DISCLAIMER

NOVEMBER
1991

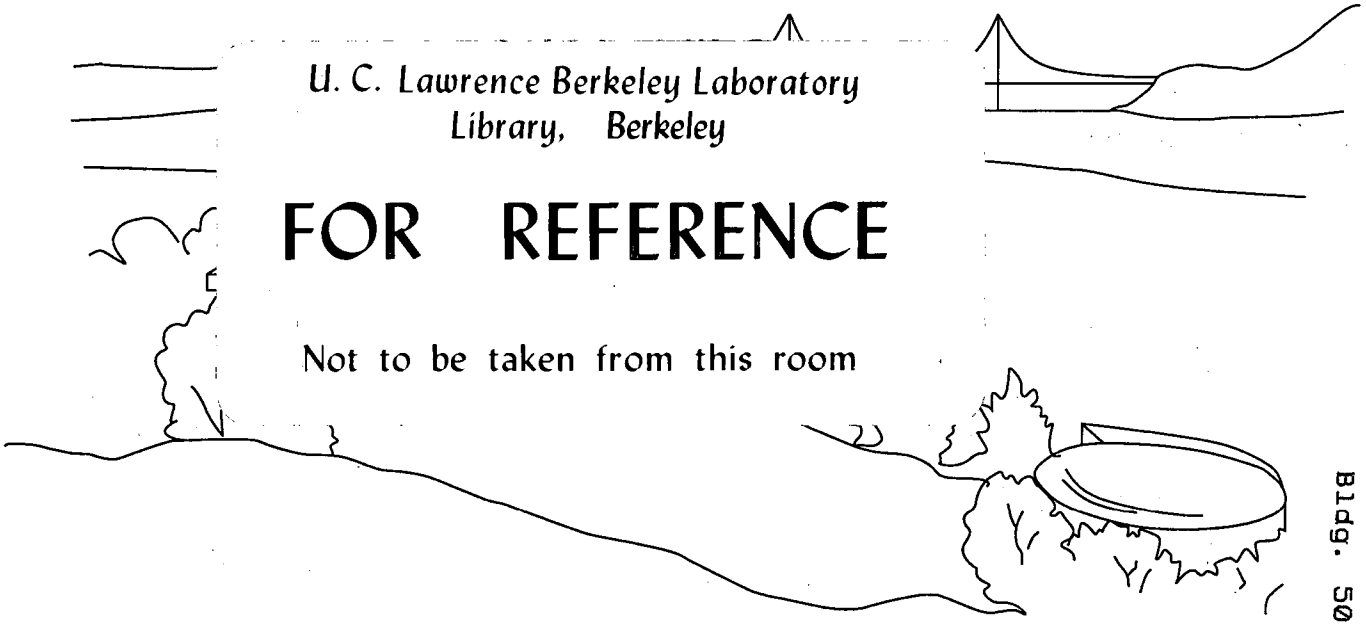
COMPUTING NEWSLETTER

HEPiX

NEW MELVYL DATABASES ONLINE

PHYLIP and WAIS

POWERBOOK LAPTOPS



LAWRENCE BERKELEY LABORATORY
BERKELEY, CALIFORNIA . . . 94720

PUB-429 11/91-2150

Newsletter Closing Date is Friday, November 15, 1991

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

Lawrence Berkeley Laboratory is an Equal Opportunity Employer

PUB 429 11/91 2150

TABLE OF CONTENTS

ICSD TRAINING SCHEDULE

November, 1991 - January, 1992

CLASSES: COMPUTING SERVICES & CNR

The following courses are offered by Computing Services and CNR. To enroll in the FOCUS class, contact Marilyn Graham, x5688. To enroll in the Electronic Mail Survey class contact Rita McLean, x5872. To enroll in the Phone System class, contact Linda Smith, x4440. You do need a current UNIX or VMS/CSA login.

ICS: ITE4 & Voice Mail	Nov. 20	9 to 10:30 AM	50B-1237
ICS: ITE12, ITE24 & Voice Mail	Nov. 20	1:30 to 3 PM	50B-1237
Electronic Mail Survey	Nov. 21	10 AM to Noon	50B-1237
FOCUS Basic Reporting for End Users	Dec. 9	9 AM to 4:30 PM	50B-1237
FOCUS Basic Reporting for End Users	Dec. 10	9 AM to 4:30 PM	50B-1237
FOCUS Basic Reporting for End Users	Dec. 11	9 AM to 4:30 PM	50B-1237

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, x7693.
(Those classes with asterisks (*) in front of them are already full.)

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

Introduction to PC-DOS	Nov. 12, 13, & 15 2:30 - 4 PM
Introduction to *Windows* for the IBM/PC	Nov. 12 & 14 9 - 10:30 AM

Macintosh: Bldg. 50B, Rm. 1229

Basic Macintosh	Nov. 6 12 - 1 PM no sign-up req.
Beginning *Microsoft Word*	Nov. 11, 13, & 14 1 - 3 PM
	Jan. 13, 15, & 16 1 - 3 PM

(Macintosh Classes Continued)

Beg. *Excel* Spreadsheet	* Oct. 28, 30, & Nov. 1 9 - 11 AM
	* Nov. 18, 20, & 22 9 - 11 AM
	Jan. 27, 29, & 31 9 - 11 AM
Introduction to *FileMaker*	* Nov. 12 & 14 10 - 12 Noon
	* Dec. 10 & 12 10 - 12 Noon
	Jan. 28 & 30 10 - 12 Noon

The Workstation Group also offers noon time classes (no sign-up required) in the following subject:

Basic Macintosh Class ..... Nov. 6 50B/1229

See Workstation Scene Newsletter Articles for more details on these workshops.

