

Lawrence Berkeley National Laboratory

LBL Publications

Title

LBL Computing Newsletter Vol 25 No 6

Permalink

<https://escholarship.org/uc/item/2vz6831r>

Author

Lawrence Berkeley National Laboratory

Publication Date

1988-06-01

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

DISCLAIMER

This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor the Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or the Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or the Regents of the University of California.

PUB-429

RECEIVED
JUN 2 1988
PUB FILE
LBL LIBRARY

Volume 25, Number 6
June 1988

L B L
COMPUTING
NEWSLETTER

TABLE OF CONTENTS

NAMES & NUMBERS TO KNOW	2
Schedules for Computer Classes	3
LBLNET NEWS	4
LBLnet Activity Map - March 1988	6
GRAPHICS NEWS	
GKS Site License Now Available	7
VT600 Update	8
Physics Utilities News	8
COMPUTING SERVICES NEWS	9
Computing Services Disk Backup Policy	9
Checking Your Spelling in TeX Documents	10
More on Develcon	10
New Handout at the Help Desk	10
UNIX NOTES	
"rn" - the UNIX Read News Program - Part 2	11
SunINGRES Available on UX1	11
NOTES FROM TROUBLE MAIL	12
THE WORKSTATION SCENE	15

PUB-429 6-88/1725

For Reference

Not to be taken from this room

JUNE 1988

PUB-429

NAMES & NUMBERS TO KNOW

From on-site, dial <xxxx> From off-site, dial (415) 486-<xxxx> From FTS line, dial 451-<xxxx>

INFORMATION & COMPUTING SCIENCES DIVISION

Acting Head: Sandy Merola (AXMerola)7440 50B - 2232C

COMPUTING AND COMMUNICATIONS RESOURCES

Head: Ken Wiley (KGWiley)7083 50B - 2258E

Office of Computing Resources:

Dave Stevens (DFStevens)7344 50B - 2258F

LBLnet Manager: Sig Rogers (SGRogers)6713 50B - 2258G

Telephone Services: Sam Gibson (FSGibson) 4234 80A - 103

ADVANCED DEVELOPMENT PROJECTS

Head: Dennis Hall (DEHall)605350B - 3238

WORKSTATION GROUP

Group Leader: Richard LaPierre (RLLaPierre)469250B - 2245

Software Evaluation & Acquisition6858 50B - 2231

COMPUTING SERVICES

Head: Marv Atchley (FMArchley)5455 50F - 104

Asst. Head: Serge Polevitzky (SIPolevitzky)4389 50F - 142

Central Office5871,2 50F - 106

VMS SYSTEM

Eric Beals (ERBeals)5351 50F - 143

System Manager (GPJohnson)6211 50B - 1225

UNIX SYSTEM

Dave Cleveland (DHCleveland)5336 50F - 115

System Manager (RJCochran)5565 50F - 127

DISTRIBUTED PRINTING

Bob Rendler (RERendler)562950F - 119

System Manager (RJCochran)5565 50F - 127

USER RESOURCES

Jerry Borges (JTBorges)5568 50F - 144

Accounting7008 50B - 1232A

HELP DESK5981 50B - 1272

Math Libraries4749 50F - 114

Library/ Document Sales4242 50B - 1232B

Opening a New Account (PSBean)7008 50B - 1232A

UNIX and Cluster

Software Evaluation & Acquisition5568 50F - 144

COMPUTING FACILITIES

Connecting a Remote Terminal (ACHart)7444 50B - 2249A

Graphics6945 50F - 126

Network Coordinator (WDJaquith)4388 50F - 109

COMPUTING FACILITIES (Continued)

Operations Area6211 50B - 1215

Develcon Problems & Terminal Repair

(PGMurray)5354 50B - 2259

COMPUTING APPLICATIONS

Applications Group

Head: Jerry Borges (JTBorges)5568 50F - 144

CENTRAL ELECTRONIC MAIL FACILITY

FIRST INITIAL-MIDDLE INITIAL-LAST NAME is the standard recipient format in Lab-wide mailing address.

Examples: VMS: lbl::JASmith

UNIX: JASmith@lbl.gov

Software Tools: JASmith@lbl.gov

DEVELCON

DEVELCON Access Names

[VAX 8650's (GENERIC)CSA]

VAX 8650 (VMS)CSA1

VAX 8650 (VMS)CSA2

VAX 8650 (VMS)CSA3

VAX 8650 (VMS)CSA4

VAX 8650 (VMS)CSA5

SUN-3 / 280 (UNIX1)UX1

SUN-3 / 180 (UNIX3)UX3

SUN-3 / 180 (ISD)ISD

Dial-up Access Numbers

All Machines - 300 BPS 486-4959

All Machines - 1200 BPS 486-4979

All Machines - 2400 BPS 486-4969

Local TYMNET Access Numbers for DEVELCON

	1200 bps	2400 bps
Oakland	430-2900	633-1896
Walnut Creek/Concord	935-0370	935-1507
San Francisco	974-1300	543-0691
Santa Clara	408-980-8100	986-0646
Palo Alto	415-366-1092	361-8701
Vallejo	707-644-1192	
Antioch	754-8222	
Fremont	490-7366	
Pleasanton	462-2101	

MFE Consulting Number is 422-1544

Newsletter Closing Date is Wednesday, June 15, 1988

Address all communications for the Newsletter to login nooz@ux1.lbl.gov.

Editor: Maggie Morley

Prepared for the U.S. Department of Energy under Contract DE-AC03-76SF00098

Lawrence Berkeley Laboratory is an Equal Opportunity Employer

SCHEDULES FOR COMPUTER CLASSES

IN THE TRAINING ROOM, BLDG. 50B, RM. 1237

or

IN THE BUILDING 50F CONFERENCE ROOM

Jerry Borges

The following computer classes are to be offered by Computing Services. Most of these are free. There is a charge for those classes with a figure ^(*) appended. To enroll, obtain your supervisor's approval and then

contact Pat Bean (x7008). If you have questions about what's being offered, or suggestions for other computer-oriented topics, contact Jerry Borges (x5568).

DATE	TIME	DESCRIPTION	INSTRUCTOR
June 15 & 17	1 - 3 PM	Introduction to VAX/VMS	Marty Gelbaum
June 16, 1988	10 AM - NOON	Electronic Mail: Survey	William Jaquith
August 9, 11, 16, 18	9:30 AM - NOON	Beginning T _{EX}	Jerry Borges
Sept 19 through 23	9:30 AM - NOON	Intermediate T _{EX} ^(*)	T _{EX} Users' Group

IN THE MAC TRAINING ROOM, BLDG. 50B, RM. 1229

Carole Casaretto

The following computer classes will be offered by the Workstation Group. There is no charge for these classes. To enroll, obtain your supervisor's approval and then contact Carole Casaretto, (x6858). Those classes with asterisks (*) appended are already full.

Call now to sign up for classes later in the year. For more information, see THE WORKSTATION SCENE in this Newsletter. If you have any questions regarding these classes or suggestions for other computer-oriented topics, contact Richard LaPierre (x4692).

DATE	TIME	DESCRIPTION	INSTRUCTORS
June 14, 16, 21, 28 June 14, 16, 21, 23	1:00 - 2:30 PM 3:00 - 4:30 PM	Beginning MS WORD 3.01*	Karla Savage, Carole Casaretto Claudia Madison, Jean Wolslegel
June 15	10:00 - 11:00 AM	Introduction to HyperCard	Bruce Burkhart
June 20, 22	10:00 - 11:30 AM	HyperCard -- Creating Cards and Stacks	Bruce Burkhart
June 22	1:00 - 3:00 PM	Beginning Excel Charts	Nancy Travis, Carole Casaretto
June 27, 29, July 1	1:00 - 3:00 PM	Beginning Excel Spreadsheet	Claudia Madison, Dana Conant
June 30	1:30 PM - 3:00 PM	Using Your MAC as a Terminal	Cliff Stoll
July 12, 14, 19, 21	1:00 - 2:30 PM 3:00 - 4:30 PM	Beginning MS WORD 3.01	Karla Savage, A. Soulsburg Claudia Madison, Jean Wolslegel
July 25, 27, 29	1:00 - 3:00 PM	Beginning Excel Spreadsheet	Nancy Travis, Carole Casaretto

LBLNET NEWS

Bob Fink
Sig Rogers

LBLnet Expansion Plans

Planning for the expansion of LBLnet and its evolution to new technology is a continuing and evolutionary process. Part of this is the LBL Integrated Communications System (ICS) Project which has major goals of replacing the Centrex and Develcon (voice and data switching) systems at the Laboratory. ICS will have a major effect on LBLnet through the addition of new office wiring and inter-building optical fiber cabling. Now that ICS is in its installation phase, it is time to move ahead with major LBLnet expansion. This is the first in a series of articles describing these plans.

