attention: **Don Borsay**, MS 130

DEC Talks

Rhode Island Digital Day

Rhode Island Digital Day will be held on February 17, 1988 at the Providence Marriott Hotel. A panel discussion and Product Overviews are highlights. You can find the schedule at the back of this newsletter. The Product Overviews will be run in sets of two concurrently, so bring a friend with you to attend them all. Your local Sales Representative should be able to get tickets for you, or call **Natalie Parece** by February 11, 1988 at (401) 431-4118. CRIMLUG will also be represented at Digital Day to boost our membership even more!

LUG Affairs

CRIMLUG NEWS

CRIMLUG Election Results

By **Frank Laffey**, Narragansett Bay Commission

Well folks, the results are in. Hold on to your hats boys and girls, 'cause here's a slate that will go down in history with the Wendle Wilkie Administration. (Sorry, I just saw "Good Morning Vietnam" and I guess it's effects are still lingering.)

Our officers are:
Chair - **Sam Whidden** - American Math
Vice-Chair - **Barbara Horgan** - SMU
Secretary - **Frank Laffey** - NBC
Newsletter Edt - **Karen Goldsmith** - American Math
Tape Librarian - **Don Borsay** - Raytheon

These folks, along with **Dave Borges**, DECman, form our Steering Committee for now.

Steering Committee Update

By **Frank Laffey**, Narragansett Bay Commission

The CRIMLUG Steering committee met on 31-Dec-1987 and discussed the following issues:

1. We discussed our meetings program and I'm sure Barbara will continue to rein in on that animal. We did discuss the possibility of a semi-permanent meeting place and two places came up. I may conduct a semi-offical, totally non-scientific poll after the February meeting to see how you feel about the NBC meeting place.
2. CRIMPUB and CRIMLINE need some organization and the Chair will probably solicit help. Come on and give us a hand and get on the Steering Committee at the same time. (Ooops, see item 3.)
3. We would like to expand the potential membership of our Steering Committee by allowing the Chair to appoint at large members to the Committee. (Current by laws call for "up to two" at large members on the Committee.) The current Steering Committee seemed to agree that the Chair of all permanent committees should also be on the Steering Committee and we'd be willing to have other Steering Committee participation as well.
4. LUG organization was discussed in several specific topics. One, should our agenda for regular meetings include a clinic? Two, let's work on a membership drive, Third, we want to establish a telephone tree to help encourage meeting turnout by a phone call. Last, what about collecting voluntary dues? No doubt, by the time you see these items in print, you will have already heard about them in the presentation by the officers at the January meeting, but if you have any contributions to these or any other issues and would like me to represent them for you, call me at 277-6680.

REGIONAL LUG NEWS

DECUS U.S. Chapter Symposium

The next DECUS Symposium will be held May 16-20 in Cincinnati. Within the next few weeks, the preliminary programs will be mailed to DECUS members. The preliminary programs contain hotel and registration information, a preview of symposium sessions, and activity highlights. It's not too early to start planning for it, so watch your mailboxes!

Canadian DECUS Symposium

By **Ruth Milner**,
University of Toronto Physics

Extracted from the Usenet newsgroup comp.org.decus by **Don Borsay**

This year's Canadian DECUS Symposium will be held in the Metro Toronto Convention Centre and L'Hotel, in beautiful downtown Toronto, the week of February 8-12, 1988. Monday is all-day seminars, Tuesday-Thursday are sessions (in 10 streams/rooms concurrently), and Friday is workshops and all-day seminars.

Cost is $350 (Canadian!) for the symposium, $465 for the Symposium and one seminar, $135 for one day of sessions. Other combinations are of course available but there is too much to list here.

It looks really good this year - virtually every hour is occupied, and we have some very good speakers coming, both from Central Engineering at Digital and independent consultants.

The time is drawing near, so get your registration forms in! If you need a kit, call **Francine Bellefeuille**, Symposium Co-ordinator, at (416) 597-3462. You do need to be a member of DECUS to attend, but membership is free, and Francine can send you a membership form as well (or, in the U.S., you can obtain one locally). Attendance is expected to be in the neighbourhood of 800-1000, so it will be lots of fun!

Hope to see you there!

DECUS RMVLUG Regional Conference

The Rocky Mountain VAX Local User Group is hosting a Regional Conference in Denver, Colorado, on March 31 and April 1, 1988. The conference features six concurrent streams: VMS; Networking; Systems Management; Programming and Tools; Business Applications; and by special request, a day-long Wizards track of challenging subjects presented by and for experts. Registration is limited, and forms must be returned by February

26, 1988 to participate. The Conference Chair is **Paula Sharick** (303) 499-5700.

DECUS One Day Regional Seminars

The DECUS Seminars Committee is sponsoring two one-day seminars at the Radisson Hotel in Burlington, Vermont on March 7 and 8, 1988. Seminar Topics: *INTERFACING YOUR DEVICE TO VMS: DEVICE DRIVERS, CONINTERR'S AND OTHER MEANS*, and *INTRODUCTION TO ARTIFICIAL INTELLIGENCE.* There will be no on-site registration. If you didn't receive your green notice through the mail, the phone numbers listed are (617) 480-3418/3307.

Who Are We?

Who Are We? is a collection of articles profiling firms represented in CRIMLUG. If your company hasn't appeared here recently, log into the CRIMLUG account and type or copy in your company's story (see elsewhere in this issue for a repeat of the login instructions).

Computech Publishing

Computech Publishing, located in Randolph, MA, is responsible for 10 monthly publications. *Business Magazine* currently has six Boston area editions, three in greater Washington, D.C., one New Hampshire edition, and a regional monthly *Business Magazine*. *Business Magazine* was first published in 1985. We use several different machines to assist in the publication process. Our computer environment is made up of the following:

- VAX 11/780 used for circulation databases and AR functions
- Wang OIS-140 word processor for editorial/text processing
- Compugraphic 8600 typesetting machine
- IBM AT used for general accounting functions and payroll
- DEC 20/60 (inactive) which takes up space

We are able to telecommunicate information from the VAX to the Wang and from the Wang to the Compugraphic typesetter. Applications for the VAX are written almost exclusively in Fortran, with RMS/FMS interaction.

Rick Turner, Vice President

The CRIME

Production Editor: **Karen Goldsmith**, American Mathematical Society, (401)272-9500, khg@math.ams.com

Associate Editors:

- **MEETINGS—Barbara Horgan**, Southeastern Massachusetts University, (617)999-8529, bhorgan@umass.bitnet
- **DEC TALKS!—Dave Borges**, Digital Equipment Corp., (401)431-4149
- **The Library—Don Borsay**, Raytheon Company, (401)847-8000 X3867, d2b%sgfa.ray.com@a.cs.uiuc.edu
- **Programmers Workbench—Karen Goldsmith**, American Mathematical Society, (401)272-9500, khg@math.ams.com
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- **Fun With DCL—Bob Callahan**, Warwick Public Schools, (401)737-3300 X223
- **AI—Duane Costa**, University of Rhode Island, (401)792-5080
- **Who Are We?—Carol A. Farrell**, American Mathematical Society, (401)272-9500, caf@math.ams.com

Additional Associate Editors are sought to gather and supervise material for departments of their choosing in *The CRIME*. Material must be relevant to the needs of users of DEC hardware or software. Contact the Editor.

The CRIME is typeset and produced at the American Mathematical Society. To facilitate electronic contributions, AMS has established an account on its VAX/VMS system with telephone number (401)861-7800, username CRIMLUG, and password CRIMINAL. After you dial the number and get a CONNECT response, hit return until you get a 'username>' prompt. Here type your own name then hit return to get a 'local>' prompt. Type 'connect vax', and, in response to the next prompts, the username CRIMLUG and the password CRIMINAL.

This account permits only a few instructions, but it will allow you to type in or Kermit in an article and then mail it to 'CRIME'. You'll get instructions on line. Be aware that any files you create are deleted when you log out, so you can't return to an editing session. If you have Kermit, it's best to get the article in final

shape on your system, then transfer it to AMS and mail it to the editor.

Please Refer to CRIME Volume 1, Numbers 3 and 6 for USENET, ARPAnet, UUCPmail, and URI's Bulletin Board access information.

THE DEADLINE FOR SUBMISSION OF ARTICLES FOR THE NEXT ISSUE IS February 24, 1988.

RHODE ISLAND DIGITAL DAY

PROVIDENCE MARRIOTT HOTEL

February 17, 1988

8:30-9:00	Registration and Continental Breakfast
9:00-9:05	Welcome Robert C. Lamanna Branch Sales Manager, Providence, Rhode Island Digital Equipment Corporation
9:05-9:15	Opening Remarks Michael J. Marshall Vice President Northeast Area Sales Digital Equipment Corporation
9:15-10:15	"Distributed Data Processing as a Competitive Edge" Amy Wohl President Wohl Associates, Incorporated
10:15-10:30	Break
10:30-11:30	Panel Discussion
	Moderator: Fred Gould Executive Sales Consultant Digital Equipment Corporation
	Panel Members: Phillip O. Liebold Corporate Director of Information Systems EG&G, Incorporated Darrell R. May Vice President Information Services Allendale Mutual Insurance Company Amy Wohl President Wohl Associates, Incorporated
11:45-12:45	Lunch
12:45-3:45	Digital Product Overviews
	All-In-One Office Systems VAX System Management CIM Overview VAX Programmer Productivity Tools VAX Information Center Products IBM Interconnect Product Set

To register, please contact Natalie Parece
R.S.V.P. by February 11, 1988
(401) 431-4118

The CRIME

The Newsletter of CRIMLUG

The Connecticut, Rhode Island, Massachusetts DECUS Local Users Group

Volume 2, Number 3 **March 1988**

For information about CRIMLUG and *The CRIME*, contact Sam Whidden, American Mathematical Society, 201 Charles St. P.O. Box 6248, Providence, RI 02940; (401)272-9500

MEETINGS

By **Barbara Horgan**, Southeastern Massachusetts University

MARCH MEETING
SYSTEM SECURITY

Wednesday, March 16, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

Our March meeting will deal with system security, a topic that can cover a multitude of sins. We plan a presentation by Digital in two areas of security–government security requirements and products to enhance VMS security. Besides this presentation, some of our CRIMLUG members will address physical security issues and discuss VMS security hints. Those of us from an educational environment can share stories and tips about security problems with student hackers.

Directions to Narragansett Bay Commission, Waste Water Treatment Facility
Two Ernest Street
Providence, R.I. 02905
(401)-277-6780

From route 95, exit at the Thurbers Ave exit. (Yes, you're finally going to leave the road at the infamous Thurbers Ave curve.) Follow the signs to Allens Avenue (not Eddy Street). At the light at Allens Avenue, turn right. Follow Allens Ave for 1/2 mile to the intersection of Ernest St. Turn left at that light. (Note that the Providence Public Works building and the Prov Police horse garage are at this corner as landmarks.) Follow Ernest St, past first right and as road bears right, you'll see signs to the Treatment Plant on the left. (Across the street from Hudson Asphalt Company.) Park in the lot and the conference room is on the second floor.

APRIL MEETING
STORAGE TECHNOLOGY

Wednesday, April 20, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

Our springtime topic will be an analysis of different kinds of storage technology, both old and new. What is the best medium for you? The evening's program will include vendors' presentations on optical technology alternatives as well as a discussion of tape media by one or more of our CRIMLUG members. It should be an interesting debate and discussion of storage options.

MAY MEETING
ELECTRONIC MAIL

Wednesday, May 25, 1:00p.m.
Narragansett Bay Commission
Providence, R.I.

Do you want to avoid telephone tag, correspond with colleagues across the country and the world electronically, have access to on-line bulletin boards, newsletters and discussion groups on every conceivable technical and not-so-technical topic? If so, global electronic mail is for you. CRIMLUG has members who are well versed in the joys and difficulties of electronic mail and are willing to share this knowledge with you at our May meeting. Watch for details in the next few CRIME issues.

SUGGESTED TOPICS FOR 1988

JUNE 22	- VAX/VMS Support and Training
JULY 20	- VMS Version 5 ?
AUGUST 17	- Text Processing on the VAX
SEPTEMBER 21	- VAX Cluster Management
OCTOBER 26	- DECNET
NOVEMBER 23	- Software Services
DECEMBER 21	- AI/Expert Systems

CRIMLUG MEETING DATES - 1988

	1st	2nd	3rd	4th	5th
Jan	6	13	**20–CRM**	27	
Feb	3	10	**17–CRM**	24	
Mar	2	9	**16–CRM**	23	30
Apr	6	13	**20–CRM**	27	
May	4	11	*10–SYM*	**25–CRM**	
Jun	1	8	15	**22–CRM**	29
Jul	6	13	**20–CRM**	27	
Aug	3	10	**17–CRM**	24	31
Sep	7	14	**21–CRM**	28	
Oct	5	12	*19–SYM*	**26–CRM**	
Nov	2	9	16	**23–CRM**	30
Dec	7	14	**21–CRM**	28	

Most meetings are on the THIRD Wednesday of each month. In May, June, October, and November, we plan to meet on the FOURTH Wednesday of the month. In May and October, the national DECUS Symposium falls during the third week, so we shouldn't hold our LUG meeting on that Wednesday. Shifting the meeting one week later avoids that, and lets us discuss the Symposium while it's fresh in our minds, but means a short, 3-week gap between it and the next month's meeting. If we also shift the next month's meeting one week later there's a four week gap between all meetings (except for a five-week gap in Symposium months). Then we're left only with the difficulty of remembering that four of our meetings are not on the third Wednesday.

VAX/VMS System Management

By **Nancy Kaull**, American Mathematical Society

The following is a handy command procedure to do integer arithmetic and display the results as decimal, octal, and hexidecimal numbers. It was taken from the Guide to Using DCL and Command Procedures.

```
$! CALC.COM
$!
$! If you enter an assignment statement,
$! then CALC.COM evaluates the
$! expression and assigns the result to
$! the symbol you specify.  In the
$! next iteration, you can use either your
$! symbol or the symbol Q to
$! represent the current result.
$!
$! If you enter an expression, then CALC.COM
$! evaluates the expression
$! and assigns the result to the symbol Q.
$! In the next iteration, you
$! can use the symbol Q to represent the
$! current result
$!
$! Lexical function F$FAO formats ASCII output.
$! !SL converts longword to decimal
$! !XL converts longword to hex
$! !OL converts longword to octal
$!   when preceded by !-, it reuses the last
$!   argument
$! Q is the argument
$!
$ SAVE_VERIFY_IMAGE = -
F$ENVIRONMENT("VERIFY_IMAGE")
$ SAVE_VERIFY_PROCEDURE = F$VERIFY(0)
$ START:
$ ON WARNING THEN GOTO START
$ INQUIRE STRING "Calc"
$ IF STRING .EQS. "" THEN GOTO CLEAN_UP
$ IF F$LOCATE("=",STRING) .EQ. -
F$LENGTH(STRING) -
THEN GOTO EXPRESSION
$!
$ STATEMENT:
$  'STRING'
$ SYMBOL = F$EXTRACT(0,F$LOCATE -
("=",STRING)-1,STRING)
$ Q = 'SYMBOL'
$ LINE = F$FAO -
 ("Decimal = !SL Hex = !-!XL Octal = !-!OL",Q)
$ WRITE SYS$OUTPUT LINE
$ GOTO START
$!
$ EXPRESSION:
$ Q = F$INTEGER('STRING')
$ LINE = F$FAO -
 ("Decimal = !SL Hex = !-!XL Octal = !-!OL",Q)
$ WRITE SYS$OUTPUT LINE
$ GOTO START
$!
$ CLEAN_UP:
$ SAVE_VERIFY_PROCEDURE = -
F$VERIFY(SAVE_VERIFY_PROCEDURE,-
SAVE_VERIFY_IMAGE)
$ EXIT
```

NetWorks

Welcome to the New Editor!

Introducing our new NetWorks Editor, **Bob Heroux!** Bob will welcome submissions from our readers that pertain to Network issues. Here is how he can be reached:

Bob Heroux
Augat, Inc.
40 Perry Avenue
Attleboro, MA 02703
(617)222-2202 X2449

Of course, you may continue to make submissions directly to *The CRIME* via the CRIMLUG account or e-mail, which we will forward to Bob. I just happen to have two articles here for this month, both by LUG members!

Karen Goldsmith

Re: DECNET Phase V

By **Betsy Ramsey**
American Mathematical Society

Quoting from Digital publication "DECnet Digital Network Architecture (Phase V)" (Order No. EK-DNAPV-GD, copyright Sept 1987 by DEC), which describes DNA as developed by DEC,

"In keeping with the goals of DNA, a system which implements Phase V is fully able to communicate with a Phase IV system. A Phase IV network can be migrated gradually to Phase V without requiring closely synchronized changes to multiple systems. All of the protocols used in Phase IV are included in Phase V systems, although in many cases they will be used only for communcation with Phase IV systems. To the user of a DECnet network, the change from Phase IV to Phase V will not be apparent, except that the new functions of Phase V will gradually become available."

The document doesn't say anything about Phase III, but I assume that Phase III hosts will not be able to communicate directly with a Phase V host, although they should be able to go through a Phase IV host to a Phase V host.

Getting From Here To There On The GTE DECnet Engineering Computer Network

By **David Moore**
GTE Government Systems

This article briefly describes the GTE Government Systems DECnet network. The system connects the Government Systems facilities in Massachusetts, California, and Maryland. There are over 95 nodes defined in this network.

The first step in connecting any physical location with another is the selection of the method of communication. This can be in the form of Fiber optics, Microwave, T1, or any validly configured leased telephone line. GTE uses a mixture of all of these.

Generally a T1 connection is the best selection for high volume traffic, but if you can't afford the expense, then a 9.6 baud leased line is generally sufficient.

Within the GTE ECN, we have defined a master router in Billerica Massachusetts. This VAX essentially is the point where all the communications lines end up. This defines a star network for the New England area and adds the out-of-state nodes as a matter of convenience.

The network supports several different communications packages. In addition to DECnet, there is JNET for VAX to IBM communication, and SMTP (Simple Mail Transfer Protocol) for sending mail over ARPANET. We are currently reviewing TCP/IP software and will probably be installing it soon. This will allow us to support most CAD/CAM systems, such as the APOLLO or Silicon Graphics Machines.

One can send mail over JNET to someone on an IBM system by defining a logical such as:

$define MICKEY "Jnet%GTESSD::TS17034"

This indicates to the mail facility that the IBM user TS17034 on node GTESSD using Jnet is to be the recipient.

To send mail to our DEC representative over ARPANET, we route through a system using SMTP. Thus you can define a logical as before:

$ define GOLD SMTPN:: -
"""KHG%Math%AMS.COM@CSNET-RELAY.CSNET"""

This is a more complicated routing. It defines the DECNET node SMTPN as the router which will pass the message on to Karen Goldsmith at the ARPANET address noted. This capability allows us to access anyone on ARPANET, such as Universities or other companies. Finding out their address is the tricky part.

Internal to GTE Government Systems we support local area networks using DEC LAT, Ungermann-Bass, or 3COMM Bridge. Thus at each site hundreds of users are able to access the computers and laser printers throughout GTE. Most communications vendors support multiple protocols on the Ethernet, so you are able to mix XNS, TCP/IP, and DECnet traffic. This allows us to use the same ethernet cable to support terminals, laser printers, and the computers.

Our primary protocol is DECnet. Not only does it most closely meet the ISO standards, but many vendors are now providing DECnet software for their systems. Even our AI machines from Symbolics support DECnet. For those of you with IBM PC's, there is even DECnet-DOS.

Managing this large network requires very little intervention on our part. The most common problem is with the telephone line or modem. We intend to add another communications connection (probably T1) to make our star configuration more of a ring, thus allowing us an alternative path when one of the other lines is down.

Of course, DECnet provides the ability to weight the cost of using different lines so that the traffic will travel the least expensive path.

Security

Fixing Security Bug in CMU TCP/IP

By **Mike Russell** (russell@csc.brown.edu)
Center for Scientific Computation
Box 1971 - Brown University
(401) 863-2617

CMU's TCP/IP has a bug which will allow full access to any system it is running on and ANY OTHER SYSTEMS you are DECNetted to if you have DECNet proxies set up. The following is a description of the steps

needed to get around the bug. The bug is not actually fixed, but it is prevented from occuring. I won't describe the bug, but if you are interested in finding it, the steps for the fix should give you a good clue as to what the bug is. The bug is found in versions 6.2 of IPACP and 2.5 of FTP. It is probably in previous versions also, but I've not checked. Both pieces of software combine to create the bug, so I don't know what will happen with fixes in future versions. However, CMU has said they will fix it in the next release. First, you need to add an account to the UAF (I've used the name TCPRUNNER) similar to this:

```
ADD TCP_RUNNER-
/DEFPRIV=(CMKRNL,DETACH,-
LOG_IO,ACNT,SETPRV,TMPMBX,NETMBX)-
/UIC=[200,202]
```

You can specify any password you want for the account because it will only be used to run a batch job from the SYSTEM account. The UIC should preferably have a group number which no one else on the system has. You can create a home directory and define the directory if you want to keep logs of the batch submittal. If you are concerned with someone logging in interactively to the account, you could make it captive and create a LOGIN.COM file which logs out if the job is not of type BATCH.

Next, you have to modify the file IPSTARTUP.COM which should be in the directory SYS$MANAGER. First, cut the multiple lines with the RUN command on them and paste them into another file (TCPSTART.COM), Then, after the line which defines the logical for INTERNETHOSTNAME, add the following line:

```
SUBMIT/NOKEEP/NOPRINTER -
/USER=TCP_RUNNER
SYS$MANAGER:TCP_START
```

That's it. I hope I've not overlooked anything, but this should certainly plug one security hole. Whether there are any more bugs in the CMU software, I don't know. If you have any questions, feel free to call or write.

Programmers' Workbench

By **Karen Goldsmith**, American Mathematical Society

Set Watch File/Class=blah

By **Genard K. Newman** (gkn@M5.Sdsc.EDU)
San Diego Supercomputer Center,
P.O. Box 85608,
San Diego, CA 92138-5608

Extracted from article 4163 of the Usenet newsgroup comp.os.vms by **Don Borsay**

Someone in a DEC Perf Mgmt class told me about an undocumented (and unsupported) VMS command. Type SET WATCH/CLASS=ALL FILE. Disable with SET WATCH/CLASS=NOALL FILE. With WATCH enabled, VMS will show your file accesses, reads, writes, XQP info and some other details. Enjoy.

This has been in VMS for some time (since V4.2 or thereabouts, as I recall).

a) You must have mucho privilege for it to work - probably CMKRNL.

CMEXEC will suffice. SETWATCH.EXE simply sets a few bits in the high byte of PIO$GW_DFPROT in your P1 space. I don't install SETWATCH.EXE with CMEXEC around here since the only people who would have any use for it already have enough privilege.

The valid keywords for the /Class qualifier are:

(No)All - All operations
(No)Attributes - File attribute operations
(No)Control_Function - Control functions
(No)Directory_Operations - Directory operations
(No)Dump - Dump the FIB
(No)Attached - Unused
(No)Major - Major operations (access, deaccess, lookup)
(No)Quota_Operations - Quota operations
None - None of the above

All is very verbose, Major is usually sufficient. This command mimics the SET WATCH FILES command from the Tops-10 operating system. The one thing it's missing is telling you the directory an accessed file is in. The reason for this is that by the time the XQP (which is what's reporting all of this info, by the way) gets around to telling you about something it's really operating by file ID. Oh well.

RE: RE: What is SDL?

By **Eckart Meyer**
(I7100501@DBSTU1.BITNET)
Inst. f. Nachrichtentechnik,

Technical University of Braunschweig,
Germany

Extracted from Article 4317 of the Usenet newsgroup comp.os.vms by **Don Borsay**

People having the VWS Software (Workstation) do have SDL programs for FORTRAN, MACRO, PASCAL, C, BLISS and PL/1. Get SDL*.EXE from the .A saveset and SDLV3.CLD. Then type

$ SET COMMAND SDLV3
$ SDL/NOPARSE/LANG=language sdl_file output_file

Be sure to use SDLNPARSE from the VWS-Kit since this seems to be another Version than the one from VMS 4.5.

Language is BLISS,CC,FORTRAN,MACRO,PASCAL or PLI.

I extracted all modules from STARLETSD.TLB and used SDL to convert them into .H files for the C language (LANG=CC).

Input/Output

Input/Output presents users' questions, answers, and short notes describing problems or techniques of general interest, or letters on any relevant topic. If you have such an item, send it to the Editor for **Input/Output**.

Response to MAIL question at CRIMLUG Meeting

By **David Moore**, GTE

Question: *How can I send mail in a batch file to a list of users in a distribution list when the list may not be up-to-date? MAIL aborts because it wants to know whether you wish to send the message even though the distribution list is wrong.*

Answer:

From **Mike Russell**: Write a data file which contains only the answer yes, then invoke your command file as follows:

```
$submit send_mail/params=(file,"@dist_list")
```

```
SEND_MAIL.COM
     $ DEFINE/user sys$input crimlug:yes.dat
     $ mail/subject="test" 'p1' "''p2'"
     $ exit

YES.DAT
     Y
```

From DSIN:

I found out from DSIN that one way to send mail to all the users in the same group is to set ACL's on the common mail directory.

```
$SET FILE/ACL=(IDENTIFIER=[group,*],-
OPTION=DEFAULT, -
ACCESS=READ+WRITE+DELETE+CONTROL)-
[000000]common_dir.DIR

$SET FILE/ACL=(IDENTIFIER=[group,*],-
ACCESS=CONTROL+READ+WRITE+DELETE) -
[000000]common_dir.DIR
```

If there is already an existing MAIL file or files, the acl needs to be set on them also.

Each member of the group will be notified that they have new mail. The drawback to this is that after the first user accessess the mail, the other users must do a READ/NEW n times to remove the "you have n new mail messages", and then they have to SELECT MAIL to read the mail.

From **Don Borsay**:

```
$set noverify
$!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
$!
$! This command procedure allows one
$! to send mail to multiple users even
$! if some of those users no longer
$! exist. It is especially useful when
$! used in a batch job that executes
$! at night.
$set noon
$ if p1 .eqs. "" .or. p2 .eqs. "" -
   then goto noparms
$ open/read/error=erropen infile 'p1'
$ loop:
$ read/end=done/error=done infile line
$mail/subject="test" 'p2'  'line'
$ goto loop
$ done:
$ close infile
$  exit
```

```
$ noparms:
$ write sys$output -
" Parm1 - File containing list of addressees"
$ write sys$output " Parm2 - File to be sent"
$ exit
$ erropen:
$ write sys$output "Error opening ",p1
$ exit
```

Experiences with Digidata's Gigastore

By **Bart Zorn** (BART@HDETUD53.BITNET)
Delft University of Technology,
Faculty of Electrical Engineering,
P.O. Box 5031, NL - 2600 GA Delft

Extracted from Article 4193 of the Usenet newsgroup comp.os.vms by **Don Borsay**

We have tested the Digidata Gigastore unit on the following configuration:

VAX11/750, FPA, 8Mbyte memory,
CI750, HSC50, 2 * RA81, 1 * RA60
Emulex TC7000, Cipher M990
DEUNA, DMF32, RL211, 2 * RL02, LP11
UB NIU-DMF, Excelan EXOS 204 TCP/IP controller.

When used with the Dilog tapecoupler wich was delivered with the video tape unit, an UNIbus interface which emulates the DEC TS11 tapeunit, and the also supplied modified TSDRIVER.EXE the subsystem performed very well. This driver is installed using VMSINSTAL. Glancing throug KITINSTAL.COM learned that Digidata expects this driver to break with VMS V5.x!

The first experiment was a repeated backup of the RA60 disk which was 85times on one E-180 VHS cartridge. Average time needed for one backup was 35 minutes, i.e. 290 Mb per hour. BACKUP qualifiers used were: /IMAGE/BUFF=5/NOCRC/GROUP=0/BLOCK=32768. This test was done during night hours with a lightly loaded system.

The second experiment was a full restore of one of the created backup's from the previous test. During normal daily operations this took 90 minutes, almost three times as much as the correspondig backup. No errors were signaled. The video unit had to do a short rewind to reposition the tape quite a lot of times, which will probably explain the extra time needed.

The third experiment was a nightly backup of all three diskunits. The following is an extract from the logfile:

```
$ SET NOON
$ SHOW TIME
  14-JAN-1988 23:26:26
$ ALLOCATE MSA0:
%DCL-I-ALLOC, _TUDEDV$MSA0: allocated
$ INIT MSA0: TEST03
$ SHOW TIME
  14-JAN-1988 23:32:34
$ MOUNT/FOR/NOASSIST MSA0:
%MOUNT-I-MOUNTED, TEST03 mounted on _TUDEDV$MSA0:
$ SHOW TIME
  14-JAN-1988 23:33:15
$ BACKUP/IMAGE/BUFF=5/FAST $1$DUA0: -
      MSA0:DUA0.BCK/NOCRC/GROUP=0/BLOCK=32768
$ SHOW TIME
  15-JAN-1988 00:56:00
$ BACKUP/IMAGE/BUFF=5/FAST $1$DJA1: -
      MSA0:DJA1.BCK/NOCRC/GROUP=0/BLOCK=32768
$ SHOW TIME
  15-JAN-1988 01:29:48
$ BACKUP/IMAGE/BUFF=5/FAST $1$DUA2: -
      MSA0:DUA1.BCK/NOCRC/GROUP=0/BLOCK=32768
$ SHOW TIME
  15-JAN-1988 01:53:58
$ SET MAGTAPE/REWIND MSA0:
$ SHOW TIME
  15-JAN-1988 01:55:53
$ BACKUP/LIST=NLA0: MSA0:*.*
$ SHOW TIME
  15-JAN-1988 04:09:54
$ SET MAGTAPE/REWIND MSA0:
$ SHOW TIME
  15-JAN-1988 04:11:24
$ DISMOUNT/UNLOAD MSA0:
$ DEALLOCATE MSA0:
$ EXIT
  SYSTEM job terminated at 15-JAN-1988 04:11:26.07
  Accounting information:
  Buffered I/O count:          51027
  Peak working set size:     919
  Direct I/O count:           121215
  Peak page file size:      1428
  Page faults:                  1314
  Mounted volumes:              1
  Charged CPU time:       0 00:31:16.43
  Elapsed time:       0 04:45:05.01
```

Disk statistics were:

Disk	Free blocks	Allocated blocks	Total blocks	Percent allocated
1DUA0:	214440	676632	891072	75.9
1DJA1:	68634	331542	400176	82.8
1DUA2:	604587	286485	891072	32.1
	887661	1294659	2182320	59.3

We used BACKUP/LIST as verification as recommended by Digidata which also used almost twice as much time as the corresponding backup. I did not try a BACKUP/VERIFY because this would be rather useless on a running system anyway.

Conclusion: the Gigastore unit provides an excellent solution to the growing problem of backing up several hundreds of megabytes. Speed and capacity of the unit are very good. We will order one!

We tried to connect the Gigastore to our Emulex TC7000 tape coupler, which emulates a massbus adapter and uses the pertec interface to the tapedrive(s). This combination wouldn't work. Either the TC7000 didn't see the Gigastore (configured as unit #1), or the 750 didn't see the TC7000 at all. We decided not to bother and use the TS11 emulation, which suits our requirements very well.

The Library

The Tape Librarian's report

By **Don Borsay**, Raytheon Submarine Signal Division

The CRIMLUG Tape Library is a collection of tapes the Connecticut, Rhode Island, Massachusetts (DECUS) Local Users Group requests from the main DECUS Program Library, was well as assorted user contributions. Tape copy requests will be accepted for any tapes in the CRIMLUG Tape Library, with no cost to CRIMLUG members, other than postage. The following is a listing of what is in the Library.

No. Description

1. DECUS (V-SP-24) PortaCalc (AnalytiCalc), 4/86, BACKUP format, Order (1E20) - one 2400 ft/1600 BPI tape;
2. DECUS (V-SP-46) Symposia - VAX SIG, Spring/85, BACKUP format, Order (1E26,1E27) - two 2400 ft /1600 BPI tapes;
3. DECUS (V-SP-49) Symposia - VAX SIG, Fall/85, BACKUP format, Order (1E28,1E29) - two 2400 ft /1600 BPI tapes;
4. DECUS (V-SP-53) KERMIT Distribution, Spring/87, BACKUP format, Order (1E33) - one 2400 ft /1600 BPI tape;
5. DECUS (V-SP-64) Symposia - VAX SIG, Spring/87, BACKUP format, Order (1E30,1E31) - two 2400 ft /1600 BPI tapes;
6. DECUS (V-SP-65) Symposia - RSX SIG, Spring/87, BRU format, Order (1E19) - one 2400 ft /1600 BPI tape;
7. Symposia - UNIX SIG, Spring/87, TAR format, Order (1E34) - one 2400 ft /1600 BPI tape;
8. Usenet MOD.SOURCES Archive, May/87, TAR format, Order (1E35) - one 2400 ft /1600 BPI tape;
9. Symposia - Languages and Tools SIG, 86. BACKUP format, Order (1C28) - one 2400 ft / 6250 BPI tape, Order (1C29,1C30.1C31) - three 2400 ft /1600 BPI tapes;
10. DECUS (11-SP-97) Symposia - RT SIG, Spring/87, RT format, Order (1E32) - one 2400 ft /1600 BPI tape;
11. DECUS (VAX-68) Archive, August/83, BACKUP format, Order (1E38) - one 600 ft /1600 BPI tape;
12. DECUS (VAX-148) DELTREE, Sept/85, BACKUP format, Order (1E37) - one 600 ft / 1600 BPI tape;
13. DECUS (VAX-150) EVE/Plus, Oct/85, BACKUP format, Order (1E39) - one 600 ft /1600 BPI tape;
14. DECUS (VAX-153) Decrypter/Encrypter, Dec/85, BACKUP format, Order (1E36) - one 600 ft / 1600 BPI tape;
15. Pascal Memo Distribution Facility (PMDF) 2.4, Jul/87, BACKUP format, Order (1C32) - one 1200 ft /1600 BPI tape;
16. DECUS (VAX-LIB-5) VAX Library Collection #5, BACKUP format, Order (?) - one 2400 ft / 1600 BPI tape;
17. DECUS (V-SP-32) SOS Editor for VAX/VMS, BACKUP format, Order (?) - one 600 ft /1600 BPI tape;

18. DECUS (VAX-165) DATMAN/VAX, BACKUP format, Order (?) - one 600 ft /1600 BPI tape;

All DECUS entries are available from the DECUS Program Library, and should be documented in "U.S. Chapter DECUS Program Library SOFTWARE ABSTRACTS" catalog. The local entries are documented in a handout, available from the Tape Librarian. To order a tape, call me at (401) 847-8000 x3867, or send e-mail to "d2b@sgfa.RAY.COM@a.cs.uiuc.edu".

LUG Affairs

CRIMLUG NEWS

SECman Speaks

By **Frank Laffey**, Narragansett Bay Commission

Our Steering Committee has met twice since our elections and I'm going to give you a quick summary of the results of both of those meetings together.

1. **Sam Whidden**, CHRman and **Karen Goldsmith**, EDTper are going to rectify our problems with timely delivery of THE CRIME by moving us up to first class (must be in the front row) mail as soon as the budget permits.
2. Meetings will be held at Narragansett Bay Commission treatment facility until at least the summer (after which the bouquet of waste water treatment may cause us to wish we were in Olneyville). Our standard agenda will be 15 minutes for business, 15 minutes for a clinic, our program with Q & A, and finally BOF's (birds of a feather) for any issues raised at the clinic which cannot be handeled briefly or for any other matters which could or should be discussed by our membership.
3. A concern was expressed by the Committee that we were imposing on DEC by having them come up with most of our featured speakers and if we keep going to the DEC well, it will be dry when we really need a voice from them. We're going to let DECman, **Dave Borges** use his discretion, but if anyone knows of resources which might be available to address some of our selected agenda items (**Barbara Horgan**, DEPchr can give you a rundown) in the upcoming months, let us know. If you come up with the resources, you'll be drafted as the coordinator for that meeting and have the singular privilege of attending a Steering Committee meeting.
4. **Bob Sand**, URIguy is taking over our Glossary, Crimline, Master's, Help effort and he'll be on the Steering Committee. With regard to the Help Glossary, one of the primary functions of the LUG is to be a resource to those of us who have a issue which must be addressed. I for one, run a COBOL shop and have a fair amount of experience with that language. I have also become fairly familiar with Datatrieve. Now, I've been reluctant to classify myself as a Master because of the implication that I know more than the rest of us about these languages and that just isn't the case. What I have come to realize is that I may have used the language to address a similar problem to the one you may be encountering. Even if I'm still wrestling with the problem, you might be able to benefit from my (or my staff's) research and me from yours. So, I'm going to put myself down as a COBOL master, even though I'm better at giant slalom, so that you and I can share our experience. I hope that you'll be willing to approach our Master's list from a similar perspective. **Don Borsay**, LIBman has proposed we develop some special interest groups and we hope that such a program will evolve from some of our Master's taking a lead.
5. **Bob Heroux**, AUGman will be writing a Network column for our newsletter and focusing those interested in the subject. He will also be on the Steering Committee.
6. For those of you who missed it, here's an important address;
   International Rainbow User's Group
   PO Box 567
   O'Fallon, IL 62269
   By the way, I just received a letter from them regarding some hard disk handling flaws in version 2.05, 2.11 and 3.1 of MS-DOS and a partial fix. I'll bring a copy of the release notes for the fix to our next meeting or you can call me at 401-277-6680 and I'll send you a copy. If you want to bring a floppy to the next meeting, I'll be DEPlib and make you a copy of what I have. Well King, this case is closed, so its TTFN from **Frank Laffey**, SECman.

CRIMLUG Represented at Digital Day

By **Carol A. Farrell**,
American Mathematical Society

CRIMLUG was represented by **Brenda Hopkins** and **Carol A. Farrell** at the Providence Marriott during Digital Day in Rhode Island. We camped out at a table outside Digital's presentation rooms for the afternoon. **Dave Borges**, our Digital Rep and one of those responsible for the Digital Day effort, introduced us to other sales representatives and informed them of our availability to answer all questions concerning the LUG. We spoke to users and non-users of Digital Equipment who were attracted by our "Scene of the CRIME" poster (see back page) and explained the opportunities and advantages of being a member of a LUG. We distributed quite a few CRIME newsletters and DECUS membership forms, and signed up new CRIMLUG members. Sales representatives took information away with them for their customers and hopefully we'll get additional feedback for the LUG through them.

Policy for Submission of Articles To *The CRIME*

We strongly encourage the submission of articles for monthly publication in *The CRIME*. These may be original pieces, questions/answers on technical topics, editorials (opinions on other technical issues, reviews of other articles, etc) or reprinted material from SIG Newsletters, Bulletin Boards, or other media sources. It is important to remember that the contributors of reprinted articles must obtain permission from the author or publication where it originally appeared, as some bulletin boards carry articles that have not been graced with author approval. The information we distribute through this newsletter is vital to the success of *The CRIME*. Please contribute, but bear in mind the above policy on articles that you do not author.

Karen Goldsmith

REGIONAL LUG NEWS

DECUS U.S. Chapter Spring '88 Symposium Hotel Reservation Form

At the end of this issue you can find the hotel registration form for the upcoming Symposium in Cincinnati this May. They must be returned by April 22, 1988, but as rooms are assigned on a first-come, first-serve basis, don't delay!

The CRIME

CRIMLUG Steering Committee:

- **LUG Chairman—Sam Whidden**, American Mathematical Society, (401)272-9500, sbw@math.ams.com
- **Vice-Chair—Barbara Horgan**, Southeastern Massachusetts University, (617)999-8529, bhorgan@umass.bitnet
- **Librarian—Don Borsay**, Raytheon Company, (401)847-8000 X3867, d2b%sgfa.ray.com@a.cs.uiuc.edu
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- **The Library—Don Borsay**, Raytheon Company, (401)847-8000 X3867, d2b%sgfa.ray.com@a.cs.uiuc.edu
- **Programmers Workbench—Karen Goldsmith**, American Mathematical Society, (401)272-9500, khg@math.ams.com

- **VAX/VMS System Management—Nancy Kaull**, American Mathematical Society, (401)272-9500, ngk@math.ams.com
- **LUG Affairs—Sam Whidden**, American Mathematical Society, (401)272-9500, sbw@math.ams.com
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- **AI—Duane Costa**, University of Rhode Island, (401)792-5080
- **Who Are We?—Carol A. Farrell**, American Mathematical Society, (401)272-9500, caf@math.ams.com

Additional Associate Editors are sought to gather and supervise material for departments of their choosing in *The CRIME*. Material must be relevant to the needs of users of DEC hardware or software. Contact the Editor.

The CRIME is typeset and produced at the American Mathematical Society. To facilitate electronic contributions, AMS has established an account on its VAX/VMS system with telephone number (401)861-7800, username CRIMLUG, and password CRIMINAL. After you dial the number and get a CONNECT response, hit return until you get a 'username>' prompt. Here type your own name then hit return to get a 'local>' prompt. Type 'connect vax', and, in response to the next prompts, the username CRIMLUG and the password CRIMINAL.

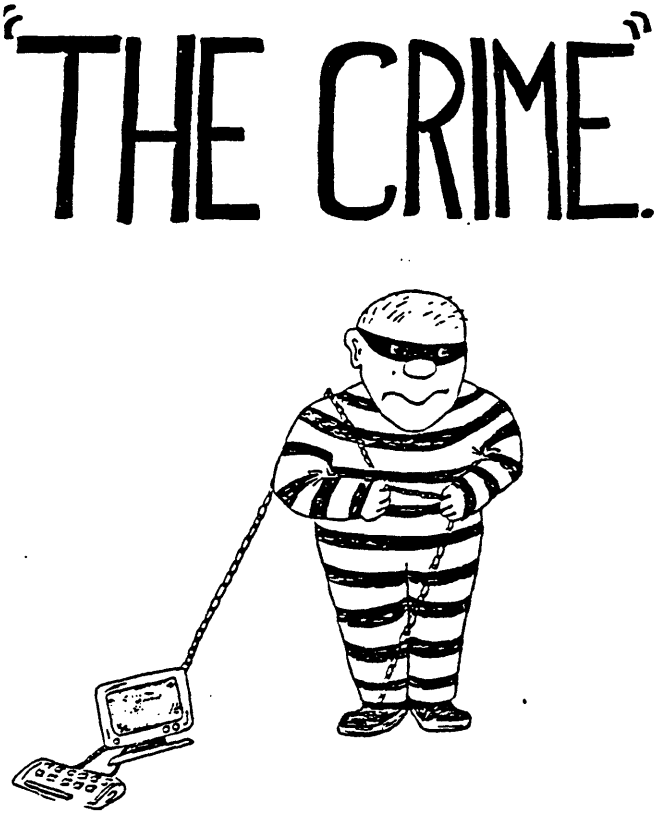
This account permits only a few instructions, but it will allow you to type in or Kermit in an article and then mail it to 'CRIME'. You'll get instructions on line. Be aware that any files you create are deleted when you log out, so you can't return to an editing session. If you have Kermit, it's best to get the article in final shape on your system, then transfer it to AMS and mail it to the editor.

Please Refer to CRIME Volume 1, Numbers 3 and 6 for USENET, ARPAnet, UUCPmail, and URI's Bulletin Board access information.

THE DEADLINE FOR SUBMISSION OF ARTICLES FOR THE NEXT ISSUE IS March 23, 1988.

Digital Days Poster

Created by
Karen Goldsmith and Tom Hicks,
American Mathematical Society



DECUS

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

STAMFORD LUG NEWS

Vol. 4, No. 5

LAST MONTH'S MEETING

Last month's meeting was sponsored, in a manner of speaking, by Digital Equipment Corp. Unfortunately, we did not get anyone from field service; instead, Mr. Kyrytschenko spent the evening talking about VAXsim. About sixteen people attended.

*** NEXT MEETING AT STAMFORD ADVOCATE., ***
*** THURSDAY, FEBRUARY 11, 1988, 6:30 P.M. ***

Our next meeting will be held at the Stamford Advocate, 75 Tresser Blvd., Stamford. Someone from EMC Corp. will be speaking to us about optical disk technology. This should be a fairly useful introduction for many of us, since DEC is rumored to be distributing VMS on optical media in the near future. This technology may prove useful in the future for such applications as hypertext publication and distribution of of massive volumes of data, such as financial market histories.

COMING ATTRACTIONS

In March, someone from DEC will talk about a new networking facility called PAMS, which was "initially developed for VAX/VMS and DECnet-VAX. It is architected for wide-area, resource transparent, efficient messaging." Beyond that, it was developed here in our district. For more information, see the 1986 DECUS paper titled "Developing a Message Bus for VMS High Speed Task to Task Communications," or better yet, attend the meeting.

Suggestions for meeting topics are always welcome. We'd like to get a well balanced program set up to cover both technical and non-technical areas, in order to offer something to people with all levels of interest. If you have any ideas, please tell us about them at a meeting.

WE NEED MEETING SITES! ! !

We are always in need of meeting sites! In part this is because a greater percentage of our attendees come from sites not located in the Stamford area, leaving us with few possible local sponsors. I don't want to always rely on the Stamford Advocate when in a pinch, so if you can sponsor a meeting, please call me (Jerry Oberle) at 203 / 357-8800 ext. 261. All we need is a room large enough to accomodate 20-25 people, and some coffee and light refreshments in the evening on the second Thursday of any month.

DIRECTIONS

From North: Take I95 Exit 7 (Atlantic Street), go straight to the third light which is next to the train station. Right on to Washington Boulevard. The Advocate is on your left at the corner of Washington and Tresser Boulevards, across from the round apartment buildings.

From South: Take I95 Exit 8 (Atlantic Street), go straight and turn left at the second light (Washington Boulevard). Go under the overpass and down through three lights. The Advocate is on your left at the corner of Washington and Tresser Boulevards, across from the round apartment buildings.

DIRECTORY SEARCH STRINGS
by John Babiarz

Those who work on MS-DOS machines should be familiar with the "Path" statement. The "Path" command is valid only for execution (as opposed to data file access), and works as follows:

1. Your current default directory is searched for a .BAT, .EXE or .COM file having the name of the command given (e.g., if you give the command FOOBAR, MS-DOS will look for FOOBAR.BAT, FOOBAR.EXE, and FOOBAR.COM in your current default directory).

2. If such a file cannot be found, then the parameters of the "Path" command are searched until a file with the specified name is found, or until all parameters in the path command are exhausted (which results in a "file not found" error).

In the VAX/VMS environment, things work a little bit differently. A logical name, called a search list, is defined. Unlike its MS-DOS counterpart, we can use the search list for both programs and data. The format of the "Define" command is shown below.

```
DEFINE logicalname string_1, string_2, ...  , string_n
```

For example

```
$ DEFINE TEST_DIR USER_DISK:[JBABIARZ.TEST], [-], -
        [-.SOURCE], [-.JUNK]
```

Based on the above definition, the DCL command "Show Logical Test_Dir" would display:

```
TEST_DIR  = USER_DISK:[JBABIARZ.TEST]
          =[-]
          =[-.SOURCE]
          =[-.TEST]
```

RMS does all the work of translation. Remember that when opening a file for write access (e.g., Edit/tpu Test_Dir:Test.txt), all directories are searched first until the file, if any, is found. A new file will be created in the first directory in the search list if no existing file is found. (Ed. note: on some version of VMS earlier than 4.5, EDT created the file in the LAST directory in the search list, if it didn't already exist, but that appears to have been corrected.)

For the sake of discussion, let's assume that the following directories exist:

```
USER_DISK:[JBABIARZ]
USER_DISK:[JBABIARZ.TEST]
USER_DISK:[JBABIARZ.SOURCE]
```

USER_DISK:[JBABIARZ.SYSTEM]

Assume further that the current default directory is USER_DISK:[JBABIARZ.SYSTEM].

When you issue the command

```
$ DIRECTORY TEST_DIR:*
```

the following action occurs:

1. The directory utility passes the file specification, including the logical name Test_Dir, to the RMS Search service, which begins logical name translation.

2. All files in the directory USER_DISK:[JBABIARZ.TEST] are displayed.

3. All files in the directory just "above" the current default are displayed, as a result of the "[-]" specification in the search list definition. In this example, the files in USER_DISK:[JBABIARZ] are displayed.

4. All files in the directory USER_DISK:[JBABIARZ.SOURCE] are displayed.

5. The directory utility attempts to display all files in the directory USER_DISK:[JBABIARZ.JUNK]. However, nothing is displayed because this directory does not exist. Note, however, that no error (such as directory not found) is signalled, because the search list specification located at least one file.

This is, of course, only one example of using search lists. If you have any questions, please feel free to drop a line.

(Ed. note. This article was reproduced with the permission of the Connecticut Valley Local Users' Group, for which John is a regular contributor. He writes a column entitled "Ask the VAX Wizard". If any of you want to contact John, his address is John Babiarz, c/o System Support Services, P.O. Box 793, Southington, CT 06489.)

DECUS

DIGITAL EQUIPMENT COMPUTER USERS SOCIETY

STAMFORD LUG NEWS

Vol. 4, No. 7

LAST MONTH'S MEETING

Last month, Larry Michaels and Walter Stutzman from Digital Equipment Corp. gave a presentation at the Digital Business Center on PAMS. PAMS basically does for inter-process peer to peer communication what RMS does for file I/O: it provides a uniform interface mechanism which does not vary with the underlying hardware configuration. In other words, if an application is coded to run on a single processor using, for example, VMS mailboxes, an expansion of the application to DECnet over several hosts would require changing the application. Moreover, a straight switch over to DECnet would not be the most optimal choice for communications among processes executing on the same machine.

PAMS provides a solution to this type of problem. The application can be coded to handle the PAMS interface, and PAMS will take care of all the network interface work, if necessary, selecting the most optimal transport mechanism for the type of link desired. In some cases, PAMS will actually bypass DECnet, for example, and use lower level ethernet protocols to effect faster communications.

PAMS is also supported for many types of operating systems, including some implementations for Big Blue configurations. If you need to do any task to task work, look into this product!

*** NEXT MEETING AT MANERO'S RESTAURANT ***
*** THURSDAY, APRIL 14, 6:30 P.M. ***

By popular demand, we are having another dinner meeting. Manero's came up as a suggested location several times, so we're giving it a try. The dinner will be $18.00 ($16.95 for the meal, and $1.05 per person (to make it a nice, round number) to cover the cost of the room, which is $20). The dinner will

feature a choice of Filet Mignon, Chicken Florentine, or Fresh fish, with potato, salad, appetizer and desert. If you want to drink, you'll be buying your own.

This month, we'll talk about another aspect of networking.Haroldo Williams has had some experiences with VMS X.25 PSI, which he's offered to share with us. X.25 is the protocol used by most public data networks, such as Tymnet, Telenet and Compuserve, and PSI is DEC's supported, layered product used to interface with these services.

In cases where an organization has many users scattered over a wide geographic area, but doesn't require a lot of connect time, X.25 nets may be a practical and cost effective means to get them on line.

In addition, X.25 links can be used as DECnet transports, and they can even be used to link your VAX to other types of systems.

Come get a great meal, and increase your knowledge of networking at the same time!

COMING ATTRACTIONS

We're all anxiously waiting for DEC to take the wraps off VMS v. 5, and right now, our agenda is on hold pending it's announcement.

Suggestions for future meeting topics are always welcome.

PLANNING FOR NEXT YEAR

It's been awhile since there's been any major LUG business to cover, but this month's meeting isn't too soon to start addressing our plans for next year.

First of all, your LUG chairman is looking for nominees for the Vice-chairman and Treasurer's positions. The Vice-chairman's slot has been open since Ken Moser resigned from office to move to Virginia. And the current Treasurer has held his position for several successive years now. Get involved! We hope to have a KEAL election this June.

We also need to seriously address the meeting site problem, which has become acute. Over the past year, several reliable Stamford area meeting sites have become unavailable, either due to members' job changes or offices closing or moving. The worst of these is the DEC Business Center, which has been closed. In addition, at several meetings, members have expressed the desire to have dinner meetings, such as the one we are having this month.

Therefore, I would like to propose for consideration a plan to have four regular dinner meetings each year, in September (when meetings resume after summer recess), in December (as has been our practice in the past), in March, and in June (just

before the summer recess). Someone should line up some prospective facilities for such meetings for the coming year, and report back on pricing, features, etc. at the May meeting.

In addition, we need to schedule meeting sites for the "off" months at member facilities. We have only six meetings to plan, but if we don't line up sites, the chances of cancelling a meeting for lack of a site is becoming A DISTINCT POSSIBILITY! All we need is a room large enough to accomodate 20-25 people, and some coffee and light refreshments in the evening on the second Thursday of any month.

While we're at it, let's each come to the next meeting with one idea for a meeting topic we'd like to see on the agenda between May 1988 and June 1989.

If you have any ideas or suggestions, you can also call Jerry Oberle at Survey Sampling, (203) 255-4200.

Manero's is located on Steamboat Rd. in Greenwich. (Tel. 869-0049)

To get there, take Connecticut Turnpike Exit 3. From the North, turn left at the end of the exit ramp; from the South, turn right. Proceed to the next intersection, and turn right. Manero's is in the next block.

THE FDL EDITOR, THE ANALYZE/RMS UTILITY AND THE CONVERT UTILITY

The VMS Convert utility may be used to convert files from one format, for example, sequential, variable length, implied carriage control, to another, such as indexed, fixed length, no carriage control. In addition, it also plays an important role in routine file maintenance.

The Convert/Reclaim command, for example, may be used to recover internal space in indexed files which have had many records erased. Until this operation has been performed, space formerly occupied by now deleted records cannot be reused by RMS for storing new records. Doing regular "Convert/Reclaim"s on your indexed files should be a regular part of file maintenance.

The sheer variety of RMS options and parameters is mind-boggling; RMS occupies an entire volume in the VMS document set. However, only a small fraction of the options are generally available from higher level languages. In many cases, particularly when dealing with indexed files, many of the important efficiency features of RMS can be had using FDL, the VMS file definition language.

FDL is a special language which may be used to specify RMS file and record characteristics. While it may be written with any editor, VMS comes equipped with a special editor which has built in "intelligence" to handle FDL. To use this facility, enter the DCL command:

```
$ EDIT/FDL name
```

where 'name' is the name of a file to contain the FDL statements. The default file type is .FDL.

You will be presented with a menu which includes such options as help, add, delete, view, etc. The most interesting of these options is "Invoke", which invokes a so-called script to assist you in tuning a file's characteristics to best suit its expected use, size, and so forth. By simply answering the questions presented, you can create an FDL file which has the full set of RMS specifications to best suit your application.

To use the FDL specification to create a file, use either the Create/FDL or the Convert/FDL commands from DCL. Create/FDL will generate an empty file having the specified characteristics. Convert/FDL will not only create the new file, but load it with data from the input file specified on the Convert command.

Once you begin using a file, you will find that it tends to get increasingly inefficient (unless all you do is read from it). However, you can use another VMS utility to generate information about the existing file which can be used by Edit/FDL to create a new, more optimum file. By entering the DCL command

```
$ ANALYZE/RMS/FDL filename
```

you can create an FDL specification file to be used as input to the FDL editor. This file has statements in it which Edit/FDL uses, in addition to your input, to optimize the file design. By "invoking" the "touchup" script, you generate a new FDL file, with (hopefully) better parameters.

To improve your file's performance, "Convert" the existing file to the new one (which can be nothing more than a new version of the old file) using the "Convert/FDL" command described above.

NEWSLETTER:

THE BIT BUCKET OF THE NEW YORK METRO LUG

July 1987
Issue Number 13

New York Metro Local Users' Group and DECUS (Digital Equipment Corporation Users' Society) - for DEC (and compatible) computers and software.

	EDITOR	FEATURES
Send your contributions for NL: to...	Christopher Thorn Elias Sports Bureau 500 Fifth Avenue 2114 New York, NY 10110-0297 212-869-1530	Bill Smith Goldman, Sachs & Co. 85 Broad Street 6th floor New York, NY 10004 212-902-1920

Next Meeting

Date : **Thursday, July 30, 1987**
Time : 5:30 PM
Reservations : 212-269-7088
Place : The Netherlands Club (above Charley O's restaurant)
10 Rockefeller Plaza
33 West 48th Street (between Fifth and Sixth Avenues)
New York, NY
Cost : $25 per person, includes dinner
(You may request a kosher or vegetarian meal.)
Presentation:

Anthony Caserta of Bankers Trust
will speak about Strategic Data Planning.

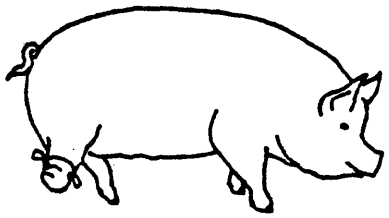
You must telephone the LUG at 212-269-7088 to reserve your place at the meeting. Reservations must be made by 5 pm on Wednesday, July 29 (the day before the meeting).

Mailing List: Send additions and corrections, with telephone number and DECUS membership number, to:

Glenn Johnson
Advanced Data Management
P.O. Box 601
15 Main Street
Kingston, NJ 08528

DECUS membership is free - call the national DECUS office at 617-480-3418 or fill out a form at a **NY Metro LUG** meeting.

PLEASE NOTE: You must mail back the last page of this issue if you want to remain on the mailing list!



HERD AT CHARLEY O'S

We are rebuilding our mailing list...you MUST fill out and return the form on the back page of this issue if you want to remain on the mailing list of the **NY Metro LUG.** It costs you nothing to belong to the group and receive the newsletter, but since we must pay mailing costs, we have to redo the mailing list from time to time. If your copy sometimes gets lost in your mail room, you may switch to your home address. Just to be safe, jot down the telephone number for information about LUG meetings. While you're at it, why not join DECUS if you're not already a member? And looking ahead, we note that the August meeting will be held on the last Thursday, August 27.

* * *

DECUS has started, as an experiment, a "bulletin board" system known as DECUServe. This system is based on VAX Notes and runs on a microVAX. Access is via dial-up lines. Its eventual purpose is to provide an online forum for technical and nontechnical issues of interest to the DECUS community.

Due to its experimental nature, both as a bulletin board facility and as a system run by DECUS volunteers, access is limited at this time. DECUServe membership applications are being mailed to approximately one thousand DECUS members, chosen at random, each month. The application fee is $25.00. Also of importance to those of us not in Massachusetts: at this time all dial-up access is to area code 617 numbers!

NY Metro LUG members who have experience with DECUServe will be invited to share their experiences with the rest of us at upcoming meetings.

We were a small herd indeed at the June meeting (on vacation? heat exhaustion?)

One of our speakers was unable to make his presentation in June, but he'll be back in July...

STRATEGIC DATA PLANNING

Anthony Caserta
Bankers Trust Company

How can our technical plans become more responsive to our organization's current activities and future plans? Things we know about our business and our data can help our organizations improve their own structures, derive application implementation schedules and priorities, and support individual (bottom up) application data base design.

Using strategic (top down) data planning methodologies, the strategic planner associates data entities with detailed activities derived from an organization's Business Model. The planner also analyzes business model activites along with their data entities.

This analysis helps derive an improved view of an organization's structure, independent of influence by company politics. The planner further analyzes activites and data entities to determine logical sequencing for implementation of grouped activites as applications. As well, the planner groups the entities based on their related frequency of use to derive logical groupings of data entities - so called subject data bases. These subject data bases provide a head start for individual application's data base design.

VAX 8700 Issues and Answers

Richard Garland
Bankers Trust Company
130 Liberty Street
38th floor
New York, NY 10015
212-250-2305

(The following presentation was given at the monthly meeting of the New York Commercial Cluster LUG held at Bankers Trust Company, New York City, on June 15, 1987. The meeting was attended by about forty members and several representatives of DEC Field Service, including the Unit, District Support, and the Area Customer Relations manager. After the talk, questions were addressed both to the speaker and to DEC Field Service.)

I am in charge of hardware support, with the Distributed Processing Technical Support group of Bankers Trust. Our Group provides centralized system and hardware support to all DEC systems at Bankers Trust. Bankers Trust is a fairly centralized organization with all of its VAXes in three data centers in two locations. I would like to relate the experiences we have had in setting up and operating a number of 8700 systems. We currently run ten 8700s and one 8500. The first two were installed at our New Jersey data center in October 1986 and the last were installed in February 1987. We encountered a number of problems over the period from November to about March, all of which were eventually solved. It is our hope that the information in this presentation will be of help to other organizations using or contemplating acquiring this type of system.

I will present the problems and solutions from a user's perspective. In other words I will address particular symptoms which were observed even if two or more symptoms had the same fix. When the FCOs are published, these problems may be broken down differently.

VAX 8700 Issues and Answers

- Overview
- Typical Configuration
- Problems
  - Set up problems
  - Early crashes - solid
  - LAT problems
  - Console problems
  - Intermittent crashes
  - Timer problems
- Fixes
- Summary

Before describing the first problems were encountered, it is important to describe the configuration we use at the Bank, with particular regard to the system console. In what I might call the "Normal" configuration of a VAX 8700, (A slide here shows an 8700 with the Pro-380 console on a terminal stand next to the CPU) the Pro-380, which is the system console subsystem, is located adjacent to the CPU on its own stand. This configuration is typically what you would see at a DECUS symposium or a trade show. The distance between the CPU and the Pro-380 is limited be the length of the cable joining the two, about six feet. In this configuration, the system operator

is expected to use the Pro-380 to boot the system, halt it, etc. This configuration is probably fine for a Lab or department with a single CPU.

This configuration was not, however, the way we wished to use these systems in our data centers. Our centers typically consist of ten to twenty VAXes in a highly conditioned room with all the system consoles in a centralized control room. This layout allows us to better manage the large number of systems and optimizes the operators' productivity. In order to use the 8700 in our environment, and upon the advice of the DEC 8700 product line, the VAX's RDC port, located on the Pro-380, was used as a console port, and an LA120 in the control room was wired to it. Appropriate commands are issued to the Pro-380 and our LA120 then becomes the system console transparently. (Another slide shows a sketch of an 8700 with the Pro-380 on top and a wire going off to a distant LA120). While the system is running, the LA120 in the control room is used for all commands and output. The Pro-380 sits on top of the 8700 and is essentially ignored.

Another options which we considered, was the use of the VAX Cluster Console (a microVAX which serves as the console to several VAXes simultaneously) We considered this at one time but decided that it does not suit our needs as we currently operate.

The problems we encountered after setting up the first two systems were both related to the use of the remote console port. The first issue was that the console would get into various states of confusion as to whether the remote port was enabled or disabled and would sometimes hang the VAX and sometimes require itself (the Pro-380) to be rebooted or power-cycled. The second issue was that the LA120 was incapable of sending certain control characters to the console subsystem - notably CONTROL-P. Naturally the console lacks some essential functionality in this case: we could BOOT the system but we could not HALT it. We were eventually put in touch with the development group which wrote the Pro-380 console software and in a three-way conference call solved the control character problem. The LA120 had to be set with the "P" parameter set to 2 or 8. Ours had been set to 1 as on all the other VAXes. They also sent us a pre-release of the console software rev. D (since released) which solved the problems of console confusion when enabling the remote port.

At this point in time, the 8700s were given over to the users and several projects began to build applications on them. There was a general impression that things were working well although in retrospect we know there were several problems which were not yet recognized.

In January of 1987 we took delivery on the fifth 8700 and immediately discovered a real problem. The system would crash one to three times a week with a Bugcheck: **"Unexpected Unibus Adapter Interrupt"**. This was particularly unexpected since the system had no Unibus Adapter. Field Service was able to identify this as a known problem through the Colorado Support Center and a fix was obtained. This consisted of a new version of the 8700 microcode (rev. D3). This is now the released version and is part of the Console rev. E software kit. The new microcode was also put on the other 8700s although the problem seems only to have occurred on this one system. The DEC engineers refer to this as the "Read Lock Timeout" problem and it concerns the logic controlling the NMI bus and the BI controller.

In late February, complaints from users and data center operations personnel began to show a pattern pointing to several problems. After many meetings with our users and with DEC we could recognize two major problems: LAT terminal problems and crashes.

The LAT problems observed were that users sessions would drop. The configuration in use for most users involved approximately 150 users in our New York City Office communicating with four 8700s in our New Jersey facility. The users in New York were on terminals connected to DECserver-100s and DECserver-200s. The New York Ethernet was connected to the New Jersey systems using a Vitalink TransLAN, which operated over two T1 links. The symptom was unfortunately reminiscent of problems encountered in the Fall of 1986 due to Vitalink configuration problems. For some time users would simply say "The Vitalink just went down again" and they would complain to our telecommunications group. It was soon recognized that the Vitalinks were working properly and the problem lay in the Ethernet controller of the 8700 systems (known as a DEBNT). After lengthy study by one of our systems programmers, a correlation was found with DECnet traffic: high DECnet traffic would cause the LAT problem; LAT traffic (in itself) would not. An additional symptom was the presence of a high number of **"System Buffer Unavailable"** (one or two per second in the worst case) when the Ethernet counts were displayed. After we had thus narrowed down the issue, DEC was able to determine that the DEBNT microcode was at fault (several VMS driver patches were first tried). A new chip set (rev. 1.3B) was sent and tested and this solved the problem. Eventually all DEBNTs in the bank were thus upgraded. An unexpected but welcome side effect was that the units performed noticeably faster with the new firmware. (DEC has since incorporated the firmware into a redesigned module which is now shipping. It is module number T1034. Older units requiring the fix will be replaced by the new module.)

Along with the LAT problems we became aware that the systems were crashing or hanging. We recognized several cases: use of the Pro-380 (say to edit the default BOOT file) would usually hang or cause VMS to crash. At a meeting with DEC we found that there were cases where the Pro-380 software and VMS would not interact properly, particularly when the Pro-380s disks were being accessed. This could happen in two cases: editing files on the Pro-380 (actually typing on the Pro) and reading/writing the disks from VMS. It had long been documented that the two floppies on the Pro could be used as read/write, but the hard disk (an RD53) was to be write-only from VMS. We found that any use of the disks from VMS, even simply reading the RD53, could cause problems. Using the Pro-380 to edit files likewise caused problems. DEC informed us that a new version of the Pro-380 software (rev. E) together with VMS V4.6 would solve these console disk problems. Since VMS V4.6 was (and is) not yet released, patches for VMS V4.4 and V4.5 were obtained as well as a pre-release version of rev. E console software (since released). With these fixes in place we have found that we can do all the operations that used to cause problems. There is still the restriction that VMS can not write to the Pro-380's RD53. We have told DEC that this is an inconvenience and have been told that the restriction will be lifted in the future. At this time if VMS issues a MOUNT to the RD53, a message comes back **"Drive is write-locked".**

We also recognized that VMS would sometimes crash when no one was using the Pro and no one was accessing the Pro's disks from VMS. Curiously, these crashes would generally occur on two out of four systems in New Jersey at around midnight every night, and on two out of three systems in New York at 6 PM every evening. After analyzing a number of crash dumps, DEC (in Colorado) found that we had uncovered the "18 hour crash" bug. Apparently, 18 hours after first issuing a "SYSGEN> CONNECT CONSOLE" command the system would crash. It turns out that the New Jersey systems were typically BOOTed at 6 AM each day and the New York systems are BOOTed at midnight. Our

system startup procedure requires that a file be read off of the console and thus the curious timing was explained. The systems that were not crashing were running VMS V4.5. The fix was to go to VMS V4.5 (and to use console software rev. E which we had just started using). Since it was unfeasible for several of our groups to go to VMS V4.5 we requested a fix to VMS V4.4 and eventually received it.

After carefully studying error logs over a two-month period we noticed that a few crashes did not fall into the same category as the previous ones. The Bugcheck messages were generally very obscure, never before seen bugs (SSRVEXCEPT, PGFIPLHI, NOTFCPWCB, SECREFNEG). DEC informed us that a memory controller error had been diagnosed which resulted in a timing problem when memory not installed at the factory was used on a system. It turns out that factory installed memory was matched with the controller but that field installed memory was not matched. The problem was very infrequent - we believe we saw it around four or five times in six months of running between four and ten machines. New controllers (rev. F3, current rev. is F4) were sent for all of our systems. We have not seen any of these crashes since.

At this point it seemed that all of our systems were running reliably. We began to receive complaints from our operators that the system time which came up when the system BOOted was occasionally wrong by a random amount. If this went unnoticed it would wreak havoc with file creation times, DECnet, etc. After several attempted work-arounds, DEC sent us a fix to the console (rev. E) software which addressed the problem. It seems that on the 8700, the Pro-380 is the repository of the time when the CPU is down (unlike earlier VAXes which had a separate battery powered TODR). The Pro would fail to save the time properly when a VMS "SET TIME" command was issued (with no argument this is supposed to set the time back into the hardware register). This fix is the only thing that was not fixed in console rev. E and will be part of rev. F (not yet released). The patch is available from Field Service and should ship with currently shipping systems.

Summary:

	Problem	Module	Fix
1)	Remote console	LA120	Setup P: 2/8
2)	"Unibus" Interrupt ("Read Lock Timeout")	8700	uCode Rev D3 (Cons. Rev E)
3)	LAT sessions drop	DEBNT	Rev 1.3B or new module: T1034
4)	Console disks	Console VMS	Rev E CWDRIVER
5)	18 hour crashes	VMS	V4.5 or SYSLOA8nn
6)	Various other crashes	8700	Memory Controller Rev F3 or F4
7)	TODR errors	Console	Fix to rev E

At this point a representative of DEC Field Service outlined procedures for solving any of these problems. A service call should be logged for all suspected problems. All fixes and updates outlined here are available immediately. Furthermore, it was stated, in the New York Area, all installed 8700s have been audited and known problem situations have been identified. All systems shipped as of this time are said to incorporate all fixes. Users were advised to use escalation procedures, in place, if problems are not resolved. Lou Schiavone (212-714-6746), the New York Area Customer Relations manager said he would be happy to converse with DEC Field Service from other areas on these problems.

Several users questioned DEC Field Service on the issue of notification to the user community at large of known problems and fixes. The publication of FCOs, it was pointed out, lags months behind problem identification and resolution. (In fact, the FCOs incorporating the fixes outlined above are not yet published as of the latest issue of DEC-O-LOG).

A question on whether the information, attributed to DEC, that Local Area VAXclusters (Ethernet based) should not use an 8700/DEBNT as a load host, was due to the DEBNT problem mentioned in this presentation. DEC said they would look into that question.

NEWSLETTER

THE BIT BUCKET OF THE NEW YORK METRO LUG

August 1987
Issue Number 14

New York Metro Local Users' Group and DECUS (Digital Equipment Corporation Users' Society) - for DEC (and compatible) computers and software.

	EDITOR	FEATURES
Send your contributions for **NL:** to...	Christopher Thorn Elias Sports Bureau 500 Fifth Avenue 2114 New York, NY 10110-0297 212-869-1530	Bill Smith Goldman, Sachs & Co. 85 Broad Street 6th floor New York, NY 10004 212-902-1920

Meetings are generally held on the last Thursday of the month; however there will not be a meeting in August - the next meeting will be in September, one week earlier than usual.

Next Meeting

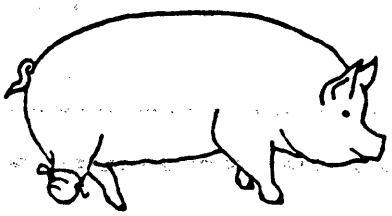
Date : **Thursday, September 17, 1987**
Time : 5:30 PM
Reservations : **212-269-7088**
Place : The Netherlands Club (above Charley O's restaurant)
10 Rockefeller Plaza
33 West 48th Street (between Fifth and Sixth Avenues)
New York, NY
Cost : $25 per person, includes dinner
(You may request a kosher or vegetarian meal.)

You must telephone the LUG at 212-269-7088 to reserve your place at the meeting. Reservations must be made by 5 pm on Wednesday, September 16 (the day before the meeting).

Mailing List: Send additions and corrections, with telephone number and DECUS membership number, to:

Glenn Johnson
Advanced Data Management
P.O. Box 601
15 Main Street
Kingston, NJ 08528

DECUS membership is free - call the national DECUS office at 617-480-3418 or fill out a form at a **NY Metro LUG** meeting.



HERD AT CHARLEY O'S

The summer doldrums have taken hold and there will be no meeting this month. The next meeting, in September, will be held one week earlier than usual to avoid the holidays. The speakers for the September 17 meeting will be announced with our telephone message, and reservations will be accepted starting early next month.

* * *

We are rebuilding our mailing list. Remember that it costs nothing to join the **NY Metro LUG** and receive **NL:**, but that you must write to Glenn Johnson to stay on the mailing list. Send your name, company name, address, telephone number and DECUS membership number to the address on page one. If you sent back the last page of the July issue with your name and address, good for you. If you sent back the first page of the July issue without your name and address, as did several of our members, you'd better try again!

* * *

Some data processing types put their faith in hardware - is it true what they say about the MicroVAX III? Will it dance on the head of a pin? Others look to software - will that new 4GL make the machine do what I want it to do instead of what I tell it to do (unlike all my old software)?

We here at **NL:** however have been thinking instead about the harmonic convergence - are computer planning and astrology really that different? The harmonic convergence, that fortuitous alignment of several planets with the earth's moon, occured on Sunday, August 16, supposedly to usher in a "new age." Keep your fingers crossed (a little superstition never hurt), in hopes that your favorite prophecy will be fulfilled.

Will the ancient Mayan prophecy that LANs join hands around the globe come true? What about the Aztec prophecy that software licensing disputes vanish with the shared consciousness of vendors and end users? We're holding our breath over the ancient ANSI prophecy that C will become completely portable and the ancient ASCII prophecy that DEC and IBM System/38 will resolve their differences. Will Kermit, god of communication, reign over the telephone lines? Or will the harmonic convergence go the way of the Age of Aquarius, when our expectation that "Jupiter aligns with Mars" was dashed because the Jupiter project was cancelled?

Report from the Treasurer:

Mel Tolhurst
NY Metro LUG Treasurer
201-431-0922

As a result of the incompetence of a certain bank (which will remain nameless), the checks of four attendees from the June 25 meeting were not credited to our account. Since we have no records as to who paid by check and who paid with cash, we need the help of four of the following people. If your name appears below AND you attended the June meeting AND you paid by CHECK, we need a copy of your cancelled check. If you have not received your check back yet, please let me know as it's possible that it was lost rather than miscredited.

Do our LUG-member bankers out there have any feelings on the concept that a multicheck deposit handed to a human teller, counted and totalled by same in agreement with the deposit ticket could be rejected by a Regional Processing Center for 'items missing from deposit' and charged back to the customer? After teller verification of the amount? And to have 'Customer (dis)Service' tell you that "We won't 'Give you the difference' unless you show us copies of the checks we didn't find?" Here are the names: Please call me at 201-431-0922 if you paid by check.

Bob Cafasi
Cliff Chao
Linda DePinto
Patrick Harrington
David Hickey
John Howard (or Howarth)
Ronald Phillip
Susan Powers
Mark Smiley
Aaron Weg
Steven Wertheim

Don't mind misspellings; these are the names as recorded on the answering machine - if it's close, it's probably you.

Thanks for your assistance. Since I won't be available to be treasurer much longer, if you're interested in helping the group with this job, please call me.

Network Encryption, or "No, That's Not A Bad Packet!"

Bill Hancock
Essential Resources Incorporated
462 Broadway
New York, NY 10013
212-334-1240

There's a lot of concern these days over the issue of network intrusions. Any reputable network manager KNOWS that there is some hacker out there somewhere trying to bust into his network and get at all those goodies that are on his systems. And for you network managers who are not paranoid about the security on your network, remember the old adage about paranoia: "Just because you are not paranoid does not mean that someone is not out to get you."

Obviously, network security is more than making sure the network passwords are known only to the chosen few. Network security is usually thought of as a multi-layered management chore consisting of technical actions, management actions, and user training. But, this article is not about all the necessary precautions for a truly secure network. Instead, we will look at network encryption techniques, what they are, how they work, and why you would want to use network encryption on your network.

Encryption systems always conjure up the image of James Bond (007 - not encrypted) or some guy trying to get the Nazi codebook with all the German encryption codes for the rest of the war off of the U-boat (which is, naturally, 300 feet underwater) headed for Italy, without, of course, being noticed or caught. In other words, Hollywood has managed to give encryption systems a certain mystique associated with clandestine activities, beautiful women, exotic places, and ACTION.

Imagine my disappointment when I got my Data Encryption Standard (DES) network encryption box and found it to be about the size of a shoebox, white (not black), and fully documented including a complete explanation of the algorithm used and how to set up you own codes. How depressing! I had at least expected a Junior Space Cadet decoder ring and was hoping for an envelope with "Destroy Immediately After Reading" on it.

The reality of encryption is that it is not magical, mystical, or even exciting. Encryption simply involves the usage of an encipherment algorithm with a key (like a password) to take normal network data and scramble it into bits that only a system with the encryption algorithm and the proper key can understand. The problem is that most of tend to look at encryption in the mystical sense and few understand what it really is.

To facilitate the use of encryption by the public sector, the National Bureau of Standards (NBS) published a Federal Information Processing Standard (FIPS PUB 46) on January 15, 1977, called the Data Encryption Standard (DES). The DES uses a 64-bit key structure implemented with a defined permutation (change mechanism) method. 56 bits are used for the actual key and eight bits are used for error control. If you compute out the various combinations of a 56-bit key, you will find that there are over 70 quadrillion different bit combinations; the chances of breaking a properly enciphered DES data stream are pretty slim unless, of course, someone has access to the key that is being used.

With the DES, data is enciphered in 64-bit blocks. First, the 64-bit block worth of data undergoes a permutation that arranges the data according to a specific matrix. The 64-bit block is split into two halves (32-bits

each) and the right half is permuted to a 48-bit value (the matrix that specifies the order of data happens to duplicate sixteen bits of the data). The generated 48-bit value is the exclusive-ORed with a 48-bit key value that is obtained from the original 56-bit DES key. The exclusive-OR operation reduces the 48-bit value to a 32-bit by splitting up the 48-bit value to eight groups of six bits. The six-bit values are then converted to four-bit values using a six-bit to four-bit selection table. Following the conversion of the 48-bit data to 32-bit data, the 32-bit data is permutated again to a new 32-bit value. Now, if this were not complicated enough, when the data on the right is reduced to 32-bits, this value is exclusive-ORed to the unaltered left 32-bits. This completes the first level of iteration of the encryption computation.

The result generated from the previous computation now becomes the right half and the unaltered right half becomes the left half. The data then is permuted sixteen different times in a specific fashion, only using sixteen different keys (one new key per permutation). Following the sixteen permutations, the data is permuted one last time, only in the reverse order that it was permuted in the very first time. The data is now encrypted and ready for transmission.

My reaction the first time I walked through the standard years ago was that I could achieve the same effect by allowing a lot of noise on the line, but the people at NBS didn't think it was funny. The government doesn't have a great sense of humor.

It is important to note that DES has been implemented in a wide variety of products other than networking and communications products. File encryption, password encryption, and other traditional computing components have been given the benefit of the DES encryption algorithm to secure access to sensitive system components.

Another encryption method that is gaining some noteriety is a mechanism known as the RSA (for Rivest-Shamir-Adelman) Public Key Scheme. The RSA scheme is simple, yet very secure. The idea revolves around the fact that it is much easier to multiply prime numbers together than it is to factor the result. This means that the result could be used as part of the encyphering key, yet not compromise the necessary factors required for the decyphering operation. If the result generated were, say, over 100 digits long, it would take billions of years to factor out the result on a high-speed computer using the best algorithms possible. All in all, it is an elegant, high-speed method to encrypt data and keep it secure. For you folks using X.25 communications, you should be aware that the RSA algorithm is being pushed for usage as the authentication mechanism for the X.32 subset.

Everyone has his own opinion of the following and I am no different, so I'm sure I'm going to draw a few comments on this topic. That's good, though, 'cause my Dad always used to say that unless someone disagrees with you, no one is thinking (he used to have other sayings too, but none that I think would be acceptable for printing). So, now that we have seen how a couple of the major public encryption mechanisms work, by now you are wondering to yourself as to where you might implement encryption in a network?

Actually, encryption could be implemented anywhere in the network architecture, but the fastest way is within the communications hardware. This is further justified when one considers that DES is already on a chip (the Motorola MC6859, the Burroughs MC884, Western Digital WD2001E/F, WD2002A/B and WD2003, Advanced Micro Devices AmZ8068, Intel 8294, TI TMS9940, American Microsystems S6894 and other multi-chip sets and board products) and the RSA mechanism is math-computation intensive (making it ideal for something like

an 8087 arithmetic co-processor or other such chips). But, while encryption at the communications interface level is the simplest, it does not keep the node secure. From a system management point of view, encryption of data BEFORE it hits the network architecture is usually preferable as it precludes network software and hardware from performing data encryption. Should the network be compromised, the data is already encrypted on the node. It is also reasonable to perform encryption at the session control layer (and below) of the network architecture; this insures that outgoing data is secure before it hits the network communications hardware. While this sounds good on paper, it can also cause a great deal of computational overhead due to encryption of seemingly innocuous transactions such as ACKs and NACKs as well as other problems such as when to encrypt data and when not to (such as in the case of downline loading). Encryption of data prior to hitting the network architecture or encryption in the hardware precludes the network software from having to make all kinds of decisions about when and where to encrypt data.