UNIX NEWS

EXAMINE RECHARGE BILLS FROM UNIX NODES

Lam Wong

On UX5, you can now examine your RECHARGE accounting records. (Actually, the recharge account files are stored on the CSA cluster. There is a BILLSERV process on CSA machines that serves your requests).

Type

```
man bill
```

on UX5 to see how to use the commands.

Forward comments, and questions to me at x4786 or

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

HEPiX

The High Energy Physics Community (HEP) has formed a UNIX special interest group called HEPiX. The following is a statement of purpose framed at its Inaugural meeting held at FermiLab in September. (LBL scientists attending that meeting were Craig Eades and Werner Koellner).

HEPiX is an international group of cooperating institutions all of which are experiencing an explosion in the use of UNIX for High Energy Physics work. The focus of this group is to share experiences, to influence vendors and standards, and to investigate solutions to those problems which impede the use of UNIX for mainstream work at the member institutions. The initial areas of investigation include topics which are not fully addressed by current UNIX offerings and are critical to the HEP computing environment. Such topics include:

- ✔ Batch
- ✔ Tape support
- ✔ Software management & distribution
- ✔ Portability of the physicist's environment

The group held its first meeting at Fermilab on September 23-25th, 1991. There were about 40 attendees from BNL, CERN, DESY, Fermilab, HEPnet, INFN, KEK, LAMPF, LBL, NIKHEF, SCRI, SLAC, SSCL, SURA/CEBAF, TRIUMF, and Yale. Future meetings will be held at roughly half-yearly intervals.

For more information:
If you are from a site represented at HEPiX please contact your site representative.

Either:
Subscribe to the HEPiX_L@FNAL.FNAL.Gov electronic mailing list. This is accomplished by sending e-mail to

```
Kippenham@FNAL.FNAL.GOV
```

requesting to be added to the e-mail list.

Or:
Read the netnews group **hepnet.hepix..**

Questions or comments should be addressed to Craig Eades at x6259.

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

GRAPHICS NEWS

GNUPLOT — VERSION 3.0

Nancy Johnston

The latest version of Gnuplot is now available on the Sun UNIX machines and the VAX/VMS Cluster. Gnuplot is a command-driven interactive function plotting program. Some of the features of Gnuplot are: mesh surface plots, contour plots, x-y plots, error bars, polar coordinate plots, log plots, etc. Gnuplot also supports the mathematical functions available in the UNIX math library.

It is easy to use, free, has lots of device drivers, and runs on a variety of machines. We have brought Gnuplot up on UX5, UX6 (and clients) and the CSA Cluster (and clients). Three of the supported graphics device are PostScript (monochrome and color), X11 (UNIX only), and Regis (use this driver for VMS DECWindows).

The documentation is on-line, there is on-line help, and for UNIX, a man article. There is also a demo directory with numerous examples. On UNIX the binaries, demo directory, and documentation are in

/usr/local/lib/gnuplot.

On VMS see

sy_graphics:[gnuplot].

Forward comments and questions to me at x5093 or

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

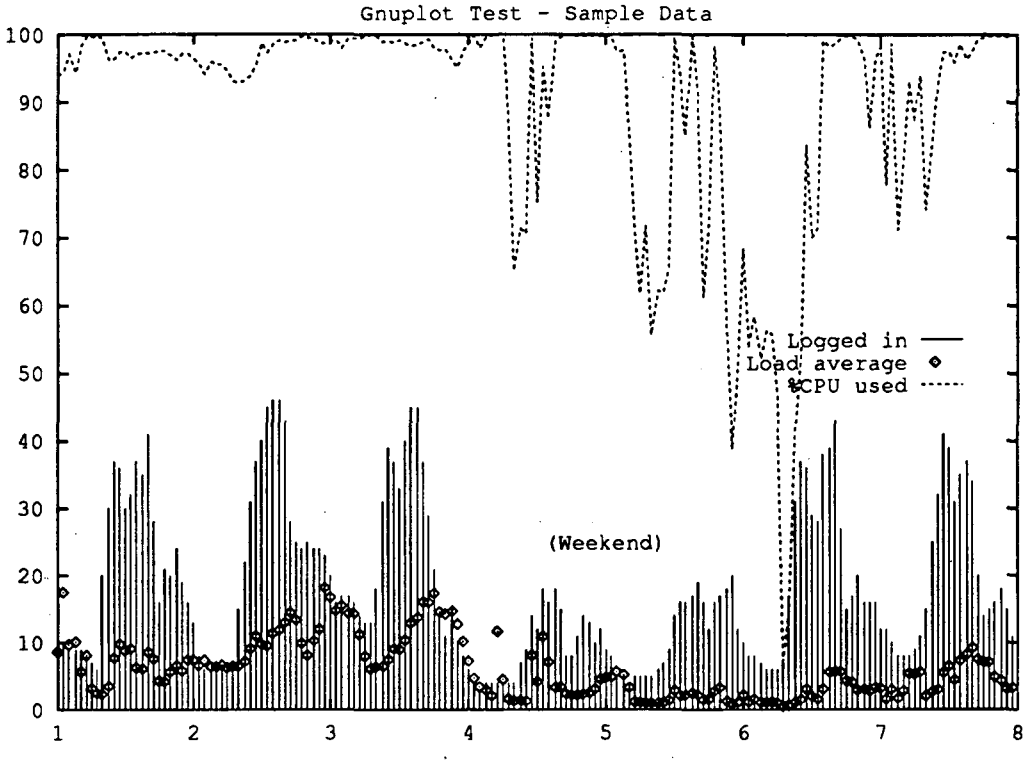
This code was used to produce Example 1.

```
set key 7.2, 55 ........................................ # place the key
set title 'Gnuplot Test - Sample Data' .................. # define the title
plot 'using.dat' using 3:4 title "Logged in" with impulses,\.. # read various data fields
'using.dat' using 3:5 t "Load average" with points,\........ #  and plot them three
'using.dat' using 3:6 t "%CPU used" with lines.............. #  different ways
```