LBLnet Phase II & III

LBLnet is a Laboratory-wide Local Area Network (LAN) that was started in 1982 with the goal of interconnecting the entire LBL community. LBLnet now connects over 400 computer systems, workstations, and personal computers. It is accessible from buildings 46, 50, 51, 55, 64, 65, 70, 71, and 88. These buildings house approximately two-thirds of the LBL staff.

Extending LBLnet to reach the remaining parts of the Laboratory (LBLnet Phase II), adding router technology (LBLnet Phase II), and enhancing LBLnet performance (LBLnet Phase III) require a large investment in effort and material. The first part of Phase II is installation of the optical fiber plant as part of the ICS project during the last half of 1988. The remaining parts of Phase II will proceed in parallel with the ICS Project, and will be available as soon after Project completion as possible. Phase III will begin in FY 1989 when high performance (100 Mbps) fiber optic network components become available, and continue through FY 1991 as production components become plentiful.

Overview of LBLnet Goals

It is the primary goal of LBLnet Phase II to provide LBLnet access to the remaining parts of the Laboratory.

It is anticipated that by the mid-1990's there will be over 1500 computer systems, workstations, and personal computers attached to LBLnet compared to

approximately 400 today. During this growth period it is expected that the principal network protocol suite on LBLnet will be DoD Internet (TCP/IP) which is becoming a government and industry standard. It is expected that the ISO Internet standards currently being developed will eventually (5 to 10 years) replace both DoD Internet and DECnet protocols.

The existing LBLnet (Phase I) was developed with the goal of handling multiple protocols (i.e., DECnet, TCP/IP, and XNS). Over its first five years, DECnet has represented the largest volume of traffic (in bits and packets passed) while IBM PC style personal computers using XNS has represented the largest number of hosts on LBLnet.

Support for multiple protocols remains a primary goal of LBLnet development: specifically DECnet, TCP/IP, and XNS. The ISO Internet protocols will be supported when they become commercially available and useful to the Laboratory. Other more proprietary protocols will continue to be handled to the extent that they do not interfere or conflict with normal LBLnet operation.

LBLnet Phase I uses a "bridged" architecture. Bridges are protocol-transparent gateways that connect two LANs (e.g., Ethernet) but do not pass traffic local to one side across the bridge. Traffic not local to one LAN, including broadcast packets, is passed across to the other LAN. Bridges make their decisions based on media level addresses (e.g., Ethernet source and destination addresses).

In contrast to bridges are "routed" architectures that use a higher level gateway to interconnect LANs. Routers localize traffic by only passing packets to another LAN based on routing tables containing higher level protocol addresses (e.g., IP addresses). Broadcast packets are not forwarded by routers (a key difference discussed later). LBLnet already uses routers to interconnect to internal and external networks of different types. (e.g., MILnet, the UCB Internet, Bitnet, HEPnet, ESnet, and many local AppleTalk networks.)

The present bridged LBLnet is still operating well, but there is a growing problem created by the fact that broadcast packets cross bridges. Since all broadcast packets are seen by all systems on the network, every system must spend a portion of its time processing each broadcast. Existing poor protocol implementations and increasing network usage

implementations and increasing network usage exacerbate the problem creating "broadcast storms" of over 1000 packets per second which lead to "meltdowns" where all systems become unresponsive as the storm consumes their processing power. Routers, as isolating mechanisms, help resolve this class of problem.

In the case of the TCP/IP protocols the bridged LBLnet is a single subnet, and therefore restricted to 254 TCP/IP hosts. Today, more than 170 hosts are connected and TCP/IP based systems continue to be added to LBLnet. This limitation was anticipated several years ago, and it was expected that a "sliding bit" subnet mask address format would come into use to alleviate the problem. However, since many TCP/IP implementations at LBL don't include this feature, it has not provided a solution. Routers, however, operate on Internet addresses, including the subnet portion, and thus can be used to create additional subnets in LBLnet. Therefore, routers can be used to resolve this LBL Internet problem.

It is a primary goal of LBLnet Phase II development to support both TCP/IP routers and protocol insensitive bridges. DECnet routers will be added to LBLnet Phase II only if DECnet usage increases to the point that they become necessary.

During the next several years it is expected that overall packet rates on the bridged and Internet routed backbones of LBLnet will become high enough to require their enhancement. The optical fiber plant now being installed was specifically designed for the eventual use of high performance fiber optic based local area networks such as the FDDI (Fiber Distributed Data Interface) 100 Mbps LAN. Until FDDI or other industry standard high performance fiber optic LAN technology is available for LBLnet Phase III, the ICS fiber plant will be utilized for 10 Mbps Ethernet backbones (as is done now with the LBLnet Phase I fibers).

The primary goal of LBLnet Phase III is to change the backbone networks of the bridged and routed LBLnets to high performance fiber optic based LAN technology such as FDDI.

Network Contact Information

LBLnet new installations: Ted Sopher, x4559 or x5354

LBLnet trouble calls: x5354

LBLnet comments or trouble reports: lblnet@lbl

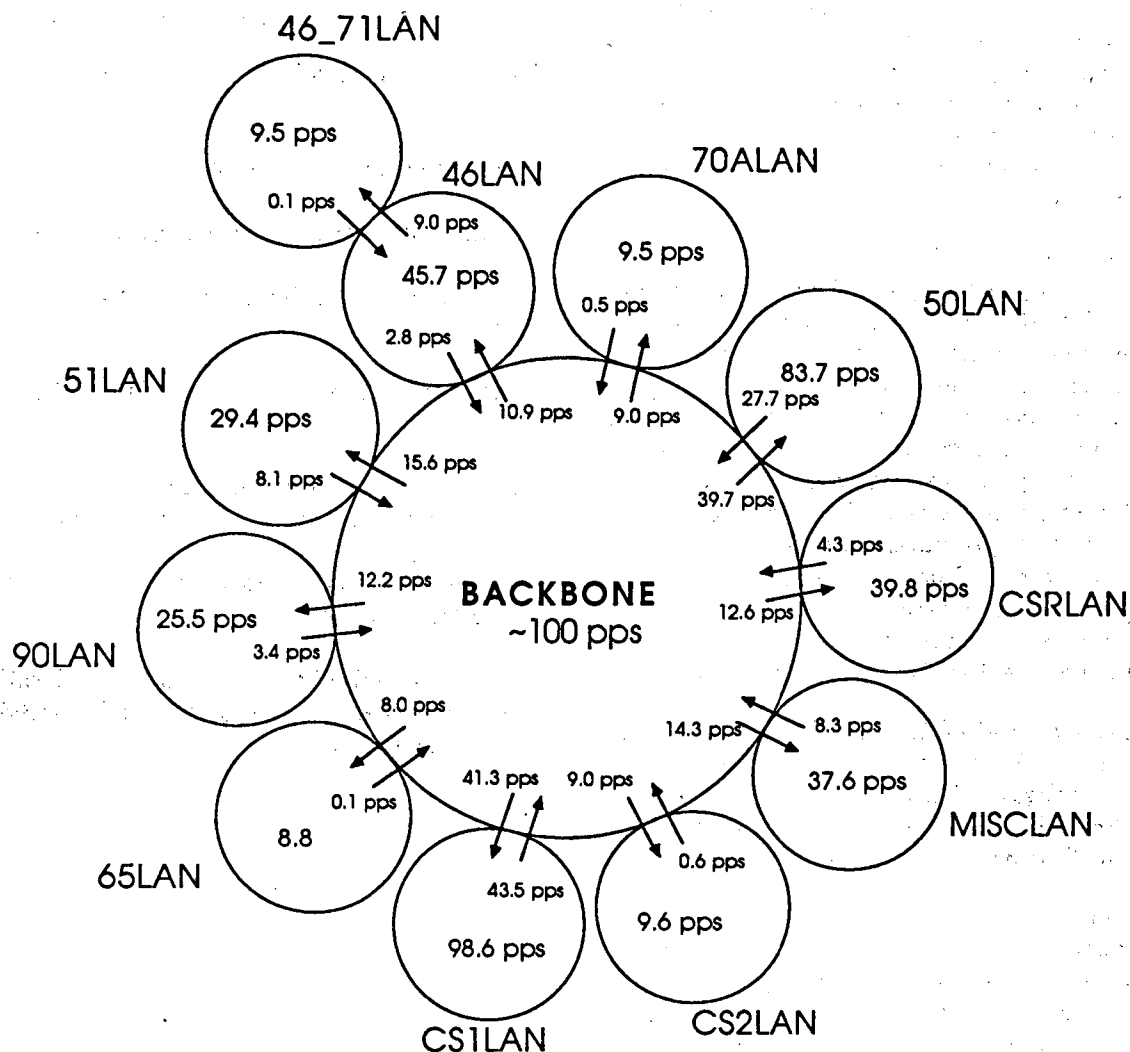
For Decnet administration: William Jaquith, x4388

