

# Lawrence Berkeley National Laboratory

## LBL Publications

### Title

LBL Computing Newsletter Vol 26 No 12

### Permalink

<https://escholarship.org/uc/item/9zr6287r>

### Author

Lawrence Berkeley National Laboratory

### Publication Date

1989-12-01

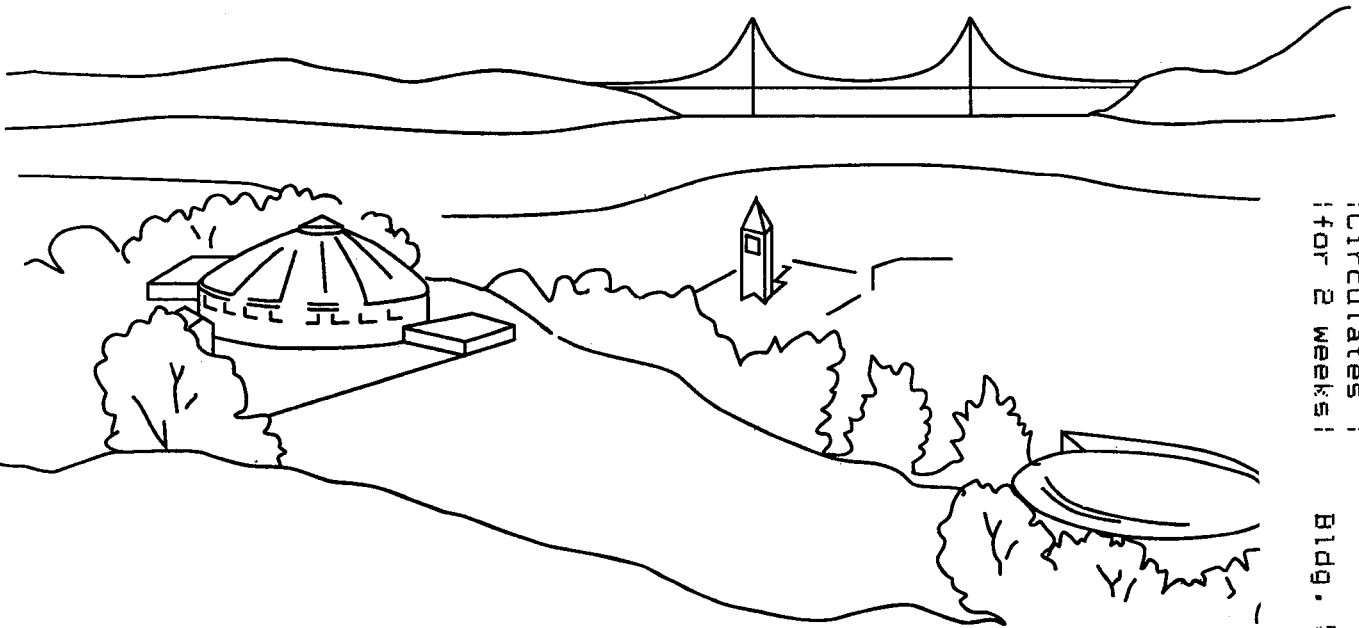
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DECEMBER  
1989

# LB COMPUTING NEWSLETTER

- NEW CLUSTER for Christmas
- The Maverick
- EuGene and SAM
- Single/Multiple E-MAIL Messages



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Newsletter Closing Date is Wednesday, December 13, 1989

Address all communications for the Newsletter to login nooz@ux1.lbl.gov  
or put in Maggie Morley's Drop Box in the Workstation Group File Server

**Editor: Maggie Morley**

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

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# GENERAL NEWS

DEC's 6400 series

## CLUSTER UPGRADE IN DECEMBER

Maggie Morley

Computing Services will upgrade the cluster this month. We are trading in the five VAX 8650s for DEC's newer, faster 6400-series machines. We'll have three new DEC products, two 6420s (named CSA1 and CSA2) and one 6410 (named CSA3) — five processors in all — waiting for you when you return from your Christmas holidays.

The 6420 is a dual processor VAX; each processor has a performance rating of 7 VUPS<sup>1</sup>. The DEC 6410 is a single-processor machine; its processor also has a performance rating of 7 VUPS. CSA1 and CSA2 will each have 96 MBytes of memory; CSA3 will have 64 MBytes. These machines will be running VMS 5.3.

We don't anticipate any difficulties with the new machines. Changeover should be smooth and (nearly) transparent. We are taking this opportunity to retire some elderly or underused hardware/software and to shift some other hardware/software around.

### WHAT'S GOING AWAY

The following hardware will be retired:

- The IMLAC<sup>2</sup> graphics terminal
- The GRINNELL<sup>2</sup> frame buffer
- The VHS tape Gigastore
- Two floppy drives
- The 800 bpi 9-track tape drive.

The following software will be retired:

- SmartStar
- TELLAPLAN<sup>2</sup>
- MINOS

The existing Unibus-attached 8mm tape drive will be replaced by a new 8mm system connected to the HSC.

### NEW SOFTWARE LOCATIONS

Here's the list of software that's licensed for specific machines.

| CSA1<br>(6420)           | CSA2<br>(6420)      | CSA3<br>(6410)           |
|--------------------------|---------------------|--------------------------|
| FOCUS                    | DI3000 <sup>4</sup> | Jnet                     |
| BASIC                    | SCA, PCA            | DISSPLA                  |
| TELL-A-GRAF <sup>3</sup> | NOTES               | TELL-A-GRAF <sup>3</sup> |
| RBMS                     |                     | FLINT                    |
| DECserver 200            |                     | DECNET/SNA               |

All other software will be available on all of the five processors in the new cluster.

### WHAT ABOUT YOUR OWN SOFTWARE?

If you use a licensed software product on the cluster that Computing Services has not installed or does not maintain, you should talk to the vendor about upgrade costs.

### ICS

The new CSA machines, just like the 8650's, will be connected to both the Develcon and ICS dataswitch. Since there will be fewer ports available on the new machines than there were on the "old" CSA cluster, the division between the two dataswitches may increase the likelihood that you'll find "all ports busy." Ports will be moved from Develcon to ICS as required, but you should maintain your ability to return to Develcon until the ICS installation is completed. ICS is still subject to interruptions in service and more are expected.

If you are on an AppleTalk network, then you should use CSA TELNET.

Forward comments and questions to Marv Atchley at x5455 or

VMS Mail: **lbl::FMAatchley**

Unix or

Software Tools Mail: **FMAatchley@lbl.gov**

<sup>1</sup> By contrast, a VAX 8650 has a performance rating of 5 VUPS.

<sup>2</sup> See article on Pg. 12 of this newsletter.

<sup>3</sup> Also Cuechart, Data Connection, PinPoint (all Computer Associates products)

<sup>4</sup> Also Grafmaker, Contouring, Metafile, PicSure, Di-Textpro (all PVI products)

## COMPUTING SERVICES SECURITY POLICY

Marv Atchley

During the past month there have been continued attempts to penetrate DEC VMS systems connected to LBLnet (and therefore to the rest of the world) by a "worm." Using techniques similar to the Morris Worm of 1988, this worm could gain access to systems where good password management had been ignored. For instance, it checked to see if the default passwords for the DECnet and FIELD accounts had been changed from those assigned at the original software vendor distribution. It checked for passwords that duplicated login names, and also checked against a dictionary of frequently used passwords.

Although the Computing Services systems were not invaded, the owners of several smaller networked machines at LBL were surprised by a message on their screen telling them they had been WANKed. ("Worms Against Nuclear Killers...") Rumors of this worm erasing files were not confirmed, but there was some potential.

A more detailed description of this worm and how to protect against it is available; send mail to [trouble@CSA](mailto:trouble@CSA).

System managers of any system attached to a large network MUST practice good password and security policy. Those who don't will provide a haven for such worms to continue attacking the network.

LBLnet and Computing Services personnel are ever alert, and usually provide early warning for such attacks. If you wish to be added to our network notification list, send mail to [trouble@CSA](mailto:trouble@CSA).

The Computer Security TPEG recommended the policies outlined below, which were adopted by Computing Services in 1987. They are still applicable:

### THE SECURITY POLICY NOW IN FORCE

#### Login Issuance

Each applicant MUST fill out a login request form, which includes name, lab address, employee number, and account number. Applicants are required to display identification. The data on the application is checked with employee lists supplied by the personnel department.

Group logins are not permitted. Computing Services offers free training and consulting on how users may share file systems<sup>1</sup>.

<sup>1</sup> We recognize that this policy is not easily enforced; a user can share a login and password with a colleague and there is no further system detection or checking. However, the establishment of this policy has minimized

#### Password Policy

- The password cannot equal the login name.
- Changes of password cannot equal previous password.
- The password must be at least 6 characters long.
- The password cannot be all the same character.
- The password cannot contain a recognizable part of the login name.
- The password is not to be found in the Dictionary.
- The passwords are not to be written into files or electronic mail.
- The password must expire within 180 days of issuance.

#### Login Expiration

- The login is deactivated after 90 days of inactivity.
- The login is archived after 30 days of being deactivated.
- Initial login is deactivated after 10 days of non-use. (Note: Logins expire only by non-use or inactivity. An unused login that is compromised could be used indefinitely unless it is detected by the Division Administrator.)

#### VMS System Breakin Prevention Parameters

- Tight control is exerted over system privileges.
- The user is notified of login failures upon next successful login (i.e., wrong password used for that login.)
- Five login failures (either invalid login name or wrong password) causes the login to become inactive for one hour and is termed a breakin attempt.
- Sensitive files, such as SYSUAF, are alarmed to detect unauthorized access attempts.
- The system manager is notified of breakin attempts on the following day.

#### Networks

- We discourage network access using passwords and encourage the use of proxies.
- Use of the default DECnet account by users is not allowed.
- TYMNET access requires divisional accounts and passwords.

a significant security problem caused when a group of students is sharing a login, and possibly giving the login and password to their friends.

### Center Physical Security

- User access is restricted to the user terminal and I/O areas.
- The doors to the user areas are unlocked whenever Computing Services staff is on-site. At all other hours, access to the user areas is via approved card-key.
- LBL security is notified whenever CS staff will not be on-site.
- Additionally, all doors are secured and the environmental protection systems are checked for automatic operation.

### Security Awareness

- Computing Services conducts an ongoing effort to keep the user community aware of the importance of computer security.

### Remote Logins and Access to Remote Hosts

- &.rhost entries should be aged and expired.

Forward comments and questions to me at x5455 or

Unix or  
Software Tools Mail: **FMArchley@lbl.gov**  
VMS Mail: **lbl::FMArchley**

## COMPUTER SECURITY MONITORING

Dave Stevens

We'd like to remind users that the Security Monitoring Program, initiated in July, 1987, continues.

The program is defined in **Policy and Procedure Memoranda, Volume Nos. 9 and 10** and includes the following activities, as necessary:

- annual inventory of sensitive applications
- random sampling of user files
- verification of proper control and authentication of new users
- verification of proper password procedures and use
- verification of proper physical security
- monitoring of network traffic
- monitoring of usage patterns.

The individuals who perform these monitoring operations will, in the course of their duties, read files, including mail files, belonging to other users. They are required to maintain the confidentiality of all non-public files unless they uncover evidence of unauthorized access, improper use, or security-threatening practices;

Forward comments and questions to me at x7344 or

Unix or  
Software Tools Mail: **dfstevens@lbl.gov**  
VMS Mail: **lbl::stevens**

*Reprinted from the LBL Computing Newsletter, June 1988, Pg. 7.*

# UNIX NEWS

## BOOT SERVICE FOR DISKLESS WORKSTATIONS

Craig Eades

Computing Services provides boot service for Sun 3 and Sun 4 diskless workstations.

To arrange boot service for your diskless workstation, contact me at x6569.

## SUN DOS 1.0 AVAILABLE FOR EVALUATION

The Sun MS-DOS emulator for Sparc Stations has been installed on the two evaluation Sparc Stations and is available. The speed of the emulator is comparable to an IBM-PC/AT. Users can use the built in high density floppy drive to load their favorite PC software. Documentation is available in the workstation/graphics area (50B, Rm 1232A).