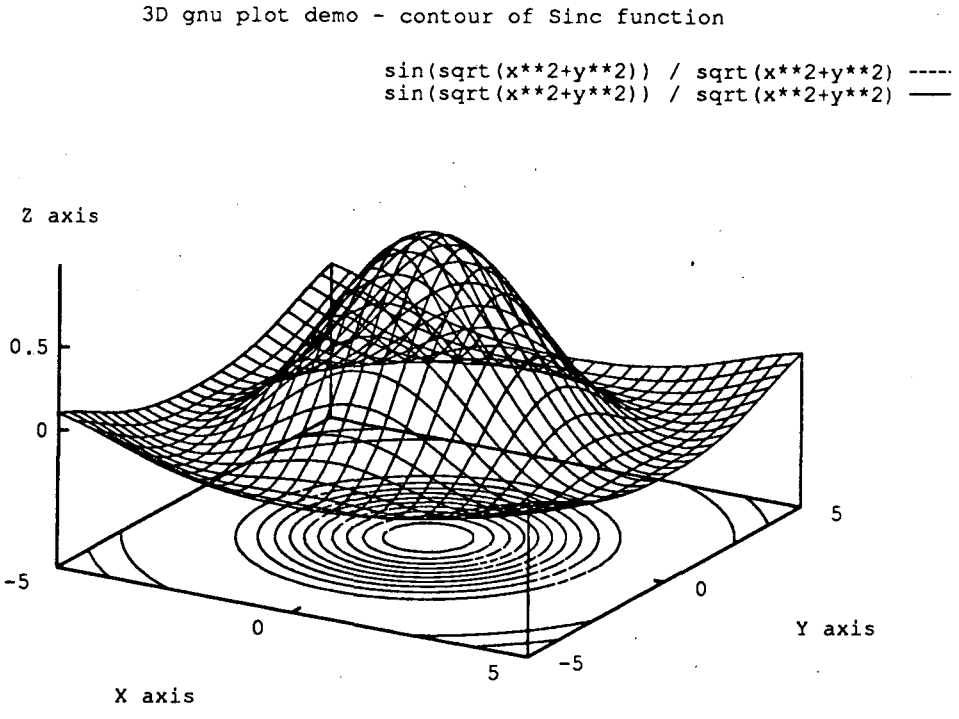
Example 2 was plotted by:

```
set isosamples 26 ........................................# set no. of isolines for each axis
set title "3D gnu plot demo - contour of Sinc function"...........# define the title
set xlabel "X axis" -5,-2  }
set ylabel "Y axis" 4,-1   }  ...........................# define x,y,z titles
set zlabel "Z axis"        }
set contour ..............................................# turn contouring on
set cntrparam level 10 ...................................# define 10 contouring levels
splot [-5:5.01] [-5:5.01] sin(sqrt(x**2+y**2)) / sqrt(x**2+y**2) ......# plot
```

Example 1



Example 2



GENERAL NEWS

1990 CENSUS TIGER MAP FILES ON CD-ROM

Deane Merrill

Final 1990 Census TIGER map files for part of California (Solano through Yuba counties) and all of Nevada are now on line on CD-ROM. The location in UX5 is

/home/parep2/disk21

This is the first of 44 CD-ROM diskettes covering the entire United States, which will become available later at LBL.

Preliminary Pre-census TIGER files for California and Hawaii are in:

/home/parep2/disk2
CA: Alameda through Plumas counties

/home/parep2/disk3
CA: Riverside through Yuba counties; and HI

For further information regarding CD-ROMs available at LBL, see:

/home/parep2/disk1 through **disk9**
April 1991, Pg. 4, LBL Computing Newsletter,

/home/parep2/disk10 through **disk20**
July 1991, Pg. 6, LBL Computing Newsletter,

or contact me at x5063 or

UNIX or
Software Tools Mail: **dwmerrill@lbl.gov**
VMS Mail: lbl::dwmerrill

REPEAT OF FOCUS CLASS FOR BEGINNERS

Marilyn Graham

Because the class in October filled up within days, Information Builders, Inc.'s beginning-level course — **FOCUS Basic Reporting for End Users**—will be offered again from December 9 - 11, 1991 from 9 AM to 4:30 PM in Bldg. 50B, Rm. 1237. The approximate cost (adjusted according to the number of students attending) will be between $400 and $450 (the cost of this course is normally $550).

The course is for beginning level FOCUS users and will emphasize hands-on experience with typical business applications. Students will receive a reporting manual that recaps the course material for reference back at the office. Topics include an overview of FOCUS, selectively retrieving data, performing calculations, creating new fields, sorting and formatting information, and more.

Class size will be limited to 15 students, so call Marilyn Graham soon at x5688 to register.

UNIX or
Software Tools Mail: **MAGraham@lbl.gov**
VMS Mail: **lbl::MAGraham**

FROM THE MAIN LIBRARY

NEW MELVYL DATABASES ONLINE

Judy Furlong

Three new databases, which broaden access to journals and newspapers, have been added to the Melvyl system. Anyone familiar with the Melvyl system can access the three, which include Journal and Magazine Articles as well as National Newspaper and Computer Articles.

MAGS
The Journal and Magazine Articles database (MAGS) includes approximately 1000 periodicals. While Current Contents contains more technical and scientific journals, MAGS provides more effective indexing, with augmented article titles and Library of Congress subject headings. MAGS periodicals are primarily designed for general interest, but a selection of scientific journals—including Science, Geology, Nature, Physics Today, American Scientist, New England Journal of Medicine and the American Journal of Physics—will also be available. Abstracts for about 40% of the articles in MAGS are online and the full file will eventually contain citations from January 1, 1988 to the present.