For Internet administration: Darren Griffiths, x6966

For IBM PC and Macintosh network administration: Richard LaPierre, x4692

To contact the Network Advisory Group (NAG): nag@csam.lbl.gov

If you are in doubt about whom to call, call:
Bob Fink, x5692, Serge Polevitzky, x4389, or
Sig Rogers, x6713



pps = packets per second; all figures are monthly averages

arrows represent packet flow through a LanBridge
from one LAN to another

Note: Each ellipse shown above is a separate Ethernet that is interconnected to the others via Digital LanBridge-100 devices that provide forwarding of packets based on a learning algorithm that minimizes traffic between networks to those packets addressed to computers on another Ethernet.

LBLnet Activity April 1988

ICSD/CCR

Fink/Rogers

GRAPHICS NEWS

GKS SITE LICENSE NOW AVAILABLE

Nancy Johnston

LBL has just awarded a site license to Advanced Technology Center (ATC) for an implementation of GKS (the Graphical Kernel System) in both the FORTRAN and C language binding for several different operating systems. We will be receiving the tapes early this month and will start redistributing them immediately.

◦ What is GKS?

For the uninitiated, GKS is the American and International standard for 2D graphics. With GKS, you can plot lines, markers, text, polygons, and draw pixel data. GKS provides segments for selective update of images, a full range of input styles, color, and extensive workstation (graphics device driver) control functions. Code written using GKS is portable to other installations including UCB, MFE, LSAL, and other DOE sites.

Various packages use GKS for their low-level, device-independent graphics. For example, the NCAR Scientific graphics library and the Physics Analysis Workstation (PAW) program from CERN are both built on top of GKS. GKS should fully (and forever) replace the old LBL graphics package, *Grafpac*.

◦ What Machines will it run on?

We have received a site license for the following machines.

- The VAX/VMS 8650 Cluster in Computing Services (CSA1-CSA5)
- All VAXStation 2000's, II's, and 3000's
- All MicroVAX's
- All Sun 3 and Sun 4's
- IBM/PC's using the EGA card
- All HP 9000's (LBL has to do the port to these machines)

◦ What Devices are Supported?

The following is a list of the devices ordered that GKS will plot to:

- The Computer Graphics Metafile standard (CGM)
- HPGL (for Hewlett-Packard Plotters)
- Imagen (using Tektronix emulation)
- LN03+

- Matrix QCR (this driver will be available later this summer)
- PostScript
- SunView (for Suns only)
- Talaris
- Tektronix 4014, 4105, 4107, and 4693 (the new Thermal hardcopy unit that is now available. See the April Newsletter for more information.)
- X-Windows X.11 (this driver will be available later this summer)
- VT 240 (Regis)
- Zeta Plotters
- Who Can Use it?

Since we now have a site license, any user at LBL using (or having) any of the above types of machines can use it. GKS will be available on the VAX Cluster and UX1 and UX3 mid-June. See *help graphics* on the Cluster and *man graphics* on the UNIX information for the when and how.

Groups within LBL that are planning to install GKS are AFRD (on their Suns and MicroVAX), Bio_Med (on their VAX 780's), Chemical Biodynamics (VAX 785), CSR (their Suns), and Nuclear Science (on their new VAXStations).

Manuals are or will be available soon in the Computing Services Library, Bldg. 50B, Rm. 1232B, (x4242).

◦ How can I get a Copy of GKS for My machine?

You can find out how to get a copy of GKS by contacting Nancy Johnston, x5093. We do want to keep track of people who bring up GKS on their machines, so notices of updates, problems, etc. can be distributed.

VMS Mail:	lbl::NEJohnston
UNIX or	
Software Tools Mail:	NEJohnston@lbl.gov

VT600 UPDATE

Louise Millard

The VT600 printers, operated by the Graphic Arts Department and located at Bldg. 50B, Rm. 1215 and Bldg. 90, Rm. 1060, are getting lots of use by those who want better quality than a LaserPrinter that approaches the highest quality of TID's phototypesetter.

Access to the printers is available through the Computing Services' distributed printing system by sending *troff*, *TEX*, or *ASCII* to *vt1* in 50B-1215 or *vt2* in 90-1060. Macintosh users can bring their own floppy disks to the Macintosh SE connected to each of the printers. The 50¢/page recharge rate is automatic through the distributed printing system.

For those using the direct method through the attached MACs, a log sheet is available atop each printer. Don't forget to log the number of copies you make so we can continue to provide this self-service at the low rate.

Forward comments or questions to me, x5547 or

VMS Mail:	lbl::HLMillard
UNIX or Software Tools Mail:	HLMillard@lbl.gov

PHYSICS UTILITIES NEWS

Werner Koellner

- **CERN LIBRARY UPDATES:** The following CERN Libraries have been updated this month:

COMIS	Version.1.03
HBOOK4	Version.4.02
HIGZ/HIGX	Version. 1.02
HPLOT5	Version.5.02
KUIP	Version.1.18
PAW	Version.1.01
ZEBRA	Version.3.56
PACKLIB	rebuilt
PAW\$LIBRARY:PAW.Exe	rebuilt (still in test mode)
PAW_IGKS.Exe	rebuilt (still in test mode)

- **PHYSICS UTILITIES: DCL COMMAND:** Access to the Physics Utilities, which include the CERN Library, is available after executing the DCL command

@Physics\$Manager:Setup_Phys

It is best to include this line in your *login.com* file.
Typing

help @physics_utilities

reveals many of the utilities that are available.
You may also type

help 'subtopic'

to get help on a particular utility directly.

- **HP CALCULATOR:** The interactive Hewlett-Packard Calculator is now available by just typing

calc <cr>

Please type help calc for full information.

- **CERN MAIL DIRECTORY** You may now access a central electronic mail directory at CERN, by typing the command

cerndir <cr>

Please type help cerndir for full information about this facility.

Forward comments and questions to me at x4398 or

VMS Mail:	lbl::WOKoellner
UNIX or Software Tools Mail:	WOKoellner@lbl.gov

COMPUTING SERVICES NEWS

COMPUTING SERVICES DISK BACKUP POLICY

William Jaquith

VMS DISK BACKUP

Computing Services maintains a disk farm of more than 60 disks on the CSA cluster, and provides, among other things, disk backup service. The primary reason for our disk backup service is to be able to restore a disk after a disk crash. The disk backup saves all information about the current state of the disk, i.e., the files, the directories, the creation and modification dates, and the disk structures. The backup information is saved to another storage area, either tape or another disk. Then, if there is a disk problem, the disk can be restored to the state it was in at the time of this backup -- using the stored information. Added benefit: files which have been deleted can often be restored using the backup information.

CSA computer disks are scheduled for incremental back up DAILY, WEEKLY, or NEVER depending on the disk service requested. The cost of the disk storage reflects how often the disk is incrementally backed up. A combination of incremental and full backup is used to provide the backup service.

INCREMENTAL disk backups -

- are stored on disk.
- save files that have been modified or created since the last FULL disk backup.
- delete the previous incremental backup once the backup is completed.
- are done daily or weekly based on the class of disk service that you are purchasing.

FULL disk backups -

- are stored on tape.
- save all files that are on the disk at the time of the backup.
- are done at least every 60 days.
- are done sooner than 60 days if the incremental backup becomes too large.

Full backup tapes of user disks are kept indefinitely and can also be used to restore individual files.