## HERE'S MACDUMPS

Bill Benson

Macintosh users: here's how to protect yourself from the heartbreak of Painful Restoration of Lost Data. Take advantage of Computing Services' automated backup service for Mac hard disks. We back up your disk to 8mm tape cartridges in the middle of the night. This is an effortless and automated service<sup>1</sup>. You leave your Mac powered on overnight; we do the rest.

We keep the tapes for 180 days; you can restore individual files or an entire hard disk. Rates are reasonable. For full details, see the Computing Newsletter, September 1989, Pg. 7. Or look at the ReadMe file on the AppleShare file server WKSG Server 1 in the lbl zone (it's in the Macdumps folder inside the Utilities folder). To register, we only need to know your Mac Chooser name, disk name, zone number, e-mail address, and account number.

Forward comments and questions to me at x5703 or

Unix or

Software Tools Mail: [macdumps@lbl.gov](mailto:macdumps@lbl.gov)

VMS Mail: [lbl::macdumps](mailto:lbl::macdumps)

<sup>1</sup> Furthermore, we have increased the service's storage capacity.

## VAX/VMS LIBRARY EMULATION ON NEW SUN SYSTEM

Dave Cleveland

LIBR8 Run-Time Library Routines and System Services are now on UX5, the new Sun 16 MIPS SPARCserver.

LIBR8, a product of the Accelr8 Technology Corporation, provides procedures designed to emulate the VAX/VMS Run-Time Library Routines offered by Digital Equipment Corporation. The set of Reference Manuals for VAX/VMS System Routines are the basic documentation for the LIBR8 routines.

The LIBR8 Run-Time Library routines can be used in programs written in C and FORTRAN. The following examples illustrate the use of the random-number generator, MTH\$RANDOM, with the required linker options, -llibr8 and -L/usr/5lib.

### C language example

The following program, ranc.c, is compiled by the "cc" command

```
cc -o ranc ranc.c -llibr8 -L/usr/5lib -lm
```

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
    static int seed = 1;
```

```
    float random, mth$random();
```

```
    printf("seed = %d\n", seed);
```

```
    random = mth$random(&seed);
```

```
    printf("random = %20.5e\n", random);
```

```
    exit(0);
```

```
}
```

### FORTRAN language example

The following program, ranf.f, is compiled by the "f77" command

```
f77 -o ranf ranf.f -llibr8 -L/usr/5lib -lm
```

```
INTEGER SEED
```

```
DATA SEED / 1 /
```

```
REAL RANDOM, MTH$RANDOM
```

```
PRINT ("seed = ",I), SEED
```

```
RANDOM = MTH$RANDOM(SEED)
```

```
PRINT ("random = ",E20.5), RANDOM
```

```
STOP
```

```
END
```

Note: VMS-type header files are in /usr/local/lib/accelr8/include: \*.h files for C programs; \*.f files for FORTRAN programs.

Forward comments and questions to me at x5336 or

VMS Mail: lbl::DHCleveland

Unix or

Software Tools Mail: DHCleveland@lbl.gov

## SUN DESK AVAILABLE FOR SUN WORKSTATION USERS

Computing Services has received a limited number of copies of *Sun Write*, *Sun Paint* and *Sun Draw*, Sun's entries into the desktop publishing arena. These are available at a special price (over 50% off) in limited quantities.

- ☛ *SunWrite* (similar to *MacWrite*) is for multifont text processing and page layout.
- ☛ *SunDraw* (similar to *MacDraw*) is for object-oriented graphics.
- ☛ *SunPaint* (similar to *MacPaint*) is for creating and editing raster images.

Users can take a "test ride" in the Sun Workstation Sparc-1 Demo machine in Bldg 50B, Rm. 1232A. Forward comments or questions to me at x6569 or

Software Tools Mail

or Unix: CAEades@lbl.gov

VMS Mail: lbl::CAEades

## CLASSES, CLASSES, WHO'S GOT THE CLASSES?

Do you want to attend a Unix-related class but don't see it listed on Pg. 31 of this Newsletter? Do you have a burning desire to learn more about Unix?

Send your vote for the class(es) you most like to see offered by Computing Services to

class\_request@lbl.gov

## THE MAVERICK IS HERE

Craig Eades

Computing Services has recently received a Data General AViiON "Maverick" workstation; it's set up in the Graphics/Workstation area (Bldg. 50B, Rm. 1232) for a one-month evaluation period. Drop on over and take a spin.

We'd like you to know that the Maverick, with a performance rating of 17 MIPS with 8 MBytes of memory in a 19" monochrome diskless configuration, costs under \$5,000. (The evaluation model set up in the G/W area has 16 MBytes of memory and a color monitor. This configuration is not the standard package and would bear, of course, a slightly different price tag).

For more information on this system, phone me at x6569 or forward e-mail to

VMS Mail: lbl::CAEades

Unix or

Software Tools Mail: CAEades@lbl.gov

# HUMAN GENOME CENTER NEWS

## NEW MOLECULAR BIOLOGY SOFTWARE

Marge Hutchinson

The LBL Human Genome Center is providing the **EuGene** and **SAM** software for DNA and protein sequence retrieval, analysis, and assembly. These programs were developed at the Baylor College of Medicine and are now available to any interested user with an account on the Computing Services Unix systems (UX1, UX3, UX5, or CSR).

### EuGene

EuGene provides an easy-to-use menu-driven interface for access to GenBank, the databank of DNA sequences, and PIR (Protein Identification Resource), the databank of amino acid sequences. It also provides an interface to commonly-used sequence analysis functions.

**Functions Available.** In EuGene you can

1. Access the current local versions of GenBank and PIR databanks.
2. Create your own local set of sequences, by retrieving from the databanks or by entering from the keyboard, and edit those sequences.
3. Format and analyze sequences (for example, identify patterns, find hairpin turns, predict hydrophilicity or secondary structure).
4. Perform genetic engineering simulations (e.g., map restriction sites, convert to the reverse complement, cut a sequence, or ligate sequences).
5. Convert nucleic acid sequences to their corresponding peptide sequences.
6. Perform similarity searches and alignments (including the Pearson/Lipman fasta routine and the Doolittle multiple alignment procedure, among others).

### SAM

**SAM** (Sequence Assembly Manager) is a program to assemble random overlapping sequences into contiguous sequences. It uses the same menu-driven interface as EuGene. It provides mechanisms for entering gel information using the editor or from a SAC/GrafBar digitizer if you have one available. SAM provides functions to edit the sequences, and to assemble them into ordered sets of sequences called contigs. The editing features include improved mechanisms for removing cloning vector portions of the sequence. Merging and pattern matching functions can be accessed from SAM and sequences can be moved into EuGene where a larger group of analysis functions is available.

### How to Run the Software

If you are already a user of the UCSF software (as described on Pg. 5 of the October 1989 issue of this Newsletter), you already have access to EuGene and SAM. If you are a new user, insert the following command into your .login file:

```
if (-r ~sequence/startup) source ~sequence/startup
```

Type "eugene" or "sam" to enter the corresponding module. Once started, you can access online help by typing

```
control-p
```

(Hold down the "control" and the "p" button at the same time). To leave help, hit the tab key.

To access the printer of your choice you need to define two environment variables, MBIR\_PR and MBIR\_LW.

MBIR\_PR is a list of all printers you may wish to use. MBIR\_LW is a single laserwriter printer used for displays that require a laserwriter printer.

For example, the following two commands would specify normal printing to go to IP1, IP2, or AP1, but only AP1 for those graphs requiring a laserwriter.

```
setenv MBIR_PR ip1,ip2,ap1
setenv MBIR_LW ap1
```

To have these statements automatically executed on login, place them in your .login file after the above-mentioned startup command.

EuGene and SAM can be accessed from any workstation or terminal, including the IBM PC or the Macintosh. Members of the Workstation group, Bldg. 50B, Rm. 2231, can assist you if you need help accessing the Unix systems from a PC or a Macintosh. Ask at the HELP DESK, Bldg. 50B, Rm. 1215, x5981, if you need further help setting up your printing environment.

A "Quick Reference Guide" to EuGene and SAM is available at the Computing Services Library, Bldg. 50B, Rm. 1232C, x4242. The Guide contains a more complete list of the program functionality and also details the keyboard functions used by the software. The librarian can also help you order the manuals from Lark Sequencing Technologies, LTD, if you wish to purchase them.

If further information is needed about EuGene or SAM, or to report problems with the software or databanks, call me at x4727 or forward e-mail to

Unix or  
Software Tools Mail: [sequence@ux1.lbl.gov](mailto:sequence@ux1.lbl.gov)  
VMS Mail: [lbl::margeh](mailto:lbl::margeh)

# ACCELERATOR CODE LIBRARY NEWS

Ed Sheena

During November we made some changes in the organization of the HELP library and added some programs.

## • Organizational changes.

We renamed the major categories of the library to reflect more accurately the usage of the codes. Similarly, we reassigned the various programs to categories that more accurately fit their functionality. Some programs may fit into more than one category. The index will always show the primary category to which the program is assigned. A second category may show an entry for the same program, but it merely points you back to the detailed entry in the primary category. For example, the program DIMAD appears under the category "Synchrotron-Design" in the index. There is also an entry for DIMAD in the category "Particle-Tracking," which shows how to access the detailed entry in Synchrotron-Design. The major categories presently are:

- Synchrotron-Design,
- Beam-Transport,
- Particle-Tracking,
- Electron\_Guns-Ion\_Sources,
- RF-Cavities,
- 2-D-Magnet-Design,
- Linac-Design.

## • Four New Programs

### 1. MARYLIE

We acquired Version 3.0 of MARYLIE from Dr. Alex Dragt of the University of Maryland. This program appears to be under continuous development. A "final" version is expected within 6 months. Version 3.0 is described as "the first version of MARY1 and LIE (pronounced lee) algebraic charged particle beam transport and tracking program." Two locally-written programs are associated with MARYLIE:

- (1) MARYGEN, which "generates initial beam vectors for beam transport problems", and
- (2) MARYPLOT, which "generates plots from a MARYLIE (rays) input or output files."

To get to the HELP article, type:

```
helpa accel synchrotron-design marylie
```

### 2. VARGUS

One of our staff members in Engineering attended a workshop at Science Applications International Corporation on the program VARGUS and brought back a copy of the program for our library. VARGUS "solves the complete set of Maxwell's equations in either the time domain or the frequency domain." The preliminary version of VARGUS had some problems, which were reported to SAIC. We have just received a cleaner release, as well as corrections to the user's manual. I have already made the previous version operational for some users, and have provided command files to run the program and to plot its graphic output. They are in ACCEL\_DISK:[ACCELLIB.EXE.VARGUS], under the names of VARGUS.COM and DLT.V.COM. They attempt to guide you when you use the programs on sample input files or on your own files. I expect to have the "updated" version working in early December.

## • Other

We are still negotiating with Dr. Thomas Weiland about the future releases of the MAFIA, URMEL and TBCI programs.

If you have not already done so, include the following logicals and symbols at the beginning of your login.com;