NEWS
The National Newspaper Articles database (NEWS) covers the Wall Street Journal, New York Times, Washington Post, Los Angeles Times and Christian Science Monitor. No abstracts are available in NEWS.

COMP
Perhaps the database with the greatest potential for LBL users is Computer Articles (COMP), which indexes over 200 computer related journals and news publications, including the San Jose Mercury. Abstracts for about 80% of the articles in this database are available.

Getting onto the new databases is as easy as using other Melvyl standbys such as Current Contents (CC). Use the same password utilized for accessing Current Contents and Medline. After logging onto Melvyl, type

start DB MAGS
start DB NEWS or
start DB COMP

at the prompt to get access to the desired database. Search indexes are similar to those in Medline, with KW utilized for finding keywords in titles, subjects or other areas. Type

d abs

to bring up abstracts available in the COMP or MAGS databases. Other indexes—such as SU, AU, XT and TW—are standard on the Melvyl system.

For example, you might want to obtain some information about *Excel* 3.0 - an evaluation of its capabilities, perhaps, and a source for such an evaluation. After logging onto Melvyl, enter the COMP data base by typing

start db COMP

then type

fi su excel 3 and pt evaluation
(find subject Excel 3 and publication type evaluation)

Your screen will then tell you:

Search request: FI SU EXCEL 3 AND PT EVALUATION.
Search result: 23 citations in the Computer Articles database

Type **D**

to display results, or type

HELP

To display the titles of the first three records, type

dis rev 1-3 cont
(display first three titles in continuous review format)

Your screen will then tell you:

Search request: FI SU EXCEL 3 AND PT EVALUATION
Search result: 23 citations in the Computer Articles database

Type

HELP

for other display options.

The first three titles are displayed.

1. Windows Excel a worthy rival for Lotus 1-2-3. (Microsoft Corp.'s Excel...Government Computer News v10, n16 (August 5, 1991):28 (2 pages).
2. What passes for friendship. (impressions of Microsoft Corp.'s Excel...MacUser v7, n9 (Sept, 1991):41 (2 pages).
3. Microsoft Excel 3.0. (Software Review) (spreadsheet software) (evaluation) Macworld v8, n9 (Sept, 1991):204 (2 pages).

To display the abstract of the first citation type

dis 1 short abs
(display citation #1 in short form with abstract)

Your screen will say:

Search request: FI SU EXCEL 3 AND PT EVALUATION
Search result: 23 citations in the Computer Articles database

Type

HELP

for other display options.

It displays the abstract of the first citation:

1. Morgan, Cynthia.
Windows Excel a worthy rival for Lotus 1-2-3. (Microsoft Corp.'s Excel for Windows 3.0 spreadsheet program) (Software Review) (evaluation). Government Computer News v10, n16 (August 5, 1991):28 (2 pages).

Abstract: Microsoft's $495 Excel for Windows 3.0 can hold its own against its competitors, including Lotus 1-2-3. It offers a powerful calculation tool that performs tasks, such as automatically resizing...etc.

The Library can provide handouts with the list of necessary commands for each database, as well as some general information about MAGS, NEWS and COMP. For questions or comments, call Carol Backhus at x6307.

NEW CD-ROM AVAILABLE IN BUILDING 90 LIBRARY

For many years the Building 90 Library has maintained a microfilm collection of thousands of manufacturer's trade catalogs and standards from Information Handling Services. Now, a new CD-ROM system from IHS is available in the Building 90 Library (B90P). The new system is a streamlined addition to the library's collections of technical information, trade catalogs and standards.

In cooperation with the Engineering Division, the library is now able to offer CD-ROMs which contain both text and images. The "raster images," are scanned at 300 dots/inch and stored in compressed-data form.

Among the full text industry standards available on the new database are the American Welding Society, IEEE, National Electrical's Manufacturer's Association and Underwriter's Laboratory. As more standards become available, they will be incorporated into the IHS CD-ROM collection.

Vendor catalogs will still come on Microfilm, but due to an agreement between the Engineering Division and IHS, the Engineering Library will be a beta-site for the CD-ROM version of the Vendor Catalogs.

Users of the CD-ROMs will be able to print the full text of standards or trade catalogs using a newly-installed laser printer. An added feature, possible with the CD-ROM products only, lets you enlarge a portion of the scanned image on a Sigma laser view screen, then print the enlargement. This will be particularly valuable for illustrations, for instance, of wiring.

There are two "modes" of operation - text and image - each with its own commands. Arrows up or down move the highlight and ENTER selects the highlighted choice. Other commands let you search, get search results, view documents and browse through titles.

Image commands such as **GOTO** (moving image to a requested page), **Zoom In** and **Zoom Out** (enlarging and decreasing image size) allow easy viewing of illustrations and diagrams. Quitting is as easy as an **F10**.

With the Vendor Catalogs CD-ROM, you can search according to subject, product, manufacturer and location, including brand names, subject terms and the IHS Prepared Table of Contents. Finding and pinpointing vendor products and information will be quick and efficient with this new CD-ROM. With the image portion of this product, you have access to electronic images of the catalog pages themselves.

Instruction and handouts for use of the new CD-ROMs will be available in the Building 90 Library and patrons from all divisions on the hill are invited to come in and look over the CD-ROMs. For information about this and other Library Technical Services, contact the Library at x5621 (Bldg. 50 Library), x5091 (Bldg. 90 Library), x6201 (Donner), x5971 (Bldg 62 Library) and x6032 (AML).

MELVYL PASSWORDS AVAILABLE THROUGH LBL LIBRARY

LBL employees must obtain a password to access any journal articles database on MELVYL. If you already have a password, it will work for the new databases. To obtain a new password, contact Judy Furlong at Bldg. 50B, Rm. 4206, x4625 for a Password Application Form.