Finally, the big question: why bother with network encryption?

Besides the obvious answer of keeping the IBM users out of your DECnet network, there are some very good reasons. First off, the old adage "An ounce of prevention is worth a pound of cure" definitely applies to networks. In areas where line tapping is possible, the cost of implementing network encryption equipment can be far less than the loss of data or market edge caused by network intrusion. Line tapping involves more than someone tapping a telephone connection. Line tapping is the term also used on public data networks when a node on the network intercepts an in-progress communications session. It is also useful to get a bit paranoid about local area networks (LAN's), especially non-intrusively tapped networks (such as Ethernet), as nodes could easily be added and the network software may not necessarily pick up the new node as a node on the network (this is common on networks that support different protocols). Software encryption in the network architecture prevents "session" tapping by nodes. For instance, node A could be establishing a connection to node B, but a different node X makes A think that it is node B. By the use of a network encryption algorithm, X would HAVE to know the encryption key, which is highly unlikely, to simulate node B.

Encryption, strategically placed within the node, can be a very useful thing to have. Many embarassing moments have happened at many companies due to unauthorized users reading files or electronic mail messages. Through the use of encryption techniques, such encounters become rare, if they occur at all, and business relationships can be salvaged. Encryption can take place at the file level, file system level, or even at the image level. Some companies have programs available that allow the encryption of executable images such that a key has to be supplied for the image to run. While this may be somewhat troublesome, it does keep circumvention of the normal system protection mechanisms to a minimum and allows control over who has the key(s).

One thing to keep in mind in the implementation of encryption systems is the problem of access to the encryption mechanism. If the mechanism used is hardware, it is important that the component(s) be kept in a manner where it can be physically secure from tampering and, if tampered with, leaves some sort of notification that tampering has happened. If the method used involves software encryption, it becomes much more difficult to keep tampering from happening. But, just as with monitoring hardware tampering, it is critical that some sort of mechanism be placed in the encryption software to keep tampering from happening.

Encryption of data in networks will become a necessity in the modern corporate environment as a matter of course. How you decide to implement encryption in your corporate environment will have a lot to do with what tradeoffs in performance you can live with. In all cases, it would be a good thing to start to look into. Who knows? Your network may be the next "statistic."

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Essential Resources Inc. offers training programs on a variety of DEC topics. Bill Hancock is an expert on networking who consults and lectures on the subject. He may be reached through the offices of ERI in New York. This article previously appeared, in slightly different form, in **The DEC Professional** magazine (volume 4, number 7).

HARTFORD RAINBOW USERS GROUP
August 1987 Newsletter

A Message from Our Chairman:

I would like to take this opportunity to thank, in print, the members of the Steering Committee who altogether made this year's HRUG the best in terms of speakers, presentations, and demonstrations.

Doug Stuteville deserves much of the credit for such speakers as Purna Pareek, Larry Campbell, and Ted Needleman, and for his sharing of software and expertise. Charlie Philippon, our librarian, is also to be thanked (even though he probably doesn't want to see his name in print) for a number of presentations which he has made n the course of the last several years. Reg Dionne, past HRUG Chair and as elected (in absentia) DEC liaison, deserves everyone's thanks for getting us speakers and sharing information about DEC's plans and products, as well as for copies of Digital Review. Stu Davis, our membership secretary, who has the sometimes onerous responsibility of sending out the meeting notices and keeps our membership listing up to date; Joanne Fletcher, our newsletter editor, who singlehandedly tracks down contributors who promised articles and items of interest; Ellen Gunther, the Treasurer, who not only keeps the books straight, but manages to find the time to work with new members, gets them to become DECUS members, and helps out in dozens of other ways; D.L. Chandler, who is a big help at meetings by hanging signs, making and distributing copies and the like; and John Babel; these people are all part of what HRUG is about. Without their cooperation and help, I would be able to sleep late one Saturday a month.

We're a volunteer group, and we need as much help as we can get. If you would like to suggest a meeting topic or speaker, volunteer to do a hardware or software demonstration, or write an article, we can use you. I can be reached at 677-7701 (Ext. 11) at work at Tunxis Community College, Farmington (days) or at 793-0306, Plainville (evenings). Our mailing address is HRUG, Box 1202, Farmington, CT 06034-1202, or you can write to me at Tunxis Community College, Farmington, Connecticut 06032.

Lastly, I would like to thank my office staff, Evelyn Kuziak, Karen Okenquist, and Rosenda Hull, for taking messages, typing correspondence, and the like; Gary Griswold (NE LUG Chair) and Shelli Keisling at DEC in Marlboro, and countless others.

Kim Karath, HRUG Chair, 7/10/87

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A Reminder About Your Membership

In the late spring, we deleted a number of HRUG members who had not attended meetings or answered our survey, or did not send us a change of address. If you have not been receiving newsletters and you wish to remain or be placed on our mailing list, please send the appropriate information to our P.O. Box number or call Kim Karath at work, at the above number.

WHAT'S AHEAD:

The coming year promises to be as rewarding as the last. There are a number of speakers being considered, a long promised tour of a DEC production facility, the possibility of a BBS system at Tunxis, and other "surprises."

HRUG CALENDAR FOR 1987-88:

Here is a list of the upcoming dates of regular HRUG meetings. Why not take a minute right now, and go through your calendar for the next twelve months and mark these dates:

Saturday, September 12	(9/7, Monday, is Labor Day)
Saturday, October 17	(10/12, Monday, is Columbus Day)
Saturday, November 14	
Saturday, December 5	
Saturday, January 9	(1/18, Monday, is MLK's birthday)
Saturday, February 6	(2/12, Friday, is Lincoln's birthday)
Saturday, March 12	
Saturday, April 9	(4/1, Friday, is Good Friday -- LUG certification)
Saturday, May 14	(5/30, Monday, is Memorial Day)
Saturday, June 18	(Last meeting of 1987-88)

DECUS Merit Scholarship Program Announced

In recognition of C.W. Goldsmith's service as a member of the DECUS Board of Directors and Chapter President, a Merit Scholarship has been established to be awarded annually to a DECUS member or member's child.

Who is eligible? High school students who will be completing or leaving secondary school and entering college in 1988, who are U.S. citizens, and who are members or children of members of DECUS, are eligible to compete for these scholarships. Participation requirements established by NMSC for entering the competition are explained in the 1986 PSAT/NMSQT Student Bulletin, distributed to students through their high schools prior to the qualifying test administration.

How do I enter the DECUS Merit Scholarship Program? To enter the competition for the DECUS Merit Scholarship to be awarded in 1988, students should have taken the qualifying test -- the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) in October of 1986.

How are winners selected? The 1988 DECUS Merit Scholarship winner will be chosen by NMSC from among members and children of members of DECUS who qualify as semifinalists and then advance to Finalist standing in the 1988 Merit Program. Semifinalists who are designated on the basis of their performance on the PSAT/NMSQT (or alternate test) will be notified of their standing through their high schools in September 1987, and each will receive a scholarship application to be completed and returned to NMSC. DECUS members and children of members who are named

Semifinalist in the 1988 competition (announced in September 1987) should notify Ms. Paula Morin. This notification must be made to DECUS by October 1, 1987. Members must have had membership in the Society for at least three years os of January 1 of the award year.

What is the amount of the award? Each DECUS Merit Scholarship award is $1,000 per year for up to four years of college study or until baccalaureate degree requirements are completed, whichever occurs first, to be sent to the winner as a single payment in the fall of 1988. Other scholarship aid, or an approved change in college choice, will not affect the award.

Who handles the scholarship procedures? All phases of the competition, including the selection of winners and payment of Merit Scholarship stipends, are handled for DECUS by the National Merit Scholarship Corporation.

Who can answer any questions I may have? Questions may be addressed to Ms. Paula Morin, DECUS, 219 Boston Post Road BPO2, Marlboro, Massachusetts, 01752, (617)480-3255.

VIEW FROM A-TOP DEC: Ex-Sailor Polishes DECworld

BOSTON -- This year's DECworld extravaganza, Digital Equipment Corp.'s annual educational and marketing conference, will be an international event and will mark the end of the company's twice-yearly presentations.

DEC has traditionally sponsored DECworld in Boston, and a similar presentation called DECville in France for its European customers, but, beginning this year, it will offer only one DECworld. Each year the presentations will be alternated, one year here and the following year somewhere in Europe.

DEC as chartered the QE2 and the Starship Oceanic to ease the crunch for hotel rooms in the area, since the two vessels will supply an additional 1,520 cabins for some of the estimated 60,000 who will be coming to DECworld.

Included in that 60,000 are more than 1,000 representatives from DEC's biggest accounts around the world, plus 10,000 DEC employees, both foreign and domestic, who have been invited as DEC's guests once they are in Boston. DEC is advising anyone planning on attending DECworld to make their reservations early.

DECworld, scheduled for September 9 through 18, should be an extraordinary event, because it also coincides with Boston's celebration of the 200th anniversary of the signing of the U.S. Constitution, which event is expected to be one of the largest in the country.

Attendees will have a truly international view of Boston Harbor as warships from around the world tie up around the World Trade Center as part of the celebration. The visiting ships will be joined by a flotilla of U.S. warships, including the oldest commissioned ship in the Navy, the U.S.S. Constitution, or "Old Ironsides," as it does a harbor turnaround and fires a 21-gun salute.

Bill Dooley, from Infoworld

A Bimonthly Newsletter of the Central New York Chapter of the Digital Equipment Corporation Users Society
Volume 5 Number 5 Mar. 1988

The LUGNUTS

March meeting
DID YOU EVER WONDER...

What DECUS is really all about. Now is your chance to come and see what the LUG can do for you. We have covered many interesting topics in recent months at our General Membership meetings but with the fresh start of spring, we decided to get back to basics and present a general purpose, introductory type, information dispensing meeting. The meeting will be held **Wednesday, March 23, at 3:00 PM at the Hamilton-Avnet Facility on Twin Oaks Drive in Syracuse.** Yes, there will be a business meeting portion as usual, but we will try to keep it short and sweet. The remainder of the general meeting will be broken into three segments.

The first part will be a short presentation of DECUS in general, it's concepts, organization, and what it can do for you besides what you can do for it. The second part of the general meeting will present an overview of the abstracts garnered from the copies of the symposia tapes in the tape library. There is a lot of good stuff out there and it's time you all got a chance to check it out. In the third segment of the meeting we will break into individual work groups for those folks with special interests in getting more information on specific areas of the tapes or learning more details about a specific utility. Bring your own tapes if you want, so they may be left with the librarian to make a copy of the programs you desire. Be sure to label tapes with your name, phone number, company, and DECUS membership number. Leave a note attached of what you want copied and the tape density to copy it.

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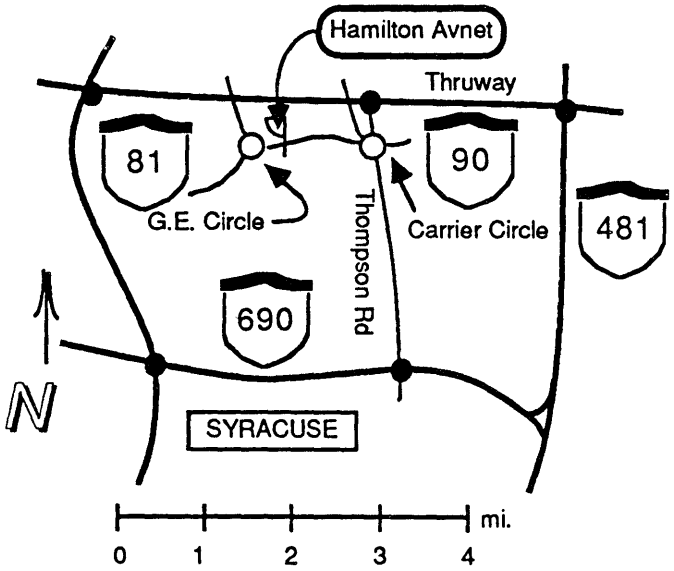

March meeting (continued)

A quick look at some of what is on the tapes is:

Languages & Tools SIG Tape:
- TEX - a complete VMS port of TeX and METAFONT
- EDT extensions to TPU
- C Utilitites and extensions

VMS SIG Tape:
- EDT extensions to TPU
- Utilities (system management, *etc.*)
- Bulletin board and notes system
- Games
- ReGIS to Sixel Utility
- Spell checker for TPU (runs while in edit)
- Maintenance for Kermit-32
- Foreign tape processor
- Print server for PDP11 to print on VAX.

RXS SIG Tape:
- New 'C' Compiler, updated for I&D space
- GKS V0.02 for RT-11
- Fortran cross reference programs
- Pool dump utility
- WHO utility
- UNIX Tape extractor
- Games
- Virtual Disk Handler
- Supermac
- Tektronix Graphics package

As you can see, we have lots to offer and more, so come and join us on March 23.

Rita Waugh

Regional LUG meeting

Our Regional LUG coordinator, Gary Griswold, has been instrumental in putting together a Regional LUG Meeting for all members of LUGs in Central and Western NY (WNYLUG, GRALUG, CNYLUG, TTLUG and the new one at Cornell). We plan to hold the joint regional meeting at the Rochester ACT (Digital's new Applications Center for Technology) Center on the evening of May 4. The planned agenda for the evening looks like this:

5:00 Joint Steering Committee's "Workshop"
6:00 Buffet Dinner - All Member's Invited!!! (Dutch Treat)
7:00 Regional Announcements; LUG Announcements; or any brief business
7:30 Planned Main Topic - VMS Version 5.0!!!
~8:30... Free Forum/Tour of ACT

Gary has indicated that a reservation system is needed, since space may be limited. If you plan to attend, call my office to register your intentions (315/477-6380), and I'll reserve you a seat. Incidentally, the Rochester ACT Center is an impressive resource for users of DEC products. They currently are able to DEMO over 170 software packages, on any of three 8000 series VAX's, and numerous "little" VAX's and PDP's. I hope that many of you will join us at this meeting, meet with members of other LUG's and take advantage of this unique opportunity to see our area ACT Center 'up close and personal.'

Jim English
Chairman CNYLUG

IMPORTANT MEMBERSHIP NOTICE

On the upper right-hand corner of your mailing label, you should find your DECUS number listed in parentheses. If this field is blank, you should contact me or another steering committee member so that we can enter your DECUS number into our membership database. If you do not have a DECUS number, contact me and I'll send you a DECUS membership application. Remember, DECUS membership is free. If we do not hear from you, your name will have to be removed from our mailing list.

New DECUS numbers are mailed directly to the applicant. If you recently have applied for a DECUS membership, please tell us what your membership number is when you receive it.

Dick Wilbur
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REGIONAL NEWS

Here are several items form Gary Griswold's quarterly DECUS NorthEast Memorandum (*i.e.*, Newsletter) to all the NE LUG Chairs, that I thought would be of interest to all members.

Jim English (Chairman CNYLUG)

The first Fall '87 SIG tapes are in the mail:

1) newest KERMIT distribution tape (1-1600 bpi tape)
2) the RSX distribution tape (1-1600 bpi tape)
3) the VMS distribution tapes (2-1600 bpi tapes) as 6 savesets: VAX000, VAX87C, VAX87D, VAX87E, RSX87B and GCPP. The last two are the RSX SIG contributions in VMS BACKUP format and the GNU C++ compiler sources that Glenn Everhart was so kind as to include.

Please direct all inquiries, questions, compliments, complaints to your LUG Tape Librarian:

Renee Solak
General Electric Co.
P.O. Box 4840
CSP5-3Z
Syracuse, NY 13221
315/456-1737

SEMINAR NEWS

A number of LUG's are sponsoring Regional DEC Seminars. Here are the ones being planned by the Buffalo LUG. Their seminars are tentatively scheduled for June 6, 7 and 8.

Local Area VAXCluster Update for VAXCluster Managers — *Instructor*: David MacArthur

Concepts of Site and System Management: A Discussion and Overview — *Instructor*: Tim Frazer

Tuesday, June 7 Planning a Campus Network — *Instructor*: Michael Greene

Wednesday, June 8 VMS Tuning: Rules of Thumb — *Instructor*: Daniel Esbensen

The availability of the above, of course, depends on registration. This is the first opportunity we've had in western NY to take advantage of the Regional Seminar Program. Please support it. If you are interested in any of these programs contact:

Dave Straitiff (Chairman WNYLUG)
Speech Research Lab, Dept of Psyc.
SUNY at Buffalo, Park Hill
Buffalo, NY 14260
716/689-8093

Library News

You all received a Mid-year Library Catalog a month or two ago. Since that time, there have been some changes...

V-SP-59 DATATRIEVE/4GL SIG Library Collection has been revised with additional material in the All-in-1 and System Management areas. SC Code: MC, VMS Backup format.

V-SP-69 AMIGA Utilities Collection 2, new, from the prolific Glenn Everhart. SC Code: PC, TC, VMS Backup format.

PRO-171 DSKDIR: Diskette Directory Utility produces a searchable database of diskette directories. SC Code: JA, P/OS format.

UX-102 KIC2 v2 interactive 2D color graphics editor. SC Code: ED, MA, TAR format.

UX-SP-101 OCT Tools v1 libraries for VLSI design. SC Code: EC, ED, PC, TC, TAR format Note: EC refers to BDSYN-BDSIM User's Guide, ED refers to Berkeley CAD Tools User's Manual.

The above information is extracted and SEVERELY abstracted from a Library Status Report. These also list the annotated content of SIG tapes submitted to the Library. Library Status Reports are published about twice a month. They are sent out via the Internet (an umbrella network that covers ARPAnet, CSnet, MILnet, BITnet, and some others) and usenet. I am sure there is SOMEONE in your LUG that has access to one of these services. Perhaps you could help your LUG members who use the DECUS Library as a source of material, keep up to date by distributing this material at meetings? Thanks to Dave Straitiff for the idea!

VAX Tip — HINTS AND BUGS

Last year when I was down to DEC's Bedford training facility, the subject of backups and the slowness of the process was discussed. One of DEC's performance teams had just completed a study on this and recommended the following qualifiers when doing backups.

```
$BACKUP/REWIND/BUFFER=5/BLOCK=32768/
  DENSITY=1600(6250)  [type this on one line]
```

For incremental backups use:

```
$BACKUP/REWIND/RECORD/FAST/
  BUFFER=5/BLOCK=32768/
  DENSITY=1600(6250)  [type this on one line]
```

Also, a bug was reported in the SYSGEN utility. Don't use the <TAB> key within any of the commands! If the operating system sees the TAB, it'll ignore the line. We found this out the hard way in SYSTARTUP.COM, when after issuing a valid SYSGEN command, we tabbed over to line up comments. The line wasn't read. This was confirmed by Colorado Software Support. As far as I know none of the above have been published (released) by Digital.

The above was published in the pages of *All Hands on DEC*, the newsletter of Maine LUG. (author unknown)

New KERMITs

Date: Mon, 11 Jan 88 19:55 MST
From: Joe Doupnik <JRD@USU> and Frank da Cruz <SY.FDC@CU20B>
Subject: Announcing MS-DOS Kermit 2.30
Keywords: MS-DOS Kermit 2.30, IBM PC Kermit 2.30, DEC Rainbow
Keywords: Tektronix Emulation, NetBIOS

This is to announce a major new release of the MS-DOS Kermit communication and file transfer program, version 2.30, the first major release since version 2.29 appeared in May 1986. The code has been frozen as of January 8, 1988. Any further features or fixes will be deferred for future releases.

The major new features of version 2.30 are:

- Long file transfer packets (up to 1000 bytes)
- NetBIOS local area network support
- A simple script language for automated dialogs with other computers
- Tektronix 4010 graphics terminal emulation
- Improved DEC VT102 and Heath 19 emulation
- ANSI printer control
- Selectable initialization file names
- File transfer performance statistics reporting
- A new, more powerful, more portable key redefinition facility

- Support for new IBM keyboards
- A mechanism for installing COM3 and COM4 support
- Ability to assign Kermit connect-mode "verbs" to arbitrary keys
- Keyboard and port input character translation during terminal connection
- Support for both 7-bit and 8-bit (international) character sets
- Improved interaction with DOS batch programs
- More flexible command-line invocation options
- Security features for server operation
- Ability to operate Kermit through an external console via CTTY
- Compatibility with most internal modems
- Modem status report (CD, DSR, CTS)
- Increased memory for screen rollback, macro and key definitions
- Garbage collection of macro and key definition memory
- Improved cooperation with half-duplex hosts
- Improved DOS error handling
- Improved debugging and logging functions
- Improved consistency of command syntax
- A completely rewritten manual

The program requires DOS 2.0 or later, and 90K+ of memory. Version 2.30 currently runs on the entire IBM PC family, including the new PS/2 series, on IBM clones such as the Compaq, AT&T 6300, and DEC VAXmate, and on "semi-clones" like the Seequa Chameleon and Data General/1, which have different serial port adapters. There is also a specific version for the DEC Rainbow (which does not include Tektronix emulation), and a "generic MS-DOS" version that should run on any DOS machine, using only DOS calls (no specific terminal emulation).

Thanks are due to James Sturdevant of A.C. Nielson Company for the initial implementation of the script language, to Joe Smith of the Colorado School of Mines and Brian Holley of the University of Cambridge (UK) for the original Tektronix emulation code, to David Knoell of Basic American Foods for the initial implementation of "Kermit verbs" assigned to keys, and to AT&T for supporting the NetBIOS development. And thanks also to the hundreds of Info-Kermit Digest subscribers who tested the many prereleases of this program, reported bugs, and suggested new features, and who read and commented on drafts of the new manual.

The new IBM version replaces several previous versions that were distributedseparately, including the MSVCLO version (for IBM near-clones like the Seequa Chameleon and DG/1) and the Olivetti M24 version. Untested versions are included for the HP-150, HP-110 and Portable PC, and the Grid Compass II -- if you have any of these machines, please try out the new version!

Previous releases of MS-DOS Kermit also ran on a number of other machines, including the Wang PC, Victor 9000, Sanyo MBC, NEC APC and APC3, etc. The code for these non-IBM compatibles will also be to 2.30 level, and released when available. Volunteers to test and fix the code for these machines are heartily encouraged to step forward!

The files for version 2.30 have been installed in Kermit Distribution at Columbia University. They are available on the Internet from host

CU20B.COLUMBIA.EDU (a DECSYSTEM-20)

as follows: run FTP, log in as user ANONYMOUS, any password, and GET (or MULTIPLE GET, or MGET, according to the syntax of your FTP program) the desired files. They are also available on BITNET and EARN from host CUVMA (an IBM mainframe) by sending a message to KERMSRV@CUVMA requesting the desired files. To learn more about KERMSRV, send it a message "HELP". KERMSRV at the University of Toledo (UOFT02) (a VAX/VMS based Kermit file server) also has the files, and eventually, they will also be available via UUCP from Oklahoma State University, and from dialup bulletin boards around the world. A complete listing of the new Kermit files, with their file lengths, appears on page 7.

The executable files are stored in a special printable bootstrap format, called "BOO files". These are decoded into .EXE files using a "BOO-file decoder" program. These are available written in various languages, including Basic, MASM, C, and Pascal. The documentation is available online in plain ASCII text format, and in Scribe text formatter source format. Following is a synopsis of the files. The KERMSRV name is the same as the CU20B name, except the "KER:" should be omitted, and the period between the filename and filetype should be a space, e.g. KER:MSAAAA.HLP on CU20B is MSAAAA HLP on CUVMA.

The utility program MSUCHK.C (and .BOO), contributed by Phil Benchoff of Virginia Polytechnical Institute, allows convenient determination of MS-Kermit's new keyboard codes on the IBM PC family. Be sure to read the MSKERM.BWR file before trying to use the new version, or reporting any problems with it. Here are the minimum files needed for the new release ("xxx" stands for the specific version, IBM, RB1, or GEN):

1. For everybody: The documentation -- MSKERM.DOC, MSKERM.HLP, MSKERM.BWR.
2. For those who already have Kermit on their PC: MSVxxx.BOO. If you don't have the MSBPCT "BOO-file decoder", also get that.
3. For those who want to make modifications to the sources: MSS*.*, MSGxxx.* (if any), MSXxxx.*, MSYxxx.* (if any) ,MSZxxx.* (if any), MSVxxx.MAK (or .BAT if you don't have MAKE), and MSVxxx.LNK.

The systems for which we don't yet have the new version ready are still in the Kermit distribution as before, under the MSV, MSX, and MSY prefixes. These will be replaced as the new ones appear.

The IBM PC and DEC Rainbow versions may also be ordered on diskette from Columbia, along with typeset, printed copies of the manual. The IBM version is available on 5.25-inch 360K DS DD diskettes, and on 3.5-inch 720K DS diskettes for the PS/2 family. The Rainbow version is on RX50. Send mail to

Info-Kermit-Request@CU20B.COLUMBIA.EDU
or
KERMIT@CUVMA.BITNET

for ordering information. The distribution diskette for the IBM PC version will also be submitted by Columbia to various user groups and diskette services.

New Features

Of particular interest are the Local Area Network and Tektronix items. Both are available only for the IBM PC version of Kermit-MS.

LANs can be used as a communications pathway between cooperating Kermits and between Kermit-MS and a host which allows direct remote logins from the LAN. The mechanism is the NetBIOS emulator program supplied with each network, and thus it works with most LAN systems. Any station can become a Kermit network server or a client, without interference with the regular network fileservers, to allow multiple Kermit to Kermit links on a voluntary peer to peer basis. The mechanism uses just the NetBIOS and not vendor dependent Asynchronous Communications software packages (Kermit puts its own packets or Connect mode characters in NetBIOS packets and uses the NetBIOS protocol in addition to the standard Kermit protocol).

Tektronix terminal emulation provides standard line drawing, dot, and character graphics of the 4010 class terminals using true graphics on the PC. Kermit-MS automatically determines the display and display adapter board in current use and does high resolution graphics in response to Tek style commands (which are described in the new Users Manual). Display adapters currently supported are EGA, CGA, Hercules, AT&T/Olivetti, and even regular Monochrome (with text characters rather than dots). The graphics will be in color (foreground and background) and will be preserved separately from ordinary text (VT102, VT52, Heath-19) screens if the hardware permits and one can switch back and forth from the keyboard. Tektronix specifications have been extended slightly to allow the host to switch Kermit-MS into and out of graphics mode automatically for easy plotting from packages such as SAS.

The IBM PC version now supports the COM3 and COM4 ports available on many machines with added hardware, provided the user informs the BIOS of their presence. The Users Manual shows how to do this. Kermit-MS/IBM adapts to screen dimensions found at startup, such as 132 columns or 43 lines, and is able to switch several popular non-IBM EGA boards to 132 column mode under host control.

Long packets, up to 1000 bytes, are supported to increase efficiency on long haul communications circuits. Efficiency increases by using fewer packets and thus less overall time waiting for packets to be acknowledged. Strong three byte CRC checking is encouraged; it does not degrade local performance. Long packets are a reasonable alternative to the sliding windows approach which has a problem on PCs when they attempt disk i/o while receiving characters on the serial port (interrupts can get lost and packets need to be repeated).

Translation mechanisms are present to assist multilingual usage of essentially ASCII or English style machines. These are not panaceas for a very complex problem, but testing in Europe indicates it is a step in the right direction. The mechanisms are conversion of characters about to be displayed, control of character size (7 or 8 bits), and the new generalized keyboard handler present for all MS DOS machines. A

sustained awareness of supplementary input and output devices used by disabled and other individuals is present in many parts of the program. As we learn more about such devices Kermit-MS will try to make their use possible and comfortable.

Overall, the interior technical improvements are numerous. This gives us added flexibility and increased performance.

And may we share with you — Like any Kermit program, MS-DOS Kermit is for everyone to use and share. Once you get it, feel free to pass it along to your friends and colleagues. Although it is copyrighted and not in the public domain, we ask only that you not attempt to sell it for profit, and that you use it only for peaceful and humane purposes. If you have comments, suggestions, improvements, or fixes, please send them to Kermit Distribution at Columbia University, where they can be considered for the next release or added to the "beware file". Happy New Year, and use Kermit in good health!

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New Kermit files

CU20B Name	Size	Description
KER:MSAAAA.HLP	7K	Explanation of file naming conventions
KER:MSB*.*	130K total	BOO-file encoding/decoding programs
KER:MSVIBM.BOO	97K	IBM PC Kermit, BOO-encoded executable
KER:MSVRB1.BOO	68K	DEC Rainbow Kermit BOO file
KER:MSVGEN.BOO	62K	Generic MS-DOS Kermit BOO file
KER:MSTHP1.BOO	63K	HP-150 (untested)
KER:MSTHPX.BOO	64K	HP-110 and Portable PC (untested)
KER:MSTGRI.BOO	64K	Grid Compass II (untested)
KER:MSKERM.DOC	263K	MS-DOS Kermit manual, plain ASCII text
KER:MSKERM.MSS	263K	Scribe text formatter source for manual
KER:MSKERM.HLP	12K	A summary of MS-Kermit commands
KER:MSKERM.BWR	11K	List of known restrictions, bugs, etc.
KER:MSS*.*	638K total	System-independent MASM Source files (13 files)
KER:MSG*.*	110K each	System-dependent source (graphics, IBM only)
KER:MSU*.*	70-85K each	Sys-depn source (keyboard support, all systems)
KER:MSX*.*	39-150K each	Sys-depn source (port i/o, etc, all systems)
KER:MSY*.*	100K each	Sys-depn source (terminal emulation, IBM only)
KER:MSZ*.*	183K each	Sys-depn source (term emul, cont'd, IBM only)
KER:MSV*.MAK	2K each	Microsoft MAKE files for each version
KER:MSV*.BAT	2K each	Batch files to build each version
KER:MSV*.LNK	1K each	LINK command files for each version

New Bylaws

Our current bylaws are slightly out of compliance with DECUS standards, and a few key points concerning elections and replacement of officers are treated vaguely in them. Rather than trying to amend them piecemeal in order to bring them into compliance, the CNYLUG Steering Committee proposes to replace our current bylaws with the following set, adapted from the model bylaws provided by DECUS. Note that the items numbered in ***bold italics*** are required by DECUS. These bylaws will be open for discussion at the upcoming meeting, but the vote to adopt them will take place at the following general meeting, as specified in our present bylaws.

CNYLUG Steering Committee

LUG OPERATING PRINCIPLES

ARTICLE I
NAME

1.0 The name of the organization is the CENTRAL NEW YORK LOCAL USER'S GROUP

ARTICLE II
PURPOSE

2.0 The LUG is established as a Local User Group (LUG) under the Bylaws of the Digital Equipment Computer User's Society (DECUS) to:

2.0.1 Advance the effective utilization of computers, computer peripheral equipment and software manufactured and marketed or otherwise made available by Digital Equipment Corporation (DEC) by promoting the interchange of information concerning their uses.

2.0.2 Advance the art of computation through mutual education and exchange of ideas and information.

2.0.3 Provide channels to facilitate the exchange of computer programs among the LUG members.

2.0.4 Provide feedback to DEC on equipment, software, services and other needs which may arise.

2.0.5 Cooperate with the DECUS/U.S. Chapter and other LUGs in advancing the purposes of the Society.

ARTICLE III
MEMBERSHIP

3.0 Membership Requirements:

3.0.1 Only DECUS members may become members of the LUG.

3.0.2 Any member of DECUS who expresses an interest in above mentioned (1.0) LUG is accepted as a member of the LUG.

3.1 Rights of Members:

3.1.1 All LUG members shall have the right to vote for the elected officer of the LUG.

3.1.2 Five or more members of the LUG may, by written petition, bring a motion before a meeting of the LUG Steering Committee.

ARTICLE IV
STEERING COMMITTEE

4.0 General:

4.0.1 The LUG shall be administered by a Steering Committee.

4.0.2 The Steering Committee shall consist of five elected officers, a DEC Representative (or Counterpart) and at least two At-Large members.

4.0.3 A quorum will be composed of at least three officers of the Steering Committee.

4.0.4 All members of the Steering Committee shall be voting members.

4.1 Steering Committee Officers:

4.1.1 The Steering Committee Officers shall be elected from the membership of the LUG. These officers will be elected as the Chair, the Vice-Chair, the Secretary/Treasurer, the Newsletter Editor and the Librarian.

4.1.2 The term of office for an elected officer shall be one year, renewable by election.

4.1.3 Each term of office shall begin on July 1 of an election year.

4.1.4 In the event that the Chair is unable to attend a Steering Committee meeting, the Vice-Chair (or in the Vice-Chair's absence, the Secretary), shall act as the chair of the meeting.

4.2 At-Large Members:

4.2.1 At-Large Members of the Steering Committee may be appointed by the Chair and serve as necessary and appropriate.

4.3 Ad Hoc Committee:

4.3.1 The Chair may, from time-to-time, establish Ad Hoc Committees as the business of the LUG requires.

4.4 Responsibilities of the Steering Committee:

4.4.1 The Committee shall establish procedures for the orderly operation of the LUG.

4.4.2 The Committee shall organize all LUG meetings.

4.4.3 The Committee shall make nominations and hold elections for officers on the Steering Committee.

4.4.4 The Committee shall interpret, with the Society, these bylaws.

4.4.5 The Committee shall perform all other duties which customarily pertain to the Steering Committee.

4.5 Responsibilities of the Chair:

4.5.1 The Chair shall preside as chair at all meetings of the Steering Committee.

4.5.2 The Chair shall provide for the discharge of necessary duties of absent members of the Steering Committee.

4.5.3 The Chair shall perform the normal administrative functions necessary to accomplish the LUG goals.

4.5.4 The Chair shall adopt interim procedures and policies when necessary on behalf of the LUG as a whole.

4.5.5 The Chair shall be responsible for maintaining communications with the NLC.

4.6 Responsibilities of the Vice-Chair:

4.6.1 The Vice-Chair shall assume all of the responsibilities of the Chair in the absence of the Chair.

4.6.2 The Vice-Chair shall maintain a record of the membership of the LUG.

4.7 Responsibilities of the Secretary/Treasurer:

4.7.1 The Secretary shall record and maintain the minutes of the Steering Committee meetings.

4.7.2 The Secretary shall inform the LUG members of the time, place, and agenda of all LUG meetings.

4.7.3 The Secretary shall handle the finances of the LUG and prepare all financial reports.

4.8 Responsibilities of the Newsletter Editor:

4.8.1 The Newsletter Editor shall edit and publish a LUG newsletter.

4.9 Responsibilities of the Librarian:

4.9.1 The Librarian shall maintain a catalogue of LUG member submitted software.

4.9.2 The Librarian shall furnish a copy of the catalogue to any LUG member on request.

4.9.3 The Librarian shall maintain a listing of signed releases for each piece of software in the Library.

4.9.4 The Librarian shall not knowingly distribute any copyrighted material.

4.9.5 The Librarian shall not furnish a copy of any software to any person outside the borders of the U.S.

4.10 Responsibilities of the DEC Representative (Counterpart):

4.10.1 The DEC Representative (Counterpart) shall represent the interests of DEC.

4.10.2 The DEC Counterpart shall help the LUG according to the Precepts outlined in Policy 21Y.

4.11 Vacancy in Office:

4.11.1 In the event of a vacancy occurring on the Committee, the Chair shall appoint a LUG member from names submitted to him for that purpose by the Committee. The appointee shall serve the balance of the unfilled term for which he is appointed and shall not be prohibited from running for election to the Committee in any subsequent election.

4.11.2 The office of Chair, if vacated, shall be filled by a member of the Committee elected by a majority vote of the Committee. The Regional LUG Coordinator of the NLC shall be notified of the change.

4.12 Vote of the Steering Committee:

4.12.1 Except as expressly required by these operating principles or the Society's Bylaws, the vote of the majority of the members of the Committee in attendance at a Committee meeting at which a quorum is present shall be the act of the Committee.

ARTICLE V
ELECTIONS

5.0 Nominations:

5.0.1 All LUG members shall be eligible to make nominations for election to the Committee.

5.0.2 Nominations shall be opened by April 1 of an election year at which time the Committee will present to the LUG membership a slate of at least one nominee for each elective office on the Committee and will at that time call for additional nominations.

5.0.3 All nominations must be submitted in writing to the Secretary.

5.0.4 Nominations shall close on May 1 of an election year.

5.1 Elections:

5.1.1 The Secretary shall compile a ballot within two weeks following the close of nominations. The ballot will include a brief summary of the qualifications of each candidate and will be distributed to all LUG members.

5.1.2 All ballots will be returned to the Secretary by the due date specified on the ballot. The due date shall not be less than two weeks after the date of distribution of the ballots.

5.1.3 The ballots will be counted within one week following the due date. No ballots will be counted after that time. The newly elected Officers will be informed immediately of the results of the election and the date their term begins. The NLC Regional LUG Coordinator shall be informed of the results of any election.

ARTICLE VI
MEETINGS

6.0 General Meetings:

6.0.1 There shall be a minimum of two meetings of the LUG membership per year.

6.1 Steering Committee Meetings:

6.1.1 There shall be at least one Committee meeting prior to each general meeting.

ARTICLE VII
AMENDMENTS

7.0 General:

7.0.1 Amendments to the LUG Bylaws shall not conflict with any provision of the Society's Bylaws.

7.0.2 A ballot on an amendment to these LUG Bylaws may be initiated by the Steering Committee or by petition of at least 15 LUG members.

7.0.3 All LUG members shall have the opportunity to vote on amendments. The Secretary shall prepare and distribute to each LUG member a statement of the proposed amendment and a ballot.

7.1 Amendment Ratification:

7.1.1 Amendments to these Bylaws must be approved by affirmative vote of two-thirds of the votes cast.

7.1.2 All ballots must be returned to the Secretary within 30 days of the date of distribution.

7.1.3 Any amendments to these Bylaws must be submitted to the NLC Regional LUG Coordinator.

ARTICLE VIII
IMPLEMENTATION

8.0 General:

8.0.1 These proposed Bylaws shall be submitted to the LUG members who shall vote on the adoption of these Bylaws by a date established for that purpose by the then existing Steering Committee.

8.0.2 Upon approval of these Bylaws, the temporary Officers of the Steering Committee shall become the officers of the Steering Committee under these Bylaws with a term ending 30 June, 1988.

The Central New York Chapter
of the Digital Equipment Corporation's User's Group
announces its

March Meeting
Exploring the DECUS tapes

When: Wednesday, March 23 at 3:00 PM

Where: Hamilton Avnet Facility

103 Twin Oaks Drive

Syracuse, NY

A Bimonthly Newsletter of the Central New York Caapter of the Digital Equipment Corporation Users Society
Volume 5 Number 4 Jan. 1988

The LUGNUTS

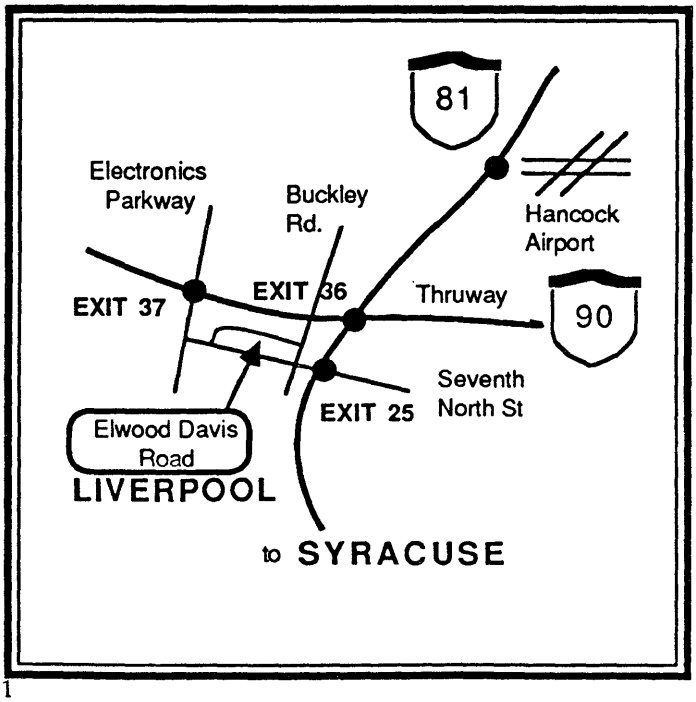
January Program

VAX File Security

The next meeting of the Central New York Chapter of the Digital Equipment Corporation User's Group will be on **Thursday, January 28, at 7PM at the Syracuse Digital Equipment Corp. office, 2090 Elwood Davis Road, Liverpool.** A speaker from Digital, Jon J. Danzak, a software specialist with the local office, wlll be discussing security in VAXVMS systems. VAXVMS systems offer a wide range of security features that are appropriate for a variety of security needs. Jon will provide some basic background material for the new Digital user and suggest techniques and concepts that are valuable at all levels. The ease of access to technology today, the way that technology touches our lives, and the prevalence of computer systems have made computer security all the more important. Escapades such as the "411 Club" and the "Computer CHAOS Club" have caused media sensations. Computer systems do present us with the dual edge challenge of free access and access restrictions: who to grant access, who to deny.

Jon has been with Digital for nearly five years and has been in the computer industry for over ten. He has a background in computers and psychology with a bachelor's degree from the University of Pittsburgh. Jon's experience in the industry includes a wide and diverse background. He has acted as a data base administrator, written real-time control systems, authored data base systems, acted as system Integrator and is currently using his broad based skills as a Sales Support Specialist.

Also, Dick Wilbur will give a report on the Fall 1987 US DECUS Symposium for us, especially relative to what he has learned about the Version 5.xx release of VMS, which we will be seeing soon. We all can look forward to Dick's VMS v5 update report.



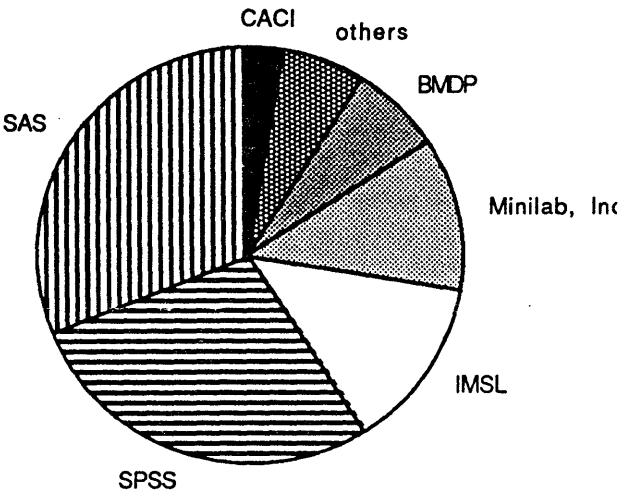
CONTENTS

STATISTICAL ANALYSES IN VAX BASED ENVIRONMENTS

Recently I was reading an article that was touting a newly-signed Agreement between Digital and SAS of Cary, NC. It was of particular interest to me, because we primarily use the SAS System running on a VAX to analyze data from our research trials at Agway. As I read this particular article I thought there might be other Digital users who would be interested in knowing a little about who are the suppliers of statistical (number crunching) software for VAX environments, so I dug back through some information that I had been saving for "when the need arises." Here is some of what I found.

Currently, there are about 10 major third-party suppliers of statistical analysis software for VAX computers, and more than 200 that offer packages for the IBM-PC's and compatibles. I mention the PC's is because there is such an abundance of them hanging off of VAX's that they really are an important issue for most of us. Most vendors who provide statistical software systems for the VAX now make the capabilities of those systems available for PC's as well. According to a recent survey (now15-20 months old) by the Computer Intelligence Co. of LaJolla, CA, 94% of the statistical software commonly used at DEC sites is made by six suppliers: SAS Institute Inc., SPSS Inc., IMSL Inc., Minilab Inc., BMDP Software and CACI. This survey found that, even though the SAS System wasn't ported over and made available on the VAX before 1985, SAS software had the largest market share of all the statistical software available for the DEC environment.

According to the survey, SAS had 31% of the software base with SPSS at 28%, IMSL at 13%, Minilab at 12%, BMDP at 7%, CACI at 3% and all others shared the remaining 6%. The newly-signed Agreement between SAS and Digital would seem to pave the way for even greater growth of SAS Software on VAX system. According to SAS officials, after being in the Digital market for just over two years, the SAS system under VMS accounts for 20% of all new sales.



Computers are making so much data available to us every day that it has become an awesome task to evaluate, summarize and effectively utilize all this information without the aid of sound statistical programs. Most of these third-party vendors have designed very powerful data handling/ manipulation languages into their products and have designed user interfaces which are very comfortable for even non-statistically or mathematically oriented users.

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For example, SAS running under VMS is composed of eight integrated (separately licensed) components that provide the capabilities for data management and analysis, report writing, menu-based applications development, decision support, spreadsheets, graphics, operations research, financial planning, statistical quality control and interactive matrix programming. The SAS core programs feature over 80 procedures that can be invoked with very little programming skills, including an interface to their system 2000 System. Somewhat similar capabilities also are appearing in the other statistics packages which I previously mentioned. A result of building these capabilities into the statistical software is that information managers are finding that statistical software is finding homes and being used effectively in domains other than the research labs.

Five or six years ago, graphic capabilities in data analysis software was uncommon. However, today, most users wouldn't even consider a system without it. Probably the key factor is the cost of today's graphics hardware is no longer prohibitive for most users. Graphics has really allowed users to do more than just dress up their data so that they can take them out. It has made information, which was used or understood only marginally before, useful and a more integral part of our every day activity. The old adage that "A picture is worth 1000 words" isn't far from the truth.

Most manufacturers of statistical software agree that the next revolution in their software systems will be the incorporation of expert systems, commonly called advisory systems. The introduction of these types of systems is judged to be near by most developers. The addition of the advisory systems to these statistical systems effectively will provide a statistical consultant with each computer system. As our access to increasing volumes of computer data continues to grow exponentially, the future for statistical software to make sense of it all seems bright.

J.E.English

IMPORTANT MEMBERSHIP NOTICE

In the upper right-hand corner of your mailing label, you should find your DECUS number listed in parentheses. If this field is blank, you should contact me or another steering committee member so that we can enter your DECUS number into our membership database. If you do not have a DECUS number, contact me, and I'll send you a DECUS membership application. Remember, DECUS membership is free. If we do not hear from you, your name will be removed from our mailing list.

New DECUS numbers are mailed directly to the applicant. If you recently have applied for a DECUS membership, please tell us what your membership number is when you receive it.

Dick Wilbur
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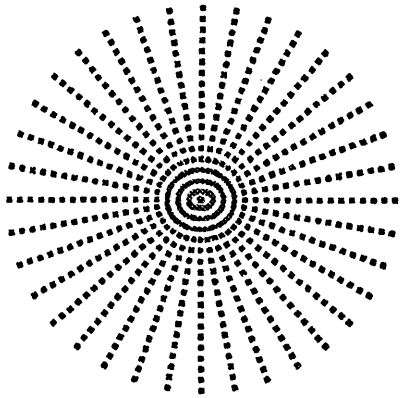
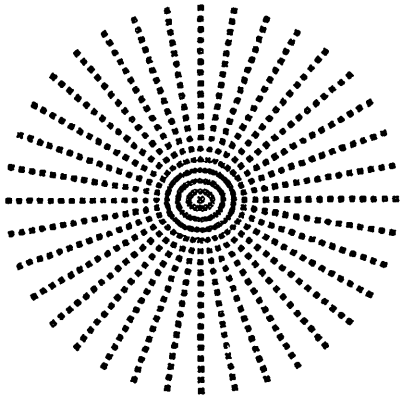
(315) 423-3817
Internet:<rewilbur@sunrise.acs.syr.edu>
Bitnet: <rewilbur@sunrise>

January meeting of the Central New York Chapter of the Digital Equipment Corporation Users Society



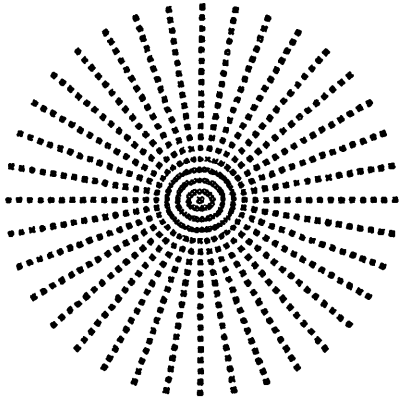


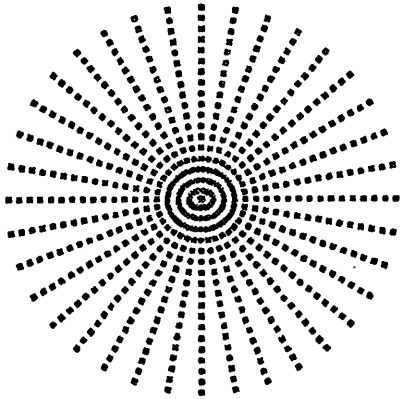
VAX File Security

Speaker: Jon J. Danzak
Software Specialist
Digital Equipment Corporation

When: Thursday, January 28, 1988 at 7:00 PM

Where: Digital Equipment Corporation office
2090 Elwood davis Road
Liverpool





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VOL. 7 NO. 12 Greater Boston VAX Local User's Group Newsletter December 1987

MEETING ANNOUNCEMENT

When: Tuesday, December 15, 1987 NOTE: This is the third Tuesday

Where: MIT, Plasma Fusion Center
Building NW17, Room 218
175 Albany Street
Cambridge, MA 02139

What: 1:30 - 2:00 -> Informal user discussion
2:00 - 2:15 -> Old business and announcements
2:15 - 2:45 -> Open question and answer period
2:45 - 4:00 -> Presentation
4:00 - -> More questions and answers

Parking is available at the MIT commuter student parking lot around the corner. Place your parking authorization (available at the meeting) on your dashboard. Metered parking is also available on Albany St.

PRESENTATION TOPIC

FALL DECUS Symposium in Anahiem, California. Attendees will be sharing their notes from the various seminars.

ANNOUNCEMENTS

Note that the VAX LUG meeting for December will be held on December 15, 1987, the third tuesday of the month, the week after the Fall DECUS Symposium in Anaheim.

LUG STEERING COMMITTEE - Call for information

Chairperson		Co-chairperson	
Ron McKenna	(603) 885-4493	Dawn Steeves	(617) 482-2700 x3500
Hardware		Tuning	
Tom Provost	(617) 774-2370	Alan Wu	(617) 253-5624
		Jeff Del Papa	(617) 876-6819
Newsletter		Mailing List	
Dave Chin	(617) 929-8633	Mark Katz	(617) 466-3437
Database Management		Site Survey	
Cliff Smith	(207) 675-3313	Marty Sasaki	(617) 273-5500
Structured Languages		Networks	
Deryl Burr	(617) 497-8101	Cliff Hafen	(617) 353-2780
SIG Tapes		On Line Lug Log	
Bob Hassinger	(617) 435-9061	1200 baud	(617) 495-7120
Lance Jackson	(617) 495-1266	300 baud	(617) 495-8633
		username VAXLUG	

DAVE CHIN
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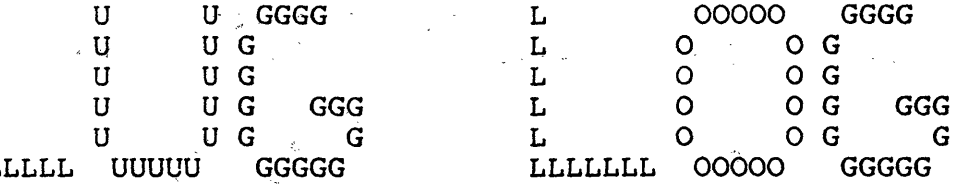
BUILDING 090/LL/019
BOSTON, MA 02125-3393



VOL. 8 NO. 1 Greater Boston VAX Local User's Group Newsletter January 1988

MEETING ANNOUNCEMENT

When: Tuesday, January 12, 1988

Where: MIT, Plasma Fusion Center
Building NW14, Room 2209 NOTE: meeting room change!
178 Albany Street
Cambridge, MA 02139

What: 1:30 - 2:00 -> Informal user discussion
2:00 - 2:15 -> Old business and announcements
2:15 - 2:45 -> Open question and answer period
2:45 - 4:00 -> Presentation
4:00 - -> More questions and answers

Parking is available at the MIT commuter student parking lot around the corner. Place your parking authorization (available at the meeting) on your dashboard. Metered parking is also available on Albany St.

PRESENTATION TOPIC

A developer from DEC DSS will discuss DECNET SYSTEM SERVICES, the series of networking products that provide users with an environment to make the network appear to be a single system. Discussion will include distributed file service, distributed queuing service, distributed name service, and remote system management.

UG STEERING COMMITTEE - Call for information

hairperson		Co-chairperson	
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THE GURU

The Newsletter of the
TWIN TIER LOCAL USERS GROUP

March, 1988 Volume 2 Issue 4

EDITOR'S NOTES

It's that time of year again! While our national government is holding its many primaries in the attempt to narrow the field of candidates for President, your LUG is also gearing up for elections. Nomination ballots are included in this issue of THE GURU, so if you think someone would be great in a particular position, or if you would like to nominate yourself (volunteer?!?), fill out the ballot and mail it to the Election Chairman, Tam Kammin. Also on the ballot is an RSVP for the Western NY Joint meeting at DEC's Application Center for Technology, in Rochester. Please fill out this information, as well, before returning your ballot.

Speaking of elections, I won't be running for office this year, so if you have secret aspirations of being a newsletter editor, if the challenge and thrill of being "in the know" and sharing that knowledge with others makes your blood run hot, get your name of the nomination ballot!! If you can't get a friend or colleague to enter your name...enter it yourself, no one will know the difference!

AND THE WINNER IS...During the January, 1987 General LUG Meeting, Jim Dugan announced that DEC had donated a "white-board" to the LUG. Anyone who bought a 50-50 raffle ticket during the general meetings was automatically included in the raffle for the white board. The winning ticket was drawn during the last general meeting, January 20, 1988, and the winner is Christopher Hoaglin! Congratulations, Chris!

The March General LUG Meeting will be held later than normal on Thursday, March 24. The topic will be "Computer Aided Software Engineering" and our guest speaker is Dr. Bradley Strait. This should be an exceptionally informative session for anyone interested in CASE. I'll be there and hope to see you!

Ginger Frongillo

COMMENTS FROM THE CHAIR

Stan Schultes
Chairman, Twin Tiers LUG

As the weather warms, all sorts of amazing things start happening - flowers come out, warm weather athletes start going crazy, and DECUS wakes up from its long winter nap. Of course the LUG is always on the move, neither cold nor snow nor busy work schedules keep us from our appointed duties. Lots of things are starting to happen, let's take a look at a few of them!

First I would like to mention a very special event that is going to take place during the first week of May that you DEFINITELY should plan to attend. It is a Western NY joint LUG meeting at the Rochester ACT (DEC Applications Center for Technology). The tentative agenda is as follows (we're hoping to start it a little earlier):

Wednesday, May 4, 1988 --- put it on your calendar now!!

6:30 Buffet Dinner (sponsored by DEC)
7:30 LUG Announcements
8:00 Main Topic =====> VMS V5.0 !!!
(still tentative, but likely)
9:00 Free form ACT tour

This will be an excellent opportunity to get a "look in the box" at VMS V5.0, and will also get you inside the ACT. The free form tour will be to demo many software products, discrete and process manufacturing shop floor control systems, workstations, etc. They have over 170 software packages to demonstrate as well as a whole range of VAX and PDP-11 processors and configurations. They are willing to set up special demos if there are any specific things you want to see.

We will be arranging a carpool to get people back and forth. I expect the only cost will be to split gas. DEC needs to know by April 1 the number of people we'll have attending, so please send in the enclosed RSVP form as soon as possible. I highly recommend this trip, you can expect much high quality V5 info, ACT demo goodies, and as always, high quality time complete with an opportunity to make regional professional contacts in your field. What an opportunity, don't let this one escape you!!!

The next item I would like to mention is: its election season in your LUG (where did the year go??). Many of you may remember how we do elections from last year, and you know that you won't get elected unless you want to. The elections will be held during the General LUG meeting scheduled for Wednesday, May 25 (one week later than normal due to the DECUS Symposium the week before) at the BDC. The election business will be followed by the showing of a videotape of Grace Hopper, the grand dame of computerdom. It's really worth seeing, as she's been in computing since many of our parents were still in school (she was the 2nd programmer ever on UNIVAC-1 for the Navy). See Mike Frongillo's article elsewhere in this newsletter for more election info.

Of course, the other major event I want to mention is the spring DECUS symposium, which will be held on May 16-20, 1988 in Cincinnati, Ohio. I understand that preliminary programs and registration information were to be mailed on 3/2, so you ought to have them by the time you read this. Call me (607-974-6865) if you need information. Also, I noticed that the March copy of DEC Professional magazine included a listing of presymposium seminars inside the shrink wrap. There are over 70 being offered, at the cost of $225.00 each, and well worth it!! One word of caution for those of you planning on attending

COMMENTS FROM THE CHAIR (cont.)

this spring's symposium: Cincinnati is chronically short of hotel space, so send in your room reservation NOW!! I have forms if you need one.

The next general LUG meeting will be held on Thursday, 3/24 at 6:30 at the BDC. This is one week (and a day) later than usual. The topic will be CASE (Computer Aided Software Engineering), presented by Dr. Bradley Strait, from the CASE Center at Syracuse University. It should be a really good presentation, hope you can make it!

****

DR. BRADLEY J. STRAIT BIOGRAPHICAL SKETCH

Bradley J. Strait is Professor of Electrical and Computer Engineering at Syracuse University and Director of the New York State Center for Advanced Technology in Computer Applications and Software Engineering (CASE Center). He was born in Canandaigua, New York on March 17, 1932 and has been a lifelong resident of the Syracuse and Central New York area.

He served in the United States Navy from 1951 to 1955 as an electronics technician. After earning a B.S.E.E in 1958, he became a graduate Research Assistant while studying for his M.S. degree, which he completed in 1960. He then worked as an engineer with Eastman Kodak Company in Rochester, returning to Syracuse in 1961 to begin formal study toward the Ph.D. During his doctoral program (completed in 1965), he served as an Instructor of Electrical Engineering.

Dr. Strait began his faculty career in 1965 when he joined Syracuse University as an Assistant Professor of Electrical Engineering. He moved through the academic ranks to become Associate Professor in 1969, Professor and Chairman of the Department of Electrical Engineering in 1974, and Dean of the College of Engineering in 1981. He is the recipient of two awards for excellence in teaching. His teaching interests include applications of computers to antenna problems, antenna arrays, electromagnetic theory and measurements, scattering systems, network theory and communications systems. As a researcher, he developed several widely used software packages for solving practical problems in the field of electromagnetics. He has written several papers and edited a book on these subjects.

Dr. Strait's administrative accomplishments have earned him several listings in Who's Who publications. While Chairman of the Department of Electrical Engineering, he administered an undergraduate computer engineering program - one of the first in the country. As Dean of the College of Engineering, he designed and initiated Syracuse University's first undergraduate cooperative education program in electrical, computer, mechanical and aerospace engineering. He was instrumental in establishing the Center for Advanced Technology in Computer Applications and Software Engineering, and has served as its Director since its designation by New York State in early 1984. In 1986, Dr. Strait received the Syracuse University Chancellor's Citation for Distinguished Service. Last year he was named 1986 Data Processing Person of the Year by the Syracuse chapters of the Association for Computing Machinery, Association for Systems Management, and Data Processing Management Association.

(Editor's Comment:

Dr. Strait has been highly recommended as a leader in the field of CASE and the LUG Steering Committee feels that the LUG is very fortunate to have him as the speaker at our March general meeting.)

SNEAK PEAK AT V5.0

The following is reprinted, in part, from "IN THE QUEUE", the **NEWSLETTER OF THE VAXTOLEDO DECUS LUG.** It is based on their first meeting program.

The program speaker was Cloyce Carlen, DEC Principal Software Specialist, who spoke on VAX/VMS V5.0. Here's what he had to tell:

INSTALLATION

- VMS V4.7 is required for upgrade to V5.0

- Installation security of V5 is tighter At login, the operator will be prompted to change the password or disable the account

- VAX volume shadowing on local are VAX clusters needs to be reinstalled in 5.0

TECHNICAL CHANGES AND INFORMATION

- V4.7 is the last version for VAX 11/782 processors

- Modification to **ANALYZE/ERROR** and the TA 79 in the cluster environment

- TA 78s can be upgraded

- In **AUTOGEN**, the **DEQNA** software controller will enable packet summing to avoid data file corruption. Field services will upgrade the **DULQA**

- **VMSIMAGES.DAT** will be created automatically

- **BATCH/PRINT** will no longer count nonprinting characters

- **PRINT/NOFEED** will count lines per page

- **DEFINE/FORM/SHEETFEED** for **LQP02s** is back (it was lost from V4.5)

- The **COBOL** runtime library will have ANSI 1985 standards

- **DECnet-VAX** device protection will be restored after terminal link on asynch **DECnet**

- **LATSYM**

- System service call **$GETLKI**, get lock info, will report buffer information for a user's buffer too small. **$PRxxxDEF**, processor register definition, will get internal process registers

- **SET HOST/HSC** will allow **/LOG** in the new version

- **SET TIME/CLUSTER** is a new feature

- **[SYSn.SYSEXE]CLUSTER.DAT** will allow a **SYS$SYSROOT** for each VAX cluster.

- **VMB.EXE** has improved reliability on boot and crash logs. **UETP**, user test procedure, has been modified.

- V5.0 offers a VAX cluster performance advisor

- Multiple CPU memory sharing vs. the master/slave concept

- Able to start and stop individual CPU's in a multiple environment

- Parallel processing will be supported

- Local area VAX cluster to use boot node and alternate nodes

- MicroVMS and VMS will be one

- **BACKUP** utility will prevent initialization of a new disk

- Multiple Standalone BACKUPs may be done

- Dual port failover is a new feature, perform own mount

- ACLs for batch queues, queue performance enhanced

FROM THE LIBRARY...

"A Request for Help..."

In the last few weeks, I have received requests that the Alfred University Library of DECUS submissions does not have. The tape requests were for the current KERMIT distribution and for the latest RSX SIG tapes. I, myself, would like a copy of the VAX SIG Tapes for Spring 87 and Fall 87 as soon as they are available. (Symposium tapes take a while to get distributed from National to Regional to Local.) If anyone has ordered these releases from the DECUS library, please do us all a favor and make a copy to be kept for distribution to others in the LUG!!! Send tapes to me, Connie Beckman, Alfred University Computing Services, Alfred, NY 14802.

"What's on a Library Tape and What We Do Have..."

We currently have the VAX-LIB-1 thru VAX-LIB-6 DECUS LIbrary collections and VAX SIG tapes for Fall 84, Spring and Fall 85 and 86. Everyone receives the DECUS Program Library Software Abstracts as part of National Membership Services. If you look at the VAX submissions in this publication, most of them list a direct order number (ie VAX-166) and a VAX-LIB-n number (ie VAX-LIB-5). If the VAX-LIB-n is 1 to 6, we already have the tape. I also can make a copy of a single submission such as, VAX-166, if you don't need the whole thing. Loading one of these tapes is really a fast way to use up your "extra" disk space!! The tapes we do have were purchased by Alfred University and have been made available to the LUG. We do NOT have any of the special submissions that are not a part of the LIB distribution (ie VAX-183 JUICER defragmenter).

"What's on a SIG tape..."

The SIG (Special Interest Group) tapes are those programs and utilities written by DECUS members that are taken to the National Symposium and organized by the Group Submission (ie VAX SIG, OA SIG). Tapes are distributed by the National SIG committees to the Regionals and to the Locals on request. This process takes 2-3 months to organize after a Symposium . Many of the offerings are not documented well and some will not even work (like anything else) from one release of VMS to the next. Some of them do get formally submitted as LIB series offerings, but most of them appear only as a part of the Symposium offering. As a University Vax System Manager, I have used many of the tape submissions from other schools to solve problems that are common to the educational environment. There are lots of system management-type utilities, EDT and TPU enhancements, Autodial modem or DECNET enhancement utilities, Spell Checkers, Graphics Tools, Demos, etc. It takes a lot of time and effort to decide what you need or want and what is not usable, but in my case, it has been worth the effort. We currently have only the VAX SIG submissions because that was all I was ever interested in acquiring (long before we joined Twin Tiers LUG).

"Please Return..."

If you borrow the tapes from the Library, please return them promptly so that they are available for the next user.

"What Else is the Library Supposed to be..."

In addition to what we want and what we have, the LUG tape library can be our way to contribute to other DECUS chapters. If you have a "neat" utility or program, or an entire system, that you are willing to share on a take-it-as-is basis, including the machine-readable documentation, we can create our own LUG submission to the next Spring DECUS offering. Any submissions should be submitted to your Librarian on BACKUP format tape. I will compile one offering to send to the Regional LUG Librarian and of course have it for local distribution too!!

ELECTION PROCESS

Elections of the 1988-89 Twin Tiers Local Users Group Officers will be held during the May 25, 1988 General Meeting. As stated in our LUG By-laws, there are several steps in the LUG nomination and election process including the following:

Nominations

1. An Election Nomination Committee, appointed by the Steering Committee, made up of two Steering Committee members and three members-at-large shall solicit nominations. All LUG members shall be eligible to make nominations for election to the Steering Committee.

2. Nominations shall be opened at the general meeting preceding the election meeting. At that time the chairman of the Election Nomination Committee shall call for nominations.

3. Nominations may also be submitted in writing to the chairman of the Election Nomination Committee. All nominations must be approved by the Election Nomination Committee by verifying that the person nominated is a member of DECUS, a member of the LUG, and is willing to hold office.

4. Nominations shall close two weeks before the election meeting.

Elections

1. The Secretary shall compile a ballot which will be distributed to all members prior to the election meeting.

2. Ballots will also be distributed, collected, and counted on the designated election meeting date.

3. No ballots will be collected and/or counted after the election meeting. The newly elected Officers will be announced prior to the end of the election meeting and they will be informed as to when their term begins.

4. The election meeting must be held prior to July 1.

As a final note, the election of Steering Committee officers is not to be taken lightly. The intent of the original LUG Steering Committee was to have about a 50% turnover rate each year on the Committee. This would allow for consistency in policy and direction as well as pump new blood into the LUG by having fresh ideas from its leaders. The LUG has met with success because of the individuals who have volunteered their time and energy to ensure that the LUG provides a vehicle for information exchange.

Many of the members of the current Committee have served two years and feel it is time to step aside and let others run the show. For the LUG's success to endure and to grow, it requires continued dedication and effort from its new officers. The challenge is to elect people, just like you, who are willing to give of yourself to meet this objective!

Michael J. Frongillo
Secretary, 1987-88

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PHONE NUMBERS

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Newsletter Editor
Ginger Frongillo (607) 974-8974
Corning Glass Works
HP-AB-2-5
Corning, NY 14831

IMPORTANT DATES

March TTL General Meeting
03/24

Western NY Joint LUG Meeting at DEC Applications Center for Technology (ACT)-Rochester
05/04

Spring DECUS Symposium-Cincinatti, OH
05/16 - 05/20

May TTL General Meeting
05/25

ARTICLES ARTICLES ARTICLES

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For more information, or to submit an article for publication, contact:

Ginger Frongillo
Corning Glass Works
HP-AB-2-5
(607) 974-8974

REMINDER REMINDER REMINDER

If your mailing address has changed, or if it will change in the near future and you know what it will be, please notify us with your new address so that THE GURU mailing list can be updated before the next issue is mailed.

Contact either Ginger Frongillo or Mike Frongillo at the following address:

Corning Glass Works
HP-AB-2-5
Corning, NY 14831

(607) 974-8974 or
(607) 974-8755

IN ORDER FOR US TO LET DEC KNOW HOW MANY PEOPLE FROM OUR LUG WILL BE ATTENDING THE MAY 4TH MEETING AT THE APPLICATION CENTER FOR TECHNOLOGY IN ROCHESTER, YOU MUST RSVP BY MARCH 31ST. PLEASE INDICATE THE NUMBER OF PEOPLE WHO WILL BE ATTENDING AND WHETHER OR NOT YOU'LL NEED HELP IN ARRANGING CAR-POOL TRANSPORTATION.

LUG Member name: _____

No. attending: _____ Need car-pool (Yes/No): _____

RSVP MUST BE RECEIVED BY MARCH 31ST

TO TAKE ADVANTAGE OF THE MAIL-IN NOMINATION FORM, DO THE FOLLOWING:

1. Write in your selection for each of the offices. You may nominate more than one person for each office, however, the person(s) must consent to run for the office, and be a LUG member with a DECUS number, in order to be considered a nominee.

2. Fold the sheet of paper in half and staple or tape the bottom, where both open flaps meet.

3. Place a stamp on the form and mail it - the address of the chairman of the nominating committee has been pre-printed on the other side for your convenience.

TWIN TIERS LUG NOMINATION FORM

CHAIRMAN: _____

VICE-CHAIRMAN: _____

VICE-CHAIRMAN: _____

VICE-CHAIRMAN: _____

SECRETARY: _____

TAPE LIBRARIAN: _____

NEWSLETTER EDITOR: _____

THE GURU

The Newsletter of the
TWIN TIER LOCAL USERS GROUP

January, 1988 Volume 2 Issue 3

EDITOR'S NOTES

Welcome to the New Year...1988! I hope your holidays were all you anticipated!

The focus of this issue of THE GURU is the Fall DECUS Symposium held during the week of December 6 in Anaheim, Ca. Quite a few LUG members were able to attend this symposium and several were gracious enough to share their experience with the rest of the LUG by submitting information to THE GURU. I sincerely appreciate their efforts and take this opportunity to say **THANK YOU!**

The meeting topic for the January General LUG meeting, which will be held on Wednesday, January 20th, will be **DIGITAL's NETWORK ARCHITECTURE and Overview.** It will cover such questions as "what is networking", "what is ethernet", "what is DECnet", and other networking options available including local area networks, local area VAXClusters and wide area VAXClusters. Bring your networking questions, problems and experiences...the experts will be on hand to shed light on this sometimes confusing topic.

And don't forget...January 20th is the last chance to buy a raffle ticket for the **"white board"** that will be given away that night. Tickets will be available during the social time and the raffle will be held at the end of the meeting. Someone will win a white board for their very own...will it be YOU? The best way to find out is to be there!

Ginger Frongillo

DECUS FALL SYMPOSIUM
REPORT FROM ANAHEIM

THE CHALLENGE REINFORCED

by Paul W. Norris
CGW Business Support Services

You go believing that you're well prepared for the hustle, bustle and magnitude of it all because you've been forewarned it will be overwhelming.

Yet, how soon you realize that there's just no way to adequately prepare a rookie for DECUS... it simply must be experienced firsthand like any "larger than life" event!

My first DECUS early last December was truly a memorable, productive experience that I will always cherish. I'm sure all of you "first-timers" feel the same.

Last Fall's DECUS (Digital Equipment Computer Users Society) Symposium was held at the Anaheim Convention Center complex in beautiful, sunny southern California. The complex in which sessions and displays were held encompassed the convention center building and two adjacent, modern and comfortable hotels - the Hilton and the Marriott.

The organizational logistics were really impressive. These folks are experts at hosting a large convention (approximately 7,000 people attended) while making each person feel uniquely special and welcome. Everything flowed smoothly from pre-registration paperwork to final departure. Highest compliments to the symposium committee and Anaheim hosts!

And the daily activities: sessions, campgrounds and hands-on displays - what a technology smorgasbord! Fast paced and scheduled from early morning until late evening - "everything you wanted to know about... but were afraid to ask?" However, this is the ideal place to ask because the experts are here. How often one wished to be in more than one place at a time!

As if this wasn't enough - the DEXPO West Exposition was running concurrently a few blocks away in the Disneyland Hotel complex. DEXPO is an impressive display of over 200 vendors' hardware and software products for DEC computers. We tried to envision the contrast between this exposition of years past versus the year 2000 - what as yet undreamed-of technologies will be present then?

During the week I "majored" in Videotex and VAXmate activities while "minoring" in general office automation information. In retrospect, the pre-planning and mapping of detailed sessions using the preliminary program was a lifesaver - it kept me "on course" and helped avoid the dreaded burnout so commonplace (yet still unavoidable) at DECUS.

However, in spite of the technological wonders encountered, my lasting impressions revolve around customer service for two primary reasons:

1. my belief that the manner in which this symposium was planned and conducted was orchestrated for me as the CUSTOMER. I sensed a feeling of importance and had the distinct impression that our hosts had made every attempt to anticipate and meet my needs. I'm sure these feelings were shared by other attendees.

2. (strangely enough, this most profound impact came from a totally unexpected source) - the automated checkout system at the Marriott Hotel.

This system is so simple in concept and so convenient to use that I was truly amazed. For anyone who has not had the pleasure to use a system like this, it works briefly as follows:

- on the morning of checkout, a folder is placed in your room. The folder contains checkout instructions,

THE CHALLENGE REINFORCED (cont.)

along with a copy of your bill and the receipt from your credit card - all the items you need to prepare an expense report.

- you turn on your room TV and select a particular channel.

- a welcome screen appears, along with simple instructions for using the system. (Note that the system may be exited at any time without actually checking out).

- when you continue, your invoice, with all detail charges,is displayed on the screen(s).

- should there be any disagreement, the screen contains a phone number for problem resolution.

- when you are satisfied that the invoice is correct, you choose the "checkout" option. The system processes your checkout, requests you to leave your key on the dresser, and thanks you for staying at the Marriott.

You simply close the door and leave the hotel. No need to visit the lobby; no waiting in line; no hassle; etc.

What a convenience! What a truly innovative customer oriented breakthrough! I couldn't help but marvel at how simply and effectively this system completely met my needs as a customer.

Hence... the Challenge reinforced!

How do we, as information experts, recognize the opportunities and boldly apply our modern, sophisticated technologies to the true needs of our customers? Where are the highest paybacks, competitive advantages and quality systems that will ensure that our company is a leader, both today as well as tomorrow, in the world marketplace?

Opportunities abound!

In summary, DECUS is a wonderful forum in which to sample various technologies - current successes as well as pitfalls; probe future directions; make new, or renew old, business acquaintances; and have the opportunity to converse with fellow employees in a more relaxed atmosphere.

It's a place to savor the reality of today while pondering the vision of tomorrow.

For those of you who have never attended a DECUS Symposium, please do yourself a favor soon.

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Some thoughts about the Fall 1987 DECUS Symposium
by: Pat Scopelliti

The non-announcement of VMS V5.0 and DEC's pattern of announcing products every month made for a DECUS meeting that was somewhat different. In particular, the demo hall was somewhat quiet (especially in light of the fact that over 7000 attended DECUS!).

While VMS V5.0 was not officially announced, there were many sessions dealing with features that would be in a "future major release" of VMS - DEC's code-words for VMS V5.0.

Symmetric Multi-Processing (SMP) was the topic of many sessions. These sessions dealt with performance considerations as well as the use of the new Parallel Processing Library which facilitates the writing of applications that use multiprocessor VAX systems. It was obvious that an immense amount of work has been spent by the VMS engineers

Some thoughts...(cont.)

ripping VMS apart and putting it back together in such a way that parallel processing is fully supported.

Previously DEC had supported only Asymmetric Multi-Processing (ASMP) on the VAX 11/782, 8300, and 8800. ASMP allows one processor to be the "master" and the other the "slave". The master handles all scheduling, I/O, etc. while the slave is limited to CPU intensive tasks (user mode only). This method is somewhat limited since it pre-supposes a certain type of system load and has limited expandability (adding another slave doesn't buy you much). SMP makes both processors equal - either one can schedule, do I/O or CPU intensive tasks in a true sharing environment. SMP also opens the door to more than two processors . . . . .

While VMS V5.0 was never explicitly mentioned, many features of it were talked about. Some of the new features discussed were:

- The distinction between a CI based cluster and an ethernet-based cluster (LAVCluster) will go away and a cluster will be a cluster will be a cluster... In particular, a CI VAX will be able to act as the boot node for a LAVCluster.

- The print and batch system queue file structure has been re-engineered. In particular the efficiency of handling print requests through the queues has been increased approximately ten fold. (Yes, that's 10 times faster!) Access Control Lists have also been added to the queues, so now you can allow certain users to manage their own queues without giving them OPER privilege. DCL commands now allow display of various entries in a more flexible format. Some of the new DCL commands:

  SET ENTRY replaces **SET QUEUE/ENTRY**

  SHOW ENTRY
  /BATCH
  /DEVICE=(printer, server, etc.)
  /BY_JOB_STATUS=(Pending, Hold, etc.)
  /USER_NAME=(....)

  SHOW QUEUE has the above qualifiers as well as:
  /BY - only queues with something in them!
  /SUMMARY - # of jobs in each state!

  Also, a lexical function **F$GETQUI** will return any information about the queues and jobs in them. Finally, when converting from **V4 VMS** to **V5**, the queues will not be purged, but will be converted!

- **BACKUP** has been enhanced to prevent accidental erasures of the source disks and will do its own mounts/dismounts of tapes.

- **AUTOGEN** will have a feedback loop built into it whereby you can gather performance data over a period of time, then **AUTOGEN** will work its magic based upon the 'real-world' conditions that you've given it.

- Some additional DCL features: **RECALL/ERASE** eliminates a security problem. **RECALL/ALL** shows anyone a username/password if used for DECnet access (e.g. **$ COPY NODE"**username password**"::**MYFILE.TXT *) IF THEN... ELSE...

- TPU users will have to endure one more section-file rebuild. DEC promises this is the last time. Also TPU will have the EDT emulator built into it, so if you want to hang onto the current one, save the files before upgrading. There will also be a WPS keyboard emulator.

- VMS mail will have a callable interface - interesting idea...

Some thoughts... (cont.)

- DECnet VAX will have enhanced support for proxy and the NCP program will support wildcards.

The Print-server 40 (40 page/minute laser printer) V2.0 software was announced. It features new accounting totals, translation enhancements and page layups. Page layups means you can put multiple logical pages on one physical page - sort of like microfiche.

The Code Management System (CMS) V3.0 program was announced - among other things CMS V3.0 will support binary files. This might very well open the door for some very slick WPS-PLUS shared libraries!

Finally, there was an extremely interesting (and somewhat terrifying) talk given about the recent SPAN break-in. SPAN is NASA's network of VAXes. The break-in was effected through a security hole introduced in VMS V4.4 and copied over to VMS V4.5. DEC has distributed many copies of the patch tape needed to close the security hole - all system managers were strongly urged to install the patch or VMS V4.6.

****

DECUS TRIP REPORT
by Paul Turner and Hal Brouneus

We attended the National DECUS convention in Los Angeles from December 6 thru December 11. The convention offered many insights into the soon to be released V5.0 of VMS. We also gleaned additional information regarding LAVC's.

The following items relate to V5.0 of VMS:

1. The **DEBNA** and the **DEBNT** are BI bus Ethernet interfaces. The **DEBNT** will not be supported in future releases and should be replaced with **DEBNA**.
2. The executive will be broken into multiple processes.
3. Cluster wide logicals will be available.
4. FORTRAN will support key-field values for descending keys.
5. There will be major speed improvements to sequential reads of indexed files.
6. **DIR** operations will be significantly improved because XQP scans block by block instead of record by record.
7. Pagefile usage will be determined dynamically instead of at process initialization time. This will eliminate the need for a pagefile on the system disk.
8. The modified page writer has been improved.
9. Highwater marking is rewritten to be significantly faster.
10. DECnet down line load has been improved.
11. RA70 support for all systems.
12. DEC mail will support carbon copies.
13. A new lexical called **F$GETQUI** will check the status of queue's from **DCL**.
14. Support for dynamic fail over of read/write capability of an RA style disk to the system on the dual port without an HSC or manual intervention.

DECUS TRIP REPORT (cont.)

15. Increased capabilities of runtime routing for SOR$, STR$, MTH$, DTK$, LIB$ and SMG$.

16. V5 will be 5% slower than V4.N and will require 1/4 MB less memory.

There were several LAVC announcements which will take effect with V5.0. They are:

1. Up to 26 nodes will be supported.

2. There can be two separate system disks in one LAVC. They can both be on one system or on separate systems.

3. A true cluster system disk cannot be used as an LAVC boot node with LAVC members having full access to HSC disks.

4. System parameter changes can reduce cluster state transition timings from a default of 96 seconds to 18 seconds.

We talked to a DECnet expert about DECnet Phase 5. It is currently being designed and will not be released for about two years. One of the major design goals is to reduce overhead involved with routing notes.

DEC demonstrated DFS (Distributed File Service). This product gives a system access to all disks in the network as if they were local to your system. However, only one system can have a file open at a time.

This presents bits and pieces from various topics picked up over several days. In some cases, we have more details in our notes. Please contact Hal Brouneus or Paul Turner for further information.

****

Why DECUS Symposia
by Mike Slovak
CGW Client Support Services

If you've been wondering why you should attend a DECUS Symposia or why you should send someone, let me help you decide. I recently attended my first symposium this past December. The benefits were many! We can break them down into several categories.