```
$ disklogicals accelbase
```

```
$ define/job/nolog accel_disk accelbase_daily_usage
```

```
$ helpa:=="help/libr=accel_disk:[accllib.help]acclhelp"
```

```
$ setlib :=="cms set libr accel_disk:[accllib.cms]"
```

Forward comments and questions to me at x5176 or

Unix or

Software Tools Mail: EHSheena@lbl.gov

VMS Mail: lbl::EHSheena

# GRAPHICS NEWS

## UPDATE ON THE TEKTRONIX 4693D COLOR PRINTER

Dan Van Zile

The Tektronix 4693D color printer in the Graphics/Workstation lab (Bldg. 50B, Rm. 1232) has received a growing amount of usage since it was installed 18 months ago. Most of the usage comes from a Mac II attached via a parallel interface to the printer. A wide variety of applications (see below) run in the Macintosh environment. You can also access it from the CSA cluster via TELL-A-GRAF or make screen dumps from the neighboring Tektronix 4208 terminal.

The following applications are installed permanently on the Mac and can access the Tektronix printer.

- \* *Canvas* - A color paint type package intended primarily for presentation graphics.
- \* *Pixel Paint* - Another color paint application also good for presentation graphics.
- \* *Image Studio* - An application to allow manipulation and retouching of scanned images in monochrome only.
- \* *Cricket Graph* - A black and white application for producing business or scientific graphs.
- \* *Cricket Pict-O-Graph* - Another black and white application for business and scientific graphs.

These five packages are the only ones licensed for that Mac II; costs prevent our installing others. You can, of course, supply your own applications for use on this Mac, but we ask that you remove them when you are through; don't leave them installed. Similarly, if you use an application checked out for evaluation from the Workstation Group's evaluation library, please remove all files associated with that package when you are finished.

As for the Mac itself, its primary reason for existence is to send output to the color printer and to allow users to scan pictures or documents on the attached Apple scanner. Other usage is permitted as long as you make the machine available to users using the scanner or color printer.

You can forward comments or questions regarding use of the Tektronix 4693D color printer to Dan Van Zile at x5589 or send e-mail to

VMS Mail: **lbl::GDVanzile**

Unix or  
Software Tools Mail: **GDVanzile@lbl.gov**

## MAC GRAPHICS SOFTWARE

Bill Benson

A selection of Macintosh graphics software contributed to the internet community can be found in the Graphics Folder on the WKSG Server 1 AppleShare file server (in the lbl zone). (You first need to run the AppleShare installer script to access the file server).

The Graphics Folder is intended to be a convenient access point for current versions of public domain graphics and image processing software that may be useful to LBL scientists. Major titles from institutions such as NCSA (National Center for Supercomputing Applications), and NIH (National Institutes of Health) will be included. These include

- NCSA Layout - to annotate 2D images for presentation
- NIH Image 1.19 - image processing
- RGBView - convert 24-bit RGB images to 8-bit color

Documentation and sample files are usually provided by the author of each application. See also the file **Graphics Read Me** for a brief synopsis of each package. Suggestions and sources for other software are welcome.

Forward questions and comments to me at x5703 or

Unix or  
Software Tools Mail: **WHBenson@csam.lbl.gov**

VMS Mail: **lbl::WHBenson**

## THE IMLAC IS GOING AWAY

Nancy Johnston

The IMLAC graphics terminal in the Graphics/Workstation Lab (Bldg. 50B, Rm. 1232) has been retired from active service.

In the last few years, the IMLAC was used exclusively for x,y digitizing. This function is now being provided by a GKS application program which uses the Tektronix 4208 color terminal (with its attached Tektronix 4957 bit pad) also located in the Graphics/Workstation Lab. This x,y digitizing program is available on the Computing Services' VAX Cluster and Unix machines; it can correct for displacement from the origin and rotation about the origin — that is, it can correct for imperfect alignment of the data being digitized with the tablet surface.

For more information, type

**\$ help graphics digitizing** (on VMS)

or

**% man digitizing** (on UX1, UX3, or UX5)

## GRINNELL FRAME BUFFER IS GOING AWAY TOO

Nancy Johnston

The Grinnell Frame Buffer will be removed from the Graphics/ Workstation Lab (Bldg. 50, Rm. 1232) over the Christmas holidays. This system will not make the transition to the new VAX/VMS machines because the Grinnell hardware is not compatible with the architecture of the new machines. Users are encouraged to use one of the VMS or Unix workstations located in the Graphics/ Workstation Lab.

Forward comments and questions to me at x5093 or

VMS Mail: **lbl::NEJohnston**

Unix or

Software Tools Mail: **NEJohnston@lbl.gov**

## NEWS ABOUT TELL-A-GRAF, DISSPLA, AND TELLAPLAN

Nancy Johnston

### TELL-A-GRAF:

With the VAX/VMS upgrade, we will be able to provide additional computer processing power for TELL-A-GRAF. Until now, this conversational graphics tool was available on 2 VAX/VMS 8650s (2 processors). With the upgrade, it will be available on one VAX 6420 (a two-processor machine) as well as the VAX 6410 (one processor). This adds an additional 50% worth of computing power.

### DISSPLA

DISSPLA will be available on the VAX 6410 (earlier it was available on one 8650).

### TELLAPLAN

With the advent of the VMS upgrade, the Computer Associates product TELLAPLAN, a project-management system, will be retired. We haven't recorded any usage recently. If its removal affects you project, contact me (x5093) immediately.

# POSTMASTER'S CORNER

## REPLYING TO ONE OR TO A BUNCH IN ELECTRONIC MAIL

William Jaquith

In Unix Mail and in Software Tools mail, it is possible, even too easy, to send electronic messages to many people — all on a "distribution list" — at one time. There are lots of times when you ought to send your message/reply to just one person and not to all members of a distribution list. With this in mind, it might be wise to review the following basic electronic mail commands before you log in.

### UNIX

On the Sun Unix systems, you invoke the Mail system (and see the list of messages you've got) by typing  
mail (carriage return)  
after the Unix Prompt ("UXn%"). You'll get the "READING Unix Mail" prompt ("&"). To read the first message, type  
1 (carriage return)

**To Send to One:** To reply JUST to the sender, type Lower Case "r" (carriage return).

To include the sender's original message in with your response, type  
~m (carriage return)

**To Send to a Bunch:** If the sender included your name on a distribution list, you'd reply to the sender AND to all of the other logins on that list by typing an upper case "R" (carriage return).

### Additional Unix Mail Commands

Here are some more handy commands. Let's say you're composing an on-line reply in Unix Mail. To preview what you've typed so far, type

~p (carriage return)

It will print the text of your message and leave you at the bottom of the file, where it says "(continue)." If you want to edit your message, type

~v (carriage return)

and you're in the *vi* mode. Edit at will. If you want to include another file in your message, type

~r filename (carriage return)

and filename will be included in the message. Type

~p (carriage return)

<sup>1</sup> Furthermore, each time one person on a distribution list responds to such a mail message, that response might be sent to every other login on the distribution list. It's possible to generate a hurricane of needless electronic mail messages with one stroke.

once again to see the text displayed. If you want to send your message to more people, type

~t joe al jim zack thumper etc.(carriage return)

Then type

~p (carriage return)

once again to see this displayed. To see a list of all the tilde commands available, type

~? (carriage return)

To send your message, type

CONTROL-D

If, after all that, you do not wish to send your mail message, type

CONTROL-C

### SOFTWARE TOOLS MAIL:

On the Cluster systems, you invoke the Software Tools Mail system (and see the list of messages you've got) by typing

msg (carriage return)

after the CSA Prompt ("CSAn"). You'll get the "READING Software Tools Mail" prompt ("<-").

To read the first message, type

1 (carriage return).

**To Send to One:** To reply JUST to the sender, type at the "<-" prompt

a . . . . 1 (carriage return)

To include your correspondent's original message in with your response, type at the "<-" prompt

x . . . . 1 (carriage return)

**To Send to a Bunch:** If the sender included your name on a distribution list, you'd reply to the sender AND to all of the other logins on that list this way: type at the "<-" prompt

@ ("answer will go to return path")

You'll get another "<-" prompt. Type it again

@ ("answer will go to list of all recipients")

(Remember, you must type the "@" sign twice)

You'll get a "SENDING Software Tools Mail" prompt ("sm>")

If you want to send your message to more people, type at the "sm>" prompt

t trouble jim dusty zack fern etc. (carriage return)

to include them in your reply. To send to "carbon copy" addressees, type at the "sm>" prompt

c mort don alicee dee (carriage return)

You can now type in your message. To send it, unedited, hit "s!" and the message (your reply and the original message, marked with ">" at each line) is sent. To exit, type

CONTROL D.

### Additional MSG Mail Commands

If the message you received has a distribution list, type at the "sm>" prompt

**l h** (carriage return)

(for "list header") and it'll display all the names on that distribution list. To edit your distribution list, type at the "sm>" prompt

**ae vi**

to call to the *vi* editor. Use

**ae edit** at the sm> prompt

to call to the EDT editor.

To send your message, type at the sm> prompt

**s!**

If, after all that, you do not wish to send your mail message, type

**CONTROL-C**

### VMS MAIL:

When in VMS Mail on the CSA cluster, use the REPLY or ANSWER within the MAIL utility. Both do the same thing, which is to send mail **only** to the originator of the mail message. You cannot preview the list of addressees and you cannot add names to the list of addressees.

*... Hermes, Postmaster*

Forward comments and questions to

VMS Mail: **lbl::Postmaster**

Unix or

Software Tools Mail: **Postmaster@lbl.gov**

A word of caution to users of electronic mail: if you do reply as a member of a distribution list, remember that

# NOTES FROM TROUBLE MAIL

Maggie Morley

*Following are further examples of typical exchanges from our on-line Unix and VMS mail facilities.*

## MESSAGE

I compiled my f77 program on UX1 using `f77 -ffpa try.f -limsl` and this is what I got:

```
try.f:
MAIN try:
ld: Undefined symbol
Fc_conv_f
```

## RESPONSE

I checked with Sun. The consultant there told me that the IMSL library had to be rebuilt for the new version of the operating system (SunOS 4.0.3 versus 3.5). I rebuilt the whole library on UX1. You should be able to link against the new version, which is now the default IMSL library on UX1 and UX3. Try

```
f77 -ffpa -O -o try try.f -lims
```

where "try.f" is the corrected program sent in my previous message. My tests have been successful. Please let me know that it works for you. [It did].

## MESSAGE

I am not able to invoke TECO on CSA. Is this intentional?

## RESPONSE

TECO is an UNSUPPORTED [emphasis added] VMS text editor capable of both basic editing and complex programmed string processing. Since TECO is NOT a built-in DCL command, you need to include

```
$ TECO ::= $SYS$SYSTEM:TECO32 TECO
```

in your LOGIN.COM file. Then,

```
TECO filename
```

will work. Please also read HELP article TECO, subtopic INI. (Old documentation on TECO refers to the file `SY$SYSTEM:TECO.EXE`, which has apparently been superseded by `SY$SYSTEM:TECO32.EXE`). The HELP article TECO explains much more. As you know, there is also internal HELP in TECO. Sorry about any inconvenience.

## MESSAGE

I have a big file that I wish to compress, archive or whatever to make it considerably smaller. Is there such a program on Vax? If so, what is it called? Thanks again.

## RESPONSE

Not on Vax, no. But there is a commonly used set of programs on the Unix systems called **compress**, **uncompress**, and **zcat**. The first two do what you would expect. The last (**zcat**) "uncompresses" a compressed file AND leaves the uncompressed version alone: **uncompress** unpacks such a file and then deletes the compressed version. These are often used together with Unix **tar** program, which creates an archive of a group of files or directory or directory tree.

## MESSAGE

Hi. I can't get the following programs to work from my login. **Spell** (big ess) tells me my file is perfect: **spell** (little ess) gives nothing. The file I'm using is "text.junk" which has obvious errors at the top of the file.

**Style** and **diction** don't seem to work either. Am I just too dim to understand the syntax or is there something up?

## RESPONSE

As you asked, I looked at your file since those programs all work fine for me. For some reason, that file ("text.junk") has VERY long lines (probably longer than 512 characters or perhaps even longer than 1024 characters per line). Possibly it came from a microcomputer of some sort? [It did]. You can see how long the lines are by using ":set list" with Vi. Anyway, if you do the following, **spell**, **style** and **diction** all work:

```
fold text.junk | spell | more
fold text.junk | style | more
fold text.junk | diction | more
```

**fold** is a Unix program that "folds" long lines of text into shorter ones.

## MESSAGE

What are files with the file extension .JOU? These appear in my directory and if they are not necessary I would like to delete them: we have a lot of garbage in our directory that I am trying to clear out.

## RESPONSE

These are "journal" files from the EDT editor (the default VMS editor invoked by EDIT). These files are deleted when the editor is exited normally; they are saved when the system crashes while you are editing or when the editing session is abnormally terminated. In such cases,

**EDIT/RECOVER filename**

where "filename.jou" exists, will recover the editing you were doing when the editor was abnormally terminated. If you wish to delete them, you may.

## MESSAGE

Do you know if there is a version of the GKS graphics system available on CSA? And if so, how do I start it? If not, what other graphics systems are there?

## RESPONSE

GKS is available on the CSA cluster machines. To find out more information on how to use it type:

**HELP GRAPHICS GKS**

## MESSAGE

I had a PC-executable binary file sent to me via Bitnet. I used **BRECEIVE \*.\*** to copy it into my account, and then **Kermited** it to my PC. It does not seem to work. My question is:

Should I have specified **breceive/file=binary** or something equivalent?

Could it be that the people who sent it to me did not specify **bsend/file/type=binary** when they sent it?

Is there a way I can somehow convert the file back to its original form?

## RESPONSE

The qualifier **/binary**, used with **BSEND** in Bitnet, disables the translation of the file from ASCII to EBCDIC. This does not do what you might have expected. See the **HELP** article **BSEND FILE/BINARY** for more information.

It may be possible to move this PC file here and have it usable. This will work if the remote site sending the file is a VMS site running the Joiner/jnet software. One of the file transfer options available to jnet (send or bsend) is **/VMSDUMP**. This is a file transfer with no translations. It is only available between jnet/VMS computers. Once you have the file here, the binary transfer mode of Kermit will allow you to move the file from CSA to your PC.

Of course, this also presumes that your correspondent on the remote side has transferred the files to the remote Bitnet node in a meaningful manner (presumably they could use the binary mode of Kermit at their site to move the file from their PC to the VMS/Bitnet computer at their site).

## MESSAGE

How do I get a list of the NOTES conferences on this node?

## RESPONSE

On CSA3 (the only node on CSA where NOTES runs), type

**NOTES**

**DIRECTORY/CONFERENCE/OUT=notes\_conf.list**

Then, exit NOTES and the file **NOTES\_CONF.LIST** should contain a list of at least some of the conferences in NOTES on CSA3.

## MESSAGE

**CC file.c**

compiles a C program, but how do I link the program? Where are the standard **include** files? (i.e., **stdio.h**, etc.) Where is the **HELP** entry for this? I looked and looked and it was nowhere to be found.

## RESPONSE

**HELP CC** gives a great deal of information on VAX C (it corresponds to **MAN CC** on the Unix system). This article also includes much information about the run-time library.

**(I) LINKING VAX C PROGRAMS**

**HELP CC Link\_libraries** describes one method of linking VAX C object programs and alludes to another in the VAX C Run-time Library Reference Manual.

The other method is much better; here's an explanation:

**Using the VAX C RTL as a Shareable Image**

Instead of using the object code of the VAX C RTL functions, you can, as an option, use the VAX C RTL as a shareable image. When you use the VAX C RTL as a shareable image, you do not receive a copy of the object code in your program's local psect; control is passed, by pointers, from your program to libraries containing the RTL images where the designated function executes. After execution, control returns to your program. This process has a number of advantages. You drastically reduce the size of a program's executable image, the

program's image takes up less disk space, and the program swaps in and out of memory faster because of its decreased size. Another advantage is that the shareable library is updated when VAX C is updated and thus your executable image is updated WITHOUT relinking. If you link with the object libraries, you should re-link after VAX C updates.

Here's how to use the options file that calls in the VAX C shareable run-time library:

(a) Make a file SYS\$LOGIN:VAXCTRL.OPT, whose contents should be this line

```
sys$share:vaxctrl.exe/share
```

(b) define a symbol in your login.com as follows:

```
$ ccopts=== SYS$LOGIN:VAXCTRL.OPT/OPT
```

(c) When you link C object programs, use the following:

```
link prog1, prog2, ..., 'ccopts'
```

(II) VAX C INCLUDE FILES:

The standard include files are in sys\$share\*.h and sys\$share:vaxcdef.tlb

Good luck.

## MESSAGE

We have a .com file that runs a detached .EXE file with the command:

```
run/process=abc abc.exe
```

When it runs, the system sends out a message saying:

```
%RUN-S-PROC_ID created process id is .....
```

I would like to disable the message. (The naive users of the .com file get confused). Is there some way to disable the message or send it to null?

## RESPONSE

Put the following line before the "run" command:

```
define/user sys$output null:
```

*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>
```

*We won't of course, include any user's name in the exchanges. ....Ed.*

# LBLnet NEWS

Bob Fink & Sig Rogers

## Buildings Added to LBLnet

Buildings 5 and 16 are now connected to the Routed LBLnet through subnet 131.243.96. Building 1 is now connected to the Routed LBLnet through subnet 131.243.32. The router *ir4gw* is used for these two subnets and is located in ICS Node 2.

Building 3 is now connected to the Bridged LBLnet through the Bridged Ethernet called MISCLAN2. The bridge *MISCLAN2* is used for these Ethernets and is located in ICS Node 2.

## LBLnet Connected to ESnet

LBLnet was connected to ESnet on November 16. Its connection is accomplished via the same router, *er1gw*, used to connect to BARRNet.

Internet (tcp/ip) and Decnet Phase IV services to several DOE sites will be available in early December.

## LBLnet Phase II Building Schedule Update

The LBLnet Phase II building attachment schedule is shown below. Though progress on this schedule is being made, funding constraints and manpower shortages may cause delays in this schedule.

If you have further questions about this schedule, please call Bob Fink (x5692), Sig Rogers (x6713), or Ted Sopher (x4559).

|                  |              |                                 |
|------------------|--------------|---------------------------------|
| Bldg. 1 (Donner) | operational  | Routed LBLnet                   |
| Bldg. 2 (AML)    | operational  | Routed LBLnet                   |
| Bldg. 3 (Calvin) | operational  | Bridged LBLnet                  |
| Bldg. 5          | operational  | Routed LBLnet                   |
| Bldg. 7          | operational  | Bridged LBLnet                  |
| Bldg. 7          | operational  | Routed LBLnet                   |
| Bldg. 16         | operational  | Routed LBLnet                   |
| Bldg. 25         | late Feb 90  | Routed LBLnet                   |
| Bldg. 29         | operational  | Bridged LBLnet                  |
| Bldg. 62         | mid Dec 89   | Routed LBLnet                   |
| Bldg. 66 (SSCL)  | early Feb90  | Routed LBLnet                   |
| Bldg. 69         | early Jan 90 | Bridged LBLnet                  |
| Bldg. 72 (NCEM)  | late Mar 90  | Routed LBLnet                   |
| Bldg. 74         | operational  | Routed LBLnet                   |
| Bldg. 76         | operational  | Bridged LBLnet                  |
| Bldg. 77         | late Jan 90  | Routed LBLnet                   |
| Bldg. 80         | operational  | Bridged LBLnet                  |
| Bldg. 83         | mid Jan 90   | Routed LBLnet                   |
| BARRNet (UCB)    | operational  | UCB, BARRNet<br>& NSFNet access |

Routed LBLnet means Decnet and Internet (tcp/ip) service. XNS, LAVc and other protocols are supported on the Bridged LBLnet only when their use is entirely local to a subnet of the Routed LBLnet.

## Network Traffic Data for October 1989

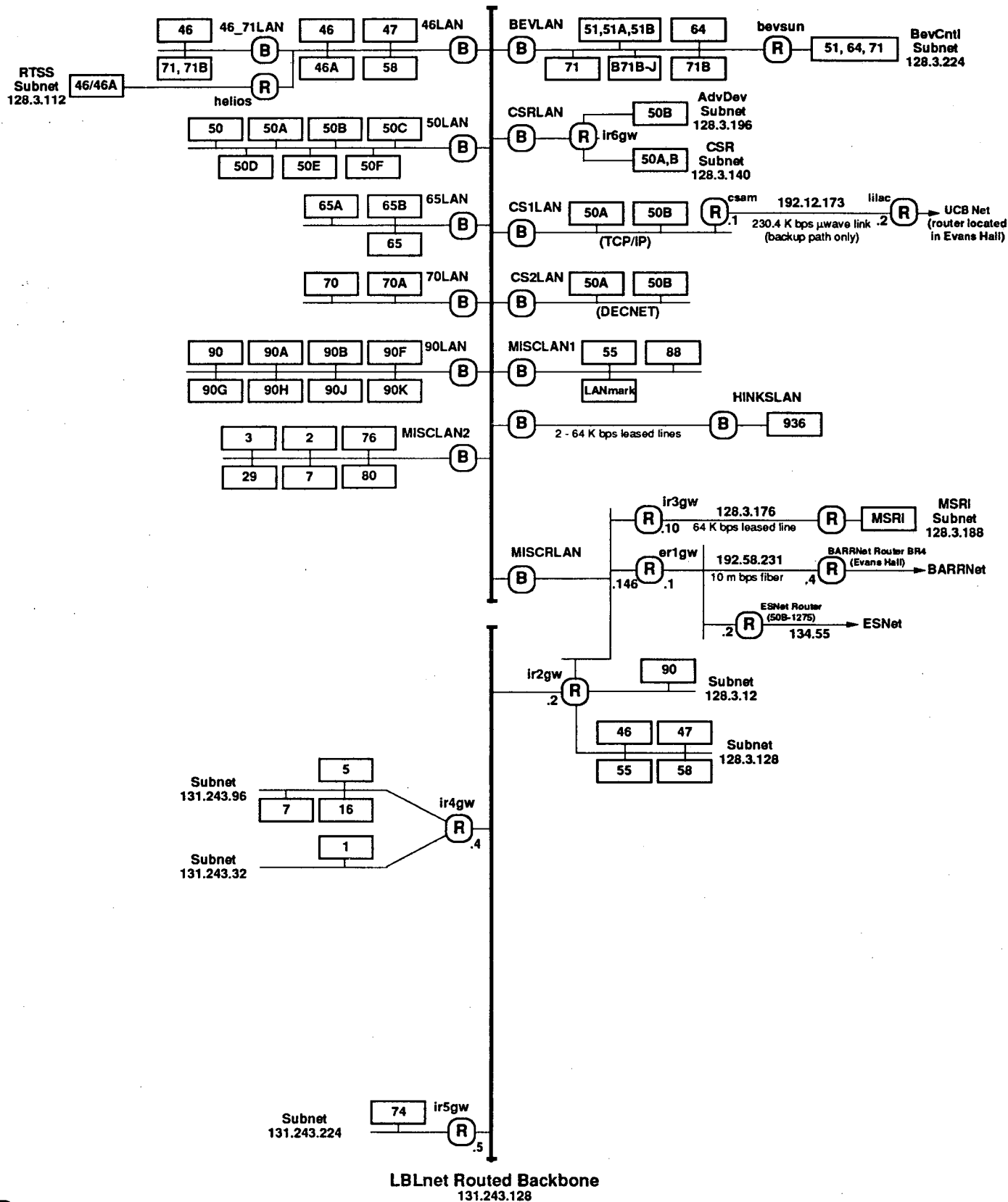
| <u>Ethernet</u> | <u>Load</u> | <u>to Bridged<br/>Backbone</u> | <u>from Bridged<br/>Backbone</u> |
|-----------------|-------------|--------------------------------|----------------------------------|
| 46LAN           | 40.2 pps    | 6.2 pps                        | 32.4 pps                         |
| 46_71LAN*       | 29.8 pps    | 0.1 pps                        | 29.2 pps                         |
| 50LAN           | 268.6 pps   | 92.8 pps                       | 105.9 pps                        |
| 65LAN           | 32.3 pps    | 2.5 pps                        | 29.4 pps                         |
| 70LAN           | 91.3 pps    | 30.7 pps                       | 55.9 pps                         |
| 90LAN           | 40.8 pps    | 4.7 pps                        | 34.1 pps                         |
| BEVLAN          | 116.9 pps   | 45.5 pps                       | 58.9 pps                         |
| CS1LAN          | 120.7 pps   | 40.5 pps                       | 66.9 pps                         |
| CS2LAN          | 125.1 pps   | 43.3 pps                       | 65.8 pps                         |
| CSRLAN          | 46.5 pps    | 11.0 pps                       | 36.0 pps                         |
| MISCLAN1        | 74.6 pps    | 8.1 pps                        | 32.2 pps                         |
| MISCLAN2        | 1.9 pps     | 0.7 pps                        | 29.2 pps                         |
| MISCRLAN        | 61.5 pps    | 17.5 pps                       | 43.5 pps                         |

## Bridged Backbone Load~304 pps

\* 46\_71 LAN traffic is to 46LAN, not the Backbone

## LBLnet Bridged Backbone

128.3.252



Lawrence Berkeley Laboratory

R.L.Fink ICSD/CCR

LBLnet Overview

17 November 1989

## NEW LBL MODEM ACCESS NUMBERS

The ICS Dataswitch supports a number of incoming modem pools allowing remote access to LBL host computers. At some time in the future, existing Development modem pool numbers (486-4959, 486-4969, and 486-4979) will be discontinued and only the ICS modem pools will be available. In the meantime either may be used. The following lists all the ICS modem pool numbers and directions for using them.