NOTE TO QSPIRES USERS

In the Sept.1991 issue of the LBL Computing Newsletter, we told you how to access preprints from a SPIRES database at SLAC. We'd like to remind you that if you receive a message stating that you are not authorized to access QSPIRES, send a note to Louise Addis (**addis@slacvm.bitnet**) and she will add your address to the authorization table.

Forward comments and questions to me at x4625 or

UNIX or Software Tools Mail:	**JAFurlong@lbl.gov**
VMS Mail:	**lbl::JAFurlong**

HUMAN GENOME CENTER NEWS

SOFTWARE NEWS

Marge Hutchinson
Manfred Zorn

New software has been received and several software packages have been upgraded recently.

New to us is **PHYLIP**, a package of programs for creating and manipulating phylogenetic trees. Also newly available is **WAIS**, a wide area information server to access collections of documents across the network. (See the brief description of these programs below).

In addition to new software, the **blast** and **fasta** programs have recently been upgraded to the most current version. You should see no effect of these upgrades except that the blast program no longer requires you to supply a PAM matrix for the protein-sequence-searching programs. Now by default, the PAM120 matrix is chosen whenever the M parameter is omitted.

PHYLIP

Phylip (pronounced file-ip) is a collection of 75 programs for phylogenetic tree manipulation. It is provided free by Joseph Felsenstein of the Department of Genetics at the University of Washington in Seattle. Phylip programs can create phylogenies from molecular sequence data, from distance matrix data, or from gene frequencies using a wide variety of models.

Some of these programs are accessible from the GDE interface. (See the September, 1991 Computer Center Newsletter for a description of GDE.) They can be accessed outside of GDE by typing the name of the program, but when run in this way you need to provide an input file containing the species names and sequences. GDE will handle this step for you. To find out what is available, first look at the document main.doc in the directory **/home/hgc/data1/local/docs**. There are also files in that directory with complete documentation for each of the major programs.

Following is a brief description (from the above-mentioned document) for each of the programs that are available via GDE.

NUCLEIC ACID SEQUENCE METHODS:

dnapars - Estimates phylogenies by the parsimony method using nucleic acid sequences.

dnaboot - Finds confidence intervals on most parsimonious trees for DNA data by bootstrap resampling of sites.

dnapenny - Finds all of the most parsimonious phylogenies for nucleic acid sequences by branch-and-bound search.

dnaml - Estimates phylogenies from nucleotide sequences by maximum likelihood.

dnadist - Computes three different distances between species from nucleic acid sequences. The distances are

- ✔ the Jukes-Cantor formula,
- ✔ one based on Kimura 2-parameter method, and
- ✔ a maximum likelihood method.

DISTANCE METHODS.

fitch - Estimates phylogenies from distance matrix data under the "additive tree model"according to which distances are expected to equal the sums of branch lengths between the species.

kitsch - Estimates phylogenies from distance matrix data under the "ultrametric" model which is the same as the additive tree model except that an evolutionary clock is assumed.

neighbor - Saitou and Nei's "Neighbor Joining Method" and the UPGMA Average-Linkage-clustering method.

WAIS

WAIS is a document-searching program to search specially-formulated databases. It is provided free by Thinking Machines Corporation. The software to create these databases is also included. One of the databases, **biosci**, is of special interest to molecular biology researchers: it is an archive of all articles posted to the BIOSCI mailing lists (the bionet network) since 1989.

WAIS is easy to run from X windows.

[Be sure your path includes **/home/hgc/data1/local/bin**. This will automatically be set if you execute the usual LBL Genome Group startup file by executing the command **source ~sequence/startup** on a command line in your .login.]

Just type

xwais

A wais window will be displayed. Click on **new** to bring up a question window. Type in your question (just a series of words or names to look for) and select the Add Source button to select the database. Choose **biosci.src**, click on Search, and WAIS goes out over the network, locates the database, and brings you back the documents it found. Currently it will bring a maximum of 40 documents. You can view a particular document by clicking on **View**, or search for all documents similar to your document by selecting the document, and clicking on **Add Document**, and then on **Search**. WAIS is quite fast.

A search facility for WAIS (called the Wais Station) also exists for the Macintosh. You can get it from my public folder (csr zone, margeh). This version is already set up to run. You can also find it on ux5 in the directory

/home/hgc/data1/local/src/WAIS

or you can retrieve it via anonymous ftp from think.com in the directory wais, but you will have to unpack the files.

Further information

For more information on Human Genome Software and Databases please contact Marge Hutchinson, x4727, or Manfred Zorn, x5041.

VMS Mail: **lbl::MSHutchinson**

UNIX or
Software Tools Mail:**MSHutchinson@csam.lbl.gov**

VMS Mail: **lbl::MDZorn**

UNIX or
Software Tools Mail:**MDZorn@.lbl.gov**

If you need more help using HyperFTP, AppleShare, or other Macintosh software, call the Workstation group at x6858.

DATABASES AVAILABLE AT LBL'S HUMAN GENOME CENTER

Database	Source	Release	Date	Entries		Description
GenBank	LANL/IG	68	June 91	65,868,799	bases	DNA sequences
GenPept	IG	64.3	Jan. 91	7,721,019	residues	Amino acid sequences translated from GenBank 63
PIR	PIR	29	June 91	9,091,049	residues	Protein sequences
SwissProt	A. Bairoch	19	Aug. 91	7,173,785	residues	Protein sequences
Entrez	NCBI	Pre-2	May 91	86,000 citations 53,000 proteins 35,000 nuclear sequences		Integrated sequence information and bibliographic data
Prosite	A. Bairoch	7.10	Aug.. 91	508	patterns	Dictionary of sequence motifs
REbase	R. Roberts	9110	Oct. 91	1938	enzymes	Type 2 restriction enzymes with recognition sequence, supplier, and references
Enzyme	A Bairoch	6	Aug. 91	3072	enzymes	All characterized enzymes: EC number, catalytic activity, co-factors, diseases
SeqAnalRef	A. Bairoch	20	Sept. 91	1657	references	References to sequence analysis literature
LiMB	LANL	2	June 90	98	databases	Listing of molecular biology databases

Table 1: Databases available at LBL's Human Genome Center.