First are the pre-symposium seminars. A full day of intensive learning and contact making with the experts of a particular product or field. I attended VAXNOTES.

The second phase of importance includes over 1000 sessions or seminars to attend on everything and anything you would like to hear on your favorite product (even your least favorite product), plus related topics. The amount of information was overwhelming and most prior attendees offer good advice to prevent "burnout".

Don't let anyone kid you by thinking you can send one person to cover certain seminars without duplication. It doesn't happen and for good reason - there are many perspectives on the same subject to be shared.

The last and maybe the most important area to consider deals with the contacts you make and the team building that can occur between you and other attendees. Don't minimize the importance of this. I found a tremendous exchange of information and a significant amount of team building.

For those of you who have not had this opportunity, or have not made it happen for someone else, give it some more thought.

DECUS FALL SYMPOSIUM
REPORT FROM ANAHEIM

Why DECUS Symposia (cont.)

Although it doesn't compare to being there, I have audio tapes of more than ten office administration seminars. They are currently undergoing an "after the fact" evaluation and we hope to provide a list of tapes available to LUG members in the near future. (Of course this service is free!) Look to the next issue for further details.

****

FALL 1987 DECUS TRIP REPORT
by: Lynn Hagenbuch

VMS V4.7 should be available early 1988 and will include RMS Journaling V1.0. "A FUTURE MAJOR RELEASE" should include cluster enhancements, no distinction between VMS and MicroVMS, Backup enhancements, and RMS enhancements with improvements on sequential reading of index files.

ALL-IN-1 V2.2 has improved development tools. I attended a session which discussed the maximum number of users a certain VAX model running ALL-IN-1 should have. One surprising conclusion of the speaker was that upgrading from a VAX 8530 to a VAX 8550 will only allow about 16 more users.

The highlights of **Datatrieve V4.1** are Recall Line capabilities and defining files via FDL.

I also attended a session on the DTF Package. This package will allow for file access between IBM systems and VAX systems.

Some of the exhibits of interest at DEXPO included:

1. OA Technologies, Inc. has a Mail Transfer product OATmail
2. PIVOTAL, Inc. has an ALL-IN-1 Made Easy Users Guide
3. Clyde Digital Systems' ProMail product links into Western Union's EasyLink network.

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A PROGRAMMER'S LAMENT

"NO PROGRAM IS PERFECT."
HE SAID WITH A SHRUG.
"THE CUSTOMER IS HAPPY.
WHAT'S ONE LITTLE BUG?"

BUT HE WAS DETERMINED...
THE OTHERS WENT HOME.
HE DUG OUT THE FLOW CHARTS.
DESERTED AND ALONE.

NIGHT PASSED INTO MORNING.
THE ROOM WAS ALL CLUTTERED.
WITH MEMORY DUMPS AND PUNCHED CARDS.
"I'M CLOSE." HE MUTTERED.

CHAIN SMOKING. COLD COFFEE.
LOGIC. DEDUCTION.
"I'VE GOT IT!" HE CRIED.
"JUST CHANGE ONE INSTRUCTION!"

THEN CHANGE TWO. THEN THREE MORE.
AS YEAR FOLLOWED YEAR.
THE STRANGERS WOULD SAY.
"IS THAT GUY STILL HERE?"

HE DIED AT THE CONSOLE
OF HUNGER AND THIRST.
NEXT DAY HE WAS BURIED.
FACE DOWN. NINE EDGE FIRST.

AND HIS WIFE. THROUGH HER TEARS.
ACCEPTING HIS FATE.
SAID. "HE'S NOT REALLY GONE.
HE'S JUST IN A WAIT STATE!"

DECUS FALL SYMPOSIUM
REPORT FROM ANAHEIM

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Digital Equipment Computer Users Society

TWIN TIERS LOCAL USERS GROUP

General Meeting

☆ ☆ ☆ ☆ ☆

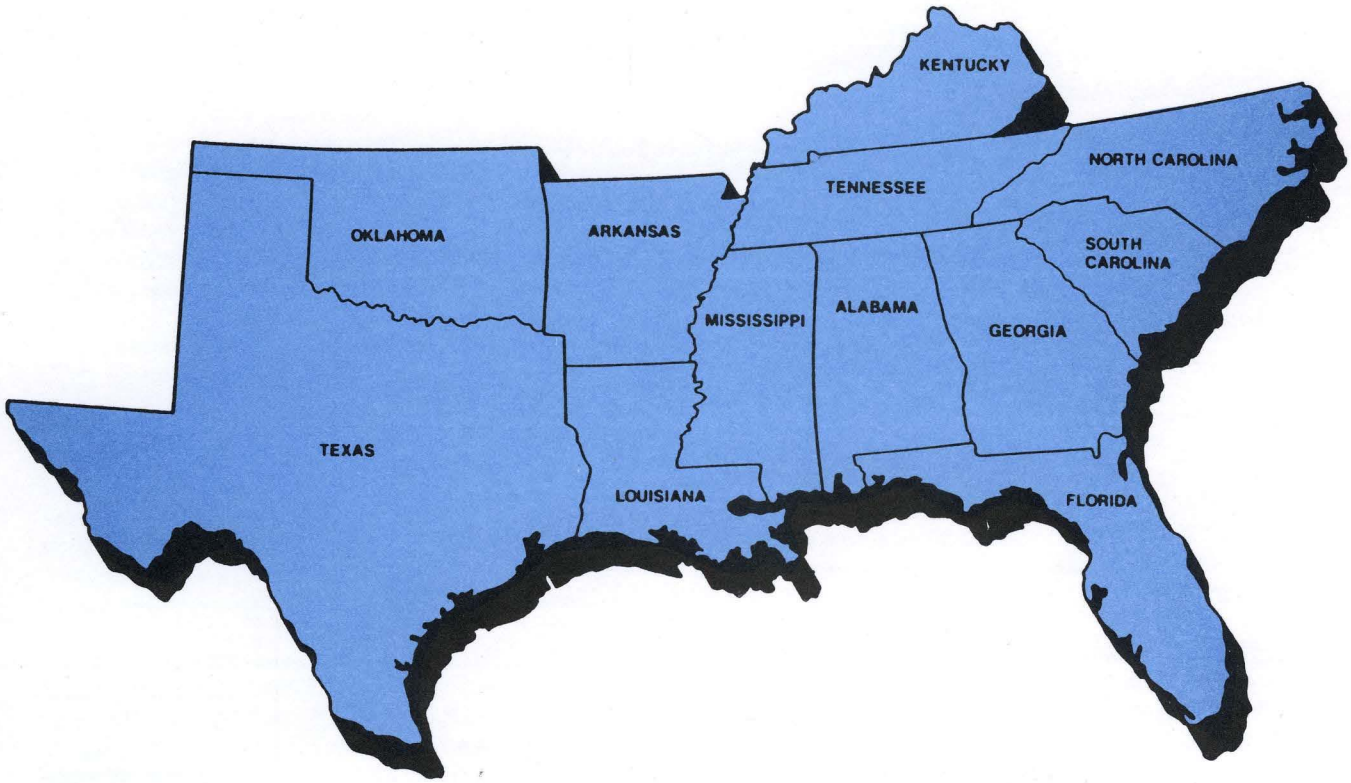
AN OVERVIEW OF DIGITAL'S NETWORK ARCHITECTURE

☆ ☆ ☆ ☆ ☆

Wednesday, January 20th, 6:30pm

Corning Business Development Center

Dennison Parkway, Corning, NY



South Region

SOUTH REGIONAL LUG COORDINATOR

Dennis Clark
Oak Ridge National Laboratory
Kingston, Tennessee
615-576-7384
DCS: CLARK

Dennis Clark has been the South Region RLC for two years, and a DECUS member since 1976. He spent several years on the steering committee of the South East Area LUG (SEALUG), is currently a member of the Smoky Mountain Area User Group (SMAUG) and a member of the AISIG Steering committee.

Dennis devotes many hours of volunteer time to National DECUS committees, and is well versed in the ways in which changes are initiated. He can answer questions about the Artificial Intelligence SIG, the Communications Committee, and, of course, the NLC.

For relaxation, Dennis reaches for his cello! He has been studying music for several years and gave his first solo performance in the fall of 1987. He also likes to run and volunteers his time occasionally at grade schools where he gives lessons in computer literacy.

REGIONAL TAPE COPY COORDINATOR

Frank Bush
Tennessee Technical University
Computer Center
Cookeville, TN 38505
615 372-3972

REGIONAL SEMINARS REPRESENTATIVE

Mark Thompson
Simmonds Precision
3100 Highwoods Boulevard
Raleigh, NC 27625
919 872-9500

An Open Letter to South Region LUGs

We have several new LUGs, some of which are in the process of being licensed by DECUS. SMAUG is the Smoky Mountain Area User Group, chaired by Jim Grossen of the University of Tennessee. For those of you who haven't read J.R. Tolkien's "The Hobbit", SMAUG is a dragon of considerable wealth and repute! Most of the other 36 LUGs in the region are quite healthy, with average meeting attendance of 24-40 members.It appears that we have two LUGs which may have died. It remains to be seen whether they can be resurrected. The majority of LUGs having problems are PDP-11 or Rainbow groups, mostly because support is not readily available.

I would like to personally recognize three people from the South Region who have received awards for their outstanding DECUS contributions. These awards were presented at the 1987 Fall Symposium in Anaheim. Frank Bush received the "Outstanding Southern Officer" award for doing an excellent job on the SIG tape copy project. Stuart Renes and Kevin Klughart received an award for the "Best Newsletter" in the Southern Region. Congratulations to all of you pacesetters out there--let's see if the other regions can keep up!

As an aside, if you are having trouble getting the SIG tapes, you may want to contact our Regional Tape Copy Coordinator Frank Bush directly. He lives in Cookeville, Tennessee, and can be reached at 615-372-3972.

One of the big problems LUGs face is presenting programs of interest to their members. You might want to request a copy of "1001 Suggestions for a LUG Meeting," an NLC publication that's loaded with ideas for fun and interesting meetings. You may also want to consider offering Regional Seminars in lieu of or in addition to a regularly scheduled LUG meeting. Regional Seminars are Pre-Symposium Seminars (PSSs) made available on a local level. If you agree to sponsor one or more local PSSs, and can meet the minimum attendance requirements, the DECUS Seminars Committee will do almost all the work.

Regional Conferences are another valuable LUG activity. They are patterned after national symposia, but aim at making a DECUS-style gathering available locally to avoid the expense involved in sending folks to the national version. Several LUGs might band together to sponsor a Regional Conference. The workload is split between the DECUS staff and the participating LUGs. Although a Regional Conference involves a significant amount of volunteer time and effort, it can be extremely rewarding for the local people who are able to attend. Both PSSs and Regional Conferences provide a LUG member with timely, pertinent information which has a direct bearing on her/his effectiveness at work.

I am very interested in having a LUG Chair Cluster Meeting in 1988. Cluster meetings provide an opportunity for LUG Chairs from the South Region to get together and exchange ideas bout what LUGs should be doing to help each other. If you have some ideas to share, please call or find me at the National Symposium via the message board or an NLC-sponsored LUG session.

I have received suggestions from several sources that DECUS provide special leadership training for LUG Chairs. I am forwarding this suggestion to LDEC, the Leadership Committee within DECUS. LUGs are the grassroots of DECUS and are an excellent source of feedback on ways we can foster growth and technical interchange through the National LUG Council. DECUS exists to serve the members, and LUGs are the natural leaf-node for these services. LUGs have great potential for guiding DECUS and for providing a wealth of information and technical expertise to the DECUS membership.

Let DECUS hear your LUG's voice! Exercise your influence as a LUG Chair. Communicate your ideas. Come and contribute at the LUG Chair and LUG Clinic sessions sponsored at each Spring and Fall Symposium. I look forward to seeing you there!

Sincerely,

Dennis Clark
South Regional LUG Coordinator
National LUG Council

SOUTH REGION LUGS AND LUG CHAIRS

Alabama

Birmingham Area LUG
Chair: James Roe, Birmingham, 205-934-6000

North Alabama LUG
Chair: Katherine Roose, Huntsville, 205-830-3316

Shoals Area Local LUG
Chair: Elizabeth Bailey, Muscle Shoals, 205-386-3645

Arkansas

Arkansas LUG (ARKLUG)
Chair: Becky Wilson, Little Rock, 501-225-4997

Florida

Central Florida DEC LUG
Chair: Bob Thomson, Cocoa Beach, 305-853-5643 or 305-783-4388

Florida Panhandle LUG
Chair: Tom Brown, Eglin Air Force Base, 904-882-8996

Jacksonville DEC LUG
Chair: Victor Salzar, Jacksonville, 904-791-4778 or 904-737-6928

Palm Beach LUG
Chair: Arnold S. DeLarisch, Boca Raton, 305-338-2225

South Florida VAX LUG
Chair: Bob Ashby, Miami, 305-596-8269

Tampa Bay Users Group
Chair: Thomas P. Wood, Largo, 813-585-9806

Georgia

Atlanta Area LUG (ATALUG)
Chair: Bill Leroy, Atlanta, 404-231-1484

Kentucky

Central Kentucky DECUS LUG
Chair: Jim DeGonda, Danville, 606-238-3555

Kentucky DEC LUG
Chair: Christopher Heinz, Lexington, 606-266-5414

Kentucky DEC Small Systems LUG
Chair: Kenneth Presley, Louisville, 502-448-2719

Mississippi

NSTL LUG
Chair: Perry Bret Wischow, NSTL, 601-688-4449

Rivertown LUG
Chair: Marc Zimmerman, Vicksburg, 601-634-3784

North Carolina

Piedmont Triad LUG
Chair: Susan Hassell, Greensboro, 919-454-3161

Research Triangle LUG
Chair: Brenda Frick, Research Triangle Park, 919-541-9438

Oklahoma

Central Oklahoma PDP-11 LUG
Chair: Guy Dunbar, Oklahoma City, 405-751-4660

Group of Oklahoma Local DECUS LUG (GOLD LUG)
Lynda L. Peach, Oklahoma City, 405-272-9471 extension 280

Tulsa LUG
Chair: Les Stockton, Tulsa, 918-588-3123

South Carolina

Carolinas LUG
Chair: W. Franklin Mitchell, Jr., Due West, 803-379-8816

South Carolina's Educational VAX LUG
Chair: Ralph Selander, Conway, 803-347-3186

Western Carolina's Industrial LUG
Chair: Lee Ott, Greenville, 503-277-2698

SOUTH REGION LUGS AND LUG CHAIRS (CONTINUED)

Tennessee

Middle Tennessee VAX LUG
Chair: Roger Turnbow, Nashville, 615-244-5960

Smoky Mountain Area LUG (SMAUG)
Chair: James Grossen, Knoxville, 615-974-6721

West Tennessee LUG
Chair: Jenny Butler, Memphis, 901-528-5848 or 901-278-1337

Texas

● Alamo Area LUG
Chair: Stan Schaefer, San Antonio, 512-922-1213

Brazosport LUG
Chair: Betty Jo Jurries, Freeport, 409-238-7001

● Dallas/Ft. Worth Area VAX LUG
Chair: Stuart Renes, Mesquite, 214-288-2286

DECUS Austin LUG
Chair: James Coburn, Austin, 512-331-3130

Digital Small Computer Users Group (DISCUS)
Chair: Larry Eddington, Garland, 214-276-3420

Digital Users of Central Texas LUG
Chair: Richard Spiller, College Station, 409-845-8018

GD CAM LUG
Chair: David Winkowki, Ft. Worth, 817-777-5378

Golden Triangle LUG
R. Keith Mott, Orange, 409-886-6678

Houston RT-11 LUG
Chair: Don Sawtelle, Jr., Houston, 713-981-9188

Houston VAX LUG (VAXHOU)
Chair: Warren Kahle, Houston, 713-681-8897

NASA/JSC DECUS VAX LUG
Chair: Scott Thompson, Houston, 713-280-1500 extension 3240

University of Texas VAX LUG
Chair: Margaret Knox, Austin, 512-471-3241

● indicates LUG newsletters contained in this volume

TRIANGLE DECUSCAN

newsletter of the research triangle DECUS local users group

VOLUME VIII NUMBER 3 RESEARCH TRIANGLE, NORTH CAROLINA JULY 1987

GREETINGS FROM ...

Dawn Edgerton

Hey, folks! Greetings from your friendly neighborhood Digital office. We moved into our new facility in the Research Triangle Park in mid-May. The new office really looks good and we are very proud of it. If only I could spend a fraction of what it cost to landscape our new facility on my own yard!

We are now located in Creekstone Office Park across the street from the Sheraton Imperial Hotel. Here is our new address and phone number:

Digital Equipment Corporation
Creekstone Office Park, Box 13988
Research Triangle Park, NC 27709-3988
(919) 941-4400

Since our last LUG meeting, we have annouced some new products and new pricing for some current products. To start with, there have been some significant price reductions in the VAXStation 2000 product. Your sales representative can give you specifics. If you happen to have a VAXStation 2000 order in already at the former price, do not fret yet. It is Digital corporate policy to do what is best for the customer. If your order is in and was not shipped before the June 16 announcement date, your order will be restructured to reflect the new lower prices.

Also announced in June is a color VAXStation 2000, the option to have either 15" or 19" monitors, and support for the RD54, a 159 MB Winchester disk drive on the VAXStation 2000. To tie all these VAXStations together, we announced the VAXServer 100. This is a MicroVAX II specifically configured and priced for use as a file server or boot node in a Local Area VAXCluster, DECnet, or NFS/ULTRIX environment. And oh, by the way, Local Area VAXcluster software version 1.2 allows users to expand the number of nodes supported from 14 to 28.

In closing, (I just gotta say this. I wouldn't be a good sales rep if I didn't.) the best place to see all new, old, and some you haven't even heard about yet products working together in a networked environment is to come to DECWorld in September. This is the place to talk to the people who know and kick the tires on the products you are interested in. The dates are September 8-18. You should work with your sales representative to get registered.

See y'all at the July meeting and pig pickin'!

JANET FINDS HELP

William L. Dowdy
Capitol Broadcasting Company, Inc.

The Data Processing Department of Capitol Broadcasting Company has agreed to assist Janet Berntsen in her Tape Librarian duties by volunteering to copy tapes for her. Although the final details are still being worked out, it looks as though we will be responsible for the VAX DECUS tapes beginning with the 1986 Symposium Tape, and Janet will continue to maintain the tapes prior to that. Janet will also continue to maintain the non-VAX tapes. By dividing the workload, we can make things easier for Janet (something she really appreciates) plus, since we will have three people making tapes, we hope to provide faster return of tapes.

Janet will continue to be the "official" librarian; however, should you desire a tape copy, you may contact us directly at the address shown below. If Janet receives a request for tapes that we copy, she will forward the information to us. If we get a request for tapes that she must handle, we will send it to her.

We are excited about being able to contribute to the LUG. Having received so much information from DECUS and its members, we're happy to be able to contribute what help we can.

If you need more information, call Dan Monjar, Wes Hassell, or me at 919-890-6005 between 8am and 6pm Monday through Friday. Our mailing address is:

Capitol Broadcasting Company, Inc.
Data Processing Department
PO Box 12800
Raleigh, NC 27605-2800

The street address is:

Capitol Broadcasting Company, Inc.
Data Processing Department
711 Hillsborough St.
Raleigh, NC 27603

T R I A N G L E D E C U S C A N

Editor - Marie Felder

Contributors - Mark Thompson
Bob Schreiner
William Dowdy
Chris Ruhnke
Brenda Frick
Dawn Edgerton

Published quarterly by:

DECUS RESEARCH TRIANGLE LUG
P.O. Box 3771
Chapel Hill, N.C. 27514

Fall 1987 Digital Courses at UNC School of Public Health

Bob Schreiner
UNC School of Public Health

The School of Public Health Division of Computing and Information Services and Division of Community Health Service will host two Digital lecture/lab courses later this year. They are:

"VAX/VMS Utilities and Commands", October 19-23

and

"VAX/VMS System Management", December 7-11

Each course is five days long and includes hands-on lab exercises using VMS on a MicroVAX. The courses will be identical to those offered at Digital's training centers. The training centers nearest to the Research Triangle are Landover, Maryland, and Atlanta, Georgia. The site for these courses will be the Sheraton University Center in Durham.

Registration is limited to 16 participants for each course.

For more information or to register, call or write:

Pam Duncan
Office of Continuing Education
UNC-CH School of Public Health
Miller Hall 028H
Chapel Hill, NC 27514
919-966-4032

****
* *
* PIG PICKIN!!!! *
* *
****

*** DOOR PRIZES ***

This little Piggy is going to the RTP LUG!!! Hope you will be there, too!

The RTP DECUS LUG is sponsoring a Pig Pickin'! Come on out an join us for some good food and some good DEC fun!

DATE: July 22, 1987

PLACE: Dreyfus Auditorium
Research Triangle Institute

TIME: 6:00 P.M. (right after the LUG meeting)

COST: $8.50 per person

TICKETS can be purchased from:

Marie Felder, RTI
919-541-6104

or

Brenda Frick, RTI
919-541-6809

NO TICKETS WILL BE AVAILABLE AFTER JULY 17TH, 5:00 P.M.

-- ADVANCED TICKETS ONLY ---

Make check payable to DECUS LUG.

FROM THE CHAIR

Mark Thompson
Simmonds Precision, Inc.

Hope everyone is having a good summer. It has been rather hectic around here. Those who attended DECUS should have had a chance to spread some of the good news/rumors by now. The Symposium had over 1000 scheduled sessions which covered many items of interest. Sessions ran from 9:00am until 11:00pm.

We did have one night off to tour Opryland after hours. Some folks found the water rides to fairly be invigorating in the cool night air. DEXPO South was held downtown from Tuesday to Thursday, and many vendors were represented. I will recap some of the highlights:

* VMS Version 5.0 was discussed in several sessions, in general and specific details. This release is scheduled for the end of 1987. V5.0 will be the first operating system to fully support multi-processor VAX systems.

  This means the VAX 8300 dual processor CPU will behave more like symmetric processors, and will be able to do complete processing to include I/O transfers without changing to a Master processor mode. Initially, dual CPUs will be supported, with capability to add more later. This change to Version 5.0 may impact various user-written drivers, but should be transparent in general.

* VMS Version 4.6 is scheduled for shipment in July. This should have minor changes and bug fixes. It will support Local Area VAX Clusters across all VAX CPUs.

* VMS Volume Shadowing is available but needs to be on a Clustered System or used with an HSC disk controller. VMS File Journaling is being Beta-tested and should be announced soon.

* Several discussions dealt with migration from the UNIBUS to the VAX BI. Several I/O devices are now available for the BI to include a DR-11 replacement. This device comes with a driver development kit. Migration should be fairly straight forward.

* Several VAX performance tuning tools were discussed. A VMS package was discussed that is essentially an Expert System to guide the System Manager in his tuning efforts. It's always good to get more info in this area.

* Expert Systems and AI-type systems are becoming more available and there were numerous sessions on this topic. DEC has several demo systems available.

* DEC has a Test Manager software product that should be helpful in automating software testing.

* Several new I/O controllers are available for the MicroVAX and more will be announced that may give better system performance.

I have accepted the position of Southern Regional Seminar Coordinator under the National Lug Council Coordinator. The Regional Seminars are going to be managed under a separate committee in the future. As the Regional Coordinator I will be responsible for the scheduling of all seminars in the Southern Region. The lead time for seminars looks like a six month process. This means the earliest we could schedule a seminar in the RTP area would be January 1988. I plan to schedule some seminars for that time frame.

(continued on Page 5)

FROM THE CHAIR

(continued from Page 4)

I should be able to publish a schedule/agenda in the October Newsletter. I need input from the membership in regard to the topics to request. These are the same seminars that are presented at the National Symposium each year. Please let me or one of the LUG officers know if you have interest in specific topics/seminars.

The OEM/Distributor LSIG has had two meetings so far and appears to provide a useful forum for the needs of that group. I would like to thank Dale Magoon for starting up the initial meeting. Dale has since been hired by DEC and was unable to continue in that position. Chris Ruhnke of GE has moved into the coordinator's spot. He has already has done a great job with the second group meeting. I would like to offer my support to other groups with similar interests that will use the LSIGs as a way to get together and discuss your problems/opportunities as users of DEC systems.

There is a new LUG member Registration Form attached to this newsletter. Please take the time to fill it out and return it to Marie Felder at RTI. The LUG membership database is out of date and I feel this will help us get a better picture of the real membership. This form will be included again in the October Newsletter. In November the old membership list will be retired. Only those who return the new registration form will be included in the new membership list. YOU MUST REGISTER AGAIN, EVEN IF YOU HAVE JUST RECENTLY JOINED THE LUG. This purge will save the LUG considerable postage and duplicating expense. We thank you for your interest in the LUG and appreciate your help in this effort to update the database.

Plan to come out to the July meeting for some good information from our speakers and enjoy the social function of a BBQ Pig Pick'n afterwards. "A good time is guaranteed for all."

****

RTP LUG 1987 CALENDER OF EVENTS

* July 22 - Summer LUG Meeting at RTI - pig pickin and social afterwards
* Aug ?? - OEM/Distributor LSIG meeting -- to-be-announced -- mid month
* Oct 2 - LUG Newsletter submission cutoff date
* Oct 9 - Publish the Fall Lug Newsletter
* Oct 21 - Fall LUG Meeting at RTI
* Oct 21 - OEM/Distributor LSIG meeting after LUG meeting
* Dec 7 to 11 - Fall National Symposium at Anaheim, CA
* May 16-20, 1988 - Spring National Symposium at Cincinnati, OH
* Oct 17-21, 1988 - Fall National Symposium at Anaheim, CA

OEM SIG Activities

Chris Ruhnke

The OEM SIG of the RTP LUG has met twice since the last newsletter was published. Each meeting has been hosted by a different chairman. Dale Magoon, formerly of Standard Computer Systems, was instrumental in organizing the SIG and getting things rolling. Shortly after the first meeting last April, Dale jumped the fence to go to work for Digital, and could no longer chair the SIG. Our illustrious LUG leader, Mark Thompson, prevailed upon me (read: twisted my arm) to come to the rescue and help preserve what we had just barely started. With little more than the original list of interested participants, and a LOT of help from Carol Morris, DEC OEM sales, we managed to package the second meeting which was held at the end of June.

Some fifteen DECUS members, representing four OEMs and two DEC distributors, are active in the SIG. Our purpose is to bring together those members of the LUG who are or who want to be DEC OEMs. The OEM SIG provides a forum for the interchange of ideas, airing of problems, exposure to recent DEC announcements and general mutual support for those of us who are trying to incorporate DEC gear into a product and make a buck or two off of it.

A little about myself... I work for General Electric - Silicon Systems Technology Department just across the road from the Park. I've been with this group for two years and in the Triangle area for a little over one year. I am a VAX/VMS systems engineer and do a lot of the systems programming and systems management functions for our group. I am originally from Louisiana and arrived here via Washington, DC.

The next OEM SIG meeting is tentatively planned for mid-August. I am maintaining a membership roster separate from the LUG roster, so if you are interested in joining the SIG, let me know directly.

Chris H. Ruhnke
GE - SSTD
Box 13049 M/S 2T-08
RTP, NC 27709
(919) 544-8120

Address Corrections
or Additions for
TRIANGLE DECUSCAN

Correction ___ Addition ___

NAME: _____

COMPANY: _____

STREET OR PO: _____

CITY: _____

STATE: _____

ZIP: _____

Please return address corrections and additions to:

Marie Felder
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, N.C.
27709

DECUS RTP LUG REGISTRATION FORM

Registration Form Research Triangle DECUS LUG

NAME (last):_____
(first):_____ (mi):_____

COMPANY:_____ DIV:_____
Addr1 :_____
Addr2 :_____
CITY :_____ STATE:____ ZIP:_____
PHONE (area+no.):____-____-_____

BUSINESS TYPE/COMPUTER APPLICATIONS (check best one):

Business/Commercial:___ Data Processing Service:___ Consultant:___
Distributor:___ Engineering/CAD/CAM:___ Education:___
Finance/Accounting:___ Hospital/Health Services:___ Marketing:___
Industrial/Manufacturing:___ Lab/Scientific:___ Timesharing:___
Research/Development:___ Training/Instruction:___ OEM-Tech:___
Telecommunications:___ OEM-Comm:___
Word Processing:___

JOB/TITLE (check best one):

Manager/Staff:___ Pgmr/Analyst:___ User:___ Sys/Net/DB Mgr:___
Other:_____

OPERATING SYSTEMS/NETWORKS USED (check applicable):

VMS:___ UNIX:___ RSX:___ RSTS:___ RT:___ Other:_____
CLUSTER:___ LAN:___ WAN:___ PSI:___ SNA:___

LANGUAGES/TOOLS USED (check applicable):

ADA:___ BASIC:___ BLISS:___ C:___ COBOL:___ DIBOL:___ FORTRAN:___
LISP:___ MACRO:___ OPS5:___ PASCAL:___ PL/1:___ RPG:___ OTHER:_____

AI:___ Ainl:___ AtoZ:___ CMS:___ DATATRIEVE:___ DBMS:___ DECNET:___
FMS:___ LSE:___ PCA:___ Rdb:___ SPM:___ SQL:___ OTHER:_____

WORD PROCESSING PACKAGE USED (write in):_____

GENERAL COMMENTS:_____
_____

Mail to: DECUS RTP LUG
PO Box 3771
Chapel Hill, NC 27514

TRIANGLE DECUSCAN

newsletter of the research triangle DECUS local users group

VOLUME VIX NUMBER 4 RESEARCH TRIANGLE, NORTH CAROLINA OCTOBER 1987

FROM THE CHAIR ...

Mark Thompson

Greetings from the Chair! It has been a busy time around here lately, it seems like we were just having a LUG meeting and a BBQ. That was a successful activity and all who attended had a good time. I would like to plan more activities of that kind in the future. The LUG can become the focal point for DECUS activities in the RTP area if you, the membership, continue to support it as you have the last few years. It was about this time last year when I and the new officers took the opportunity to serve. I feel we have had a very successful year and look forward to 1988 as a year with even greater opportunities.

I have been working on the planned Local Seminar for the RTP area. In July the National DECUS Chapter approved the creation of a National Seminar Committee. This Committee is staffed by members representing the National DECUS Chapter, the LUG Council, and the SIG Council. This Committee will be responsible for scheduling and supporting the Seminars at the National Symposia, Regional Symposia, and at the Local LUG level. This Committee had its firs. meeting in September and is actively working to make Local Seminars a reality. There are a lot of activities involved in creating a successful program of seminars on a year-round basis. This program is being developed on a national level and will effect all members of DECUS. The next several months will be especially difficult while old procedures are being reworked to support the new requirements of the Seminar Committee.

I have been busy in my role as the Southern Regional Seminar Coordinator. The current plans are to have a two-day seminar event in the RTP area in January 1988. This two-day event will have a "technical seminar" and a "general seminar" if all goes as planned. The tentative time is the 2nd or 3rd week of January, probably on a Tuesday/ Wednesday or a Wednesday/Thursday back-to-back schedule. The speakers are being arranged at this time so it is difficult to give you more details. The flyer should go out in December with enough time for you to schedule this activity into your January training activities. I will discuss this at the LUG meeting as I have more details. Once more this month we have attached a Registration Form for the RTP LUG to the Newsletter. Additionally, you will find a Registration Form for the National DECUS Chapter. I have been informed that the National Bylaws require ALL LUG members to also be members of the National Chapter. There are no dues or charges to belong to either the Local or National DEC Users Society. If you are not currently a member of the National DECUS, please take the time to fill out and mail the Registration Form back to Marie Felder at RTI. If you already have a DECUS membership number, please enter it on the Local Registration Form for our records. Remember, we will be

(continued on Page 2)

(continued from Page 1)

purging the mailing lists of ALL old entries and entering those members who have returned the Registration Form from this or the July Newsletter. We need to get the roster updated. The information requested will better enable your LUG officers to serve you the LUG member. Once again, I want to thank all of the companies who donated prizes to the BBQ and all the people who purchased tickets. This activity was very successful thanks to your support and patronage. See you at the October LUG meeting.

T R I A N G L E D E C U S C A N

Editor - Marie Felder

Contributors - Mark Thompson
William Dowdy
Brenda Frick
Dawn Edgerton

Published quarterly by:

DECUS RESEARCH TRIANGLE LUG
P.O. Box 3771
Chapel Hill, N.C. 27514

LUG REGISTRATION

There is a new LUG member Registration Form attached to this newsletter. Please take the time to fill it out and return it to Marie Felder at RTI. The LUG membership database is out of date and I feel this will help us get a better picture of the real membership. Also included in the newsletter is a DECUS registration form. You MUST be a registered member of DECUS in order to be an official LUG member.

You may return your completed membership forms to one of the LUG officers at the October meeting.

In November the old membership list will be retired. Only those who return the new registration form will be included in the new membership list. YOU MUST REGISTER AGAIN, EVEN IF YOU HAVE JUST RECENTLY JOINED THE LUG. This purge will save the LUG considerable postage and duplicating expense. We thank you for your interest in the LUG and appreciate your help in this effort to update the database.

****

The following is the proposed January meeting date for the calendar:

LUG Meeting: Jan. 20, 1988

****

JULY MEETING AND FEAST

Brenda Frick
Associate Chair/Treasurer

The July meeting has been deemed a great success. There has been a lot of positive response on the meeting and the pig picking. The general consensus is that there should be some type of annual "feast".

Our speakers for the local company members were Chris Ruhnke of GE, and William (Sonny) Dowdy of Capitol Broadcasting. Commercial interests were represented by EMC and RAXCO.

Once the meeting adjourned, it was time for everyone to "pig" out and "pig" out we did!! Although the food was a little late in arriving, I think everyone made up for the lost time. Bar-B-Q Hut from Raleigh catered the meal and did a fantastic job. It was impossible for anyone to have gone away hungry. Even now it me makes me hungry just thinking about all of that food. After we had stuffed ourselves, we returned to the auditorium to draw for door prizes.

A special thanks to Mark Thompson and to the contributing companies for an impressive selection of door prizes. I'm sure the company representatives were more than willing to contribute a prize just to get Mark off their backs!!!

The following is a list of the winners and their prizes:

Chris White	RAXCO 3-Day Performance Seminar
Joe Mooring	CD Player
Marie Felder	Clock Radio
Janice Pope	Digital Shoulder Bag
Kevin Angley	Visor
Sonny Dowdy	Coffee Mug
Bob Thornton	Visor
Robert Frick	Coffee Mug
Roy Schonberg	Visor
John Crossman	Coffee Mug
Wallace Henry	Coffee Mug
Joe Brumbeloe	Visor
Eva McCoy	Visor
Brenda Carey	Visor
Jon Berntsen	Visor
Marion Bailey	Visor
Dawn Puryear	Visor

The 3-day performance seminar was contributed by RAXCO. EMC contributed the CD player. The clock radio was donated by Hamilton/Avnet. DEC contributed the shoulder bag and Digital coffee mugs. The visors were contributed by Pioneer Technology.

In addition to the door prizes, those attending received note pads from Hamilton/Avnet and flashlights and System Performance Guides from EMC.

We will attempt to have some type of annual event, and, hopefully the next one will be even bigger and better. Start thinking about something for the next time -- it is never too early to start planning.

****

ON THE MOVE

Brenda Frick

Please note that Brenda Frick, RTP DECUS LUG Associate Chair/Treasurer, has a new address and phone number:

Semiconductor Research Corp.
P. O. Box 12053
79 Alexander Dr., Bldg. 4501
Suite 301
Research Triangle Park, N. C. 27709

541-9438

DECUS TAPE INFO

Sonny Dowdy

Good News! Janet has received the latest DECUS tapes from the Spring 1987 symposium. There are two VAX tapes -- one RSX tape, and one RT tape.

There are also three new 1986 Languages and Tools tapes. Several people have called to inquire about these and they should be ready for copying by the time you read this. To get your copies:

1. Bring or send a blank 2400-foot tape for each tape you want copied. (If possible, avoid Scotch BlackWatch tapes since they don't work well on our tape drives.)

2. Send $7.00 per tape, preferably in the form of a check made out to DECUS RTP LUG. No purchase orders, stamps, or credit cards please! If you want the tapes mailed back to you, please include return postage.

3. Be sure to send a note telling us which tapes you want and the return mailing address.

4. For RSX, RT, and pre-1986 VAX tapes, contact Janet Bernsten at 493-2471. For 1986 and later VAX tapes, contact me or Dan Monjar at 890-6005.

****

DEC_REP NEWS: Hi, Folks!

Dawn Edgerton

I saw many of you at DECWorld last month. I trust most of you have recovered from the crowds and the rich food aboard the Queen Elizabeth II. DECWorld was a tremendous success for Digital and we would like to thank you for spending the time and money to make the trek to Boston. I hope you found it worthwhile.

Many product announcements were made at DECWorld. I will hit the highlights in this article. First of all, Digital announced the next generation of MicroVAX systems that is based on a new, higher-performance CMOS technology. The new systems are the MicroVAX 3500/3600, the VAXStation 3200/3500, and the VAXServer 3500/3600/3602. The new CMOS microprocessor technology offers more than 3 times the performance of the MicroVAX II in most applications. Also, VMS and ULTRIX will both support all diskless VAXStation configurations.

Along with these systems Digital announced new storage subsystems, including: the 280 MByte RA70, a new high-performance 5.25 inch disk drive; the 622 MByte RA82, a new high-availability, high-capacity disk drive; and the TK70, a 296 MByte cartridge tape drive.

In addition to these product, Digital made three key announcements in networking strategy. These include: the announcement of DNA/OSI Phase V, the fifth generation of networking technology that merges DNA and OSI; the announcement of Unshielded Twisted Pair Ethernet; and MAILbus with which customers can make many different mail systems work together as one, unified, enterprise-wide mail system.

For more information on any of these products, your sales rep will of course have all the answers. I hope to see you all at the new LUG meeting!

DECUS RTP LUG REGISTRATION FORM

Registration Form Research Triangle DECUS LUG

NAME (last):_____
(first):_____ (mi):_____

COMPANY:_____ DIV:_____
Addr1 :_____
Addr2 :_____
CITY :_____ STATE:____ ZIP:_____
PHONE (area+no.):_____-_____-_____

BUSINESS TYPE/COMPUTER APPLICATIONS (check best one):

Business/Commercial:___ Data Processing Service:___ Consultant:___
Distributor:___ Engineering/CAD/CAM:___ Education:___
Finance/Accounting:___ Hospital/Health Services:___ Marketing:___
Industrial/Manufacturing:___ Lab/Scientific:___ Timesharing:___
Research/Development:___ Training/Instruction:___ OEM-Tech:___
Telecommunications:___ OEM-Comm:___
Word Processing:___

JOB/TITLE (check best one):

Manager/Staff:___ Pgmr/Analyst:___ User:___ Sys/Net/DB Mgr:___
Other:_____

OPERATING SYSTEMS/NETWORKS USED (check applicable):

VMS:___ UNIX:___ RSX:___ RSTS:___ RT:___ Other:_____
CLUSTER:___ LAN:___ WAN:___ PSI:___ SNA:___

LANGUAGES/TOOLS USED (check applicable):

ADA:___ BASIC:___ BLISS:___ C:___ COBOL:___ DIBOL:___ FORTRAN:___
LISP:___ MACRO:___ OPS5:___ PASCAL:___ PL/1:___ RPG:___ OTHER:_____

AI:___ Ainl:___ AtoZ:___ CMS:___ DATATRIEVE:___ DBMS:___ DECNET:___
FMS:___ LSE:___ PCA:___ Rdb:___ SPM:___ SQL:___ OTHER:_____

WORD PROCESSING PACKAGE USED (write in):_____

GENERAL COMMENTS:_____
_____

Mail to: DECUS RTP LUG
PO Box 3771
Chapel Hill, NC 27514

FROM THE EDITOR ...

Marie Felder

Looks like most of our membership enjoyed the pig pickin in July! We hope to be able to do something similar in the future. Hope all of you who missed the last one will plan to attend next time! Thanks to the vendors who provided the door prizes (notice I won a clock radio -- I like the "snooze" alarm!). Special thanks also to Brenda Frick and Mark Thompson, both of whom worked very hard to make sure things were set up, that the food and drinks were properly taken care of, and that we had enough door prizes. Congratulations to both of them on a job well done!

Here's another personal invitation from your editor to send in contributions about what's going on in your organization that might be of interest to our readers. I'm looking forward to receiving your articles in the future!

Address Corrections
or Additions for
TRIANGLE DECUSCAN

Correction ___ Addition ___

NAME: _____

COMPANY: _____

STREET OR PO: _____

CITY: _____

STATE: _____

ZIP: _____

Please return address corrections and additions to:

Marie Felder
Research Triangle Institute
P.O. Box 12194
Research Triangle Park, N.C.
27709

DECUS

Alamo Area LUG Newsletter

December, 1987

Chairman	Stanley Schaefer	922-1213
Vice-Chairman	Angel O'Campo	684-5111
Secretary	Daryl Vargyas	227-3211
Librarian	George Russell	691-7351
Coordinators	Jeff Nesloney	922-1213
	Mike Fellows	691-7351
	Tom Smith	692-0953

A Message From the Chairman

Another year is about to end and the holiday season is upon us. Thanksgiving reminds us to express our thanks. We thank all of you for giving us the opportunity to participate as LUG officers for 1987. Our expressed desires for our LUG activities may have fallen short of our expectations but do not despair. The beginning of a new year is at hand and we can again strive to reach our goals. Although the bulletin board was not a resounding success, we should not discount the concept as worthless. Perhaps the command-driven approach should be replaced by a menu-driven system. Maybe the hang-up was in-compatibility of modems.

As LUG chairman, I wanted and still would like each of us to contribute our expertise and talents for the common benefit. I had hoped that our reliance on vendor presentations could be drastically reduced, if not eliminated entirely. I feel that we did accomplish some of this during the year. I learned that a successful LUG meeting requires organization, planning and preparation. I also learned that dedicated members must volunteer to share their expertise. All of these require time. I still believe that if each site had a primary contact, our LUG could be more effective and responsive to member desires. Perhaps each site could alternate responsibility for arranging a meeting. They would not necessarily be required to provide the meeting room or the audio-visual equipment, but they would share in the responsibility of giving a presentation and organizing the other details.

I was disappointed that members from all local sites did not have representation at every meeting. Please advise LUG officers of any conflicts in meeting times or in topics so that our LUG can be more widely beneficial. Our LUG will hopefully remain open to constructive criticism, welcome new ideas and certainly accept any volunteered participation. There should be no reason for this organization's activities not to be of benefit to you since your direct involvement has been and will always be solicited.

Although I did not fully utilize the potential afforded me in our steering committee, these individuals were most helpful and I want to thank all its members for their support and contributions during the past year. More importantly, we all thank those of you who have contributed by giving a demonstration, presentation or answered someone's question(s) either at or after one of our meetings. We appreciate those who arranged the use of their facilities for meetings. And a special thanks to our librarian and UTHSC-SA for providing copies of DECUS software. As always, the secretary (this past year, Daryl Vargyas) deserves special thanks for getting out the mailings and for handling other informational matters.

I personally apologize for allowing so much time to elapse between meetings. This was an unusually busy year for us at H. B. Zachry Company - our staff was reduced and, correspondingly our individual work load grew. We have since adapted to the new manning situation and can again become more active in LUG activities.

Our LUG by-laws require that we secure nominations for officers prior to December 31st of each year. Since the 1987 DECUS national fall symposium will be held the week of December 6, our last meeting of the year will be held the following week. Whatever the outcome of the nomination and election process, let us all pledge to support the incoming officers by giving of our time and talents.

Next Meeting

The next meeting of the LUG will be held on Thursday, December 17, at 2:00 PM at H. B. Zachry Company Headquarters, 527 Logwood Blvd., San Antonio, Texas. Directions to the meeting site:

Exit #150B from I-35 south.
Take left on S.W. Military (Loop 13).
Proceed one intersection beyond I-35 overpass.
Take right on Logwood Blvd.
Proceed past first stop sign on Logwood Blvd.
Take next right into Zachry parking lot.
Enter main reception area and proceed to training room.

AGENDA:

1) Nomination of officers for 1988.

   Each nominee will be afforded an opportunity to present their views or intentions for securing the office. This is strictly optional and attendees may ask a question of a nominee. Your participation in the nominating process affords you the greatest influence in LUG activities.

   Subsequent election of officers will be either by mail-in vote (received prior to the January meeting) or by attendance at the January meeting, with one vote per active LUG member.

The new officers will assume their positions at the January meeting. Tentative meeting date will be January 17th unless we set another date at the December meeting.

Our tentative January agenda will include election of officers and a PC inter-connectivity workshop. This workshop must be held at a location having facilities for several PC's, telephone connections for modems to demonstrate remote connection to VAX's and other mini and mainframe computers. PC-to-PC connectivity should also be demonstrated. A local VAX should be available to demonstrate local connectivity and to perhaps temporarily install some demonstration inter-connectivity software. We will need numerous member contributors to make this a beneficial experience. We should demonstrate options that fit the minimal budget as well as those where money is not a consideration. At least one solution should be presented that neither requires Ethernet or other networking hardware/software. We should see approaches that members are currently using or have tried. In addition to demonstrations, discussion of related issues will also be welcome. This is not a forum for marketing, but rather a forum for expressing both technical personnel and end-user experiences. We will be quite busy after the holidays soliciting your participation and advice in pulling together such an ambitious undertaking within a limited timeframe.

2) Since several members will have returned from the national symposium in Anaheim, we will have an open session where these individuals can share their experiences with us. Those who are fortunate enough to attend might come to the meeting prepared to give off-the-cuff opinions about new and exciting operating system enhancements, new hardware products, or just to explain what a particular session meant to them. Since some of our members have never attended, it would be interesting to hear what you thought about the experience of seeing so many dedicated professionals gathered in one place. It will be proper to cite some of the non-technical, enjoyable experiences as well. There will be opportunities to ask questions. Please do not be hesitant, as these presentations will be very informal. Also, since nominations will occur, it is important for all to attend.

3) Dependent upon the interest level of those in attendance, we will present a video on artificial intelligence. This video can be truncated to as little as one hour, depending on the opinion of those members who are present. Hopefully, this can stimulate interest for a future in-depth presentation on this topic. Any of you involved in AI activities will be welcome to answer questions, provide your comments about the video, or offer your expertise for a future meeting.

DECUS ™ DECUS
C/O Trina S. Jackson
Atlanta Regional Commission
100 Edgewood Avenue, NE - Suite 1801
Atlanta, Georgia 30335

Paula Sharick - 599
Wildwood Associates
1490 Wildwood Lane
Boulder, CO 80303

March 1988 Newsletter FIRST CLASS MAIL

From the Editor...

If you would like to contribute an article to the next edition of the newsletter, the deadline is Wednesday March 30. I can be reached by Fax/Vax/Mail. In the past, I have extended the deadline, but due to the holiday weekend, I need to have all information by the closing date. Thanks!

A big thank-you to all who contributed to this month's edition of the newsletter. If you don't see your item, it's probably because we got more data than would fit into this edition. I promise to include it next month.

Remember my motto, your editor is only a stamp away!

Send contributions to :
Margaret Anderson
Contel Service Corporation
400 Embassy Row, Suite 300
Atlanta, Georgia 30328

ATALUG Committee

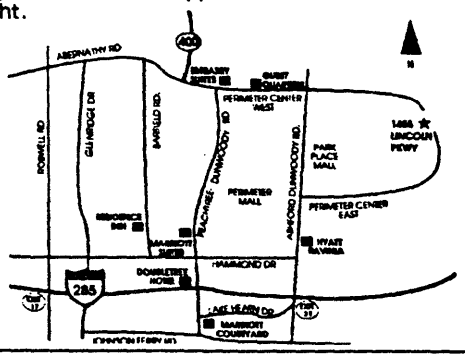
(area code 404)

Chairman	*Bill Leroy*	*231-1484*
Program	*Mike Moore*	*378-0771*
Newsletter Editor	*Margaret Anderson*	*392-6972*
Membership	*David Samsky*	*434-9889*
Personal Computers	*Brian Zubak*	*925-0027*
Secretary	*Trina S. Jackson*	*656-7730*
Treasurer	*Cecil Pacetti*	*256-2724*
Tape Librarian	*Mike Sieweke*	*894-7184*

How to find the ATALUG Meeting...

Application Center for Technology
1455 Lincoln Parkway, 8th Floor

Take I-285 to Ashford-Dunwoody Road. Exit to the North and move into the right lane. Go through three set of traffic lights (two sets of lights if you exited from Westbound I-285). At the fourth light turn right onto Perimeter Center East(there is a red sign for the First Atlant Bank on the corner). Drive 1/2 mile to the sign identifying Lincoln Parkway. Turn Right. The ACT is approx. 1/10 mile on the right.

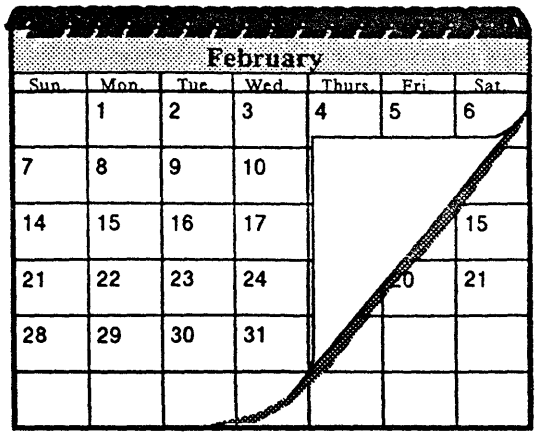


Meeting Format...

The next ATALUG Meeting will be on March 28, 1988

6:00 pm - 6:40 pm *Technical Session*	**7:15 pm - 7:30 pm** *DEC News*
6:40 pm - 7:00 pm *Social Gathering*	**7:30 pm - 8:30 pm** *Presentation*
7:00 pm - 7:15 pm *Announcements*	**8:30 pm - 9:00 pm** *Questions/Answers*

Report from Last Month...



The committee would like to apologize to all who attended the February ATALUG meeting. At the last minute, the scheduled presenter had to cancel and we were unable to find a replacement at such short notice.

In true 'the show must go on' style, we conducted a meeting anyway. A lot of interesting discussion was generated about what the LUG should be doing so that members will want to attend meetings on a regular basis. We also had the opportunity to learn more about each other's DEC needs.

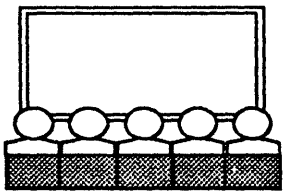
Thanks to all who attended the meeting for being patient with us!

Here is a list of the recommended programs :

- 4GL Roundtable discussion
- Graphics Interfaces
- Windows on Vaxstations
- Laser Printers
- Network Connections
- Return of Tektronics
- MAC/VAX Connection
- MS Services/VMS
- Why use Educational Services?
- Why pay for software upgrades?

Call Mike Moore at 378-0771 if you have other suggestions for the above list.

Coming Attractions...



Technical Session

Members of the District Network Team, Interconnect Specialists and Application Installation Specialists from Digital Equipment Corporation will sit in panel to discuss your questions directed at connectivity and networking. This will be an open forum to provide you with direction as to where to gain assistence within Digital to maximize your system.

Feature Presentation

Apple Computer will host the upcoming DECUS meeting on March 28 at 7:30 pm at the DEC Advanced Center for Technology (ACT).

Keith Sharp, Buck Marchant and Andy Simms will make the presentation. Sharp is a Senior Sales Representative for Apple and Marchant is a Senior System Engineer. Simms is Apple's Business Development Executive in Atlanta. The presentation will cover Apple and DEC's joint development agreement, Macintosh to DEC hardware connections, and Macintosh/DEC software integration.

Sharp will discuss the joint development agreement. The efforts will integrate Macintosh personal computers and the AppleTalk network with VAX systems and DECnet/OSI enterprise networks. The development efforts will take advantage of open standards for desktop integration, based on the industry-standard Open Systems Interconnect (OSI) model of the International Standards Organization (ISO).

Marchant will demonstrate and discuss the existing third party solutions which connect Macintosh into the DEC environment. Direct connections of Macintosh into DECnet, bridging AppleTalk networkd into DECnet and integration of the two operating environments will be among his topics.

Simms, along with other Apple employees and managers will be present to entertain questions and discuss Macintosh solutions.

Committment to DECUS

Think about your present situation. How much contact do you have with DEC users outside your own company/department ? For some, it is easy to attend National Decus at least once a year and network with DEC users from around the country. For others, budgeting constraints do not permit attendance at out-of-state meetings. But, don't dispair! You can be an active member of your Local Users' Group (LUG) with just an investment of your time.

Consider becoming involved with your LUG this year. Your committment and participation will not only mean personal growth but you could also contribute to the growth of others who can benefit from your experience. Pass the newsletter around your office or give a copy to someone you know who could benefit from attending LUG meetings.

ATALUG Registration & Survey Form

The following information is requested of members in the ATlanta Area Local Users' Group. This information is used to update our mailing list and as a resource for ATALUG members. The form requests information about your areas of expertise and the hardware and software at your installation.

ATALUG membership # from your mailing label:_____

Are you a DECUS member? YES / NO Your DECUS #_____

Name_____ Phone #_____

Company_____

Address_____

City_____ State _____ Zip_____

Please indicate your areas of expertise (areas in which you would be willing to answers questions from other members):_____

May we publish your name, address and areas of expertise in an ATALUG directory available only to members?_____

May we publish your computer installation information in a resource directory of hardware/software installations?_____

Briefly describe your business_____

COMPUTER CONFIGURATION: Please indicate all appropriate answers.

CPU type:	VAX	MicroVAX	PDP	
	VAXstation	DEC Micro	Other Micros	
BUS type:				
Printers:	Laser-- LN01/LN03	HP	Other_____	
Communications:		Ethernet	Hardwired	Dial Up
Do you have modem capability? Y/N			Type:	Speed:
Magnetic Tape:	density(s) 800 / 1600 / 6250			
	TU:	TK:		
Removeable media disk drive(s):_____				
Graphics Capabilities:				
Graphics Terminal		Printer	Pen Plotter	
Electrostatic Plotter			Other_____	
Software		REGIS	GKS	
		Tektronics	Other_____	
Operating System:	VMS	UNIX	PDP[RSX/RSTS/RT11]	_____
Languages:		BASIC	C	COBOL
		FORTRAN		Other_____
Layered Products:		All-In-1	DECNET	_____
DBMS? Y/N		RD/b	ACMS	_____
Word Processing? Y/N		WPS/Plus	MASS11	_____

Thank you for your cooperation. Please mail the completed form(s) to:

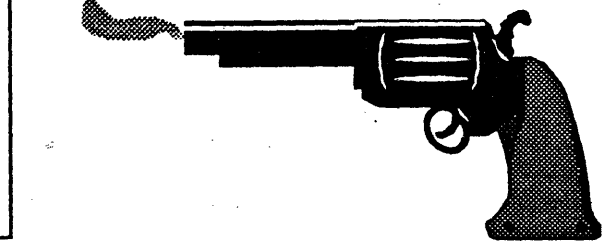
David Samsky, ATALUG Membership Chairman
Nuclear Data, Inc.
2734 South Cobb Industrial Blvd.
Smyrna, GA 30082

WANTED

Do any of you Atlanta area DECUS members have a Project Monitoring System running on your VAX? A fellow member, American Express Trave Related Services Company, is looking for an automated means of allowing its user departments to submit requests for new projects or enhancements to existing systems. The analysis and development staffs would then be able to respond to the requests, log proposed solutions, costs and schedules. The users could then approve or counter the Systems Departments's proposal. During each succeeding step, the developers would enter status entries recording the progress of the project from initial coding to testing, users acceptance and implementation. the users, developers, management and all other authorized parties would be able to inquire as to the status of the project at any time through the existing terminal network. If any of you have an existing system to recommend that you either purchased or developed in house, please contact either Rick Klemm (368-5278) or Mark Matheson (368-5258) at American Express.

WANTED

We need inexpensive software that runs with VMS that will handle a small company library. Searching capabilities with boolean logic & check out functions are required. It must be able to handle multiple copies of the same title. If you have any information on such a system, call Angie Aimar, at Electromagnetic Sciences, Inc, 404-263-9200 ext 4643.



Printronix Paper Feed Problem Solver

by Brain Zubak

The following technical tip will help to keep your Printronix type printer (LP300, LP600) printouts feeding smoothly. Gather the following materials:

1 - Aluminum can
2 - Scissors
3 - Philips head screwdriver
4 - Scotch tape

Caution:The cut edges of the can are very sharp, be careful when handling.

Using the scissors punch a hole in the can near the bottom. Carefully cut off the bottom. Cut up the side to the top. Cut off the top. Discard top and bottom. Cut two strips (following the curve of the can). They should be approximately 1.5" wide by 3.5" long. Tape the edges of the strips to help prevent any accidental cuts when handling. Using the screwdriver punch a hole in the center of each strip approx. .25" up from the bottom edge of the strip.

Using the Philips screwdriver, remove the upper screw on the left hand tractor of the printer (this screw is directly in line with the paper feed holes). Insert the screw into the hole previously made in the paper feed guide strip. Then mount the assembly to the tractor and tighten the screw. Repeat this procedure for the right hand tractor. Congratulations! Your paper feeding problems should now be over!

Do you know . . .

Due to the outcry of desire at the last ATALUG meeting, I'm reinstituting my old "Do you know" column for our ATALUG newsletter. Here it is the latest questions on the minds of your fellow ATALUG members. If you have answers or comments and, of course, any new questions, please feel free to call me at 656-7730 or drop me a note; use the return address on your newsletter. I'll print all responses in a subsequent newsletter but I won't print any if I don't get any! Let's pool our resources and get some of these problems solved! Trinia Jackson.

how to read MS DOS data diskettes on a MicroVAX? Tom Ackerman needs to know.

someone who uses a project scheduling system on a VAX that they'd like to recommend? American Express needs one. [DEC has a package called VAX Software Project Manager and the "VAX Software Source Book" lists many, but is anybody really using one?]

that DEC has finally gotten into the competitive marketplace for terminals? Check out the prices on their new VT320s. Even the maintenance costs are reasonable!

anyone using DEC's screen management software called SMG? Wayne Abbott is interested.

Composition and printing by CAMPBELL GRAPHICS

ATALUG - Atlanta Area Local User Group

Operational Procedures
July 1987

Name

The name of the organization shall be the Atlanta Area Local Users Group, a.k.a. ATALUG, and it shall be based in Atlanta, Georgia, U.S.A.

Purpose

To provide useful and timely information, and exchange experience between users of Digital Equipment Corporation (DEC) Rainbows, DECMATEs, PDP-11s, and VAX computer systems.

To provide a formal information exchange channel between users and DEC, including service, software, and sales.

To function within the Digital Equipment Computer Users Society (DECUS) as a Local Users Group (LUG), in furthering the purposes and activities of DECUS within the Atlanta DEC community.

Membership

Membership is open to all persons within the greater Atlanta area either having, or interested in the use of, DEC Micros, PDP-11 computers, and VAX systems.

Meetings

Meetings shall be held at least once a month, at a time and place to be announced at least one week in advance, in a monthly meeting announcement.

Organization

There shall be a Steering Committee consisting of a minimum of five members, including at least a Chairman, Secretary, Newsletter Editor, Meeting Programs, and Tape Librarian. They shall be elected by a simple majority of the eligible voting members present at the meeting following publication of a proposed slate of officers in the monthly meeting announcement. Nominations may be made from the floor at the meeting.

The Chairman and Steering Committee shall be elected in the second calendar quarter of each year for a one year term, taking office effective July 1st of each year. This coincides with the National DECUS fiscal year. Any member of the Steering Committee may be re-elected to the same or different office each year.

Others members may be added to the Steering Committee at any time by the Chairman, subject to confirmation by a simple majority of the Steering Committee at its next meeting.

Funding

Membership in ATALUG is free to all members of DECUS. Therefore, DECUS shall reimburse ATALUG for the cost of a bank account, and printing and mailing meeting announcements and newsletters each month. The ATALUG Chairman is reponsible to DECUS for all monies advanced to ATALUG.

However, this does not prevent ATALUG from charging a fee to its members in lieu of reimbursement from DECUS.

National Symposia tapes and disks

ATALUG shall make available to each member copies of requested magnetic tapes and disks from each symposia. If the ATALUG Steering Committee so elects, a copying charge may be made to the members to recover ATALUG's out-of-pocket costs.

Amendments to these procedures

An amendment to the operating procedures shall require:

1) notification to the membership of the proposed amendment at least three weeks prior to the meeting at which it is to be considered; and

2) Approval by a simple majority of the eligible voting members present at that meeting.

Handy Utility: REPLACE.COM

A few months ago Bill Leroy shared with me a handy utility called REPLACE. It works similar to VMS's SEARCH utility except it gives you the capability of replacing the search string with a replacement string. We tested the command file and, based on the trouble we got ourselves into, Vick Miles of my staff took the liberty of improving it.

The first trouble we ran into was that REPLACE would modify executables and data files - which then would no longer execute or be of the proper format. So the first change made was to check to make sure there were no warning messages from EDT about the format of the input file (eg: "Input file does not have standard text format", etc.). If any warning messages are received, that particular file is bypassed; it is not changed.

The second major change was to add an EDT-type enhancement: being able to specify that changes be made only on lines with a specified literal. In EDT, to replace ABC with DEF only on lines with the string TEST, you would use the substitute command: S/ABC/DEF/%ALL 'TEST'. So also with this version of REPLACE. In this example, the string ABC is replaced by DEF on lines with TEST in all files satisfying the file specification *.JCL.

```
REPLACE *.JCL ABC DEF "%ALL 'TEST'"
```

On our system, the command file is stored in the SYS$MANAGER: account. A system-wide assignment in SYLOGIN.COM makes it available to everyone.

```
$REPLACE :== @SYS$MANAGER:REPLACE.COM
```

REPLACE works equally well interactively as well as batch.

```
$    SET NOVERIFY
$! THIS WILL NOT WORK IF THE ABOVE LINE IS COMMENTED OUT
$! AND THE CALLING PROCESS HAS SET VERIFY ON.
$ SET MESSAGE/FACILITY/IDENTIFICATION/SEVERITY/TEXT
$!   NAME:      SYS$MANAGER:REPLACE.COM
$!
$!   DESCRIPTION: THIS ROUTINE WILL SUBSTITUTE A STRING WITH
$!              ANOTHER, ACROSS FILES REQUESTED.
$!              FILENAME WILDCARDS ACCEPTED.
$!
$!   PROGRAMMER:              BILL O'NEIL -- 07/10/86 -- HYDRITE CHEMICAL CO.
$!   MODIFIED: BILL LEROY -- 03/21/87 -- THE SOFTWARE HOUSE, INC.
$!      MODIFIED:                              VICK MILES -- 06/29/87 -- ARC
$!
$!   EXAMPLE:  TO INSTALL THE COMMAND FILE, ENTER THE FOLLOWING
$!              INTO YOUR LOGIN.COM FIL, GIVING REPLACE THE
$!              APPEARANCE OF AN ACTUAL DCL COMMAND.
$!
$!   $ REPLACE :== @[ACCOUNT-NAME]REPLACE.COM
$!
$!   THEN, THE SYNTAX FOR THE NEW COMMAND WOULD BE:
$!
$!   $ REPLACE FILE-NAME SEARCH-STRING REPLACEMENT-STRING  RANGE
$!      IF THE STRINGS CONTAIN BLANKS, ENCLOSE THEM IN " "
$! THE RANGE PARAMETER IS OPTIONAL. IF OMMITTED THE DEFAULT IS
$! WHOLE (SUBSITUTE ALL OCCURRENCES IN EACH FILE).
$! AN EXAMPLE USING THE RANGE PARAMETER IS AS FOLLOWS:
$! REPLACE *.JCL ABC DEF "%ALL 'TEST'"
$! THIS WOULD REPLACE ABC WITH DEF IN ALL LINES THAT CONTAIN THE STRING TEST
$! IN ALL FILES WITH THE EXTENTION .JCL IN THE CURRENT DIRECTORY.
$!
$  GET_INPUT:
$    IF P1 .EQS. "" THEN INQUIRE/NOPUNCTUATION P1 "* FILE NAME: "
$    IF P1 .EQS. "" THEN GOTO END_JOB
$    IF P2 .EQS. "" THEN INQUIRE/NOPUNCTUATION P2 "* REPLACE  : "
$    IF P2 .EQS. "" THEN GOTO END_JOB
$    IF P3 .EQS. "" THEN INQUIRE/NOPUNCTUATION P3 "* WITH     : "
```

```
$    IF P3 .EQS. "" THEN GOTO END_JOB
$!
$    FILENAME  = ''P1'
$    SEARCH_FIELD                                                    = ''P2'
$    REPLACE_FIELD                                                   = ''P3'
$       RANGE = ''P4'
$!
$  CREATE_DIRECTORY_LIST:
$    FILESPEC = F$SEARCH(FILENAME)
$    IF FILESPEC .EQS. "" THEN WRITE SYS$OUTPUT ""  FILE NOT FOUND"
$    IF FILESPEC .EQS. "" THEN GOTO END_JOB
$    DIRECTORY/NOHEAD/NOTRAIL/VERSIONS=1/OUTPUT=[]-
REPLACE.LIS 'FILENAME'
$!
$  CREATE_CMD_LINE:
$ IF P4 .EQS. "" THEN LINE = "S/''SEARCH_FIELD'/''REPLACE_FIELD'/ WHOLE"
$ IF P4 .NES. "" THEN LINE = "S/''SEARCH_FIELD'/''REPLACE_FIELD'/''RANGE'"
$!
$  CREATE_CMD_FILE:
$    OPEN/WRITE OUTFILE []REPLACE.CMD
$    WRITE OUTFILE LINE
$    CLOSE OUTFILE
$!
$  OPEN_FILE:
$    OPEN/READ DIRECT_FILE []REPLACE.LIS
$!
$  SEARCH_LOOP:
$    READ/END_OF_FILE=END_LOOP DIRECT_FILE RECORD
$    POSITION = F$LOCATE(";",RECORD)
$    EDIT_FILE_NAME = F$EXTRACT(0,POSITION,RECORD)
$! TEST FOR SEARCH STRING
$  ASSIGN []SEARCH.TEST SYS$OUTPUT
$       EDIT/EDT/NOJOURNAL/COMMAND=[]REPLACE.CMD 'EDIT_FILE_NAME'
QUIT
$       DEASSIGN SYS$OUTPUT
$       OPEN/READ SEARCH_TEST []SEARCH.TEST
$       READ SEARCH_TEST SEARCH
$       IF F$EXTRACT(6,6,SEARCH) .NES. "      " THEN GOTO CLOSIT
$       READ/END_OF_FILE=NEXT SEARCH_TEST SEARCH2
$ NEXT: SUB = SEARCH + SEARCH2
$      IF F$LOCATE(REPLACE_FIELD,SUB) .NE. F$LENGTH(SUB) THEN GOTO REPLACE
$ CLOSIT: CLOSE SEARCH_TEST
$       GOTO SEARCH_LOOP
$  REPLACE:
$  CLOSE SEARCH_TEST
$! THE FOLLOWING LINES PROVIDE SECURITY THAT "SPECIAL" FILES ARE NOT EDITED.
$! THIS PROGRAM SCREENS FILES THAT EDITOR OBJECTS TO, BUT CERTAIN FILES
$! LIKE MASS11 OR ALLIN1 MIGHT BE IMPROPERLY CHANGED.
$! TO INSURE SAFETY, UNCOMMENT THE NEXT FIVE LINES.
$!  CHK = "N"
$! WRITE SYS$OUTPUT " "
$! WRITE SYS$OUTPUT "''EDIT_FILE_NAME' CONTAINS THE STRING."
$! INQUIRE/NOPUNCTUATION CHK " DO YOU WANT IT EDITED (Y OR [N]) ? "
$! IF F$EXTRACT(0,1,CHK) .NES. "Y" THEN GOTO SEARCH_LOOP
$    EDIT/EDT/NOJOURNAL/COMMAND=[]REPLACE.CMD 'EDIT_FILE_NAME'
EXIT
$    GOTO SEARCH_LOOP
$!
$  END_LOOP:
$    CLOSE DIRECT_FILE
$    DELETE []REPLACE.LIS;*,[]REPLACE.CMD;*
$       DELETE []SEARCH.TEST;*
$!
$  END_JOB:
$    EXIT
```

Hope you find this utility as useful as we do!

DECUS - ATALUG
c/o Trina S. Jackson
Atlanta Regional Commission
100 Edgewood Avenue, NE - Suite 1801
Atlanta, Georgia 30335

December 1987 Newsletter

First Class Mail

ATLAUG Committee
(area code 404)

Bill Leroy	- 231-1484
Mike Moore	- 378-0771
Margaret Anderson	- 392-6972
David Samsky	- 434-9889
Brian Zubak	- 925-0027
Trina S. Jackson	- 656-7730
Cecil Pacetti	- 256-2724
Mike Sieweke	- 894-7184

Anne K. Foley - [illegible]577
DECUS LUG Administrator
249 Northboro Road (BP02)
Marlboro, MA 01752

The next ATALUG Meeting will be on January 25, 1988

Meeting Format...

6:00 pm - 6:40 pm Technical Session	7:15 pm - 7:30 pm DEC News
6:40 pm - 7:00 pm Social Gathering	7:30 pm - 8:30 pm Presentation
7:00 pm - 7:15 pm Announcements	8:30 pm - 9:00 pm Questions/Answers

How to find the ATALUG Meeting...

Application Center for Technology
1455 Lincoln Parkway, 8th Floor

Take I-285 to Ashford-Dunwoody Road
Exit to the North & go to 3rd Light
Turn right onto Perimeter Center Ea
Follow this road to Lincoln Parkway
Turn Right. Go to Last Bldg. on Rig

From the Editor...

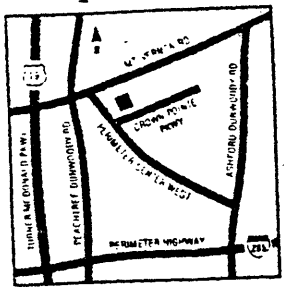
Sorry about the power problems at the A.C.T. on November 24, 1987. We were eventually able to have the meeting although by that time many of you had gotten impatient and left. We will be inviting Tektronix to do another presentation in the first quarter of 1988 so you will get a chance to see what you missed.

Want to sound off about some pet gripe or just show off some nifty new procedure you have discovered? Send it to me and I will include it in the next newsletter. Remember, your editor is only a stamp away!

Please send all contributions to : Margaret Anderson
Contel Service Corporation
400 Embassy Row, Suite 300
Atlanta, Georgia 30328

Sometime in January 1988, we will be updating our mailing list. We feel that there are some people on the list whose address is not current while others are no longer interested in the ATALUG and end up throwing it away when they receive it. The cost of printing the newsletter has risen over the past year and as we will be expanding the newsletter to more than one page in the future, it is vital that we do this in the most efficient and and cost effective manner possible.

ıbassy Suites Hotel



1030 Crown Pointe Pkwy.
Atlanta, Georgia 30338
(404) 394-5454
Call 1-800-EMBASSY

Please R.S.V.P. to Karen at 231-1484 so that we can get an idea how much food will be required for the party.

Even if you forget to call, please come anyway as this is a wonderful opportunity to meet other DEC users.

LONGWORDS

Newsletter of the Dallas/Ft. Worth Metroplex
VAX/VMS Local Users Group - (DFWLUG)

DECUS

Volume 1, Number 9 October, 1987

Contents

LONGWORDS is published twelve times annually at 2813 Parkhaven Drive, Plano, TX 75075. Postmaster: send address changes to DFWLUG, 2813 Parkhaven Drive, Plano, TX 75075.

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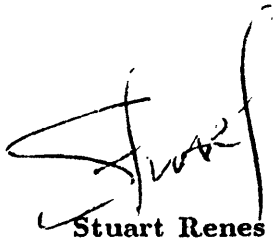
1 DFWLUG NEWS AND VIEWS

1.1 VIEW FROM THE CHAIR

You will find some more good tidbits of information concerning VMS V4.6 in this months newsletter. Please note the FCO information concerning DMZ32 multiplexer boards!

See you at the meeting!

And that's comment for this month...



Stuart Renes
DFWLUG Chair

1.2 DFWLUG MEETING NOTICE

The next meeting of the DFWLUG will be on Tuesday, October 13^{th} at 7:00 pm at TDIndustries. TDIndustries is located on Stemmons Freeway just north of LBJ. To get there, take LBJ to Stemmons (I–35) and go north to the Valwood Parkway exit. Take the U-turn to the access road on the west side of the freeway. Then proceed south about $\frac{1}{4}$ mile to TDIndustries. Their building in on the south side of the lot and is the one with the red Arcoaire sign on it. The meeting will be on the 1^{st} floor. The room has space for about 100–150 people; has audio visual aids available and is quite nice.

October will feature Philippe Ray from GE Computer Services who will be speaking on the hot topic of third party maintenance services. Since everyone and his brother seems to be getting into the VAX maintenance business, this is a very timely presentation for us system manager types who yearn for a straight scoop on this new breed of VAX hardware "experts."

1.3 LONG RANGE SCHEDULE

Future DFWLUG meetings as currently scheduled are:

November 10^{th}	Networking session
December 8^{th}	Suggest a topic

If any of you out there want to be a speaker at one of the LUG meetings, just get in touch with Debbie Vela, our LUG meeting coordinator. Here are some possible topics:

- Installation of BI-based VAXes
- Integrating DEC machines in a multi-vendor ethernet
- Keeping up with those software licenses
- DECnet DOS and VMS - what works and what doesn't
- Managing geriatric VAXes
- Supporting the UNIX user community
- What about *software* for those VAXstations?
- VAX mini-clusters - managing diskless systems

Share your knowledge! If you don't feel up to giving a formal presentation write a paper. You'd be surprised at the amount of information you assume *everyone knows* that they really don't. We are all made up of our experiences and nobody knows it all. Come share yours with the rest of the group so that we all can grow.

2 NEWS FROM DIGITAL

2.1 LOCAL NEWS

The tapes are here! **THE TAPES ARE HERE!** Denny Thury, our LUG librarian, has received the current RSX, Kermit, and VAX SIG tapes. Unfortunately, the Languages and Tools SIG tape has not arrived yet. If you want a copy of one of these, you *must* call him (see last page for phone number) and reserve your personal copy! Notice: no tickets will be sold at the door! If you don't call and reserve a tape, you will be out of luck come LUG meeting time.

2.2 NATIONAL NEWS

VMS V4.6 is here! A somewhat disappointing release which although volumunous in size does not provide much new functionality with the exception of improved support for LAT terminal servers and miscellaneous VAXcluster enhancements.

For those of you who are interested in attending the next national DECUS symposium which will be held from December 7 to December 11 in Ahaheim, the Preliminary Programs for the symposia have been mailed and should have arrived at your site by the time you read this newsletter. The sessions appear rich in content and it would probably be well worth your time and effort to make this symposia, especially with the unveiling of all the new VAX 3000 series hardware. I have received some detailed abstracts from Wayne

Sewell, but will have to delay their printing until next month due to space considerations. In the meantime, get on the stick and push to make the trip to Anaheim!

2.3 RECENTLY RELEASED DEC SOFTWARE

We have a pretty extensive list of current release versions for most of the common DEC software packages. These are releases that people have *received.* They are as follows:

VMS 4.6	VWS 3.2	GKS 3.0
Fortran 4.7	Basic 3.1	SPM 3.1 w/patches
CDD 3.3	VAX 11 RSX 2.3	Cobol 3.4
Datatrieve 4.0	RTEM 2.3	FMS 2.3
Notes 1.2	All-in-1 2.2	DECalc 2.2
DECalc-plus 1.0	CMS 2.3	LSE 2.0
Pascal 3.5	DBMS 3.2	SCA 1.0
DECalc-Plus 3.0	MMS 2.2	LATplus 1.2
DECalc 3.0	DTM 2.2	PCA 1.1-1
XWay 1.1	DECGraph 1.5	SSU 1.0
VTX 3.0	2780/3780 1.6	

You should have received these updates if you have the proper license and have software maintenance. If not, you should give DEC SOFTWARE SERVICES a call at (214) 888-2500 and see what's holding up the show.

3 VAX/VMS ITEMS OF INTEREST

3.1 THE ARBITER SPEAKS!

We continue our anonymous author contributions this month with a technical potpourri of VMS tidbits which should be of interest to most system managers. Let it be known to all that I will accept newsletter input from anyone, and I never reveal my sources! So, if you want to have your voice heard, but have reasons for not wanting your name known, give me a call!

3.1.1 How To Troubleshoot Printing Problems On Terminal Ports

BACKGROUND:

A printer on a terminal port prints files with missing data, garbled strings, or strange

characters. Some printers may ring bells, print backward question-marks or show other signals to indicate a buffer overflow. On the LN03, for example, the LED character display may indicate a buffer overflow by displaying the number 32. How do you troubleshoot these kinds of problems?

PROCEDURE:

Since either hardware or software may be the cause of these symptoms, the following steps may be used to check terminal port settings, check SYSGEN parameters, and troubleshoot hardware problems.

Checking terminal port settings

1. The terminal port should be set /INTERACTIVE and /PASTHRU. These qualifiers tell the terminal driver to send data out as it is received, without interpreting the data. The driver still acknowledges flow control.
2. If you set a "TX" terminal port /DMA, performance can be improved because the data transfer will be done with less CPU overhead.
3. Be careful not to misspell the /PASTHRU qualifier on the SET TERMINAL command. If you mistakenly use a double "S" (as in /PASSTHRU), VMS will confuse the 2 qualifiers.

   Note that as of V4.0, PASSALL and READ PASSALL mode is no longer documented. For more information, please refer to p.4-9 of the "VAX/VMS Release Notes Version 4.0", (September 1984).

   In addition, as of VMS 4.4, PASSALL is no longer supported as a SET TERMINAL command qualifier. With PASSALL defined, the driver sent data out as received, but ignored flow control. PASTHRU replaced PASSALL in VMS v4.4.
4. The terminal port must also be set for /TTSYNC, which tells the terminal driver to recognize XOFFs sent by the terminal device.

To change any terminal settings, perform the following commands:

- Stop the queue with the STOP/QUEUE/NEXT command.
- Despool the device with the SET DEVICE/NOSPOOL command.
- Try setting the terminal port using the following command:

  $ SET TERMINAL/PERM/INTERACTIVE/PASTHRU/TTSYNC/DMA Txcu:
- Re-spool the device using the SET DEVICE/SPOOL command.
- Restart the queue with the START/QUE command.

Checking SYSGEN Parameters

Set the SYSGEN parameter TTY_DEFPORT to 1 if the port with the problem is on a Non-DIGITAL controller. This setting should also be used with any terminal printers which require 7 bit MARK parity.

Checking Printer Settings

Check the PARITY setting on the terminal printer. Refer to the manual for your specific printer for information on checking and setting parity.

The terminal printer must be set up to recognize XON/XOFF and either 8 bit NOPARITY or 7 bit SPACE parity. Never set the terminal printer to 7 bit MARK parity because an XOFF with the parity bit set for MARK is represented as a hexadecimal 93, rather than a hexadecimal 13, so VMS sees a different character even if the port is set for /NOEIGHT_BIT.

Troubleshooting Hardware

1. STOP the queue and DESPOOL the device, using the example commands given above. Then COPY a file to the device as in the following:

   $ COPY LOGIN.COM TTA4:

   If this works, the problem may be with the print symbiont. If this test fails, the hardware should be tested. Remember to spool the device and restart the queue again.
2. Make sure all cables are plugged in. Try using a different cable to see if the cable is a problem.
3. Move the printer and cable to another VAX port. If the problem disappears, then the original VAX port may have a hardware problem.
4. Attach a video terminal to the port. Despool the device, and make sure the terminal port is set to /TYPE_AHEAD (the default). Set the speed compatible with the speed set on the terminal. Try to log in. If you cannot log in, either the VAX port or the cable is the cause of the problem. This may mean that data can be transmitted data to the device but not received.
5. If you can log in, set the video terminal to NOXOFF. Try to log in again, then TYPE a file. While the terminal is printing, try CTRL/S followed by a CTRL/Q to stop and start scrolling. If you can stop scrolling and restart it without losing data, then VMS is honoring these flow controls from the video terminal. This indicates that the printer was not sending XOFFs. In this case, set the terminal printer to XON/XOFF. See your specific printer manual for specific instructions.

3.1.2 SUBMIT/USER Returns 'Invalid Qualifier' And 'No Privilege' Error

SYMPTOM:

When a user submits a job to run in batch using the /USER=username qualifier, the following errors are returned:

```
%SUBMIT-F-INVQUAVAL, value 'username' invalid for /USER qualifier
     -RMS-E-PRV, insufficient privilege or file protection violation
```

CAUSE:

The /USER feature of the SUBMIT command does not work as documented on page DCL-784 of the Version 4.0 "VAX/VMS DCL Dictionary", (Sept 84). The documentation indicates you must have read access to SYSUAF.DAT and CMKRNL (Change Mode to KERNEL) privilege. However, the /USER qualifier actually requires that the user submitting the job have SYSPRV (System Privilege) in addition to CMKRNL privilege.