### Incoming Modem Pools

| Access<br>Phone<br>Number | Data Bits<br>Parity<br>Stop Bits | Modem<br>Line<br>Speed | Host<br>Port<br>Speed | Type<br>of<br>Service |
|---------------------------|----------------------------------|------------------------|-----------------------|-----------------------|
| 486-7900                  | 8-N-1                            | 2400                   | 9600                  | Speed<br>Conversion   |
|                           |                                  | 1200                   | 9600                  | Speed<br>Conversion   |
|                           |                                  | 300                    | 9600                  | Speed<br>Conversion   |
| 486-7930                  | 8-N-1                            | 2400                   | 2400                  | Autobaud              |
|                           |                                  | 1200                   | 1200                  | Autobaud              |
|                           |                                  | 300                    | 300                   | Autobaud              |
| 486-7996                  | - -1                             | 9600                   | 9600                  | Autoparity            |
| 486-7902 <sup>1</sup>     | 7-E-1                            | 2400                   | 9600                  | Speed<br>Conversion   |
|                           |                                  | 1200                   | 9600                  | Speed<br>Conversion   |
|                           |                                  | 300                    | 9600                  | Speed<br>Conversion   |
| 486-7932 <sup>1</sup>     | 7-E-1                            | 2400                   | 2400                  | Autobaud              |
|                           |                                  | 1200                   | 1200                  | Autobaud              |
|                           |                                  | 300                    | 300                   | Autobaud              |

### To access an ICS Host using an Incoming Modem Pool:

1. Set your terminal characteristics to match the ICS host resource and the speed to match your modem. Choose the appropriate dial-up number from the Incoming Modem Pools table, and place the call as required by your modem and/or software. Your modem should verify that the connection is established.
2. If you called an Autobaud number, then enter c/r twice or -= to allow ICS to determine the speed. If you called the 9600 bps autoparity number (486-7996) then you must:
  - a. Slowly send -= (dash equal), ICS returns 2 bells.
  - b. Slowly send -=, ICS returns the ENTER prompt.
3. Answer d c/r to the ENTER prompt.
4. ICS responds: ENTER DESTINATION NUMBER >
5. Enter the Directory name of any ICS resource followed by c/r.
6. If a valid Directory Name was entered and a port on that computer is available, ICS responds with DATA CALL INITIATED.
7. The connection is now established between the terminal and the host computer. Since most host computers autobaud to determine the speed of the calling terminal, type c/r once or twice until the computer sends its login prompt. If the host is a unix system and the modem speed is not 9600, send Short Breaks (1 for 2400, 2 for 1200, 3 for 300) to receive the login prompt.

Forward comments and questions to me (x6713) or

VMS Mail: lbl::SGRogers

Unix or  
Software Tools Mail: SGRogers@lbl.gov

<sup>1</sup> New ICS firmware is currently being tested that will eliminate ICS sensitivity to parity during the "request" process. When this firmware is implemented, there will no longer be a need for the 486-7902 and 486-7932 access numbers.

# PHYSICS NEWS

Werner Koellner

## ● PHYSICS UTILITIES

You can access the Physics Utilities, including the CERN Library, the PAW (Physics Analysis Workstation) Library, and the various Physics Utilities HELP Libraries by executing the DCL command

**@Physics\$Manager:Setup\_Phys**

We recommend that you include this line in your Login.Com file.

## ● HELP

When you type

**Help @Physics\_Utilities**

you'll see a list of utilities for which help text is available under "Additional information available." You may also type

**Help 'subtopic'**

where 'subtopic' is one of the utilities listed, to get help directly on a particular utility. You'll find information about some miscellaneous programs by typing

**Help Mis\_Phys**

## ● CERN LIBRARY

Object libraries are updated at unpredictable times. Changes are documented in the CERN Computer Newsletter (see item below), and sometimes also in the directory **Cern\$Inform**. In some cases, a previous version of an object library is available as xxxxx.OLD.

Several object libraries and programs have been updated during this period. See the CERN Computer Newsletter item below.

## ● CERN COMPUTER NEWSLETTER

The Program Library News section of the upcoming CERN Computer Center Newsletter (No. 196) is available online in **Cern\$Inform**. To read it, type or print the file **Cern\$Inform:Proglib.Cnl196**. Of importance are often the notices listing routines that were removed or designated obsolete from some Cern Libraries.

## ● APS\_LaTeX

Submit articles to the PHYSICAL REVIEW in machine readable LaTeX compuscripts by using the APS "compuscript toolbox." Type

**Help Mis\_Phys Aps\_Latex**

for more information.

## ● APS\_WHATS\_NEW

Weekly news capsules, issued by Robert Park, of the American Physical Society, are available in **APS\_WHATS\_NEW**. Please type

**Help Mis\_Phys Aps\_Whats\_New**

for further information.

## ● EUROJET

EUROJET is a Monte Carlo program for PPbar interactions, packaged with EURODEC, the fragmentation and decay package. The authors are A. Ali, E. Pietarinen, and B. Van Eijk. This library was made available by Kors Bosk, of CERN, who is also working on a new generator (EUROGEN) which will deal with PPbar, e+e-, eP, PP, fixed target, and heavy ions. The libraries are **Cern\$Library:Eurojet.Olb**, and **Eurodec.Olb**. To run an example of the program, type

**@Cern\$Library:Eurotest**

The program uses Particle data card file **Cern\$Library:Eurodec.Dat** and the Title card file **Cern\$Library:Eurodec.Tit**. Documentation is available from Werner Koellner.

## ● GEANT

GEANT, a system of detector description and physics simulation tools, is available as part of the CERN Libraries. A new Sample Program, using ATC\_GKS to demonstrate graphics and other capabilities, is now available.

Version 3.13/05 is the default version. The logical name **Cern\$Geant\_Lib** points to the appropriate object library file. The recommended link procedure is **Cern\$Library:Geant.Lnk** using linker options files **GEANTxy.OPT**, where x is either I or B, and y is either <null> or \_ATC, depending on the answers to the questions **Geant.Lnk** asks. The graphics interface for Geant is now GKS, but Geant is also available with the DI3000 graphics interface. To link that version, on CSA2 only, use **@Cern\$Library:Geant\_Di3000.Lnk**. METAFILE graphics output is available. Please type

**Help Geant**

for additional information.

### ● PAW

At LBL, the program PAW is primarily being maintained in the full GKS version, named PAW\_ATC, although the mini-GKS version, as well as a DI3000 version, are available. PAW\_ATC uses the ATC-GKS interface, whereas PAW\_DI3000 uses the Precision-Visuals DI3000 interface, which can be used only on CSA2. Both versions make a large number of output devices available to the user. Standard executable programs of PAW\_ATC, METAPAW, PAW\_DI3000, as well as PAW, are available in PAW\$LIBRARY. If desired, users may link their own versions by using or modifying the procedures

PAW\$LIBRARY:PAW\_ATC.LNK or  
PAW\_DI3000.LNK or  
PAW.LNK).

These procedures use corresponding linker options files, e.g. PAW\_ATC.OPT. With PAW\_ATC, graphics output may be directed simultaneously to the screen or to a Metafile for subsequent processing via the program METAPAW, and also simultaneously, and selectively, to a POSTSCRIPT file.

Most recent PAW\_ATC improvements are documented in files Cern\$Inform:Paw.News\*. The latest of these is PAW.NEWS1061. Manuals for PAW and associated packages are available from the Computer Center Librarian (Bldg. 50B, Rm. 1232C). A new general User's Manual should become available sometime soon. Type

**Help Paw**

for more information.

### ● TOPDRAWER

A preliminary user manual is available in Topdrawer\$Library:Topdrawer.Doc, and may be printed on any hardcopy device. Since local modifications are still in progress, you must type

**Help Topdrawer**

to receive the latest detailed information.

### ● SWING

SWING, a utility program to display and manage one's directory tree, is now again available. The symbol SWING is automatically defined via the procedure

@Physics\$Manager:Setup\_Phys

Type

**Help Swing**

for further information

Forward comments and questions to me at x4398, or

VMS Mail: lbl::WOKoellner

Software Tools Mail

or Unix: WOKoellner@lbl.gov

# THE WORKSTATION SCENE

## UP FRONT



[26.12.1]

### WORKSTATION GROUP ELECTRONIC MAIL

You can reach Workstation Group members 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 who have problems or who want to share helpful hints.



[26.12.2]

### WHERE WE'RE AT

The Workstation Laboratory, home of several Workstation members as well as the Workstation Evaluation Library, is located at Bldg. 50B, Rm. 2231. Hours are:

Mon 8 AM - 1 PM  
3 PM - 5 PM

Tues - Fri 8 AM - 5 PM

We're here to help; call us (x6858).



[26.12.3]

### AIX/PS2 DEMO

Representatives from IBM will be at LBL to demonstrate their newly-released AIX operating system for PS/2 Model 70 and 80 machines.

TIME: Wednesday, Dec. 6, 1989  
10 AM

PLACE: Bldg 70A Conference Room

AIX is a complete Unix system with both Berkeley 4.3 and System 5 features.

With AIX, you can run multiple concurrent DOS sessions in addition to Unix sessions.

X Windows, Version 11, is provided; X Windows terminal emulation for DOS users is also included.

For more information, contact Richard LaPierre, x4692.



[26.11.4]

### X WINDOWS SEMINAR/DEMO

Representatives from Solbourne Computer, Inc. will be at LBL on Thursday, Dec. 14 to discuss and demonstrate X WINDOWS operating in a UNIX OS environment.

Formal presentation will begin at 10 AM in Bldg. 70A, Rm. 3377 (the Conference Room). For additional information, contact Richard LaPierre at x4692.



[26.12.5]

### THE TRADING POST

Items advertised here are for Laboratory use only and must be purchased with a valid account number. For more information about these ads, contact Bruce Burkhardt, x6858.

1. For Sale: DaynaTALK network Interface box for LocalTalk, 3 ea, brand new, \$139 ea. Contact: Workstation Lab, Bruce Burkhardt, x6858.

2. For Sale: 2400 Baud internal Modem for a DataView Spark Laptop, IBM-PC compatible computer, \$239/b.o. Contact: Harvard Holmes, x5742.

3. For Sale: Printer: Diablo 1640 Daisy-Wheel (IBM DOS environment), good condition. Almost any offer accepted! Contact: Richard LaPierre, x4692.



[26.12.6]

### SCIENTISTS, WE NEED HELP

You scientists are our business, but when it comes to recommending software beyond spreadsheet-word processing-basic graphics we get a little lost. Perhaps some of you have useful knowledge to share with your colleagues.

Here are some queries we've received in the past month that we've not been able to answer adequately:

For the PC: Fourier analysis with a million data points.

For the MAC: Ray tracing software.

For MAC or PC: Software to read a scanned image of a plot and return x,y coordinates.

If anyone has used or knows of good software to do these tasks please contact by e-mail CIMadison@LBL or call Claudia at x7692.

Many thanks.



[26.12.7]

## ADVENTURES WITH THE SUN SPARC STATION, CHAPTER 2.

... From WKSG member Claudia Madison

The men with the white hats have rescued the Workstation Group Sun SPARCstation 1 from network oblivion<sup>1</sup>: Gary Jung from RTSS added a tape drive and Dave Cleveland from Computing Services did a dozen or so things to make it possible for the SPARCstation to behave properly on the network. Dave continues to keep an eye out for the machine's welfare.

Having given up a short-lived career as Unix systems administrator, I turn to end-user issues.