In the case of a disk failure, the Computing Services staff uses the tape containing the *last full disk backup* to restore the disk. Then the *incremental backup*, if any is used to complete the restoration of the disk to its state at the time of the last backup.

Files that have been modified since the last incremental backup *cannot* be restored -- because the modifications are not in the backup information. Again, since the disk will be restored to its state at the time of the last backup, you will find files that you have deleted since the last backup. **Note: The disk will look as it did at the time of the last incremental backup. If there is no 'last incremental,' then it will reflect the last full backup.**

If you want us to restore a file not associated with a central facility disk failure, then use the DCL command `directory/date=backup` to find out when the file was last backed up to tape. If a file has no backup date recorded, then this file has *not* been written to tape. Make note of the backup date of the file. If you can provide us with the file backup date, then the time spent restoring a file from tape is considerably reduced. The cost for restoring files from backup is \$50 per hour. **Note: In the case of disaster or unforeseen events, a backup tape may *not* be readable**

Disks in the "never-back-up" class are *never* backed up. This service is designed for users who can easily recreate their files if a disk fails or if a file is deleted. Storing experimental data that has been read in from tape is a good use for a never-backed-up disk. Reading data from disk is much faster than using tapes, and if there were a disk failure it would be straightforward to restore the files from the user's tape. **Note: Important and critical data should *not* be stored on 'never backup' disks.**

UNIX DISK BACKUP

The Computing Services SUN UNIX computers UX1 and UX3 disks are also backed up with a combination of full and incremental disk backups.

- The UX1 and UX3 disks are incrementally backed up every day.
- The UX1 and UX3 disks are fully backed up once a week.

The backup procedure is done in an incremental and full manner as is described above for VMS. That is, any files that have been modified or created since the last full backup are copied to the incremental backup.

In case of disk failure, the Computing Services staff will use the tape containing the last full disk backup to restore the disk. Then the incremental backup, if any, will be used to complete the restoration of the disk. **Note: UNIX users are reminded that UNIX does not create multiple copies of files as VMS does. Important files should be copied to new file names for increased file protection.**

ARCHIVAL STORAGE

True archival storage involves writing two tapes and then storing the two tapes in two different controlled environments. Master directory information is also kept. Computing Services has explored the possibility of providing true archival storage; however, it is not provided because there hasn't been sufficient interest. Forward comments or questions to Eric Beals (x5351) or

VMS Mail: lbl:ERBeals
 UNIX or
 Software Tools Mail: ERBeals@lbl.gov

CHECKING YOUR SPELLING IN T_EX DOCUMENTS

Marty Gelbaum

You can check the spelling in T_EX documents *without* getting complaints from the spell/check programs about the embedded T_EX commands (like "\centerline", etc.) in them.

- On CSA, type
 spell filename.tex
 and the CSA SPELL program recognizes embedded T_EX and L_AT_EX commands and therefore does not flag them as misspelled words.
- On UX1, UX3, and ISD, type
 detex filename.tex | spell
 detex is a UNIX utility that strips a file of the embedded T_EX commands and equations in it. Here, the resulting file is passed to the UNIX spell program; the original file is *not* changed. detex is required here because the UNIX spell program does *not* recognize tex or latex command sequences. There is also a manual entry on detex on UX1, UX3, and ISD.

Forward comments and questions to me, x4749 or

VMS Mail: lbl:M_Gelbaum
 UNIX or
 Software Tools Mail: M_Gelbaum@lbl.gov

MORE ON DEVELCON

Cliff Stoll

LBL's develcon switch, which connects your terminal to the computer of your choice, has been upset lately. On occasion it has disconnected users. At other times it has belched noise into communications lines.

These problems come from several sources, and our diagnosticians have been working overtime to track them down. Their task is difficult, since the symptoms appear randomly in a few of the connections. But they are reporting progress. Develcon appears no longer to interchange different users' sessions.

Using specially-designed techniques to supersede self-diagnostics, our technicians have been able to determine the source of some of the problems and we expect a much-improved performance within the next few weeks. In the past month, factory technicians have been here twice a week, providing additional support.

In the meantime, we apologize for the Develcon's occasional misbehavior, and ask that you report any such problems to The Real Time Systems Group at x5354. They also ask for your patience while they work on Develcon; during these times, you won't be able to use it.

The Develcon will be replaced by a new LBL voice-data system in six months.

Forward comments and questions to the Real Time Systems Group, x5354 or

VMS Mail: lbl:PGMurray
 UNIX or
 Software Tools Mail: PGMurray@lbl.gov

NEW HANDOUT AT THE HELP DESK

Maggie Morley

A new handout has been added to the collection at the HELP DESK. It is free for the asking. It's called

Text Printing Resources at LBL

This absolutely up-to-date writeup summarizes text printing commands on the LBL UNIX and VMS systems, shows distributed printer locations, and documents text printing resources at LBL. *Bon appetit!*

UNIX NOTES

"rn" - THE UNIX READ NEWS PROGRAM (PART 2)

Dave Cleveland

Rn is a UNIX program that allows UX1 and UX3 users to read news messages from a nationwide network called Usenet.

Last month, we described how to use *rn* to read the default newsgroups, i.e., those newsgroups that are initially provided to every user. This month, we'll show you how to discover other available newsgroups.

The newsgroups are divided into seven broad classifications: "comp", "sci", "misc", "soc", "talk", "news", and "rec". Each of these classifications is organized into groups and subgroups according to topic:

- | | |
|-------------|--|
| comp | Discussions of interest to both computer professionals and hobbyists, including topics in computer science, software source, and information on hardware and software systems. |
| sci | Discussions intended as technical in nature and relating to the established sciences. |
| misc | Groups addressing themes not easily classified under any of the other headings or which incorporate themes from multiple categories. |
| soc | Groups primarily addressing social issues and socializing. |
| talk | Groups largely debate-oriented and tending to feature long discussions without resolution and without appreciable amounts of generally useful information. |
| news | Groups concerned with the news network and software themselves. |
| rec | Groups oriented towards hobbies and recreational activities. |

There are groups in other subcategories, but they are local: to institutions, to geographic regions, etc. Currently, local distributions include:

- | | |
|-----------|--|
| uc | Groups limited to the University of California |
| ba | Groups limited to the Bay Area |
| ca | Groups limited to California |

To access the groups within a classification, for instance "sci" -- simply type the command

rn sci

and all of the newsgroups in "sci" will be listed one at a time for you to select or reject. For each newsgroup, you will be prompted to type either **y** -- meaning that you want to add the newsgroup, or **n** -- meaning that you do not want to add the newsgroup.

If you choose to add a newsgroup, the system will ask you (with a prompt) for the newsgroup where you want it put. If you just hit the Return key, the new newsgroup will be put at the end.

When all of the available newsgroups have been listed, the ones that you selected will be listed again for you to read. For each newsgroup, you will be prompted to type either **y** -- meaning that you want to read the newsgroup, **n** -- meaning that you want to go on to the next newsgroup, or **q** -- to quit. You may want to reread last month's article on *rn* to review some of its other features.

• POSTING REPLIES

You can now post replies to the network, using "r" or "R". You can not yet post articles to the network, but you will be able to soon. Stay tuned.

Forward comments or questions to me (x5336) or

VMS Mail:	lbl::DHCleveland
UNIX or	
Software Tools Mail:	DHCleveland@lbl.gov

SunINGRES™ AVAILABLE ON UX1

Lam Wong

SunINGRES V 5.0 is a relational data base management and application development system for the Sun Workstation running under the Sun UNIX operating system. It is now installed on UX1. Interested users should call me at x4786 or Dave Cleveland at x5336 to get access permissions.

Documentation will be available at the Computing Library (Bldg. 50B, Rm. 1232B). One set is available for perusal in my office (Bldg. 50F, Rm. 117).

Forward comments or questions to me at x4786, or

VMS Mail:	lbl::LHWong
UNIX or	
Software Tools Mail:	LHWong@lbl.gov

¹ SunINGRES is a trademark of Sun Microsystems Inc. and is derived from INGRES, a product marketed by Relational Technology Inc.

NOTES FROM TROUBLE MAIL

Dana Conant, Computing Services

Following are further examples from our on-line VMS and UNIX trouble mail facilities.

MESSAGE:

If I have an ordinary (e.g. 80-col wide or 132-col wide ASCII) file, is there any way to print out on an Imagen only a range of pages, with IMPRINT for example?