WORKAROUND:

Until this functionality is changed, the only workaround is to give the user SYSPRV and CMKRNL or SETPRV and CMKRNL. These are very powerful privileges and should be granted with discretion.

SOLUTION:

VMS Engineering is aware of the problem. They expect this problem will be corrected in a future release of the product.

3.1.3 VMS V4.n: Unusual Screen Behavior For Very Large Virtual Displays

RESTRICTION:

The maximum size a virtual display may be for VMS V4.n is 65535 characters. This is caused by the use of MOVC3/MOVC5 instructions by SMG to move virtual display buffers. Unusual behavior will result from using SMG$MOVE_VIRTUAL_DISPLAY.

VMS Engineering is aware of this problem and this restriction should be lifted in the next major release of VMS.

3.1.4 Using RXFMT To Format RX33 Floppies On An HSC70 Running V3.5 Of HSC So

BACKGROUND:

The following describes how to format an RX33 floppy diskette using the RXFMT utility on a HSC70 disk controller. The HSC70 must be running Version 3.5 of the HSC Software (the CRONIC Operating System). This operation does not apply to an HSC50 since an HSC50 uses TU58 cassettes instead of RX33 floppies.

PROCEDURE:

1. First it is necessary to get to the HSC70> prompt to enter commands. To do this, type CTRL-Y on the HSC70 console. You should see the following prompt:

   HSC70>

2. Put a RX33 floppy diskette into the DX1: drive and close the door.

   NOTE

   Make sure the floppy is not writelocked by checking that the the tab is uncovered. Also make sure that a V3.5 copy of the HSC Software is in the DX0: drive because this procedure calls a program off of the Operating System disk to do the formatting.

3. Invoke the RXFMT utility with:

   HSC70> RUN RXFMT

4. Respond to the prompts:

```
RXFMT-Q Unit to format []? DX1:
RXFMT-Q Ready to start formatting (Y or N) []? Y
RXFMT-I formatting track 0, side 0, LBN 0
RXFMT-I formatting track 8, side 0, LBN 240
RXFMT-I formatting track 16, side 0, LBN 480
RXFMT-I formatting track 24, side 0, LBN 720
RXFMT-I formatting track 32, side 0, LBN 960
RXFMT-I formatting track 40, side 0, LBN 1200
RXFMT-I formatting track 48, side 0, LBN 1440
RXFMT-I formatting track 56, side 0, LBN 1680
RXFMT-I formatting track 64, side 0, LBN 1920
RXFMT-I formatting track 72, side 0, LBN 2160
RXFMT-S Formatting successfully completed.
RXRD-I Reading track 0, side 0, LBN 0
RXRD-I Reading track 8, side 0, LBN 240
RXRD-I Reading track 16, side 0, LBN 480
```

```
RXRD-I Reading track 24, side 0, LBN 720
RXRD-I Reading track 32, side 0, LBN 960
RXRD-I Reading track 40, side 0, LBN 1200
RXRD-I Reading track 48, side 0, LBN 1440
RXRD-I Reading track 56, side 0, LBN 1680
RXRD-I Reading track 64, side 0, LBN 1920
RXRD-I Reading track 72, side 0, LBN 2160
RXFMT-I Program Exit
```

The RX33 floppy is now formatted.

3.1.5 What Is The Effect Of Negative Numbers With The SET RMS/BUFFER Command

BACKGROUND:

In the Version 4.0 and 4.2 "VAX/VMS DCL Dictionary", the description of the SET RMS_DEFAULT/BUFFER_COUNT command includes the following:

> "The specified count ... can range from -128 to 127. A positive value indicates that the specified number of buffers must be locked in a process's working set for the I/O operation. A negative value indicates that the buffers ... do not have to be locked."

There is no mention of a negative buffer count in the Version 4.4 "VAX/VMS DCL Dictionary", but the SET RMS_DEFAULT/BUFFER_COUNT command will still accept a negative value.

QUESTION:

What is the effect, if any, of specifying a negative buffer count?

ANSWER:

The number of buffers allocated corresponds to the absolute value of the count specified. The buffers are not locked in a process's working set, regardless of whether a positive or negative number is entered for the buffer count.

Contrary to the Version 4.0 and 4.2 documentation, this ability to lock buffers in a process's working set was never implemented and there are no future plans to do so.

3.1.6 VMS 4.6 release and distribution for VMS and MicroVMS using DECnet

DESCRIPTION:

The 4.6 VMS and MicroVMS release is shipping as of September 1987.

- Systems using MicroVMS and that have installed DECnet in the past must be in receipt of the following distribution items before starting the upgrade:

  1. V4.6 MicroVMS base software and mandatory updates
  2. V4.6 DECnet Distribution
  3. V4.0 DECnet KEY (NETEND040 or NETRTG040)

  Previous releases of MicroVMS software had DECnet distribution and key on one media, but this has been changed for this release.

  Many users are starting the upgrade prior to receiving the 4.6 DECnet tapes/discs and are unable to restore their network activity. Those who attempt to use the V4.4 or V4.5 DECnet distributions for their MicroVMS upgrade will get "protocol errors" when turning circuits ON.

- Non-MicroVMS systems including VAX 11/7XX and 8XXX series systems will receive the DECnet distribution bundled with the V4.6 VMS system distribution. The DECnet key is identical for all 4.n releases and thus system managers can upgrade to V4.6 VMS and DECnet upon receiving this single media.

3.1.7 DMZ32 revision F1 fixes SERIOUS problems

... Comments from a User:

After we received our VAX 8600 in November of 1985, we noticed that the interrupt from a control-Y was not handled by the DMZ32 in the same manner as it was on our DMF32 or our (ABLE) VMZ32. In fact at low baud rates, characters from other users processes sometimes appeared after the control-Y was pressed. This problem only occurred on the DMZ32. We observed that this behavior was prevented by turning off DMA mode. We set the default to /NODMA for our terminals via the sysgen parameter TTY_DEFCHAR2. We contacted Colorado Springs and they were "not able to reproduce" the problem. They did observe the problem when we asked them to dial into our system while we had our line monitor on the modem. This was reported early in 1986.

Soon after I had reported this to CSC, I talked with Gary Grebus, who was then working at Battelle. Battelle had a configuration simular to ours. Gary was able to reproduce the problem on Battelle's DMZ32's.

After we received VMS V4.4 we again noticed the problem. We traced this to the fact that VMS V4.4 ignores the setting of the DMA bit in TTY_DEFCHAR2. We spr'd this and wrote a program to set the terminal mode during our startup.

On July 27, 1987 I again called the customer support center. This time I reported it as a security problem (since I could easily get data that was not meant for me to appear on my screen). I gave them the procedure I used to cause the problem to appear and this time they were able to reproduce the problem.

CSC searched their private database and found that there was a recent FCO for the DMZ32. I got the FCO number so that I could give it to our field service engineer. We had our DMZ32's upgraded on August 4, 1987 and this does fix the problem.

I have to complement DEC on the FCO, it fixes problems that people did not even find. What bothers me is that:

1. The Colorado Customer Support Center terminal support team was not aware of the FCO and what it fixed.
2. The information was in their database, but is still not in the DSIN customer database (as of 8/6/87) (there is a note on how disable the self test of the DMZ DMA and SPEED so that the device will autoconfigure. I haven't tried changing these since the FCO was installed.)
3. Field service was not aware of the availability of the FCO and our Field service engineer had to give the FCO kit numbers to district before they were able to track it down.

Lessons learned:

1. Digital seems to pay more attention to calls that are security related.
2. If you get any information from CSC make sure you get FCO order numbers so that your field service engineer will be able to get the parts.
3. Don't count on DEC to spread the word about fixes.
4. Don't expect to find any timely information on DSIN. (At least now you can access DSIN via TYMNET so you won't have to pay extra for the phone call.)

So you won't have to go through the bother I did, below are some excerpts from the paper that came along with the new boards.

```
Order by FCO     Qty          Part number          Description
  Kit #
```

```
EQ-01457-01:     1          M8398       Module at Revision F1
FA-04743-01:     1                            FCO Document

Extracted from FA-04743-01.  (FCO DMZ32-I001 documentation)
```

Applicability: Replace Revision E1 or earlier M8398 module with a Revision F1 or later to incorporate new UBI microcode version 1C and TIU microcode version 1C when problem/symptoms are evident. This FCO implements ECO M8398-MK003.

Problem / Symptoms

1. Flush bit not clearing DMA correctly

   File corruption on unibus disk controller drives and some users getting other users data. System errorlogger logs "IMR" invalid map register errors. This bug requires that "DMA" mode be turned off on all DMZ32 lines on the system. This is a VAX/VMS specific problem.

2. SSYNC timeout counter starts before NPG is received [NXM error].

   This causes Ultrix and UNIX systems to hang and or crash based on operating system environment at the time of the timeout.

3. When H3014 is powered off/on, DTR is not reasserted by microcode.

   Terminal lines set up as modem will not be able to connect to system, as well as users logged in through modem connections will be dropped due to no "DTR on" status. System must be rebooted to reenable modem lines.

4. Unsupported baud rates cause microcode to hang.

   If un-suspecting user tries to set terminal to one of the two unsupported baud rates, the DMZ32 microcode will hang and the device will be unusable to the system. A total system reboot is required to clear the condition.

5. NXM error sets the wrong bit in Octet CSR.

   No error reports from field, but if NXM were to occur, the YCDRIVER would not be notified of it's occurrence. This could have serious implications on 8XXX system with DWBUA [unibus adapter].

6. Self test code constants enabled at wrong time.

   None reported from field, but was discovered during internal testing of DMZ32 microcode.

7. Foreign terminals sending abutted characters lose trailing bits.

   Files get invalid escape sequence data while editing using the "arrow" cursor positioning keys.

4 ARTICLES

4.1 HOW TO SUBMIT AN ARTICLE OF YOUR OWN

Almost every month, members of our LUG write articles that they wish to share with the other members of the LUG. These range from short notes to full manuscripts covering a subject in depth. If you have an article you'd like to contribute or a short note on something neat that you've found, please contact Kevin Klughart (214) 450-0400, so that it can be included in the next newsletter. Articles should be submitted on machine-readable media (LaTeX format would be ideal but isn't mandatory). Transfer media can be 1600/6250 BPI magnetic tape or *high speed* TU58 cartridges.

5 YOUR [illegible] STEERING COMMITTEE

Please feel free to get in touch with us any time:

Chairman: (and Publisher and Membership Coordinator)	Stuart Reres AT&T Technologies Department 2793 3000 Skyline Drive Mesquite, Texas 75149 (214) 288-2286	Meeting Coordinator: (and Social Chair)	Debbie Vela Bell Helicopter 207 Fleetwood Ct. Arlington, TX 76014 (817) 280-4991
Librarian: and Tape Copy (East)	Denny Thury Texas Instruments P.O. Box 801, MS 8006 McKinney, TX 75069 (214) 952-2066	**Secretary/ Treasurer:**	Jim Green Robot Vision Corp 5105 Swiss Avenue Dallas, TX 75214 (214) 827-7532
Newsletter Editor:	Kevin Klughart Dallas Semiconductor 4350 Beltwood Parkway South (locked in realtime debugging) Dallas, Texas 75244 (214) 450-0400	**Tape Copy** (West):	Eric Zipp Tech Devel of Calif 621 Six Flags Drive Arlington, TX 76012 (817) 649-4443
DECUS Hdqtrs	Membership Processing 219 Boston Post Rd BP02 Marlboro, MA 01752-1850 (617) 480-3418	**DECUS Hdqtrs**	Library Services 219 Boston Post Rd BP02 Marlboro, MA 01752-1850 (617) 480-3521

"Why should I?" is the cry of work dodgers.
Their aim is to just enough to get by.
They are clock watchers who are afraid
they will render more service than they are paid to perform.
They are too lazy to think,
too selfish to put their shoulders to the wheel in a common cause.

This is an equal access publication! Do you have information, complaints, or suggestions that can be useful to either the local user community or DEC local? Make yourself heard! Submit an article to the LONGWORDS!

See you next month!

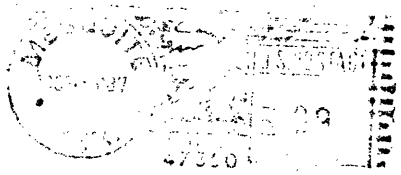
L O N G W O R D S

Newsletter of the Dallas/Ft. Worth Metroplex
VAX/VMS Local Users Group - (DFWLUG)

DECUS

DFWLUG
2813 Parkhaven Drive
Plano, TX 75075
Address Correction Requested

FIRST CLASS MAIL



DECUS National Headquarters
U.S. Chapter
One Iron Way
Attn: SUG Administrator
Marlboro, MA 01752

LONGWORDS

Newsletter of the Dallas/Ft. Worth Metroplex VAX/VMS Local Users Group - (DFWLUG)

DECUS

Volume 1, Number 10 November, 1987

Contents

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1 DFWLUG NEWS AND VIEWS

1.1 VIEW FROM THE CHAIR

I just want to take time out this month to thank the kind folks at TDIndustries for allowing us access to their wonderful facility for our monthly meetings. As those of you who followed us around Dallas the last few years know, a good meeting place for 100 people is hard to find.

So from all of us in the DFWLUG to all of you at TDIndustries - THANKS!

And that's comment for this month...

Stuart Renes
DFWLUG Chair

1.2 DFWLUG MEETING NOTICE

The next meeting of the DFWLUG will be on Tuesday, November 10^{th} at 7:00 pm at TDIndustries. TDIndustries is located on Stemmons Freeway just north of LBJ. To get there, take LBJ to Stemmons (I–35) and go north to the Valwood Parkway exit. Take the U-turn to the access road on the west side of the freeway. Then proceed south about $\frac{1}{4}$ mile to TDIndustries. Their building in on the south side of the lot and is the one with the red Arcoaire sign on it. The meeting will be on the 1^{st} floor. The room has space for about 100–150 people; has audio visual aids available and is quite nice.

This month's meeting will feature a DFWlug special! We will be having a *NETWORKING SESSION!* This gathering will include a collage of topics including but not limited to the following:

- VAX Hardware
- Networks
- VMS Internals
- Languages and Tools
- DBMS / 4GL
- System Management
- General Nibbles & Bits

As if this were not enough, we are doing this thing up *right* and there will be **refreshments** available! Rumor has it there might also be some video tapes present for those who are "tubed-out" and into "burned phosphor".

1.3 LONG RANGE SCHEDULE

Future DFWLUG meetings as currently scheduled are:

December 15^{th}	Fall 87 Symposium review
	Presley Smith, CONVEX — Fortran 8x Standard
	John Hildebrand, DEC — Latest Announcements
January 12^{th}	John Chipman, EMC^2 — Optical Disk Technology
February 9^{th}	Wayne Sewell — Pascal Standards
March 8^{th}	Suggest a topic

The agenda contains some interesting topics for the next few months:

December will have a triple treat with the results of the Fall National Decus Symposium, a special presentation by John Hildebrand of Digital, and a discussion of the Proposed FORTRAN 8x standard by Presley Smith of Convex Computer Corporation. Wow! That's a lot for even *my* big mouth to get out in one sentence! **PLEASE NOTE: THIS MEETING WILL BE HELD ONE WEEK LATER THAN USUAL DUE TO THE FALL NATIONAL DECUS SYMPOSIUM!** The National Decus Symposium will have completed the prior week in Anaheim, and there should be ample gossip from those lucky enough to attend and survive the week. John Hildebrand of Digital has promised to provide some insight into the plethora of DEC hardware announcements which is supposed to take place December 1^{st}. Finally, Presley Smith will brief us on the perceived problems with the Fortran 8x proposed standard. Even Digital has come out against the proposed standard as it currently stands! Something is obviously very fishy about what is going on in FORTRANland! Don't miss this one, as I feel that it will have something for *everyone.*

January will feature John Chipman of EMC^2 Corporation's Massachusetts office. John will be repeating the presentation that he and other EMC^2 personnel will be giving on **Optical Disk Technology** at the Fall 1987 National Decus Symposium. John promises ample time for questions and answers, so make your lists and check them twice before coming to the meeting! I am sure that most of you out there are familiar with EMC^2 memory products, but most of you don't know that they are now attacking the optical disk market. This technical presentation should be very timely as this technology is on the verge of viable adolescence with respect to practical backup and archival of large spindle farms.

February will feature Wayne Sewell speaking on "Software Engineering in Pascal: Pascal Rides the Software Bus". This talk concerns Modulo II concepts as they relate to software engineering.

We are still looking for speakers! The few, the proud, the *coders!* If you have a topic or suggestion for a LUG meeting, or would like to speak, just get in touch with Debbie Vela, our LUG meeting coordinator. Here are some possible topics:

- Installation of BI-based VAXes
- Integrating DEC machines in a multi-vendor ethernet
- Keeping up with those software licenses
- Trading up to BI hardware
- Managing geriatric VAXes
- Supporting the UNIX user community
- What about *software* for those VAXstations?
- Configuring microVAX system hardware

Share your knowledge! If you don't feel up to giving a formal presentation write a paper. You'd be surprised at the amount of information you assume *everyone knows* that they really don't. We are all made up of our experiences and nobody knows it all. Come share yours with the rest of the group so that we all can grow.

2 NEWS FROM DIGITAL

With all the talk lately about security breaches within pre-VMS V4.6 systems, we thought it wise to reprint a Digital article on how to secure a system which has been violated by hackers.

2.1 HOW TO REBUILD A SYSTEM THAT IS SUSPECTED OF BREAK-INS

BACKGROUND:

This article defines a suggested method for rebuilding a system that is suspected of break-ins. Refer to the "Guide To VAX/VMS Security", (July 1985), Chapter 6, for information regarding the detection of system break-ins.

PROCEDURE:

- If you possess a system backup which you are reasonably confident does not contain any files that have been tampered with, follow normal backup procedures to restore your system.

- Otherwise, reinstall VMS from scratch. If this is the case, make a backup of your current system disk prior to performing the installation. Refer to the "Guide to VAX/VMS Software Installation" (April 1986), Page 1-6, Section 1.1, for more information. We strongly recommend doing an installation of the latest released version of VMS. All mandatory updates MUST be applied. Use ONLY Digital provided distribution.

Note

The backup that was made just before starting the installation should NOT be used to restore any image files. This is due to the difficulty in verifying the security of the contents of an image file. Source text files, of course, can be more easily examined for any unauthorized changes.

If you have reinstalled VMS from scratch, then also perform the following:

1. All layered products must now be reinstalled. This includes Digital layered products as well as third party products. Internal applications should be recompiled and relinked. Follow the release notes for installation of Digital layered products. Do all installations from vendor provided distribution.
2. Restore the System Authorization File (SYSUAF.DAT) and the Rightslist file (RIGHTSLIST.DAT) from your backup. Once this is done, you should immediately change everyone's password. Also, you should check all accounts and their identifiers to make sure they are legitimate. Also check to make sure each account has the privileges that are expected. You should also review all proxy accounts for the network if a network is involved.

   Following are the commands, issued from a privileged account, to obtain a complete listing of the users and identifiers for the system authorization file.

   ```
   $ SET DEF SYS$SYSTEM
   $ RUN AUTHORIZE
   UAF> LIST /FULL
   UAF> LIST /IDENTIFIER /FULL
   UAF> EXIT
   ```

   The above commands will create a SYSUAF.LIS and a RIGHTSLIST.LIS file in your default directory. You can now review these files for the information described above.
3. Now restore your system management command procedures, i.e. SYSTARTUP.COM, SYLOGIN.COM, etc. Check each one of these files to be sure they have not been tampered with. You should check each command procedure or application that will be used by a privileged user or at system boot time to make sure they perform as expected.

4. Now, make an image backup of this new system disk. Use this backup as a basis for future restore operations in case you suspect that your system is the target of another break-in.
5. Finally, you should check the file protections, including access control lists, on any sensitive files.

2.2 IMPORTANT SECURITY ANNOUNCEMENT

Dear VMS Customer,

In May of 1987, Digital issued a software update for VMS and microVMS operating systems. This update was designed to enhance the existing, extensive security protection of VMS. We are contacting you to ensure that you have taken the necessary steps to install this update.

The proper installation of this update is especially important given recent instances of unauthorized access of these operating systems. These security breaches were apparently the result of deliberate efforts by authorized system users and their collaborators, or lapses in system security measures – for example, unchanged VMS default passwords.

Specifically, the affected versions of VMS and microVMS are:

- VMS versions 4.4, 4.5, 4.5a and 4.5c
- microVMS versions 4.4, 4.5 and 4.5b.

You can identify the update by part number QL001-T* (* represents a character identifying your distribution media).

If you have yet to install this update, we advise you to do so immediately.

Furthermore, if you suspect any unauthorized access to or abuse of your system, we further advise you to immediately re-install VMS or microVMS with the update, and also to re-install all layered products. To ensure that all latent effects of any unauthorized access are eliminated from your system, you must use original Digital distribution media for each of these installations. Installation of any non-Digital applications should also be made from the originals. These are some of the key steps to re-establishing your system's integrity. For additional information on your system's security, please consult the "Guide to VAX/VMS System Security" provided with your VMS documentation.

If you need a copy of the update or if you need any additional assistance, please contact us at the appropriate customer support center (csc) listed below:

- VMS and microVMS users: Colorado Springs CSC, 800/525-7100

- microVAX 2000 users: Atlanta CSC, 800/332-8000

Please note that the security protection provided by the update has been incorporated into VMS and microVMS version 4.6, released september 1987.

As always, we urge you to regularly review your system management and security procedures. Digital will continue to review and enhance VMS security features, and work with our customers to further improve their system integrity.

Sincerely,

Digital Equipment Corporation

> *Editor's note: You would not believe the number of systems out there that have* **not** *installed the mandatory update or are at a pre-4.5 VMS release level! A word to the wise — don't get caught with your pants down! This goes especially for you unfortunate souls out there who buy packaged systems from VARs and OEMs. In this cases you could still be running VMS V3.0, which means you aren't living in the current decade*

2.3 RECENTLY RELEASED DEC SOFTWARE

You should have received the VMS V4.6 update if you have the proper license and have software maintenance. If not, you should give DEC SOFTWARE SERVICES a call at (214) 888-2500 and see what's holding up the show.

2.4 DEC SOFTWARE/HARDWARE NOTES

2.4.1 "DCL Subprocess Could Not Be Created" When Executing A DCL Command In TPU

PROBLEM:

When attempting to execute a DCL command from within any TPU-based editor, the following error is issued:

"DCL subprocess could not be created"

The attempt to spawn a subprocess fails and the user is returned back to the editor.

CAUSE:

It is likely that the user has exceeded the value of the BYTLM (Buffered I/O Count Limit) process quota parameter, which is set in the AUTHORIZE Utility. The BYTLM parameter specifies the maximum number of bytes of non-paged system dynamic memory that a user's process may consume at one time.

SOLUTION:

Run the AUTHORIZE Utility to increase the value of the BYTLM parameter for the user's account. Start by doubling the current value until you are able to successfully execute DCL commands from TPU.

For example, execute the following commands at the UAF> prompt:

1. Display the user's UAF record and check the value of the BYTLM parameter by using the "SHOW *username*" command.
2. Increase the BYTLM value by using the "MODIFY *username* /BYTLM=n" command. In most cases doubling the value of the BYTLM parameter will work, unless the value was set very low.
3. Exit from the AUTHORIZE Utility using the EXIT command. In order for the new BYTLM value to take effect, the user must logout and log back into their account.
4. Edit a file using one of the TPU based editors, and check if the user can execute a DCL command from within the editor.

Note

The user may have also exceeded the value of the PRCLM (subprocess creation limit) process quota parameter, which is also set within the AUTHORIZE utility. Check this value and increase it if necessary using the same procedure documented above.

2.4.2 How Time Is Set Cluster-Wide

SUBJECT:

When a cluster state transition occurs, all nodes of a VAXcluster will set their system time to the "future-most" time of all nodes in the cluster.

DESCRIPTION:

For example, a cluster consisting of NODE_A, NODE_B, and NODE_C has the following times:

NODE_A has 08:30:17.29
NODE_B has 08:33:24.48
NODE_C has 08:24:08.32

A new node, NODE_D, wants to join the cluster with the time 08:32:14.04. When NODE_D joins the cluster, all nodes in the cluster will set their system time to 08:33:24.48, (the same as NODE_B), since that node had the "future-most" time of all nodes.

2.4.3 IMAGE Accounting Records Not Written Immediately To Accounting File

SUBJECT:

When image accounting is turned on with the "SET ACCOUNTING /ENABLE=IMAGE" command, image accounting records are not written in the accounting file immediately after an image has completed it's execution.

DESCRIPTION:

Instead of image accounting records being written to the accounting file after execution, they are buffered in the Job Controller's mailbox. When an accounting record other than an image accounting record is sent to the mailbox, the mailbox is flushed. All records currently in the Job Controller's mailbox are then written into the accounting file.

2.4.4 %BACKUP-F-CLUSTER Error During BACKUP To A RA82 Disk

SYMPTOM:

When performing an image BACKUP or image saveset restore to an RA82 from a device with a cluster size of 1, the operation aborts with:

%BACKUP-F-CLUSTER, unsuitable cluster factor for *device*

ANALYSIS:

The RA82 disk drive supported by VMS V4.4 and subsequent releases, has a storage capacity of 1,216,665 blocks. Several internal VMS data structures were not designed to accommodate this many blocks and require that the RA82 have a minimum cluster size of 2.

When performing an image backup from a disk with a cluster size of 1 to an RA82, you receive the above error because the BACKUP facility is trying to initialize the RA82 with the same cluster size as the input device.

WORKAROUND:

To perform an image BACKUP or an image saveset restore to a RA82, the RA82 must first be INITIALIZED to have a cluster size of 2 or more. Once the output disk is initialized, perform the BACKUP operation using the /NOINITIALIZE qualifier.

This workaround implies that BACKUP savesets created from disks with a cluster size of 1 can only be restored to an RA82 if a running VMS system is available to INITIALIZE the disk. This means that if the RA82 is a user disk, it can be easily initialized because you have DCL available to issue the "INITIALIZE /CLUSTER=n" command. However, if the RA82 is your system disk, contact your local DIGITAL office.

SOLUTION:

VMS Engineering is aware of the problem. They expect this problem will be corrected in a future release of the product.

2.4.5 VMS V4.6 Standalone BACKUP's Boot Device Can Now Be The Target Disk

PREVIOUS FUNCTIONALITY:

Prior to version 4.6 of VMS, the disk standalone BACKUP was booted from, could *not* be used as the target device of a backup or restore operation.

NEW FUNCTIONALITY:

As of V4.6 of VMS, standalone BACKUP now locks its working set into memory. This means that the target disk of a backup or restore operation can now be the disk standalone BACKUP was originally booted from.

NOTE: THIS REQUIRES AT LEAST 2 MEGABYTES OF PHYSICAL MEMORY

DOCUMENTATION:

The following is the description of this enhancement as it appears in the "VAX/VMS Release Notes, Version 4.6" (June 1987), Page 3-16, section 3.5.

"Standalone BACKUP has been made to lock down its working set so that the booted disk can be removed where two MB or more of memory are available. This also means that the disk from which standalone BACKUP was booted can be the target of a restore operation. Under standalone BACKUP, the prompt delivered at the completion of an operation has also been altered to more fully inform the user of the options available."

3 VAX/VMS ITEMS OF INTEREST

3.1 THE RUMOR MILL

Everyone likes rumors. They keep things interesting and occasionally even contain some useful information. If you've heard a good one lately, let us know. We'll publish for the rest of the LUG. But please note: neither DEC, DECUS, the DFWLUG or the author can be held responsible, liable or anything else like that. This is just a FYI that you can either take or leave.

Many of you have heard some of the stories concerning the series of security breaches in VMS by some German hackers. The latest info suggests the origin of the HACKER attack on VMS 4x came originally from:

Chaos Computer Club of Hamburg, West Germany
Suspected members:
Claus Traenkuer
European Molecular Biology Labs
Stefan Werauch
Univ. of Karlsruhe

Where is Sargent Schultz when you need him!

3.1.1 Suspected Problems in VMS V4.6

1. Problem with DEBNA/DEBNT ethernet circuits that prevent terminal servers from working on 8xxx series machines under V4.6 **** NO FIX YET **** (perhaps using the V4.5 ETDRIVER may work?)
2. Regarding previously reported problem of control-Y hang via DHU terminal multiplexers, a valid workaround is to use the V4.5 YFDRIVER.
3. TU81+ require PHY_IO privilege to allocate with tape data caching enabled. Under V4.5, no privileges were required.

3.2 THE ARBITER SPEAKS!

We continue our anonymous author contributions this month with a technical potpourri of VMS tidbits which should be of interest to most system managers. Let it be known to all that I will accept newsletter input from anyone, and I never reveal my sources! So, if you want to have your voice heard, but have reasons for not wanting your name known, give me a call!

3.2.1 11/78x Machine Checks

This month some notes on 78x series machine checks. A machine check is a CPU microcode exception. Machine checks are CPU specific and while normally caused by hardware, they can be caused by user-written software so some analysis should be performed before the call to Field Service. During the machine check exception the microcode places information on the interrupt stack called the machine check logout. The generic machine check logout format is:

byte count
cpu specific machine check information
machine check PC
machine check PSL

The byte count is the size of the cpu specific portion and does not include the PC, PSL, or byte count longword. For the 78x machines this count is 28 hex and the specific information is as follows:

00000028
Summary Parameter
CPU Error Status
Trapped Microcode PC
Virtual Address at Fault Time
CPU D Register at Fault Time
Translation Buffer Status Register 0
Translation Buffer Status Register 1
Physical Address causing SBI TImeout
Cache Status Register
SBI Error Register

The summary parameter is the key to whether the machine check is hardware related. Translation buffer parity errors, cache parity error, etc. are indications of hardware problems, but read timeouts could be caused by software addressing non-existent I/O space. The PC given by the SDA SHOW CRASH command shows the machine check processing. The PC in the information on the stack from above is the address whose attempted execution resulted in this machine check. To get a quick idea whether this may be hardware related issue the command

SDA> EXam /INstruction <MACHINE_CHECK_PC>-10;30

This will show the type of instruction stream that lead to this machine check. Bytes 0 and 1 of the summary parameter are from the machine check microcode. The exception handler may add information in bytes 2 and 3 on some errors:

Byte 0	Error Code
Byte 1	Non-Zero indicates CPU timeout or CPU error confirm pending
Byte 2	Opcode of instruction during control store parity errors or microcode not supposed to be here
Byte 3	Cache disable flag for cache parity errors (1 —> Group 0, 2 —> Group 1)

Now the Summary Parameter Error Code Values:

Byte 0	Error Code
00	CP Read Timeout/Error Confirm Fault
02	CP Translation Buffer Parity Error Fault
03	CP Cache Parity Error Fault
05	CP Read Data Substitute Fault
0A	IB Translation Buffer Parity Error Fault
0C	IB Read Data Substitute Fault
0D	IB Read Timeout/Error Confirm Fault
0F	IB Cache Parity Error Fault
F0	CP Read Timeout/Error Confirm Abort
F1	Control Store Parity Error Abort
F2	CP Translation Buffer Parity Error Abort
F3	CP Cache Parity Error Abort
F5	CP Read Data Substitute Abort
F6	Microcode Not Supposed To Be Here Abort

The CP in the above table refers to explicit memory references by microcode and IB indicates it is a memory reference generated by instruction buffer in pre-fetching the next instruction.

CP Read Timeout/Error Confirm Fault - Read timeout fault occurs when the CPU is performing a read or interlocked read on SBI and there is no response within 512 SBI cycles, the CPU bus control logic could not gain access to SBI, or the addressed nexus indicated BUSY for 512 SBI cycles. An SBI error confirm indicates the addressed nexus has rejected the command. These can be caused in software by word references to MASSBUS or UNIBUS adapter registers, longword references to Unibus space, reference to non-existent memory, or page table corruption. This can also be caused by $CRMPSC system services which do PFN mapping to a non-existent PFN.

3.2.2 11/78x LSI-11 Console Tricks

For those of us who still have 780 machines, have you ever gone to the console to do something and found it with the LSI-11 ODT prompt instead of the familiar and required dollar sign? Normally you would have to power cycle the LSI-11 or reset to get the thing going again, but this crashes the VAX. To get your console terminal back and save your machine you need to reboot your LSI-11 with the VAX running. To do so you can follow this procedure:

The LSI-11 ODT prompt is the at-sign "@". The first thing to try is go kick the LSI-11 and see if that does the trick. The restart code is at 141330 octal. Thus the commands:

```
@R7/nnnnnn 141330
@P
>>> SET TERMINAL PROGRAM
```

should get you going. Here the LSI-11 prompted with the at-sign, you type R7/, the LSI-11 tells you where it halted and you tell it to start at 141330. The deposit followed by the P (for Proceed) should start the console software. You then tell the LSI to enter program mode and you are set. If not, you may get a message about "G" not issued. In this case use the following:

```
@173034/nnnnnn 540
@R7/nnnnnn 141330
@P
>>> H
>>> D/ID 04 40
>>> D/ID 06 40
>>> CO
```

which will reset the interrupts on the floppy and asynch terminal board to get you going.

3.2.3 Determining Physical Ethernet Addresses

With the advent of LAVCs, PrintServer-40s, etc. comes a problem. Determining the Physical Ethernet address of a system when you need the Ethernet address to get the system up. You can run some DEC diagnostics but for a VAX with a DEQNA at the standard address you can do the following:

```
>>> E /P /W /N:5 20001920
P 20001920 FF08
P 20001922 FF00
P 20001924 FF2B
P 20001926 FF02
P 20001928 FFDD
P 2000192A FF32
```

What you've done if examine some DEQNA registers in Q-bus space that tell you the physical address of that board. The command tells the microVAX to "Examine /Physical /Word /theNext:5" addresses starting at 20001920. If your DEQNA isn't at a standard address you can modify the address accordingly. The output tells you the physical address of the card by reading the last two hex digits from the top. In this example the address is 08-00-2B-02-DD-32.

4 ARTICLES

4.1 HOW TO SUBMIT AN ARTICLE OF YOUR OWN

Almost every month, members of our LUG write articles that they wish to share with the other members of the LUG. These range from short notes to full manuscripts covering a subject in depth. If you have an article you'd like to contribute or a short note on something neat that you've found, please contact Kevin Klughart (214) 450-0400, so that it can be included in the next newsletter. Articles should be submitted on machine-readable media (LaTeX format would be ideal but isn't mandatory). Transfer media can be 1600/6250 BPI magnetic tape or *high speed* TU58 cartridges.

5 YOUR DFWLUG STEERING COMMITTEE

Please feel free to get in touch with us any time:

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(any takers?)
(If interested,
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DECUS Hdqtrs
Library Services
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(617) 480-3521

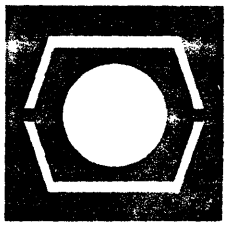
Of all possible committee reactions to any given agenda item,
the reaction that will occur is the one
which will liberate the greatest amount of hot air.
— Thomas L. Martin

Creativity varies inversely
with the number of cooks
involved with the broth.
— Bernice Fitz-Gibbon

This is an equal access publication! Do you have information, complaints, or suggestions that can be useful to either the local user community or DEC local? Make yourself heard! Submit an article to the LONGWORDS!

LONGWORDS

Newsletter of the Dallas/Ft. Worth Metroplex
VAX/VMS Local Users Group - (DFWLUG)

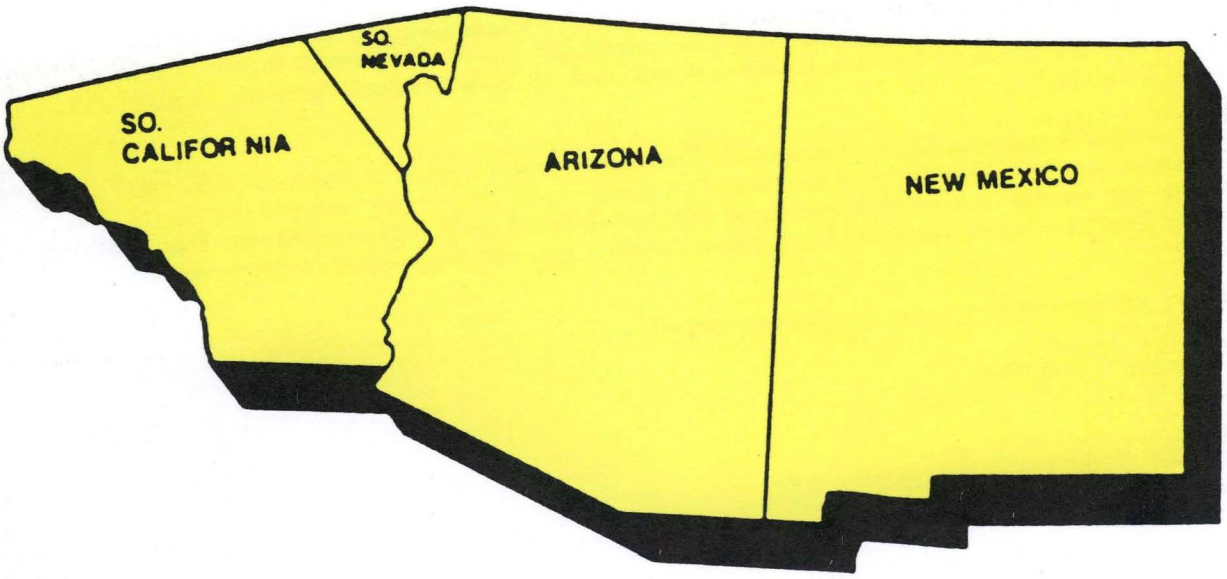


DECUS

DFWLUG
2813 Parkhaven Drive
Plano, TX 75075
Address Correction Requested

FIRST CLASS MAIL

DECUS National Headquarters
U.S. Chapter
One Iron Way
Attn: SUG Administrator
Marlboro, MA 01752



Southwest Region

SOUTHWEST REGIONAL LUG COORDINATOR

J.D. "Dave" MacPherson
Los Angeles, California
213-616-2519
DCS: MACPHERSON

J.D. "Dave" MacPherson was elected RLC in September of 1987, and held the position of LUG Chair for LAXVAX (that airport's always been constipated...) from September 1985 to September 1987. Professionally, Dave is a nitty-gritty hardware type, keeps a large stock of spare parts running in his garage, and is currently responsible for a large VAXcluster installation.

Dave has appointed Lenard McDonald as assistant RLC. Lenard is the Rainbow Pacific LUG Chair and lives in Los Angeles.

The Southwest Region has 25 LUGs, two in the formative stages and two RSX-based LUGs winding down after many years of success. The newest LUG in the Southwest Region, the Las Cruces LUG, is chaired by Karol L. Lavalle. Karol works at New Mexico University in Las Cruces, New Mexico.

Dave met nine Southwest LUG Chairs at his first LUG Cluster dinner in Anaheim, Fall 1987. He attended the 1988 New Mexico Regional Conference, and thoroughly enjoyed the experience. He has called for volunteers for the following Southwest Region positions: Regional Seminar Representative, Regional Conference Coordinator, and Regional Newsletter Editor.

ASSISTANT REGIONAL LUG COORDINATOR
Lenard McDonald
Los Angeles, California
213-948-9405 or 213-836-8698

REGIONAL TAPE COPY COORDINATOR

Don Shehi
Maricopa Community College
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Phoenix, AZ 85034
602 267-4404

REGIONAL SEMINARS REPRESENTATIVE

John Willauer
JBW Enterprises
22458 Ventura Blvd., Suite E
Woodland Hills, CA 91364
818 704-7629

SOUTHWEST REGION LUGS AND LUG CHAIRS

Arizona

Arizona VAX LUG (AZVAX)
Chair: Don Shehi, Phoenix, 602-267-4404

Phoenix Rainbow LUG
Chair: James B. Kashner, Phoenix, 602-265-0065

Tucson LUG
Chair: Michael Gauvin, Tucson, 602-721-1006

California (Southern)

Caltech/JPL LUG
Chair: Mark Ryne, Pasadena, 818-354-8215

China Lake LUG
Chair: Randall D. Morris, China Lake, 619-939-5498

Kern County LUG
Chair: Richard E. Russell, Bakersfield, 805-399-2961

● LA Inland Empire Personal Computer LUG
Chair: Jan Snyder, Upland, 714-945-7468 or 714-985-3542

Los Angeles Airport Area VAX LUG
Chair: John Willauer, Woodland Hills, 818-704-7629

Los Angeles RSX LUG
Chair: Alan Frisbie, Los Angeles, 213-256-2575

Orange County RSX LUG
Chair: Dale Kelterer, Canyon Country, 818-376-6041

Orange County VAX LUG
Chair: Al Tyrrill, Garden Grove, 714-740-1015

Point Loma Federal VAX Managers LUG
Chair: Lynda Roenicke, San Diego, 619-225-7569

Rainbow Pacific LUG
Chair: Lenard E. McDonald, Los Angeles, 213-836-8698

San Diego PDP-11/VAX LUG
Chair: Paul Wilfong, San Diego, 714-457-5550

San Diego Rainbow LUG
Chair: Lynn Jarrett, San Diego, 619-293-1130

Santa Barbara Area DEC LUG
Chair: Sandy Tsutsui-Trujillo, Camarillo, 805-388-2810

Southern California RSTS LUG
Chair: Robert P. Moyers, Garden Grove, 714-638-7711

Southern California Users of RT-11 (SCURT)
Chair: Shal Farley, Pasadena, 818-351-5493

UCLA LUG
Chair: Stephen D. Cox, Los Angeles, 213-825-6899 or 213-206-6185

Nevada

Southern Nevada LUG
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LOS ANGELES INLAND EMPIRE PC LUG

NEWSLETTER
Volume 5, Number 4 - April 1987

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If you have any comments, or will participate on the Steering Committee, or one of the club's committees (such as contact person, writing articles, helping to produce the newsletter), contact one of the above.

H E L P W A N T E D

If you can help fold, staple and label the May Newsletter on Monday, May 4, at 7:30 pm, please contact Bob Wendel at (818)918-4673 (office) or (818)338-4138 (home). We meet the first Monday of each month to prepare the newsletter for bulk mailing at the Ives Community Office, 264 E Green St, Claremont. Your help once or twice a year would be greatly appreciated. You will be on your way home by 9pm.

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THE NEXT SOFTWARE EXPLOSION #67

By Jon Shirley

THE MICROCOMPUTER INDUSTRY, once the most dazzling example of high-growth high tech, has leveled off - or so it would seem. Yet what appears to be a series of peaks and plateaus is actually our one-dimensional view of the cyclical nature of hardware and software development.

Developments in the two fields are tightly linked, each catapulting the other forward. Sometimes software drives hardware. Other times, hardware technology opens doors for software developers.

The current plateau is a symptom of the forces brewing; the industry is on the verge of exploding into the next significant software advance. To prepare for the times ahead, smart computer buyers need to understand three major trends now taking shape--the continuing improvements in hardware horsepower, the need for networking, and the growth of computer graphics.

The first trend bean in 1981 when the IBM PC triggered a microcomputer revolution by overcoming the 64K memory barrier --the built-in limitation of 8-bit microprocessors. Software developers jumped on the opportunity, launching such products as Lotus 1-2-3, which required 192K of memory, and enormous demand at the time.

Today, just four years later, software developers are impatiently pushing against the 640K limit imposed by IBM's internal memory. Today's microcomputers offer a tenfold increase in memory and greater speed than ever, yet they will fall short of the demands of future software developments.

Of course, he industry is working to overcome the present barrier. Clearly, there must be a general-purpose solution. In fact, a major objective of the IBM/Microsoft joint development agreement is to produce a version of MS-DOS that will take advantage of the PC AT's powerful 80286 chip, which can address 16 megabytes, and will also run the smaller existing DOS applications.

The cost of memory is no longer an issue. Price drops will continue at a pace dramatic enough for most users to afford the hardware to run the sophisticated software they need.

But why would you need this much memory? Not just for large, integrated programs like Symphony or Framework--the paradox in software is that the easiest-to-use software with the highest utility value requires more memory and power than hard-to-learn products with equal utility.

Friendliness takes a lot of code; this means sacrificing not only space but also speed. We're no longer willing to wait a couple of seconds at our desktop workstations for calculation results. Consider too network users who want their PCs to act as part-time file servers, run a DOS environment like Windows, and handle reasonably sized applications. Today, they're out of memory.

Networking, the second major trend, puts its own demands on both hardware and software. And as the standards of MS-DOS 3.1, Microsoft Networks, and IBM's Token-Ring Network are established, the trend grows.

Connectivity, not compatibility, is now the key issue for business networks. Most offices want to interconnect diverse users and disparate hardware into one network. Through networking software and increasing device independence, users can now freely share data without sacrificing information integrity.

Business computing is starting to look different too. The third trend, the graphics environment long predicted by Microsoft Chairman Bill Gates, is becoming a reality as advanced hardware hooks up with software that exploits its potential. The graphics trend affects almost every aspect of personal computing, from the output of laser printers to text formatting in sophisticated applications. High-resolution screens will soon be available at a modest cost, with graphics interfaces to make software more natural to use and easier to learn.

Standards are the watchword for tomorrow. Find the software that optimizes the standards and you'll see the future's leaders emerge. But more than that, expect high-performance hardware--software will demand it. LOTUS/May 1986

INQUIRING MINDS #223C
By John C. Dvorak

"WHAT'S THAT YOU'RE READING?" I asked the babysitter who had come to watch little Johnny, the precocious two year old, while I stepped out for the evening.

"Micro-Teen. It's the hot new computer mag. It's really rad, check it out!" The bubble gum chewing teen held it in front of her and popped her gum as she talked. "There's a great centerfold of Malcolm Jamal Warner."

The magazine cover shouted titles like "Menudo's Micro Tips," "Michael J Fox At His Mac--Pull Out Pix," and "Duran Duran's Super Computer Whiz Quiz." I flipped through the glossy newsprint. There were one too many pictures of Michael J Fox, and Wham!, I thought. And even a few of The New Monkees.

"So what does all this have to do with computers?," I asked.

"Gawd, get real!" She wrinkled her nose and rolled her eyes. "It tells everything I want to know about computers. I mean, like, what's the big deal? They're only machines, you know."

Pop, Pop, Pop went her gum.

"But, there isn't really anything about computers in here, is there?"

"Yes there is!" She snapped the magazine out of my hands and flipped through it. "Look! See? Here's a software program to budget your allowance. And here's the Menudo Game Disk! And here's the list, uh, where is it now? Here!--a list of phone numbers--the only official guide to the fab teen stars fan club hot lines and bulletin boards! See?" She cocked her head and smirked.

Pop, Pop, Pop went her gum.

"Do you have a computer?," I asked warily.

"What d'ya think, I live in the dark ages or something?"

"No, no, I guess not." Uh, I decided it was time to leave. "Be back around 10."

"Sure. OK." She smiled and waved as I walked out the door.

On the way to a night spot, I stopped at the grocery store for a few items. At the check-out counter was a new tabloid called, Computer Enquirer. The cover had a picture of some large woman, with the headline: "'THE PC MADE ME DO IT!!'"

Another smaller headline screamed: "BIRTH DEFECTS LINKED TO 1200-BAUD MODEM"

I opened the paper. There were allkinds of stories--none that I had ever read before in any computer magazine. There was one about a woman who lost 115 pounds by playing Flight Simulator all day, every day for six months. There was a story about a minister who uses a Mac to diagnose ailments had heal them! And I became deeply engrossed in an article about the spontaneous combustion of a software programmer, when someone tapped me on the shoulder from behind. I looked around.

It was a haggard old woman dressed in a rumpled and worn jogging suit, and wearing a ragged scarf with a few spongy pink curlers poking out. "Sir, move forward, please. You're holding up the line."

"Oh sorry."

I took three giant steps forward.

"The article that unravels the mystery of Stonehenge is really good." She pointed to a short piece at the bottom of the page I was reading. "Says they found that it's laid out exactly like the way a computer writes to disk."

"Oh?"

"But the one last month on the aliens who kidnapped that woman and communicated to her in FORTH--that was very, very good." She shook her head in awe. "Did you read it?"

"No. But, tell me, do you know much about computers?" Do you use one?"

She stared at me in silence for a long time. I wondered if I had grown another head. When she finally spoke, it was with a steady and cold-edged voice. "I read the Computer Enquirer e-v-e-r-y week. Religiously! Is there anything else I need to know?"

I smiled. "Yes, ma'am. I, uh, guess you're right." Then I inched away.

I had one last errand to run before heading to the nightclub--a quick stop at my mother's house--she needed a light bulb changed or something.

Mom greeted me at the door. "Son, you'll never guess what!"

"What?"

Continued on Page 4....

Inquiring Minds Concluded - #223

"I know all about computers now! Now I can talk to my son. Isn't that wonderful?" She beamed.

"What???"

"It was on Donahue today. His whole show was about computers. They're so simple. Why didn't you tell me about compatibility problems before? It's so interesting. Isn't it, son? Son? John? John! JOHN!"

"JOHN! Wake up!" I was shaken vigorously by my editor. I was at another boring seminar. It was about what life would be like if computer-mania never ended. /DEC PROFESSIONAL

****

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RB LINK $1450.00
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Keyboard
20 meg drive & controller
640K

Save $700.00

Jack DeCamp (213) 454-8991

****

DEC LA50 AND LA100 PRINTERS #66
by Samantha Dobee

HERE ARE SOME SETUP (initialization) strings for using print attributes with a Digital Equipment Corp. LA50 or LA100 printer.

PRINT TYPE	STRING
Horizontal Pitch	
10 cpi* (pica)	\027[1w
12 cpi (elite)	\027[2w
16.5 cpi	\027[4w
Vertical Pitch	
6 lines/inch	\027[1z
8 lines/inch	\027[2z
4 lines/inch	\027[6z
Print Density	
Normal	\027[1"z
Enhanced	\027[2"z

*characters per inch

/LOTUS/June 1986

****

IBM AND DEC, PART III #223B
By Harold Eggert

IN THE SEPTEMBER ISSUE you had a letter from Bert Neuenschwander about compatibility between a DEC Rainbow and IBM PC AT using disks that require no special software. If you put a disk in the PC AT high-density drive and enter format a:/4/1 at the DOS prompt, the disk can be read and written by both the AT and the Rainbow. LOTUS/February 1987

****

FOLLOWING IS A PARTIAL LIST OF NEW HARDWARE AVAILABLE FOR THE RAINBOW---

RBLINK JR & RBLINK - outboard IBM card cage attachment (link can run IBM standard software). Also RBLINK Kit available consisting of the boards, cables and software for those that already have an IBM.

Tape Backup unit - will backup 10MB hard disk in 18min

IDRIVE - external IBM double sided double density disk drive.

Internal/External 10MB removable cartridge subsystem

External dual removable hard disk subsystem

Formatter for up to 70MB disks that partitions disk in 1MB increments. Will partition for CPM, CCPM or MSDOS $49.95

20MB hard disk upgrades.....$350.00

40MB H/D H/S upgrades.....$750.00

70MB hard disk upgrades.....avaliable

DUAL disk controller.....$525.00
(with cables for 2 drives)

Base Plates for hard disks.....$15.00

2400 Baud US Robotics Modem.....$420.00

300/1200 baud modem with 212A and Hays command set compatibility $250.00

300/1200 baud internal modem.....$140.00

300/1200/2400 baud internal modem.$250.00

Graphics Board and Color Moniter combination (DEC list is $1400+).....$750.00

All the usual DEC upgrades also available

IBM - SPECIAL

Complete AT System, including 20 mb disk $1795.00

AT mother board replacement for your XT mother board.....$550.00

Contact
RAINBOW REVELATIONS
PO Box 1707
Garden Grove CA 92640
(714)537-1265

SPEED DEMONS #62

By Karen Berney

ALTHOUGH THE COMPUTER INDUSTRY is mired in an extended slump, the technologies that drive it show no signs of slackening. Early next year, software giant Microsoft Corporation is expected to release a new operating system for personal computers that should offer performance at the desktop rivaling that of today's more expensive and powerful minicomputers.

Microsoft is the developer of the operating system known as MS-DOS, which controls the inner workings of computers and defines the standards for software houses to write programs.

The new version of DOS-Advanced DOS 1.0-will harness many features of the microprocessor chip that powers current top-of-the-line personal computers, IBM's AT and other manufacturers' AT-compatible. Microprocessors are the tiny electronic brains that set limits on how much and how quickly information can be piped through a computer's circuitry. When IBM introduced the AT two years ago, it featured an advanced microprocessor--the 80286--from Intel Corporation.

The new operating system will enable software companies to write much more sophisticated and easy-to-use programs, say industry analysts. In addition, Advanced DOS will run thousands of software programs that have been written for the old DOS.

What will the new operating system let a business user do that he cannot do no? The most immediate difference will be speed, says George Alexy, marketing manager at Intel's Santa Clara, CA, headquarters. Anybody who installs the new operating system on an 80286-based machine will see their old software run nearly five times faster. A spreadsheet that takes a minute to complete certain recalculations will perform the same operation in seconds.

For the hundreds of thousands of people with access to 80286 machines, these benefits cannot come soon enough. They have been waiting two years for an operating system that would take advantage of the chip's speed and power.

Explains Andy Seybold, president of the Seybold Group, a Torrance, CA, market research firm, and editor of a widely read newsletter on industry trends: "Computer software has always lagged behind innovations in hardware, namely microprocessors."

Packing 25 time more memory and two to three times the speed of its immediate predecessor, the Intel 80286 was hailed at its introduction as a major breakthrough that would lead to a new class of exciting software for personal computers. But there was a hitch: To get started on new products, software writers needed an operating system fine-tuned to the 80286. Microsoft, which was supposed to deliver it, has encountered numerous delays, says Seybold.

While Microsoft was catching up, Intel was creating its next-generation microprocessor, the 80386. The chip will lie at the heart of new personal computers, and manufacturers are already announcing products. Compaq Computer Corporation introduced the industry's first 80386-based microcomputer in mid-September. So, as the new operating system and computer hardware become available, software companies face the twin task of customizing software for both the 80286 and 80386 chips.

Because of the huge number of 80286-based ATs and AT clones already installed in offices and factories, analysts believe new software will first be targeted at the millions of users with access to these computers. "Within 30 days of delivery of Microsoft's operating system, there will be a flood of new software announcements for ATs and AT compatibles," predicts Seybold.

Software vendors are expected to pack their existing products with new capabilities. Lotus Development Corporation, for one, plans to equip its best selling spreadsheet program, 1-2-3, with new types of graphs and more statistical formulas for manipulating financial information, says Edward Belove, vice president of research and development for the Cambridge, MA, company. "We cannot do this now because it bumps up against the memory limits of today's personal computers," he says.

Users will also see "truly integrated software," Belove says. Such software combines word processing, database management and spreadsheet applications in one package and permits switching in and out of these applications almost instantly.

Continued next page...

REPORT ON LUG MEETINGS
By O. E. Strickland
Contributing Editor

THE SOUTHERN CALIFORNIA PC LUG held its regular monthly meeting in Garden Grove on Saturday, September 6, 1986 at 10:30, AM. The meeting was conducted by Chairman Mike Hamilton. Mike demonstrated the RB-LINK that he has had in operation for some time on his Rainbow. He has been successful in integrating IBM operations with the Rainbow operations and he can switch back and forth at random with no difficulty. Mike also introduced and demonstrated the new "CODE BLUE" software package which is designed to give the Rainbow some IBM software compatibility. The program seems to work on some (not all) IBM software, but it consumes a lot of RAM. It requires a minimum of 256K RAM, but it is recommended that you have over 768K.

Glenn Bowes gave a brief presentation on dBASE and then opened up a question/answer session which migrated into a discussion on many other subjects including public domain software.

It was agreed that the October meeting would be held at the Shakey's Pizza, 665 East Delamo Blvd. in the Carson Mall.

THE RAINBOWS PACIFIC PC LUG held its regular monthly meeting at the Digital Building in Culver City on Wednesday, September 10, 1986 at 7:00 PM. Chairman Lenard E. McDonald conducted the meeting and Co-Chairman Karen Danforth assisted. Lenard turned the meeting over to Ray Roostaeyan of Digital Equipment Corporation. Ray passed out literature and price sheets on DEC's newest PC-the VAXmate and then reviewed all the specifications and options in detail. VAXmate can be ordered for use in three typical environments:

1. As a networked workstation;
2. As a server system;
3. As a stand-alone personal computing system. After introducing the VAXmate on paper, Ray surprised everyone by leaving the room and returning with a "real live" VAXmate which he demonstrated to the group for the balance of the evening. VAXmate took a long time coming to market, but it is certainly an amazing machine.

THE LOS ANGELES/INLAND EMPIRE PC LUG held its regular monthly meeting at the Cal Poly Pomona campus on Tuesday, September 16, 1986 at 7:30 PM. The meeting was conducted by Gary Zimmerman. Gary brought one of his Rainbows to be used for demonstration purposes. After a few announcements, Gary turned the meeting over to the speaker for the evening, Mary Pavlovich. Mary lead the group through a very lively presentation of dBASE-III using Gary's Rainbow to demonstrate commands and functions. She also explained how dBASE-II and dBASE-III differ in various respects from the program she was demonstrating.

Mary distributed copies of a 12 page "Reference Guide" and an 11 page "Group Exercise" on dBASE-III/dBASE-III+ which she had written. Time was limited, but she took the group through the steps of creating a simple checkbook program using dBASE-III. All dBASE programs are defined as relational data-base management programs. Mary's lecture was very enlightening and she inspired many of those in attendance to try to take advantage of the capabilities of dBASE.

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Speed Demons Concluded #62

Though software will become more complex, it is likely to be much easier and faster for the lay person to learn. Because of constraints on memory size, there is now a trade-off between ease of use and complexity, says Belove: The more complex the software, the less the flexibility to make it widely accessible.

With more memory, "programers will be able to design natural language bridges to the user," Belove says. Natural language lets the user interact with a computer in everyday English.

And as if all this were not enough, Intel Corporation has its next chip, the 80486, on the drawing board. Says Intel's Alexy: "We are now in the process of quantifying market demand for the 80486," which will cram the strength of a mainframe computer of a fingernail-sized sliver of silicon.

USE OF BATCH FILES ON THE RAINBOW

by Jim Lawson

At the February meeting I reported on using batch files to speed up some of the processing my Rainbow. Probably the most important batch file is AUTOEXEC.BAT, which MS-DOS looks for whenever you boot up the system. If the file isn't there you will be asked for the Date and Time and then the standard prompt A> will appear, depending on the disk booted. When you have a file called AUTOEXEC.BAT in the directory of the disk you are booting DOS will automatically read it and execute the commands in the file. Prior to doing that DOS looks at the CONFIG.SYS file to find out the system configuration. I'll show you what I use in CONFIG.SYS and AUTOEXEC.BAT, but I'm sure other members will have suggestions of commands to add. If you do please send them in so that we can share the ideas in future issues.

First my CONFIG.SYS has the following four lines:

```
DEVICE=MDRIVE.SYS          Sets the ram drive in extra memory
SHELL=E:\BOOT.EXE          Makes the environment larger
FILES=20                   Sets number of files
BUFFERS=10                 Sets number of buffers
```

The FILES and BUFFERS commands would be useful for all users, the ram drive is useful if you have a lot of memory. Setting the larger environment is covered in another article on the library programs that are available. If you have your own Device Drivers for special devices, these can also be added in the CONFIG.SYS file with DEVICE=driver-name.

My AUTOEXEC.BAT file contains these lines:

```
SET A=                          Part of enlarging the envirnoment
 "  B=                                  "          "
(these continue through SET H= )
PATH=E:\;E:\SEDT;F:\GW;G:\WP     Sets the path for some directories
DATE                             Prompts for date
TIME                             Prompts for time
RB-BUFFR                         Runs the Rainbow buffer expander
SET SEDT=E:\SEDT                 |
SET SEDTKEYS=RBKEYS.EDT          | These are setup for SEDT editor
SET SEDTHELP=RBHELP.EDT          |
PROMPT $p-$g                     Changes prompt to show directory
COPY F:\EX\*.DAT I:              Copies files to my ram disk
CD\SEDT                          Change directory for editor
```

Most users should have the PATH command since it allows you to access programs in another directory from any disk. MS-DOS searches directories given in the path command for any commands typed. The Date and Time prompts are useful if you don't have a built-in clock. RB-BUFFR is a library program (see other article) which expands the keyboard buffer to 128 bytes. SEDT is a DEC

editor which is almost the same as the DEC Standard Editor, but better (also see the other article). The PROMPT command can be used to show other information than just the disk drive you are on. Using the $p-$g it shows the disk and sub-directory, but it can also show the date and time if you wish. The DOS documentation contains further information of what the prompt can be set to. The COPY command is just useful to me in getting some standard test files onto the ram disk where they can be accessed faster, but it illustrates that any valid DOS command can be put in the batch file for execution. The final command I use does a Change Directory to the sub-directory I have the SEDT editor in, but you could make the final command a menu program and thus when the system is up you start out in a menu.

Batch files can be prepared by using any editor or by typing 'name.BAT=CON:' then enter your commands and Ctrl-Z when you are finished. When you enter a command at the DOS prompt the operating system first searches along the paths for a file by that name with a '.COM' extension, then for one with a '.EXE' extension, and finally if those aren't found it looks for one with a '.BAT' extension. It runs the first one it finds by the name given, so you must be careful not to duplicate names.

Another batch file I have found useful is one to compile Basic programs. This one is called 'COMP2' because it compiles and links two programs at once.

```
GWBASCOM TRAV\%1.BAS/X;        Invokes compiler for first prog.
LINK %1 COMPANY;               Links the object modules
COPY %1.EXE F:\EX              Copies the EXE file to directory
GWBASCOM TRAV\%2.BAS/X;        |
LINK %2 COMPANY;               | These do the same for second one.
COPY %2.EXE F:\EX              |
```

I use the GW-Basic compiler with the source program in a sub directory called 'TRAV' and use the 'X' switch on the compile. Then I link with a module called 'COMPANY', and then copy the executable image to a sub-directory on the F: disk called 'EX'. To invoke this program I type 'COMP2 prog1 prog2', substituting the program names for 'prog1' or 'prog2'. The batch command will substitute those parameters for the '%1' and '%2' in the batch file.

One other example is the following which I call C.BAT:

```
MKDIR B:%1                     Makes the sub-directory
COPY A:\%1\*.* B:\%1\*.*       Copies the files
```

I use this to make copies of the library disks which members order. Since many of the disks are in a sub-directory this batch command file will create the correct sub-directory and copy all the files in it by just typing 'C name', where 'name' is the name of the sub-directory. Have fun with Batch files!

Filename	Size	Vers	Author	Description	Type	Location	
HACKFILE.ARC	45744	1.03G	Don Kneller	RB specific keybd set-up for HACK103	[D]	GAMES_3	*
HACKINFO.ARC	25359	1.03G	Don Kneller	Hints and kinks for HACK103	[G]	GAMES_3	*
HALLEY.ARC	7680	---	C. G. Berube	An Halley's Comet location program	[D]	SCI_1\ASTR	*
HANDS2.ARC	28203	2.0?	Mark E. Kenig	Display an on-screen Analog Clock	[D]	UTILS_8\TIME	*
HANG7.ARC	4521	---	F. Howard(?)	Seven tries for HANGMAN (in TURBO)	[G]	GAMES_3	*
HANGUP.ARC	71	---	Jay Jervey	Disconnect your modem, remotely	[D]	COMMS_4\PHONE	
HARDDATA.ARC	14208	---	Author(s) Unknown	Display tech info on Hard Drive/Op Sys	[G]	SYSHFS_1\FIRM	
HC.ARC	3429	1983	Martin Smith	BIN and EXE to HEX and back again	[G]	UTILS_5\PF3C	
HEAD.ARC	19328	2.1	John Simonson	Display the first n lines of text file	[G]	UTILS_1\ASCII	*
HELP_DF.ARC	66398	2.0	Dennis K. Fitzgerald	On-line HELP by DKF	[D]	SYSHFS_7\SOFT_1	
HELP_LH.ARC	25679	1.0	Lorenz Huelsbergen	On-line HELP by LH	[D]	SYSHFS_7\SOFT_1	*
HIASCII.ARC	3200	---	Author(s) Unknown	High Speed Video Char Set Table	[D?]	SYSHFS_6\SCRN	
HIDESEEK.ARC	1595	---	T.J. Pery	Finds hidden directories/subdirectories	[G]	UTILS_3\FMM_1	
HISTRY24.ARC	7936	2.4	Bryan Higgins	Recall/edit previously entered lines	[D]	SYSHFS_4\KEYBD	
HLPFR219.ARC	36221	2.19	Greg Teater	On-line HELP by GT	[D]	SYSHFS_8\SOFT_2	*
HLPFRSRC.ARC	16531	2.19	Greg Teater	Sources for HLPFR219	[D]	SYSHFS_8\SOFT_2	*
HLPFRTXD.ARC	25159	2.19	Greg Teater	Text files for HLPFR219	[D]	SYSHFS_8\SOFT_2	*
HRCM.ARC	1756	---	Author(s) Unknown	Hard disk patch for ColorMagic V1.3b	[D?]	UTILS_5\PF3C	
HSVTEST.ARC	2829	---	E. W. Brown, III	Hi-speed Video test (and source)	[D]	SYSHFS_6\SCRN	
IBMKERMI.ARC	307	---	Author(s) Unknown	EDT key defs IBM KERMIT w/VT52 emulation	[I]	SYSHFS_4\KEYBD	*
IBU.ARC	36224	1.05	Mike Hodapp	An Incremental BACKUP utility	[G]	SYSHFS_2\DISK_1	
ICON.ARC	178524	5.9	R.E. Griswold et al	A high-level prog lang like SNOBOL4	[G]	PROG_AIDS_7\ICON	*
INDEX.ARC	18159	11/82	T. Jennings	Text file index generator w/dot commands	[G]	EDS_4\FMT_1	*
INLINE.ARC	34124	2.0	Dave Baldwin	DOS assembler ==) TURBO InLine statements	[G]	PROG_AIDS_8\PAS_1	*
INTERLAC.ARC	438	---	Author(s) Unknown	Put your RB into Interlace (hi-res) mode	[D]	SYSHFS_6\SCRN	*
INUSE.ARC	9053	---	Author(s) Unknown	Discourage unwanted terminal use	[D]	SYSHFS_6\SCRN	
IOERR.ARC	913	---	Author(s) Unknown	TURBO Pascal Run-Time I/O Errors listing	[G]	PROG_AIDS_8\PAS_1	*
IPLDATE.ARC	22131	3.2	L. Williams/J. Moore	Set Date and Time at boot via 'C'	[D]	UTILS_8\TIME	*
IQTALK.ARC	3592	2.6	R. Chen/M. Goldberg	Comm tester for fast comm path	[D]	COMMS_1\GEN	
ISSUE.ARC	18560	12/85	J.C. Weilandt II	ISSUE commands for sets of files	[G]	UTILS_3\FMM_1	*
JETSET.ARC	87221	---	Gene Szymanski	A 747 JET Simulator Electronic Trainer	[D?]	GAMES_4	
JOBSDUMP.ARC	26737	3.0	J. A. O'Brien	Full graphics scrn dump prg for the RB	[D]	GRAFIX_2	*
JOT.ARC	8283	1.1	Bob Gould	Reminder/memo program	[G?]	COMMS_3\PERS	
JOVE.ARC	123537	04/85	Ken Mitchum	An EMACS-like editor for the PC	[I]	EDS_1\EDS_1	*
JOVERB.ARC	105518	05/86	K. Harris	JOVE conversion to the RB	[D]	EDS_1\EDS_1	*
JOVESRC.ARC	147191	04/85	Ken Mitchum ?	Sources for JOVE(.ARC)	[I]	EDS_2\EDS_2	*
K&R.ARC	28987	---	Author(s) Unknown	Kernighan and Ritchie tutorial on C	[G]	PROG_AIDS_5\C	
KALAH.ARC	59674	1.6	Brian Seitz	Peg moving with lots of strategy	[D]	GAMES_4	
KBD.ARC	1897	---	Author(s) Unknown	Finer points demo: Reads from the KBD	[S]	PROG_AIDS_8\PAS_1	*
KBMOUSE.ARC	2664	---	J. Wishart/P. Hazzard	RB Artwork with a Mouse	[D]	GRAFIX_2	*
KEDTCPM.ARC	52197	3.5	Jay Jervey	An EDT emulator for CP/M	[D]	EDS_2\EDS_2	
KEDTMS.ARC	52412	1.3	Jay Jervey	The same EDT emulator for MS-DOS	[D]	EDS_2\EDS_2	
KINST.ARC	47742	01/86	Kris K. Barker	Put an EDT-like editor inside TURBO	[D]	PROG_AIDS_8\PAS_1	*
KIT.ARC	21160	0	Steve Kantor	A desk-top management utility in BASIC	[G?]	COMMS_3\PERS	
KP-TURBO.ARC	4632	01/85	Sherman R. Worley	TURBO prog examples for the KAYPRO 4 ??	[K?]	PROG_AIDS_8\PAS_1	*
LA100.ARC	2134	---	Author(s) Unknown	LA100 control function codes	[D]	SYSHFS_5\PRTR	
LA50.ARC	7552	1.0	Robert E. Davis	LA50 printer Set-up	[D]	SYSHFS_5\PRTR	
LA50COMM.ARC	1224	---	R.S. Hafner	Individual escape sequences for the LA50	[D]	SYSHFS_5\PRTR	*
LA50PRT.ARC	13852	1.0	Brian Sietz	LA50 printer Set-up	[D]	SYSHFS_5\PRTR	
LADDER.ARC	35072	1.0	OSL02::TORH	Pseudo Donkey Kong for the RB	[D]	GAMES_4	*

Filename	Size	Vers	Author	Description	Type	Location	
LAR.ARC	16159	04/84	Pete Mack	A Library maintainer (Doesn't work ??)	[G?]	UTILS_6\SQUSQ_1	*
LCTERM.ARC	66725	3.34	Larry Campbell	A fantastic term prg w/script files	[D]	COMMS_5\TERM_1	*
LCTRMPAT.ARC	1089	---	Jay Jervey	Patch LCTERM to work with DO-IT & ReGIS	[D]	UTILS_5\PF3C	*
LETTER.ARC	17899	---	Author(s) Unknown	Display block letters on the screen	[D]	EDU	
LF.ARC	12288	3.3	J.J. Archer	Directory listings w/multiple options	[G?]	UTILS_2\DIR	*
LIFE.ARC	14834	---	Bob Green	Conway's game of LIFE in 'C'	[G?]	GAMES_4	*
LIFE_RB.ARC	39912	1.0	M. Zarlenga/R. Belanger	Conway's game of LIFE in TURBO (w/BUGs)	[D]	GAMES_4	*
LIGHT.ARC	33352	2.1/2	D. E. Wetmore	Sunrise/Sunset times, 1950 AD--2000 AD	[G]	SCI_1\ASTR	*
LINKLIST.ARC	11053	1985	Alan D. Hull	Manipulate doubly-linked lists in TURBO	[G]	PROG_AIDS_8\PAS_1	*
LIST.ARC	26144	---	Author(s) Unknown	Directory listings in several formats	[G]	UTILS_9\UNIX_1	
LIST549.ARC	8419	5.49	Vernon D. Buerg	Display contents of ASCII files	[I?]	UTILS_1\ASCII	
LISTGEN.ARC	75198	---	Several	Misc FIDO set-up files from 12/85 DECUS	[D]	BBS_2\FIDO_2	*
LISTPROC.ARC	17371	1.0	Greg Teater	Merge form and text files for list output	[G?]	EDS_4\FMT_1	*
LOAN.ARC	5888	01/85	Jim Turner	Loan/Amortization calculations in MBASIC	[D?]	FS	
LOCAL.ARC	877	---	Author(s) Unknown	A '.H' file for 'C' programmers	[?]	PROG_AIDS_5\C	*
LOCATE.ARC	527	1985	S. Holzner	LOCATE UPPER CASE text strings in text	[G?]	UTILS_1\ASCII	*
LOGFORM.ARC	2924	---	Author(s) Unknown	Remote site material tracking forms (4)	[G?]	TEXT_2\INFO	*
LOGIN.ARC	5904	---	Jay Jervey	Source code for remote Rainbow comms	[D]	COMMS_1\GEN	
LOGIT110.ARC	35866	1.10	Alan E. Robertson	Log computer usage for tax purposes	[G]	SYSHFS_8\SOFT_2	
LOTUSDLB.ARC	25391	---	Lotus Development	Patch the Lotus Printer Library Disk	[G]	UTILS_5\PF3C	
LS.ARC	22110	---	Aurthor(s) Unknown	Older version of 'LIST'?? (see above)	[G]	UTILS_9\UNIX_1	
LS20.ARC	13391	2.0?	Craig Anderson	Directory LiStings in several formats	[G]	UTILS_9\UNIX_1	
LS_RN.ARC	25387	1984	R. Edward Nather	A UNIX-like LS program for DOS	[G]	UTILS_9\UNIX_1	*
LU.ARC	17145	01/84	Tom Jennings	The Original Library Util for DOS, w/docs	[G]	UTILS_6\SQUSQ_1	*
LU8640.ARC	38817	4.0	Tom Jennings/Paul Homchick	LU86, version 4.0, w/LDIR103	[G]	UTILS_7\SQUSQ_2	
LUCIFER.ARC	9728	3.00 ?	R.W. Outerbridge	File encrypter/de-encrypter	[G?]	UTILS_3\FMM_1	*
LUE.ARC	2608	2.1	Vern Buerg	A Very Fast Library extractor	[G]	UTILS_7\SQUSQ_2	*
LUP.ARC	4939	1.5	Pavel Micro Consultants	A Library Update Program	[G?]	UTILS_7\SQUSQ_2	*
LZ.ARC	12620	07/86?	T. Pfau/B. Eiben	File SQ/USQ via the Limpel-Ziv algorithm	[G?]	UTILS_7\SQUSQ_2	*
M.ARC	2886	---	Author(s) Unknown	XMODEM xfr source in C	[G?]	COMMS_1\GEN	*
MAIL20.ARC	118627	2.0	William Meacham	Build and maintain Mailing lists (DNW??)	[G?]	COMMS_2\MAIL	*
MAKEDB.ARC	1403	10/82	T. Jennings	Convert binary to "DB's" for .ASM/BASIC	[G?]	PROG_AIDS_2\ASM	*
MAKE_DG.ARC	38417	2.14	D. Grayson/L. Campbell	An up-dated version of LC's MAKE (below)	[G?]	UTILS_9\UNIX_1	*
MAKE_LC.ARC	38786	1.14	Larry Campbell	UNIX-like MAKE program for DOS	[G]	UTILS_9\UNIX_1	*
MAKE_LD.ARC	30870	03/84	Landon M. Dyer	UNIX-like MAKE program for VAX/VMS or DOS	[D?]	UTILS_9\UNIX_1	*
MAP17.ARC	14164	1.7	Scott Bussinger	Overlay analyzer for PASCAL programs	[G]	PROG_AIDS_8\PAS_1	*
MAP_DS.ARC	8880	1.4	Dorn W. Stickle	A Memory Map for IBM PCs ???	[I?]	SYSHFS_1\FIRM	*
MASTRMND.ARC	41666	12/84	David Cressey	The game of MasterMind in TURBO	[G?]	GAMES_4	*
MBOOT.ARC	4579	---	Author(s) Unknown	Source and docs for basic XMODEM	[D]	COMMS_1\GEN	
MCAT.ARC	15768	1.0	Dennis K. Fitzgerald	Build your own diskette catalog	[D]	SYSHFS_2\DISK_1	
MEGA.ARC	1080	08/84	Jeff Duncan	Pick random numbers for the Mass Lottery	[D]	GAMES_4	*
MEMBRAIN.ARC	6912	1.21	Dennis Lee	Install/config an emulated disk drive	[G]	SYSHFS_2\DISK_1	
MEMSCAN.ARC	4207	---	Robert Lafore	Scan and display memory usage	[D]	SYSHFS_1\FIRM	
MENU.ARC	34204	1.0	Tom Pfau	Access DOS 2.11 thru Menus	[D]	SYSHFS_6\SCRN	*
MENUSCPM.LBR	16640	1.1	Marc Kenig	Pull-down CP/M menu routines in TRUBO	[D]	SYSHFS_6\SCRN	*
MENUSDOS.ARC	11588	1.2	Marc Kenig	Pull-down DOS menu routines in TRUBO	[D]	SYSHFS_6\SCRN	*
MESSAGES.ARC	55860	2.1	Stew Stryker	A telephone message system	[G?]	COMMS_3\PERS(PHONE?)	*
MICROLIN.ARC	8427	3.0	H.G. Lord	Output set-ups for Microline 82A and 83A	[G?]	SYSHFS_5\PRTR	*
MLRB.ARC	50284	---	Carl D. Neiburger	A Mail List for the Rainbow	[D]	COMMS_2\MAIL	
MODEMR88.ARC	34539	3.3.3	J. Chapman/J. V. Colombo	An XMODEM file transfer program	[D]	COMMS_5\TERM_1	

SOME MORE LIBRARY PROGRAMS

by Jim Lawson

Serving as MS-DOS librarian gives me an opportunity to look at many of the library programs as well as distribute them to you. At the February meeting I described several which I have found very useful. SEDT is a program developed by Anker Berg-Sonne of DEC to be very similar to EDT the DEC Standard Editor. It was designed to be the same across the various DEC operating systems which is very helpful to those of us who use VAX's, PDP-11's, Rainbows, and hopefully soon VAX-Mate. The latest version 3.1 which we are distributing from the library has removed the few bugs which were in the version on the 'Basic 8' distribution earlier. As an editor it can be configured to be like a word processor (WPS style), or as a straight editor useful in program development. The documentation, which comes with it when the ARC file is 'Un-Arced', is very complete, with an introductory guide, a full description of the commands, and a reference manual. SEDT provides buffers in which you can 'cut & paste' from the main file or from other files. I find it useful for instance when making software changes to cut sections of code from one program to paste into newer programs. You could have a library of coded routines which you could then paste into other files.

RB-BUFFR is another library program which I have found handy. Written by Carl Houseman, it expands the normal 15 byte keyboard buffer to 128 bytes. This program is 'Un-Arced' into your boot directory and when run makes the buffer change. If you place 'RB-BUFFR' as a command in your AUTOEXEC.BAT file (see my other article), then you will always have the larger keyboard buffer available. Before using this I would exit out from making a program change with SEDT, and while waiting for the editor to finish I would type ahead to change directories and compile my changed program. After 15 characters were typed however the keyboard would 'beep' and not accept any more characters. Now I can type up to 128 which means I can put in all the commands I want and go do something else while the machine is working.

A third program reported on at the February meeting is BOOT by Duane Voth and Greg Gilley. It expands the DOS environment space which is very useful if you have many 'SET' commands, etc. in the AUTOEXEC.BAT file (check other article). The documentation in the ARC file describes how to set up the ENV file and what to add to the AUTOEXEC file so that the whole process will run smoothly. If anyone wants to try this program I would be glad to answer any questions you might have.

There is a wealth of software available in the library, around 650 programs on 64 disks. You can call me at 714-581-4944 or write to: 23822 Sycamore Drive, Mission Viejo, CA 92691 to place an order. The charge is $4/disk if we supply the diskettes and mailing, $2 if you come to the meeting to save the postage, and $1 if you supply formatted diskettes and pickup at the meeting.

R F Hafner is Library Coordinator of the DECUS PSSIG Software Library. To order all or a few favorites from his list of over 60 Public Domain Disks, which is currently being published in these newsletters, follow these instructions. Call Jim Lawson at (714) 581-4944 (evenings) or write him at 23822 Sycamore Dr, Mission Viejo CA 92691. Give him your address and which diskettes you wish. Don't pass up this opportunity. The fees are meant to cover time and materials only.

$4-A disk will be mailed to you. **Includes postage, carrier, disk and neat label.

$2-Come to the monthly meeting and skip the postage. **Includes the same as above, minus the postage and carrier.

$1-Come to the meeting and bring a formated disk. For this to work, you must pick up the copy at the following month's meeting.

****

THE RAINBOWS PACIFIC PC LUG meets monthly THE SECOND WEDNESDAY, 7:30 pm at Digital Equipment Corp, 6101 W Centinella Av, Culver City. Digital Equipment is located near the Sepulveda Bl offramp of the San Diego Fwy (I-405), just east of the Pacifica Hotel. Contact Lenard E McDonald, (213)836-8698 for more information.

THE SOUTHERN CALIFORNIA PC LUG meets monthly THE FIRST SATURDAY, 11 am at Shakey's Pizza Parlour, across from the Carson Mall. Contact Mike Hamilton, (714) 537-1265 for more information,

TERRY'S TAILS—

The group is enjoying some new faces and input to the meetings. This next month or the near future should be fun. Jan Snyder is lining up a Vaxmate for a close-up look. Come see and hear what's ne in the Rainbow PC market.