LANL—Los Alamos National Laboratory, Los Alamos, NM;
IG—IntelliGenetics, Mountain View, CA;
PIR—Protein Information Resource, National Biomedical Research Foundation, Washington, DC;
Amos Bairoch, Univ. Geneva, Geneva, CH;
Richard J. Roberts, Cold Spring Harbor Laboratory, Cold Spring Harbor, LI.
NCBI—National Center for Biotechnology Information, NLM, NIH, Bethesda, MD

NOTES FROM TROUBLE MAIL

Maggie Morley

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

MESSAGE

I am having trouble locating the style file for Version 2 of RevTex. Can someone tell me where it is and what the style file is called.

RESPONSE

Installed this new version of RevTex today on CSA; the style files are be in the standard place, TEX_INPUTS: on CSA (and in /usr/local/lib/tex/macros on the Computer Center UNIX machines), so you do not need to specify anything special to read them into your LaTeX file. See (on CSA)
TEX_DISK:[tex.local.aps_latex]readme.aps
for information about the update.

MESSAGE

I use rdist to keep several things here at lbl in sync with the original which is located on campus. I also use it to keep some things up to date for which the master is at lbl. The last time I tried to use it from campus, the campus rdist process complained that the lbl version had the wrong date. When I try to run it from csr, it tells me that I do not have permission to run /usr/ucb/rdist. Could you please look into fixing this?

RESPONSE

We have not only looked into fixing it — we have actually fixed it. The permissions had been hastily restricted because of a security hole in the Sun version of rdist that permitted a serious type of attack. Now, a patched version of rdist has now been installed (and tested) on CSR, and the standard permissions have been restored.

MESSAGE

Are IDL (graphics) routines available on the csa-cluster?

RESPONSE

We only have an IDL license for UX5 (a Sun UNIX machine). Once started, it can display to any X-based terminal, VAXStation, or other workstation. If you have any further question give me a call.

MESSAGE

Please include in my quota 250,000 blocks never back-up.

RESPONSE

Would you want the space on NEVER QUOTA or NEVER USAGE? NEVER QUOTA is charged by quota ($2/MB/month since your account number is not in any committed group). NEVER USAGE is charged by usage ($4/MB/month). We do not over-allocate on QUOTA disks, but the USAGE disks are over-allocated, and you may not be able to use all of your allocation on USAGE disk if the disk is close to full.

MESSAGE

The last I checked, the faculty/staff phone lookup routine (**fspb**) from campus wasn't installed on UX1/3/5. I think it would be worth putting on; it is available via ftp from ftp.cc.berkeley.edu in pub/fspb.tar.Z and is easy to set up. Maybe this software could be copied and used for LBL phone numbers? Since the "lblphone"we have has to be updated manually, getting the info over the network would be a great improvement.

RESPONSE

Built and installed **fspb** and its man page on UX5/1/3 and csr; will check with Telephone Services about whether it is interested in using fspb or whether they have some other plans.

MESSAGE

My mail is not appearing in my mail account. I've tried to use the MSG utility but have not had experience with it and would prefer to use the MAIL utility.

RESPONSE

I put a file named **$mailinterface.** in your CSA home directory. This file will make the Software Tools Mail (MSG) system forward any mail it has for you into VMS MAIL; therefore, you can read all your mail by MAIL. I also put a skeleton "login.com" file to make sure you have a decent setting for your terminal for using MAIL.

MESSAGE

Is there an option that allows me to create a "listing" file while compiling [using Sun FORTRAN]?

RESPONSE

Sun FORTRAN currently has no such option but will implement something like it in the future. For now, you can use a compilation command like this to save the compiler's messages:
f77 myprog.f >& myprog.errs

MESSAGE

I can't seem to get the editor to work when I log in from an X terminal [actually a Sun IPC] even though I tell the system via my .login that I'm running an xterm.
Is it possible that the termcap entry needs something special for jove?

RESPONSE

Called the user; got him squared away. He had the same problem we have seen in the past: telnet does NOT pass in the correct window size to the remote system but rlogin does. Told him how to reset the window size when he uses telnet and suggested that he use rlogin. P.S. "jove" is "someone's version of emacs", some public-domain emacs editor user likes; it is not supported here. P.P.S. The tset command in the .login file uses / etc/termcap, where the entry for xterm says xterm has 65 rows and 80 columns. rlogin passes in the correct window size and overrides this; telnet does NOT.

MESSAGE

I just read the first question in "Notes from Trouble Mail" in the LBL Computing Newsletter. I'd like to know as much as possible about the Mac CGM plotting program you mentioned. How can I acquire it? CGM is going to be the backbone of what we do. We will soon announce CGM access to the Graphtec Precision Image color electrostatic plotter here. I am also compiling a list of programs that correctly generate conforming ISO CGMs and programs that correctly interpret conforming CGMs. This Mac program would be a great addition.

RESPONSE

MacGPlot should be available by anonymous ftp from calpe.psc.edu, though that host seemed to be down when I just tried it. There is also an X client (GPlot) that reads and plots CGM files from the same source.

MESSAGE

The help for GNU Emacs is All Screwed Up. The help character produces garbage when one tries to use some of the options.

It also produces garbage in response to the help character followed by a question mark, which is supposed to give the list I have excerpted above.

I believe this to be a comparatively recent problem, as I use these functionalities regularly. I may not have exercised these systems within the last two weeks; I have almost surely done so within the last six months.