RESPONSE:

At this point, there is no straightforward way to have IMPRINT print selected pages of a file. We will inform you of any progress in regard to your question.

MESSAGE:

A job of mine may have hung up the pip7 Imagen unit. I was unable to remove it using the iprm command. Please help, since the printer is still hung up.

RESPONSE:

The IP7 printer is now okay. It looked like your graphics job completed okay. If you issue the "iprm" command on a terminal different from the one you originally queued the job from, "iprm" will refuse to remove the job with a "permission denied" message.

MESSAGE:

I nearly always use lpr -o to print my files (this gives me a header with date/time/page number). I have tried, therefore, to define a command which is a shorter alias for lpr -o. I put the line

```
$ lp := lpr -o 'pl'
```

in my login.com file, but when I tried to use it, I got an error message to the effect that lpr is a bad command. Have you defined lpr as an alias for something else already? If you have, please send me the command string so that I can define my alias. Thanks.

RESPONSE:

Please use the following:

```
$ lp := 'lpr' -o
```

As a rule of thumb, you should check whether a VMS command is a DCL symbol by this VMS command:

```
SHOW SYMBOL string
```

where you replace "string" by the command of interest. In the case of LPR, this is defined as a DCL symbol; to define a DCL symbol in terms of another

DCL symbol, you need to enclose the first symbol in apostrophes ('), as shown above. If the command is *not* a DCL symbol, as is the case with MAIL, you may define a symbol as shown below:

```
mail := "mail/edit"
```

Thus, VMS Mail will always start up the default editor when invoked to SEND a message.

Lastly, note that the 'p1' in your definition does not help and does not match the filename as you wish: P1 is the name given to the first parameter, if it exists, in DCL command procedures; it has no special significance *outside* command procedures; in this case, it is an undefined symbol, unless you have defined it previously in your login.com.

MESSAGE:

I would like to have a large disk quota on CSA til Monday morning to pre-process raw data from magnetic tapes. Disk quota needed is about 300 kblocks. If it is possible, please send mail back.

RESPONSE:

You can buy 300,000 blocks of NEVER_QUOTA space which would allow you to do what you want. This will cost \$150. NEVER_QUOTA space is the cheapest way we can provide you with the amount of space you are requesting. The space you currently have is on USAGE type disks which are overbooked; we cannot guarantee that you can use whatever quota you might have without overfilling the disk. When you buy QUOTA space, you buy it for the calendar month; we do not have space in the quantity you need which can be guaranteed for periods shorter than a calendar month.

Ed. note: See the article on page 7 in this issue of the NEWSLETTER for a description of types of disk space and backup policies.

MESSAGE:

The spell program, of ultimate importance in saving face, has been moved or has vanished. Can you help locate it for me, before I die of spielung erorors? (*sic*)

RESPONSE:

I suspect that you have a symbol "SPELL" defined, which points to an older version of the Spell program which was maintained as part of the Physics Utilities. That Spell program has been superceded by the one now maintained by SYSTEM. Please check if you define any symbol or command having anything to do with SPELL. If you "SHOW SYMBOL spell", you should find it "undefined."

MESSAGE:

Please tell me how to forward my mail to FermiLab. Thanks.

RESPONSE:

Use the \$forward. file and the address where you want your mail forwarded (including the domain). Do not have any spaces or tabs in the \$forward. file.

MESSAGE:

Sometimes I forget (or just don't know) the node name of certain remote sites such as FermiLab or Harvard. Where can I obtain or look at a list of accessible remote nodes? In particular, I sometimes need to get files from CERN or UCLA and getting the node names is difficult. Thanks.

RESPONSE:

Try these three commands:

decnetlist NODENAME (if present,
the node's on our DECnet)

bitnetlist NODENAME (if present,
the node's on BITNET)

milnetlist NODENAME (if present,
the node's on Milnet/ARPAnet/Internet)

If these don't yield what you need, please send the name of the machine you're trying to reach. Good luck.

MESSAGE:

I have not been able to use the dialout phone lines for the past few days. Do you know what happened to them? I can start dialing and get answer tone, but after that I get a system hangup message.

RESPONSE:

I have successfully used the CSA4 txj2 modem to connect to another computer. The txj1 was in use by another person.

You should be aware that you cannot "set host CSA4" and then try "set host/dte txj1" as we do not permit more than one "set host" on the cluster VAXs.

Ed. note: See the September 1987 COMPUTING NEWSLETTER article titled "SET HOST Facility Restriction" for policy details.

MESSAGE:

In the LBL Computing Newsletter from May, 1988, you answered a question regarding "SET TERM" for non-DEC terminals. I would be very interested in the same information for other types of terminals. I

have experienced problems with the single-line-editor (or whatever it is called in VMS) on certain terminals, specifically the ENVISION. With a Zenith (H19?), SET TERM/INQ seems to work, but not with the ENVISION. And how about a Tektronix 4105? Is there a list of types of terminals you have SYS_UTILITIES files for? Maybe you could print it in the newsletter. Thanks much.

RESPONSE:

You can see which non-DEC terminals are supported here by issuing these two commands:

@Physics\$manager:setup_phys
help term

As it happens, the Tektronix 4105 is not one of the terminals listed there.

If you name the editor you want to use, we will try to enable you to use it on your terminal. The VI editor, among others, works on a wide range of DEC and non-DEC terminals.

MESSAGE:

I am modifying a large and complicated system. SCA could perhaps make my life easier. I'd like to try it out. Where can I access it?

RESPONSE:

SCA - the Source Code Analyzer - is alive and well on CSA3. Feel free to use it, and please tell us how you like it. (As for myself, I found it capable of doing great things, but all too slow when I had big source code files.) Cheers!

MESSAGE:

Do you know where I can find the file HPLOTA.VER referred to in the HPLOT documentation? It is a Versatec file of sample HPLOT output.

RESPONSE:

The file HPLOT.VER is not (directly) available. However, you may pursue the matter by checking and using files from the CMS library for this "TPC" version of HPLOT. Type:

CMS SET LIB HPLOT\$SOURCES

then examine the files DOEXAMPLE.COM and DOEXAMPLE.OPT, and one or the other of the HPLOTAEXi.FOR files.

MESSAGE:

I would like to send mail to a new UNIX node with the address

username@FORTY2.UUCP

Can you tell me how to send mail to this node; can I send mail via Bitnet? Thanks for your help.

RESPONSE:

Mail to the UUCP must use a gateway. In this case the gateway is at UUNET.UU.NET. There is no Bitnet gateway (I checked CERNVAX, and from the Bitnet side, they are not providing a gateway). The address to use via MSG (sndmsg) is:

enea!cernvax!ethz!forty2!user@uunet.uu.net

MESSAGE:

I have a few questions about the use of BITNET or other electronic mail networks.

- 1) I notice that sometimes my mail is delivered immediately, and sometimes it takes several hours, as determined by telephone calls to the person following my sending the message. Is there any subjectivity to the times things are sent, are there certain times of the day, or do they go out immediately as I send them with MSG?
- 2) I sometimes communicate with a colleague at IBM back east, and he is able to watch his message in real time as it arrives at various points across the country. Is there any way for me to do the same on our system?
- 3) How can I get a listing of the various addresses which can receive electronic mail? Can I get a list of the individual users' addresses at a given location?
- 4) It seems that the return receipt option is no longer working, whereas it worked a few weeks ago. I found this useful to make sure that my message was indeed delivered. Can I still get a return receipt? Thank you for your help.

RESPONSE:

- 1) Mail is a queued service and as such, delivery times are based on queue lengths here at LBL (generally 1 to 10 files) and queues at each site along the path. Without destination information, it is very difficult to suggest where the delays are occurring. If you are mailing into the Bitnet, realize that the Bitnet sites queue and order files small to large - so a large file mailed before a small file may arrive at the destination much later than the small file.
- 2) If you choose to login to the CSA2 computer and use the 'jnet%'...' mail interface, you can receive messages broadcast back to your terminal as the message moves from node to node along the Bitnet. Use VMS Mail and at the TO: prompt, type
jnet%"user@node"
- 3) On the CSA cluster, use the "resolve" command to find CSA usernames. The "lookup" utility will get LBL electronic mail names. Typically, the way to get a remote e-mail address is to call or send physical mail.
CSA> resolve userlastname
CSA> lookup userlastname

- 4) The return receipt option still works. The problem is that almost no remote mail system that you will be sending mail to has yet implemented this "return receipt" feature; so when you ask for a return receipt on the Bitnet, for example, you will not normally receive one.