See you there! Terry

LOS ANGELES/INLAND EMPIRE
PERSONAL COMPUTER LOCAL USERS GROUP
DECUS - 380 VERONICA
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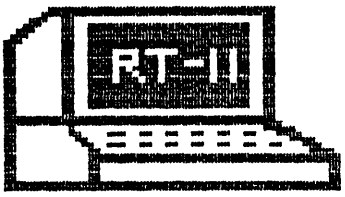
L A-INLAND EMPIRE PC LUG

CHAIR: Hank Saltzman 714-981-5575
DATE: April 21, 1987--THE 3rd TUESDAY
TIME: 7:30-9:00pm
PLACE: Cal Poly Pomona Library
Bldg 15, Rm 12
Park ($1) in the Visitor Parking Lot.
The library is at the top of the Lot.

PROGRAM: SID CHOUDHRY will discuss **"GRAPHWRITER"**, a graphics package from Lotus Corp. 23-chart formats offer a diversity for business applications for hard copy, transparencies and slides.



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Vol 87 Number 2 February 1987

Meeting Notice

Date: February 19, 1987 (Thursday)

Time: 11:30 am - 1:00 pm (Program starts at 12 noon)

Location: KAFB West Officers' Club, Daedalian Room

A representative of Northwest Digital Systems, Inc, will demonstrate the GP-220 graphics terminal. The terminal is VT-200 compatible with VT-100 features. This terminal is quite popular with graphics users. Demonstrations will include both "canned" graphics images and graphics produced by applications programs. If you have any graphics programs you would like to see displayed on this terminal, contact R. W. Barnard, at 844-5115

This program is a continuation of the series started in October,1986. So far, we have had demonstrations by Human Designed Systems, Plessey and Lanpar. In future meetings we intend to have representatives of Northwest Digital, Graph-On, and perhaps Digital Equipment. Please come and contribute to ARTLUG's evaluation of these useful components of a computer system.

SPECIAL NOTICE

If your mailing address has changed, send corrections to:

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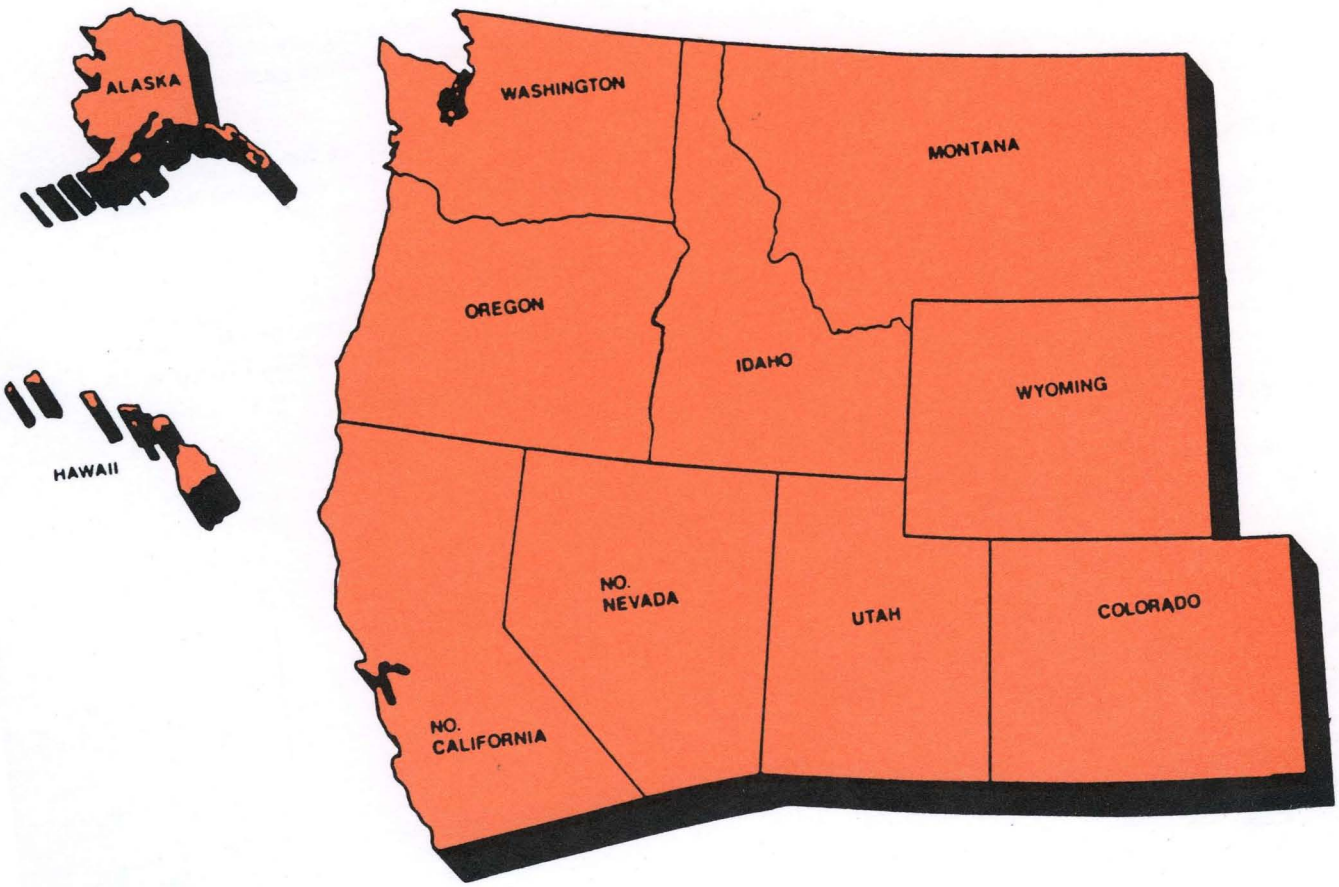
800 Adams Pl. SE
Albuquerque, NM 87108
(505) 265-1842

Please send newsletter contributions to:

Joe Madrid, Editor
Sandia National Laboratories
P.O. Box 5800 Org. 7483
Albuquerque, NM 87185
(505) 844-7129

Dates to Remember

ARTLUG Meeting:	March 12
ARTLUG Meeting:	April 9
ARTLUG Meeting:	May 19
ARTLUG Meeting:	June 4
National DECUS:	April 27 - May 1 in Nashville Tennessee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UTAH
COLORADO

West Region

WEST REGIONAL LUG COORDINATOR

Steve Lorentzen
Unicomp Corp.
Seattle, Washington
206-284-4316
DCS: LORENTZEN

Steve Lorentzen was elected West Region LUG Coordinator in December, 1987, and is the most recent addition to the NLC Committee. Steve has given long and faithful service to DECUS in prior incarnations, as the West Region Tape Librarian, sending out tapes from each symposia to the 20+ LUGs in his region.

Steve has been a member of DECUS since 1981 and served as LUG Librarian for the Seattle LUG (SEALUG) during 1981. He was subsequently elected SEALUG Chair, a position he held for three years. Steve helped initiate the first SEALUG Regional Conference, and served as Conference Chair for the gathering held in March of 1988.

As the newest Regional LUG Coordinator, Steve will be looking for volunteers to serve as Assistant Regional LUG Coordinator, Regional Conference Coordinator, Regional Seminar Representative, and Regional Newsletter Editor. Call Steve if you want to get involved in West Region LUG activities.

REGIONAL TAPE COPY COORDINATOR

Steve Lorentzen
Unicomp Corporation
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206 282-7319

REGIONAL SEMINARS REPRESENTATIVE

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WEST REGION LUGS AND LUG CHAIRS

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Bay Area RSX/IAS LUG (BAYLUG)
Chair: Gary Maxwell, Menlo Park, 415-323-8111, extension 2318

BAYVAX LUG
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Central Valley DECUS LUG
Chair: Steven Nichols, Fresno, 209-485-5050,x323

Lawrence Livermore National Lab LUG
Chair: R. Kevin Oberman, Livermore, 415-422-6955

● Sacramento Valley LUG
Chair: Lori Knott, Sacramento, 916-445-4505 or 916-447-4519

San Francisco Bay Area DEC Personal Computer LUG
Chair: Dale Miller, San Rafael, 415-472-6531

● Silicon Valley Personal Computer LUG
Chair: Gary Catalano, San Jose, 408-275-1133

Colorado

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● Pikes Peak LUG
Chair: Jim Lind, Colorado Springs, 303-632-7324

● Rocky Mountain VAX LUG
Chair: Paula Sharick, Boulder, 303-499-5700

Hawaii

Aloha LUG
Chair: John K. Russell, Honolulu, 808-548-7743

Oregon

Oregon Rainbow LUG
Chair: Gordon R. Young, Clackamas, 503-657-2660

● Portland/Vancouver Area VAX LUG (PAVLUG)
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Utah

Hill LUG
Chair: Andrew Schow, Hill AFB, 801-777-7072

Utah Valley LUG
Chair: Bryan Peterson, Provo, 801-378-2093

Washington

DEC Bellevue Users Group (DBUG)
Chair: Don Stewart, Issaquah, 206-455-2845

Inland Northwest LUG (INLUG)
Chair: Ross Miller, Spokane, 509-484-3400

Pacific Local Users Group
Chair: Ron Aley, Seattle, 206-543-9275

● Seattle Area LUG (SEALUG)
Chair: Steve Lorentzen, Seattle, 206-284-4316

● indicates LUG newsletters contained in this volume

VOX VAX

BAYVAX LUG Newsletter

BAYVAX LUG
P.O. Box 50444
Palo Alto, CA 94303-0444

DECUS

Bill Pedersen/Chairman

Ed So/Editor/Publisher

January 1988 Vol. 9 No. 1

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A Note From The Editor

Time flies when we're having fun. It was an exciting year and I wish you all have an insanely great 1988. We are working very hard to make BAYVAX a great LUG if not the best LUG around.

Just to start the new year right, we are going to send the VOX Newsletter to everyone starting with this issue. Bill Pedersen (BAYVAX Chairman) will elaborate on this matter in his column in this Newsletter. Some of you that has a red dot on the envelope next to your address mailing label indicates that you have not been attending our meetings for over six months. Unless you show up at our meetings again or notify us, we may not send you the Newsletter anymore.

I will be busy at work since we at Lockheed won the NASA Space Station Programs contracts. I will be involved in the planning and implementing networks to support the computing activities. We'll be acquiring a lot of new equipments and a larger VAX and putting them together. It will be fun. I'll try to tell you folks what's happening with our projects along the way that may be of general interest.

Merry Christmas

Ed So/Editor/Publisher

Next Meeting

Our next meeting will be held on **Thursday, 14 January 1988 at 9:00am** at SRI International in Menlo Park. The address is 333 Ravenswood Avenue, Menlo Park. We'll be meeting in Building I (Auditorium). One way to get there is to take the Willow exit on Highway 101. Go West. Right on Middlefield. Left on Ravenswood. Then take a left before the traffic light. There will be limited parking so come early. There will be signs posted to assist you to find the meeting place.

We'll have two great presentations for this meeting. Alyce Elmore and Chandru Murthi from Dimension 4 Systems will speak on the "Use of the Ultimate Operating System for the Development in Applications on VAX/VMS Environment." Our next presentation will be given by Kevin McDonald from DEC. Kevin is a Communication Specialist from the DEC Santa Clara Office. He will be speaking on "Multi-Netting: Multiple protocols networks." He will talk about putting various protocols on networks and alternatives.

Just to let you plan ahead, here's the schedule for the upcoming events that maybe of interest to you. Write them down on your calendar now for future references. Details will follow in upcoming VOX VAX Newsletters.

Feb 25, 1988	BAYVAX Meeting - South Bay
Feb - Mar 1988	Regional Conference San Francisco

Just A Quick Note

Anahiem is behind us all and the New Year is just peeking 'round the corner. I and all of the Steering Committee wish you all Happy Holidays and a beneficial New Year.

Again I am writing this while out of town. It seems that is where I always am as of late but I am look forward to working with all of you to keep BAYVAX a strong and useful LUG. I wish to thank all of the Steering Committee for their help this last year. Many things have been accomplished; revised VOXVAX Newsletter, expanded Working Groups, and more meetings in the North Bay.

I would like to wish especially thank Lee Leahy for his Chairing of the MicroVAX Working Group. We all wish Lee success with his new job and home working with DIGITAL in Massachusettes. On this note we are looking for a NEW Chairperson for the MicroVAX Working Group. Suggestions or volunteers are welcome.

See you on the 14th of January.

Bill Pedersen, Chairman

Last Meeting

Our Alternate Chairman, Robert Young, opened the meeting at 9:20 at Lawrence Berkeley Lab/Building 50 on Thursday, December 3. We waited for a speaker and more users. After passing the clipboards, Brad Bosch/Regional Symposium Chairman handed out questionnaires about seminar attendees and desires, and we filled them out. The Western Regional Conference will be held March 24, 25 at the Nikko Hotel in San Francisco.

Our first speaker was Dr. John Latasi from Virtual MicroSystems discussing PC-VAX connectivity. System progression since the 1970s has been: centralized processing on centralized databases, to localized processing on local data (with non-connected PCs), to local processing on centralized data. With VAX to LAN connections your PCs can do what they're good at while the VAX can be used as a "file-server". With hardware assists in the VAX end, you won't crush your VAX with data transfers. You could also implement LAN-to-LAN communications between two radically different (and therefore incompatible) LANs by using the VAX as a "connector". If you are contemplating connecting PCs and PC LANs to VMS, check how easy it is to switch between DOS applications and VMS applications. You should also get as high throughput as possible so your PC users won't complain about VAX speed. During the Q & A it came out that VMI translates among word-processing files, and a BI-based co-processor will be available "soon."

After John's talk (at 10:23), we broke for tape exchanges and came back for the Forum segment since EMC had not arrived. EMC arrived at 11:30 and Bryan Rattay gave a talk on WORM ("Write-Once-Read-Many") optical disks as archival storage devices. Optical disks are currently very durable (more than 20 years life) and large amounts of data can be stored on a single platter (12-inch platter = 2 Gigabytes (both sides), or 4 Million blocks). Questions were raised about future standards recording formats obsoleting the current platters. EMC's optical drive system (ARCHEION) currently emulates a tape drive. EMC has no plans for an erasable optical disk system.

We adjourned at 12:05.

• • • • • • • •

Forum

Collection of raw rumors, totally unsubstantiated, and completely uninvestigated. Use this information at your own peril.

* BACKUP will give "Error processing tape label"/"SYSTEM-F- parity error" when old tape was read WITHOUT the /SAVE_SET qualifier on the mag tape on dual-ported HSC. Data is recoverable, and BACKUP works normally when /SAVE is used. Tape is not dirty; VMS V4.5.

* Suspended process will continue with record lock during suspension, thereby freezing out other applications wanting access to file. Problems appears in V4.x, not in V3.x. Suggestion: don't suspend, just set priority down. Suspended processes can't be deleted until resumed.

* Any way to skip past the first EOT mark to recover data further down the tape (mistakenly INIT'ed tape)? Write a program to position tape and read it.

* As of V4.5 microfiche, DEC deleted LAT software and as of V4.6, some details of the Ethernet driver disappeared. Microfiche is no longer complete!?

* Several users are running V4.6 - only problem found is in DEUNA in "hog" mode. DECnet needs a matching release (V4.6).

* There is no useful, generally available book explaining an overview of DECnet, although an old communications book comes close.

About VOXVAX Newsletter:

Last year the Steering Committee with agreement from the general membership of BAYVAX established a subscription fee for the VOXVAX Newsletter to establish a fund to ease the economic issues of dealing with DECUS and their budget cycles. This was and is in general a revolving "float" the money has not been used for any purpose other than to advance to Ed So or others before the checks have come from DECUS and to cover bank fees. The Steering Committee has reviewed this function as well as the overall goals of BAYVAX and have determined that it time to revise this process; to the better for all we believe.

As of this issue:

VOXVAX will be distributed to all members of BAYVAX.

The Steering Committee will submit a special budget request to cover the added expense of the expanded newsletter to all members.

To continue to receive the VOXVAX Newsletter you may:

1) Come to a meeting once every six months,

2) Call us once every six months, or

3) Voluntarily send in a $5.00 donation to continue to help support the "float" fund once a year. Doing this means that NO meeting attendance is required.

We of the Steering Committee believe that this change in program is to the best for several reasons. One of BAYVAX's stated goals is the distribution of information and the exchange of ideas between our membership; this facilitates that goal. By establishing a six month attendance period we hope to increase the number of members attending the meetings. We also believe the distribution of the Newsletter to all members will contribute to this goal.

VOXVAX will continue in its current general format of coverage of each speaker and articles from members and other sources. We are starting to exchange Newsletters with the LLNL LUG in Livermore and expect to reprint some of their articles in the near future.

We look forward to working with all of you to best use this revised distribution of the VOXVAX Newsletter.

Thank you.

Bill Pedersen, BAYVAX Chairman

"All the news that fits"

Sealug News

TRAVEL & LIESURE

LateEdition

Weather: April is made of impetuous waters. And doctors looking down the throats of daughters

Vol. CXXXIV.....No. 1 Copyright © Sealug News Mukilteo, **Wed. MAY 13, 1987**

ENTATIVE SCHEDUAL OF UPCOMING MEETINGS

'ed. May 13th, 1987
:30 until 9:30
UGET POWER AUDITOR'M
fonday 27-APR-1987 (DEC ime), Ivan Ortan of the Ki ounty Bunko Squad (KCBS) onfirmed his intentions to peak before our august mem- ership on the evening of 13- PR-1987 (DEC Time) on the ubject of Computer Fraud.

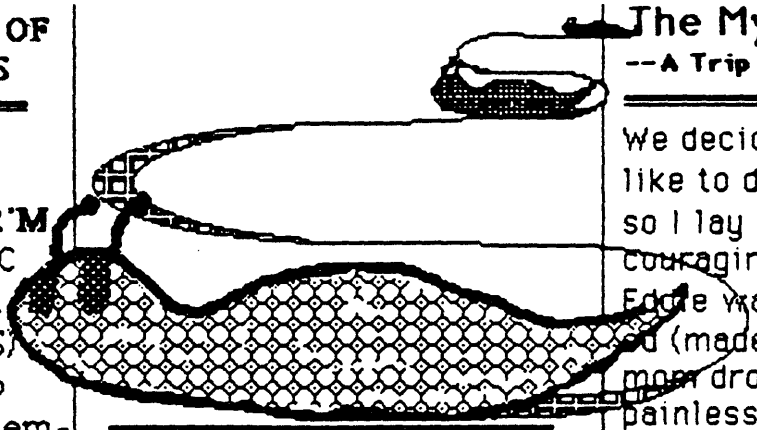
Wed. Sep. 9th, 1987
6:30 until 9:30
RAINIER BREWERY
DEC will once again spouncer the season opener with dratty Thompson on hand to throw out the first Punk.

Wed. Oct. 14th, 1987
6:30 until 9:30
ACT
Super-computing! Survey of DEC, CRAY, and Floating-Point, and SPECTRA. Room-temp solid state conductors.

Wed. Nov. 11th, 1987
6:30 until 9:30
ACT
RMS Tuning Clinic!

Wed. Dec. 9th MEETING
6:30 until 9:30
ACT
Topics will range from VAX System Development, and CAD Based Appl. Development thru SCA (Source Code Analyzers) to access the efficiency of application code.

continued Page 2, Column 1



WINNA, SORTA

We have a winner in the logo contest (see above photo). But, now we need to "name the logo". The winner of the logo contest suggested "SALTY". I lean toward "Slowly-I-Turned" and the kids like "Tracker". It is a three way tie, so we've decided to send it back at you. Once again, kick in your imagination and send your suggestion to:

T. Ross and Elizabeth Roberts
14532 47th Avenue West
Lynnwood, Wa. 98037

As always contests mean prizes. As always the decision of the judges is final. Hurry!!!!!

library news

The "language and tools" tape -- four reels long -- is out. Steve Lorentzen, 282-7319, has information; call him. Who? Him, the bombadier. I'm the bombadier. Then call him.

The Mysterious East

--A Trip to Bountiful (Utah)--

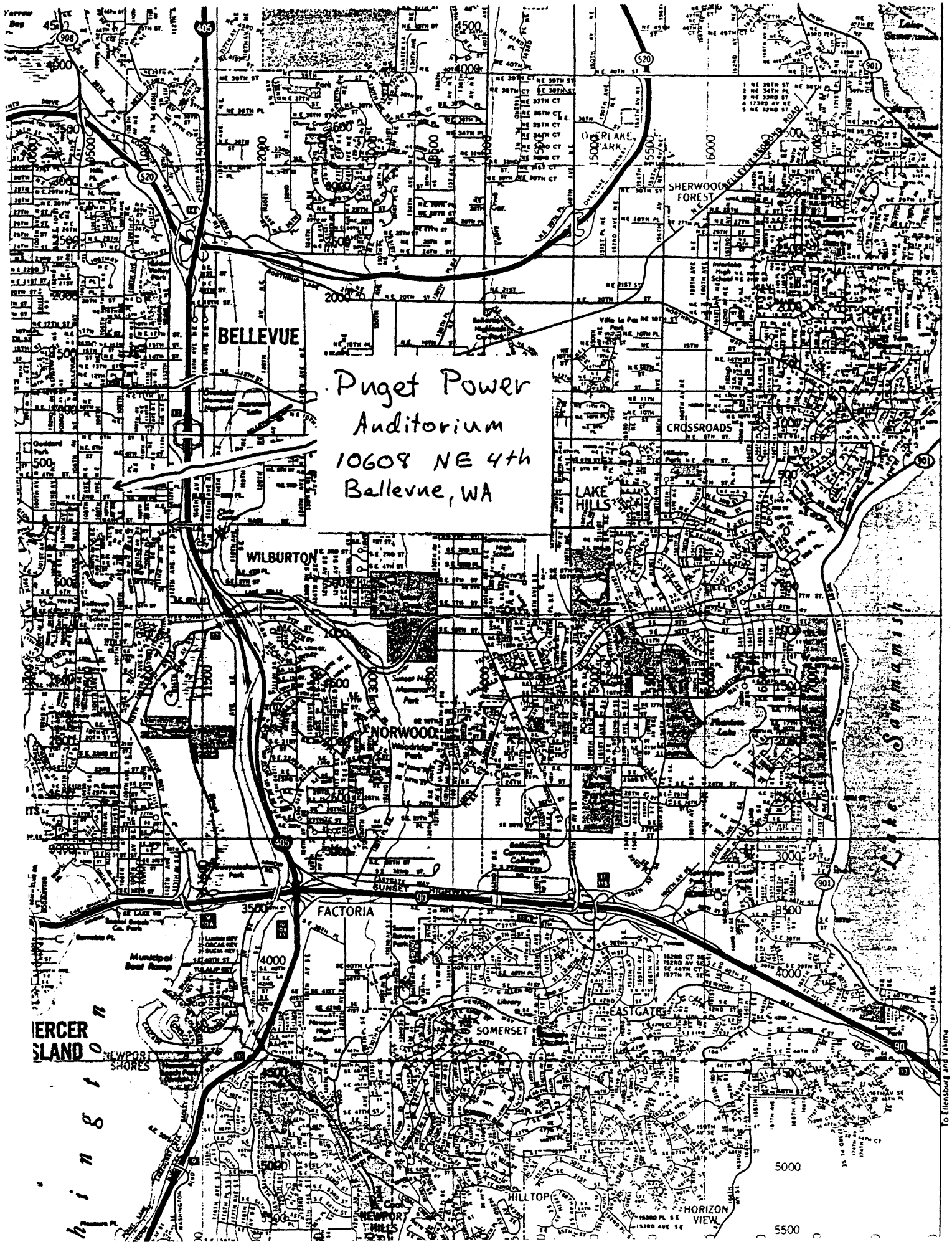
We decided to drive. I don't like to drive during the day so I lay in the backseat, encouraging dangerous acts. Eddie was easily encouraged (made dangerous); so mom drove. Suicide may be painless, but it sleeps in -- mom gets up early, and she really wants to see Bountiful before Eddie and I see eye to eye. I suggested the bus, but mom isn't as easy as Eddie.

First stop, Royale City for haircuts, the best part of the trip -- nothing like a

continued on Page 2, Column 2

CURRENT SEALUG OFFICERS

Chairman:	223-6453
Steve Lorentzen	282-7319
Vice Chairman:	
Doug Walker	339-3000
Membership:	
Jim Peterson	656-5568
Librarian:	223-6453
Steve Lorentzen	282-7319
Programs:	
Greg York	451-362
Publications:	
Phil Rand	284-130
Publication Assistant:	
W.T. Good	448-395
Digital Representative:	
Bill Businger	456-550


Puget Power
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10608 NE 4th
Bellevue, WA
BELLEVUE
WILBURTON
NORWOOD
FACTORIA
SOMERSET
EASTGATE
CROSSROADS
LAKE HILLS
SHERWOOD FOREST
HILLTOP
HORIZON VIEW
NEWPORT HILLS
NEWPORT SHORES
MERCER ISLAND
Municipal Boat Ramp
Lake Sammamish
To Ellensburg and Yakima

TENTATIVE SCHEDUAL OF UPCOMING MEETINGS

continued from Page 1, Column 1

2nd Wed. January 1988
6:30 until 9:30
ACT

CAD Systems : FOCUS, ORACLE, INGRESS, ALDUS, and PAGE-MAKER have been suggested.

2nd Wed. February, 1988
6:30 until 9:30
ACT

VAX-Tuning, again (?). How about some VMS, Version FIVE, or a little Sysgen. Let us know. Drop us a line by mail. Use the address below to send us your suggestions. Anyone interested in RSTX Migration, or "Pearly Gate", etc.

A Trip to Bountiful (Utah)

continued from Page 1, column 3

haircut, cut during the heat of a Royale City summer day, when the straight razor pulls at the back of your neck to make a trip to Utah special as a good bye kiss.

Mom's Chevy (she pronounces it hard on the "Ch", like a suburb of Washington, DC) has begun to change into hydrocarbon under the intense heat. Eddie's doing the same under his new haircut -- I may get my wish, if I can work this right. Mom just pulled in for soda, I'll have to put plan A back on hold. "Hey, Eddie, nice haircut."

the end.

Advice to Travellers

MOST OF WHAT I REALLY NEED TO KNOW ABOUT HOW TO LIVE, AND
WHAT TO DO AND HOW TO BE, I LEARNED IN KINDERGARTEB.
WISDOM
WAS NOT AT THE TOP OF THE GRADUATE SCHOOL MOUNTAIN, BUT
THERE IN THE SANDBOX AT NURSERY SCHOOL.

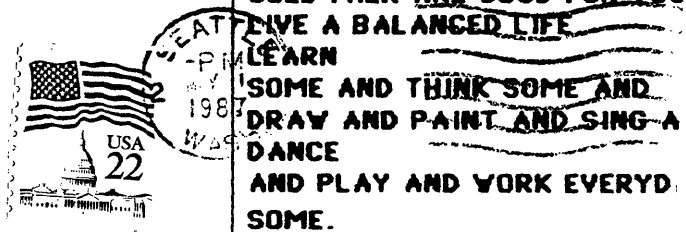
THESE ARE THE THINGS I LEARNED: SHARE EVERYTHING. PLAY
FAIR. DON'T HIT PEOPLE. PUT THINGS BACK WHERE YOU FOUND
THEM. CLEAN UP YOUR OWN MESS. DON'T TAKE THINGS THAT
AREN'T YOURS. SAY YOU'RE SORRY WHEN YOU HURT SOMEBODY.
WASH YOUR HANDS BEFORE YO EAT. FLUSH. WARM COOKIES AND
COLD MILK ARE GOOD FOR YOU LIVE A BALANCED LIFE
LEARN
SOME AND THINK SOME AND DRAW AND PAINT AND SING A DANCE
AND PLAY AND WORK EVERYD SOME.

TAKE A NAP EVERY AFTERNOC WHEN YOU GO OUT INTO THE WORLD,
WATCH FOR TRAFFIC, HOLD HANDS AND STICK TOGETHER
BE AWARE
OF WONDER. REMEMBER THE LITTLE SEED IN THE PLASTIC CUP.
THE ROOTS GO DOWN AND THI PLANT GOES UP AND NOBODY REALLY
KNOWS HOW OR WHY, BUT WE ARE ALL LIKE THAT.

GOLDFISH AND HAMSTERS AI WHITE MICE AND EVEN THE LITTLE
SEED IN THE PLASTIC CUP -- THEY ALL DIE. SO DO WE.

ROBERT FULGHUM: KANSAS CITY T

DECUS
c/o Steve Lorentzen
201 Queen Anne Avenue North
Suite 100
Seattle, Wa 98109



"All the news that fits"

Sealug News

SECURITY

LateEdition

Weather: $n^a+n^b=n^c$ has solutions in positive intergers a,b,c, and n only whe n=2 (and then there are infinely many triplets a,b,c which satisfy the equation), but there are no solutions for n > 2. I have discovered a truly marvelou proof of this statement, which unfortu

Vol. CXXXIV.....No. 1 Mukilteo, Wed. Sep. 9th, 1987

TENTATIVE SCHEDUAL OF UPCOMING MEETINGS

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continued Page 2, Column 1

SEALUG MASCOT NAMED

Ivan, SEALUG's mascot of the past two months showed great pleasure with his new name. He exclaimed, " It beats no name at all. I'll do my best to live up to the Boesky tradit'n". We haven't broken the news to him at this time.

"I Don't Know Nothin' About Computers. Ask The Kid In The Back Bedroom" - Kibbee

Local computer crime during the past three years has included "break-ins" to the U of W, the Washington State Department of Licensing, Microsoft, Resource Conservation Co., Sunstrand Data Co., Kenworth Truck, Boeing, and more.

Motives can vary from the bizarre (as in the case of a 53 year old campus policeman at the UofW, who built a file of coed's address and phone numbers using the states files, and in so doing became the first citizen to be tried under the states' new "anti-computer trespassing law") to the motivation of the intellectual exercise of the at-

continued on Page 2, Column 3

VMS 5.0 DECUS REPORT

Reported by M. Oakey/Battelle

The debugger will be enhanced to provide better Macro-32 support. Input/Output qualifiers have been added to the Spawn command. Enhancements have been made to the SET IMAGE, and SET SCOPE command.

continued top of next column

VMS 5.0 DECUS REPORT

Reported by M. Oakey/Battelle

Continued from the bottom of the previous column.....

A callable interface will be provided to define key-pad keys. The screen management facility will support "block menus", and better horizontal and verticle split screen capability. Enhanced sub-process support will make it possible to dedicate one part of the screen to one process, and another part of the screen to another process. There will be a feedback mechanism in AUTOGEN. ACL's will be supported on batch and print queues. There will be a $GETQUI lexical (to get queue information). There will be considerable performance enhancements to the cluster-wide queue file.

continued on Page 2, Column 2

GOOD-BYE CREAM

Chairman:	223-6453
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Greg York	451-3627
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Phil Rand	284-1300
Publication Assistant:	
W.T. Good	448-3952
Digital Representative:	
Bill Bysinger	828-2019

Library:

RT-11, UNIX and VMS are now available. See Steve.

TENTATIVE SCHEDUAL OF UPCOMING MEETINGS

continued from Page 1, Column 1

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"I Don't Know Nothin'

continued from page 1 column 2

tempt, as in the case of a gifted, 18 year old, eastside "hacker". There are also the juvenile antics os such War Games copy cats (UofW access problems increased ten fold after the movies' release), such as the "hacker" group, "414", named after the area code in which it operates. Not to overlook the Spokane County clerk who removed friends trafic violations from the court records. It is not all "kidding" around though. There is the case of the 32 year old San Fransico computer consultant who knocked over a wire service for 10.2 million and bought Russian diamonds in Geneva, Switzerland with the proceeds. It is a facinating aspect of the type of crime being committed here, that even those sworn to protect us from it cannot be disgarded, as in the case of the NSA, National Security Agency. The NSA monitors traffic between public and

continued on page 2 column 3

VMS 5.0 DECUS REPORT

Reported by M. Oakey/Battelle

CONTINUED FROM PAGE 1 COLUMN 3

$GETDVI will be return the terminal server identification.
Some LAT software, LTDRIVER LATCP, and LATSYM moved to VMS to avoid compatibility problems.
DCL will support IF-THEN-EISE
RECALL/ERASE will erase the command buffer.
A WSP keypad will be available in TPU.
Future TPU won't need to rebuild TPU section files.
Callable VMS MAIL.
DECnet proxy enhancements.
NCP will support command recall.
THERE WILL BE NO PROJECT ACCOUNTING IN THE NEXT MAJOR RELEASE OF VMS.
Performance enhancements to high water marking.
Directory file protection enhanced: DELETE access will required to rename a file out of a directory or perform a SET FILE/REMOVE.
BACKUP of files with aliases has been improved.
BACKUP will now prevent accidental initialization of disc.
ANNALYZE/DISK now accepts a directory as the location for lost files and handles aliases.
MULTI_VOLUME added to the MOUNT command.
New utility, SALVAGE, will try to rebuild corrupted disks.
Summetrical Multiprocessing will added to VMS.
New executive module.

REGIONAL SYMPOSIA

Steve Lorentzen, et al, are putting together something really different, no, not another Amish exchange program, this time its a regional symposia. Out west, here, ain't nobody goes, but I will.

"I Don't Know Nothin'

continued from page 2 column 1

private individuals and has had fairly easy game of it for th past forty years. With the coming of advanced encription methods, this may no longer be the case. Many believe that it was in an attempt to protect this ease of access that the NSA cut LUCIPHER's 128 bit key down to 56 bits before "ok'ing" it as the DES, Digital Encription Standard. Who do they think they're "spoofing."

The more "typical" hacker is equiped with talent, a big ego, a desire to prove that they are number one, an impressive ability and know ledge, s keybosrd, and a modem. Thei also tend to be one-deminsional, computer obsesed, young men. They have few friends in school, and they do not do well there, despite obvious intelligence. They use their home phones, equipted with "rapid dialer" access devices to access up to 5000C phone numbers a night (this is not a crime at the present time) searching for the few which are answered with that high-pitched, computer recognition tone (a process known as "phreaking", especially if avoiding long-distance charges is involved. They are not generally interested in the company they reach, only that it processes on a machine they can understand.

They gain knowledge of systems by reading system manuals. In this wai they learn of such things as standard system field service access codes built into they systems to allow technical and service people entry. If these codes are carelessly left on the system after delivery or servicing, they are called "backdoors". Tips on "backdoors" and company phone numbers answered by computer are also available on "bulletin boards" (electronically maintained, publically accessed, generally "uncensored", computer files) favored by these "pirate

to be continued (perhaps).

HELLO BUTTER

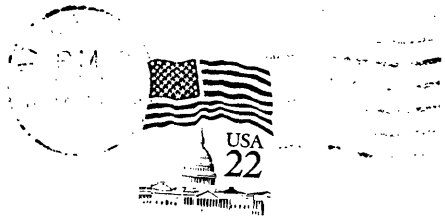
Ray Kaplan - On Course

I WENT TO "HOW TO TUNE YOUR VAX". IT WAS QUALITY STUFF. MORE NEXT MONTH. --WTG (KNOW FOR INSIGHT).

A TRUE STORY

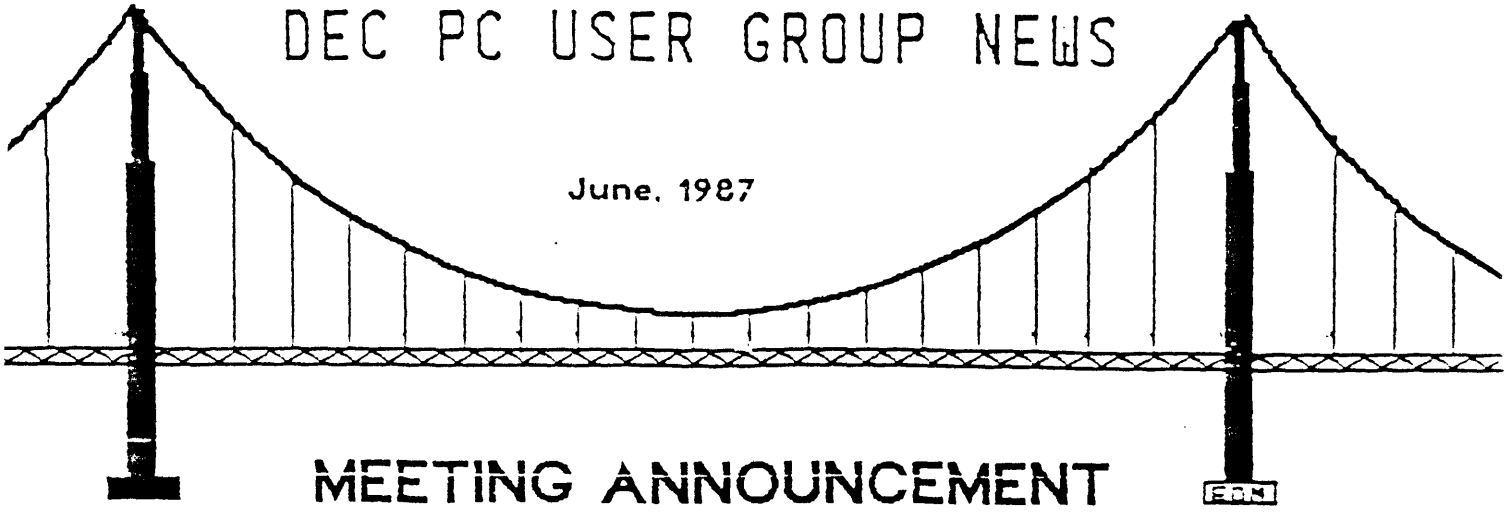
Last month Dave VanWieringen, who, while he may not look like a handy kind of a guy, was thinking he was, when he proved looks may not be deceiving. Dave, who as you may or may not know, lives underground in a hole (a burm) that he dug in the ground in Lake Stevens, or some-such other far-away place, climbed a tall fir tree on his property. For saftey's-sake Dave took along his chainsaw. When he got to the top, just to be on the safe side, Dave started his chainsaw and cut off the rest of the tree, his saftey-belt, and Dave Van Wieringen. His dad, was really concerned as he watched Dave, the top of the tree, and the chainsaw, knowing that he was not the kind of top-notch juggler now required to save this act. Dave has been quoted as saying he was particularly pre-occupied with trying to remember where he had last seen the saw, and the 32 feet per second/per second equation. I mean, what does per second/per second mean, anyway? Well, as fate, or gravity, would have it, Dave was soon to find out. Mr. Van Wieringen was really the hero of the day -- after confirming that Dave was 'ok' -- that is if you call a broken wrist/arm/collar bone/hip, all right-- he had to treck out to the hi-way, quite a hike, and summon aid. Dave is in bed now. He's going to stay there for about two months. If we can find out where, we are going to send him copies of this sleasy rag. I'd personally rather fall out of a tree. If you can find out where, you too, should get in touch with Dave. It is, after all, lonely in a hole in the ground.

DECUS
c/o Steve Lorentzen
201 Queen Anne Avenue North
Suite 100
Seattle, Wa 98109



SAN FRANCISCO BAY AREA
DEC PC USER GROUP NEWS

June, 1987



MEETING ANNOUNCEMENT

DATE: Thursday, June 18, 1987

TIME: 6:30 P.M. to 8:30 P.M.

LOCATION: Digital Equipment Corporation
31st Floor Conference Room
101 California Street
San Francisco

TOPIC: New Products for the Rainbow

Jerry Miller of Suitable Soultuions will discuss the I-drive, an IBM-compatible floppy disk drive for the Rainbow. Jerry will also present a number of new products designed to keep the Rainbow productive and up-to-date. These include a low-cost 1Mb memory expansion, a disk-cache program, the CODE BLUE program for emulating PC-DOS, and the ClikClok.

PRE-ANNOUNCEMENT OF JULY MEETING

At the July meeting, to be held on July 16th, Will Roberts will give a presentation on the RS-232 serial interface, including ways in DEC and non-DEC hardware can be interfaced successfully. This will be an excellent opportunity to learn about cables, pin-outs, handshaking protocols, and other mysteries of your RS-232 port.

NAMING FILES

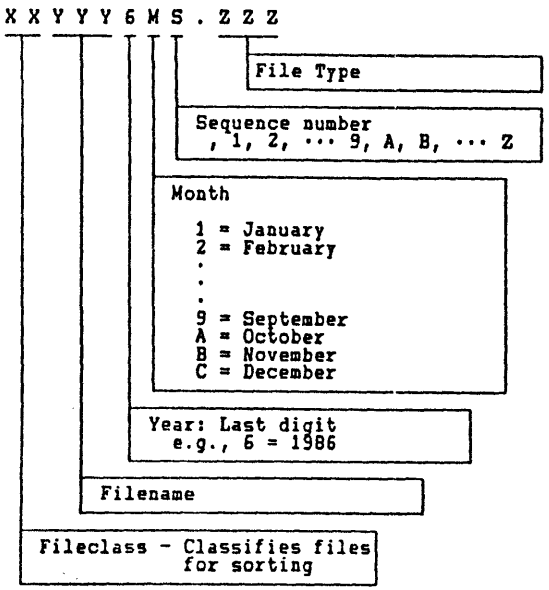
Some thoughts about naming files for easy recall

Richard A. Nelson

Whether data are stored on floppy disks or on hard-disks, with or without subdirectories, the short length of file names under CP/M and MS-DOS can cause some filenames to be very difficult to define. This leads to difficulty in finding documents when they are needed. There are software packages to help with this chore and there are naming schemes which can help.

The following scheme, if used with a sort routine to rank the filenames alphabetically, allows an orderly display of the files. Within each file group, similar files are sorted into chronological order. Three of the eight characters allowed for filenames are normally reserved, leaving five character names for use by the user, the first two of which are commonly used to keep groups together.

Files are named according to the scheme:



In some instances, the year and month codes may be combined for files which are "one of a kind." An annual budget spreadsheet might fit this type. The rules are used as a quide. The user can modify them as he/she goes along, keeping in mind how the directory will sort and how unique the filenames are.

To demonstrate how this might work, consider an MS-DOS directory sorted alphabetically by a person serving as the secretary for a DECUS PC LUG (Digital Equipment Computer Users Society, Personal Computer, Local User Group). This person has other files on the directory but a few related to the user group are displayed:

```
   .
   .
   .
DEDIR6B  LET  1024  11-12-86   8:49a  A letter to DEC DIRECT
DEDIR6B1 LET  1024  11-24-86  11:33p  A second letter to DEC DIRECT in Nov.
DESER69  PUR   768   9-14-86  11:22p  A purchase request to DEC for service
DUBUDGET SPR 11008  11-10-86   9:46a  Users' group budget spreadsheet for '87
DUGRM68  MIN   896   8-10-86  11:45p  Users' group meeting minutes for Aug
DUGRM69  MIN   768   9-08-86  10:44a  Users' group meeting minutes for Sept
DUGRM6A  MIN  1024  10-15-86  10:14p  Users' group meeting minutes for Oct
   .
   .
   .
DUSTA68  AGN   512   8-01-86   9:35a  Users' group steering committee agenda
DUSTA69  AGN   640   8-23-86  11:55p
DUSTA691 AGN   128   9-01-86   8:04a  A second meeting in September
DUSTA6A  AGN   768  10-03-86   9:55a
   .
   .
   .
DUSTM68  MIN  1280   8-21-86  10:52p  Users' group steering committee minutes
DUSTM69  MIN  1100   9-27-86   9:14p
DUSTM691 MIN   896  10-04-86  11:50p  A second meeting in September
DUSTM6A  MIN  1024  10-22-86   7:32p
   .
   .
   .
```

Where:

A	=	Agenda
AGN	=	Agenda
BUD	=	Budget
DE	=	Digital Equipment Corporation
DU	=	Digital Equipment Computer Users Society
GR	=	Group
LET	=	Letter
M	=	Minutes
MIN	=	Minutes
PUR	=	Purchase request
SER	=	Service
SPR	=	Spreadsheet
ST	=	Steering

Liebermann/ Suddeutsche Zeitung/ Munich

"What gets me is that the $50,000 computer I stole now sells for $69.98."

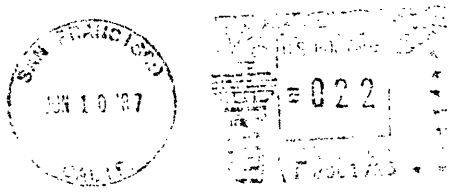
Nick/ Punch/ London

Bulletin Board System: (415) 981-3325. Hours on Weekdays: 6:00 P.M. to 8:00 A.M. Weekends/Holidays: 24 hours.

NEWSLETTER ARTICLES WANTED

Both articles and editorial help with the newsletter are needed. If you contribute articles or if you can help with assembling the newsletter, please contact a member of the steering committee.

San Francisco Bay Area DEC PC User Group
P.O. Box 12561
Northgate Station
San Rafael, CA 94913



FIRST CLASS

STEERING COMMITTEE

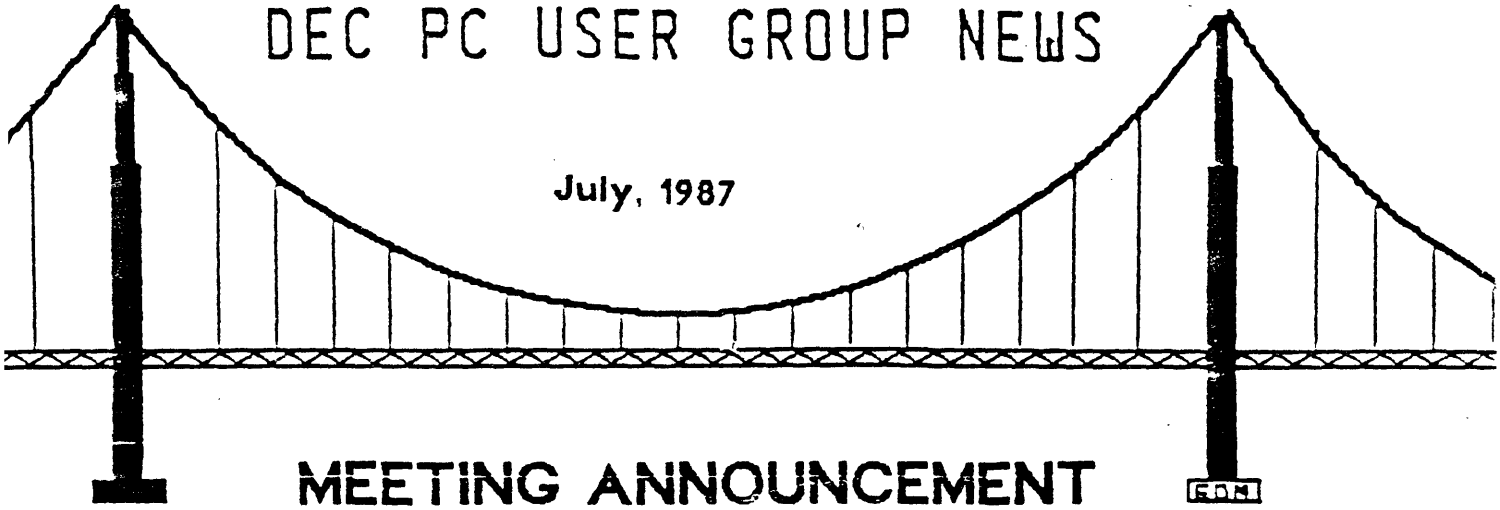
Chairman: Dale W. Miller, (415) 472-6531
Vice-Chairman: Glenn Bookout, (415) 664-6369
Rainbow Librarian and BBS Sysop: Kelly Cooley, (415) 981-3268
Members-At-Large: Richard Nelson, (415) 892-5536
William Roberts, (415) 397-4000
John Swallow, (415) 952-9200
DEC Counterparts: Alan Scarboro and Pierre Terrier

The LUG mailing address is: P.O. Box 12561, Northgate Station, San Rafael, CA 94913-2561

Phone Number: (415) 397-4000.

SAN FRANCISCO BAY AREA
DEC PC USER GROUP NEWS

July, 1987



MEETING ANNOUNCEMENT

DATE: Thursday, July 16, 1987

TIME: 6:30 P.M. to 8:30 P.M.

LOCATION: Digital Equipment Corporation
31st Floor Conference Room
101 California Street
San Francisco

TOPIC: Understanding the Mysteries of RS-232

Will Roberts will give a presentation on the RS-232 serial interface, including ways in DEC and non-DEC hardware can be interfaced successfully. This will be an excellent opportunity to learn about cables, pin-outs, handshaking protocols, and other mysteries of your RS-232 port.

PRE-ANNOUNCEMENT OF August MEETING

At the August meeting, to be held on August 20, Paul Jacoby of Tymnet will discuss information utilities, how they work and what they do. In past meetings we have learned about modems and data communications -- Paul will explain how to put these things to work in hooking up with the broad range of services available to your computer via phone line.

BACK IT UP!

Some comments regarding floppy based
personal computer security

Richard A. Nelson

1. General Description

In a small computer environment, be it for business use, professional use, or home use, it is important that security be provided to guard against the loss of hardware, software, and data. Every system manager has her/his own procedure.

Hardware loss can be due to theft, malicious damage, accidental damage, normal breakdowns through use, power failures, etc. A common method of safeguarding against major time loss in the event of a hardware loss is to maintain knowledge of a similar system where processing can be accomplished in an emergency while the hardware is being repaired or replaced.

Although software and data are both maintained on the same type media, usually some kind of disk, the manner of guarding against loss are quite different. Similar to hardware, losses can be due to theft, malicious damage, accidental damage, normal wear of disks, power failures, etc. The process for providing security varies a great deal. Copies of disks, called "backups" are the most common method of maintaining security against software and data losses.

As plans are made for storing backup copies of software and data, it is important to remember that any major catastrophy like fire or water damage would damage any backup which is stored in the same location as the original it was copied from. Therefore, true backup copies will be stored at a different location than the system.

2. Hardware Security

The normal means of protecting office equipment against damage or theft are sufficient for a personal computer, with one exception. When the personal computer is physically moved, the cardboard protectors which came with the computer should be put into the disk drives. If these are not available, "no good" disks can be used.

3. Software Security

There are many sources of software. Some is written by the manufacturer of the micro computer, some by a third party source, some by programmers willing to share their software in the public domain and some by the user. Backup schemes for each might vary, some requiring only minimal backup, e.g. public domain software, and others requiring extensive backup. Dictionaries developed in spelling checking, although data in nature, are usually stored on the disk with the word processing software. Likewise, word processing "boiler plates," "templates," etc. are usually stored on software disks. These disks, if they contain critical data, may be handled more like data disks than software disks. The extent of the backups will depend on the difficulty in replacing the software. This must be determined by the user.

BACK IT UP!

A good method of securing software is to use a system of three copies of each software disk:

a. When software is received, protect it immediately against being written over by placing a "read only" tab over the write-protect notch on the floppy disk. This disk is labelled as the ORIGINAL. After copying this disk onto another disk in step b, this disk is stored in some location other than in the area of the computer; at home, at the office, a commercial storage facility, etc. The intention is to never again use this disk. It is, however, available in the event of a major loss at the computer site.

b. A blank disk is formatted and labeled as the MASTER disk. The ORIGINAL disk is copied exactly onto this disk which is then protected with a "read only" tab. After it is copied in step c or d, this disk is stored away in the computer facility to be used if something happens to the working disk.

c. A blank disk is formatted and labeled as the MASTER, INSTALLED disk. The MASTER disk is copied onto it and any installation which the software requires to run on the hardware is accomplished, e.g. establishing modem control, controlling the printer, establishing the proper monitor format, etc. Many software packages are delivered "turnkey" i.e., ready to use, without further installation. In that case, this entire step is skipped and a MASTER, INSTALLED disk is not maintained. The user may choose to keep more than one installed version. An example would be a word processor configured for a dot matrix printer and another configured for a letter quality printer.

d. A blank disk is formatted and labeled as the WORKING disk. The MASTER or MASTER, INSTALLED disk is copied onto this disk. This disk is protected with a "read only" tab if practical. Many software systems write to and read from the program disk. In this case, the tab must be left off. This WORKING disk, now, is the disk which is routinely used for data processing. If anything goes wrong, the disk can be duplicated very rapidly from the MASTER or MASTER, INSTALLED disk, and very little work time will have been lost.

4. Data Security

Considering the safeguarding of data stored on disks, a rule of thumb which has survived from the days of large mainframes and extensive tape libraries says, "Save two generations and work with the third." These three generations were called the Grandfather, Father, and Son files, the Son file being the most current copy of the files.

This is still a good system to use for backing up data. It involves four disks, the three listed above in active storage and one in the machine. The disk in the machine is the disk upon which work is done. At regular intervals (at least daily) this disk is copied to the "child" disk in the storage cabinet. This assures against loss due to a "disk crash" during work. At some convenient major point in time (maybe at the end of some major data collection, or the end of the day) a final copy is made to the "child" disk. The next time a backup copy is made, the oldest disk (the "Grandparent" disk) is used and a new "Child" disk is started. What was

the "Parent" just before this has now become the "Grandparent." In this way, three disks are being rotated at regular intervals through three generations and the working disk in the machine is only newer than the shortest time interval (perhaps a few hours, or maybe a day) which has een selected.

It is important to remember that an interruption, including a power failure, inadvertently turning the power switch off, or carelessly deleting material, will destroy the information which is presently in the memory of the computer. Everything which has been done since the last time the information was "saved" on the WORKING data disk will be lost. If this is material which was "keyed" from paper work, the only loss will be the time it takes to repeat the effort. If, however, this is material which is being "composed" at the keyboard, the user will probably not be able to reproduce those thoughts again. Frequent backups are necessary by "saving" the information in RAM (random access memory) on a disk. A good practice is to "save" your work on the WORKING data disk about every 15 minutes. Some software can be set to do this automatically.

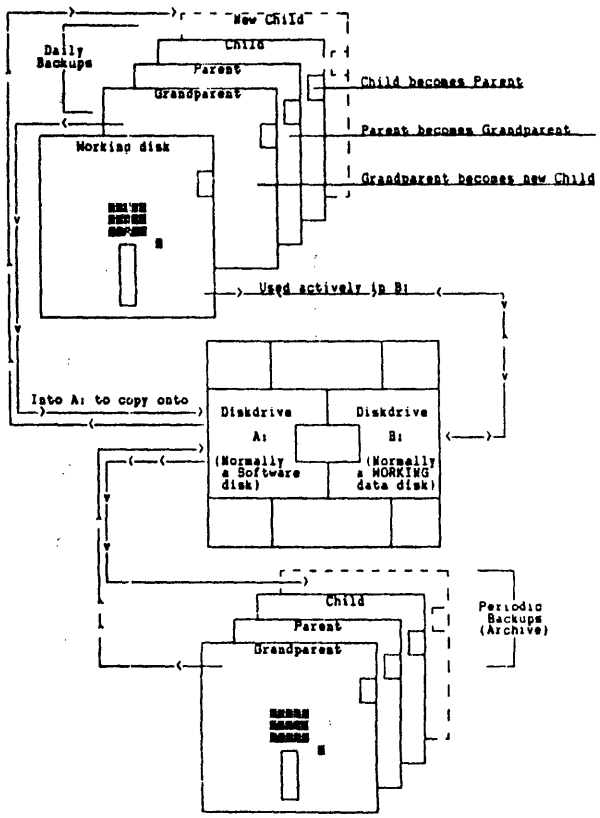
Duplicate copies of the backup files are made at regular intervals and stored in a separate storage facility, remote from the primary site of the microcomputer. This is done at a frequency which must be determined by the user, assuring that there is always data archived back a few weeks. The number of disks used for this varies by the distance back in time users may have to go. Frequently, problems which would require going back to old files will be found within a couple weeks. Under these conditions, it is probably sufficient to use three of these weekly archive disks, stored separately from the computer.

This procedure is applicable to major data collection and manipulations. If the user is doing minor modifications or is working with reports where the raw data are well backed up, it may not be useful to produce back up copies. Sometimes, a good backup is the hardcopy which is printed and filed for a project, e.g. letters. Disk backups are then not necessary. If, however, any of the information is going to be needed on disk, it will be very time consuming and error prone to re-key that data.

When a disk becomes "full" of data, and all redundant files have been deleted, it is time to establish a new WORKING data disk. The full disk is safeguarded with a "read only" tab and copied to the CHILD backup disk. Now the full WORKING disk is stored in the area of the facility. The CHILD backup disk is "retired" to archival storage away from the facility (probably with the ORIGINAL software disks). Two blank disks are formatted, one to become a new CHILD and the other to become a new WORKING data disk.

The general backup scheme for data disks is diagrammed following.

DISK BACKUP SCHEME for the RAINBOW 100



5. Backup a Floppy Disk on the Rainbow 100

   Assumption: Disk drive A: contains a software disk
   Disk drive B: contains a WORKING data disk to be copied

   a. Prepare to backup the WORKING data disk by acquiring the GRANDPARENT disk from the front of the backup set of disks.

   b. Execute the command A)DISKCOPY B: A: <RETURN>

   c. When directed on the monitor, remove the software disk and place the formatted GRANDPARENT disk in drive A:

   d. <RETURN>

   e. When directed by the monitor, end the DISKCOPY program by entering N

   f. Remove the copy from drive A: and label it with the current date with a felt tip pen.

   g. Place this new CHILD disk in the back of the backup set.

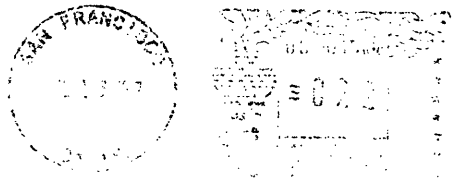
   h. Return the software disk to drive A:

Bulletin Board System: (415) 981-3325. Hours on Weekdays: 6:00 P.M. to 8:00 A.M. Weekends/Holidays: 24 hours.

NEWSLETTER ARTICLES WANTED

Both articles and editorial help with the newsletter are needed. If you contribute articles or if you can help with assembling the newsletter, please contact a member of the steering committee.

San Francisco Bay Area DEC PC User Group
P.O. Box 12561
Northgate Station
San Rafael, CA 94913



FIRST CLASS

STEERING COMMITTEE

Chairman: Dale W. Miller, (415) 472-6531
Vice-Chairman: Glenn Bookout, (415) 664-6369
Rainbow Librarian and BBS Sysop: Kelly Cooley, (415) 981-3268
Members-At-Large: Richard Nelson, (415) 892-5536
William Roberts, (415) 397-4000
John Swallow, (415) 952-3200
DEC Counterparts: Alan Scarboro and Pierre Terrier

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Phone Number: (415) 397-4000.

LUG NOTES

4 June 1987

Participation Invited for LUG Board

The board of directors of the RMVLUG is looking for volunteers to take over some of the anchor positions in the Users Group. Our secretary, Donna Santoro, at Banner Associates in Laramie has resigned after two years of excellent notes and submissions to the newsletter. Donna has volunteered to continue maintenance of the LUG mailing list. We are grateful for her support and appreciate the time and effort she has donated to the RMVLUG. We obviously need a replacement for Donna, and I look forward to a new recruit at the next meeting.

Kata Weber has been editing the newsletter for what must be a record time, at least 5 years that I am aware of. Because of her efforts, the RMVLUG newsletter has a national reputation for quality and creativity. Beth Pridgen has been coeditor of the newsletter for about a year, and is happy to continue in this capacity.

Kata deserves a break and I'd like each one of you to search for a few extra hours to donate to the LUG, once every three months. This volunteer will be responsible for soliciting contributions, entering and proofing submissions, and supporting the layout and actual newsletter production.

We also need to hear from the members with articles of general interest to our VAX-based community. It's been quite a while since I have seen articles from the members that regularly attend the meetings. Remember that we all learn from each other. The basic charter of the RMVLUG is the dissemination of information in a timely (and free!) fashion. We can use all managerial and technical information you care to contribute. There are many other members that can benefit from out shared experiences.

Now, onto the Chair position. I have been running this LUG as Chair for 3 years now, as secretary for the 2 years before that, and managed to find a zillion hours to spend making our Regional Conference a success. I find out that the RC effort has put me in temporary burnout, and that I, too, would like a break from LUG activities. I will settle for a temporary Vice-Chair, at least for the next six months, and will remain officially in office through December 1987.

Remember that the RMVLUG is successful only because of the dedicated and selfless donation of time and energy by volunteers. I know everybody is busy with work, family, vacations, and mowing the lawn. However, if we don't get some volunteers to at least lighten the load for the current board members, the RMVLUG could dissolve from lack of interest...So let me hear from all you...I know you look forward to LUG activities. The hard part is, if you want the LUG, you have to support it!

DECUS Has a New Date with STC

RMVLUG Meeting Agenda
Wednesday, 17 June 1987

8:30 - 9:00	Coffee and Donuts
9:00 - 9:30	Business
9:30 - 10:00	DECUS Nashville Highlights
10:00 - 11:00	TPU/EVE Interface
11:00 - 12:00	Novice Question and Answer
12:00 - 1:00	Lunch
1:00 - 2:30	Distributed Lock Manager
2:30 - 3:30	New Products Update from DEC

Storage Technology has graciously volunteered to host the RMVLUG meeting. STC is providing coffee, donuts and soft drinks to meeting attendees at no charge. A big thank you from the RMVLUG to Paul Webb and Richard Wiseman of Storage Technology for their hospitality.

Souvenirs A Mile Above the Rest

Regional Conference CUPS and T-SHIRTS are still available and can be purchased at the upcoming June meeting. Our locally designed and produced "Mile Above the Rest" long sleeved white t-shirts are $10, and the cat cups are $5.

June Kick-off for New Users Groups

ETHERNET USERS GROUP FORMING

A new Ethernet Users Group is forming in the Front Range area. Their next meeting will be held Monday, 15 June 1987 at 6 pm at Pritronix, 6675 S. Kenton Street, Suite 100, Englewood. The location is near the Centennial Airport (which used to have some other name--maybe Arapahoe County Airport?). Topics to be covered at the meeting include new stuff from the Spring COMDEX, and things you must know to install Ethernet (but might have been afraid to ask). The group includes users of Ethernets that have PCs on them, and Ethernets that contain no PCs. There is no charge for attending the meeting.

The meeting is being hosted and organized by Scott Henderson of Pritronix. Please call him at 799-9988 if you would like to attend, or need further information.

SPECIAL INTEREST GROUP FOR ADA USERS

It takes innovative ideas and progressive learning to push the ADA language beyond its conventional boundaries. A special interest group is forming in the Front Range area that will allow the exchange of information and encourage you to explore maximum technical expertise in the use of ADA. Individuals interested in sharing the challenge of advanced science and technology through ADA should contact Leo D. Wulf, CATHEXIS Corporation, P.O. Box 33614, Denver CO 80233; (303) 457-1424.

The ADA special interest group will meet on Thursday, 18 June 1987, from 1 to 5 pm in the Silverton-Durango Conference Room, Applications Center for Technology, Digital Equipment Corporation, 8085 S. Chester Street, Englewood, Colorado. Along with Wulf, Jim Lind, Pikes Peak LUG, and Jonette Burdine, DEC, are involved in helping the new group get started. Mark Reynolds will serve as DEC liaison to the group.

SOMEWHERE OVER THE RAINBOW

Another forum of interest is the Denver Rainbow Users Group which meets at 7 pm on the first Thursday each month. The meetings are held at Digital's offices, 8085 S. Chester St., Englewood.

For further information, contact their Newsletter Editor,

Jim Turner
Denver Rainbow Users Group
2993 S. Peoria St., Suite 390
Aurora, CO 80014
(303) 671-0800

RMVLUG Ushers in New Year

by Donna Santoro

Thanks to DEC liaison Mark Reynolds and Digital for their hospitality in hosting the January 6 meeting of the RMVLUG at the beautiful new DEC facilities on South Chester Street in Denver.

LUG BUSINESS

Beth Pridgen presided as LUG Chair. She conducted election of officers in which all of the current officers were unanimously re-elected. The officers of RMVLUG are:

Paula Sharick	Chair
Donna Santoro	Secretary and Membership Coordinator
Carolyn Cox	Treasurer
Wilma Fredrickson	Tape Librarian
Beth Pridgen and Kata Weber	Newsletter Editors

TAX REFORM AND YOU

Leonard Smith of Mile High Information Services spoke on the new tax reform laws and how they affect the employment status of consultants. The intent of the tax reform is to force equity between an independent consultant and the employer using the consultant.

Smith said that if you are a self-employed, independent contractor and you are hired by an employer, the employer must pay part of the FICA and other payroll taxes. If you are considered a regular employee then you cannot claim to be an independent contractor. An employee is told when to be present at the company and is given tasks in a supervised environment. An independent consultant or contract laborer, on the other hand, is a person given a task to perform and is told when the product is to be delivered.

NEW DECdirections

Dave Plumer entertained us with tales of DEC product development and types of technology being explored. Recording and note taking was prohibited during portions of his talk. The general impression he gave was that DEC has done well in the past year and is investing time and money in enhancements. He estimated that it took DEC innovators approximately four years from the endorsement of a product idea to delivery of the product. He envisions 1987-88 will be quiet years. 1988-89 will see a dramatic series of product announcements and enhancements.

RMVLOG... Questions & Answers with Dave Plumer

He indicated that there is a long-term commitment to VMS. DEC plans by 1990 to have the full equivalent of whatever IBM builds.

Plumer said that DEC is addressing the idea of water-cooled machines. Projected products look promising. The next VAX chip will be available during 1988-89, making the capability of the system using it about six times that of the 780. The chip could be cooled with liquid nitrogen, thereby obtaining 20 times the capacity of the 780. Dave felt that the challenge lay in manufacturing equipment at an affordable price. Dave foresaw an announcement in 1988 of Ethernet transmission on twisted-pair wire. Overall, the technology announcements are expected to expand equipment options, not make equipment obsolete.

Questions directed to Dave Plumer:

Q: What is the difference between an SCMP and an OEM?

A: SCMP stands for System Coop Market Partner. DEC cooperates in the sales efforts of these entities. DEC does not get involved in sales efforts of an OEM dealer.

Q: Within standards of database management, what commitment does DEC have to SQL development?

A: For very large tables, relational databases die of their own overhead--100 percent improvement is expected within two years.

Q: How is the PDP-11 to be integrated with the VAX family?

A: Plans are to integrate the RSX-based system software tools to get from the PDP-11 world to the VAX world, and beyond-DECnet clustering via RSX is expected within 1987.

Q: Where is DEC going with disk and tape drives?

A: The RA81 is already an historical artifact. 1987 announcements include the RA82 with Mean Time Between Failures (MTBF) of 20000 hours, and the RA90 with an MTBF of 35000 hours. The first announcement of optical data storage will be in 1987. It will be a write-once disk. Laser disks are thought to be achievable. Rewriteable optical disks are projected to be available in approximately one year.

Q: When you scale down hardware, how can you scale down the software to go with it--such as VMS on the Microvax?

A: The first step was MicroVMS. There is a need for multiple levels of VMS designed for specific purposes.

Q: What is parallel processing?

A: Parallel processing is many CPUs solving the same problem at the same time. One of the challenges is making the bandwidth wide enough to allow simultaneous processing. One way to solve the problem is with memory caches. Another approach is to use the technique of decomposition, wherein the problem is broken into independent pieces and the pieces are run simultaneously. Parallel processing is in the experimental stages so far.

QUESTION-AND-ANSWER SESSION

Once again, DEC's Al Meier helped answer many of the questions brought to the meeting by RMVLUG members. Thanks to Al for his support of this important feature of every LUG meeting.

Q: We have a DECserver 100 problem. They work when they initially arrive at our site but then ports go bad, etc.

A: DEC is pursuing the hypothesis that there may be a bad lot of DECservers.

Q: Why is the VMS upgrade harder to make on the MicroVAX than, say, on a VAX 780?

A: As more experience is gained on the MicroVAX the procedures should get better and easier to implement.

Q: Why does the documentation for the MicroVAX refer the user to the full set of VMS documentation while it does not have the same VMS capabilities?

A: Users expect VMS capability out of MicroVMS. It is too much to expect. For example, do not create save-set names longer than 17 characters long under MicroVMS. Also there is a bug in the routine "IOC$MAPUBASP". Don't use it--the device driver will run 1.2 MB slower. Patching VMS is the work-around.

Q: I have a problem loading our Virtual Terminal (VT) driver. What can I do?

A: The VT driver needs to be the first driver loaded.

RMVLOG...

Q: What can cause the DZs and DHUs to leave excess information on the port?

A: Check the TTY value for the time of hangup--sounds like a problem between handler and interface. The are no known bugs concerning this problem.

Q: Is it okay to remove CRC checking when doing backups? It makes backups run faster.

A: If backups are performed often and you have complete faith in the media, then it is okay. However, if the media fails, the backup gap will be unretrievable from the backup tape.

Q: How can I send messages to the an OPERATOR without the bell announcing the message?

A: The only way I can think of is to disconnect the speaker wire from the terminal. Also you can send only certain specific messages to operator terminals such as tape messages, etc.

Q: Should all VAX sites currently have VMS version 4.5?

A: Software distribution sent version 4.5 in December 1986. So yes, every site should have VMS 4.5.

Q: When users send mail to an invalid username, the mail does not get sent and there is no notice to the sender. Is there a work-around for this?

A: Look on one of the DECUS tapes for a program called DELIVER. It sends you a message back if mail cannot be delivered.

SOFTWARE POLICY CHANGES

Art Mann, DEC Manager of Software Product Maintenance Services answered questions and attempted to clear up misunderstandings about the change in the enforcement of the software licensing policy. DEC extended the date for the policy change to 1 March 1987. The new policy generally forbids the transfer of software licenses with the sale of DEC equipment. Art welcomes phone calls concerning software licensing issue. His phone number is (303) 649-3254.

Local Area VAX Clusters

In the afternoon, Mike Spratte, NOAA System Manager, gave a very informative seminar on NI (Network Interface) clusters (now known as Local Area VAX Clusters or LAVC). NOAA was a beta-test site for LAVC.

Required hardware

1. Boot member (only one) can be any VAX processor except VAX-11/725, VAX-11/730 and MicroVAX I
2. Satellite members (one or more) must be a MicroVAX II variant (e.g. MicroVAX II, VAXstation II, VAXstation II/GPX)
3. Satellite members may be diskless. This is a VAX/VMS version 4.5 feature
4. Ethernet interface (DEQNA, DELUA, DEUNA or DEBNT)
5. Transceiver cables
6. DELNI or Ethernet cable and transceivers

Architecture of the Local Area VAXcluster

1. Start with VAX/VMS
2. Replace CI interface and driver with Ethernet interface and driver and a new port driver (PEDRIVER)
3. Replace HSC and disks with VAX running MSCP server
4. Restrict configurations as required for performance and ease of system management
5. Provide remote booting capability for satellite nodes

Comparison of Interconnects

Feature	CI	Ethernet
Available interfaces	CI750, CI780, CIBCI	DEQNA, DEUNA DELUA, DEBNT
Nominal speed of interconnect	4 x 70 Mbps	10 Mbps

RMVLOG...

Comparison of Interconnects

Feature	CI	Ethernet	
Performance of interface	> 24 Mbps	DEQNA DELUA DEBNT	4 Mbps
		DEUNA	1.5 Mbps
Cost of interface (MicroVAX-II units)	1 (approx.)	DEQNA	1/10
		DELUA DEUNA DEBNT	1.5

Relative Disk Performance

Elapsed time, CPU time, and estimated I/O time for several cluster configurations; times in seconds:

VAX 8800 in CI-based cluster, with HSC RA81	3.50	0.37	3.13
VAX 11/785 in CI-based cluster, with HSC RA81	5.28	1.92	3.36
MicroVAX II in Ethernet-based cluster, with local RA81	5.22	1.86	3.36
MicroVAX II in Ethernet-based cluster, with remote RA81	7.55	1.95	5.60
MicroVAX II in Ethernet-based cluster, with local RD53	7.11	1.84	5.27

Mike compared the configurations of a CI-based cluster to the Local Area VAX cluster. He concluded that:

1. A LAVC solves many problems but not all of them. The LAVC is not a substitute for a CI cluster.

2. A CI-based VAXcluster solves many problems but not all of them. A CI cluster can become very expensive to use as a general solution.

3. If (and maybe when) CI and Ethernet VAXclusters are merged, perhaps all of our problems will be solved.

Hats Off to the Regional Conference

by Paula Sharick, LUG Chair

I would like to extend a GIANT CONGRATULATIONS to all the local LUG members who worked long and hard to make the Regional Conference a smashing success. Feedback from the 480 attendees was excellent for the most part, and Digital's participation really provided the anchor for the conference success. We had many great, entertaining speakers and we thank all of you for participating in the first RMVLUG Regional Conference.

Some of the constructive criticism we heard included:

1. Have more advanced, technical presentations

2. Have all the session rooms on the same floor

3. Schedule the Q & A sessions for late afternoon, not evening

4. Have track coordinators responsible for only one day of sessions

5. Add a keynote speaker

6. Possibly reorganize tracks along the following lines: VMS, Networking, Programming & Tools, Systems Managment, Wizard (at least one day), and possibly include a "B.V.--Before VAX, Why and What to Buy" session

7. Publish session notes

8. More tutorial talks

Any other suggestions would be welcomed. We have not yet decided to hold another conference in the future. Spontaneous participation by other LUG volunteers would certainly encourage the Regional Conference Committee in that direction.

FAME!

RMVLUG member Joe Nemec, Abacus Group, Boulder, was pictured and quoted extensively in the 20 April 1987 issue of Digital Review. Remember, there's not much difference between "noted" and "notorious."

VAX Conversion for Songwriter

THE PURPVAX THEME SONG

as printed in the Friday Update Daily, Nashville DECUS, with apologies to the Victim and the RSX PAC.

He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud on his VAX.

He's got DEC star couplers, on his VAX,
He's got Britton Lee, on his VAX,
He's got full DECservice, on his VAX,
He's got expensive crud on his VAX.

He's got VMS, on his VAX,
He's got Datatrieve, on his VAX,
He's got real-time, on his VAX,
He's got slow crud on his VAX.

He's got office automation, on his VAX,
He's got All-in-Fun, on his VAX,
He's got security up the yin-yang, on his VAX,
He's got Management on his VAX.

He's got VAX/Elan, on his VAX,
He's got ANSI DIBOL, on his VAX,
He's got RPG, on his VAX,
He's got useless crud on his VAX.

He's got gigundo disks, on his VAX,
He's got max warp speed, on his VAX,
He's got unlimited POOL, on his VAX,
He's got some decent stuff on his VAX.

He's got Hurkle and Adventure, on his VAX,
He's got Haunt and Dungeon, on his VAX,
He's got Rogue and Moria, on his VAX,
He's got production problems on his VAX.

He's got Fortran II, on his VAX,
He's got TOPS-10 emulation, on his VAX,
He's got Findonet, on his VAX,
He's got bizarre crud on his VAX.

He's got 1000 users, on his VAX,
He's got 40 LAT servers, on his VAX,
He's got the King James Bible, on his VAX,
He's got the whole world on his VAX.

He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud, on his VAX,
He's got lotsa crud on his VAX.

Did you hear the one about the DEC Field Service Rep who charged $20 for kicking a recalcitrant VAX to fix it? He said it really was only $1 for the kick--the other $19 was for knowing where to kick, and how hard.

VAX Highlights at DECUS/Nashville

by James M. Lind, Systems Engineering & Consulting, Inc.

This article contains notes taken by Jim Lind during several sessions at the Springs DECUS symposium in Nashville from 27 April to 1 May 1987. While accuracy of the information contained herein cannot be guaranteed, it is believed accurate per the particular session which is being critiqued. Personal comments have been withheld with emphasis on presentation of the facts as discussed in the meetings. The subject matter is primarily VMS systems, network products, personal computer supprt, and information on future projects and products with specific emphasis on performance data. Your comments on the content and presentation of this document are appreciated and may be forwarded to Jim Lind, C/O Systems Engineering & Consulting, P.O. Box 7850, Colorado Springs, CO 80933; (303) 632-7324.

(Editor's Note: A subset of the article is reprinted here. For more information on performance, Local Area VAXClusters, and Networks, request a copy of the original article from Jim Lind.)

1.0 VMS UPDATE (V072)

Volume Shadowing V1.1 requires VMS V4.5. A maximum of 7 shadow sets per HSC or pair of HSC's is now supported. VMS V4.5A is applicable for Local Area VAXclusters (LAVc); LAVc and DECnet VMS licenses are also required. Distribution of V4.5A started on December 1986. Up to 14 LAVc nodes may exist in any one Ethernet cluster and multiple LAVcs are supported on the same Ethernet, although bridging is recommended between clusters of systems. Up to 13 Satellite Nodes and one Boot Node are supported.

VMS V4.5B supports MicroVAX 2000 and VAXstation 2000 systems as standalone systems. VMS V4.5C allows MV2000 and VS2000 systems to be included in an LAVc. V4.5C is an update to V4.5A. Version 4.5C has just now started shipping.

It is important to note that when a MicroVAX or VAXstation is to be included in a cluster, full blown VMS is needed. Thus, if LAVc software is ordered, either V4.5A or V4.5C of VMS is needed, and as such requires that the distributed version of VMS for Local Area VAXclusters is standard VMS, not MicroVMS.

VMS V4.6 will focus on maintenance items but will still be a remaster of VMS and will include the items issued with VMS V4.5A, B, and C. It is estimated that V4.6 will be available in the July timeframe.

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VMS V4.5 is a maintenance release consisting of 105 separate updates. VMS V4.4 must be installed before a system can be updated to VMS V4.5. VMS V4.5 can be installed in a VAXcluster as either a rolling or concurrent update but VMS V4.5 cannot coexist in a cluster with VMS V4.3.

VMS V4.5 CI Port Driver:

The new version of the CI Port Driver Image (Version 7.0) fixes the following problems:

1. Miscellaneous Error 5, Internal Queue Retry Expired
2. Arbitration Timeout
3. Buffer Length Violation

One can identify which version of the microcode is running as follows:

```
$SHOW CLUSTER /CONTINUOUS
COMMAND> ADD RP_REVIS
```

The low-order word is the RAM version and the high-order word is the PROM version.

VMS V4.5 Permanent MONITOR Server Process:

Creating a permanent MONITOR server process on each member in a cluster at bootstrap can significantly reduce the startup time for MONITOR /CLUSTER commands.

To create a detached server process, add the following lines in SYS$MANAGER:STARTUP.COM:

```
$DEFINE /SYSTEM/EXECUTIVE_MODE -
$_ VPM$SERVER_LIVE TRUE
$RUN /DETACH/PAGE_FILE=10000 -
$_ SYS$SYSTEM:VPM.EXE
```

VMS V4.5 DMB32 Layered Product Support:

VAX 8200/8300/8500/8550/8700/8800 systems that include DMB32 communications processors must install the DMB32 layered product in order to use the SYNCHRONOUS port. This software is not included in the VMS Update Kit.

ULTRIX:

ULTRIX Version 2.0 now supports all VAXBI based systems with KDB50 connections to disks.

VMS V4.6 Update:

VMS V4.6 is focused on maintenance, but the kit has been remastered so it is a complete distribution. It is scheduled for Software Distribution Center in June and deliveries starting in July for the US.

1. VAX Volume Shadowing supports 3 member shadow sets
2. Local Area VAXclusters support up to 26 satellite members
3. Full 260 MByte memory support for VAX 8600 and 8650
4. Processor support for VAX 8250, 8350, and 8530
5. Support for up to 32 print queues
6. DECwindows integrated to VMS, ULTRIX, and MS-DOS
7. DECnet active logical link support increased from 32 to 128
8. IEEE 802.3 driver I/O support
9. DECnet improved downline loading support

VMS V4.6 SET TIME /CLUSTER:

The SET TIME /CLUSTER command will update the time on ALL nodes present in the VAXcluster to the specified time or to the time on the node the command is executed on if no time is specified.

VMS V4.6 AUTOGEN Enhancements:

A user specified startup file can now be defined in place of SYSTARTUP by using the symbol STARTUP in MODPARAMS.DAT. AUTOGEN will now calculate a value for QUORUM using either the current value or the initial cluster quorum. AUTOGEN now understands and manipulates secondary page and swap files in MODPARAMS.DAT. SYSGEN is still needed to install the secondary files in SYSTARTUP.COM, but the files will be created if they don't exist.

VMS V4.6 LAT/VMS Features:

The new Local Area Transport (LAT) software (LAT-PLUS) is once again included in VMS. It includes support for asynchronous printers connected to LAT terminal servers. The support consists of a new LAT port driver, LAT control program, and LAT print symbiont.

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VAX/VMS New Software Product Announcements:

1. VPA - VAX Performance Advisor
2. VAX Data Distributor
3. VAX SQL - Structured Query Language
4. SSU - Session Support Utility
5. VAX Software Project Manager

VAX/VMS New Version Announcements:

VAX ACMS V2.1
VAX Rdb/VMS V2.2
VAX DECalc V3.0
VAX TEAMDATA V1.1
VAX VTX V3.0
VAX COBOL Generator V1.1
VAX DBMS V3.2
VAX TDMS V1.7
VAX INFO V1.2
VAX Datatrieve V4.0
VAX DECalc-PLUS V3.0
VAX RALLY V1.1
VAX DECreporter V2.0
VAX SCAN V1.1
ALL-IN-1 V2.2
VAX COBOL V3.4

Misc. Information:

RMS journaling is alive again as a project announcement was made.