RESPONSE

First-level tests of the Emacs **help** functions on UX5 were successful; however, there are definite and egregious problems with deeper levels of the Emacs help. I brought over the csr copy of the DOC file that the Emacs help function uses (csr and UX5 are using the same version of Emacs) — and put this DOC in place of the one we had been using on UX5. Success! Now Emacs help works as this user (and others) expect.

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.

We also encourage new users to include their names and phone numbers in the exchanges; this way we can resolve initial problems much more quickly.

NEWS OF PHYSICS LIBRARIES

Werner Koellner

● GENERAL INFORMATION

Object libraries, source files, and other files and procedures thought to be useful are being maintained at varying levels. Various CERN "libraries" make up the major part of this collection. In general, the newest releases or pre-releases are offered as default versions for general use. Please let me know if some package, which may be of substantial interest, is not available.

● CERN LIBRARY PROBLEM HANDLING

Users are encouraged to report problems or questions regarding CERN libraries, by writing to one of the following discussion lists, or to me (WOKoellner@lbl.gov):

LPAW@CERNVM.BITNET .....(about PAW)

LGEANT@CERNVM.BITNET .....(about GEANT)

HEPLIB@CERNVM.BITNET .....
.....(about CERN Library codes)

You may also subscribe to any of these discussion lists by sending an electronic mail message containing the single line

```
SUBSCRIBE <list> <your full name>
```

(list being one of the above) to

```
LISTSERV@cernvm.cern.ch
```

Copies of the various discussion mails are available in CERN$INFORM:

LGEANT.LOGyymm,
LPAW.LOGyymm,
LGEANTyymmdd*.NOTE,
LPAWyymmdd*.NOTE, and
HEPLIByymmdd*.NOTE.

Your problem may be among these discussed.

● CERN LIBRARY USER LISTS

Users who wish to be alerted whenever I rebuild the default GEANT or PAW Libraries or update other CERN Libraries may register by sending me a request.

● WHAT'S AVAILABLE

Some or all of the following packages are available on supported platforms. Specific information may be displayed online. Here's how:

- ✔ type **HELP <package name>** on CSA or
- ✔ type **HELP $PHYSICS_UTILITIES** on CSA and choosing the desired subtopic or
- ✔ look up available **man** entries on SUN or STARDENT

Additional information, particularly regarding CERN packages, may be found in the CERN$INFORM directory area.

CERN LIBRARIES:

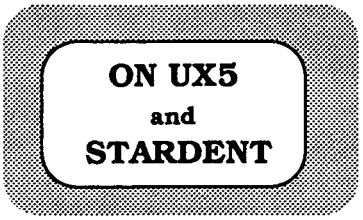
CMZ	Code Maintenance
COJETS	pbar-p Monte Carlo
DZEDIT	Zebra Bank Doc./Display System
GARFIELD	Drift Chamber Simulation
GEANT	Detector Design
EURODEC	pbar-p Monte Carlo
GENLIB	General Library
GRAFLIB	Graphics Interface Package
HBOOK	Histogram Package (in PACKLIB)
HERWIG	hadron Monte Carlo
HPLOT	Plotting Package (in GRAFLIB)
ISAJET	pbar-p Monte Carlo
JETSET	Lund Monte Carlo
KERNLIB	General Library
LUCIFER	Lund Monte Carlo
MINUIT	Fitting (in PACKLIB)
PACKLIB	General Library
PATCHY	Code Maintenance
PAWLIB	Physics Analysis
PDFLIB	Parton Density Functions
TWISTER	Lund Monte Carlo
ZEBRA	I/O & Memory Mgt. (in PACKLIB)

FILE TRANSFER:

ZFTP	Transfer between Sun, VAX, IBM
TELNETG	HIGZ Graphics on remote hosts

OTHER PACKAGES:

CALCULATOR	Fancy HP Calculator
DISPLAY(5)	HBOOK/HPLOT Histogr. Manipulation
FOR_STRUCT	Source Code Structuring
EGS	e+e- Monte Carlo
JETNET	Pattern Recognition (Neural Networks)
JY411	CAMAC Drivers
MORTRAN	FORTRAN Preprocessing
PROBE	Examine Object Libraries
SWING	Directory Management
TOPDRAWER	Plot Processing
UGS	Unified Graphics Package



• NEWS

ZFTP, the interplatform ZEBRA File Transfer Utility is now fully operational on the CSA Cluster, SUNs & SPARCStations, and between these two platforms and one or more FNAL platforms. See more in the CSA section.

• LAST MONTH

✔ DZEDIT, a ZEBRA Bank Documentation and Display System.
✔ Some new ZEBRA manuals.

• GENERAL INFORMATION

More detailed information about the maintenance status of all libraries can be found in the CSA section.

Selected CERN Libraries are available on UX5 and on the STARDENT computer, and may be copied to Sun SPARCStations.

Currently, the following man entries serve to give details about status and use of available packages:

man cernlib
man dzedit
man geant
man herwig
man isajet
man jetset
man minuit
man patchy
man paw
man pdflib and
man zftp

The path to the CERN library area on UX5 and STARDENT begins with

/home/ux5/ux5c/phyd/cern

All files that are common to both UX5 and STARDENT are downstream from subdirectory "sun" while those unique for STARDENT are downstream from subdirectory "stardent". I suggest that you set the environment variable CERN_ROOT:

setenv CERN_ROOT /home/ux5/ux5c/phyd/cern

Then you find all files in

$CERN_ROOT/sun/*.

Versions of files that are different for the STARDENT are in

$CERN_ROOT/stardent/*.

In linking with any library, just specify

-l<library>

where **<library>** is one of the strings listed under "LIBRARY" below.

On Sun machines, ATC-GKS and X11 are the supported graphics interfaces for CERN programs with graphics. Information about linking with these graphics packages can be gleaned from

man paw or
man geant.