### First: The interface, SunView.

If the goal of a Graphical User Interface is to have users up and running in a hurry and to standardize basic operations among applications, SunView does its job. I am particularly fond of the way I can pop a menu up anywhere in a window without mousing to a menu bar. I also like the way the pointer moves automatically to Confirm buttons in alert boxes.

I confess that, much as I appreciate this interface now, I did not like it at all on the Sun 3/50. The only explanation for the change of heart must be the increased speed (responsiveness) of the SPARCstation.

### Second: SunView applications.

I've always hated Unix. I've hated the editors (I learned Unix before *Vi* was invented, but even so...). And I've not been very fond of the mail system. The SunView mail application allows easy reading, composing, and sending of mail. It's already my mailer of choice—and I haven't actually read about how to use its features yet. The textedit tool has everything necessary in an editor: file management, search and replace, cut and paste.

**Third: DOS Windows, from Sun,** list price is \$495; lab discount is considerable. BIOS is Phoenix 80286 Version 3.10V, EMS memory support, and Hercules or IBM CGA or monochrome display emulation.

DOS Windows runs DOS on a Sun at XT (being charitable) speeds. Why would anyone want to do this?

Probably not many would. But if one uses software that's available only for DOS, wants only one computer, a Sun, and doesn't mind the sluggish performance, it makes sense to install a DOS emulator.

Others for whom such a rig might make sense are laptop users whose main computer is a Sun workstation equipped with a 3.5 inch drive. The workstation can read and write DOS disks directly. Included utility programs convert DOS text files to Unix files and *vice versa* (it's a matter of different line end codes). No upload, download, or networking needed.

<sup>1</sup> See November Newsletter.

We're looking into translation programs to convert DOS application files (word processing, for example) to SunView applications. Meanwhile, I was able to get data from a Lotus 1-2-3 spreadsheet to a SunView textedit tool document simply by copying it from its DOS Window and pasting it into the textedit tool window.

I've run Lotus 1-2-3 and Microsoft Windows (including Write and Paint). The latter was installed more to test compatibility than to do work; the slowness of DOS Windows makes using Paint, especially, a surreal experience.

DOS Windows was easy to install using Sun's instructions and walk-through. The documentation is not the best. For example, existence of the SPARCstation 1 (Type 4) keyboard must be made known to DOS when DOS Windows is started. This fact is not mentioned in the documentation until page 44. Failure to add the option means one cannot re-boot from the keyboard. Of course I hung DOS before I got to page 44 and had myself in such a pickle that I had to restart the whole machine.

(Another time I tried to load the MS Windows word processor, Ami, but the machine hung in the middle of the installation. Again, I had to restart the whole machine. I call this maneuver, "Pretend There's a Power Failure." Fortunately the SPARCstation can handle—so far—my less-than-elegant maneuvers.)

**Final Notes:** Sun SPARCstation 1 was listed in the November 1989 *MIPS* as one of the top 5 workstations (number 4—out of 26) for pure performance and for price/performance.

The Workstation Group SPARCstation 1, Bldg. 50B, Rm. 2239A, is available any time for demonstration of the applications listed above and, coming shortly, Frame-Maker 2.0, the Publisher 3.0, and Sun's Write-Paint-Draw package.



[26.12.8]

## NEW FOR THE IBM PC

*Solo*, from BMDP Statistical Software

Statistics and graphics, including T-tests, multiple regression, unweighted means ANOVA, censored regression, harmonic regression; 2- and 3-D plots, box plots and density traces. Import from ASCII only. PostScript support as plotting device.

*dBASE STATS*, developed by SPSS, marketed by Ashton-Tate.

Statistics and graphics, including ANOVA (Bonferroni test, among others), curve fitting using about 15 various models, etc. It has what looks like an easy cross-tabbing facility and a better than average manual for this sort of thing. (It could serve as a tutorial to occasional statisti-

cians.) Runs standalone or as a part of dBASE III or dBASE IV. Imports dBASE, Lotus, Symphony, and Multiplan.



[26.12.9]

### WKSG APPLESHARE SERVER

We've installed a CD-ROM on the Workstation Group's Appleshare file server; it's available as a second server volume. We have installed it as an experimental service. There are concerns about the speed with which files can be retrieved from the Appleshare server and the correct length of time to leave any CD-ROM up as the current server volume.

The CD-ROM is visible from the Chooser. Open Appleshare and then WKSG Server 1 in the LBL AppleTalk Zone. As a guest you can open either of two volumes, WKSG Server 1 or the CD-ROM volume.

The volume WKSG Server 1 contains a variety of LBL tools and utilities and programs for which we have a site license. There are also a number of "Shareware" programs. If you like a shareware package and plan to use it, you are requested to pay a fee to the software's creator.

At this time we have two CD-ROM volumes: PD-ROM and Developer Helper. Initially we will change these CD-ROM volumes on a weekly basis. The PD ROM is the Publicly Distributable CD-ROM from BMUG. The BMUG description: "This particular disc contains over 7000 distinct pieces of software, totalling over 250 megabytes including more than 21 megabytes of messages from Macintosh forums on the USEnet, EchoMac, and Delphi electronic networks." The Developer Helper is from the Apple Developer Group. From the Developer Helper description, "Phil & Dave's Excellent CD is a comprehensive collection of resources for Apple developers, and it is the first in a series of development tools provided on CD-ROM under the title DEVELOPER HELPER."

To access the WKSG AppleShare File Server you must install the Workstation AppleShare software, available in two places:

- The Macintosh Utilities Disk 1
- The WKSG Lab (50B, Rm 2231).

The Utilities Disk 1 (Version 6.0.3) is part of the original system disks shipped with each Mac. If you can't find your original disk, stop by the Workstation Lab for an "AppleShare File Server Workstation Installer Disk" (bring a blank floppy).

You will also need to have a gateway connection to LBLnet. If you can see printers in other areas of the lab when you are in the Chooser, you are already connected to the network.

Forward comments and suggestions to W. D. Jaquith (x4388) or to [wksg@lbl.gov](mailto:wksg@lbl.gov).



[26.12.10]

### HAVE THE DATE YOUR WAY

November 13, 1989: The only thing unusual about this date is that it was inserted here using the *Word 4* glossary entry for Date-Now-Long. That entry (as well as Date-Print-Long) usually also inserts the name of the day. Who needs that? Get around this irritation by operating on your System resources

Make a copy of your System file. Then, using ResEdit 1.2, open System folder, System file, it11, and "US" ID = 0 in that order. Check the box "Suppress Day". Save your changes and you're done.

FileMaker users who care about such things might notice also that there's a box to add leading zeroes to dates.



[26.12.11]

### HAVE YOUR CHART YOUR WAY

Thanks to Mary Clary for getting this from Microsoft and passing it on: there's an Excel macro to size your chart to fill a selected print area or to stretch category and value axes to allow display of a large number.

The Workstation Group has copies of the write-up.



[26.12.12]

### NEW TO THE WKSG EVALUATION LIBRARY

*DeltaGraph* v. 1.0 from Deltapoint, Inc., \$79 (LBL price).

This data-driven charting program is rich, especially considering the price. There's the usual 2- and 3-D pie, bar, and line charts, plus curve fitting (linear, polynomial, exponential, logarithmic, and spline), error bars, and contour and 3-D wire frame charts. Users who get fed up with clunky point labels in other applications should note that *DeltaGraph* allows any character from any font for use as a symbol. (A downloadable PostScript font of special symbols, arrows, etc. is provided.) The package includes free-hand drawing to pretty things up. It imports tab- and comma delimited files, SYLK, Lotus, Excel, Trapeze, and, for graphics enhancements, PICT and EPSF. It exports PICT, EPSF, and Illustrator. Maximum data set size: 256 columns by 9999 rows.

*Igor*, v. 1.1 from WaveMetrics, \$195 (list)

Among other things, this scientific graphing and data analysis tool does Fourier transforms and smoothing and has umpteen functions (bessel, gamma, and a couple of dozen more). There is support for user-definable functions, fits to user-defined functions, text editing, and page layout. Data set size is limited only by available memory.



[26.12.13]

### MICROSOFT WORD 4.0 WORKSHOP ON THE MACINTOSH

Here is the schedule of the Microsoft Word Workshops coming up in early 1990. Yes, we know that there will be no Microsoft Word Workshops in December, but many of you might want to set up your 1990 calendars early.

These workshops cover the more advanced features of Microsoft Word. They are given from 12 to 1 PM on Tuesdays (NOT Wednesdays) in the Mac Training Room (Bldg. 50B, Rm. 1229).

There is no need to sign up.

| Date           | Subject                                                    |
|----------------|------------------------------------------------------------|
| 01/09/90 ..... | Styles                                                     |
| 01/16/90 ..... | Glossaries/Spelling/<br>Hyphenation                        |
| 01/23/90 ..... | Tables                                                     |
| 01/30/90 ..... | Equations in Word/The LBL Font                             |
| 02/06/90 ..... | Graphics/Position                                          |
| 02/13/90 ..... | Long documents - Table of<br>Contents, Index, and Chaining |
| 02/20/90 ..... | Commands/Customizing/<br>Templates                         |
| 02/27/90 ..... | Equations in Math Type/Formu-<br>lator/TeX                 |



[26.12.14]

### NEW LBL PHONE STACK

... now ICS numbers!

The November Mac Hypercard phone stack now has Contel ICS telephone numbers. There's a card for each LBL employee; it lists the mailstop and two entries each for extension, building and room. The WKSG Lab will do its best to update this stack monthly.

All the functions on the card work except for the "Reminder, Diary, and Calendar" buttons, which may be configured by the user. Two ways to get your new Phone Stack: download from the WKSG AppleTalk Server, or drop by the WKSG Lab (Bldg 50B, Rm. 2231) with a blank floppy disk and we'll make you one.

Coming soon: LBL FONTS!



[26.12.15]

### THE ADOBE TYPE MANAGER

... lots of controversy

Heralded by a media blitz, the most eagerly awaited piece of Mac software for some time has arrived. The Adobe Type Manager (ATM) is supposed to be the perfect "all-purpose font enhancer for the Mac", according to advertising hype. Well, not everyone thinks

so<sup>2</sup>. Irate users seem to be surfacing everywhere with complaints of "Adobe's false ads."

Yes, Adobe has over-hyped ATM and users have been led to expect too much from the product. Contrary to what they say in the ads, ATM does not make ImageWriter output look like LaserWriter output. However, ATM does solve some old problems.

ATM incorporates a PostScript outline font technology that does eliminate jagged fonts on the screen, most noticeably with 12-point, and larger sizes. ATM also produces true bolds and italics. Similarly, ImageWriter output is better with font sizes above 12-point. (ATM has no effect with LaserWriter output). "Noticeable" and "better" are subjective terms. Rather than delivering a long boring technical review, we are offering lots of samples of ATM output on the ImageWriter I and II. Stop by (Bldg. 50B, Rm. 2231); see what you think.

Should you buy the 4-font, \$59 ATM package? Probably, if the following is true.

- Yes, I frequently use very large screen fonts, and I hate those jaggies.
- Yes, I have a ImageWriter, and produce lots of large font output frequently.

If you're sold on the "sample" ATM package, get the additional 22 fonts (same as the LaserWriter set), called the "Adobe ATM Plus Pack" for about \$115 more.



[26.12.16]

### HYPERCARD CORNER

... from HyperFan Bruce Burkhart

The MacTOBERFEST scheduled last October 24 was cancelled due to the earthquake. It has been re-scheduled as a two-day extravaganza, Jan 30-31, 1990. Once again, it's to be in the Pauley Ballroom on UC Berkeley campus. It's free! The function will be co-hosted by Apple Corp. and the Berkeley Macintosh Users Group (BMUG). This is a major fun event for Mac users. There will be lots of demos, software vendors, and plenty of Macs for hands-on use, and a MacSE for a door-prize.

#### New Products

As mentioned in the September Newsletter, Dialoger is now in the WKSG Evaluation Library. Available from Result Software, Inc. (\$95 LBL price), this HyperCard utility lets you create and manage customized dialog boxes. The utility has four stacks: the Dialog Maker, Help, Commands, and Examples. This package is primarily for advanced HyperCard users, with some scripting ability.