VAX 750, 751, and 785 final build dates were announced. These processors now join the 780, 782, 730, and 725 as dead VAXes.

1.1 New Layered Products for VMS

VAX Performance Advisor:

The VAX Performance Advisor (VPA) is a ruled based performance analysis tool that runs as a layered product on VAX/VMS. VPA gathers data from all nodes on a VAXcluster and identifies and reports possible performance problems which it substantiates with its data and recommends solutions to the problems. VPA is a new performance analysis VMS layered product that was announced at DECUS.

VPA analyzes system workload data and makes recommendations on how to improve performance. Support for both a single VAX or a VAXcluster is provided. Analysis of data can be performed from any VAX processor in a cluster. VPA identifies system bottlenecks as well as processes that may be using inordinate amounts of system resources. Users can request data to support recommendations made by VPA. Histograms of CPU utilization, physical memory usage, disk I/O, and terminal I/(for each node in a VAXcluster system ar(available. The user can define collectio1 intervals for automatic collection o1 performance data.

VAX Data Distributor:

Centralized storage of definitions, schedules, and status information. The

VAX Data Distributor syntax defines transfers, specifying the locations of source and target databases. It selects records and fields to extract and replicate. Data is transferred automatically through user- defined schedules or to execute the transfer on demand. VDD shows transfer and schedule definitions and status and performs automatic retry if network failures occur.

Database security is enforced on transfer, source, and target databases.

VDD requires Rdb/VMS V2.2 or later, MicroVMS or VMS V4.4 or later, and DECnet if the data distributor will be run on multiple nodes.

VAX Standard Query Language (SQL):

SQL is layered on Digital Standard Relational Interface (DSRI). It is designed for compatibility with other SQL products and may be used with remote as well as local databases. It includes an interactive DML and DDL utility. Support included for VAX COBOL, FORTRAN, and PL/1. Dynamic SQL can accept or generate SQL statements at run time. Finally, SQL can read or write metadata from the CDD.

VAX Software Project Manager:

Graphical, multi-user software development project management tool. Fully integrated planning, controlling, and estimating functions. Includes CPM, WBS, PERT, GANTT, and procedences and estimation based on Boehm's industry-standard COCOMO model.

VAX VT330 and VT340 Session Support Utility:

Allows a VT330/VT340 to operate two sessions over one wire. SSU runs under VMS V4.4 or later and runs on any valid VAX/VMS host configuration.

2.0 NETWORK UPDATE (N011)

DECnet-DOS V1.2 offers increased performance. Separate media and licenses are available now.

VAXmate V3.1 supports Async and Ethernet connections. DECnet VAXmate V1.2 is used in V3.1.

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DECnet DOS V1.2 runs on V3.2 of DOS. It supports the new DEPCA Ethernet card, the

IBM enhanced keyboard, as well as the DEC LK240 keyboard. Support continues for the 3-COM and MICOM Ethernet interfaces.

3.0 MICROVAX UPDATE (H041)

The KDA50 is now supported in the BA123. A new door in the back is needed to remain FCC compliant. The TU81-Plus can be placed in the BA123 also.

The DHQ11 will now replace the DHV11. It is an 8-line async board and will be available in June for upgrade/additions. The DHV11 is a quad, 4.5 amp DC board while the new DHQ11 is a dual, 1.5 amp unit. Both support the cable concentrator.

Currently supported boot members for the MicroVAX systems are the MVII, 750, 780 and any 8000 series system.

V2.0 of ULTRIX 32/32M merge ULTRIX into one product and supports the 8000 series systems.

MicroVAX systems are now sold in "Solution Systems" in LAVc configurations:

1. DJ630-P5 w/RA81, TU81+, DEQNA, and DHQ11.

2. DJ630-P1 as a diskless satellite member with BA23, 16MByte memory, DEQNA, VMS, LAVc, and DECnet included.

To upgrade a BA23 to a large MicroVAX cabinet configuration the H9642-JA, BA23-CC, and H3490 are required.

4.0 VMS FUTURES (V058)

In many cases it was not made clear as to which version of VMS that the following features or improvements may apply.

In the future all VMS distribution files will be contained in one kit with three tailoring classifications. "Tailor-off" will be used instead of the current "tailor-on" procedure for the MicroVMS functionality. In this way it will be assured that stuff not wanted can be easily removed.

High-water marking will be improved. Directory entry aliasing lists and the DIRECTORY command will be improved. BACKUP will be improved to "lockdown" the working set for standalone BACKUP, thus allowing for the removal of the BACKUP media during the standalone backup process. Multiple operations will be allowed in one boot of standalone BACKUP.

The terminal fallback facility is scheduled for improvement. DEBUG will also get several improvements, but details were not noted.

Clusters will have improved failure modes for UDA, KDA and BDA disk controllers. However, dynamic failover will remain a feature of HSC controllers. Both CI and LAVc (NI) systems will be allowed in the same cluster. Boot nodes can connect directly to HSC disks.

No software volume shadowing is planned. Mention was made of the LAVc HSC failover capability, which implies the possibility of direct Ethernet connection to the HSC. Server failover for LAVc will be supported if multiple boot nodes exist in the future.

Rolling upgrades are extended to allow mixed versions in a cluster. However, only adjacent versions of VMS will be supported. Not all features of the cluster may be available to mixed version installations, and less than optimum performance can be expected when operating in this state. The feature of rolling upgrades (mixed versions of VMS in a cluster) should not be a permanent state of the cluster. It is intended for new VMS version testing only and to provide for continuous operation of the cluster to minimize shutdowns during updates.

VMS V4.6 allows for more members per shadow set. LAVc is integrated into VMS but still works with a user key.

RMS journaling will be merged into VMS but will be activated by a key. Another key will allow for multinational support by VMS.

Indexed file access performance has been improved. RMS execution monitoring is supported, and screen management is improved. New time services formats are provided for the manipulation of system time.

AUTOGEN is improved to allow for sizing of the system to a particular application workload. A snapshot is taken during user program execution, and AUTOGEN uses this data to suggest parameter improvements.

BATCH/PRINT performance is substantially improved. ACL's are supported on queues. The que SHOW ENTRY, F$GETQUI, and improved SHOW QUE are added.

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LAT support for two Ethernets w/information on server trerminals is added. The SHOW TERMINAL command for terminal servers now gives terminal and server ID information. the LTDRIVER, LATCP, and LATSYM now come with VMS as of V4.6.

The DCL if-then-else construct is added. The RECALL/ERASE for the command queue is used to erase the recall buffer. TPU is improved to support the WPS keypad with improved wrapping. MAIL is supported as a callable utility. Others utilities may also be supported in this manner.

DECnet proxies are improved, and the NCP multiple command recall is added. VMS system management will be redesigned in the future with a cluster-wide view of managing clusters.

5.0 TERMINAL SERVER OVERVIEW (N007)

The Personal Computer can now act as a service when connected to a terminal server. PC-to-PC connects via connections between different servers or within a single server are supported. The PC can still connect as a terminal on a server.

The DECserver 100 software is currently at V1.3. It supports printers on VMS and local (non-modem) connections only.

The Ethernet Terminal Server (DECSA) supports printers, functions as a service node, and has full modem control on terminal lines.

The DECserver 200 software is at V1.0. It has the same capabilities as the DECSA unit and represents Digital's preference in the terminal server line. It is expected that the DECserver 100 will soon be discontinued by Digital in consideration of the improved capabilities of the DECserver 200.

The MUXserver 100 software is at V2.0. This unit supports up to 16 lines with two remote mux units.

LAT-plus is currently at V1.2 and is now packaged with terminal servers. However,

as of V4.6 of VMS, it will be packaged with VMS. The standard LAT is currently at V5.1. Multiple threaded print software with up to 32 print streams per process are supported in the future.

The Terminal Server Manager (TSM) V1.0 supports all the above items and can be run interactively or with command procedures. LAT is currently supported in RSX, ULTRIX, TOPS 10/20, PRO, DECnet-DOS, and VAXmates.

14.0 FORUM ON SOFTWARE LICENSING & DISTRIBUTION (BA060)

This session was concerned with the results of the past blunders which DEC made in changes to the software licensing "policies". Also discussed were concerns over the manner in which future policies will be documented and implemented by Digital.

Digital reported that the changes in licensing policies that were prematurely announced at the Fall 86 DECUS were intended to increase software mobility within the "Corporate Group" of the customers. It was mentioned that now Digital defines the operating system to be bound to the hardware and may move with the processors as they are bought and sold. It is also felt that the network may be considered part of the operating system, although as with every other aspect of this problem, there is no written guidance in this entire area.

As previously announced by Digital, layered products may be moved within the Corporate Group but not between companies. The "Software License Redesignation Form" is used to move layered software from processor-to-processor within the Corporate Group. Multi-copy forms are available from Digital to perform this action. The "Software License Redesignation Form" verbiage is as follows:

"This form may be used to redesignate software licensed by Digital for the following:

(A) Layered product licenses to the same or lower price tier within a Corporate Group (within the US).

(B) Layered product licenses to a higher price tier within a Corporate Group (within the US); A purchase order must be submitted as well.

(C) Operating system and layered product with the processor within a Corporate Group (within the US).

"The form must be signed by both the INITIAL USER and the NEW USER in the designated sections. For (A) and (C), please send this form directly to your local Digital office in care of SPS Administration. For (B), please contact your Digital Sales Representative for a quote for the difference in license prices. Please submit this form with your purchase order. Please submit license certificate for this product, if available, with this form. Contact SPS Administration at the local Digital Office for information concerning the completion

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or Administration of this form or if you do not receive written acknowledgement of this form."

When processors are bought and sold, the operating system license may be "transferred" (as opposed to redesignated as is the case for layered products). The verbiage of the "Software Relicense Form" is as follows:

"This form must be used by customers who are selling a Digital processor and wish to transfer the operating system software licensed from Digital with the processor (within the US). It must be completed and sent to Digital in order that the new owner of the processor is licensed and registered correctly with Digital. This form is not to be used for layered software products or software under Periodic Payment License (PPL). The seller of the processor completes and signs applicable sections, and presents form to the buyer of the processor. The seller retains the seller copy. The buyer completes and signs applicable sections and sends the form to their local Digital office in care of SPS Administration. The buyer retains the buyer copy. Information concerning the completion or administration of this form can be obtained by contacting SPS Administration at the local Digital office."

It was noted that PPL licenses can be redesignated within the Corporate Group. Personal Computer Licenses remain unchanged from that which is stated on the "Shrink Wrap" license which is delivered with the PC software.

Digital Third Party Licenses sold by Digital are subject to Digital policies (which remain mostly unpublished at this time). Jointly marketed, Digital certified third party software sold by other than Digital are subject to restrictions as specified by the third party.

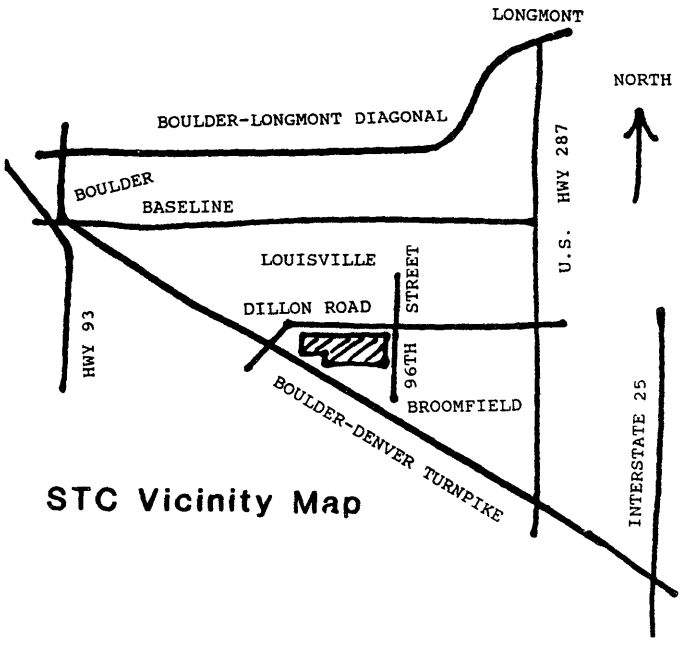
Original Equipment Manufacturers (OEM) can sublicense but not transfer Digital licenses. They will invoke true sublicenses. However, OEMs can relicense operating systems on tradeins as the terms of the "relicense" policies then apply to OEMs also.

Layered products may become registered in the name of the end-user for temporary use by prime contractors if so specified at the time of order. Exactly what constitutes a "prime contractor" was not discussed. It was reported that the "software Distribution Handbook" will list policies along with information on other modes of distribution.

It was reported off-line that the OEMs can sell layered products to end-users for CPUs which they themselves did not sell. This is completely contrary to what has been communicated to OEMs in Colorado by the Denver office. It was unclear what part "System Integrators", "Value Added Resalers", and others not recognized by Digital play in the newest, unpublished policies affecting the movement of software licenses.

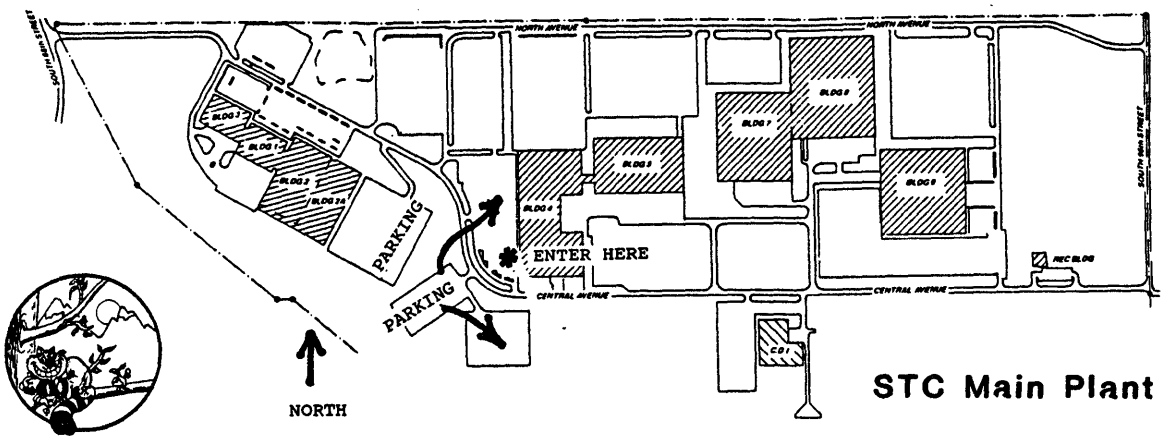
Digital was unable to comment on questions regarding where one could read about Digital software licensing policies. Also, concerns over the transfer of software no longer supported or sold by Digital were raised. In this case, Digital felt that an exception to the stated policies would by allowed. However, one thing remained clear, Digital was not interested in the possibility of transferring layered product licenses.

In summary, many attendees pointed out that Digital does not have their act together in this entire area of software licensing policies. Digital generally agreed. Also pointed out time and again was the complicated nature of the stated policies, which leads to misunderstanding even at the Regional level within Digital's own Corporate management. A simplified policy which allows for the transfer of all licensed software was suggested as the only way of providing for a consistent, manageable situation which is understandable by something less than corporate lawyers. In the meantime, it was requested that Digital expedite the publishing of policies so that the user community can at least be informed of what the rules of the game currently are. Digital agreed to take action in this area.



STC Vicinity Map

Storage Technology hosts RMVLUG on June 17, 1987 - Bldg 4



STC Main Plant Map

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LUG NOTES

If the news don't fit, we squinch it.

December 1987

Scores of new attendees flood September LUG meeting at DEC

by Michele DeWitt-Rice, RMVLUG Secretary

The September 29, 1987 RMVLUG meeting took place at the Digital Equipment Corp. offices on South Chester Street. We appreciate the use of their facilities, and the food was great! Paula Sharick chaired the lively meeting.

RMVLUG Business

There were between 26 and 30 new attendees at this meeting--depending on who was counting. Richard Wiseman of Storage Tek was recognized for being selected to give a talk on TPU in December at National DECUS. Rumor has it that Disneyland will be rented for an evening for the DECUS attendees instead of the usual cocktail party. Aside from Disneyland, another plus for National DECUS is that it is a good place to network with your peers and attend seminars on every aspect of DEC computers.

Volunteers are needed to help out with the Regional Conference. If you are interested in helping there is still a place for you!

Karen Zimmerman, our new DEC liaison, was introduced. There was a cameo appearance by our former liaison, Mark Reynolds. Thank you for all your help in the past, Mark!

DECWORLD

Craig Blasingame, DEC Networking Consultant, described the wonders announced at DECWORLD at Boston's World Trade Center in September. It was quite the spectacle and many significant new products and upgrades were introduced.

The new products are divided into three groups: New Processors, Networking, and Workstations. (Recently DEC has been announcing new products at the astounding rate of one every three days!)

New Processors: The 3000-series MicroVAXen take advantage of CMOS technology. The 3500 and 3600 MicroVAX have three times the performance of the MicroVAX II. It can use twice the memory that a MicroVAX II can (32 Mb) and is able to handle up to 26 nodes with two boot nodes. It has a Q-bus backplane to be compatible with readily available storage devices. The All-in-1 office application product is now on a chip!

The good news is that the 3000-series processors can handle twice the number of users a MicroVAX II can and are claimed to run at 2.7 times the speed of an 11/780. The bad news is that your MicroVAX II is not upgradeable at this time.

Workstations: VAXstations are now also making use of CMOS technology. The 3200 and 3500 may operate in VMS or Ultrix environments. They have a new high-speed graphics board.

Networks: One big announcement is that Ethernet may be run on twisted pair. Network Management now bundles the tools into a single new format, the emphasis being on realistic remote system management.

There is now expanded capability for management of voice, data distributed systems and support for multi-vendor networks using international standards.

Keep them clean

Paula Sharick, Wildwood Associates, gave a presentation on using expiration dates to help with disk management. Following are abbreviated notes from the talk. She has also submitted a full-length newsletter article, which is printed in its entirety elsewhere in this issue.

If you do a "$ DIR/FULL" on a file, you will probably see "EXPIRATION DATE: NONE." File management using expiration dates is a little used feature that may help you manage your disks much more easily. It works well in many environments and for all types of files.

To set the expiration date on a file, type "$ SET FILE/EXPIRE=date". The file does not automatically go away after the expiration date. If the file is accessed after the expiration date, the date is updated n days to the future. The "n" days are set in "$ SET VOLUME/RETENTION". Accesses that reset the expiration date include being opened with a read or write to that file, or RUN or EDIT. Using DIR or BACKUP does not affect the expiration date on a file.

So, the expiration date is set on the file. Now what?

"$ BACKUP/EXPIRED/BEFORE=TODAY/DELETE" will back up the files to tape or disk and delete the files. Be sure to hang on to that media long after everyone has said that they will never need that file again!

Make sure that ALL files for a disk have some expiration date, because the first time that the BACKUP/etc/DELETE process is done it will delete all of the files with "NONE" dates. The command is "$ SET FILE/EXPIRE=nnnnn *.*.*". Be sure to turn on BYPASS privilege before SETting all files.

To get a list of all expired files before the delete is done, do "$ DIR/EXPIRED/SINCE=TODAY". It is nice to notify the owners of the files before obliterating them.

An attendee noted that there seems to be a problem with using these techniques on C-Calc and Word II files.

Question and Answer

Q. I keep getting "No Such File" errors on BACKUP. What does this mean?

A. "No Such File" means that there is a File ID problem on the disk. "$ ANALYZE/DISK" will clean up the disk. Read the manuals or do "$ HELP" for more information.

Further, "$ ANALYZE/DISK/REPAIR/CONFIRM" should be run *TWICE* to uncover all of the problems on a disk.

Q. When running DECalc I am getting numerous versions of a file. How do I control that?

A. Set version limits on existing files and directories to limit newly created files: "$ SET FILE/VERSION = n filename" and "$ SET FILE/VERSION = n dirname.dir".

Q. An earlier RMVLUG newsletter said to call the local DEC office for DECserver 100 and 200 patches. This does not seem to be the case.

A. Call CSC instead. They now have the 4.6 LAT-plus patch.

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	Kata Weber	(303) 273-3448

Q. What does Image Accounting keep track of?

A. It records each time a particular image exits in the system accounting file. This is useful for capacity planning, and essential for security in some environments.

Q. I seem to have a process still hanging around on a process that got there through "$ SET HOST" and is now logged out. It seems to be using a lot of CPU on the remote system. What can be done?

A. Write an SPR. That is not supposed to happen. Take a good look at the application. Is there something in the LOGIN.COM that may spawn itself ad nauseum? Be careful of captive accounts for the same reason. These processes may take over CPU and I/O and shut down the network, but it is because of the application--not something mysterious within DECnet.

Q. On a cluster, when I do "$ SHOW DEVICE D..." the available disk size is not correct. I may have up to 500,000 blocks missing.

A. This may be a cluster problem having to do with the fact that size does not always mean size. Size really means "USED/ALLOCATED". There may be much more allocated than is being used. This may be useful, as in pre-extending files for optimization, or may be a mistake. An SPR has been sent in.

Q. What is the group experience with WATCHDOG from the VAX SIG tapes?

A. WATCHDOG is supposed to kick users off a system after a certain period of inactivity. Be careful with off-the-shelf programs unless you have looked at them and understand what they will do to your unique environment. Make sure that any process that kills other processes does it in an orderly fashion. AUTOLOG seems to work well. (At the School of Mines, we use BOUNCER, which we got off a DECUS tape and to which we made some modifications. You should look at which parameters the program uses to decide a process is idle. We also made it possible for certain users to be declared immortal by giving them a rights identifier, but of course that should be granted judiciously or the the purpose is defeated.)

Q. What about online disk defragmentation programs? Does DEC have one or do we need to go to a third-party vendor?

A. DEC does not have any such product available. (See the related article in this newsletter for a review of some available products.) The September "Hardcopy" has an article on this issue discussing SQUEEZPAK, Rabbit-7, Juicer, and DISKEEPER. The main thing is to make good backups before testing any new product and be organized in making sure all files still exist after testing.

Q. Any substantiation to rumours that VMS 4.6 has uncovered DEQNA problems?

A. Make sure your field engineer has your hardware up to Rev Level E1.

Digital's Customer Support Center

The afternoon was given over to Bruce Johnson, Joe Venturella and Jill Bolan of the Customer Support Center. Most of us have needed to call the CSC at one time or another and

these three representatives gave a fine talk on the inner workings of the CSC.

Bruce Johnson

Beginning in 1977, DEC founded the Digital Diagnostic Center to handle its customers' problems by telephone. In 1979 this organization became the Telephone Support Center (TSC) and in 1983 the Customer Support Center (CSC) was created. During these transitions the trend moved away from "repair" mentality to "prevention," and from hardware expertise to systems expertise, and from options diagnosis to systems diagnosis.

The biggest impact has been changing the style of support from handling batch processing to handling on-line processing. On-line processing demands quick solutions to problems and the CSC is available 24 hours a day, seven days a week.

The goals of the CSC are to provide for their customers: (1) uninterrupted access to applications; (2) highest possible user productivity; and (3) satisfaction in DEC products. CSC handles an average of 3800 calls each day. Eighty-five percent of the calls are closed within 45 minutes. The software specialists to whom we all talk have an average of six years with DEC, while the hardware specialists average 11 years with DEC.

Q. After calling in discussing the problem with a specialist, why are we sometimes put on hold for a long time? What about call referral?

A. The procedures for handling problems new to a specialist are in flux right now. We try to have the specialist handle the problem from start to finish. We call this "Continuous Effort." If a problem needs research, the specialist calls back after immediate research.

Q. Why are we asked for our access code and name several times before we can talk to someone who can help with a problem?

A. This should be reduced in the immediate future, except for networking problems.

Q. Who and what decides when a call is closed? When the user is satisfied or when DEC is satisfied?

A. Both. However, we are doing monthly surveys to find out if this system is working. If you have a specific situation call the CSC and let them know about it.

Q. What should we do if we have a need to call CSC with a problem but we have a new system and the paperwork has not been completed, so we do not have an access code?

A. The first call will be handled as a courtesy. After that, the database is checked. Check with the manager on duty. Also, talk to your sales representative about getting the paperwork in order.

Q. Is it necessary to own a computer to get customer support?

A. The contracts are all sold on a per CPU basis. Right now, the system is geared to use CPU serial numbers.

Joe Venturella, VMS Group Senior Consultant

There are three types of Software Product Services (SPS) contracts. Self-Maintenance provides SPR service, updates, and publications. Basic Maintenance provides all of the above plus telephone support and DSIN. DECsupport provides all of the above plus help with installation and an account representative.

Telephone support is eighty percent advisory. The other twenty percent is made up of activities called conformance--a real bug in the system has been found and this leads to an SPR; and remedial--handling things like systems that are down, or corrupt files.

The DSIN (Digital Software Information Network) allows users to have access to DEC data on in-process system solutions. Product Flash messages and programming examples are also available. It is possible to submit problems directly to the administration system. Here, a specialist will do research and send the solution back through DSIN or via the telephone.

DECsupport offers customized software installation assistance. This may save time when there are layered products involved. An account representative is available for on-site remedial help for software. This is the most valuable aspect of DECsupport. This representative is the single point of contact for problem management, and will also make proactive calls: "How are things today?"

The following SPS products are supported by the staff in Colorado Springs:

- Operating systems: RSTS, RSX, VMS, ULTRIX
- Layered products: all languages, database, application development, and selected third-party products
- Network products

Problem-solving teams are made up of specialists, consultants, and field testers. Specialists have an average of six years of experience with DEC products. They help route the call to the correct person. Consultants have more expertise and specialize. The field testers handle behind-the-scenes testing of VMS and layered products.

Q. Who handles calls for the MicroVAX 2000?

A. VMS.

Q. How fast is the response time once a problem gets to engineering?

A. It depends on the work load of the engineering groups and the priority a problem is assigned.

Q. Does a problem for CSC always go to a more junior person before a senior person is called in?

A. It depends on the group. Some situations require a senior person initially.

Q. What should we do when we get an obviously new person who is not being of any real help?

A. Be frank and tell them you need someone else or ask for a manager.

Q. How detailed do we get with a problem to get to the right person?

A. That is difficult to answer. Just keep trying until you get to the right group.

Q. Is there a specific DCL group?

A. There is BACKUP and then generic DCL.

Q. If a problem gets bounced between groups how much information is available between groups?

A. Since June, everything is documented in one administrative system. Be sure to ask for the log number if the rep doesn't give it to you. This is how the situations are tracked.

Q. Do reps only try to call back twice?

A. Not now. This was true six months ago, but now the rep will try multiple times the first day and second day. If no connection is made by this point a note will be sent in the mail.

Q. How do we handle escalation of a problem?

A. If you don't like the way a situation is being handled ask for a manager. Managers are available 24 hours a day, seven days a week.

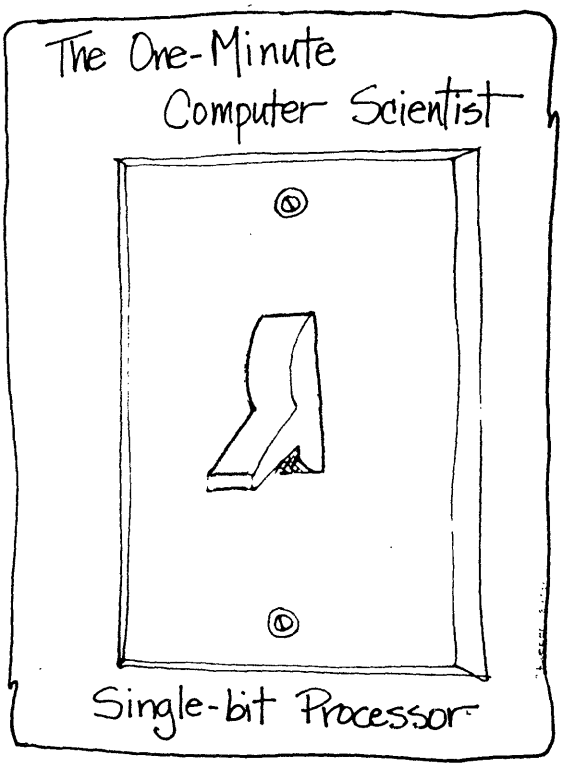
Jill Bolan, RDB Engineer

Hardware product services handle problem analysis, diagnostic testing, preventive maintenance assistance, and verification of system integrity after corrective maintenance. The number is 1-800-525-6570.

VAXSIM is the VAX System Integrity Monitor. This monitors the condition of VAX systems and gives timely notification of device problems. It is also used to schedule system maintenance. The goal is to reduce and/or schedule down time.

SPEAR is the Standard Package for Error Analysis and Reporting. It isolates the causes of system problems. This database helps to improve field engineer "call-outs" and provide fast and consistent diagnosis.

Q. How are third-party disk drive problems handled?



A. DEC now supports a mixed vendor database.

Q. Does SPEAR or VAXSIM support Ethernet?

A. SPEAR handles some aspects of Ethernet.

Using expiration dates and retention periods to keep your disks clean

by Paula Sharick, Wildwood Associates

If your shop is like most, you can browse through the disks and find lots of files with creation dates of two or more years ago. You can also find a multitude of tiny word processing files and other memorabilia created for a single report and never used again. You may purge files to a single copy at logout, or after backups, but files still proliferate. Even after a master purge, there is no guarantee that many of the remaining files hold anything useful, or will be used anytime in the near future!

There is a nifty solution to this problem using file expiration dates and volume retention periods.

What is an Expiration Date?

RMS maintains several time/date fields in the file header. Expiration date is one of them. Expiration dates are defined with SET FILE/EXPIRATION. Files can be selected based on expiration date, using the /EXPIRED qualifier with either /BEFORE or /SINCE with most file manipulation commands.

Expiration dates are not useful by themselves. Once an expiration date is set, it is NOT propagated to higher versions of a file, and RMS does absolutely nothing with expiration dates unless a volume retention period is defined.

What is a Retention Period?

Retention periods apply only to disk volumes (single or bound), and are used to control how long unused files remain on disk before they expire. When a disk has a retention period defined, a maximum time period is established for storage of all files on that volume. RMS keeps track of all file activity and automatically updates the expiration date when a file is opened for either read/write access.

After a retention period is defined, a file with NO read/write activity expires when the first expiration date arrives. If the file has activity, the expiration date is automatically extended to the date defined by the retention period. The result is that files used "often enough", however you define that, never expire. Those that sit dormant for long periods of time expire. You can then use the /EXPIRED qualifier with any of the file manipulation commands and/or the BACKUP command to remove these files from the system.

The SHOW/DEVICE/FULL command displays the volume retention period if one has been defined for that disk. Retention information appears on the last line of the display, as shown in the example below. Intervening information lines of the SHOW/DEVICE display have been omitted.

$ SHOW/DEVICE/FULL 1DUA52:

```
Disk $1$DUA52: (HSC014), device type RA81, is online, mounted, file-oriented device,
shareable, available to cluster, error logging is enabled.

Error count          1    Operations completed      325129
Owner process        "    Owner UIC          [A000000,SYSTEM]
Owner process ID 00000000 Dev Prot S:RWED, O:RWED, G:RWED, W:RWED
Reference count     18    Default buffer size          512
Total blocks    891072    Sectors per track             51
Total cylinders   1248    Tracks per cylinder           14

...
Min ret. period (days)    180   Max ret. period (days)      180
```

When volume retention is active, the most common way to check on expiration dates is using one or more flavors of the DIRECTORY command.
$ DIR/FULL file-spec
$ DIR/EXPIRED/BEFORE = date-time file-spec
$ DIR/EXPIRED/SINCE = date-time file-spec

The date-time value is used to select files with an expiration date that matches the value. The most common use of this command is $ DIR/EXPIRED/BEFORE = today. If file expiration dates have NEVER been used, $ DIR/EXPIRED/BEFORE = today will return all files. The reason for this is RMS initializes the expiration date to zero, which is interpreted as EXPIRED. This is a potential "gotcha," so be careful!

Examples of DIR/EXPIRED

In these examples, files expired in October also show up in the November and December expiration list.

$ DIR/EXPIRED/BEFORE = 1-OCT

Directory 1DUA52:[MIS.PAUSHA]

```
LETTER.RNO;2      LETTER1.MEM;2     LETTER1.RNO;3     MONITOR.COM;1
MONSUM.COM;1      PRIV.RNO;1        PRIV1.RNO;1       STORY.LIS;5
STORY.MEM;1       SUBMON.COM;1      TTPRINT.COM;4     TUNING.MEM;2
TUNING.NOTE;4     VMS44NOTES.LIS;1
```

Total of 14 files.

$ DIR/EXP/BEFORE = 1-NOV

Directory 1DUA52:[MIS.PAUSHA]

```
CLUSTER.RNO;1     COB.MISC;1        LETTER.RNO;2      LETTER1.MEM;2
LETTER1.RNO;3     MASTERDEL.COM;2   MIS1.LOGICALS;1   MIS3.LOGICALS;1
MONITOR.COM;1     MONSUM.COM;1      NET.RNO;2         NETWORK.RNO;1
PRIV.RNO;1        PRIV1.RNO;1       SHO.RNO;4         SHOCLUS.LIS;1
STORY.LIS;5       STORY.MEM;1       SUBMON.COM;1      TTPRINT.COM;4
TUNING.MEM;2      TUNING.NOTE;4     UAF.FDL;1         VMS44NOTES.LIS;1
```

Total of 24 files.

$ DIR/EXP/BEFORE = 1-DEC

Directory 1DUA52:[MIS.PAUSHA]

```
CLUSTER.RNO;1     COB.MISC;1        INFOCOM.BAS;1     LETTER.RNO;2
LETTER1.MEM;2     LETTER1.RNO;3     MASTERDEL.COM;2   MIS1.LOGICALS;1
MIS3.LOGICALS;1   MONITOR.COM;1     MONSUM.COM;1      NET.RNO;2
NETWORK.RNO;1     PRIV.RNO;1        PRIV1.RNO;1       SHO.RNO;4
SHOCLUS.LIS;1     STORY.LIS;5       STORY.MEM;1       SUBMON.COM;1
TTPRINT.COM;4     TUNING.MEM;2      TUNING.NOTE;4     UAF.FDL;1
VMS44NOTES.LIS;1
```

Total of 25 files.

Selecting a Retention Period

To establish retention periods on your system, select each drive where (unused) files tend to accumulate and cause space shortages. Answer the question, "How long should a file remain unused on this drive before it can be backed up and deleted?"

On word processing disks, files propagate at an amazing rate. You might select between 14-30 days as the expiration period for files on such a disk. On development disks, programmers tend to hoard files for much longer periods of time, so a retention period of 3-6 months is more appropriate. Large applications may require a period of 12 months to adequately protect master files.

Enabling Volume Retention

Once the retention period is selected, you activate it on a volume by volume basis using the SET VOLUME command:
$ SET VOLUME/RETENTION = (Min, Max) device-spec

Min and Max define the minimum and maximum time a file can hang around with no activity, before it "expires." The Min and Max values must be expressed as delta times, because they are interpreted as days from the current date.

Assume the minimum value is 14 days and the maximum is 90 days ($ SET VOLUME/RETENTION = (14-,90-)). When a file is created, the expiration date is set to the current date plus MAX (today + 90 days). The next time the file is accessed, if (MIN + current date) is less than the expiration date, no change is made. If (MIN + current date) is greater than the expiration date, the expiration field is updated to (current date + MAX).

In generic terms, any file created on this volume must be used at least once in the next 90 days for the expiration date to be extended. Otherwise it will expire. You can get a much finer granularity on file expiration if you use between 7-30 days for both MIN and MAX values (7-,7-) or (30-,30-). With (7-,7-), a file must be used once/week or it will expire. In the second case, a file must be used once/month or it will expire.

If you use a very fine granularity (something like 24 hours), you are introducing substantial overhead from RMS, as the expiration date may be updated more frequently, possibly with every file access.

When you activate a volume retention period, all new files created, and all existing files that are ACCESSED will be included in expiration processing. Old files that are not accessed, for whatever reason, will continue to have NONE for an expiration date. This can cause trouble the first you try to use BACKUP/EXPIRED/DELETE.

RMS and Expiration Dates

When does RMS update the expiration date? RMS does absolutely nothing to expiration dates unless a volume retention period is defined. With volume retention, RMS examines the expiration date anytime a read or write is done to the file. Type, Copy, Rename, Edit, Print, and Purge all open a file and thus update the expiration date. Remember, however, the DIRECTORY command does NOT open a file and thus does NOT update the expiration field. BACKUP also does NOT update the expiration date because it uses QIOs, instead of RMS, for file processing.

You can get a date in the expiration field of old files (files that existed on the disk before you defined a retention period), with the SET FILE command and an appropriate file-spec wildcard. Use a date/time that matches the first expiration date from the SET VOLUME command. Be sure to exclude the VMS root from the wildcard operation!

$SET FILE/EXPIRED = date file-spec

Then operations performed using /EXPIRED field will catch

all files on the volume. Files existing on the volume before retention period is activated will have expiration dates updated the first time they are accessed. If they are not accessed by the time the first expiration period arrives, the files will be treated as expired.

Deleting Expired Files

The last part of using expiration dates is to look for, backup, and delete files with expired dates. BACKUP can examine the EXPIRED field and select files based on expiration date. If the expiration date is earlier than the date of the backup operation, you tell BACKUP to backup and then delete the expired files using the qualifiers below. Remember to add any additional qualifiers that are used at your site.

$ BACKUP/EXPIRED/BEFORE=today/DELETE/...

If you are a nice system manager, you can even send mail to your users containing the list of files removed because of inactivity. The command procedures/programs to accomplish this are too long to reproduce here, but the basic procedure is as follows:

- Do a DIRECTORY/OWNER/EXPIRED/BEFORE=today for each drive having a retention period defined and send the output to a file.
- Sort the expired list by owner so all files belonging to one person are grouped together.
- Translate the owner of the file to a username if they are not the same.
- Pick up all files with the same owner and write this list to a text file, along with a message saying the files have been deleted due to inactivity.
- Send this text file via MAIL to the file owner's username.

'ollow this with your regular daily or image backup proceure, using /EXPIRED/BEFORE=today/DELETE with your ormal BACKUP qualifiers.

)bviously, you cannot recycle your backup media in five ays if that is where the expired files are stored. You must ıake some provision for storing backup media for several ıonths (at least 3, I suspect) so you can restore files if the eed arises. The end result is that you have clean disks, sers have copies of files available (for the archive period ɔu select), and you get rid of all the clutter each time a ACKUP is done!

'ords of Wisdom

ıere are several points to consider when designing expira-ɔn procedures. Be sure to accomodate variations in the ay users are authorized and organized on your system. If ɔu have both alpha and numeric UICs, you need to ac-ɔmodate this when cross-referencing the file owner with a ername in the MAIL notification procedure.

hen using these techniques, the simplest case occurs ıen all files belonging to a single user are stored on a single ve, rather than across many drives. If you have a single er on many drives, accomodate this situation when you rt the expired file list.

clude the VMS root and other required system files from ɔiration processing.

ıen you activate retention on a disk, remember to update expiration fields for all files already on that volume. ıerwise you may delete a good portion of the files on the first BACKUP/EXPIRED!

There are dictionary and index type files that need to be rebuilt if files they refer to are deleted. You must understand the relationship among files to maintain correct copies of these master files. Alternatively, you can move these files to a drive that is not using a retention period.

For restore purposes, make sure you archive expired tapes for an adequate period of time.

Benefits of Expired File Management

Now you know when users are accessing files and when files are sitting dormant, wasting space. Your users will wonder how you figured this out! Many of them will also be grateful for your cleanup efforts, because it is much easier to locate a file in a clean directory. If you are billing departments (or customers) for disk space usage, they will be grateful because their computing bill will go down.

Last, your boss will be delighted the latest application can be installed on existing disks, because you have managed the space so well!

What's a fragment?

by Tony Carrato, Mile-High Information Services

Just what is disk fragmentation and why is it bad? Well, fragmentation is what happens to your files (and free space) on a disk as it gets used more and more. It's bad because the more fragmented a file is, the longer it takes to access the file.

Specifically, VMS will try to put a file onto disk contiguously (all the disk blocks together) if it can. When a disk is new, this is exactly what happens. However, as new files are added, old ones extended and deleted, files are no longer on the disk in nice contiguous fashion. Instead, VMS makes use of space where it finds it. A contiguous group of blocks belonging to a file is called an "extent" of the file. A file may have one or many extents. When a file is opened VMS sets up retrieval pointers for the various extents of the file in a construct called a window control block. By default, that control block will hold pointers to seven extents. When you need to access a part of the file not mapped by those retrieval pointers, VMS must perform an operation called "window turning," which involves going to the file header, getting the next retrieval pointer and putting it into the window. This is expensive in that it incurs at least one extra disk IO operation.

When you are writing a file to disk, if the file can fit into a single extent, the write operation is very quick and efficient. If not, VMS must find enough space in pieces to hold the file. Again, extra disk activity occurs, slowing things down.

How can you tell if your disks are fragmented? There is a program available from DECUS called FRAG that will look at the fragmentation of the free space on the disk. There is another program, used in DEC's VMS Performance course, that looks at fragmentation of files on the disk. Both measures can be important. If you want a quick test, you can dump the headers of some large, recently created or extended files and count retrieval pointers. The command to dump the header is:

$ DUMP/HEADER/BLOCKS=COUNT=0

Toward the end of the dump, you will see the pointers. If you have more than a few, the files is fairly to badly fragmented.

Evaluating disk defragmentation packages

by Elaine Lundy, Rockwell International

Disk defragmentation packages are everywhere these days, and all of them claim to save system managers great amounts of time and effort, and all of them claim to be easy to use and effective.

The VAX systems group at Rockwell International/Rocky Flats Plant decided we'd like to look into purchasing a disk defragmentation package. After looking in various trade magazines ads and reading some articles on disk defragmentors, we decided to pick the following products for evaluation: Rabbit-7, DISKIT, SQUEEZPAK, and DISKEEPER. I was assigned to do the evaluations on the plant's test system (VAX 11/750).

The first step in our evaluation was to decide what criteria the disk defragmentor must meet in order for it to be beneficial to us. The requirements are:

- Must be able to run on-line with no disruption of normal user activity.
- Must be easy to run, or must be able to be run in batch.
- Must defragment the disks effectively without significantly degrading response time on the system.
- Must be able to run in a cluster environment with volume-shadowed disks.

In this case, cost was no object--in fact, I didn't know how much each package cost when I did the evaluation. I was simply looking for the best product.

The first package I evaluated was Rabbit-7, made by RAXCO Incorporated. I didn't actually run Rabbit-7 on a disk, because it didn't meet our requirements of not disrupting system activity. The documentation for Rabbit-7 states:

Notice that it is not necessary to reboot the system before or after running DOPTER/VMS. It is not necessary to keep other users off of the system while DOPTER/VMS is running. However, it is desirable to do so, since external file creation and deletion while DOPTER/VMS is running tends to cause DOPTER/VMS to fragment free space. Also, DOPTER/VMS cannot copy files which are held open by another process.

(DOPTER/VMS is the utility program at the heart of Rabbit-7).

I felt that the "desirability" to reboot and keep users off of the system while Rabbit was running was unacceptable and did not meet our requirements for a defragmentor, so I decided to put Rabbit-7 on hold until I found out if the other packages had the same constraints.

I evaluated DISKIT next, made by Software Techniques Incorporated. DISKIT did not meet our criteria either, because step 3 in the documentation entitled "RUNNING DSU ON A DATA DISK" states "DISMOUNT the target disk." This blew DISKIT out of the water, because it can't be run on the system without disrupting user activity. I tested DISKIT anyway, thinking that perhaps there wasn't a disk defragmentor that wouldn't disrupt user activity on the system.

DISKIT performed impressively and also included two additional utilities called XDIR and PROCESS which are very similar to the DIRECTORY and SHOW PROCESS utilities already on the VAX, but with a few enhancements.

DISKIT completed the defragmentation pass in two hours and produced both a "before" and "after" report showing how badly the disk was fragmented before the DISKIT run and how well DISKIT defragmented the disk. The report showed that DISKIT indeed fully defragmented the disk. If dismounting the target disk isn't a problem for your site, you may want to take a closer look at DISKIT.

The third package I evaluated, and the least desirable of them all, was SQUEEZPAK, distributed by Data Center Software, Inc. SQUEEZPAK looked great on paper, but did not perform well at all during the actual test. SQUEEZPAK doesn't require dismounting the target disk or rebooting the system, and lets you have users accessing the target disk. SQUEEZPAK also claims not to degrade system performance and can be run in batch.

I thought I had hit pay-dirt and began my test. I used the same target disk as I had used with DISKIT. There was a three-week wait between the DISKIT run and the SQUEEZPAK run. The disk wasn't as badly fragmented, but there was some fragmentation due to the installation of several very large software products.

I began running SQUEEZPAK in batch mode, producing two reports--one of which was a log file that is kept as SQUEEZPAK runs. After about one hour, SQUEEZPAK aborted the run, and inserted some horrible-looking error messages into the log file.

I could not find any references to the error messages in the documentation, so I decided to call Data Center Software. I spent four days attempting to get through to the support center. The line was constantly busy. I didn't even get to talk to an operator. Finally, the sales representative called me to ask how the test was going and I told him the problem. That same day, I received a call from the support center. I read them the error message I had received, and was told that SQUEEZPAK must have hit a bad block on the disk and that I should do an ANALYZE/MEDIA on my RA80 to really find out what the problem was.

I didn't do it. I decided to try DISKEEPER on the same disk as the one SQUEEZPAK blew up on to see if it would blow up, too.

Data Center Software/DEMAC called me back and convinced me to try their new version of SQUEEZPAK. Again, I put the package on the system and ran it. After two hours, I checked into the status of the run, and found that it had only gone through a tiny section of the disk. I tried calling the support center and couldn't get through. Needless to say, I'd had enough of SQUEEZPAK by then and aborted the run. I would not recommend SQUEEZPAK to anyone for the simple reason that if anything were to go seriously amuck, the support center would probably be of little help until it was too late.

I saved the best evaluation for last. I evaluated DISKEEPER, and found it to be the best disk defragmentation package of the four. Again, I used the same disk I had used for SQUEEZPAK. DISKEEPER defragmented the disk and did not blow up the way SQUEEZPAK had.

DISKEEPER runs on line and doesn't require any dismounts or reboots. It will run with a full load of users and runs at a process priority of 2 so that system performance is not degraded. I was able to set up DISKEEPER to run at boot

time in SYSTARTUP.COM. When the system booted, DISKEEPER ran at a low priority until the disk was defragmented. The first run took about 1 and 1/2 hours. I continued having DISKEEPER run at boot time (usually once a week) and the subsequent run times fell to about 30 minutes.

DISKEEPER also produces useful reports so you can see what it's doing. Also, DISKEEPER does not need any recovery procedures if the system crashes or there is a power failure during the defragmentation. DISKEEPER is the only product I evaluated that did not have some kind of a recovery procedure or the possibility of losing files in the event of a power failure or crash.

DISKEEPER claimed it would work with volume shadowing and bound volumes, but I didn't have a shadowed or bound volume to test it on.

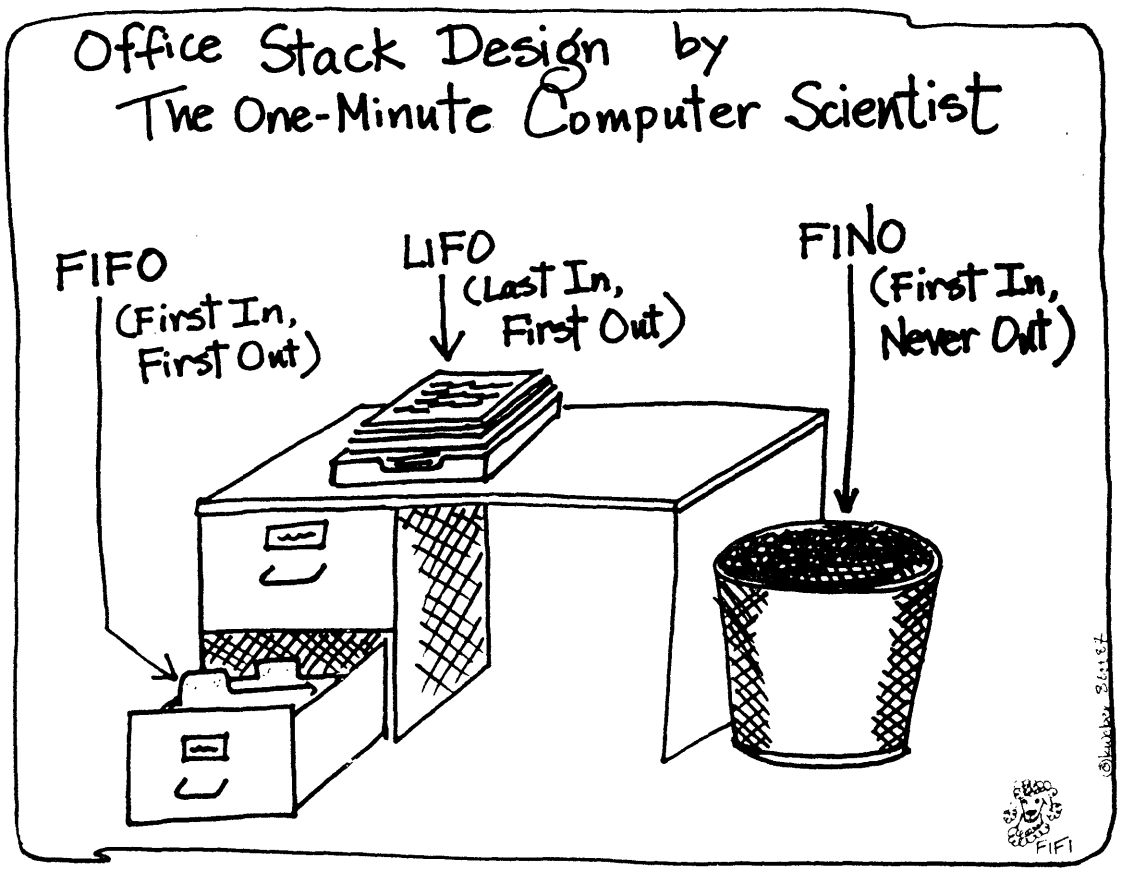
The best thing about DISKEEPER was that it was extremely easy to use. I set it up to run at boot time and forgot about it. I could look at the reports if I wanted to, but no further intervention on my part was needed. The reports generated by DISKEEPER showed complete defragmentation of the target disk.

In my opinion, DISKEEPER far outshone the other defragmentors and I suggested that we purchase it for our VAX cluster. We had made plans to purchase DISKEEPER, when two people from our group went to a recent LUG meeting and heard about some problems with DISKEEPER "losing track of itself" in a cluster environment. Plans to buy DISKEEPER were put on hold. I was naturally upset because my evaluation of DISKEEPER showed it to be a good package, although I hadn't tested it on the cluster.

I decided to call Executive Software to see what they had to say about the reported cluster problems. I spoke with one of Executive Software's technical support people. She said she had never heard of any problems running DISKEEPER in a cluster environment. I asked her if she could give me any customer references who were actually running DISKEEPER on a cluster. She was more than happy to oblige and suggested I call Dewitt Howard, at Interstate Electronics in Anaheim, California, who has been running DISKEEPER on a cluster for over a year.

Howard informed me that he has been running DISKEEPER on his four-node cluster for one year and two months and has never had a problem with it. His cluster has a common system disk, volume shadowing, bound volumes,and dual HSCs. He also does some consulting in his business and often recommends DISKEEPER to his clients (most of whom have clusters) and none of them have ever had a problem with it. He wanted to know the names of the people at the LUG meeting who were having problems with DISKEEPER, but I didn't know who they were. Howard has invited me or someone in the VAX group to come to his computer room and see DISKEEPER at work while in California for the upcoming DECUS. He gave me permission to use his name in this article and invited readers to call him if they had questions or concerns about DISKEEPER in a cluster environment. Dewitt Howard's phone number is (714) 758-0500 x4555.

I was unable to find out the names of the people who were having problems with DISKEEPER so that I could present their side of this coin. Although we have not opted to purchase DISKEEPER yet, my evaluation still ranks it as the best disk defragmentation package of the four I tested.



Defragmenting the RA-81: An experience with SQUEEZPAK

by Ira Russianoff, Colorado School of Mines

This is a mixed review for SQUEEZPAK--I found it works well only in certain environments. It works better in structures with smaller files than structures with larger files.

Let me first go over some terminology I found confusing at first:

Holes (unused space) are fragments.
Non-contiguous files are files with one or more holes.
Contiguous file efficiency is a number that increases with the number of contiguous files.
Free space efficiency is a number that increases with an increase in the size of the free spaces.

We have two disk/file environments at the Colorado School of Mines Computing Center's VAXcluster. The academic-user files are on one two-disk volume set. The administrative-user files are on three separate disks. All are RA81s.

Academic users tend to have many small files. SQUEEZPAK did a wonderful job on the two-disk volume set. It reduced the number of file fragments or holes from 15000 to one large free space.

Administrative users have fewer files, but they are much larger. On the administrative disks, the number of file fragments was doubled by SQUEEZPAK. On one first run on an administration disk, the number of holes doubled (from 2500 to 5000) but the contiguous file efficiency increased from 87% to 98%. The number of holes can actually increase, while contiguous file efficiency also increases. Presumably, this means more files are contiguous, while the remaining fragmented files are more fragmented than they were before.

Multiple passes may be required to improve the distribution of files on the disk. On the administration disks, the largest free space remaining was reduced from 5000 to 2000 blocks after three passes.

New KERMIT distribution tape

by Richard Wiseman, Storage Technology Corp.

Here is some more info on the KERMIT distribution tape that was mentioned in the last issue. Most of the following information was taken from the AAREADME files and edited for the newsletter.

File names all start with letters and are of the form NAME.TYPE, and will normally appear in alphabetical order in a directory listing or on a tape. Files whose names start with AA (like this one)--normally appearing at the top of a directory listing--give general information about Kermit.

Kermit programs are stored in the Kermit distribution areas with related files grouped together using filename prefixes; the names of all the files for a certain implementation all start with the same 2- or 3-character prefix, for instance all the files for MS-DOS Kermit have names starting with MS, the files

Regional returns--no April fooling!

The Second RMVLUG Regional Conference will be held at the Sheraton Denver Tech Center, March 31-April 1, 1988. The Regional Conference is a low-cost way to get the real lowdown on "The VAX of Life." It's an opportunity to find out everything you always wanted to know about your VAX, but were afraid to ask.

For a mere $125 (compare THAT to the cost of going to National), you get admission to two *FULL* days of technical sessions--70 different talks to choose from! Continental breakfast and lunch on both days and a copy of the abstract volume listing all speakers and short abstracts of their talks is included in the registration fee. Who could ask for more?

But more there is! Many of the speakers you enjoyed at the last Regional will be returning, and many new speakers from both DEC and the user community are--even now--planning their presentations. If you have ideas for a talk you'd like to see or give at the Conference, there are still a few open spots in the program. Contact Tony Carrato (303-721-0851) with program-related questions or suggestions.

If you are interested in attending the Regional Conference, there will be registration kits available at the January LUG meeting. We have mailed packets to all registered DECUS members in Colorado and surrounding states. If you are not a DECUS member, you can get a packet if you attend the January meeting or contact one of the RMVLUG steering committee members.

We also encourage all RMVLUG members to join DECUS--membership is free, and forms will be available at the January LUG meeting. We're looking forward to the Regional Conference, and hope you are, too.

VAXing will be great in '88!

names for VM/CMS Kermit all start with CMS.

The following files describe what's available in the Kermit distribution:

- AAFILES.HLP - Explanation of what files are available and how they are named.
- AANETW.HLP -- Information about network access to Kermit files.
- AANOKS.HLP -- Information about the Oklahoma State U Kermit archive.
- AATAPE.HLP --Information about Kermit distribution tape formats.

Files whose names start with AAV are brief, complete lists of existing, available Kermit versions, sorted in various ways:

- AAVERS.HLP -- Master list, in no particular order.
- AAVNEW.HLP -- Listed in reverse chronological order of release date.
- AAVOPS.HLP -- Listed alphabetically by operating system only.
- AAVPFX.HLP -- Listed alphabetically by prefix, regardless of tape.
- AAVSYS.HLP -- Listed alphabetically by machine and operating system.
- AAVTAP.HLP -- Listed by tape (A or B), then alphabetically by file prefix.

The next file lists the Kermit programs we are still waiting for:

- AAWAIT.HLP -- A list of Kermit implementations reportedly under development

The KERMIT Distribution is in VMS Backup format. This tape contains a complete distribution of Kermit as obtained from Columbia University on April 22, 1987. That distribution required three full reels and around 92000 blocks. To make a tape that would fit, many of the non-Digital Kermit versions have been collected into compressed VMS Backup savesets located in the [.compress] subdirectory of this directory. Directories of each saveset and the decompress utilities are provided in that tree.

The resulting tape has all DEC related Kermits, plus Kermits for major microprocessors, and some IBM mainframe versions, and all documents, in the top level. The Kermits in the compressed savesets include most of the "obsolete" Kermits and Kermits for less popular machines. As a result, the distribution is now less than 70300 blocks and can be placed on one reel of tape in VMS Backup format.

When you read the tape, please use the VAX that did the reading to decompress any compressed Kermits you need before moving to another machine. The full Kermit release from Columbia is still the primary source for Kermit and its ANSI distribution may work better for some systems than this one. Be advised however that three full reels at 1600 BPI are filled by this release. It was felt that such a distribution would strain the DECUS tape copy channels.

SYSGEN parameter adjustments and tuning

by Tony Carrato, Mile-High Information Services

The following notes are distilled from talks given at the Fall 1987 DECUS. In particular, a talk was given on rules that AUTOGEN will use in implementing a FEEDBACK option as in VMS version 5.0.

Rules to adjust SYSGEN parameter settings:

MAXPROCESSCNT: Larger of (peak number of processes on system + 40%) or (80% of current setting)

BALSETCNT: Larger of (peak observed + 20%) or (80% of current setting) but not greater than MAXPROCESSCNT

GBLPAGES/GBLSECTION: (Peak observed + 20%) or (current number required by VMSIMAGES.DAT) or (80% of current value)

NPAGEDYN:

- If pool has expanded beyond initial value, then (current + 75% of expanded amount)
- If expandsion failures have occurred, then (current + deficit of expansion failures)
- If pool has not expanded and no allocation failures have occurred, then (current - 10%)

PAGEDYN: Larger of current or standard calculation or:

- If allocation failures have occurred, then (current plus 50% of expansion amount)
- If (maximum used .LE. 80% of current), then (current - 10%)

SRP,IRPCOUNT:

- If expanded, then (current plus 50% of expansion amount)
- If no expansion or allocation failures, then (current amount - 10%)

LRPCOUNTV: In LAVCs, this number should be high; probably .GE. 200

XQP caches:

- If (attempt rate .LT. .5/sec), then ignore
- If (attempt rate .GE. .5/sec) and (hit rate .LT. 75%), then raise by 20%, but no more than three times the standard calculation (some things like BACKUP and DIR use the caches very poorly)

MSCP buffer:
If (server through-put .LT. 1 IO/second), then leave alone
If (fragment or waited (paused) IO .GT. 1%), then increase by 25%

LOCKIDTBL: If .LT. current in use, set to std. calculation + (current - std. calculated value)/2

Page file: Should be sized to keep half (or less) full

Swap file: Should be kept no more than 2/3 full

Measures of how busy a system is:

Symptoms	**Problem**
Average memory queue .GT. 0 INSWP .GT. 0 Swapper CPU % .GE. 2	**High swapping**
Direct IO's .GT. 30 x CPU factor IO rate/second .GT. 15 for any disk	**High direct IO load**
Buffered IO's .GE. 100 X CPU factor	**High buffered IO load**
Average CPU queue .GT. 1 Average of more than 1 process in COM state	**Too many processes waiting for CPU**
Idle time .LE. 10%	**Insufficient idle time**
Free pages .LT. GROWLIM Average memory utilization .GT. 90%	**No free memory**

Page faults .GE. 100 *	**Too much page faulting (this**
CPU factor	**may be optimistic)**
System faults .GT. 1	

CPU factor chart

Processor	CPU factor
MicroVAX I	**0.20 - 0.35**
MicroVAX II	**0.8**
11/725,11/730	**0.3**
11/750	**0.65**
11/780	**1.0**
11/782	**1.0 - 1.9**
11/875	**1.5**
2000	**0.8**
3500	**3.0**
3600	**3.0**
8200	**0.9**
8250	**1.0**
8300	**1.0 (VMS V4.x)**
8350	**1.2 (VMS V4.x)**
8530	**3.2**
8550	**4.8**
8600	**3.4**
8650	**4.8**
8700	**4.8**
8800	**5.0 (VMS V4.x)**

Vaxen come, and Vaxen go, but VMS is forever.

Go north, folks

January brings RMVLUG to the US Bureau of Standards

Our next meeting will be held on January 12, 1988 at the National Bureau of Standards in Boulder. The Bureau is located at 325 Broadway, just south of the intersection of Baseline Road and Broadway. Take the Baseline Exit off Highway 36, go west to the first light, and turn left. You will end up right at the entrance of the Bureau. Please park towards the rear of the buildings.

The meeting room is the auditorium off the lobby at the front entrance. We have several fun and informative presentations planned for the next meeting. Of special note is the group report on information gathered at DECUS. If you attended the Anaheim symposium--at least 40 LUG members did--please come and share what you learned. If you didn't attend Fall DECUS, this is your chance to get the latest news on subjects ranging from symmetric mulitprocessing to improvements in TPU, with most changes focusing on the NMR or FMR (Next Major Release or Future Major Release) of VMS. Even though the symposium talks focused primarily on the NM, rumor has it we won't see version 5 until June of 1988!

Three additional presentations are scheduled. First, an hour-long session on disk defragmentation will be given by a user who has been running a defrag utility for some time. We will also hear a summary of data presented at DECUS during a three-hour defrag session, and will have handouts available on a comparative study done by users of three currently available packages.

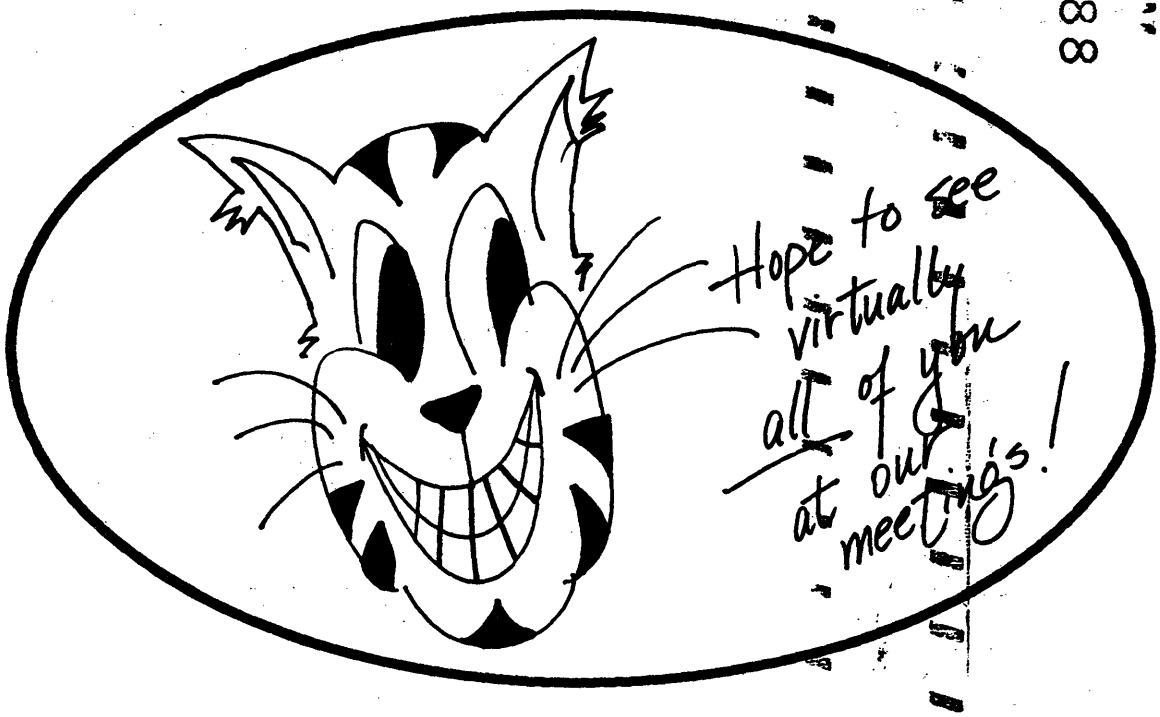
The second presentation involves VMS security and the ease with which files on the disk can be scavenged. Discussion will include using the MFD (directory [000000]) to recover files, and situations in which this technique will work and when it won't.

Last, a session on the implications of Symmetric Multiprocessing (SMP) in the products DEC will be offering in 1988, in terms of performance and the impact of changes required in VMS to support multiple processors. At Anaheim, we saw a Monitor display created on a machine with four processors, so SMP is clearly a reality. An outgrowth of SMP is a new run-time library called the PPL--Parallel Processing Library. With a little luck, handouts on the PPL will be available at the meeting.

We're looking forward to a really good show, and hope to see you there!

Meeting Agenda

8:30 - 9:00	**Coffee and Doughnuts**
9:00 - 9:30	**Business (Elections and Regional Conference Update)**
9:30 -10:30	**Symmetric Multiprocessing**
10:30 -11:00	**DECUS Reports**
11:00 -12:00	**Question & Answer Session (Novices welcome!)**
12:00 - 1:30	**Lunch**
1:30 - 2:30	**Disk Defragmentation**
2:30 - 2:45	**Break**
2:45 - 3:45	**Scavenging VMS Disk Files with the Null Device**



RMVLUG Newsletter
c/o Kata Weber
Colorado School of Mines
Computing Center
Golden CO 80401

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PAVLUG NEWSLETTER
Portland/Vancouver Area Vax Local Users Group
Volume 3, Number 4
December 1987

WELCOME

This is the newsletter for the Portland and Vancouver area Local VAX Users group (PAVLUG). If you have an article or some information to contribute to the newsletter please send it to:

PAVLUG
Newsletter Editor
PO Box 1990
Beaverton, Oregon 97075-1990

Just a reminder to new LUG members about the Canons of Conduct. The Canons of Conduct is a set of guidelines primarily for DECUS symposium functions. Our local LUG meetings also follow these guidelines to insure that our meetings are informative and useful to the user community. We are not out to sell products or services including those of Digital Equipment Corporation. We exist as a group to share public domain technology within the industry and within our local area.

Disclaimer:

DECUS Anyone?

You must be a DECUS member to remain on our mailing list. DECUS membership is free, so join now. You can call any of the PAVLUG officers to get an application, or you can write to:

DECUS, US Chapter
249 Northboro Road, BP02
Marlboro, MA 01752
(617) 480-3419

LAST LUG MEETING

The November LUG meeting was an unqualified success with attendance at the all day event soaring to a new high of 110. Our LUG is definitely growing and the quality of the service remains high. Thanks to all of the volunteers who made it happen.

NEXT LUG MEETING

The next LUG meeting will be held January 28, 1987 at Good Samaritan Hospital starting at 11:00. Don Alexander (DEC) will be discussing DBMS systems so it should be an interesting meeting.

We will be in room 110 of the Nursing Education Building. The address is 2255 NW Northrup. Parking is available in the visitor area on Marshal between 21st and 22nd avenue. As usual, goodies will be provided for lunch. See you there!!

COMING ATTRACTIONS

In response to the overwhelming popularity of the annual all day seminars we are going to increase the frequency to twice a year. The next all day seminar will be held on April 13. Tentative topics are Networking, Connectivity, and DBMS. More details in the next newsletter.

SPEAKING OF VOLUNTEERS....

Would you like to be showered with glory, prestige, and admiration among your peers? How about a free cup of coffee? All you need to do is to volunteer your services. It is the time given by volunteers that keeps the group going, so volunteer today!! If you have questions please contact any of the officers listed below:

Chairman	Taj Aoki	(206) 696-7151
Vice Chairman	Jon Hurtley	(503) 220-4350
Secretary	Bruce Godfrey	(503) 627-7096
Tape Librarian	Rob Perry	(503) 280-2050 x2522
Newsletter Editor	Ethan VanMatre	(206) 699-5755
Digital Rep.	Dave Griggs	(503) 245-1341

RUMORS (Read at your own risk)

* VMS V4.7 will be released soon. Maybe February or March.
* VMS V5.0 is still coming. Look for an announcement this Spring.
* New release of All-In-1 coming soon (Spring??). Included will be the ability to capture response time statistics.

NATIONAL DECUS SYMPOSIUM IN REVIEW

The Fall symposium was attended by over 7500 people and as usual there was a tremendous amount of information passed around. Here are some brief notes to make you wish you had been there:

* The VAX/VMS Internals and Data Structures book for V4.4 is now available.

* There was a CDROM disk distributed in honor of the VAX 10 year anniversary. The disk contains all of the VAXSIG tapes from Spring 1984 through Spring 1987. That's at least 14 1600bpi tapes on one 5" disk folks.

* DEC refused to acknowledge VMS V5.0. However, there were lots of presentations that contained detailed information about 'a future major release of VMS'.

* VMS V5.0 Notes
    - o Modified page writer
        - supports parallel I/O
        - Improves system responsiveness
        - Smaller oscillation in modified page list
    - o Pagefile
        - Space allocated to process as address area grows
        - Better load balancing between pagefiles
        - No primary pagefile needed
        - Global buffers no longer tied to pagefile
    - o RMS
        - Relative files use data security erase at file creation
        - Indexed global buffer optimization
        - Faster sequential access to indexed files
        - General performance improvement for sequential files
    - o UTILITIES
        - AUTOGEN
            - > New feedback mechanism for selected resources
        - BACKUP
            - > Improved standalone backup
            - > Implicit tape mount
            - > Tape expiration date check
        - DCL
            - > Block IF
            - > IF-THEN-ELSE construct
        - MAIL
            - > /[NO]CC support
            - > /[NO]PERSONAL_NAME support
            - > Enhanced printing support
        - MONITOR
            - > Multiprocessor synchronization time
            - > File statistics
            - > Mass storage statistics
        - SYSTEM MANAGEMENT
            - > New command files for adding users, backing up user accounts, and restoring backed up files
            - > New utility for managing clusters, remote clusters, and remote nodes
    - o Miscellaneous
        - 5% drop in overall throughput
        - 1/4 megabyte decrease in static memory requirement
        - New system management architecture

TAPE LIBRARY NEWS

Due to powers beyond his control, Dave Morgan is unable to continue as our tape librarian. Dave has done an outstanding job and we sincerely appreciate all of his efforts as librarian. Our new librarian will be Rob Perry. Be sure to shower Rob with glory and admiration the next time you see him.

Donated to the library is the VAX 10th year anniversary CDROM disk. This disk contains VAX volumes:

VAXSP29	VAXSP46	VAXSP52	VAXSP64
VAXSP39	VAXSP49	VAXSP61	

Contact Rob Perry for further details.

DECUS SOFTWARE REVIEW
SPELL CHECKER

If you are looking for a good public domain spelling checker, have I got a deal for you! There have been two major spelling checkers available from the DECUS tapes over the past several years, and we support both of them here at ESI. But I will describe the one we feel is the better of the two packages. This package is available on the Fall 1985 VAX symposium tape in the directory [VAX85D.VASSAR.SPELL]. Here is a small excerpt from some of the documentation that comes with the program:

> SPELL is a proofreader which makes use of a default 90,000 word dictionary and optionally a personal dictionary. SPELL asks for a file name that wish to have checked. When a word is found that is not in any of the dictionaries, you will be asked if:
>
> * You believe the word is correct and should be inserted into the main dictionary.
> * The word is incorrect and you want to correct it.
> * You wish SPELL to try guessing what the word is.
> * You wish to have the word inserted into a personal dictionary which will reside in your default directory.
> * You wish SPELL to ignore the word.
>
> SPELL reads standard VMS text files - such as those created by EDT or TPU, and will recognize the syntax for embedded commands in RUNOFF, TeX and SCRIBE word processor input files, thus preventing many spurious "errors" from being registered. The program makes extensive use of SMG$ screen management routines, and may be used on any video terminal supported in TERMTABLE.EXE. The entire program is written in Pascal, and should be readily modifiable if additional functionality is required.

his program is a little more complicated to install than some of the other rograms I've mentioned, but I feel that it's definitely worth the effort! t also takes up a fair chunk of disk space, so keep that in mind. The ser interface for this package is quite nice and it's fairly easy to use.

ontact Rob Perry about acquiring DECUS tapes if you are interested in this r any other free DECUS software package. Good Luck!!

VMS SHOP TALK

Startup Parameters

The SYSGEN parameters STARTUP_P1-P8 are reserved for controlling the VMS startup procedure. Currently only parameters 1 and 2 are actually used, although STARTUP does pass the values of all 8 parameters to both SYCONFIG and SYSTARTUP when they are executed. The startup parameters are set the same as any other sysgen parameters, either from within the conversational bootstrap facility (SYSBOOT/BOOT58) or through the SYSGEN utility. If you use SYSGEN be sure to save your changes (WRITE CURRENT) otherwise they will be lost when the system is shutdown. Regardless of how you set the parameters, remember that the changes will stay in affect until explicitly reset by you.

STARTUP_P1

This parameter determines the type of startup performed, either FULL, UPGRADE, or MINIMUM (Before somebody gets excited, let me note that I am intentionally omitting the possible values that apply only to microvax systems. If you are interested in those values I suggest you take a look at STARTUP.COM in the SYS$SYSTEM directory). The default value is spaces which tells STARTUP.COM to do a full VMS boot including execution of any site specific startup command procedures. The UPGRADE value is usually set automatically during VMS upgrades and won't be addressed in this discussion. A value of "MIN" tells STARTUP.COM to do a MINIMUM boot of the VMS system. Only those instructions necessary to make VMS operationa will be executed which means a minimum amount of device configuration and no execution of site specific startup commands.

The minimum boot option provides a way to bring up a VMS system without any frills. At completion of the boot process only the system disk will be mounted, only the console device will be available, and interactive logins will be set to 8. I use this option whenever I need to:

* Manipulate secondary page and swap files.
* Perform sensitive disk maintenance operations.
* Run performance benchmarks against selected software packages.
* Perform software testing in a controlled environment (nice when upgrading VMS).
* Keep all users, including those with lots of privileges, off of the system.

Once the minimum boot has completed you can execute DCL procedures (including systartup) to create the desired software environment. It ma also be desirable to make additional devices (disks, tapes, terminals, etc) available to VMS. The easiest way to make all devices available is to execute the hardware configuration section in STARTUP.COM that was bypassed during the minimum boot. To do this, use the command: @SYS$SYSTEM:STARTUP CONFIGURE. If you don't want to configure all devices, use the SYSGEN utility to LOAD the drivers for whatever devices are needed.

STARTUP_P2

This parameter is used to set verification on and off for the boot procedure (STARTUP.COM). The default is " " which specifies no verification (thank goodness). Any nonblank value will turn on verification. If you really want to watch STARTUP at work then this

PAVLUG NEWSLETTER
Portland/Vancouver Area Vax Local Users Group
Volume 4, Number 1
March 1988

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**
** APRIL REGISTRATION INFORMATION INCLUDED. DO NOT DISCARD!! **
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Disclaimer:

LAST LUG MEETING

The January LUG meeting went very well. Don Alexander did an excellent job of introducing everyone to the wonders of databasing. Thanks to all who attended and a special thanks to Don for his time and expertise.

NEXT LUG MEETING

The next LUG meeting will be held April 13th at the Red Lion. This will be an all day special featuring several guest speakers addressing a variety of topics. Everybody is welcome so invite all your co-workers. Registration information is included in this newsletter. See you there!!

NOMINATIONS OPEN

Nominations are now being accepted for your 1988-89 PAVLUG officers. All positions are open: Chairman, Vice-Chairman, Secretary, Newsletter Editor, and Librarian. Any PAVLUG member may fill the one year term (second year is optional) which begins July 1, 1988. No mystical talents required, so enjoy the rewards of DECUS leadership!

All nominations must be in writing, should include the name and phone number of nominator and nominee, and the signature of the nominator (Yes you can nominate yourself). Nominations can be sent to the address below or dropped off at the registration table during the April 13th symposium. Nominations close April 14th. Ballots will be distributed in the May newsletter. If you would like more information about a particular position please feel free to contact the person currently in the position.

Chairman	Taj Aoki	(206) 696-7151
Vice Chairman	Jon Hurtley	(503) 220-4350
Secretary	Bruce Godfrey	(503) 627-7096
Tape Librarian	Rob Perry	(503) 280-2050 x2522
Newsletter Editor	Rob Nesbitt	(503) 226-4692 x2754
Digital Rep.	Lou Reillo	(503) 691-0400

Send Ballots to: CH2M-Hill
Attn: Mike White
2020 SW 4th Avenue, 2nd floor
Portland, OR. 97201

L DREGS

Lately I have begun using the lexical function F$ELEMENT. This function allows you to extract information from a list by specifying the symbol containing the list, the delimiter separating the elements and the number of the element you want to extract (starting with 0):

```
F$ELEMENT(element_number,delimiter,source_list)
```

If an element number is outside the range of the specified list, F$ELEMENT returns the value of the delimiter character.

Here is a simple example to introduce the function. This routine converts month numbers to names. It will prompt for and accept a number, validate the number, and then extract and display the appropriate three character month abbreviation:

```
$    set noon
$    names := JAN,FEB,MAR,APR,MAY,JUN,JUL,AUG,SEP,OCT,NOV,DEC
$
$START:
$    inquire/nopunctuation month_nbr "Enter the number of a month: "
$    month_nbr = f$integer(month_nbr)
$
$    if month_nbr .lt. 1 -
      .or. month_nbr .gt. 12 -
          then goto START
$
$    month_name = f$element(month_nbr - 1,",",names)
$    write sys$output "Month name is ''month_name'"
$    exit
```

Let me point out that anything that can be done with F$ELEMENT can also be done using F$EXTRACT in conjunction with F$LOCATE. Here is the F$EXTRACT line that would accomplish the same thing as F$ELEMENT in the previous example:

```
$    month_name = f$extract((month_nbr - 1) * 4,3,names)
```

Based on some simple benchmark routines, it appears that the performance of F$ELEMENT and F$EXTRACT is almost identical. In my opinion, the major benefit of F$ELEMENT is the simplification of position independent string location and extraction (those are all the big words I know). The following routine is more of a real life type example that illustrates the point and also demonstrates the flexibility of the F$ELEMENT function. This routine will display all processes that are currently using the file EXAMPLE.COM on DISK1.

```
$    set noon
$    assign/user open_files.tmp sys$output   !Generate open file list
$    show device/file/nosystem disk1         ! for device DISK1
$
$    open/read/error=EXIT_PROC file_list open_files.tmp
$
$START_LOOP:
$    read/end_of_file=FINISH_UP file_list line_in
$    file_name = f$element(1,"]",line_in)    !Pull file name
$    if file_name .eqs. "]" -                !Check for good name
          then goto START_LOOP
$    file_name = f$element(0,";",line_in)    !Strip version number
$    if file_name .eqs. "EXAMPLE.COM" -      !Check for & handle hit
          then write sys$output f$extract(0,16,line_in)
$    goto START_LOOP
$
$FINISH_UP:
$    close file_list
$
$EXIT_PROC:
$    exit
```

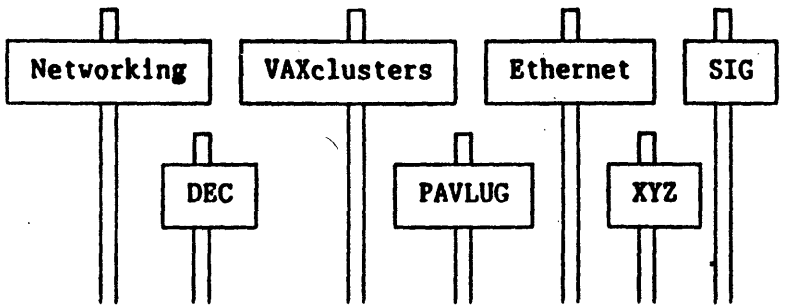
Here is the loop section using the F$LOCATE and F$EXTRACT functions instead of F$ELEMENT:

```
$START_LOOP:
$     read/end_of_file=FINISH_UP file_list line_in
$     pntr = f$locate("]",line_in)
$     if pntr .eq. f$length(line_in) -        !Check for valid line
          then goto START_LOOP
$     file_name = f$extract(pntr+1,11,line_in) !Pull file name
$     if file_name .eqs. "EXAMPLE.COM" -      !Check for & handle hit
          then write sys$output f$extract(0,16,line_in)
$     goto START_LOOP
```

Obviously there are endless variations for this routine. The point is that the F$ELEMENT function is a clean, viable alternative to F$EXTRACT especially in the instance where F$LOCATE is required to supplement the F$EXTRACT functionality for position independent string extraction.