There is HELP online. Look at: Bitnet, breceive, bsend, networks, and mail_local.

MESSAGE:

I have a package which was sent with xpd but xpread claims the queue is empty. When I run mail, there is a package existing. Any ideas?

RESPONSE:

You did indeed receive mail on UX1 to the effect that you had an XPD package; however, the package itself was delivered to UX3. The mail message was from the XPD server on UX3. Therefore, you must login to UX3 to "xpread" it. In some ways, this is like the situation where users get mail notifying them about receiving Bitnet files, which can only be received on CSA2.

MESSAGE:

I am having terrible problems in edt editing. I am down the hill using the Develcon, and find extraneous characters constantly inserting into the text, about one in every ten keystrokes. This problem has been around for at least 3 years, but has suddenly gotten very bad. Is there anything I can do about this?

RESPONSE:

If you have been using a 9600 baud line, please try using two stop bits in the setup for the terminal. If that does not help, try reducing the baud rate of the terminal to 4800. If that does not help, please call Electronic Maintenance at x5354 during an editing session. Thank you for your patience.

If you want wider distribution of your comments or questions, we encourage you to send them to trouble since it is seen by a wide range of people, including Divisional management.

*To use trouble, enter the VMS, Software Tools, or UNIX mail system and send mail to the address
trouble<cr>*

THE WORKSTATION SCENE

[25.6.1].....

● WORKSTATION GROUP ELECTRONIC MAIL

Workstation Group members can now be reached from the VMS cluster or the Computing Division's UNIX machines by sending mail to

VMS Mail: lbl::WKSG

UNIX or

Software Tools Mail: WKSG@lbl.gov

We hope this alternative (to the telephone) will help users with problems or wanting to share helpful hints.

[25.6.2].....

● WHERE WE'RE AT

The Workstation Laboratory, home of several Workstation Wizards as well as the Workstation Lending Library, is located at Bldg. 50B, Rm. 2231. It's open from 8 AM to 5 PM Monday through Friday. We're here to help; call us (x6858).

[25.6.3].....

● THE MAC TRAINING ROOM

How would you like to have a MAC SE with hard disk, LaserPrinter, Develcon port and popular software packages? We'd like to remind you that the Macintosh systems in the division's MAC Training Room, Bldg. 50B, Rm. 1229, are available for individual use when classes on the MAC (*Word*, *Excel*, *Versa-term*, etc.) are not in session.

The Training Room is locked when there is no one on duty in the I/O area. Contact Carol Casaretto (x6858) for a card key to gain access during these times. Carole can also provide you with a detailed classroom schedule.

For new MAC users, documentation and an introductory program, called "Your Apple Tour of the Macintosh SE," are available from the HELP DESK. These are for daily use in the Training Room only.

[25.6.4].....

● P²R - DO IT ELECTRONICALLY!

It's Performance/Progress Review time again. You can obtain the updated electronic versions of the PPR forms for the Macintosh (*Word 3.01*, *MacDraw*, *MacWrite*), *TEX*, *Nroff/Troff*, and *Wang*, at TID (x6705). ASCII files are also available for you to format on your favorite IBM word processor. Macintosh and IBM versions are also available at the Workstation Lab (Bldg. 50B, Rm. 2231, x6858). Bring or send a disk.

Please note: This is the updated version of the

template used last year. If you used that template last year, you *must* use this year's version (there have been textual changes).

[25.6.5].....

● RÉSUMÉ TEMPLATE FOR MAC OR UNIX

As noted in last month's Workstation Scene, the latest version (*Word 3.01*) of the template for the "Annual Supplement to the Professional Résumé" (ASPR) is now available for MAC users. Employees who must fill out this form every year can have a copy of the template by bringing a disk to the Workstation Lab, Bldg. 50B, Rm. 2231.

An *Nroff/Troff* version of the ASPR template is now available for UNIX users. To obtain a copy call Workstation Group member Carole Casaretto (x6858).

[25.6.6].....

● HANDOUT AT THE HELP DESK

A great new handout has been added to the collection at the HELP DESK. It is free for the asking. It's called **Text Printing Resources at LBL**

This absolutely up-to-date writeup summarizes the supported software packages for various system platforms, including VAX VMS, UNIX, Sun Workstations, Macintosh and the IBM PC. Also included are contact persons and available documentation. Additionally, it summarizes text printing commands on the LBL UNIX and VMS systems and shows distributed printer locations. *Bon appetit!*

[25.6.7].....

● CLARIS' WARES

Because of the enthusiastic response we received to our offer in the March '88 Newsletter, we are extending our offer (to take your orders for MAC software upgrades from Claris Corp.) through the month of June. We are putting together another bulk order for MAC software and will be pleased to include your request for upgrades in that order.

Claris Corporation is a "spinoff" from Apple Corp. and will handle new software products (*SmartForm*) and upgrades of "old" Apple software. Stop by the Workstation Lab (Bldg. 50B, Rm. 2231) for an upgrade form.

Pricing

In the past, Apple permitted the Workstation Group to make free updates of their software if original disks were presented as proof of purchase. The Claris policy, in true corporate spirit, will require official forms, returned disks, and monetary charges. The educational discount prices will be between 5-10 per cent

lower than the Upgrade Price in the following table.

Claris Software	Upgrade Price	New Copy Price
MacPaint v2.0	\$25	\$49
MacDraw II	\$100	Not Available
MacWrite v5.0	\$25	\$49
MacProject II	\$145	\$321

MacDraw and *MacProject* are complete rewrites of the original products, hence the steep upgrade price.

Ordering Your Update Through the Workstation Group

Bring to the Workstation Group Lab:

- an original disk for each update, and
- an account number.

Each update will include new documentation, and delivery to LBL will be about 4-6 weeks from June 30.

Ordering New Claris Software

Along with update orders, the Workstation Group will process new copy purchases for the same 30-day period. The price for a copy of the new *MacDraw II* has not been set; my guess is around \$250. The *MacDraw II* package will probably be the last one to ship. Prices and shipping dates for *SmartForm* are also unavailable at this date.

If you would like additional information on Claris, stop by the Workstation Lab (Bldg 50B, Rm. 2231) and see me. (Bruce Burkhardt - x6858).

[25.6.8].....

• PRINTER PROBLEMS

Are you experiencing problems printing your *Word* documents on a Laser Printer? If so, we'd like to know about them.

◦ Watch Out for Simultaneous Connections!

Here's a problem we've heard about lately. Text lines in a file would disappear or print twice when they were printed. In a couple of instances, systems were connected simultaneously to both AppleTalk and an RS 232 Serial Port for distributed printing when this happened. (This is a known failure mode.) The problem was solved by removing the second physical connection to the LaserWriter.

If you have this or any other problem printing your *Word* documents, we hope you'll call us. We'd like to hear about 'em.

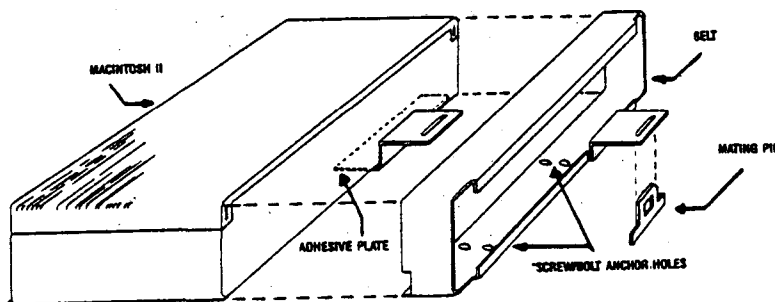
[25.6.9].....