HyperCard Class participation has declined lately, so we'll discontinue HyperCard classes for now. We are currently re-evaluating class need for next year. We could use your input; call me at x6858, Thanks.

<sup>2</sup> See MacWeek, Vol. 3, Nos. 40 & 42.

# WKSG Software Evaluation Library

The Macintosh and IBM PC software listed below can be borrowed for one week for evaluation. It is **not** to be copied!! 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. To check on the availability of, or to make a software reservation, call the Workstation at x6858.

## APPLE MACINTOSH SOFTWARE

|                                        |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Authoring Tools</b>                 | Big Thesaurus v1.0<br>Spelling coach Pro                                                                                                                                                                                             | Comment v1.0                                                                                                                                                                                                                        | Sensible Grammer v1.1c                                                                                                                                                                              |
| <b>Bibliographic</b>                   | EndNote v1.2.1<br>Publish or Perish v4.0                                                                                                                                                                                             | MediSearch v1.0<br>RefMaker v2.01                                                                                                                                                                                                   | <b>Pro-Cite v1.33</b>                                                                                                                                                                               |
| <b>Communications</b>                  | eXodus v1.0<br>Mac241 v3.02<br>Timbuktu v2.0.1                                                                                                                                                                                       | Kermit v0.8<br>MicroPhone II v2.0<br>VersaTerm v4.0                                                                                                                                                                                 | Mac240 v2.0<br>TOPS v2.1<br>VersaTerm Pro v3.0                                                                                                                                                      |
| <b>Data Acquisition &amp; Analysis</b> | LabView v1.2                                                                                                                                                                                                                         | Parameter Mngr+ 3.0                                                                                                                                                                                                                 | Systat/Mystat v3.2                                                                                                                                                                                  |
| <b>Database Application Generators</b> | dBase Mac v1.0<br>Reflex Plus v1.0                                                                                                                                                                                                   | FileMaker II v1.1<br>4th Dimension v1.04                                                                                                                                                                                            | FoxBASE+/Mac v2.0                                                                                                                                                                                   |
| <b>Demo Programs</b>                   | Best Course of Action<br>Double Helix II<br>Freehand by Aldus<br>*Imagine That!<br>MacLab<br>MGM Station<br>ProCite Biblio<br>Springboard Publisher II<br>Tycho<br>WingZ                                                             | dBASE Mac<br>Full Impact v1.0<br>FullWrite Pro<br>LabTech Notebook<br>MacSpin<br>Mystat/SYSTAT<br>Reflex Plus by Borland<br>Try MathType<br>VersaCad (Mac SE only)<br>WordPerfect                                                   | DataDesk<br>FoxBASE+/Mac<br>GeoQuery<br>LabVIEW<br>MacTeX<br>PowerPoint<br>SIMUL<br>TopDown<br>Visual Business #5                                                                                   |
| <b>Disk Backup Utilities</b>           | AutoSave II v1.01<br>FastBack II v2.0                                                                                                                                                                                                | Backmatic v1.01<br>HFS Backup v2.02                                                                                                                                                                                                 | DiskFit v1.4<br>Redux v1.5                                                                                                                                                                          |
| <b>Drafting</b>                        | Claris CAD 1.0v3<br>MiniCad Plus v2.0                                                                                                                                                                                                | Claris CAD Symbol Lib                                                                                                                                                                                                               | MacDraft v1.2B                                                                                                                                                                                      |
| <b>Drawing, Design &amp; Graphics</b>  | Adobe Streamline v1.0<br>Cricket Draw v1.1.1<br>Cricket ColorPaint v1.0<br><b>DeltaGraph v1.0</b><br>Digital Darkroom v1.1<br>Fontographer v2.3.2<br>Haste v1.0<br>LaserTalk v1.0<br>MiniDraw DA v2.03<br>Swivel 3D v1.0<br>TS Graph | Aldus Freehand v2.02<br>Cricket Graph v1.3.1<br>Cricket Pick-O-Graph<br>DeskPaint/DeskDraw 2.0<br>FONTastic Plus v1.0<br>FullPaint v1.0<br><b>Illustrator 88 v1.9</b><br>MacDraw II v1.1<br><b>PlotView v2.0</b><br>SuperPaint v2.0 | Canvas v2.0<br>Cricket Paint v1.0<br>Cricket Presents v2.0<br>Drawing Table v1.0<br>FontLiner v1.0<br>Graph Painter v1.06<br>ImageStudio v1.5<br>MacPaint v2.0<br>Pixel Paint v2.0<br>Super 3D v2.0 |

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                |                                                                                                                                                                      |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Equation Generators</b>                        | Expressionist II v2.03<br>Math Writer v1.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Formulator v1.0                                                                                                                                                                                | MacEqn v2.1                                                                                                                                                          |
| <b>Fonts</b>                                      | Adobe ScreenFont Library<br>SciFonts v2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LBL Fonts v1.0                                                                                                                                                                                 | Princeton Font 4.0L                                                                                                                                                  |
| <b>General Languages<br/>&amp; Tools</b>          | Aztec C Compiler v3.40B<br>Lightspeed Pascal v2.0<br>MS Basic v1.0<br>Turbo Pascal (Borland) v1.1                                                                                                                                                                                                                                                                                                                                                                                                                                           | MPW & Fortran v3.0<br>MacFortran/Absoft v2.4<br>MS QuickBasic v4.0                                                                                                                             | Lightspeed C v2.01<br>MacTran Plus v3.0<br>Symantec's Pascal v3.0                                                                                                    |
| <b>HyperCard</b>                                  | HyperCard Program v1.2.2<br>HyperDA v1.1<br>Port Authority II<br>SuperCard v1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                             | +PLUS v1.11<br>Hyper-XCall v1.01<br>Reports! v1.2.2<br>101 Scripts & Buttons                                                                                                                   | Dialoger v1.01<br>Icon Factory v1.0<br>Stack Cleaner v1.01<br>Wild Things v1.0                                                                                       |
| <b>Instructional</b>                              | <u>Personal Training Systems: Audio Cassette &amp; Disk Packages:</u><br>Learn Excel v2.2 (7 of 9 Tutorials currently available)<br>Learn HyperCard v1.2.2 (4 Tutorials)<br>Learn PageMaker v3.0 (4 Tutorials)<br>Learn Persuasion v2.0 (1 of 4 Tutorials currently available)<br>Learn Illustrator 88 (4 Tutorials)<br>Learn Word v4.0 (4 Tutorials)<br>Learn MacTeach (4 Tutorials) How to use the Mac, Basics & Advanced<br><u>Flip Track Learning Systems: Audio Cassette &amp; Disk Package:</u><br>How to use Word v3.0 (4 Tutorials) |                                                                                                                                                                                                |                                                                                                                                                                      |
| <b>Mathematics &amp;<br/>Statistics</b>           | DataDesk Pro v2.0r1<br>Mathematica v1.1<br>Passage II v2.0<br>SuperANOVA v1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Igor v1.1<br>Milo v1.0<br>StatView 512+ v1.2                                                                                                                                                   | KaleidaGraph v2.0<br>Passage v(2.02)<br>StatView II v1.03                                                                                                            |
| <b>Organizational Tools</b>                       | Acta Advantage<br>More II v2.01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FastTrack Schedule v1.02<br>Think 'n Time v1.0                                                                                                                                                 | MacProject II v2.0                                                                                                                                                   |
| <b>Presentation &amp;<br/>Graphics</b>            | Aldus Persuasion v2.0<br>PowerPoint v2.01<br>WingZ v1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cricket Presents v2.0<br>Ready-Set-Show v1.0                                                                                                                                                   | Full Impact v1.1<br>Trapeze v2.1                                                                                                                                     |
| <b>Security</b>                                   | DiskLock v1.0.1<br>The Nightwatch v1.03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | †Lockout                                                                                                                                                                                       | Sentinel v2.0                                                                                                                                                        |
| <b>Spreadsheets</b>                               | Excel v2.2<br>Trapeze v2.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Full Impact v1.1<br>WingZ v1.1                                                                                                                                                                 | Panorama v1.1<br>101 Macros for Excel                                                                                                                                |
| <b>Technical Publishing<br/>&amp; Page Layout</b> | PageMaker v3.02<br>Ready-Set-Go! v4.5a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PM Templates v2.0<br>SpringBoard Publ. v1.0                                                                                                                                                    | Quark XPress v2.12                                                                                                                                                   |
| <b>Utilities</b>                                  | AnyText/AnyGraph v1.4<br>FastLabel v1.2.1<br>FontLiner v1.0<br>MyDiskCatalog II<br>MultiDisk v1.2<br>PC Tools for the Mac<br>PrintWorks for the Mac<br>QuickLetter v1.01<br>Screen Recorder v1.0<br>SideKick v2.0                                                                                                                                                                                                                                                                                                                           | Capture v2.0<br>Fedit Plus v1.0<br>FontSizeer v1.0<br>Mock Utilities<br>McSink v6.1<br>PostHaste v1.0<br>PictureBook v3.0<br>QUED/M v2.01<br>SmartForm Designer 1.1<br>Smart Scrap/The Clipper | Canopener v1.0<br>Findswell v2.0<br>MacHP v1.0<br>MultiClip v1.0<br>OpenIt!<br>PICTure PICTURE v1.0<br>QuickDEX v1.0<br>QuickKeys v1.2<br>SnapJot v1.0<br>SPAMM v1.0 |

|                                          |                                                                                    |                                                                         |                                                                              |
|------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------|
|                                          | SteppingOut v1.0<br>SuperGlue v2.01<br>Thunder! v1.0                               | StuffIt v1.5.1<br>SUM v1.11<br><b>TopDown v1.1a</b>                     | SuitCase II<br>Tempo v1.2<br>Word Wrapper v2.0                               |
| <b>Virus Protectors</b>                  | AntiToxin v1.2<br>†RWatcher v1.0                                                   | †Disinfectant v1.2<br>†Vaccine v1.0                                     | †Interferon v3.1<br>Virex v2.1                                               |
| <b>Word Processing<br/>&amp; Editors</b> | DocuComp v1.0<br>MacWrite II<br>MS Works v2.0<br>TeXtures v1.01f<br>WriteNow! v2.0 | FullWrite Pro v1.1<br>MindWrite v1.12<br>Nisus v1.01<br>Vantage DA v1.0 | LaTeX for TeXtures<br>MS Word v4.0<br>QuickLetter v1.0<br>WordPerfect v1.0.1 |