Spring Meeting Agenda

START TIME	ROOM A	ROOM B
8:00	Registration	
8:30	Networking * Bill Selzer	VMS Update * Jim Callum
10:00	COFFEE BREAK	
10:30	Ethernet & Networking * Mike Neirby	PPP Techniques * ????????
12:00	BUFFET LUNCHEON	
1:00	VAX Local Clusters * Jim Callum	PC Connections * Trey Hollingbaugh * Bill Selzer * Ted Blank
3:00	COFFEE BREAK	
3:15	C A M P G R O U N D S	
5:00	End of Meeting - Thanks for coming!!	



Speaker Biographies

Ted Blank

Mr. Blank is a Senior Systems Engineer with Apple Computer. In his capacity at Apple, he provides product presentations and general technical sales support functions. Mr. Blank's DEC background includes 2 years as a Software Specialist, 2 years as MIS Manager at DIGITAL's Customer Support Center in Atlanta and 4 years as a System's Programmer at Tektronix.

Bill Selzer

Bill is a Senior Software Specialist with DEC's Oregon Software Services organization. In addition to VMS, he specializes in supporting Networked and clustered VAX systems. Before joining DEC three years ago, Bill worked in VAX environments within the transportation, electronics, and medical industries.

Jim Collum

As a member of DEC's Western Area Software Expertise Center, Jim provides technical assistance to DEC offices throughout Oregon, Washington, Alaska, Idaho, Utah, and California. He specializes in VMS internals, clusters, and CASE tools. Prior to joining DEC three years ago, Mr. Collum was in the US Air Force working extensively with PDP and VAX systems.

Mike Neirby

Mike is an Accounts Manager for RFI Electronics based in Beaverton. He is an expert in traditional Ethernet and Broadband networks and in his current position he provides consulting services for the design, installation, and implementation of networking solutions. Prior to joining RFI, Mike was a Networking Consultant with DEC for 6 1/2 years. He is an experienced instructur and is currently teaching Local Area Networking and Office Integration at PCC in his free time.

1988 SPRING SESSION BRIEFS

Networking

This session will address some of the tools available for network management. The speaker for this session is a DEC employee and as such he will be basing the presentation primarily on the DEC tools he uses to do his job. For those of you who are leery of DEC sales pitches in the guise of technical presentations, rest assured that Mr. Selzer is a true professional who will share his expertise in as unbiased a fashion as possible.

VMS Update - System Management

Trends in VMS system management capabilities will be discussed. If possible (if it has been announced) the speaker will also discuss the future major release of VMS (rumored to be V5.0).

Alternatives to Ethernet Cable

Mike will be conducting a highly interactive presentation of alternative ethernet connection schemes using actual installations as examples. If you ever wanted to implement ethernet using cable TV, telephone lines, Broadband, fiber optics, or any other scheme then this is for you.

If time permits, common networking issues such as multivendor networking, network management, and PC networking will also be addressed.

Parallel Processing Programming Techniques

This one hasn't been finalized yet, but we're pretty sure it's going to happen. As far as a session summary, the title says it all.

VAX Local Clusters

This will be a good introduction to local area clustering. Hardware and software issues will be addressed as well as the advantages and disadvantages of local area clusters.

PC Connections

This presentation will cover options for networking IBM PC's, DEC Micro's, and Apple's Macintosh with a VAX. This will be an overview of the concepts of networking as they apply to micros. Alternative networking options will also be presented with a discussion of their strengths and weaknesses.

Campgrounds

Campgrounds are areas set aside for small group discussion of specific topics. If you have a specific question for 'the experts' or just want to listen in on good information being passed out, these are the place for you.

Special LUG Meeting
Registration Information

What: Special VAX users group meeting
* Featured speakers
* Buffet Luncheon

Where: Lloyd Center Red Lion
1000 NE Multnomah
Portland, Oregon

When: April 13, 1988

Who: Hosted by the local VAX users group and everybody is welcome. You do not have to be a member of DECUS to attend.

Cost:

Pre-registration (received before April 6)	$35.00
At the door	$50.00

Note: Registration fees are non-refundable after April 6.

Questions?? Call:

Taj Aoki	(206) 696-7151
Jon Hurtley	(503) 220-4350
Bruce Godfrey	(503) 627-7096

Instructions: Detach the registration form and keep the information sheet for your records. Fill out the registration form and return with payment to the address on the bottom of the form. Due to the costs involved we do not send out registration confirmations so you are on your own to remember to attend the meeting. You can call Bruce Godfrey to verify registrations and/or ask registration related questions. There is only room for 200 people so you will want to register early if at all possible.

- - - - - - - - - - - - - - - - - Detach Here - - - - - - - - - - - - - - - - - - -

SPECIAL LUG MEETING REGISTRATION FORM

Company: _____ Phone: _____

Total Amount Enclosed: _____ (Make checks payable to PAVLUG)

Attendee Names

1) _____ 4) _____

2) _____ 5) _____

3) _____ 6) _____

Return to: PAVLUG
PO BOX 1990
Beaverton, OR. 97075-1990

PPALUG NEWSLETTER

2 February 1988

The Next PPALUG Meeting

The next meeting of the Pikes Peak Area Local Users group will be on Thursday, 18 February at the GVNW facility in Northern Colorado Springs. The GVNW building is located North-East of Academy Blvd, between Vickers and Union behind the Toyota Dealer and Water Works Car Wash. The address is 2270 LaMontana Way.

This meeting is in some ways a continuation of the very popular meeting held on 12 November at McDonnell Douglas. Three authorities will discuss subjects as summarized below:

(1) Kevin Fitzgerald of EMC was frozen in Boston for the last meeting and was unable to attend. He is scheduled to make up for his misfortune at this meeting. Kevin is to give a tutorial on VMS parameter tuning, which is always a popular topic. This is a good opportunity to pick up pointers on techniques for getting more from your VMS system.

(2) Kelly Lipp, the Systems Engineering Consultant from the local Digital office, will discuss the new VMS Distributed Services, including distributed naming, file services, and Queuing services. Theses services were announced at DECworld and represent a cost effective method of getting more from your disk systems and printers using Ethernet to communicate information between nodes on the network.

(3) What do you know about the capabilities of laser printers and how software can help provide extensive enhancements to you printer capabilities? Berry Ferris of Talaris Systems will address this subject in his talk on 18 February. Talaris has provided significant advances in software which improves the effectiveness of laser printers when used in sophisticated document processing activities. While it is not difficult to use the laser printer as a "line printer", in order to manipulate different fonts and formats for both text and graphics applications, knowledge of capabilities, compatibilities, and programming techniques is of tremendous importance in achieving an effective output capability. Don't miss this opportunity to learn more about the power of the laser.

Meeting Agenda

8:30 - 9:00	Coffee and Donuts
9:00 - 9:15	LUG Business Topics
9:15 - 10:30	VMS Tuning and Memory Technologies (Kevin Fitzgerald of EMC)
10:30 - 10:45	Break
10:45 - 12:00	Distributed VMS Services (Kelly Lipp of Digital)
12:00 - 1:00	Lunch
1:00 - 1:30	Presentation by GVNW, our host
1:30 - 2:45	Laser Printer Hardware/Software (Berry Ferris, Talaris Systems, Inc.)
2:45 - 3:00	Break
3:00 - 4:00	Reports on Fall 87 DECUS Symposium

Fall DECUS Symposium Newsletter

Attached is a copy of the FALL DECUS SYMPOSIUM NEWSLETTER by Jim Lind of Honeywell. In this fourth addition of the Newsletter, significant information on the planned capabilities of V5.0 of VMS is given, along with detailed discussion of products and performance in the areas of VMS and Networks.

At the 18 February meeting, we will all have an opportunity to discuss information that was talked about in the DECUS Symposium. "The next major release of VMS" has exciting new capabilities, and planning on how to apply these new capabilities to maximize the effectiveness of our computing environments is more important now than ever. If you have comments, questions, or contributions concerning the latest DECUS Symposium, plan to attend and share your experience with the rest of the group.

Report on Last Meeting

From the attendance at the last meeting, it is clear that the LUG membership is interested in a variety of subject material, particularly when presented by experts from different companies. We will continue with this approach in this next meeting.

VOLUME 4
Fall DECUS Symposium Newsletter
7-11 December 1987

by

James M. Lind
Honeywell, Incorporated

January, 1988

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Some 43 people attended the last meeting, which represents our third largest attendance ever for the LUG. We very much appreciate the talk by Rick Cadruvi of Executive Software who discussed disk compression of VMS files. Rick is clearly one of the foremost experts in this area, and the information presented by him was of considerable value to understanding the pros and cons of disk compression.

Dan Darrow of Systems Industries discussed recent developments in disk technologies, and Dave Cody of EMC filled in for Kevin Fitzgerald to give a introduction to optical disks and how they can be used to improve backup functions for large VMS disk farms. Kevin will attend this next meeting to give his postponed presentation on VMS tuning. Don't miss it!

Denver Regional Conference

The Rocky Mountain VAX Local Users Group will host its second Regional Conference for two days on 31 March and 1 April 1988. Attendance will be limited to 600 people, including walk-ins. To get the lower registration fee of $125, register by 28 February. After that time, the registration fee is raised to $175. Requests for registration packets should be addressed to RMVLUG Regional Conference, C/O DECUS, 219 Boston Post Road, BP02, Marlboro, MA 01752-1850.

The meeting will be held at the Sheraton Denver Tech Center and will include tracks on the following subjects:

VMS	NETWORKS
SYSTEMS MANAGEMENT	LANGUAGES AND TOOLS
BUSINESS	WIZARD

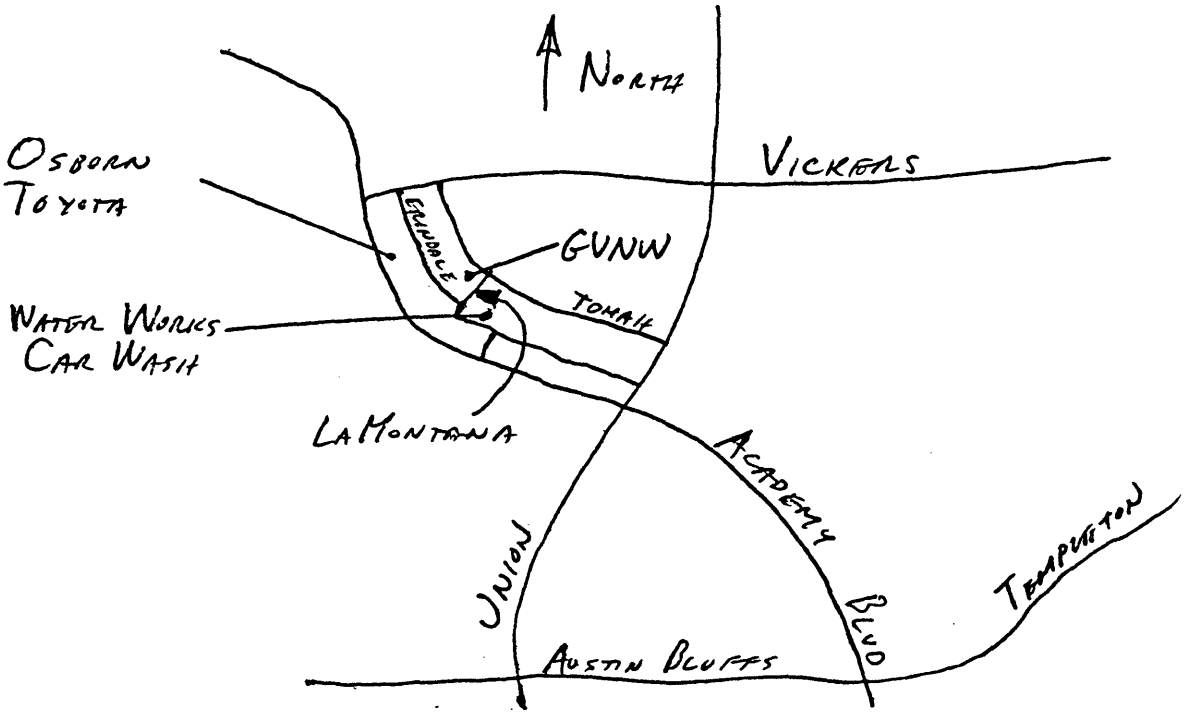
Enclosed is a copy of the Registration From for your use in signing up for this excellent event which represents a rare opportunity to get information on VMS and Networks at a very reasonable cost.

General PPALUG Information

The PPALUG Newsletter is the official newsletter of the Pikes Peak Area Local Users Group. This publication is available to anyone free of charge. For more information about PPALUG or to subscribe to the PPALUG Newsletter, contact Jim Lind at (303) 577-1672.

Submission of items to the Newsletter implies release for use in any DECUS publication. Send all material for publication to PPALUG, c/o Systems Engineering & Consulting, Inc., P.O. Box 7850, Colorado Springs, CO 80933.

Map to GVNW, 2270 LaMontana Way, on Thursday, 18 Feb:



ABSTRACT

This document contains notes taken by Jim Lind during several sessions at the Fall DECUS Symposium in Anaheim, CA from 7-11 December 1987. While accuracy of the information contained herein cannot be guaranteed, it is believed accurate per the particular session which is being critiqued. Personal comments have been withheld with emphasis on presentation of the facts as discussed in the meetings. The subject matter is basically concerned with VMS systems, network products, personal computer support, and information on future projects and products with specific emphasis on performance data. Your comments on the content and presentation of this document are appreciated and may be forwarded to Jim Lind, P.O. Box 7850, Colorado Springs, CO 80933; (303) 577-1672.

1.0 VMS UPDATE (V070)

1.1 VMS Changes for V4.6

VMS V4.5A and V4.5C were merged in VMS in 4.6. MicroVMS V4.5B is merged to MicroVMS/VMS V4.6.

V4.6 features include new MSCP server which removes limit on number of served nodes and served disks. Static failover of dual pathed tapes with non-zero allocation class is supported. DISMOUNT and MOUNT commands now support 16 instead of 14 disks per HSC. A maximum of three disks per shadow set (instead of two) and up to eight shadow sets are supported with V1.2 of volume shadowing. The HSC V350 software is required for V1.2 of shadowing. The key for volume shadowing is the same for 4.4-4.6, but will probably be changed in V5.0. Volume shadowing is part of the VMS master kit.

The Local Area VAXcluster (LAVc) V1.2 supports 26 (instead of 13) nodes, and allows 2nd system disk. One boot node with two system disks or two boot nodes with one system disk are supported configurations. The DEBNA is now supported, and with a VAX8500 or larger CPU, V4.6 supports two system disks on the same CPU. CPUs smaller than the 8500 will require 2nd CPU with an additional disk to support the maximum number of nodes.

DECnet VAX V4.6 has improved downline load capabilities, and the IEEE 802.3 is supported by the driver. The DEBNT may be upgraded under contract to the DEBNA, and the DEBNT is no longer supported as of V4.6. The MicroVMS and VMS DECnet key is the same, and MicroVMS does not include DECnet on the distribution kit whereas VMS does. The key will likely be changed in V5.0.

RMS Journaling V1.0 is has been available since October. It supports after image journaling (re-do function), before image journaling (un-do), and recovery unit (transaction integrity) functions.

It was noted that VMS V4.6A is used for the VAXstation and VAXserver 3000 instead of MicroVMS. The TK70 and RA70 is supported in V4.6A.

1.2 VMS V4.7

VMS V4.7 is due in early 1988. It is a maintenance release only. Distribution will be available on CDROM for the first time. Distribution will be available on mag tape and console media only, and disk media distributions will not be supplied on disks. Rolling upgrades from 4.6 to 4.7 will be supported.

CDROM distribution in V4.7 may include documentation for Q-bus systems.

1.3 VMS V5.Ø Futures

VMS V5.Ø (referred to as the "next major release of VMS") will include support for multiple CPUs sharing memory with a single memory resident copy of VMS. All CPUs will perform all functions, with the exception of interrupt handling, which for now will be performed by a single CPU for all CPUs. Unmodified drivers will continue to work on single-CPU systems. New drivers are needed for multiple-CPU systems.

Mixed-mode VAXclusters are to be supported. The CI cluster and LAVc cluster may now be connected. A CI system can act as a boot node for the LAVc systems. All CPUs will have access to HSC tapes and disks. The LAVc will be able to use shadowed disks on HSCs through CI nodes.

Dynamic failover of tapes will be supported. Currently, as of V4.6, static failover is supported a tape which is dual ported to the HSC can be picked up and remounted from the second HSC if the first data path should fail.

MicroVMS will no longer exist as of V5.Ø. Tailoring has been redesigned. RX5Ø distribution kits would grow to 8Ø diskettes, and therefore the RX5Ø will no longer be supported as a distribution media. The RX33 will be supported with about 27 diskettes required. The EXEC will be divided into several pieces, and privileged software will have to be relinked in V5.Ø. Only minor changes for user code is expected. One level of indirect addressing will be needed for pointers into the EXEC.

BACKUP -- VMS BACKUP will contain measures to prevent accidental erasure of the input disk if incorrect command lines are entered. Lock down of the working set will be used where there is two or more megabytes of memory. BACKUP will perform its own mount for mag tape with /IGNORE=LABEL_PROCESSING possible. Passwords will be omitted from save set listings.

PARALLEL PROCESSING LIBRARY (PPL) -- PPL will be included with V5.Ø. This facility will increase the ease of use of the parallel processing capabilities of VMS.

VMS SYSTEM MANAGEMENT ENHANCEMENTS -- A new utility for managing systems in a cluster will be provided. Definitions of logicals throughout the cluster will be supported.

DECnet -- DECnet will have enhanced support of proxies. Wildcards and multiple command recall in NCP will be added. Areas are now supported.

RUN-TIME LIBRARY ENHANCEMENTS -- New routines are planned in the areas of date/time manipulation, screen management, and parallel processing. Emphasis will be placed on providing information such that applications programmers can start thinking about how to use these features in their applications.

DEBUG -- Support for DECwindows, getting the debugger out of the program's address space, and debugging multiprocessing applications will be new items of interest in V5.Ø.

RMS -- Major improvements in performance of sequential read functions are planned. Ability to monitor QIO and file I/O statistics are added to MONITOR RMS. These functions are activated with the SET FILE /STATISTICS command.

2.Ø VMS PERFORMANCE UPDATE (VØ81)

Version 5.Ø of VMS will have a small decrease in performance across VMS functions. However, this is considered a small loss for the gains in functionality. This is partly due to improvements in certain code. There have been major "low-level" changes in VMS.

Overall, there has been about a 5% multiuser throughput decrease in performance. The Synchronous Multiprocessing (SMP) in V5.Ø will support almost any activity on any CPU. However, in the first implementation, interrupts will be handled on the boot node CPU only.

MODIFIED PAGE WRITER -- Changes in code have resulted in major improvements in performance for the page writer. In the past, one I/O per page write was used. In the new release, the modified page writer uses multiple I/Os. Now, WAITLIMIT = HILIMIT + WRTCLUSTER. In V4, WAITLIMIT = HILIMIT. The following is an example of parameter values:

Parameter	Old Setting	New Setting
IOLIMIT	1	5
MPW_LOWLIMIT	12Ø	4Ø4
MPW_WAITLIMIT	5ØØ	596

Under a test case with a heavy page-faulting application, 15:48 of clock time was required and only 2Ø% of the CPU used. Using the new parameters, only 12:19 of clock time was required and all of the CPU was used to perform paging. As a result, page faults take less time and VMS is [illegible] more efficient during page-fault I/O operation.

PAGEFILE -- Processes will get pagefile space as the process space grows, thus resulting in more efficient use of page file space.

SCHEDULING -- The PIXSCAN & DORMANTWAIT parameters change the behavior of the scheduler. PIXSCAN is used to allow a process to be computable for DORMANTWAIT seconds without becoming CURRENT. DORMANTWAIT allows a new process to return pages above WSQUOTA in a more gradual method.

"RELATIVE ACCESS FILE" PERFORMANCE -- The following summarizes performance improvements for VMS:

VMS Version	CPU Seconds	Elapsed Seconds
4.5	29	216
4.6	Ø.27	9.5
5.Ø	Ø.Ø6	9.3

RMS INDEXED FILES -- V5.Ø implements new sequential access techniques. Test case results showed the following effect of bucket size:

Blocks/Bucket	3	63
Elapsed Time	3:17	12:37
CPU Time	2:54	2:31

Random access on sequential files has been improved. Performance w/records greater than 512 bytes has also been improved.

XQP IMPROVEMENTS -- Standalone backup now can be memory resident. The directory scan code has been improved and will use a binary search. High-water marking avoids I/O whenever possible. There is no significant overhead in the new version of VMS for high-water marking. The following performance was measured on a VAX-11/780 with RA60 set for ten block extents:

With NO HIGH_WATER	V4 53 units of time	V5 51 units of time
With HIGH_WATER	V4 142 units of time	V5 54 units of time

JOB CONTROLLER -- The Job Controller has had a major rewrite. In V5, there is one chain per queue as opposed to the V4 method of having one chain to link all queues. For large number of queues, the new version is about four times faster that V4 for queue searches. Elapsed time for some Job Controller functions has been improved by a factor of ten. The PRINT queues have a factor of seven in performance gain for print jobs specifying forms control.

AUTOGEN -- Autogen has been improved to allow for "feedback" to allow it to adapt its calculations to the applications workload.

MONITOR -- Monitor has new screens: MSCP server statistics are enabled with the SET FILE /STATISTICS command followed by the MONITOR RMS/FILE= command. The MODES display has been changed to show SMP overhead. The POOL screen uses KBYTES to properly format the screen for large memory systems. The MSCP statistics are used to tune buffer sizes.

EXECUTIVE -- A modular EXEC is used with 20 images now. The NULL process is now a loop in the interrupt stack due to requirements of Synchronous Multiprocessing (SMP). BALANCE SLOTS now allow trimming to WSQUOTA before swapout.

LOCK MANAGER -- Implemented in V4.6, LOCKDIRWT = 0 allows local lock master only. LOCKDIRWT > 0 allows system to master locks first ahead of machines with LOCKDIRWT = 0.

MISC. -- DECnet has improved downloading with the use of larger buffers for server boots. New SYSGEN parameters include POOLCHECK (has small effect on performance), SMP_*, EXPECTED_VOTES, MULTIPROCESSING, and SHADOWING. The INTSTKPAGES (interrupt stack pages) parameter default has been changed from two to four pages.

3.0 FILE SYSTEM FUTURES (V051)

3.1 VMS V5.0 FUTURES

ODS-2 (XQP) -- The XQP has been reworked. The file alias handling has been changed. The directory contents protection now has consistency. Reads above high-water does not cause zeroing of disk data. XQP simply returns junk for reads above the high-water mark. File names are protected as are the contents of the file. Alias handling causes backlink to original name as opposed to most recent accessed alias.

BACKUP -- Processing tape expiration dates and tape labels.

ANALYZE /DISK_STRUCTURE (Verify) -- Enhanced error messages and improved documentation. Now has correct handling of alias files.

MOUNT -- Now a new /MULTI_VOLUME verifier along with mount verification implemented for tapes.

SALVAGE UTILITY -- Trys to recover disk data. Reads whatever remains on a disk after a disaster. Takes input and verification from user. Rebuilds volume's reserved files. Not a disk structure editor. Used for hardware problems, software problems, and accidental initialization of disks. Method of distribution unknown; may be available from software services. VMS development believes that the utility is too powerful to include with standard VMS distribution. The user community disagrees ... since execution of the INITIALIZE command can easily destroy a disk, why not have the SALVAGE utility available to recover from such errors.

3.2 BEYOND VMS V5.Ø

Backup performance improvements for file I/O are planned; Label processing; CONTROL_T display includes file name and block number; Callable backup; Improved use over the network.

4.Ø BATCH/PRINT FUTURES (VØ57)

Goals for V5 include significantly improving performance; Support of ACL's; Enhanced DCL interface; Enhanced programming environment; Support for rolling upgrades between versions of VMS.

5.Ø DOCUMENT PROCESSING UPDATE (ØØ29)

Current versions include WPS+ VMS V2.1; WPS+ DOS V2.Ø (Sep 87); DECpage V2.1. WPS+ DOS has same functionality as VMS WPS+. DECnet-DOS emulation through network. Supports footnoting redlining and underscore.

VMS requires four meg of memory. WPS+ adds 2 meg plus 1/2 meg per user. Allow 2Ø-5ØK blocks of disk/user. Terminal emulation is built into WPS-DOS.

DECpage V2.1 requires WPS+ of VMS. Includes preview on screen, but not WYSIWUG (what you see is what you get). Graphics location is displayed with file name. Automatic inclusion of graphics with keyword control. LNØ3 & LNØ3+ support. Requires separate font package.

DECpage only supports LNØ3 printers with five selected fonts. No current plan to support other printers. WPS+ does support other printers and fonts.

6.Ø PERFORMANCE ADVISOR OVERVIEW & UPDATE (VØ34)

VPA V1.1 has LAVc and rules support. The data collector supports 1Ø24 concurrent processes. Uses contiguous disk space and has higher processing efficiencies. VPA can operate for any 24 contiguous hours and gives statistics on disks and disk caches. Identifies SCS bottlenecks and has MSCP and fragmentation statistics.

7.0 NEW MICROVAX 3500/3600 (H052)

A MicroVAX 3500/3600 processor as a boot node in an LAVc supports up to seven 3XXX processors. Support for 13 units is likely in the future. The MicroVAX III is supported by VMS V4.6A.

PERFORMANCE INFORMATION -- Compared to the MicroVAX II, the MicroVAX III has a mean performance improvement of 3.0 to 3.2, and ranges from 2.4 to 4.2 in a variety of test environments, depending mostly on the use of the cache memory system in the MicroVAX III system. Generally, support of up to 60 All-In-1 users or 100 COBOL users is reasonable. However, no information was offered on the ability to support the additional disk I/O associated with these applications.

Currently, the 3500/3600 is limited to a single KDA50 disk controller and up to four disks. The memory is limited to 32 megabytes. The Q-BUS has 3.3 megabytes/sec of throughput as compared to the 13.3 megabytes/sec of the Computer Interconnect (CI) configurations of VAX systems. The VAX-11/750 is not supported as a boot node for the 3500. There is no battery backup in the MicroVAX III.

The second CPU of the 3602 boot server product contains a single user VMS license which is blocked by hardware from upgrade to multi-user VMS. There is currently no offering for upgrade of the second CPU to handle multiple user applications.

8.0 TERMINAL SERVER OVERVIEW (N057)

8.1 DECserver 500

The new DECserver 500 uses a single power supply, Q-bus backplane and 18 MHz PDP-11/53, which is an 11/83 without onboard cache. There is a custom boot ROM with extended diagnostics and DEQNA adapter. In the future, the DEQNA will be upgraded to the DEQLA. Channel I/O cards are not hot-swappable, which is a significant disadvantage of the system.

The DECserver 500 V1.0 software is available now and has LAT and MOP protocols with DECserver 200 V1.0 functionality. Supports up to 64 virtual circuits, 128 sessions on a circuit, and up to 256 sessions per server. There is a new port DIALUP characteristic with flow control and modem signal status display. The server is downline loaded over Ethernet. Supported by VMS, RSX-11M-PLUS, and MicroRSX. The permanent database is in server image, not NVRAM. This is similar to the DECSA Ethernet Server and could be a considerable disadvantage for support. Uses DSVCONFIG like other DECservers and is supported by the Terminal Server Manager (TSM) V1.1.

8.2 DECserver 200 V2.0 Software

V2.0 for the SECserver 200 is available now. It supports VT330/VT340 terminal sessions management and queuing of CONNECT commands at remote-access ports. Flow control and modem signals status are displayed as well as the new port DIALUP characteristic. There are node and service database improvements and a more restrictive command set for SECURE users. Multiple privileged server users are supported. V1.0 bugs are fixed and the V2.0 software is supported by TSM V1.2.

Major fixes in V2.0 include echoing delay on sessions created to server ports offered as a service. Also, corrects crashes when using 200/DL, AUTOBAUD ENABLED, terminal logged out and powered down sequence. Fixes dial-in ports using LOCK command remaining LOCKED if signals are dropped and problem where session hangs when connecting to password-protected services. The failover function is now more reliable.

8.3 Terminal Server Manager V1.2 Features

V1.2 of TSM is not yet available. It supports management partitions, command file parameters, DSVCONFIG functionality, test delay, test circuit, test connections, and test LAT, DCL interface, SET OUTPUT, and ETS V3.0.

Major fixes include message cleanup, CONTROL-Y on LIST commands, and prompting improvements. Event message numbers are displayed. Also fixes TEST logicals, SPAWN check for captive, logicals in file specifications, TSM command file errors, and continuation line deficiencies.

8.4 LAT/VMS V4.6

LATplus V1.1 functionality is now once again included as a VMS V4.6 standard feature. It supports QIO interface for connects/disconnects and a new multi-threaded LAT print symboint. The VMS V4.6 version fixes LATplus V1.1 problems.

8.5 Future Considerations

Future Server Considerations	Future TSM Considerations
DECserver 100 V2.0 Software	Server usage accounting
Ethernet Term Server V3.0 Software	Service node management
DECserver 500 enhancements	DEC technology programs
DECserver 200 enhancements	
MUXserver enhancements	Future LAT/VMS Considerations
Applications-solicited connects	LAT over multiple Ethernet controllers
-modem signal sense/set operations	GETDVI & SHOW TERM give server name &
-port speed/frame/parity changes	-port name
Offline device detection	Ability to connect to applications
Server inactivity timer enhancements	Improved print queue error handling
802.3 message format for LAT and MOP	QIO for setting static LAT rating
Multiple Ethernets per server	QIO for changing LT: node/port names
User authentication	Support for modem set/sense QIOs
Security enhancements	802.3 message format for LAT & MOP
Dial-back capability on server login	Support for management with TSM

9.0 FUTURE DIRECTIONS IN VAXCLUSTERS (V061)

Mixed CI/NI clusters will be supported configurations in V5.0. The cluster configuration will be described in a "Load Unit Table. These configurations will allow for the combination of low and high-end users in one cluster.

System management will be made more convenient, but at the same time, more sophistication in the system management task will result. Both the PADRIVER and PEDRIVER will be supported in the same system. Dual path failover is extended to all DSA disks, including UDA, BDA, and KDA Mass Storage Control Protocol (MSCP) served disks. The failover disks must be served early in the booth sequence through SYSGEN parameters. All disks must have the same disk allocation class.

Volume shadowing must be installed everywhere if it is installed anywhere on CI based systems.

9.1 Local Area VAXcluster Configurations

Supported LAVc configurations include:

* Single boot node - single system disk - up to 13 satellites
* 8500 or larger system with two system disks - up to 26 satellites
* Dual boot nodes with one system disk each - up to 26 satellites
* Dual boot nodes, system disk - up to 13 satellites

New supported configurations for Network Interconnect (NI) LAVc allow DSA dual ported disks between multiple boot nodes. This will allow for higher availability. Local boot nodes are allowed with a system disk each. The quorum disk is dual ported.

9.2 Mixed Interconnect Configurations

MicroVAXes can use HSC disk servers. HSC disks are MSCP served. System disk and quorum disk must be on HSC's. Satellite must have zero votes in order to downline load software for reboot. All Maintenance Operation Protocol (MOP) servers must be disk servers. The maximum number of CI connected VAXes is still 16. The number of satellite nodes must be less than 26, and the total nodes cannot exceed 32. Unified cluster documentation will be provided.

MSCP class driver and MSCP server support is provided for mixed interconnect clusters. If two local paths are found to disks, served paths are ignored. Local paths are served first.

9.3 Volume Shadowing in Mixed Interconnect Clusters

All CI nodes must run DSDRIVER. All NI nodes must run DUDRIVER. MSCP serves shadow sets. No shadow set maintenance functions are allowed from satellite nodes, meaning satellite nodes cannot create or delete shadow sets. Mag tapes will have mount verify and failover functions supported for dual path units.

Parameters: MSCP_LOAD Controls MSCP loading.
MSCP_SERVE_ALL controls disk configurations.
MSCP_BUFFER controls I/O buffer size
MSCP_CREDITS controls server SCS outstanding requests.

LAVc SYSGEN parameters include NISCS_LOAD_PEA0 for loading the Ethernet port driver. NISCS_CONV_BOOT controls conversational boots.

The CLUSTER_CONFIG command procedure is used to setup the cluster. These functions include adding/removing nodes to the CI/NI cluster, changing node characteristics, and creating duplicate system disks for NI only clusters.

10.0 DISTRIBUTED QUEUING SERVICES (N042)

Distributed Queuing Services were announced at DECworld. Products in this area include DFS Distributed File Service, RSM Remote System Manager, and DNS Distributed Name Service for wide area networks.

DQS will be integrated with V5.0 of VMS. New commands with the DQS include:

```
PRINT            for PRINT
QSHOW            for SHOW QUE functions
QSET/ENTRY       is like SET QUE /ENTRY
QDELETE/ENTRY    to delete a queue entry
```

DQS works alright with LAT printers. Slower equipment can be used to serve printer farms. DQS can be used to concentrate printer control. Performance recommendations include up to four MicroVAX II clients, ten jobs each, with a MicroVAX II acting as print server. Background network use by DQS operations is small with 25-28 KBytes/sec throughput required over the Ethernet.

DQS thinks jobs are done when sent to servers. The /NOTIFY qualifier can be used to identify when job was dispatched to server system. Another notification is received when server completes print function, but only one attempt is made to send completion message. The DQS Print Symbiont works with user modified symbionts but uses parameter 8.

In order to manage performance, it is recommended that the number of queues be minimized, DQS is installed on the server first, and then installed on client system next using RSM.

11.0 VMS SYSTEM MANAGEMENT FUTURES (V055)

A new architecture is being defined for system management. The SYSMAN utility will be used control system management functions in a LAN configuration. A new system startup command procedure called CLUSTER_CONFIG is used for startup.

SYSMAN is a major utility intended for:

1) Consolidation of system management tasks
2) Distribution of systems
3) FORM function fit, no single configuration for system usage

The system manager issues commands to be executed in a given environment under a remote node. Most system management functions are supported. The minimum privilege of OPER is required. Commands include:

```
SET ENVIRONMENT /NODE = node1,node2 ...
SET ENVIRONMENT /CLUSTER
SET ENVIRONMENT /USERNAME = username
```

DECnet is used for NI systems, and SCS is used for cluster systems. SYSMAN will work over any net link, not just Ethernet.

```
SET PROFILE /PRIVILEGES = list
SET PROFILE /DEFAULT = []
```

These commands change the environment on all remote nodes. The proper privileges must be authorized on remote systems. Different usernames may be used. A password is required outside of the cluster for different usernames on other nodes. SYSMAN does NOT support proxy login.

SYSMAN commands control DISQUOTA functions, SYSGEN parameter changes, and configuration functions for TIME, LAVC group passwords, etc. All other DCL commands can be executed via the "DO" SYSMAN command. The need for DO will reduce in future releases of SYSMAN.

Note that the SYSMAN utility seems to eliminate the need for the Remote System Manager (RSM) utility.

System startup is redesigned. STARTUP must be a cooperative effort between nodes. STARTUP is done in PHASES, with a variable number of phases used depending on the configuration. Phases can have SUBPHASES. A given component may be controlled in more than one phase. All subphases are considered independent. The entire process is driven by a database which is modified by software installs. New cluster-wide directory is created called SYS$STARTUP.

SYSTARTUP.COM is still supported, but the new SYSTARTUP_V45.COM is invented. A new VMS INSTALL callback modifies the database on behalf of layered products. System management changes also include START and STOP cpus in multiprocessor configurations.

There are security auditing changes. AUTHORIZE is changed for new PROXY login features for password expiration handling.

MONITOR and AUTOGEN are changed. Wildcards in certain NCP commands is supported. New and changed SYSGEN commands are added and selective dump options for large memory systems will be controlled by SYSGEN parameters. For SYSDUMP, "best guess" information of what is interesting at the time of the crash is written out. There are enhancements to the SHOW CLUSTER command.

12.Ø NEW SYSTEM MANAGEMENT ARCHITECTURE (VØ54)

The current broad range of VAX configurations have strained the capability of system management. On the high end, it is very complex. Too many interfaces which result in much repetitive work. On the low end, the current system management is too complicated for typical workstation users. There is currently no model for how system management work is completed over the distributed computing environment.

In V5.Ø of VMS, there is a provision for the initial implementation of a distributed system management architecture. The goals of the new capability include:

* Consolidated functions under a uniform call interface
* Provide distributed services as a standard feature
* Provide for usage with other management tools such as network mgmt

There are three layers for the new architecture:

1) Primitive function layer for system service primitives
   (UAF, SYSGEN, ACCESS CONTROL)
2) System management integrator (SMI)
   (Integration and common services - remote server - network)
3) Human interface (SYSMAN)
   (Provides only syntatic interface to user - need for DECwindows)

There must be a "three-class" human interface, including support for workstations, bounded LAVc configurations, and dedicated system management jobs or multi-role environment (SYSMAN).

13.0 NEW FEATURES IN DCL (V060)

DCL
- IF
  - BLOCK IF
  - IF-THEN-ELSE CONSTRUCT
- RECALL

SYSTEM MANAGEMENT
- NEW COMMAND FILES
  - ADDUSER.COM - Add users
  - BACKUSER.COM - Backup user files
  - RESTUSER.COM - Restore files
- SYSTEM MANAGEMENT UTILITY
  - MANAGE CLUSTERS
  - MANAGE REMOTE NODES
  - MANAGE REMOTE CLUSTERS

SHOW CLUSTER
- ADD/REMOVE FIELDS BY NAME
  - CONNECTIONS AND SYSTEMS
- NEW CLUSTER CLASS FIELDS
  - EXPECTED VOTES AND MEMBERS
- NEW MEMBER CLASS FIELDS
  - EXPECTED VOTES
  - CONNECTION TIME-OUT INTERVAL
  - SOFTWARE VERSION

QUEUE MANAGEMENT
- CONTROLLING QUEUE JOBS
  - /CLOSE & /OPEN
- SPECIFYING OUTPUT QUEUE TYPE
  - /DEVICE=PRINTER,SERVER,TERMINAL
- SHOW QUEUE
  - /ALL_ENTRIES /BY_JOB_STATUS
  - /DEVICE /GENERIC /SUMMARY

PROXY MANAGEMENT
- MULTIPLE PROXY ACCOUNTS
  - DEFAULT PROXY ACCOUNT
  - ALTERNATE PROXY ACCOUNT
- NETWORK CONTROL PROGRAM
  - CONTROL INCOMING/OUTGOING PROXY
  - WILDCARD SUPPORT
  - COMMAND RECALL
- AUTHORIZE
  - ADD/PROXY MODIFY/PROXY
  - COMMAND RECALL

MAIL
- MAIL COMMAND
  - MAIL /CC (copy)
  - MAIL /PERSONAL_NAME
- SENDING
  - SEND /PERSONAL_NAME
  - SEND /CC
  - FORWARD /SELF
- EDITING
  - SEND /LAST/EDIT
  - DIRECTORY /EDIT
- PRINT SUPPORT
  - SET FORM
  - SET QUEUE
  - MOST DCL PRINT QUALIFIERS
- MESSAGE MANAGEMENT
  - LISTS & RANGES (DELETE/MARK)
- SELECTION (SELECT, SET FOLDER, DIR, READ)
  - /FROM_SUBSTRING
  - /TO_SUBSTRING
  - /CC_SUBSTRING
  - /SUBJECT_SUBSTRING
  - MARKED & REPLIED
- PROFILE MANAGEMENT
  - SET COPY_SELF (FORWARD)
  - SET EDITOR
  - SET CC_PROMPT
  - SHOW ALL
- SYSTEM LEVEL MANAGEMENT FOR MAIL
  - REMOVE
  - SHOW FORWARD /ALL
  - SHOW PERSONAL /ALL

PERFORMANCE MANAGEMENT
- AUTOGEN
  - FEEDBACK MECHANISM FOR:
    - PAGED & NON-PAGED POOL
    - LOOKASIDE LISTS
    - LOCK RESOURCES
    - NUMBER OF PROCESSES
    - GLOBAL PAGES & SECTIONS
    - FILE SYSTEM CACHES
    - PAGE & SWAP FILES
- MONITOR
  - MULTIPROCESSOR SYNC TIME
  - FILE STATISTICS
  - MASS STORAGE STATISTICS

14.0 SOFTWARE CONFIGURATION MANAGEMENT (V069)

VMS V5.0 is likely to support online documentation and a software access management facility (LMF).

Online documentation would support software technical documents with 100% access potential, rapid access, and ease of duplication. Documentation would be integrated with applications with automated cross referencing and would be easy to update. Eventually, all technical documentation will be online. Currently the VMS documentation set has some 22,000 pages.

Shipping of every product as a separate kit is not the right answer. It encourages patching and reduces release frequency in order to reduce cost. Consolidation is the answer. Currently, DECnet, Volume Shadowing, Journaling, and LAVc are turned on by keys. Digital would like to extend this concept to other products.

CDROM is considered the answer. Up to 600 megabytes/side (1.2 gigabytes per CD) could be distributed. It has random access and high data transfer speed. All products could be distributed on one media at one time. The distribution and management of keys would be the problem.

Some keys are necessary and should be standardized. We need to know what software is installed where and what is licensed. Third party software should be manageable with any implemented system. In general, the topology of systems should not affect the price or use of software. Any new facility must be 100% backward compatible.

The proposed License Management Facility (LMF) should be implemented with keys distributed on paper. There should be cluster-wide databases. The System Management Utility should install keys and list installed software. Information should be available on what is installed or licensed. Keys would be issued by Digital and recorded in the database. License information is loaded into the system and available for inquires from users.

Features and benefits include node INCLUDE and EXCLUDE commands, optional license sizing, support for current and new licensing formulas, allow for coping, and supports all VAXes. DEC would like to see the LMF support automatic registration of non-keyed products.

VMS V4.7 distribution will be available on CDROM for the first time.

15.0 DECNET-DOS NETWORKING (N041)

DECnet-DOS V1.0 supported Async DDCMP. V1.1 added Ethernet support. V1.2 then added VAXmate, DEPCA, and LAT support.

DECnet-DOS V2.0 new features:

- Limited PS/2 Support
- NETBIOS Emulation
- Network Commands Menu Shell
- MS-Windows Support
- Example Programming Tools
- PC-DOS V3.30 support
- VT200 Terminal Emulation
- Enhanced Network Management
- Improved Performance

New supported systems include PS/2 Model 30 async to 19,200 baud, Ethernet DEPCA, 3Com, and Micom interfaces. The Models 50, 60, and 80 are supported for async communications to 19,200 baud, but no Ethernet support.

The VT2xx Terminal emulation is separated from CTERM and LAT. The VT220 is emulated on PCs, and the VT240 is emulated on VAXmates. Support is included for most PC keyboards including XT, AT, Enhanced, LK250, and PS/2. Supports scripting and print screen functions.

Network commands use a menu shell. General enhancements include an upgraded NCP, NETBIOS control, object database, and NML server. MS-Windows support includes a new windows NFT and upgraded FAL. C libraries are expanded and DNP performance is improved. New compliers have been developed.

Futures include selected clone testing and certification, microchannel Ethernet support, coprocessor Ethernet support, OS/2 LAN manager, and windows oriented utilities.

16.0 LOW-END VAX SYSTEM PERFORMANCE (H047)

The MicroVAX III has a VAX compatible floating point instruction set with standard F, D, and G floating point support. H floating is emulated in software as is the case with the MicroVAX II. There are new operand flow enhancements. The MV3 FPA is about 3.7 times the speed of the MV2 counterpart.

Floating point benchmarks given as compared to a MicroVAX II:

Benchmark Program	MicroVAX 2000	MicroVAX 3600 Cache on/off	Type Benchmark
SINGLE.EXE	0.978	4.10 / 2.772	Floating Point
DOUBLE.EXE	0.992	3.13 / 2.735	Floating Point
HANOI.EXE	0.978	2.34 / 1.044	Integer
PRIME.EXE	0.988	4.10 / 2.777	Integer

The MV3 has a 1st level, two-way set associative, 1 Kbyte write-through cache, and a 2nd level cache which is a 64 Kbyte direct mapped cache. The overall cache hit rate is 95%. The first or second level cache can be turned off/on by console command.

The MV3 implements the following instructions in the CPU as opposed to the MV2, which implements them in software:

CMPC3/5	Compare character 3 and 5 operand
SKPC	Skip character
LOCC	Locate character
SPANC	Span Characters
SCANC	Scan for character

As a result, the MV3 is much better suited than the MV2 for commercial, database operations where character string operations are common.

The overall average performance of the MV3 as compared to the MV2 is a factor of 3.41. However, if the cache is turned off, then the overall raw CPU advantage is only about 2.33. It is believed likely that Digital may offer a version of the VM3 with the cache permanently turned off.

17.Ø VAX/VMS SYNCHRONOUS MULTIPROCESSING PERFORMANCE (VØ76)

Applications that are applicable to Synchronous Multiprocessing (SMP) include those that have multiple streams of work and are limited by CPU speed. Both synchronized access to resource, as well as seralized access to resources, will be appropriate in SMP applications. On asynchronous multiprocessing (ASMP), only the primary CPU could manipulate shared resources. Performance was workload dependant.

All CPUs can do almost any function, with the exception of interrupt handling, which is performed by only one CPU in the first release. One CPU uses Interrupt Priority Levels (IPLs) to coordinate things. Spin locks are a bit of shared memory used by all CPUs in a shared fashion. Resources use this bit to control/coordinate use of resources. Performance is much less dependant on the configuration or on which CPU is being used.

A Remote Terminal Emulator (RTE) running on a MicroVAX II was used to feed an 83ØØ with more than two CPUs to test SMP overhead in VMS V5.Ø. Three disks were used in the test. The test consisted of compile/link/edit/run sequence in FORTRAN workload simulating a university type environment.

The per CPU productivity of the SMP configuration was essentially the same as with a single CPU for up to 15 users. At 3Ø users, the SMP performance was down on the order of 6-7% with 1ØØ% CPU saturation. It was recommended that the user keep the CPU less than 8Ø% of saturation in order to retain insignificant overhead due to SMP. In ASMP, the second CPU did NOT help performance at all in this test environment. For SMP, from 1.5 to 1.6 the throughput of a single CPU was realized with 4Ø users in a two CPU configuration. For three CPUs, SMP supports about 5Ø-6Ø users, although actual testing was limited to 4Ø users.

FOR THE I/O INTENSIVE CASE with a mixed workload, there was essentially no difference in overhead in the single CPU or SMP configuration. For dual CPUs, ASMP and SMP were about equal in throughput. For large compiles, only added jobs could take advantage of the 2nd CPU in the ASMP configuration (VMS V4.x).

It can be concluded that SMP is a true extension of the VMS scheduling model to the multiple CPU environment. Under ASMP, the 2nd CPU is used only when programs could make use of it, which makes ASMP application dependant. Therefore, interactive processes get a big benefit under V5.Ø SMP. The benefit of a 3rd CPU was considerable.

FOR THE COMPUTE INTENSIVE WORKLOAD, the two CPU ASMP configuration was about 1.97 times the throughput of the single CPU. The SMP results were about the same at 1.96, while the three CPU configuration resulted in 2.95 the throughput of the single CPU configuration. In conclusion, for a compute intensive SMP application, there is a linear increase in performance with each added CPU.

In the SMP configuration, there is asymmetric handling of interrupts. Only the primary CPU handels interrupts, although all CPUs can start/issue I/O requests. It just so happens that a single CPU is more efficient in taking the interrupts. This is NOT an architectural constraint, just the chosen method of implementation. In the future, symmetric handling of interrupts may be enabled. Concerns arise if the primary CPU saturates handling interrupts. This can be a problem if the CPU is providing System Connection Services (SCS) in a cluster environment.

TUNING/MONITORING. The key to tuning is multiprocessor synchronization time, or the time required to get spin locks. Keep the MPSYNC mode, as shown by the new monitor utility, below about 8%. Spin lock overhead is rarely a problem. Only two of the spin locks, out of the 20 that are used, can be a problem. I/O lock activity is indicated by the IOLOCK8 statistic using MONITOR. Investigate the memory management MMG lock activity using the MONITOR PAGE command.

For the 8300 CPU, 250-300 faults/sec is considered high, while 1100-1200 is considered a lot on the 8800. At these levels, MPSYNC time will be too high. MONITOR IO and DLOCK to investigate IOLOCK8 activity. Keep multiple streams of work going.

SMP provides predicable results and is applicable to many types of workload. Any page fault affects MPSYNC time. Failure of either CPU will cause both CPUs to fail in the first release of SMP. In this release, a process cannot select a preferred CPU. START/STOP CPU commands work OK and will not affect the other CPU. Workload will be equally distributed across multiple CPUs.

18.0 LOCAL AREA VAXCLUSTER PERFORMANCE (V082)

Underlying LAVc overhead for CPUs was discussed. The CI port functions are implemented in the PEDRIVER and Ethernet driver for the LAVc. Thus more CPU cycles are used and longer elapsed times are encountered. Less interconnect capacity is available, although this is less important in VMS V4.5/4.6. The price/performance ratio is best in the MicroVAX configuration of the LAVc. Most I/O is intended to go through the boot node. Remote I/O uses the MSCP server software. Local I/O has no additional overhead.

18.1 LAVc I/O Performance

The following table shows the effect of local/remote I/O on CPU time in millaseconds:

		LAVc Disk	
I/O Block Size	Local Disk	Satellite	Boot Node
1	2.6	8.3	8.3
4	2.7	11.7	11.8
16	3.5	26.5	27.3
64	6.1	85.4	89.8

Ethernet I/O needs about six times more CPU time. LAVc I/O is sensitive to the I/O size. However, the distribution of I/O request sizes show the following characteristics:

MODE	1 block /I/O
MEDIAN	4 blocks/I/O
AVERAGE	5 blocks/I/O
85th PERCENTILE	8 or less blocks/I/O

The following information shows the effect of a served disk vrs. a local disk on I/O processing time:

I/O Block Size	Local RD53/54	Served 53/54	Stretch Factor (Ratio)
1	50	65	1.3
4	55	74	1.3

	Local RD53/54	Served RA81	
1	50	54	1.1
4	70	62	1.1
16	70	92	1.3

The CPU costs of a four block I/O is about 4 millaseconds of CPU. The I/O size is an important factor. The resultant effect of CPU time on elapsed time is not as great, since disk seek time is the real issue. Therefore, faster seek times on served disks is very important. Note that the speed of a served, remote accessed RA81 is about the same as the I/O time on a local RD53 or RD54.

18.2 LAVc Lock Performance

The $ENQ and $DEQ of locks occur in pairs. The client issues and ENQ/DEQ and the server serves as a resource manager. The following table shows times in millaseconds:

CPU Type	Client	Server	Elapsed Time
LAVc MV2	6.6	5.5	9.2
CI/780	2.6	1.4	3.6

Therefore, the LAVc times range from three to four times that of the Computer Interconnect (CI) cluster configuration. The following table shows the times for local and remote locks:

Lock Type	Client	Server	Factor
Local Lock	0.6	-	0.6
Remote Lock	6.6	5.5	9.2

As a result, the LAVc remote lock requires eleven times more CPU resources. The LAVc remote lock takes three times the CPU of the CI remote lock.

Locking and I/O times are only a fraction of overall CPU requirements. System managers should look at I/Os in different environments. Approximately 1/2 to 1-1/2 megabytes additional memory is needed to support the cluster configuration.

The MicroVAX II and MicroVAX 2000 have similar performance in an LAVc configuration, however, the memory limitation of the 2000 is a important consideration. Diskless nodes are acceptable, but local page and swap files are recommended if there are many users, requirements for large virtual address space, or limited memory resources. State transactions typically take about one second per node in the cluster.

18.3 LAVc Resource Capacities

The maximum theoretical capacity of the Ethernet is from 6-8 megabits/second. From two to three fully active MicroVAX II disk servers are needed to saturate the Ethernet. This will support 30 to 40 busy nodes on the Ethernet before saturation. The LANbridge is used to separate traffic from the rest of the network.

The following table shows the I/O capacity of various Ethernet adapters:

DEUNA	45 I/O per second
DELUA	100
DEBNA	115
DEQNA/DELQA	120

The above data was for four blocks per I/O, which is typical for VMS. The MicroVAX II CPU becomes the limiting factor with about 70 requests/second at 80% of CPU capacity. The MicroVAX III (VAX 3600) can handle about 2.1 times the capacity of the MicroVAX II. With four block I/O requests, 5.5 ms of CPU is required. Cache on the 3600 has little value for LAVc Ethernet I/O since the LAVc operation has poor locality of code.

The following table shows the I/O capacity of various CPUs:

11/750	40 I/O per second
8200	45
8250	55
11/780	60
MicroVAX II	70
11/785	90
3600	150
8500	170

The DEQNA/DELQA is sufficient for the MicroVAX. The DEUNA is OK for the 11/750 and 8200 class processors. For the 11/780, the Ethernet interface should be upgraded to the DELUA to serve as a boot node with maximum I/O performance.

Single RA70 or RA82 disk configurations can sustain up to 30 I/Os per second. Single RA81 configurations can sustain up to 25 I/Os per second. Single RA60, RD53, or RD54s can go up to about 20 per second, and multiple RD disks on an RQDX3 can reach about 45 I/Os per second. The type of boot node is not a factor as long as the CPU is not saturated. The server I/O limit using four block I/Os at 80% of CPU capacity is 40 I/O/sec for the 11/750, 70 for the MicroVAX II, and over 120 I/O/sec for the 8500.

Individual disks will be the limiting factor if the I/O load cannot be balanced between available disks. Do not use the boot node for interactive users if more than 50% of CPU is used for server functions. Timesharing of the boot node for batch jobs is no problem. Four megabytes of memory is sufficient for the boot/server node. More memory is needed if other activities are placed on the server node.

18.4 LAVc Tuning Considerations

Try to move the following files off of the system disk in the LAVc:

SYSUAF.DAT	JBCSYSQUE.DAT	VMSMAIL.DAT
RIGHTSLIST.DAT	NETUAF.DAT	NETNODE_REMOTE.DAT

Install as many images as possible using /OPEN/HEADER_RESIDENT. Minimize ZQP disk operation by setting up adequate caches. Don't hard code PAGEDYN, since too low a value will limit other caches. MSCP_BUFFER parameters are set by AUTOGEN to 64 blocks on the boot node and 16 blocks on the remote nodes. Use SHOW DEVICE/SERVED/ALL and increase MSCP_BUFFER if many "buffer waits" are observed.

Use LOCKDRIWT and set to 0 on the boot and 1 on the satellites if there is a smaller boot node or there is high lock activity. Set it to 1 on the boot node and 0 on the satellites if the boot node is a large CPU or there is little lock activity. Memory requirements at the satellite node are higher if it is to master locks.

19.Ø TUNING/CONFIGURING PCSA (PØ33)

The Personal Computer Systems Architecture (PCSA) software requires about 25Ø KByte on each VAX server in order to handle RMS caching. Some 25 KByte is required on the client PC. On the average, a MicroVAX II supporting database, spreadsheet, and office applications (WPS) can support about 25 active, simultaneous users. Approximately 4Ø users doing mail functions on PCs with a local hard disk can be supported. This lasts number assumes most application workload is done on the local PC disk equipment.

Support is coming on selected clones. It was mentioned that the Zenith Z248 has been used in the PCSA environment in both Texas and Washington DC.

2Ø.Ø DECWINDOWS (GØØ8)

Digital's DECwindows project is well under way but is still considered as a "futures" project. DECwindows is being designed in cooperation with other organizations to arrive at a single, standard architecture across many hardware and software systems. Under windows, both ULTRIX and VMS look the same to the user. Using windows, transportability of applications across operating systems will be considerably improved.

Windows is intended to move the industry to the workstation concept as opposed to the use of terminals. Major influences to the project include the X-Window system standard, existing PC base, and the postscript standard. The X-Window project was funded from 1984-1989 and is called Project Athena. It is supported by MIT, Digital and IBM. The current version is at level 11 and windows will be released as public code in the public domain. X-Windows is owned and managed by MIT and there is a current defacto standard which is soon to be endorsed as a standard.

PC integration will allow PCs to act in conjunction with the VAX. All PCs operating under windows will look the same and can open windows into other personal computers or VAXes. Windows will be integrated into the PCSA/VAXmate products. A bit mapped graphics display will be required. VAX "character cell" and X-Window calls will be supported by Digital

21.Ø DECNET VAX PERFORMANCE (NØ8Ø)

As a test of DECnet performance, task-to-task communications were performed with no data processing required in order to insure that the network was the limiting resource. A DEUNA and DELUA on a 11/78Ø was tested in comparison to the DEQNA and DELQA in a MicroVAX II. It was mentioned at the outset that the DELQA was invented to improve reliability problems associated with the DEQNA.

End nodes were tested with PIPELINE QUOTA = 2Ø,ØØØ (the default is 3,ØØØ). The LINE RECEIVE BUFFERS were set to 2Ø (the default is 6). A private Ethernet was used to avoid effects of other network processes.

The DELUA was able to sustain up to 2.42 Megabits/second, while the DEUNA went to 1.3Ø Mb/sec. The peak data rate was seen as about 4,ØØØ bytes per I/O. User data speeds without header and other overhead was reported.

The DEUNA peaked out at the 600 byte segment size, while the DELUA went beyond 1,400 bytes. The cost in CPU time was the same for both units. About 45 millaseconds of CPU was required for 20,000 bytes of I/O. The CPU cost/byte leveled out at 2.5 msec above 1,000 bytes per I/O. The knee of the performance curve occurred at 600 bytes per I/O.

It was shown that the relative CPU cost for Ethernet I/O was very high below about 200 bytes per I/O packet.

The breakdown of the CPU cost per I/O was as follows:

Base cost of calling $QIO was 1.1 to 1.2 ms of CPU

The cost of each segment was 1.6 to 2.3 ms of CPU

The cost per byte of I/O was approximately 400 nanoseconds, or 0.4 seconds of CPU per megabyte of user data.

Tests were made of the effects of the executor PIPELINE QUOTA. This quota limits the amount of non-paged pool used by the logical link. the maximum number of segments is equal to the EXEC PIPELINE QUOTA/EXEC BUFFER size. Segments are allocated from this quota, e.g., 3,000/576 = 5 segments.

Segments of non-page pool become available for reuse only after receipt of acknowledgement. Pipelining allows DECnet to send more data before waiting for acknowledgements. For the VAX-11/780 with DELUA, the line receiver buffer defaults to about six. The PIPELINE QUOTA was varied and the effect on throughput was noted:

PIPELINE QUOTA	Throughput
3,000	1.7 Mbit/sec
6,000	2.0 Mbit/sec
12,000	2.2 Mbit/sec
32,000	2.5 Mbit/sec

The knee of the curve was at 1,000 bytes per I/O. The conclusion was to use from 3,000 to 6,000 for pipeline quota to realize a 20% saving in CPU costs per I/O. There is little added benefit above 6,000.

Ethernet one-hop optomization was studied. The default size for a DECnet packet is 576 bytes. On Ethernet connections directly to another CPU, the Ethernet packet is set to 1,498 bytes. All Ethernet DECnet nodes send data directly to each other when located on the same Ethernet. If a logical link is made to a client alias, then Ethernet optomization will NOT take effect. This is an important item to note, since many connections to cluster nodes take place using the cluster alias name. To insure outgoing optomization, set object outgoing alias DISABLED.

Futures include improvements in the Maintenance Operation Module (MOM) downline load operations by using larger packets resulting in up to 25% improvement in elapsed load times. Reductions in the CPU used on the host is to be realized. Zero-hop optomization (from host node to host node, not going out over the network) will be put in effect. In this case, the DECnet system will realize the internal transfer of data by copying data directly from the writer buffer to the reader buffer. Performance is improved for Zero-hop transfers by a factor of 12 to about 11 megabits/second when using large buffer sizes.

22.0 MISCELLANEOUS INFORMATION

Current VAX processors, relative CPU power, and maximum memory:

Processor	CPU Power (MIPS)	Maximum Memory (Meg)
MicroVAX II	0.9	16
MicroVAX 3500	3.0	32
MicroVAX 3600	3.0	32
11/725	0.25	-
11/730	0.25	-
11/750	0.6	14
11/780	1.0	64
11/785	1.5	64
8200	1.0	128
8250	1.2	128
8300 (Dual Processor)	1.0-1.9	128
8350 (Dual Processor)	1.2-2.4	128
8500	3.0	256
8530	4.0	256
8550	6.0	256
8600	3.8	260
8650	5.5	260
8700	6.0	256
8800	6.0-12.0	256

The MicroVAX II's maximum memory will not increase beyond its architectural limit of 16 Meg. The MicroVAX 3500 and 3600's maximum memory will increase to its limit of 64 Meg. DEC does not support more than four large disks (RA81, RA82, RA70) on a single MicroVAX. DEC has offered no-cost firmware upgrades which convert VAX 8500 processors to VAX 8530 systems. Tests in a transaction environment have shown the MicroVAX 3600 to have three times the throughput of a VAX 8200, and well over three times that of a MicroVAX II. However, there have been delays in shipping the MicroVAX 3500 configuration with the RA70 disk.

There are indications that the VMS V4.7 runtime library may allow Digital to release its family of VAX symmetric multiprocessors before VMS V5.0 completes its second phase of field testing. This may allow for the announcement of the first members of the VAX 9000 family by mid 1988.

DECwindows and NFS are reported to be supported in V5.0. The Sun Microsystems' Network File System (NFS) is considered to be a key feature of V5.0.

The first member of the SMP family may include a quad-processor VAX 8700 system. An eight processor CVAX system with two RA90 disks with shared memory may show up about the same time.

Notes on LAVc use on VMS V4.6 and V4.7. If a common system disk is not set up when V4.6 is installed, then it is not possible to restructure the disk using Digital command procedures until V5.0. Therefore, if there is any thought of going to LAVc, answer "yes" to the query about setting up a common system disk during the V4.6 upgrade. It is necessary to go back to V4.5 and reinstall the V4.6 and V4.7 updates if you want a common system disk prior to V5.0 of VMS.

END OF REPORT

PPALUG NEWSLETTER

20 October 1987

The Next PPALUG Meeting

The next meeting of the Pikes Peak Area Local Users Group (PPALUG) will be held on Thursday, 12 November at McDonnell Douglas at 4146 East Bijou Street in Colorado Springs. Or host is Craig A. Brumfield, Systems Engineer in the Space Technology Division (570-4057).

This meeting could be called "Non-DEC Days" as we have invited experts outside of Digital to talk on subjects relating to the use and support of mass storage devices and memory sub-systems. Three visiting authorities will discuss subjects as summarized below:

(1) A technical representative from Executive Software will discuss the subjects of disk compression and the use of File Control Primitive (FCP) VMS parameters to improve disk performance and throughput. The on-line compression of disk files is intended to provide the functions of the backup and restore operations which are usually performed with the VMS BACKUP utility. Defragmentation of disks is one of the most often discussed System Improvement Requests (SIR) of the VMS development group. It will be interesting to understand the advantages and risks associated with on-line disk compression.

(2) Berry Eagers from Systems Industries in CA will discuss the status of disk and mass storage technologies which are applicable to current mass storage systems, as well as where the industry may be going in the future. Of some interest is the status of magnetic tape storage systems and what is being done to keep up with the ever increasing needs to backup very large capacity disk systems without spending a month of Sundays doing it.

(3) The third visiting authority will be from EMC and will discuss current trends in MOS memory and laser disk technology. We are likely to see increased use of laser disks to provide the functions heretofore provided by magnetic tape systems. EMC is expected to address this area in detail. Also, the general area of VMS use of memory resident caches will be discussed. EMC has prepared a VMS parameter tuning presentation to give system managers a brief tutorial on the techniques of making better use of main memory to improve system performance.

We will also have a presentation by our host from McDonnell Douglas on how they are currently making use of DEC computers and networks. Then, the very popular question and answer session will provide an end to what promises to be an informative and interesting day of discussions on techniques and tecnnologies.

Meeting Agenda

8:30	- 9:00	Coffee and Donuts
9:00	- 9:15	LUG Business Topics
9:15	- 9:30	Disk Compression & VMS FCP Parameters
9:30	- 9:45	Break
9:45	- 12:00	Mass Storage Technologies & Futures
12:00	- 1:00	Lunch
1:00	- 1:30	Presentation by McDonnell Douglas
1:30	- 2:45	Memory Technologies & VMS Tuning
2:45	- 3:00	Break
3:00	- 4:00	Questions & Answers - General Forum

Report on Last Meeting

Our last meeting was at Digital's Applications Center for Technology in Englewood. About 45 people attended the meeting, and it was one of our most successful yet. Excellent presentations on network technologies, futures and software products were given by a number of well informed experts from Digital. It is clear that LUG members are interested in product demonstrations and subject matter that helps us better understand how to select and use products for our computers. As a result, the meeting on 12 November will concentrate on helping with the understanding and use of technologies in the memory and mass storage areas. Additionally, we will try the tutorial concept of presenting information on how to make better use of our computers by proper adjustment of VMS parameters.

A New Mailing List

Over 1,000 mailings were made announcing the last meeting and requesting people to return information to be placed on the new PPALUG mailing list. The result:

Our list has been reduced to about 160 people, which is believed to represent those truly interested in participating in future LUG activities. If you know of ANYONE who should be included in the mailing list, please inform Jim Lind at the address shown at the bottom of this document.

Short Shots

Several products were announced at the DECworld bash in Boston not long ago. It is expected that we will discuss these products during the question and answer session at the next meeting. Included in major new products are the MicroVAX 3500, 3600, VAXstation 3200, 3500, twisted pair Ethernet, RA82 (available separately), TK70 tape, RA70 disk, and others. Rumors abound about the RA90 disk, DECserver 500, and maybe a VAX-8750 microcode upgrade.

Discussions of VMS V5.0 are heating up. It is rumored to include proposed enhancements for larger clusters, mixed-mode clusters, new system management tools, and Hierarchical Storage Controller (HSC) management software.

The Denver and Colorado Springs sales offices have verified that the Personal Computer Systems Architecture (PCSA) VMS Services software is now available for the cost of media only for those that have purchased VAXmates or PC integration kits. Extensive evaluation at Honeywell of the PCSA offerings are currently under way. By the 12 November meeting, it may be possible to comment on the effectiveness and performance in this product area.

PIKES PEAK AREA LOCAL USERS GROUP (PPALUG)
c/o Systems Engineering & Consulting, Inc.
P.O. Box 7850
Colorado Springs, CO 80933

Directions to the Meeting Place

The McDonnell Douglas facility is located in Southeast Colorado Springs not far from the Airport. Bijou intersects Academy Blvd just South of the Pikes Peak Ave. overpass. From Academy Blvd, turn East on Bijou Street and go a couple of blocks to 4146 East Bijou. Enter the McDonnell Douglas area and ask for directions to the PPALUG or DECUS meeting. Problems??? Call Craig Brumfield at 570-4057. **SEE YOU THERE BETWEEN 8:30 AND 9:00 AM, THURSDAY, 12 NOVEMBER!!!**

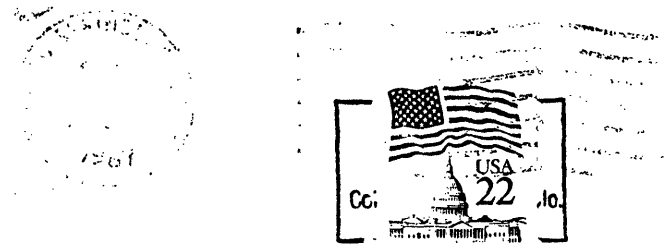
DECUS Symposium Contributions

To contribute software to one of the SIG tapes at the 7-11 December DECUS Symposium, bring it to the PPALUG meeting on 1600 BPI mag tape. Include a README file on the tape including the submitter's name and address, and a description of the files being submitted.

General PPALUG Information

The PPALUG Newsletter is the official newsletter of the Pikes Peak Area Local Users Group. This publication is available to anyone free of charge. For more information about PPALUG or to subscribe to the PPALUG Newsletter, contact Jim Lind at (303) 577-1672.

Submission of items to the Newsletter implies release for use in any DECUS publication. Send all material for publication to PPALUG, c/o Systems Engineering & Consulting, Inc., P.O. Box 7850, Colorado Springs, CO 80933.



PPALUG FOLLOWUP

27 October 1987

Approximately a week ago, the announcement of the next meeting of the Pikes Peak Area LUG was mailed out to those that returned information indicating their interest in remaining on the PPALUG mailing list. THIS WILL BE THE LAST MAILING USING THE OLD MAILING LIST.

If you did not recently receive a copy of the 20 October 1987 PPALUG NEWSLETTER, now is the time to return the form given at the bottom of this sheet and get on the new list.

The following is a correction to the agenda for the meeting to be held at McDonnell Douglas at 4146 East Bijou Street in Colorado Springs on Thursday, 12 November:

8:30 - 9:00	Coffee and Donuts
9:00 - 9:15	LUG Business Topics
9:15 - 10:30	Disk Compression Software & VMS ACP Parameters (Rick Cadruvi of Executive Software)
10:30 - 10:45	Break
10:45 - 12:00	Mass Storage Technologies & Futures (Berry Eagers of Systems Industries)
12:00 - 1:00	Lunch
1:00 - 1:30	Presentation by McDonnell Douglas
1:30 - 2:45	Memory Technologies & VMS Tuning (Kevin Fitzgerald of EMC)
2:45 - 3:00	Break
3:00 - 4:00	Questions & Answers - General Forum

Remember, return the form given below ONLY if you failed to receive the 20 October 1987 PPALUG NEWSLETTER.

See you at McDonnell Douglas on 12 November!!!

Jim Lind

Pikes Peak Area Local Users Group (PPALUG)
c/o Systems Engineering & Consulting, Inc.
P.O. Box 7850
Colorado Springs, CO 80933

Detach here and return in envelope ONLY if you have not already done so!!

Name: _____ DECUS #: _____

Address: _____

_____

City: _____ State: _____ Phone: _____

Silicon Valley Rainbow

Silicon Valley DEC PC Users Group — October 1987 — Vol. 4, No. 10

RX50 lets PC-AT use DEC disks

By Russ Mosteller

Almost since the introduction of the Rainbow, one of the major problems that Rainbow users have faced is transferring files between it and other microcomputers.

The evolution of the double-sided, double-density diskette as the de facto industry standard has made the situation even worse.

Fortunately, there have continued to be innovative solutions to the problem, including both software, such as Intersecting Concepts' Media Master, and hardware, such as Suitable Solutions' I-Drive.

A new public domain program, RX50, now goes to the heart of the problem and permits the IBM PC-AT and its clones to read and write single-sided, quad-density RX50 diskettes in its high-density drive.

RX50, written by Robert F. Morse and put into the public domain through Ted Needleman's Rainbow Corner Great Disk Deal in Hardcopy, is easy to use and well-documented. It does present a couple potential problems, but they can easily be overcome.

RX50 consists of two separate programs, RX50DRVR and RX50INIT. RX50DRVR controls the reading and writing of the RX50 diskette, while RX50INIT "initializes" an RX50 diskette which contains no files. The two programs must be installed

Continued on page 2

Word Perfect draws the line

Company plans no version 5.0 for DEC Rainbow

By Carl Neiburger

There will be no Word Perfect version 5.0 for the DEC Rainbow nor for any other non-IBM compatible MS-DOS computers, Pete Peterson, executive vice president of Word Perfect Corp., has announced.

Although Rainbow users have produced a strong and steady demand for the word-processing program, Peterson said Word Perfect managers concluded that those sales were not enough to justify the development cost.

"The IBM overshadows the other machines so much in revenue that it's hard to justify the (programming) time," he told the Silicon Valley Rainbow.

Word Perfect has consistently provided versions of its word processor for the Rainbow and other non-compatibles for the past couple years, since it became a major competitor in the software marketplace.

Peterson said Word Perfect Corp. now sells about $13,000 to $14,000 a month worth of Word Perfect programs for non-IBM compatible MS-DOS machines. Of those sales, Rainbow versions account for $10,000 to $12,000 — around 80 percent of the total. By comparison, Peterson said Word Perfect Corp. has been selling about $300,000 a month worth of its new version for Digital Equipment Corp.'s VAX mini-computer.

Continued on page 6

Hardware review

RAMbow flexes memory muscle

By Mike Pasini
Pseudo Sysop
SF Bay Area DEC PC BBS

It has a terrible name. Might as well have called it The Poindexter. But by any other name, it would run as well. So we will be obliged to refer to the thing as the RAMbow, though the name pinches us in a delicate spot.

The first memory boards available for the Rainbow were for the 100A and offered two choices: 64K for a total 128K, or 192K for a total 256K. The latter board listed for about a thousand dollars.

I remember trying to boot dBASE II under CP/M-86 and

Continued on page 4

Users group meets Wednesday, Oct. 14

The Silicon Valley DEC PC Users group meets from 7 to 9 p.m. Wednesday, Oct. 14, at Kierulff Electronics, 1180 Murphy Ave., San Jose.

To get to the meeting, take the Brokaw Road exit from Interstate 880 and turn east. Brokaw becomes Murphy after it crosses Old Oakland Road.

Take the first driveway past Old Oakland Road on the right into the PS Business Park. Kierulff Electronics is in the first building on the left.

SV Rainbow by modem

The text of this newsletter is regularly uploaded to the the San Francisco Bay Area DEC PC Users' Group Fido bulletin board and the DEC PC Forum of CompuServe.

The newsletter text is stored in files named with the letters "SV" followed by the number of the month and year. Thus SV0287.ARC identifies the February 1987 newsletter. All newsletter files except the August 1986 issue are compressed using the ARC program.

The San Francisco bulletin board operates nights and weekends only at (415) 981-3325. The newsletter may be found in file area 2, newsletters.

Public domain software

RX50 makes AT connection

(Continued from page 1)

on the AT system and its CONFIG.SYS file must be modified to include the statement "DEVICE = RX50DRVR.SYS."

In this configuration, the next available device driver is assigned to the high-density disk drive and supercedes its normal designation, namely A:.

Because most AT systems have a partitioned hard disk, the specific device driver assigned depends on the number of partitions: If there is only a single partition, device D: will be assigned; if there are two partitions, device E:, etc. Once RX50 is installed, the RX50 drive may be addressed just like any other device.

After RX50 is installed and the CONFIG.SYS file modified, RX50DRVR can read from and write to RX50 diskettes that already have one or more files without any additional effort.

If a diskette contains no files, however, it must first be initialized using RX50INIT. This is a simple and straightforward procedure. Unfortunately, RX50INIT cannot format an RX50 diskette, so any diskettes to be used must have been formatted on a Rainbow.

The other problem with RX50 is that it prevents the high-density drive from being used as an AT high-density drive. In other words, the drive can be used as either a high-density AT drive or as an RX50 drive but not as both. This restriction is only a minor inconvenience so long as there is no need to read or write from both types of diskettes frequently.

The simple solution to this problem is to create two files that can be used interchangeably as the CONFIG.SYS file, one that contains the RX50DRVR device assignment and one which does not. Whenever it is necessary to use the other type of diskette, the appropriate file can be copied onto CONFIG.SYS and the system rebooted.

This procedure obviously can be repeated as often as necessary, but it does become cumbersome if it has to be done frequently.

Over all, I found RX50 to be much more convenient and efficient to use than Media Master. I still prefer to use my I-Drive, but someone who wishes to swap information between an AT and a Rainbow but doesn't plan to purchase an I-Drive or an RB-Link may find RX50 to be a very attractive alternative.

RX50 is available on MS-DOS diskette 82 in the Silicon Valley DEC PC Users Group's public domain library.

Silicon Valley DEC PC Users Group

c/o DECTECH, 1445 Koll Circle No. 103, San Jose 95112

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This newsletter is available free to DEC PC users in Northern California. To subscribe write to:
Dennis Boodt, 237 McKendry Drive, Menlo Park 94025.

Send newsletter articles to:
Carl Neiburger, 169 N. 25th St, San Jose 95116

New Turbo may be less 'generic'

But 'command-line' version should run on Rainbows

By Carl Neiburger

Borland International Corp., has announced a new version 4.0 of its Turbo Pascal compiler this month that promises significant new features, including modular compilation and expanded program size.

But DEC Rainbow owners may be unable to use the program shell or "integrated environment," as Borland calls it, which has simplified debugging in previous versions of Turbo.

The new version of Turbo Pascal will also apparently be available only on double-sided diskettes, which cannot be read directly by the Rainbow, a Borland representative said.

Borland officials say the program shell will be designed for IBM PCs and compatibles. Turbo Pascal 4.0 will also come with a "command-line" compiler that will generate generic MS-DOS code, said Bill Burch, a Borland spokesman.

Burch said Turbo Pascal version 4.0 will only be available on "standard MS-DOS disks," which he said meant double-sided.

Borland made previous MS-DOS versions of Turbo Pascal in both IBM-specific and "generic" versions. The generic versions were available in RX50 format for the DEC Rainbow.

The Turbo Pascal command shell in versions 2 and 3 allowed users to edit, compile and run a program or search for a run-time error within a single command shell. The shell would automatically flag the location of compilation or run-time errors and display the problem line on the editing screen.

These older versions of Turbo Pascal did not include command-line compilers, and the IBM-specific versions produced programs that would not run on the DEC Rainbow.

The new version of Turbo Pascal, as described by Borland, will be capable of creating programs that use all available computer memory in their code and data segments. Previous versions of Turbo were limited to 64K bytes each for code (commands) and data (variables).

Borland says the new version of Turbo will also allow program modules to be compiled separately and then linked together. Current versions require that a program be completely recompiled each time a change is made.

The new version of Turbo Pascal will sell for $99.95 and be available to owners of earlier versions of the program for $39.95 plus a $5 shipping charge, Borland said. Borland's address is 4585 Scotts Valley Drive, Scotts Valley 95066.

Tutorials that would flunk computer literacy

By Carl Neiburger

I was one of those children who had trouble doing things just as the teacher wanted. I always thought, "Why can't I do this differently?"

Fortunately, my teachers more often than not got the idea: There is more than one "right" way of doing things.

Enter the computer "tutorial." I tried one recently. It was supposed to teach me how to use a word processor.

My first clash came when the tutorial asked me to create a file called "B:MY.DOC."

I was working off a hard disk and wanted to stay there. The B: drive was empty. Would the program accept just "MY.DOC"? No. It blipped at me. Nor would it accept "E:". It was going to be "B:MY.DOC" or nothing. We have taken over your computer screen, and you'll do it our way.

Things weren't quite as bad from then on. When the program asked me to insert "12" before the word "months," I inserted "twelve."

The computer scolded me for getting it wrong but let me continue the lesson.

A bit later I got a surprise: I had botched the first example according to the computer. I hadn't tried to. The computer had asked me to put something in boldface, and I misunderstood and did it bold and underlined. Another scolding.

I went on to the next example and did what I was told. This time I got praise: "Right again!"

Again?

I don't have any children, but if I did I would have serious misgivings about having them tutored by a computer.

Use a computer? Sure. Why not? Computers are great for typing, writing programs, making calculations, all sorts of educational things.

But be tutored by a computer?

Not until someone comes up with a tutorial program that can say things like:

— That's clever; you've found a different way of doing it."

— "Well, that's *almost* right. Let's look at it again and say where you went wrong."

— "That's not quite what I expected, but it's interesting. Can you show me that you can do it my way, too?"

Oh, yes. The program had better know how to laugh.

RAMbow: Get past the name, and you've a megabyte

(Continued from page 1)

getting an insufficient memory error on my 64K machine. It was a Friday. I could barely last the weekend. By Monday I had decided to forego the 64K board (though it was significantly cheaper) and go for the 256K. Somehow I would justify it.

A RAM disk would justify it, but there was no such thing for a Rainbow. The bulletin boards that I called had a generic version that did not run on the Rainbow. Only a few weeks later I got hold of one for my machine through Mark Graybill. I was in business.

Then the B showed up. And version 2.0 of CP/M-86/80 with MDRIVE. And MS-DOS. 896K? Whatever for?

DEC did supply 100A owners with a new option: buy a $99 adapter to use the new memory boards for the B and kick your RAM up to 832K

All that was expensive. I can't remember how much.

Then somebody found that if you bought the cheapest DEC board and bought generic chips, you'd save a mint. But you still had to get that adapter. And that $99 was always enough discouragement.

Then DEC announced an 8087 for which both A and B owners had to buy the adapter board. This made me feel a little better, but since it cost about $400, my discouragement crystallized.

I began to see life in terms of 256K.

There's very little you can't do in 256K. Very little. Just about everything fits in 256K. Especially CP/M stuff.

I guess I got tired of hearing myself. I know I got tired hearing drive A crank up WordPerfect. WP seems to cache itself, but all the same, there are some things I do that the authors of the program figured wouldn't get used too much, so they always required a disk access. On a 256K system.