• SECURITY HOLDERS FOR THE MAC

◦ FOR THE MAC II

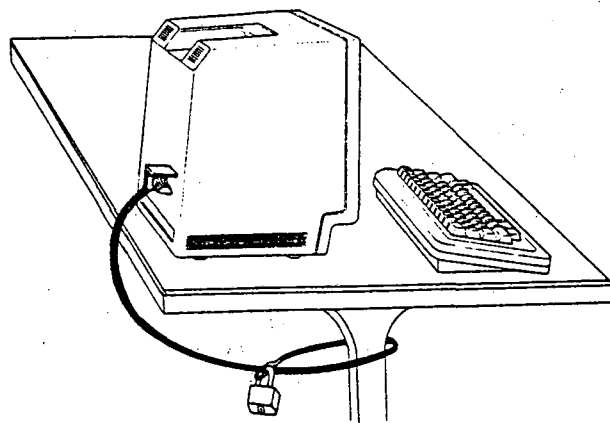
We've just received a large shipment of lockdowns for the MAC II. As the figure shows, this clever "ring" device protects the internal boards and hard disk by making the top unremovable. You can anchor the unit

with a cable or you can bolt the unit to a table. Security holder, cable, and lock are cost ~\$110. If you'd like to see a working example of this setup, drop by the Workstation Lab.



◦ FOR THE MAC SE

The Workstation group also has lots of the MAC SE cable lockdown setups. These are identical to the security devices for the MAC SE's in the MAC Training Room. The MAC SE cable lockdown devices cost \$30.



We continue to remind all computer owners to "Think Security". You really can't afford not to. A computer costing several thousand dollars is certainly worth a one-time insurance policy of \$100 or less.

... *The Electronics Installation Shop* carries an inventory of security devices for the Macintosh and IBM PC. If you would like to have a device installed, contact Al Kanzaki at x5562 or Dick Ahart at x5581. Ed.

[25.6.10].....

● TK SOLVER PLUS - AN EVALUATION

... From Everett Harvey at RTSS

TK Solver Plus is an equation solving package for the IBM PC from UTS (Universal Technical Systems, Inc.) It is a re-write of an earlier version of TK Solver (which I have not used) which is supposedly not as capable. I looked at TK Solver Plus as a data analysis package. I was looking for an easy-to-use interface with graphics and a way to import/export data with a VAX. Curve-fitting would become important later.

Basic idea: you work with a model which is composed of various sheets. There is a sheet for rules or equations, a sheet for variables, and -- most important in my case -- sheets for lists. Lists may be organized into tables. A table is very much like a spread sheet. The rules may be viewed as operations on the variables and lists. This makes the package useful for modeling. Many sample applications are provided in equation solving, engineering, and finance.

After reading the manuals for several hours, I decided it would be better just to begin using it. In a few hours I felt comfortable with the methodology of the software; it's actually quite well thought out.

I did not work with the modeling; rather, I wanted to look at the graphics and list manipulation. Creating lists and tables was fairly easy. Creating graphics from these lists was very easy too. The limitation on single model is the available memory. The data I was interested in fell well below this limitation. However, I hit my first disappointment when I could not see how to plot data-points with different symbols. I then called UTS to find out if they would incorporate that facility. The people were very helpful and pointed out my cockpit error. In just a short while I was making the plots I wanted.

The IBM AT that I was using had an LQ 1050 printer which made acceptable hardcopy outputs. Since the support line at UTS was so helpful, I decided to call them about printer support. The only printer supported in the current version is an IBM graphics compatible (note: *not* an IBM Prowriter). Also, most 9-pin EPSON and OKIDATA printers work. UTS said they were working hard on more printer/plotter support - and that more should be available in a few months.

Using KERMIT, I then moved some data in ASCII to the IBM AT from a Biomed VAX. It was easy to load the data into the model. I did not try import/export in LOTUS and DIF formats which are also supported.

My impression: here is a very useful package for scientific modeling and data analysis for problems which can be handled in an IBM PC architecture.

[25.6.11].....

● LBL PHONE BOOK AND 3+ NETWORK

The LBL phone book is now accessible on the

Workstation Group's 3+ server. To access for read only use:

3f link (drive): \\wksg1:icsd\lblphone

All of the pertinent files (for both compressed and flat ASCII phone files) are stored here in their latest incarnations. The data files are normally updated between the 10th and the 15th of each month. To recap:

System	Procedure
CSA	Type set default ibmpcphone to get to the right directory.
MAC	It's on a Hypercard Stack: exchange disks at the Workstation Group Lab - Bldg. 50B, Rm. 2231.
IBM PC	Either download from CSA via Kermit or by exchange disks at the Workstation Group Lab - Bldg. 50B, Rm. 2231.
3+ network	3f link (drive): \\wksg1:icsd\lblphone

Because of the monthly update, this source is always the most current listing of LBL Lab personnel. Feel free to call the Workstation Group Lab at x6858 if you have questions.

[25.6.12].....

● TEKTRONIX 4693D COLOR PRINTER

Computing Services has installed a new Tektronix color thermal transfer printer in the Graphics Terminal Room (Bldg. 50B, Rm. 1215). It's available there for testing for at least three months. This printer is connected to three different input devices --

- A Tektronix 4208 terminal can send screen dumps to the printer.
- The VMS mainframes (CSA4 specifically) can send Tektronix files to the Tektronix rasterizer attached to the printer.
- A MAC II (the device which concerns us most) is connected to the printer.

The MAC currently has 5 software packages installed:

- *Image Studio* from LetraSet lets you manipulate scanned pictures in a useful manner.
- *Cricket Graph* and *Cricket Pict-O-Graph* produce business or scientific graphic images.
- *Canvas* and *PixelPaint* are color "paint" type programs useful for presentation graphics.

Image Studio does not have color capability. The printer can produce direct overhead transparencies in color. Of course, it can also print on paper. Several examples are posted near the printer.

For more information regarding use from the CSA cluster, call Claudette Lederer at x6945. For more information regarding using the printer from the MAC II, contact Dan Van Zile at x6858.

[25.6.13].....

• UCB CAMPUS MICROCOMPUTER CENTER

A brand new MicroComputer Center, operating under the direction of UCB and Kinko's, has just opened on campus. Located next to the Scholar's Workshop in Moffitt Library, the center is available for use by registered students and LBL staff. In addition to producing résumés, flyers, letterheads, business cards and forms, this full service shop furnishes self-service MACs and MS DOS compatibles if you want to do it yourself. Rates vary according to advanced purchase time. If you purchase ten hours of time, it costs you about \$4 per hour for MAC SE and DOS computers. MAC IIs are a bit higher at \$5 per hour.

All the computers in the MicroComputer Center are floppy drive only. However, they are on a network that serves *MacWrite*, *MacPaint*, and a few other low-level programs. Customers may bring in their own software. Output is directed to a LaserPrinter (50¢ per page for 1-10 pages). For a copy of all the rates, hours of operation, and phone number, contact the Workstation Group Lab (Bldg. 50B, Rm. 2231) at x6858.

SHAREWARE

An additional Kinko service is participation in the Academic Courseware Exchange Program. Programmers with educational programs now have an easy way to distribute their software and receive royalties. The Workstation Group Lab has a copy of the *Developer's Handbook*, providing complete details for getting software listed in the Academic Courseware Exchange Catalog. The Catalog itself is on a *HyperCard* stack and is also available in the Workstation Group Lab.

[25.6.14].....

• VERSATERM 3.2 UPGRADE

VersaTerm is an easy-to-use and well-documented communications program for the MAC. It supports transmission of variable-length packets and background file transfers using *MultiFinder*. We recommend it highly; if your requirements include a lot of file-transfer activity, then you will probably want *VersaTerm* active in memory. Versaterm has authorized us to give you a free upgrade if you bring your original disk (as "proof of purchase") to the Workstation Lab for a free upgrade to the 3.2 version.

[25.6.15].....

• MAC SOFTWARE TECH SUPPORT

The Workstation Group is one of the Apple Support Coordinators at LBL. In this rôle, we receive many mailings from Apple and share information on the AppleLink service. One item recently caught our attention and may be of interest to many MAC users. Apple has put together a list of Third-Party MAC Software Technical Support. This is a list of popular software packages (over 75 of 'em) for the Macintosh with vendors' phone numbers if you wish to receive technical support on the product. The latest

version of the product is listed along with the phone number you will need to call to receive information for updating your current package. Interestingly enough, only Apple lists no technical support or update information for its few remaining software products not spun off to Claris.

[25.6.16].....

• HYPERCARD CORNER

◦ Version 1.2

By the time this Newsletter goes to press, the Workstation Group should have the new *HyperCard V 1.2*. The update is free: just bring in your original *HyperCard* disks for the upgrade to version 1.2. The release in mid-May is to coincide with the release of the new Apple CD-ROM. Bill Atkinson, the author of *HyperCard*, says, "about 200 bug fixes and many new features will be in the new version."