## IBM PC-XT-AT SOFTWARE

|                                            |                                                                                                                                                              |                                                                                                                                                     |                                                                                                                                    |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Authoring Tools</b>                     | Correct Grammer v1.01                                                                                                                                        | RightWriter v3.0                                                                                                                                    |                                                                                                                                    |
| <b>Bibliographic</b>                       | Bookends PC v1.0<br>Reference Manager                                                                                                                        | Pro-Cite v1.4                                                                                                                                       | RefMenu Biblio                                                                                                                     |
| <b>Communications</b>                      | DECnet DOS v1.1<br>SmartTerm 240 v2.0a                                                                                                                       | Kermit v2.30<br>TOPS v2.1                                                                                                                           | PC-VT v8.4                                                                                                                         |
| <b>Data Acquisition &amp;<br/>Analysis</b> | LabVIEW v1.1                                                                                                                                                 |                                                                                                                                                     |                                                                                                                                    |
| <b>Database Application<br/>Generators</b> | dBASE III Plus<br>Paradox v3.0                                                                                                                               | dBASE IV<br>R:BASE v2.1                                                                                                                             | dBASE STATS                                                                                                                        |
| <b>Demo Programs</b>                       | GENIFER<br>Grammatik III<br>Lotus Agenda<br>Mystat/SYSTAT<br>MS Excel for Windows<br>ProCite bibliography<br>SAS System<br>Third v1.9<br>VuWriter Scientific | Galaxy v2.3<br>Javelin PLUS<br>Lotus Manuscript<br>MathCad<br>MS Word 5.0<br>Ref-11 Biblio<br>Spectra Calc<br>PageMaker v3.0<br>WordStar 2000+ v3.0 | Grapher/Surfer<br>Legend<br>MiniTK Solver<br>muLISP-87<br>PerSoft<br>Reference Update<br>SuperProject Expert<br>Intro to SQL*Tutor |
| <b>Disk Backup Utilities</b>               | BackEZ! v4.0                                                                                                                                                 |                                                                                                                                                     |                                                                                                                                    |
| <b>Drafting</b>                            |                                                                                                                                                              |                                                                                                                                                     |                                                                                                                                    |
| <b>Drawing &amp; Design</b>                | HP Charting Gallery v1.0<br>HP Clip Art<br>Lotus Freelance v1.0<br>MS Chart v2.0<br>PC Paintbrush IV                                                         | HP Drawing Gallery v1.0<br>Harvard Graphics v2.1<br>Lotus GraphWriter v1.0<br>MS PaintBrush v1.0                                                    | HP Laser Plotter<br>Laser Combo v1.0<br>Micrografx DrawPlus<br>MS Show Partner                                                     |
| <b>Equation Generators</b>                 | Math Edit v1.1                                                                                                                                               |                                                                                                                                                     |                                                                                                                                    |
| <b>Fonts</b>                               | HP Cartridge A<br>HP Cartridge V<br>HP SoftFont P Elite                                                                                                      | HP Cartridge D<br>HP Cartridge Z<br>HP SoftFont TmsRmn                                                                                              | HP Cartridge E<br>HP SoftFont L Gothic<br>HP SoftFont Helvetica                                                                    |

|                                                   |                                                                                                                                           |                                                                                                           |                                                                                                                   |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>General Languages<br/>&amp; Tools</b>          | MS Basic Compiler v6.0<br>MS Macro Assembler v5.1<br>MS Windows/286 v2.11<br>True Basic v2.0                                              | MS C Compiler v5.0<br>MS Quick Basic v4.0<br>Q-DOS II<br>Turbo Pascal Pro v5.5                            | MS Fortran v4.1<br>MS Quick C v1.0<br>RM Fortran v2.0<br>Zortec C++ Compiler                                      |
| <b>HyperPAD</b>                                   | HyperPad v1.0                                                                                                                             | IBM Linkway v1.0                                                                                          |                                                                                                                   |
| <b>Intructional</b>                               | <u>ATI Teach Yourself:</u><br>Lotus 1-2-3 v2.0<br><u>Cdex Training Program:</u><br>Lotus 1-2-3 v1.0a<br>PC Tutor<br>MS Word Adv. Training |                                                                                                           |                                                                                                                   |
| <b>Mathematics<br/>&amp; Statistics</b>           | Derive v1.25<br>SOLO v3.0(a)                                                                                                              | Formula/One v1.0<br>TK Plus Solver                                                                        | StatGraphics v3.0                                                                                                 |
| <b>Organizational</b>                             | Easy Flow v6.0e<br>PFS: 1st Publisher v2.1                                                                                                | GrandView v1.0<br>RefMenu Biblio                                                                          | Harvard Project Mngr Tools<br>TimeLine v3.0                                                                       |
| <b>Presentation<br/>Graphics</b>                  | Draw Applause v1.1<br>M Graphics: Sign                                                                                                    | MasterGraphics: Chart                                                                                     | M Graphics: Diagram                                                                                               |
| <b>Spreadsheets</b>                               | Draw Applause v1.1<br>Lotus 1-2-3 v3.0<br>Lotus: HAL & Metro<br>Quattro                                                                   | MS Excel v2.0<br>Lotus Magellan<br>Lotus: Learn & SpeedUp<br>Q & E v1.0                                   | Lotus 1-2-3 v2.2<br>Lotus: In Word v1.0<br>Funk Worksheet Util                                                    |
| <b>Technical Publishing<br/>&amp; Page Layout</b> | BYLINE v1.0                                                                                                                               | PageMaker v1.0a                                                                                           | Ventura Publisher v2.0                                                                                            |
| <b>Utilities</b>                                  | Carousel v1.0<br>Double DOS<br>*MS Windows/286<br>Norton Commander v1.0<br>Polaris Forms v1.0<br>SoftWare Bridge v3.1<br>Helpme v2.0      | DeskSet v1.0<br>DW Laser v1.3B<br>MS Windows/386<br>Nvelope v1.0<br>Profession File v2.0<br>SuperKey v1.1 | Downscale v1.0<br>IBM LinkWay v1.0<br>Norton Utilities v4.0<br>PICnix PCUnix<br>SideView v1.0<br>The Trading Post |
| <b>Windows Utilities</b>                          | hDC Windows Express<br>Simple Win                                                                                                         | hDC Windows Manager                                                                                       | Prompt!                                                                                                           |
| <b>Virus Protectors</b>                           | †CHK4BMB                                                                                                                                  | †FluShot                                                                                                  | †Virus Scan                                                                                                       |
| <b>Word Processing<br/>&amp; Editors</b>          | Amí v1.0<br>Lotus Manuscript v2.1<br>Total Word v1.0<br>WordStar v5.5                                                                     | DisplayWrite4 v1.0<br>MS Word v4.0<br>T3 TRIAD V2.1                                                       | EXP v1.11<br>MS PageView v1.0<br>WordPerfect v5.0                                                                 |

Note: entries in Bold indicate a New or Update listing.  
TOPS available for WKSG Lab Demo only.

†Shareware or free software

# ICSD TRAINING SCHEDULE

December 1989 - March 1990

## COMPUTING SERVICES CLASSES

Bldg. 50B, Rm. 1237

The following courses are offered by Computing Services. Except for the FOCUS class, there is no charge for these classes. To enroll, obtain your supervisor's approval and then contact Pat Bean, x7008.

|                                |                                     |                         |                         |
|--------------------------------|-------------------------------------|-------------------------|-------------------------|
| FOCUS: Basic Report Generation | Dec. 7, 8<br>9 AM - 4 PM            | Electronic Mail: Survey | Jan. 31<br>10 AM - Noon |
| Intro. to C Programming        | Jan. 17, 19, 24, 26<br>10 AM - Noon |                         |                         |

## WORKSTATION CLASSES

The following courses are 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 (\*) prepended are already full.)*

### IBM-PC: Bldg. 50B, Rm. 1237

|                           |                                     |
|---------------------------|-------------------------------------|
| Introduction to PC-DOS    | * Dec. 12, 14<br>10 - 11:30 AM      |
|                           | * Jan. 23, 25<br>10 - 11:30 AM      |
|                           | Feb. 13, 15<br>10 - 11:30 AM        |
| Kermit File Transfer      | Jan. 22<br>3 - 4:30 PM              |
| Microsoft Word for the PC | * Jan. 9, 11, 16, 18<br>3 - 4:30 PM |
|                           | * Feb. 6, 8, 13, 15<br>3 - 4:30 PM  |
|                           | March 6, 8, 13, 15<br>3 - 4:30 PM   |

### Macintosh: Bldg. 50B, Rm. 1229

|                           |                                  |
|---------------------------|----------------------------------|
| Intro. to MacDraw II      | Jan. 16, 17, 18<br>1-2:30pm      |
| Beg. Excel Spreadsheet    | * Jan. 22, 24, 26<br>10 - Noon   |
|                           | Feb. 26, 28, Mar. 2<br>10 - Noon |
| Beginning MS Word 4.0     | * Dec. 11, 13, 15<br>10 - Noon   |
|                           | Jan. 8, 10, 12<br>10 - Noon      |
| Basic Intro. to FileMaker | Jan. 10, 12<br>1 - 3 PM          |

The Workstation Group also offers noon time classes (no sign-up required) in the following subjects: Basic Macintosh Class, 2nd and 4th Wednesday of each month. Microsoft Word Workshops for the Mac, every 1st and 3rd Wednesday of each month. *(See article about Word Workshops for the Macintosh in the Workstation Scene of this newsletter.)*

Contact Carole Casaretto of the WKSG, x6858, for additional information.



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# NAMES AND NUMBERS TO KNOW

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

## INFORMATION AND COMPUTING SCIENCES DIVISION

Director: Stewart Loken (SCLoken) ..... 7474 50B 2232E  
Deputy Director: Sandy Merola (AXMerola) ..... 7440 50B 2232C

## ADVANCED DEVELOPMENT PROJECTS

Head: Dennis Hall (DEHall) ..... 6053 50B 3238

## COMPUTING AND COMMUNICATIONS RESOURCES

Head: Ken Wiley (KGWiley) ..... 7083 50B 2258E  
Laboratory-wide network planning:  
Bob Fink (RLFink) ..... 5692 50B 258E  
Office of Computing Resources:  
Dave Stevens (DFStevens) ..... 7344 50B 2258F  
LBLnet Manager: Sig Rogers (SCRogers) ..... 6713 50B 2258G  
Telephone Services: Sam Gibson (FSGibson) ..... 4234 80A 103

## COMPUTING SERVICES

Head: Marv Atchley (FMAatchley) ..... 5455 50F 117  
Deputy: Harvard Holmes (HHHolmes) ..... 5742 50F 115  
Central Office ..... 5871,2 50F 125

## VMS SYSTEM

Eric Beals (ERBeals) ..... 5351 50F 143  
System Manager: Gil Johnson (GPJohnson) ..... 6211 50B 1225

## UNIX SYSTEM AND DISTRIBUTED PRINTING

Craig Eades (CAEades) ..... 6569 50F 142  
UNIX (DHCleveland) ..... 5336 50F 110  
Distributed Printing (RERendler) ..... 5629 50F 119  
System Manager: Roger Cochran (RJCochran) 5565 50F 127

## USER RESOURCES

Jerry Borges (JTBorges) ..... 5568 50F 144  
Accounting ..... 7008 50B 1232A  
HELP DESK ..... 5981 50B 1215  
Math Libraries ..... 4749 50F 114  
Library/Document Sales ..... 4242 50B 1232B  
Opening a New Account (PSBean) ..... 7008 50B 1232A  
UNIX and Cluster:  
Software Evaluation and Acquisition ..... 5568 50F 144

## GRAPHICS

Nancy Johnston (NEJohnston) ..... 5093 50F 145

## NETWORKING

Darren Griffiths (DAGriffiths) ..... 6966 50F 146

## COMPUTING FACILITIES

Connecting a Remote Terminal (ACHart) ..... 7444 50B 2249A  
Develcon Problems & Terminal Repair  
Paul G Murray (PGMurray) ..... 5354 50B 2259  
Operations Area ..... 6211 50B 1215

## COMPUTING APPLICATIONS

Applications Group  
Head: Jerry Borges (JTBorges) ..... 5568 50F 144

## WORKSTATION GROUP

Group Leader: Richard LaPierre (RLLaPierre) ... 4692 50B 2245  
Software Evaluation and Acquisition ..... 6858 50B 2231

## 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

## NETWORK CONTACT INFORMATION

LBLnet new installations & Trouble Calls  
Ted Sopher (TGSopher) ..... 4559, 5354 50B - 2266  
DECnet Administration  
Darren Griffiths ..... 6966 50F - 146  
IBM PC & Mac Network Administration  
William Jaquith (WDJaquith) ..... 4388 50B - 2231C  
Nancy Travis (NJTravis) ..... 7690 50B - 2231B  
Distributed Printing/Kinetics FastPath  
administration and requests  
Bob Rendler (RERendler) ..... 5629 50F - 119

LBLnet troubles ..... trouble@lbl.gov  
LBLnet comments or non-critical trouble reports ..... lblnet@lbl.gov  
Internet administration ..... ip-request@lbl, dagg@lbl.gov  
LBL Postmaster for Lab-wide mail ..... postmaster@lbl.gov  
Network Advisory Group (NAG) ..... nag@csam.lbl.gov

## 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 (Unix 1) ..... UX1  
SUN-3/180 (Unix 3) ..... UX3  
SUN-4/390 (Unix 5) ..... UX5  
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 | 631-8701 |
| Burlingame           | 415-588-3043 |          |
| Vallejo              | 707-644-1192 |          |
| Antioch              | 754-8222     |          |
| Fremont              | 490-7366     |          |
| Pleasanton           | 462-2101     |          |

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