So I decided to figure out how to put in a board and not spend a fortune. And I decided it was only prudent to get up to 832K.

My schemes included three different suppliers: the adapter board from one source, for $89; the bare board from another, for about $260, and some chip sets from yet another, for another $120. I had to spend between $400 and $500.

That's when I first heard about RAMbow. Jerry Miller of Suitable Solutions had designed a board with nine one-megabit chips that kicked 100As up to 896K — with no adapter!

There were some prior fabulous claims for Rainbow memory boards. Combined memory and clock boards that never materialized, for example. So I was skeptical.

Except that Miller had invented the ClikClok. I didn't have one, but I sure liked the idea. It was sandwiched between a ROM and its socket. No velcro. No muss. And inexpensive. Something I knew I had to have when I started using WordPerfect regularly.

Okay, I said, let's look into RAMbow.

Miller gave a presentation with Julie Starr at our user group meeting. Talked about the Ataris he has in the closet. And his interest in the Rainbow. And how Rainbows are finding a second life as corporate give-aways. And how people don't mind at all throwing in third party hardware to tweak them a little. What have they got to lose?

Then he passed around his products.

I actually held a RAMbow in my hand. I started to shake. This was all I needed? This little thing?

I put in an order for three of them.

ClikCloks, too. What the hell.

Why the RAMbow, after so much procrastination? I had five reasons. I could feel each of them stick me as I turned the board over in my hand.

1. It takes the 100A to 896K, rather than just 832K. Actually, the real number is something like 917K.

2. It comes fully populated with the nine one-megabit chips — the latest and greatest. No chips to install or buy or bargain for.

3. It requires no adapter.

4. It is compatible with the B, in the event that DEC ever decides to sell B mother boards for something less than $1000.

5. It was under $400.

Okay, but what's the story on the adapter?

Well, it seems that for any 100A to go over 256K, you need to remove the 8088 from the mother board — known in other species as a lobotomy — and attach it to an adapter that contains the wiring to access the expanded memory.

RAMbow gets around this: Suitable Solutions includes a new 8088 with the board. They call it a cable. $20. They call it a cable because the 8088 has a few wires epoxied on top of it and soldered to a few pins on one side. These wires plug right into the memory board.

So, you could call it — technically — an adapter. But you get a spare 8088. Great for conversations with the easily impressed. And, boy, aren't we all.

Continued on page 5

RAMbow: first megabyte

(Continued from page 4)

But how tough is it to remove the old 8088?

I did it to three machines. Two of them yielded to my persistent screw driver just like the installation manual said they would. The third didn't. Turns out that 8088 was actually soldered into its sockets. This is a manufacturing defect, so DEC replaced the mother board, which was "out of rev" anyway. I couldn't have installed their memory either, after all.

So you might say, if you can't install this board in your Rainbow, there's something wrong with your Rainbow. Which, if you have a service contract, may stir your blood.

I confess I used a little Tweek (Stabilant). I keep reading rave reviews in Byte magazine's Chaos Manor column by Jerry Pournelle. Of course, immediately after I got hold of it, the Canadian manufacturer has a letter to Byte published in which the generic name of the stuff is revealed and Tweek shown for the repackaging it is.

Anyway, after all the soldering trauma, I wanted to know these babies would slip right in. So I brushed some Tweek on them.

The installation was quick and painless. Not quite as easy as that 192K board, but as close as possible.

How about software?

You should know that the only versions of the operating systems that support that much memory are CP/M-86/80 2.01 and MS-DOS 2.11. The installation manual says as much.

I found out that CP/M-86/80 2.0 will in fact access the expanded memory, but you can't cold start the Rainbow with it. You can cold start the Rainbow with MS-DOS 2.11 and then warm start CP/M 2.0, but you can't cold start 2.0. RAM parity error is reported.

I haven't run one bit of software that has had any trouble with the new RAM. I ran stuff for CP/M-80, CP/M-86, MS-DOS, compilers, word processors, public domain editors, communications programs, spellers, spreadsheets, you name it. Everything ran fine.

In fact I nearly forgot to do this review because the board is so transparent I didn't notice it was there.

Which is how I like these things to go.

What can you actually do with 917K, besides brag about it?

Laugh at people with fragmented hard disks.

My Multiplan files show 100 percent free when I load my big spreadsheets. That's funny.

I finally got to use SmartKey 5.0D with an application program. There was no memory to use it with in 256K — except WordPerfect, if you only wrote letters with it.

And I found that I could configure WordPerfect to run very, very nicely by copying the speller to a RAM disk, loading the .SYS files to the same RAM disk — for printing, mainly — and loading the whole program into RAM with the /r switch. This leaves both drives free! So the Thesaurus (little used good luck charm) goes in A, and my data disk in B.

I've even found it worthwhile to copy my database files into RAM disks.

Noted briefly...

By Russ Mosteller

About the right DOS

A pamphlet, available for about $5, summarizes all the MS-DOS commands from level 2.0 through 3.2. Its title is simply *MS-DOS Commands*, and it's written by Van Wolverton, who also wrote *Running MS-DOS* and *Supercharging MS-DOS*.

It's an inexpensive reference for people who may be running MS-DOS 3.1 but don't want to pay $20 or so for a detailed DOS guide. It's available at Fry's and at Computer Literacy, and probably many other places as well.

DEC in perspective

MS-DOS disk 72 in the Silicon Valley DEC PC Users Group library contains some articles circa 1985 and 1986 from Infoworld and the Wall Street Journal about the Rainbow's demise as well as several DEC memoranda rebutting the articles and trying to reassure DEC customers.

The most insightful article may be one that suggests that the difference between DEC and IBM is that DEC is run by engineers who graduated from MIT while IBM is run by graduates of the Harvard Business School. (The person who wrote the article holds degrees from both institutions.)

Word Perfect won't issue 5.0 for Rainbow

(Continued from page 1)

He said Word Perfect Corp. will sell and support Word Perfect version 4.2 for the Rainbow and other computers, including the Texas Instruments Professional, the Tandy 2000 and the Zenith Z/100 through 1990. Sales and support could continue beyond then if demand continues, Peterson said.

Version 4.2 is the current version of the word processor and presumedly the last before version 5.0.

Only last spring, Word Perfect responded to appeals by DEC Rainbow users and issued a fast video version of Word Perfect 4.2, which significantly improved performance by speeding up screen response.

Peterson said Digital Equipment Corp's announcement last winter that it was going out of the Rainbow business was a factor in Word Perfect's decision:

"DEC just isn't making more of those machines," he said.

Version 5.0 of Word Perfect is expected to include features to allow more sophisticated formatting for laser printers, such as the ability to keep track of different type sizes.

Peterson said that, although Version 5.0 will have its own file format, it will also be able to save files in a format compatible with version 4.2.

New features to look for in MS-DOS version 3.10

Digital Equipment Corp. has yet to issue MS-DOS version 3.10, and the signs are not promising, but preliminary test versions — though unofficial — are making the rounds.

MS-DOS version 3.10 will add a number of new functions as well as the ability to format larger hard disks, according to a leaked copy of DEC preliminary release notes.

These release notes, for version Q3.10.013, are dated May 13, 1986, nearly a year and a half ago. The latest version known to exist is Q3.10.017.

The notes say that "all MS-DOS v2.11 programs will run unmodified with MS-DOS v3.10."

Besides the familiar MS-DOS version 2.11 programs, MS-DOS 3.10 has these new programs, imported without modification from the generic MicroSoft version:

— APPEND.COM lets you graft a subdirectory branch from one place to another on your directory tree. You could, for example, take a subdirectory that starts directly at the root and move it to one of the more remote branches or vice versa.

— ASSIGN.COM assigns a drive letter to a different drive. Thus, if you have a program that insists on finding something on a specific drive, you can fool it into looking elsewhere.

— JOIN.EXE "joins a disk drive to a pathname."

— LABEL.EXE "changes, removes or displays disk volume labels."

— SHARE.EXE allows computers attached to a network to shares resources. No more de tails were given in the re lease notes.

— SUBST.EXE lets you re name a path as a drive lette The release notes say you ca also use "a string alias," bu that doesn't seem to work. Th syntax is "SUBST (alia (d:\path)" where (alias) is t letter of the "new" drive an (d:\path) is the real drive an path.

Both ASSIGN and SUBSTi tute may require you to fo the operating system in thinking that the comput has more drives than it does MS-DOS 3.10 lets you do this b putting the instructio "LASTDRIVE=Z" in you CONFIG.SYS file. You may, o course, use letters precedin Z.

MS-DOS 3.10 also includes these new programs designed by or modified by DEC:

— ATTRIB.COM "displays o changes file attributes."

— BACKUP.EXE, a hard-dis backup utility.

— RESTORE.EXE, the coun terpart to BACKUP.

— FDISK.EXE "initialize and partitions hard disks."

MS-DOS 3.1 will also includ a new version of MDRIVE.SY the RAM disk facility. How ever the release notes sug gested that DEC was having problems using it to create RAM disks larger than 64K bytes.

It might be safer to jus keep the MS-DOS 2.11 progra The release notes observed, "Version 2.11 MDRIVE.SYS ap pears to work fine with its own MDRIVE.COM running under version 3.10."

Silicon Valley Rainbow
Silicon Valley DEC PC Users Group
January 1988 — Vol. 5, No. 1

Suitable Solutions works on 80286, graphics boards

By Carl Heiburger

Suitable Solutions is working on a 80286-microprocessor board and an IBM-compatible graphics board for the DEC Rainbow, said Jerry Miller, head of the Santa Clara company.

He said his company, which makes the I-Drive IBM-compatible disk drive and the Rambow memory-expansion board has not yet developed production versions of the graphics and 80286 boards.

"It is not a product at the moment," Miller said of the 80286 board, which also includes an 80287 mathematics co-processor.

Miller showed off the 80286 board last month at DEXPO in Anaheim to get potential buyers' comments on whether there is a demand for it and what features it should have: "We were just trying to find out what kind of (production) board to build."

He said that before the 80286 board can be brought to market, Suitable Solutions must develop ways to modify the Rainbow's read-only memory so that it will accept the chip without issuing error messages. In fact, he said, the boot code on each Rainbow disk will have to be modified to work with the 80286.

"We've had an awful lot of people tell us, 'You can't put a '286 in a Rainbow,'" Miller said. "We have proved we can do it, but we're not anywhere near being able to make a product announcement on it."

The same is true of the graphics board, he said: "We've got the hardware done." What remains, he said, is to develop software to allow the Rainbow to emulate the IBM's graphics interface.

Miller said the board will use the Hercules graphics standard.

Group meets Wednesday Jan. 13

The Silicon Valley DEC PC Users Group will meet from 7 to 9 p.m. Wednesday, Jan. 13, at DECTECH, 1445 Koll Circle No. 103, San Jose. Koll Circle is off of North Fourth Street and Gish Road, just West of the intersection of U.S. 101 and Interstate 880.

To get there from southbound 101, take the First Street off-ramp, go straight across First Street and turn right on Fourth, just before the frontage road re-enters the Freeway. Koll Circle is the first left from Fourth Street.

Continued on page 5

Public domain software

A look into command History

By Russ Mosteller

One of the most useful convenience in a VAX VMS operating system is the on-line utility that allows the user to retrieve, edit and reissue previous commands.

A similar utility for the Rainbow, HISTORY, can be obtained from the Silicon Valley DEC PC Users Group's library of public-domain software. It can run on the MS-DOS 2.xx and 3.xx operating systems.

History was written by Bryan Higgins and has evolved over time. The latest version, 2.6, is dated June 1986. The program takes only 4608 bytes, which is about half the size of the instructions that accompany it.

The instructions are well-written and easy to understand. It includes a short chronology of History and identifies differences between the various versions of the program.

Previous command can be retrieved by using the up and down arrow keys. The down key retrieves previous commands in the reverse order in which they were issued — last command first, then next to last. The up key reverses the order and moves from the command currently displayed to the one issued immediately after it.

The left and right arrow keys can be used to position the cursor anywhere within the displayed command so that it can be edited.

History is initially in insert mode, but it can be switched to overstrike by pressing the Insert Here key. The entire dis-

Continued on page 4

From the library

Format x 2, directory x BIG

By John Mandle
Users group librarian

I came across two useful utilities from the San Francisco Bay Area DEC PC Users Group bulletin board ((408) 981-3325, between 6 p.m. and 8 a.m. weekdays and 24 hours weekends).

One is for formatting from two drives — FORMAT2B.ARC. The other is a super directory display program — BIGD.ARC.

I was especially attracted to these two as I have been irritated lately by the problems these utilities cure. You can find both programs on Silicon Valley PC Users Library disk 87.

Let's suppose you are in the middle of a download and you have run out of formatted disks. What's needed is a way of generating a few quickly.

FORMAT2 and the MS-DOS FORMAT.COM programs work together to allow formatting in the A and B drives sequentially. This not only uses two drives but cuts out all of the prompting messages for disk titles and allows loading and unloading disks while the active drive is formatting.

The original program is a variation on a theme of the "Chicago Computer Society" by W.C. Weeks. The original .DOC file is included, unchanged, to give credit where due.

I tried it out on the Rainbow, and it wouldn't work because of the incompatible .BAT file commands. I made some slight changes: added the format switch to also initialize, changed the wording of the prompts and added "BELLBIG" to signal when to change diskettes.

All of these files included in FORMAT2B.ARC should be together, preferably on hard disk, or linked through paths: FORMAT.COM, FORMAT2.BAT, FORMAT2.INP and BELLBIG.COM.

You can stop the sequence after every B drive disk by hitting control-C; wait for the "Strike any key when ready ..." and hit control-C again. This will interrupt the .BAT file, and a "Y" will get you back to the default drive prompt.

The BIGD directory program has the big advantage of displaying a directory of any MS-DOS drive that you can access. This solves the annoying problem of wanting to know if a program you need is on another drive in a remote directory — all while you are still in some application program that allows you to shell out to DOS.

It is very flexible and only has one big quirk: Don't use BIGD without a drive letter. The program is IBM oriented and calls for drive C as a default.

The document file with BIGD points out that, because your Rainbow probably does not have a drive C, the result is an endless look of looking that can only be broken by rebooting.

Except for this small compatibility problem, BIGD.EXE works beautifully. It shows subdirectories, files, sizes, etc. The listing can be directed to a printer or another file by following the command with the drive letter, a ">", a space and either "PRN" to print or your own file name to save.

There is a lot of thought given in the listing format, which is clearer than most of the other directory utilities that I have used.

There is no credit given for this program, but I hope that whoever did the noble deed will step forward for the deserved credit.

Silicon Valley DEC PC Users Group

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This newsletter is available free to DEC PC users in Northern California. To subscribe write to:
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Send newsletter articles to:
Carl Neiburger, 169 N. 25th St. San Jose 95116

Software review

Turbo 4.0 goes modular but stops short of Modula

By Carl Neiburger

A couple items of good news: The new version 4.0 of Turbo Pascal works on the DEC Rainbow — albeit the "command line" version only, and it's got enough improvements to make it worth getting.

The bad news also comes in twos: You're going to have to forget about using Turbo's "environment," which allows you in earlier versions to switch between its compiler and editor and to run programs without leaving Turbo.

The Turbo environment has become extremely IBM-specific, and the full-screen version of Turbo Pascal *will not run* on the Rainbow, period. Code Blue, the IBM emulator, won't help.

The other piece of bad news is that many of the built-in commands are built-in no longer or are included in IBM-specific libraries. Fortunately, most of these are simple ASCII escape sequences to do things like clear the screen or position the cursor. It is very easy to write your own library of them.

A couple other inconveniences:

— You must also find a way to copy the Turbo files from the double-sided disks that they come on to the Rainbow's single-sided drives.

— And you won't be able to use TPUMOVER, a library utility that comes with Turbo 4.0. It will hang your machine. Fortunately, a public-domain alternative called TPULIB has been written by Brian Foley of TurboPower Software. It is available via CompuServe and will soon be added to the Silicon Valley DEC PC Users Group Library.

Turbo Pascal Benchmarks

	Version 3.01	Version 4.0
Savage	7.49 secs. 11,450 bytes	6.57 secs. 6,944 bytes
Fibonacci	215.27 secs. 11,403 bytes	229.40 secs. 4,000 bytes
Sieve	16.56 secs. 11,536 bytes	14.12 secs. 4,192 bytes
Real math	2.64 secs. 11,451 bytes	1.79 secs. 5,712 bytes
accuracy*	1.01E-9	1.01E-9

* shows the fractional error in calculation.

Turbo Pascal 4.0 might better be dubbed "half-way to Modula-2, without changing syntax."

Its manufacturer, Borland International was clearly faced with a dilemma: It had a best-seller in Turbo Pascal 3.0, but users were demanding advanced features that aren't part of Pascal, like long integers, modular compilation, calling procedures as variables and co-processing.

The company had announced a couple years ago that it planned to issue Modula-2, but an MS-DOS version of Modula-2 never appeared. A CPM version was quietly farmed out to another distributer. No doubt, Borland officials feared confusing its customers with a language that is not quite like Pascal.

The solution: Create an extension of Pascal to allow long integers, modular compilation and the use of compiled libraries. Forget about co-processing. Don't formally allow procedures to be called as variables, but create a simple workaround using pointers.

The result is a compiler that lacks some of the elegance and flexibility of Modula-2 — or, for that matter, C — but is never the less extremely useful and efficient.

In allowing modular compilation, Borland created an extremely smart linker that picks and chooses only the procedures it needs from each library — even Turbo's standard run-time library — during compilation.

If you use 10 functions and procedures from a library with 20 functions and procedures, only the 10 that you need will be included in the executable file.

And, yes, Turbo 4.0 creates .EXE rather than .COM files, meaning that code size can exceed 64 kilobytes, though each separately compiled module is limited to 64K.

There are some frustrating restrictions: Unlike Modula-2,

Continued on page 5

Public domain software

History lets you thumb through commands, edit them

(Continued from page 1)

played command can be issued simply by striking the Return key, regardless of the current cursor position.

If this were the only way that History could be used, it would be a very useful utility. But Higgins has built several features into the program that make it even more convenient. Here is a list of the commands:

Up Arrow or Prev. Screen: Move back through previous commands.

Down Arrow or Next Screen: Move forward through previous commands.

Left Arrow: Move left one character.

Right Arrow: Move right one character.

Shift-Up: Move to beginning of line.

Shift-Down: Move to end of line.

Shift-Left: Move left one word.

Shift-Right: Move right one word.

Delete: Delete character before cursor.

Remove: Delete character under cursor.

Shift-Delete: Delete from beginning of line to cursor.

Shift-Remove: Delete from cursor to end of line.

Insert Here: Switch between insert and overstrike mode. When in overstrike mode, the cursor style is changed. If you use a block cursor, it will change to an underscore and vice versa.

Return: Send the line.

Select: Select and find search string.

Find: Find next occurrence of same search string.

Do: Select and find one character; send the line.

Help: Show the contents of the History command file, from oldest to most recent.

Exit: Same as typing "EXIT." This can be used to leave command shells created by secondary programs.

Interrupt: Turns History off; commands are passed directly to the operating system until control-Z followed by Return is typed.

Control-Z plus Return: Reactivates History after it has been turned off by Interrupt.

Semicolon: If this is not the last character on the line, the semicolon divides the line into separate commands, which are fed to DOS one at a time. If it is the last character on the line, it is included in the command. To include a semicolon in the middle of a command, type it twice.

All of these commands function properly except for Shift-Delete, which is supposed to delete from the beginning of the line to the cursor. Because you can do the same thing by repeating either the Delete or Remove commands several times, this problem is at worst an annoyance.

History is installed as memory-resident simply by typing the command "History." However, because history works by trapping a DOS function associated with the DOS COMMAND.COM file, it is imperative the COMMAND.COM be the first program to call it.

There are a number of ways to ensure that this occurs:

1) Include History as the *last* line of the AUTOEXEC.BAT file if you wish it to be active every time you boot your Rainbow.

2) Type it as the first command that you issue after booting your Rainbow.

3) Include it as the *first* line of any batch file other than AUTOEXEC.BAT and run that batch file as the first command that you issue.

History is automatically inactive while application programs are being executed, because there otherwise might be a conflict between the functions performed by certain keys.

You may want to make it inactive at other times, like when the printer is in use, because History intercepts the commands that the printer expects to see.

The solution is to turn History off with the Interrupt key and reactivating it later by typing control-Z, Return. Of course, commands issued while History is inactive cannot be retrieved later, but all those issued before it was turned off can be retrieved.

Someone who works almost exclusively with only one or two application programs may not need history, but virtually anyone else will find it addictive. It saves time, reduces errors and greatly reduces the drudgery associated with issuing repetitive commands.

Version 2.6 of History, along with its instructions, is available on disk 84 of the Silicon Valley DEC PC Users Group library. An earlier version, 2.4, is available on disk 60, but version 2.6 represents a substantial improvement.

WordTech says it will fix bug in dBXL

By Carl Neiburger

Better hold off if you have plans to buy dBXL, the moderately priced dBASE III plus compatible.

Several users have reported a major bug in the Rainbow version of the program, and WordTech, the company that makes dBXL, agrees it's there: The program crashes when you press the 1/! key.

"It's a bug. It's a bad bug," said Renée Wildman, the company's public relations supervisor.

She said WordTech has found a fix which will be provide free to owners of the Rainbow version of dBXL, but the company isn't ready to ship it yet.

The fix will be included in version 1.2 of dBXL, which hasn't been shipped yet, though Wildman said she hopes it will be out by the end of January.

dBXL 1.2 will also have some new features. Wildman said people who want instructions on using those new features will have to pay an upgrade fee, but no fee will be charged to those who merely want the bug fix.

Wildman asked people who own the defective version of dBXL to send a photocopy of their work disk No. 1 to Nancy Bergeson, customer service manager, WordTech, Box 1747, Orinda 94563. The company's phone number is (415) 254-0900.

The old version of dBXL sold for $169. Prices for the new version and for the new manual weren't available at press time.

Software review

Turbo 4.0 loses environment

(Continued from page 3)

procedures in separately compiled modules cannot call each other recursively. That may force you to create unnecessarily large modules. Borland says it will solve that problem in the next version of Turbo.

Like previous versions of Turbo, 4.0 will flag the location of errors during compilation. Only, because you're operating from the command line, it won't take you directly to the error. Instead, it will give you the file name and line number and will print the line. You must then find it on your favorite editor.

To find a run-time error, you must have a "map" file, created if you select the appropriate compiler option, on disk.

Turbo 4.0 does come with some command-line switches that let you specify such options as running the program directly from memory, without creating an .EXE file, or recompiling all modified library files before compiling the main file. You can also specify standard settings for these switches in an auxiliary file.

The Turbo 4.0 instruction manual is about the size, shape and weight of a brick. It was obviously written by a committee, and its tone varies from informative to obscure to condescending depending on what chapter you are in. Most, however, is far better than average for computer manuals.

The best part is Chapter 27, a cogent alphabetical summary of all the subroutines and predefined identifiers and how they function. Nearly everything that you want to know is in that chapter, which is lucky, because it's often hard to find things elsewhere.

The index fails to differentiate between casual mention of a topic and a major discussion. More than once I've turned to a page cited in the index to find that the only mention of the topic is in a cross-reference to a different page.

All in all, Turbo 4.0 represents a major step up from 3.0, even if you lose the advantage of the on-line editor. It compiles very efficiently and performs solidly. As the chart shows, it is marginally faster than its predecessor, and it produces far more compact files.

And though Borland is focusing more and more on IBM hardware-specific programs, it has created a command-line compiler that is very flexible and can be used with a wide variety of machines, a compiler, as it were, for the rest of us.

Borland's address is 4585 Scotts Valley Drive, Scotts Valley 95066, phone (408) 438-8400.

How to get to meeting

(Continued from page 1)

From northbound 101 turn south on 880 and follow directions for 880.

From 880 going either direction, take the First Street offramp and turn north. Then turn right on Gish Road, the second intersection north of the freeway.

Go three blocks, till Gish dead-ends, and turn left on Koll Circle.

SVLUG

January 1988

Sacramento Valley Local Users Group

Happy New Year! Hope those who attended the DECUS symposia in Anaheim in December spent a fruitful week there and didn't get into too much trouble at Disneyland. Did anybody get any of the Vax Anniversary cake??
New business for the year includes:

- New phone list!
- Survey form for soliticing LUG interests
- Monthly meetings??
- Disk Optimizers by Kim Bromet
- Regional Meeting
- Resurrection of the VAX Sig??
- New SIG tapes for Spring of 1987
- Next LUG luncheon

Announcements

Third Annual Western Regional Decus Conference to be held March 24-25th at Hotel Nikko near Union Sq. in S.F. Submit sessions on call-for-papers form to:

Peter Wanger, Program Chair
1604 McDonald Way
Burlingame, CA 94010
(415) 692-3870

****

Tentative Lug Meeting scheduled:
Wednesday, February 17th, 11 am.
Topic: To be decided. EMC^2 on optical disks or Graphon on graphics terminals. **See flyer enclosed.

Articles

I need your articles for the newsletter. I can accept text files on rx02, rx50, Mac disk or IBM 5 1/4" diskettes. Hand written stuff is okay too!. Please submit to:

Pat Winton
Geology Dept
Davis, Ca 95616

Call (916) 752-7421 or leave a message at 2-0350 if you have ?'s.

Lug Officers

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Sec-Treas:Chris Cummins	643-3444 (wk) 481-0661(home)
Newsletter Editor: Pat Winton	752-7421 752-0350
Tape Librarian: Jerry Barak	643-3444
UCD Tape Librarian: Earl Betram	752-7762

TAPES

Jerry Barak has SIG tapes for Spring 1987 for VMS, RSX, RT and RSTS. Procedure is to send twice as many tapes as you would like back and also return postage. Vax 1600 BPI distribution will take three tapes, all others require only one tape. Call Jerry or send to:

SM-ALC/SCSE
McClellan AFB, CA 95652

Earl Bertram has some SIG stuff on TK50, give him a call at number listed above.

Sacramento Valley Local Users Group

The News Sack

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Desperately Seeking A Disk Optimizer

An article for the Sacto Valley LUG Newsletter by: Kim Bromet, System Manager UCD Computing Services

I was constantly building them up. They were continually tearing themselves down. I felt condemned to repeat my arduous tasks forever. Clearly, the disks were doing everything all wrong. They were fragmenting my files. They had scattered free space all over the place. Files were turning ugly and discontiguous. The smaller ones had migrated to the low logical block numbered end of the disk. Chaos.

All these things were draining the computer, robbing it of its life's blood, making my life miserable. That night the disks strangled the computer and I was trying to explain to everyone (including myself) why I shouldn't be shot for allowing it to happen. My lawyer threw me to the wolves. Traditionally, I was given a last request. I pleaded for a disk optimizer. Just as the death sentence was carried out, the scene changed.

I found myself surrounded by hellish flames and assigned to manage a micro-computer called The Jumbo Shrimp. The Devil was doubled over with laughter. My lawyer had preceded me. He looks quite at home here - just as I had always suspected.

~In General~

System managers have anxieties about things like that and how to keep the unthinkable from happenning. Since I have a rather large user community to worry about, I started looking into disk optimizers to answer some of my concerns.

I think every manager will agree that the VAX has plenty of CPU horse power. I can't remember the CPU ever being overburdened. When a system manager thinks about improving system performance these days, his/her mind naturally turns to thoughts of disk performance. This is a big sticking point in VAXen and any improvement at all is welcomed.

It is clear that system performance would be aided if the disks could be kept pristine. In the past, this was accomplished by the process of image backup and restoration of all disk files. This process periodically "compressed" the disk and restored contiguity. Literally, this was considered "the best you could expect". However, this was a costly operation since all user activity would have to cease during the course of the backup and restoration. A lot of installations could not afford to be "down" for so long.

To answer these needs, several companies developed disk optimizer programs that ran online, but late at night or in the morning when computer utilization is low. Conflicts arising between the optimizer and the user were resolved on the basis of first access rights and the level of intensity one gives to the optimizing task.

~Selection Process~

The disk optimizer we purchased was part of a joint venture of five departments. Since optimizers are not cheap, I strongly suggest such an approach to minimize cost. By purchasing eight units at a time, we were able to negotiate a better deal. The optimizer was evaluated based on the following list of requirements:

1. Support single-disk systems
2. Support bound volumes
3. Perform file placement
4. Optimize contiguous free space
5. Operate without shutting down the system
6. Run in batch mode
7. Support wide range of third-party disks

All of the optimizer vendors agreed to send us a demonstration tape of their programs. They all had a limited life-time feature built in.

Each of the five departments made a run of one of the optimizers and we went about comparing notes. Each of the optimizer programs had differing philosophies and strategies. We feel we made the best choice based on our applications.

~Strategies~

The optimizer we chose addresses the following strategy in structuring disks:

1. The bulk of the INDEXF.SYS file tends to be placed in the middle of the disk. We position directories between the "center" of usage and the INDEXF.SYS file.
2. Files that are accessed during normal time-sharing are positioned at the center of usage of the disk.
3. We center some scratch space.
4. We allocate scratch space on another disk. This enhances the ability of the optimizer to make all files contiguous and consolidate all available free space.

Disks with executable files that are installed as shareable or privileged were optimized prior to being "installed" since once they are installed they become immovable. These files are not volatile and so tend to stay contiguous.

~Results~

Run time for the optimizer will vary depending on the degree of fragmentation, scratch space available, the number and size of the files, the level of optimization one selects and the CPU. On the VAX-11/785 at 1:30 AM, a half-full previously optimized RA81 takes 30 minutes to run at level 3. The first run took considerably longer, but improvement was rapid.

To my knowledge, no objective performance data is available for a non-fragmented versus a fragmented disk. It seems clear that there may be significant differences resulting from certain operations.

It seems evident that files that represent a data base whose growth results in ever greater extents would benefit from file consolidation. Reading and writing times should clearly decrease.

Programs, such as SAS etc., that require large number of temporary working or scratch files for intermediate computing, should benefit greately since the time it takes to create, read, write and delete such files would decrease also.

Not so clear, at least in being able to measure, is whether centered directory files would allow a quicker access to files by the users. It would seem so. Generally, to convert all available files to contiguous files, as well as all available free space to contiguous free space, is obviously an advantage.

Specifically, to center all available free space and certain key files around the center of usage is optimum since head movement and seek times are reduced. Reduced head movements over the lifetime of the disk can be an added bonus.

Although my benchmarking of this optimizer is not completed, I am able to conclude that the time required to create contiguous files is up to 17% faster than before. This figure may vary widely depending on the severity of fragmentation. Contiguous best tries are up to 8% faster. With file placement of directories and certain key files, one would expect measurable improvements. The benchmarking of these items aren't easily accomplished and will require more work.

~In conclusion~

I would recommend some kind of action be taken periodically to optimize disk files. No computer is immune no matter what its size. A Micro Vax II may be part of a system of computers that contain a number of sizeable disks. The more dynamic or volatile the disk, the greater the need for file maintenance. This seems to be a fact of computer life.

Sacramento Valley Local Users Group

The News Sack

Survey Form -- Please Return!!

Please check the topics that you would like to hear at a LUG lunch and answer the questions concerning the LUG mailings. Thank you. Patricia Winton.

Topics	Check Yes or No
Optical Disks	
Mac-Vax Communication	
Disk Fragmentation	
Scientific Word Processors	
Accounting on VMS	
Vaxset Tools	
Kermit Usage	
Graphics on Workstations	
RSX Migration paths	
Crash Dumps	
Futures in VMS	
VMS version 5.0	
Local Area Vax Clusters	
Non-Dec VaxClusters	
TPU "DIREdt"	
VAX 2000	
C in the Dec Environment	
Desktop Publishing	
4th Generation Langs.	
Network Protocols	
Non-Dec Network Protocols	
DBMS Tools for VMS	
Symmetrical Processing	
ALL-IN-1	
Datatrieve	
Vax Tuning	
Backup	
Forms and Queues	
Vax Notes	
Diagnostics	

Other topics??:

_____

_____

_____

If you know someone who is willing to speak on a topic, please list their name, phone number and a topic in the space below:

_____

_____

_____

_____

_____

My phone is wrong on page 2! Please use this number:

Name: _____

Phone: _____

I am not on the mailing list! Please add me:

Name: _____

Phone: _____

Company: _____

Address: _____

State, City, Zip _____

Member?? Yes: No: _____

I would attend monthly meetings.

YES NO _____

Please return this form to:

Patricia Winton, SVLUG Newsletter Ed.
5010 El Cemonte, Davis, CA 95616

VOX VAX

BAYVAX LUG Newsletter

BAYVAX LUG
P.O. Box 50444
Palo Alto, CA 94303-0444

DECUS

Bill Pedersen/Chairman

Ed So/Editor/Publisher

October 1987 Vol. 8 No. 7

A Note From The Editor

We are a little bit behind in getting this Newsletter out to you folks this month because I didn't get all the articles from the responsible parties much sooner than I expected. However, we are getting there and we'll be better, I promised. As Bill Pedersen, our Chairman, says, VOX VAX is evolving and we want you to be part of it so don't hold back on us. Contribute whatever you can to make the Newsletter a great resource for all of us.

As some of you may have heard, some hackers broke in one of NASA's VAX systems and shook up NASA and DEC as well. From what I can gathered, older VMS (version 4.5 and earlier) has a hole in it that hackers will be able to break in and could possible damage your system. The good news is that the virus goes away as soon as you upgrade your VMS to the latest version 4.6. The bad news is that not everyone has it yet. So if security is your main concern, make sure to bug your DEC representative and demand to have your VMS upgrade to version 4.6 ASAP. And don't forget to change the passwords on those privileged accounts such as SYSTEST etc.

I am heavily involved in networking these days and I assumed most of us are since networking is the "in" thing of the 80's. I worked on the NASA Space Station Program at Lockheed and we must provide a coherent networking environment for us to perform our job. The network is complex due to the number of players involved and the long term commitment of the project. The network that we are going to have must support various computer systems, workstations, and microcomputers. Also, we have to provide the capability to move information electronically among various companies and NASA headquarters. Hence, we also have to provide software/hardware solutions to ensure data compatibility among different machines that we have to deal with. With the great help from DEC, Unigraphics, Interleaf, and other vendors, we are putting together a showcase in our facility that will demonstrate the above capabilities. That's excitement! And thank you to DEC and the vendors that put in all the time, effort, and resources to make this a happening!

Ed So/Editor/Publisher

JUST A QUICK NOTE

As I write this I'm winging my way Westward after a couple days of work in Washington, D.C. DIGITAL has introduced the long awaited cVAX, aka MicroVAX and VAXstation 3000's, and DECWorld, attended by several BAYVAX members, is behind us for another year. The Symposium at Anaheim is just around the corner and the regional conference pops up in the February-March time frame.

In the meantime I have to complete one product, port it to Tandem, release updates to two other products and travel to Washington a couple more times, too. No, no complaints; this is what business is like at times and that's fine!

We've promised to have more meetings in the North Bay; we just met at USF. Many thanks to Jim Fitzgerald for setting up the facilities. Also, thanks to Chris Rhode (LMSC) for the quick tutorial on Rights Lists, Access Control Lists and security. Hal Kafka (West Bay Consulting) and Stuart Bodzion (Tri-Valley Growers) deserve a heartfelt thanks for participating in the 'Grey Beards' session. We are planning on meeting in the North Bay again for the 3 December 1987 meeting.

As you may have noticed, the VOXVAX Newsletter is evolving. Note the working group chair people are listed on the roster now. These people are a great source of information in the areas they represent. Use them as a resource and participate in the working groups. The VOXVAX prints papers and notes from the working groups.

Katie Matice is our 'Digital Counterpart' for BAYVAX. She helps arrange speakers, makes sure our meeting notices and the VOXVAX get mailed, and is an all round help when BAYVAX needs it.

See you at Lockheed on 15 October!

Bill Pedersen
BAYVAX Chairman!

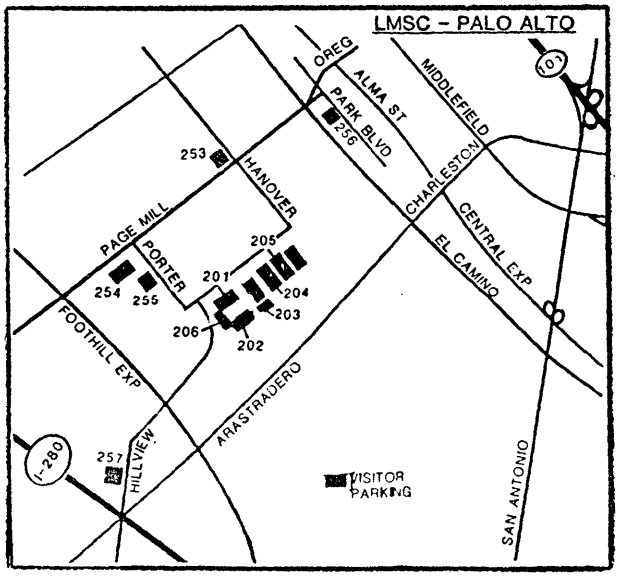
Next Meeting

Our next meeting will be held on **Thursday, 15 October 1987** at **9:00am** in the auditorium of building 202 at the Lockheed Research Labs in Palo Alto (NOT down by Ames). Get on Page Mill Road and turn onto Hanover, going away from Palo Alto (south). Hanover will wind around to the right and go up a hill. Just before reaching the top of the hill, turn left into a parking lot. There will be stairs on your right as you go into the parking lot - walk up them. The building farthest from Hanover is building 202, you will see signs in the dorrway. The map of the location is shown to the right.

We'll have two speakers for this meeting. Mr. Roger Smith will talk about Cluster Management at NASA. And Pattie Thompson will speak on μVAX.

Just to let you plan ahead, here's the schedule for the upcoming events that maybe of interest to you. Write them down on your calendar now for future references. Details will follow in upcoming VOX VAX Newsletters.

Dec 3, 1987	BAYVAX Meeting - North Bay
Dec 7-11, 1987	DECUS Western Symposium - Anaheim
Jan 14, 1988	BAYVAX Meeting - South Bay Symposium Reports
Feb 25, 1988	BAYVAX Meeting - South Bay
Feb - Mar 1988	Regional Conference



Pass The Paper

Collection of inquiries, discovered information, etc. that members of the LUG would like to communicate to the rest of the LUG. Please respond to the submitter's phone number if you can enlighten him/her.

Anyone know if I can hook my Megatek 7200 Graphics chassis to a BI Unibus adapter?
Nolan Hinshaw, DAVID Systems

Recommendation on Defragger.
Cec Heggarty
Santa Clara County
Mental Health Systems Office
Room 147A, 645 South Bascom Ave
San Jose, CA 95128
(408)299-5995

There is a disk defragmenting utility available through the DECUS Software Program Library and it is called JUICER. Has anyone used JUICER on their disks?
Tim Anderson, Advent Systems, Inc.
(415)961-9400

—— *I wrote this. Last VOX VAX Pass the Paper. Had someone looking for Defragoor into, contact Ron Ibarki, Applied Signal at (408) 749-1888. Contact him to see what he has found?*
Chris Rhode, Lockheed Research Labs
(415)424-2823

What is the availability of systems analysis and design software on the VAX. An example on the IBM PC is "Excelevator."
Clinton Lewis, Diasonics
872-2722

1) Any experience with DTF with VAX & IBM MVS environment?
2) References for training consultants who teach users All-In-One & WPS Plus?
Barbara Graham, U.S. Leasing Corp.
(415)627-9496

We are looking to rent system time from someone who is running Datatrieve and has BASIC to evaluate conversion project. Any info would be greatly appreciated.
Robert J. Miele, OSIRIS, Inc.
291 North Bernardo Ave
Mountain View, CA 94043
(415)968-4422

Interested in custom software that will permit new/ novice users/system manager to monitor system/user performance.
Cec Heggarty
Santa Clara County
Mental Health Systems
(408)299-5995

Does anyone have performance information for a LAN with microVAX 2000 as the network server and 12 PC stations (NCR PC-8's) connected via thin-wire Ethernet?
Helena Gin, E.F. Hutton
(415)954-9200

VAX CLUSTER - anyone have experience with dual porting RA disk drives between a HSC and UDA-50?
Kevin Adams, VLSI Technology Inc.
(408)434-3165

Looking to purchase software to un-fragment my RA-81 disks. Any recommendations, advice or horror stories would be appreciated.
Mike Voight, FHLB
(415)393-1585

—— *See my previous comment. Contact Ron Ibarki.*
Chris Rhode, Lockheed Research Labs
(415)424-2823

Last Meeting

We held our last meeting Thursday, September 3, 1987 from 9:00am until 11:30am in the Parina Lounge at University of San Francisco. Many thanks to Jim Fitzgerald/USF for hosting the meeting. Bill Pedersen, BAYVAX LUG Chairman, started the meeting at 9:10am with the "Pass the Paper" and attendance sheets, tentative topics for the next two meetings: Cluster management at NASA and µVAX, and had various announcements. Bill also commented on the parking problem at USF and we are looking for volunteers to host future BAYVAX meetings. Volunteers can contact Robert Young. Robert is the vice-chairman of BAYVAX and he is also the meeting coordinator. Last month's VOX VAX Newsletter went to all members that are current on our mailing list to promote our Newsletter. Normally, only subscribers to the Newsletter will get them and non-subscribers will get the Meeting Announcement only. Since we have new members joining our group, we would like to take the opportunity to introduce them to our Newsletter. To subscribe to the Newsletter, send a check of $5 to our Treasurer. Our Newsletter also takes on a newer format, working groups and DEC counterpart are listed. Working groups are alive and well and they will hold their special meetings after the breakout at lunch time.

A new magazine called DATABASE Programming & Design is looking for authors. Some handouts were given at the meeting to potential authors. Those who are interested should contact Regina Starr Ridley, Editor.

Brad Bosch, Western Regional Conference Chairperson, talked a little about the upcoming Western Regional Conference to be held around March 1988 in San Francisco. Brad is looking for input and volunteers.

Our first speaker was Chris Rhode from Lockheed Research Labs in Palo Alto. Chris talked about (Access Control Lists) ACLS and RIGHTSLIST which are available in version 4 of VMS. ACLS can restrict file access to an UIC. ACL is a collection of (Access Control Entry) ACEs. RIGHTSLIST is the symbolic identifier. Chris warns us about creating files over DECnet may not work with ACLs. Instead, it will take the default protection from the target system. Chris provided handouts and a paper he authored on ACLS and the RIGHTS database. Chris finished his talk and took some questions afterwards.

Chris talk ended around 10:20am and we took a break for 20 minutes.

Bill Pedersen resumed the meeting at 10:50am. He made the next meeting announcement once again in case the late comers didn't know. Bill then introduced David Starr from the Database Programming & Design magazine editor to give a little intro of the soon-to-be released new magazine. They are looking for authors.

We didn't have a second speaker but we had a "grey beard" open forum session instead. *(The acoustic was not very good at the USF Parina Lounge so some of the notes I took below are from my minutes instead of from the recorded tape — Editor.)* Questions raised were:

- Is it possible to have multiple usernames such as SMITH for use with the MAIL utility?
— No standard way in doing it, system manager can create his own list to maintain it.
- Digital Distribution Center sends out wrong media. Does this happen often?
- Problem with option G in VMSINSTAL. Documentation is misleading.
- Can one restart Backup in the middle?
— No. Must start all over again.
- Can one do backup in batch mode?
— Yes. Just alert the operator to mount the tape when the batch job starts. And if you are the one to do the backup, make your console to receive messages. For µVAX, OPCOM is not started automatically and Backup uses OPCOM facility so µVAX system person must starts OPCOM manually.
- Problems with the Screen Management Facility SMG. In Debug, cursor is all over the place. Also, reverse video is erratic. These problems seem to occur on VMS 4.5 and not on VMS 4.4.
- How to paint lines on the screen?
— Text entry will wipe out underline lines. Need to use composite character to show underlined text after text is entered.
- Journal file problem. There's a bad record in a journal file for some unknown reason. Can one get rid of the bad record and use the journal file for EDT recovery?
— Try using Analyze/RMS, FDL, or TPU.
- Do I have to shutdown the system inorder to perform a full image backup of the system?
— No. All the files will be backup and only a couple of files will not be backup but no big problem with that.
- Anyone has experience with lost pointer to the MFD?

- continue on next page -

- Last Meeting *continued* -

• µVAX 2000 LAN questions: can it support 12 workstations? support NCR and PCSA?
• DBMS on µVAX. Overflow on TK50 tape. Also, DBO Backup from disk to tape will take 90Meg but Backup from disk to disk only takes 60M, why?
—Blocking factor to disk is 32K but blocking factor to tape is 8K. That's why it can chew up more storage on tape during backup.
• Can one change the creation date of a file or files? We need to change a lot of files.
—No utility to do that with VMS. Need to write a small RMS program to do if you don't want to move the files from one directory to another to change the creation date.
• DECnet - problem with transferring files with Mail. Also Link files from another node doesn't work properly.
—Link image from VMS 4.2 works ok on files on other nodes. Try to get the old Link image from VMS 4.2. This Link problem is still not fixed in VMS 4.5. Maybe VMS 4.6 will take care of it.
• LA100 printer ribbon. Only the top portion of the ribbon is being used, can we reverse the ribbon and use the other half?
—Both sides are used, the ribbon is twisted inside the cartridge so they are used. If not, there's no easy way to do that.

We broke at 11:45am and the working groups started their special interest meetings.

1988 DECUS Western Regional Conference Update

A few months ago I thought I was standing in the line for DECUS tapes but when everyone took one step back and then began congratulating me for stepping forward to become the Chairperson for the 1988 DECUS Western Regional Conference, the only thing I could say was:

"HELP !!!!"

Yes, I do need help from everyone. If you have every thought it would be interesting and rewarding to become more active in DECUS, here is your opportunity to do so. There are a wide range of activities that need to be performed before,during and after the conference, which allows you the opportunity to
work as little or as much as you wish.

If your interested or want to get more details, Please call me at (415)369-2323. If no one is in the office an answering machine will take your message and I will return your call.

The conference is tentatively schedule for late February early March 1988 somewhere in the Bay Area.

Thanks For Your Support.

Bradford D. Bosch
Western Regional Conference Chairperson

Office Automation Working Group

The OA Working Group provides a forum to exchange information and experience about DEC or third party VAX commercial and office automation products. Working Group exchange sessions are held immediately following the regular BAYVAX meeting. We welcome your participation. At the October meeting we will discuss current concerns and topics for future sessions. If you are interested in participating in the group but will be unable to attend the meeting, please call Barbara Graham (415)627-9496 with any suggestions. Just a reminder if you are an All-In-1 or WPS site, be sure to help influence the future development of these porducts from the users point of view by completing the OA Sig's System Improvement Request (SIR) ballot in the August DECUS newsletter. The ballot must be received by October 12 to make your voice count.

The End

Previous BAYVAX Meeting Presentation Slides (ACLS/RIGHTS Database)

ACLS/RIGHTS DATABASE
Introduction

- ACLs
  - Fine tune access
  - Objects
    - Files (this discussion)
    - Devices
    - System Logical Name Tables
    - Global Sections
- ACEs
  - Identifier ACEs
  - Default Protection ACEs
  - Security Alarm ACEs

ACLS/RIGHTS DATABASE
Simple ACLs

- Identifier ACEs
  - (ID=uic,ACCESS=access)
    - uic: wildcards; symbolic ("UIC Identifier")
    - access: RWED,NONE,CONTROL
- SET FILE/ACL
  - ACEs added in reverse order

ACLS/RIGHTS DATABASE
Identifiers

- Symbolic Identifiers (eg. FOOBAR)
- RIGHTSLIST.DAT
  - Process Rightslist built at LOGIN
- Grant to new users
- Revoke from old users
- AUTHORIZE to modify
  - ADD/ID identifier
  - GRANT/ID identifier uic
  - REVOKE/ID identifier uic
  - REMOVE/ID identifier
  - SHOW/ID/FULL identifier
- Changes are not immediate (SET RIGHTS_LIST)

ACLS/RIGHTS DATABASE
More on ACLs

- Automatic propagation
  - OPTIONS=DEFAULT
- Default Protection ACEs
  - For non-directory files
- File vs. Directory Access
- Other ACE options
  - NOPROPAGATE
  - PROTECTED
- Creator ACEs
- BACKUP is a gotcha
- Resource Identifiers

Previous BAYVAX Meeting Presentation Slides (ACLS/RIGHTS Database)

ACLS/RIGHTS DATABASE
Additional ACL commands

```
SET FILE/ACL
SET DIR/ACL

SET FILE/ACL/LIKE
SET FILE/ACL/DEFAULT
SET FILE/ACL/REPLACE
SET FILE/ACL/DELETE

EDIT/ACL

DIR/SECURITY
```

ACLS/RIGHTS DATABASE
Security Auditing

```
Alarm Journal ACE
  Access: RWEDC, SUCCESS/FAILURE

SET AUDIT/ALARM/ENABLE=ACL
REPLY/ENABLE=SECURITY

SYS$MANAGER:SECAUDIT.COM
```

EXAMPLE 1: UIC-BASED ACLS

```
8600> DIR/SECURITY DSK1:[0,0]BAYVAX.DIR

Directory DSK1:[000,000]

BAYVAX.DIR;1          [1,1]                 (RWE,RWE,RE,E)

Total of 1 file.

8600> SHOW PROTECTION
  SYSTEM=RWED, OWNER=RWED, GROUP=RE, WORLD=NO ACCESS
!
! Create two files; will get initial protection of (RWED,RWED,RE,)
! (process default)
!
8600> CREATE DSK1:[BAYVAX]EXAMPLE1.DAT
This is the first example
8600> CREATE DSK1:[BAYVAX]EXAMPLE2.DAT
This is the second example
!
! Make EXAMPLE1.DAT accessible to ACCOUNT1 only
! Make EXAMPLE2.DAT accessible to everybody except ACCOUNT1
!   (Note: UIC [200,202] == Username/UIC-Identifier ACCOUNT1)
!
8600> SET FILE/ACL=(IDENTIFIER=ACCOUNT1,ACCESS=READ) DSK1:[BAYVAX]EXAMPLE1.DAT
8600> SET PROT=(W:R) DSK1:[BAYVAX]EXAMPLE2.DAT
8600> SET FILE/ACL=(ID=[200,202],ACC=NONE) DSK1:[BAYVAX]EXAMPLE2.DAT
!
! Display resulting security setup
!
8600> DIR/SEC DSK1:[BAYVAX]EXAMPLE1.DAT

Directory DSK1:[BAYVAX]

EXAMPLE1.DAT;1        [1,1]                 (RWED,RWED,RE,)
        (IDENTIFIER=[NONPRIV,ACCOUNT1],ACCESS=READ)

Total of 1 file.

8600> DIR/SEC DSK1:[BAYVAX]EXAMPLE2.DAT

Directory DSK1:[BAYVAX]

EXAMPLE2.DAT;1        [1,1]                 (RWED,RWED,RE,R)
        (IDENTIFIER=[NONPRIV,ACCOUNT1],ACCESS=NONE)

Total of 1 file.
```

```
[Username: ACCOUNT1]

$ TYPE DSK1:[BAYVAX]EXAMPLE1.DAT
This is the first example
$ TYPE DSK1:[BAYVAX]EXAMPLE2.DAT
%TYPE-W-OPENIN, error opening DSK1:[BAYVAX]EXAMPLE2.DAT;1 as input
-RMS-E-PRV, insufficient privilege or file protection violation
```

```
[Username: ACCOUNT2]

$ TYPE DSK1:[BAYVAX]EXAMPLE1.DAT
%TYPE-W-OPENIN, error opening DSK1:[BAYVAX]EXAMPLE1.DAT;1 as input
-RMS-E-PRV, insufficient privilege or file protection violation
$ TYPE DSK1:[BAYVAX]EXAMPLE2.DAT
This is the second example
```

Previous BAYVAX Meeting Presentation Slides (ACLS/RIGHTS Database)

```
                    EXAMPLE 2: SYMBOLIC IDENTIFIER-BASED ACLS
------------------------------------------------------------------------------
!
! Add new identifier BAYVAX1 to Rights Database and grant it
!   to ACCOUNT1, ACCOUNT2
!
8600> SET DEFAULT SYS$SYSTEM
8600> RUN AUTHORIZE
UAF> ADD/IDENTIFIER BAYVAX1
%UAF-I-RDBADDMSG, identifier BAYVAX1 value: %X8001007C added to RIGHTSLIST.DAT
UAF> GRANT/IDENTIFIER BAYVAX1 ACCOUNT1
%UAF-I-GRANTMSG, identifier BAYVAX1 granted to ACCOUNT1
UAF> GRANT/IDENTIFIER BAYVAX1 ACCOUNT2
%UAF-I-GRANTMSG, identifier BAYVAX1 granted to ACCOUNT2
UAF> SHOW/ID/FULL BAYVAX1

  Name                            Value           Attributes
  BAYVAX1                         %X8001007C      NORESOURCE NODYNAMIC
    Holder                          Attributes
    ACCOUNT1                        NORESOURCE NODYNAMIC
    ACCOUNT2                        NORESOURCE NODYNAMIC
UAF> EXIT
%UAF-I-NOMODS, no modifications made to system authorization file
%UAF-I-RDBDONEMSG, rights database modified
!
! Create EXAMPLE3.TXT, accessible to all holders of BAYVAX1 identifier
!
8600> CREATE DSK1:[BAYVAX]EXAMPLE3.DAT
A third example.
8600> SET FILE/ACL=(ID=BAYVAX1,ACC=R) DSK1:[BAYVAX]EXAMPLE3.DAT
8600> DIR/SEC DSK1:[BAYVAX]EXAMPLE3.DAT

Directory DSK1:[BAYVAX]

EXAMPLE3.DAT;1        [1,1]                    (RWED,RWED,RE,)
        (IDENTIFIER=BAYVAX1,ACCESS=READ)

Total of 1 file.
------------------------------------------------------------------------------
[Username: ACCOUNT1]

$ TYPE DSK1:[BAYVAX]EXAMPLE3.DAT
A third example.
------------------------------------------------------------------------------
[Username: ACCOUNT2]

$ TYPE DSK1:[BAYVAX]EXAMPLE3.DAT
A third example.
```

```
!
! Revoke BAYVAX1 identifier from ACCOUNT2; ACCOUNT2 can no longer access
!   the file; ACCOUNT1 still can
!
8600> SET DEFAULT SYS$SYSTEM
8600> RUN AUTHORIZE
UAF> SHOW/ID/FULL BAYVAX1

  Name                            Value           Attributes
  BAYVAX1                         %X8001007C      NORESOURCE NODYNAMIC
    Holder                          Attributes
    ACCOUNT1                        NORESOURCE NODYNAMIC
    ACCOUNT2                        NORESOURCE NODYNAMIC
UAF> REVOKE/ID BAYVAX1 ACCOUNT2
%UAF-I-REVOREMSG, identifier BAYVAX1 revoked from ACCOUNT2
UAF> SHOW/ID/FULL BAYVAX1

  Name                            Value           Attributes
  BAYVAX1                         %X8001007C      NORESOURCE NODYNAMIC
    Holder                          Attributes
    ACCOUNT1                        NORESOURCE NODYNAMIC
UAF> EXIT
%UAF-I-NOMODS, no modifications made to system authorization file
%UAF-I-RDBDONEMSG, rights database modified
------------------------------------------------------------------------------
[Username: ACCOUNT1]

$ TYPE DSK1:[BAYVAX]EXAMPLE3.DAT
A third example.
------------------------------------------------------------------------------
[Username: ACCOUNT2]

$ TYPE DSK1:[BAYVAX]EXAMPLE3.DAT
%TYPE-W-OPENIN, error opening DSK1:[BAYVAX]EXAMPLE3.DAT;1 as input
-RMS-E-PRV, insufficient privilege or file protection violation
```

```
                    EXAMPLE 3: PROPAGATION OF ACLS
------------------------------------------------------------------------------
8600> CREATE/DIR DSK1:[BAYVAX.SUBDIR]
8600> DIR/SEC DSK1:[BAYVAX]SUBDIR.DIR

Directory DSK1:[BAYVAX]

SUBDIR.DIR;1          [1,1]                    (RWE,RWE,RE,E)

Total of 1 file.
!
! Establish for SUBDIR.DIR:
! o Protection mask (RWE,RWE,RE,)
! o READ access for BAYVAX1 holders (allow access to directory itself,
!     this access propagates intact to daughter subdirectories, and does
!     not affect access to files inside the subdirectories)
! o READ/WRITE access, DEFAULT ACL to be applied to all files created inside
!     the subdirectory (except OPTIONS=DEFAULT clause is removed).
!
! Note how SET DIR/ACL and SET FILE/ACL commands are "interchangeable"
!
8600> SET PROT=(W) DSK1:[BAYVAX]SUBDIR.DIR
8600> SET FILE/ACL=(ID=BAYVAX1,ACCESS=R) DSK1:[BAYVAX]SUBDIR.DIR
8600> SET DIR/ACL=(ID=BAYVAX1,OP=DEF,ACC=R+W) DSK1:[BAYVAX.SUBDIR]
8600> DIR/SEC DSK1:[BAYVAX]SUBDIR.DIR

Directory DSK1:[BAYVAX]

SUBDIR.DIR;1          [1,1]                    (RWE,RWE,RE,)
        (IDENTIFIER=BAYVAX1,OPTIONS=DEFAULT,ACCESS=READ+WRITE)
        (IDENTIFIER=BAYVAX1,ACCESS=READ)

Total of 1 file.
!
! Protection mask of daughter subdirectories will be same as [BAYVAX.SUBDIR]
!   (i.e. (RWE,RWE,RE,))
! Protection mask of daughter files will be same as process default
!   protection (i.e. (RWED,RWED,RE,))
! Create a daughter file, a daughter subdirectory, and a granddaughter file
!   to demonstrate action of ACLs
!
8600> CREATE DSK1:[BAYVAX.SUBDIR]FILE.DAT
This is a file.
8600> CREATE/DIR DSK1:[BAYVAX.SUBDIR.DIR]
8600> CREATE DSK1:[BAYVAX.SUBDIR.DIR]FILE2.DAT
This is another file
```

```
8600> DIR/SEC DSK1:[BAYVAX.SUBDIR]FILE.DAT

Directory DSK1:[BAYVAX.SUBDIR]

FILE.DAT;1            [1,1]                    (RWED,RWED,RE,)
        (IDENTIFIER=BAYVAX1,ACCESS=READ+WRITE)

Total of 1 file.

8600> DIR/SEC DSK1:[BAYVAX.SUBDIR]DIR.DIR

Directory DSK1:[BAYVAX.SUBDIR]

DIR.DIR;1             [1,1]                    (RWE,RWE,RE,)
        (IDENTIFIER=BAYVAX1,OPTIONS=DEFAULT,ACCESS=READ+WRITE)
        (IDENTIFIER=BAYVAX1,ACCESS=READ)

Total of 1 file.

8600> DIR/SEC DSK1:[BAYVAX.SUBDIR.DIR]FILE2.DAT

Directory DSK1:[BAYVAX.SUBDIR.DIR]

FILE2.DAT;1           [1,1]                    (RWED,RWED,RE,)
        (IDENTIFIER=BAYVAX1,ACCESS=READ+WRITE)

Total of 1 file.
!
! Place a DEFAULT PROTECTION ACE on the daughter subdirectory and then
!   create a new file in the daughter subdirectory to show how this type
!   of ACE works.
!
8600> SET DIR/ACL=(DEFAULT_PROTECTION,S:RWE,O:RWE,G,W) DSK1:[BAYVAX.SUBDIR.DIR]
8600> DIR/SEC DSK1:[BAYVAX.SUBDIR]DIR.DIR

Directory DSK1:[BAYVAX.SUBDIR]

DIR.DIR;1             [1,1]                    (RWE,RWE,RE,)
        (DEFAULT_PROTECTION,SYSTEM:RWE,OWNER:RWE,GROUP:,WORLD:)
        (IDENTIFIER=BAYVAX1,OPTIONS=DEFAULT,ACCESS=READ+WRITE)
        (IDENTIFIER=BAYVAX1,ACCESS=READ)

Total of 1 file.

8600> CREATE DSK1:[BAYVAX.SUBDIR.DIR]FILE3.DAT
This is a third file
8600> DIR/SEC DSK1:[BAYVAX.SUBDIR.DIR]FILE3.DAT

Directory DSK1:[BAYVAX.SUBDIR.DIR]

FILE3.DAT;1           [1,1]                    (RWE,RWE,,)
        (IDENTIFIER=BAYVAX1,ACCESS=READ+WRITE)

Total of 1 file.
```

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ACCESS CONTROL LISTS AND THE RIGHTS DATABASE

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Access Control Lists (ACLs) are a feature of VMS that allow you to "fine tune" access to a variety of "objects". This discussion will deal exclusively with files as objects; however, you should know that ACLs can also be applied to devices, system logical name tables, and global sections.

Simple ACLs

An ACL is a collection of one or more Access Control Entries (ACEs). The simplest type of ACE is known as an identifier ACE, which in its simplest form looks like:

```
(IDENTIFIER=uic,ACCESS=access)
```

uic specifies the UIC (or the "UIC identifier", i.e. the symbolic form of the UIC usually equivalent to the corresponding account's Username) of a user to which the ACE applies, and can contain wildcard characters. access describes the type of access which is allowed (read,write,execute,delete). For example, you might have a data file FOO.DAT with:

```
protection (S:RWED,O:RWED,G:R,W:R)
ACL:  (IDENTIFIER=[100,110],ACCESS=READ+WRITE)
      (IDENTIFIER=[110,*],ACCESS=READ+WRITE)
```

On the basis of the "standard" protection mask [(RWED,RWED,R,R)] alone, all users on the system (other than those with privileges or the owner of the file) are only able to read the file. However, the ACL allows the users with UICs [100,110] and [110,*] to write to the file.

Because ACLs often contain UICs, you must exercise extreme caution when changing a user's UIC (files s/he could formerly access via an ACL may now be inaccessible) or when reassigning an old UIC that has been out of use for a while to a new user (files that still contain ACLs referring to the old UIC will now be accessible to the new user).

ACLs can be added to a file in a number of ways, but the simplest is the SET FILE/ACL command. The following DCL command sequence would be used to establish the above protection and ACLs on FOO.DAT:

```
$ SET PROTECTION=(S:RWED,O:RWED,G:R,W:R) FOO.DAT
$ SET FILE/ACL=(IDENTIFIER=[110,*],ACCESS=R+W) FOO.DAT
$ SET FILE/ACL=(IDENTIFIER=[100,110],ACCESS=R+W) FOO.DAT
```

Note that new ACEs are inserted at the top of the ACL; i.e they will appear in the reverse order that they are added. This action is important to remember, since ACE order is important as will be shown shortly.

An additional class of access is NONE, which prohibits access by the specified user(s). (Some caution must be observed: NONE access may not prevent the user from accessing the file in all cases; see the Guide to VAX/VMS System Security, Section 4.3.5.) For example, to prevent the user with UIC [70,21] from accessing FOO.DAT, the ACL would have to be changed as follows:

```
protection (S:RWED,O:RWED,G:R,W:R)
ACL:  (IDENTIFIER=[70,21],ACCESS=NONE)
      (IDENTIFIER=[100,110],ACCESS=READ+WRITE)
      (IDENTIFIER=[110,*],ACCESS=READ+WRITE)
```

Note that the system reads the ACEs from top to bottom, and uses the first one that matches a user to determine access. Thus, UIC [70,21] is denied access to the file on the basis of the first ACE, while [100,110] and [110,*] get read and write access on the basis of the second and third ACEs. All other users "fall through" to the protection mask and get only read access.

Identifiers

Suppose that several users need write access to FOO.DAT, and the actual users needing this access change frequently. If an ACE was added for each user's UIC, the number of ACEs in the ACL would be large and the ACEs themselves would have to be changed frequently. A simpler approach is to define a symbolic identifier, FOOBAR, and change the ACL as follows:

```
protection (S:RWED,O:RWED,G:R,W:R)
ACL:  (IDENTIFIER=FOOBAR,ACCESS=READ+WRITE)
```

The identifier FOOBAR would then be granted to the UICs needing write access to the file. When a user is to no longer be allowed to write to the file, the identifier is simply revoked from the user's UIC. Identifiers are managed by using the AUTHORIZE utility and the identifiers themselves as well as the UICs of users holding them are stored in the rights database. The DCL commands to set up write access to FOO.DAT for UICs [100,110] and [110,11] using identifier FOOBAR would be:


```
$ RUN AUTHORIZE
UAF> ADD/IDENTIFIER FOOBAR
UAF> GRANT/IDENTIFIER FOOBAR [100,110]
UAF> GRANT/IDENTIFIER FOOBAR [110,11]
UAF> EXIT
$ SET PROTECTION=(S:RWED,O:RWED,G:R,W:R) FOO.DAT
$ SET FILE/ACL=(IDENTIFIER=FOOBAR,ACCESS=R+W) FOO.DAT
```

To "substitute" UIC [70,25] for [110,11]:

```
$ RUN AUTHORIZE
UAF> REVOKE/IDENTIFIER FOOBAR [110,11]
UAF> GRANT/IDENTIFIER FOOBAR [70,25]
UAF> EXIT
```

Remember, you can use "UIC identifiers" in place of numeric UICs if you wish.

The SHOW/IDENTIFIER/FULL identifier command inside AUTHORIZE is used to show all of the holders of a given identifier.

Control access

One remaining class of access is CONTROL, which allows the specified user(s) to modify the protection and ACLs on the object. This class of access should be applied with caution.

Note that the innocently-named READALL privilege gives the equivalent of CONTROL access to all files on your system.

Setting up automatic propagation of ACLs

Suppose that a number of files are to be writable by users holding the FOOBAR identifier, and that new files of this type are frequently created. An easy way to handle this case is to first create a directory, say [DATA.FOOBAR], to hold the files, and then set up a propagated ACL on the directory that will be applied to all files created in the directory.

```
$ CREATE/DIRECTORY [DATA.FOOBAR]
$ SET DIR/ACL=(ID=FOOBAR,OPTIONS=DEFAULT,ACCESS=R+W) -
    [DATA.FOOBAR]
```

Note the use of the SET DIRECTORY/ACL command. Now, any files created in [DATA.FOOBAR] will receive the ACE:

```
(IDENTIFIER=FOOBAR,ACCESS=READ+WRITE)
```

Note how the "OPTIONS=DEFAULT" is removed from the ACE on the new file. If a subdirectory of [DATA.FOOBAR] is created, however, the original OPTIONS=DEFAULT ACE is transferred to the new subdirectory intact. Thus, the ACE will propagate

downward through the subdirectory tree as new subdirectories and files are created.

Note that establishing an ACE with OPTIONS=DEFAULT will not affect any files that already exist in the directory. It also does not have any effect on access to the directory file itself, only on files subsequently created in the directory.

Default protection ACEs

When a user creates a file in [DATA.FOOBAR] and no previous version of the file exists, the file protection will normally be determined by whatever SET PROTECTION/DEFAULT command was performed by the user prior to the file's creation. To force a specific protection to be applied to files created in [DATA.FOOBAR], use a default protection ACE. For example, to set the protection of all created files to (S:RWED,O:RWED,G:R,W:R):

```
$ SET DIR/ACL=(DEFAULT_PROTECTION,S:RWED,O:RWED,G:R,W:R) -
    [DATA.FOOBAR]
```

Default protection ACEs propagate to subdirectories created in [DATA.FOOBAR] just like the other ACEs do. Note that it is not possible to set up a DEFAULT_PROTECTION ACL to alter the protection of the subdirectories themselves; the protection on a created subdirectory is the same as that of its parent directory. A DEFAULT_PROTECTION ACE will not affect any files that already exist in the directory. Note also that the DEFAULT_PROTECTION ACL is not used for a new file if a previous version of the file exists; in this case the protection propagates from the older version.

Note on file and directory access

As with normal protection masks, remember to provide access to directories containing files as well as files themselves; if the directory containing a file denies read access, a user will not be able to routinely access files inside the directory even if the files allow read access. (An important security note: NEVER RELY ON LOCKED DOWN DIRECTORY PROTECTIONS TO PROTECT FILES WITHIN THE DIRECTORIES THAT ARE OTHERWISE ACCESSIBLE. IF YOU REALLY WANT TO PROTECT A FILE, PROTECT IT AND THE DIRECTORY IN WHICH IT IS CONTAINED.)

A warning about BACKUP

OPTIONS=DEFAULT and DEFAULT_PROTECTION ACEs will normally work on any file created using DCL or by programs. A major exception to the rule is BACKUP. In most cases, BACKUP creates files with exactly the same protections and ACLs as they had when they were originally backed up. Directories

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created by the BACKUP command also may not get all of the correct protections and ACEs. Exercise caution when using BACKUP to move files into ACLd directories.

Other ACE OPTIONS

The **NOPROPAGATE** option prevents the ACE from being propagated to a newer version of an existing file, or, if applied to a directory file, prevents the ACE from being propagated to subdirectories created within the directory.

The **PROTECTED** option prevents the ACE from being deleted implicitly. It must be explicitly called out in a **SET FILE/ACL/DELETE** command or be deleted using the ACL Editor.

More commands for working with ACLs

So far, the **SET FILE/ACL** and **SET DIR/ACL** commands have been demonstrated as mechanisms for altering ACLs on files. When manipulating ACLs on directories, note that the two are really interchangeable; that is, the following two commands would be equivalent:

```
$ SET DIR/ACL=(ID=[20,10],ACC=R) [DATA.FOOBAR]
$ SET FILE/ACL=(ID=[20,10],ACC=R) [DATA]FOOBAR.DIR
```

Use whichever command is more comfortable for you.

SET FILE/ACL/LIKE=file1 file2 sets all ACEs on file2 to be the same as those on file1. ACEs on file2 with the PROTECTED option are not altered or removed.

SET FILE/ACL/DEFAULT file sets all ACEs on file as if the file was newly created. Thus, the command is only truly useful if the parent directory of the file has one or more ACEs with **OPTIONS=DEFAULT**.

SET FILE/ACL=oldace/REPLACE=newace file replaces the specified old ACE with a new ACE without changing the ACE's order. Note that in some cases the oldace must specify the entire ACE (identifier, options, and access) for the command to work. The newace must always be completely specified.

SET FILE/ACL/DELETE file deletes all ACEs on the specified file, except those that have the PROTECTED option. In that case, you must specify the protected ACEs explicitly: **SET FILE/ACL=ace/DELETE**

The **ACL Editor** is a screen-oriented editor for modifying and reordering ACLs. The DCL command **EDIT/ACL** filename invokes the editor. More information is available in the **VAX/VMS Access Control List Editor Reference Manual.**

Displaying ACLs on a file

DIRECTORY/FULL file lists all information about the specified file, including all ACLs on the file. A more specific command is DIRECTORY/ACL file, which lists just the ACEs on the file. The command **DIRECTORY/SECURITY** file displays all security-related information for the file (owner UIC, protection, ACLs) and as such is a useful command for the security manager.

More on the Rights Database

The Rights Database itself is stored in the disk file **SYS$SYSTEM:RIGHTSLIST.DAT**. As noted before, the AUTHORIZE utility is used to modify the database. Whenever a process is created, a process rights list is built for the process, containing the applicable identifiers drawn from RIGHTSLIST.DAT. Changes to RIGHTSLIST.DAT do not affect the process rights lists for processes currently executing on the system; process rights lists can be modified by using the DCL **SET RIGHTS_LIST** command (new in VMS V4.4).

The following is a summary of the rights database commands in AUTHORIZE:

o **ADD/IDENTIFIER** identifier_name creates an identifier with the specified name and stores it in the rights database. The identifier_name can be up to 31 characters long and can contain letters, digits, underscores, and dollar signs. To minimize maintenance headaches it is a good idea to assign identifiers names that are descriptive of their purpose. For example, an identifier used to gain access to the company payroll database might have the name PAYROLL. The system automatically assigns a hexadecimal number to the identifier; it is a good idea to keep track of the number-identifier correspondence in a notebook somewhere for reasons to be explained.

o **GRANT/IDENTIFIER** identifier_name uic "grants" the specified identifier to the specified UIC. The UIC is then said to be a holder of the identifier. You can use a UIC identifier in place of a numeric UIC. Currently executing processes owned by the UIC will not pick up the new identifier.

o **REVOKE/IDENTIFIER** identifier_name uic "revokes" the specified identifier from the specified UIC (or UIC identifier). Currently executing processes owned by the UIC will continue to hold the identifier. Be careful not to rely on this mechanism to prevent a user from accessing an object to which s/he previously had access via the identifier; ACEs may have been placed on the object granting his/her UIC explicit access.

o **REMOVE/IDENTIFIER** identifier_name removes the specified identifier from the Rights Database. It is important to ensure that any ACEs referencing the identifier have been deleted. If you fail to do this, the system will display the obscure hexadecimal number that was assigned to the identifier anywhere the identifier is still in use. If this happens, you must refer to your notebook to determine which defunct identifier the obscure hexadecimal number corresponds to.

o **SHOW/ID/FULL** identifier_name displays the hexadecimal number corresponding to the specified identifier and also lists all holders of the identifier. The attributes for each identifier are also displayed; thru VMS 4.4, these may be **NORESOURCE/RESOURCE** and **DYNAMIC/NODYNAMIC**.

Resource identifiers

By default, identifiers receive the noresource attribute, which is suitable when the identifiers are used exclusively for access control. An identifier with the resource attribute is often referred to as a resource identifier. These identifiers are unique in that you can charge system resources to them. Thru VMS 4.5, the only resource that can be charged is disk space.

It is now possible to create and manage directories owned by resource identifiers. The resource identifier is granted its own disk quota, and the identifier is granted to all persons that wish to use the directory. Files created in the directory by a holder of the identifier become owned by the identifier, rather than by the user's UIC. In this way, a person could hold several resource identifiers for access to several project groups, each group having a dedicated directory and disk quota. Use of resource directories in this fashion can eliminate the need for having accounts which multiple people log into; each person can instead log into his/her own account and SET DEFAULT to the appropriate resource directory.

Although a terrific idea in principle, resource directories are not well covered by the documentation and there are several cases where VMS incorrectly handles files owned by resource identifiers. There are usually workarounds for the problems but they are not often convenient for the users. Resource directories are also tricky to manage due to the complexity of ACLs usually needed on them. Therefore, they will not be discussed further.

SECURITY AUDITING

Security Auditing is a VMS feature that allows you to track access to objects on the system and also to detect failed attempts to access protected objects. (Security Auditing can also be used to detect failed attempts to access the system itself; this functionality is not discussed here.)

You can track access on objects by employing a third type of ACE, the security alarm ACE. It has the form:

```
(ALARM_JOURNAL=SECURITY,OPTIONS=options,ACCESS=access)
```

options can be applied as with any other ACE. ACCESS consists of some combination of the standard access codes (RWEDC) plus either or both of the keywords SUCCESS or FAILURE. For example, to set up an alarm if a user attempts to unsuccessfully read the file A.DAT:

```
$ SET FILE/ACL=(ALARM=SECURITY,ACC=READ+FAILURE) A.DAT
```

To set up an alarm if file B.DAT is successfully written:

```
$ SET FILE/ACL=(ALARM=SECURITY,ACC=WRITE+SUCCESS) B.DAT
```

Setting up security alarm ACEs is a necessary but not sufficient condition to enable security alarms. You must also use the **SET AUDIT** command to cause the system to pay attention to any security alarm ACEs on the system. For example:

```
$ SET AUDIT/ALARM/ENABLE=ACL
```

The system will now log all security alarms to the operator log (SYS$MANAGER:OPERATOR.LOG) and to all operator terminals which have been enabled to receive alarms. To so enable a terminal:

```
$ REPLY/ENABLE=SECURITY
```

For security reasons, and to conserve paper, it is best to disable the console as a security terminal. To do this, place the following commands in your SYSTARTUP.COM:

```
$ DEFINE/USER_MODE SYS$COMMAND OPA0:
$ REPLY/DISABLE=SECURITY
```

To subsequently disable security auditing, use the command:

```
$ SET AUDIT/ALARM/DISABLE=ALL
```

The documentation drops hints that security auditing can consume significant CPU resources, so it should be used with discretion.

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Audit Reduction Facility

The command procedure SYS$MANAGER:SECAUDIT.COM can be used to parse up the operator log, discarding all non-audit-related items and displaying the audit-related items on the terminal or sending them to a separate disk file. Use of the procedure is documented in the Guide to VAX/VMS System Security, Section 5.8.4 (VMS 4.2).

MISCELLANEOUS TRICKS, TRAPS, AND POSSIBLE UNKNOWNS

At our site we have encountered various bizarre problems with ACLs and the commands used to manipulate them. In particular, the ACL Editor and various flavors of SET FILE/ACL sometimes fail to work as you might expect them to. These problems (to this point) have merely been a nuisance and do not appear to have compromised security. Be aware that due to the general complexity of the ACL implementation, obscure bugs may surface from time to time.

When a file is created with an owner different than the creator, VMS may place a "creator ACE" on the file, giving the creator full access to the file. This action can be quite unsuspected, and can lead to potential security holes. (System Security 4.5.2.2; April 1986 PageSwapper pp. VAX-18..VAX-21)

The manuals do not indicate that you should avoid using $ characters in identifier names in the rights database. Since in many other cases use of $ is discouraged (e.g. logical names, user-written subroutines), you may want to avoid it.

Dynamic identifiers are a new feature of VMS 4.4. A dynamic identifier can be added to or removed from a process rights list at any time. It is unclear what advantages this may yield.

The SET RIGHTS command, new in VMS 4.4, appears to allow you to remove identifiers from and add identifiers to a process rights list at any time (unlike AUTHORIZE, where changes take effect only after a user logs out and back in again). I have not used this command and do not fully understand its capabilities. I also think that it is risky to assume that you have immediately closed off access to a resource by revoking the associated identifier from all applicable process rights lists; the resource already be in use by the processes, and the resource may have ACLs on it granting explicit access to the processes.

It is unclear if the SET AUDIT state is preserved across reboots. It doesn't hurt to make the SET AUDIT/ENABLE command part of your SYSTARTUP.COM.

Users who would really like to try creating resource identifiers and project directories will find the following references useful: System Security 4.4.1, 5.2.6.2; December 1986 PageSwapper - "ACLs for projects and courses". Here are some of the things to watch out for: files opened for SCRATCH access and VMS "temporary files" cannot be created in a project directory unless the creator's UIC has a disk quota of its own on the same disk as the project directory; EDT workfiles cannot be directed into a project directory; if BACKUP is used to save files from a project directory and subsequently to restore those files to a project directory, the ACLs will not be restored; use /OWNER=PARENT when restoring files into a project directory using BACKUP; FDL has problems with files owned by a resource identifier; beware of creator ACEs which flourish in a project directory (i.e. simply revoking the identifier from a user is usually not good enough to deny that user access to the directory as many files may have his/her creator ACE on them).

A common problem with ACLd files is that the command SET PROTECTION=(O:RWED) is often insufficient to delete the file. An ACL must be added to allow the user delete access to the file (e.g. SET FILE/ACL=(ID=FOO,ACCESS=R+W+E+D) BAR.DAT)

Beware if you attempt to copy ACLd files to another system. In all probability the identifier values will be completely different on the target system and the ACLs on the files will be useless or grant access to unexpected users.

If your RENAME a file, the existing ACLs on the files will probably not be modified, even if OPTIONS=DEFAULT ACLs are present on the parent directory.

REFERENCES

Guide to VAX/VMS System Security
- 4.3 Access Control Lists
- 4.3.5 Managing Access Control Lists (IMPORTANT)
- 4.4.1 Understanding the Role of the Resource Attribute
- 4.5 Propagation of protection defaults
- 4.6 Summary of file protection evaluation
  - TAKE THE SELF TEST!
- 4.8 Managing your files for optimum security
- 4.9.2.2 Auditing access to sensitive files
- 4.11 Answers to the file protection self test
- 5.2.3-5 Authorize commands/Rights Database
- 5.2.5.1 Rebuilding a destroyed Rights Database
- 5.8 Auditing with Security Alarms
- 6.2.2 Security Auditing Guidelines
- App. D Running VAX/VMS in a C2 Environment
- App. E Alarm Messages
- Fig.4-4 Flowchart of access request evaluation

VAX/VMS Access Control List Editor Reference Manual
- Has a good summary of ACLs

VAX/VMS Authorize Utility Reference Manual
- ADD/IDENTIFIER
- CREATE/RIGHTS
- GRANT/IDENTIFIER
- LIST/IDENTIFIER
- LIST/RIGHTS
- MODIFY/IDENTIFIER
- REMOVE/IDENTIFIER
- RENAME/IDENTIFIER
- REVOKE/IDENTIFIER
- SHOW/IDENTIFIER
- SHOW/RIGHTS

DCL Dictionary
- 7.2 Access Control Lists
- DIRECTORY (options for displaying ACLs)
- EDIT/ACL
- FSIDENTIFIER() Lexical Function
- SET ACL
- SET AUDIT
- SET DEVICE/ACL
- SET DIRECTORY/ACL
- SET FILE/ACL
- SHOW ACL
- SHOW AUDIT