◦ Buttons and Scripts

The makers of "101 Macro's for Excel" will introduce "101 Buttons & Scripts for HyperCard" at the MacExpo this fall in Boston. At one of the BMUG meetings last month, the president of Micro International invited everyone to submit a Button or Script for this new *HyperCard* utility. Winners will get a free package and a ThankYou in the documentation - (no money). Micro International will also introduce "101 Advanced Macro's for Excel" at Boston's MacExpo.

◦ Interactive Courseware

Telerobotics and MacroMinds VideoWorks II are coming out with some great simulation software for *HyperCard*. And Apple may be coming out with a package for *HyperCard* that shows how it can be used to design low-cost in-house training systems for employees. Interactive MAC Courseware for *HyperCard* should really be booming by this fall.

◦ Disks for Sale

There are now more than 50 disks of *HyperCard* stacks in the BMUG Software Library. You can buy them, for \$3 each, at the weekly meetings on Campus (meetings begin at 6:30 PM) in the PSL Hall or BMUG's Berkeley offices. Areas of interest include Education, Games, Business, Graphics, Sound, Utility and Misc stacks. Stop by the Workstation Group Lab for a listing of BMUG's Software Library.

◦ Academic Courseware Exchange Catalog

As mentioned elsewhere in this issue of the Workstation Scene, the Workstation Group Lab has a *HyperCard* stack of the Academic Courseware Exchange Catalog. This catalog contains educational software available, at nominal cost, for both MAC and PC computers.

◦ What's More ...

The Workstation Lending Library has moved out of the dark ages and now has a software listing for both MAC and PC on a *HyperCard* stack. Browse through the stack or search for something special. Bring a blank stiffy disk for a free copy: we're in Bldg. 50B, Rm. 2231.

[25.6.17].....

● WORKSTATION SOFTWARE LENDING LIBRARY

The Macintosh and IBM PC software listed below can be borrowed for one week for evaluation. It is not to be copied!! Call Bruce Burkhart (x6858) to reserve a software package. The Workstation Group lets you keep these packages for one week at no charge. If not returned after the 8th day, there will be a \$100 charge plus the software cost recharged to your account.

APPLICATION CATEGORY	APPLE MACINTOSH	IBM PC-XT-AT
Communications	Kermit V 0.8 Red Ryder V 9.4 ** TOPS for the MAC V 2.0 * Versaterm V 3.2	DECnet DOS V 1.1 Kermit V 2.29 PC-VT V 8.4 ** TOPS for the PC V 2.0
Database Application Generators	* 4th Dimension V 1.04 * FileMaker Plus V 2.1	dBaseIII Plus * QUATTRO
Demo Programs	dBase MAC * Mystat/SYSTAT FreeHand by Aldus * MacTeX MGM Station Cad Mathtype Reflex Plus by Borland VersaCad (MACSE) * WordPerfect	GENIFER Javelin PLUS Lotus Agenda MiniTK Solver * PageMaker V 3.0
Disk Backup Utilities	DiskFit V 1.4 FastBack V 1.02 HFS Backup V 2.02 * Redux V 1.0	* BackEZ! V 1.0
Drafting	MacDraft V 1.2b 2/24/88 MiniCad V 3.15	
Drawing and Design	Cricket Draw V 1.1 Cricket Graph V 1.2 * Cricket Presents V 1.0 Fontographer V 2.3.2 FullPaint V 1.0 Illustrator V 1.0 MacDraw V 1.9.5 MacPaint V 1.0 SuperPaint V 1.0 * Canvas V 1.02m * Image Studio V 1.0 * Pict-O-Graph V 1.0 * Pixel Paint V 1.0 * TS Graph	HP Draw Gallery V 1.0 HP Chart Gallery V 1.0 Lotus GraphWriter V 1.0 Lotus Freelance V 1.0 MS Chart V 2.0 MS Paintbrush MS Show Partner
Equation Generators	Expressionist V 1.12 MacEqn V 2.1 MathWriter V 1.3 MathType V 1.04	* T ³ TRIAD V 2.1
Fonts	LBL Fonts V 1.0 Princeton Font 4.0L SciFonts V 2.5	HP Soft Fonts: Letter Gothic Prestige Elite TmsRmn & Helv HP Cartridge Fonts A, D, E, V, Z

APPLICATION CATEGORY	APPLE MACINTOSH	IBM PC-XT-AT
General Languages and Tools	Aztec C Compiler V 3.40B Lightspeed C V 2.01 QUED/M Editor Turbo Pascal V 1.0 * MS Basic V 1.0 * MS Fortran V 2.2	MS Fortran V 4.0 MS C Compiler V 5.0 MS Quick Basic V 3.0 MS Quick C V 1.0 Q-DOSII RM Fortran V 2.0 Turbo Pascal V 3.0
Instructional	Personal Training Systems: Audio Cassette & Disk "Learn Excel" (9 courses) "Learn HyperCard" (4 courses) "Learn PageMaker" (3 courses) "Learn Word" (3 courses) FlipTrack Learning Systems: "How to use Word" (4 courses)	ATI Teach Yourself: Lotus 1-2-3 V 2.0 Cdex Training Program: Lotus 1-2-3 V 1a PC Tutor
Mathematics/Statistics	Parameter Manager Plus	TK Plus Solver
Organizational Tools	More V 1.1c Acta V 2.0 * Think 'n Time V 1.0	TimeLine V 1.0
Presentation Graphics	PowerPoint V 1.0	
Spreadsheets	Excel V 1.06 101 Macro's for Excel * MacSQZ V 1.0	Excel V 2.0 Lotus 1-2-3 V 2.01 InWord V 1.0 Lotus HAL & Metro Learn & SpeedUp Funk WorkSheet Utilities
Technical Publishing/ Page Layout	* PageMaker V 3.0 PageMaker Templates V 2.0 Quark XPress V 1.1 * Ready-Set-Go! V 4a	PageMaker V 1.0a Ventura Publisher V 1.1
Utilities	HyperCard V 1.1 HyperDA V 1.0 PrintWorks for the MAC QuickKeys V 1.1 SmartScrap & The Clipper * AnyText/AnyGraph V 1.4 * Sensible Grammar V 1.0 * SideKick V 2.0 * SuitCase V 1.0 * SuperGlue V 1.0 * Stepping Out V 1.0 * Thunder! V 1.0	Carousel V 1.0 Double DOS JetSet MS Windows 2.0 MS Windows/386 SoftWare Bridge V 3.0 Norton Utilities V 4.0 Polaris Forms V 1.0 SideView V 1.0
Word Processing/ Editors	MacWrite V 4.6 MindWrite V 1.12 * MS Word V 3.02 Textures V 1.01 WriteNow V 1.0 * FullWrite Professional V 1.0 * WordPerfect V 1.0	DisplayWrite4 V 1.0 Lotus Manuscript V 1.0 MS Word V 4.0 PC/VI V 1.11 Volkswriter3 WordPerfect V 4.2

* Update or New Listing. ** Workstation Group Lab Demo Only.

YES I would like to receive the Computing Newsletter

NAME

ADDRESS

.....

CITY
STATE
ZIP

PHONE

COMMENTS

.....

Return to:Newsletter - MS 50F
Lawrence Berkeley Laboratory - University of California
Berkeley, CA 94720
Attention: NL MAILING LIST

This document was prepared as an account of work sponsored by the United States Government. Neither the United States Government nor any agency thereof, nor The Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial products process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or The Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or The Regents of the University of California and shall not be used for advertising or product endorsement purposes.

SIGN UP FOR THE NEWSLETTER

Attention LBL employees: If you use the Computer Center's UNIX or VMS system, or if you are a owner or user of a PC or a MAC, you should sign up to receive the Laboratory's Computing Newsletter. It contains useful information about our systems and has a helpful **Workstation News** section (supported by the Information and Computing Sciences Division's Workstation Group), offering support and helpful hints for PC users. This is also a place for you to send questions and comments. To add your name to the Newsletter Mailing List, contact Irene Partyka, x4242, or

VMS Mail: lbl::IMPartyka

UNIX or
Software Tools Mail: IMPartyka@lbl.gov

Lawrence Berkeley Laboratory
Computer Center Library
MS 50F
University of California
Berkeley CA 94720

VOGUE LA GALERE

... Rabelais