The following libraries are available in

$(CERN_ROOT)/sun/lib.

Most of these are also available in

$(CERN_ROOT)/stardent/lib.

LIBRARY	PACKAGES
dzdoc	dzdoc (for dzedit)
geantlib	geane, geang, geanh, geant, geanx
genlib	gen
graflib	hplot5, higz, gkspack
herwig	webber LUND Monte Carlo
isajet	p-p, pbar-p Monte Carlo
jetset73	LUND Monte Carlo (Jetset73 + Pythia55)
kernlib	kerngen, kernnum
minuit	minuit
packlib	cspack, epio, ffread, hbook4, iopack, kapack,kuip, minuit, zbook, zebra, zcedex
pdflib	pdf
pawlib	paw, comis, sigma

• NEWS

ZFTP, the interplatform ZEBRA File Transfer Utility is now fully operational on the CSA Cluster, SUNs & SPARCStations, and between these two platforms and one or more FNAL platforms. See more below.

Recently installed:

CMZ Version 1.38/05 ....(in CERN$CERNEXE)
COMIS Version 1.12/00 ....(in CERN$PAW_LIB)
EURODEC Version 2.05/00 ....(in CERN$EURODEC_LIB)
HIGZ Version 1.13/04 ....(in CERN$GRAF_LIB)
JETSET Version 7.03/00 ....(in CERN$JETSET73_LIB)
PAW Version 1.12/01 ....(in CERN$PAW_LIB)
ZEBPACK Version 1.00/04 ....(in CERN$DZDOC_LIB)
and
JETNET Version 2.00 ....(in JETNET$LIBRARY)

• LAST MONTH

✔ CERN$PACK_LIB now contains all CSPACK routines.
✔ DZEDIT, a ZEBRA Bank Documentation and Display System.
✔ Some new ZEBRA manuals.

• GENERAL INFORMATION

On the CSA Cluster and on LAN workstations, if the required disks are mounted 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.

CERN libraries are updated at unpredictable times. Changes are documented in the "Program Library News" section of the CERN Computer Newsletter. Past, current, and sometimes future issues can be found in `Cern$Inform:PROGLIB.CNLxxx`. Of particular interest are news regarding the status of obsolete routines. In some cases a previous version of an object library is saved as `xxxxx.OLD`.

The recommended method to access the latest standard object libraries is to use logical names `CERN$*_LIB`. For these names and other details please see the help text in

```
Help Cern
```

On the CSA cluster, ATC-GKS, X11, and DI3000 (only on CSA2) are the supported graphics interfaces for CERN programs with graphics.

• GEANT

GEANT 3.14 was released in November 1990. The default object library is always built by using newly released PATCHY correction cradles. The unmodified library is `Cern$Library:Geant314.Olb`.
The latest GEANT changes are noted in `CERN$INFORM:GEANT_CORR.HISTORY`.

• JETNET

A program package containing an artificial neural network (ANN) is available, courtesy of Dave Lambert of the Physics Division. Version 2.0 of JETNET is available as an object module,

```
JETNET$LIBRARY:JETNET20.OBJ.
```

You can also access documentation by disposing the TeX output **JETNET$LIBRARY:JETNET20.DVI** to a printer. The program was written by members of the Dept. of Theoretical Physics, University of Lund, Sweden.

• X11 GRAPHICS

Instead of using ATC-GKS drivers for GEANT and PAW graphics displays, you can use X11 drivers, which may result in faster display tasks. You may run `PAW$LIBRARY:PAW_X11`, or may link your `GEANT.EXE` with X11 drivers. If you use `Cern$Library:Geant.Lnk` to link your Geant, the first question will let you specify X11. Note that prior to running an X11 program from a non-X11 device, e.g., from a VT240 terminal, you may need to SET DISPLAY ... Please see the LBL Computing Newsletter, Aug. 1990, Pg.4, for details.

• ZFTP

The interplatform ZEBRA file transfer program ZFTP is now fully operational on the CSA cluster, the SUNs & SPARCStations, and various FNAL platforms.

Thus, for example, one can merely type

```
zftp fnal.fnal.gov <cr>
```

to initiate a connection between the local node and a FNAL node, and proceed to transfer ZEBRA direct-access files, etc., back and forth. The program has many other ftp-like options. For a manual, dispose the LaTeX file

```
Cern$Inform:CSPACK.DVI
```

Forward comments and questions to me at x4398, or

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

THE WORKSTATION SCENE

[28.11.1]

NEW MACINTOSH PRODUCTS

. . .from Workstation Member Bruce Burkhart

(Model Numbers and Pricing in the following article are for LBL procurement and not for personal purchases. Contact the Scholars' Workstation at 642-8424 for employee purchase information)

The PowerBook Laptops

Three Mac laptops were introduced at last month's Comdex/Fall '91 show in Las Vegas. All of the models come with 2 Mbytes of RAM memory soldered to the logic board. An additional 2 Mbyte (M1032LL/A, $251) and 4 Mbyte (M1033LL/A, $566) expansion kit is available. (Apple has announced that the 4 Mbyte memory expansion kit will not be available until February, 1992.) All models are expandable to 8 Mbytes of RAM memory. The laptop memory is a brand new technology, it's expensive and will be in short supply for some months to come.

All three models will be delivered with an AC Adapter and System 7.0.1, including AppleTalk Remote Access. In brief, this new software allows one Mac to call another and to access its files and services. However it does not let you link two entire networks together. It also supports a large variety of modems, and will fit in nicely with the file-sharing features in System 7. AppleTalk Remote Access (M0033LL/A, $125)—needs 4 Mbytes memory to run and is also available for a Mac Plus or later models using System 7.

- All models have built-in trackballs; however, an optional low-power ADB Mouse can be attached (M0142, $64).
- The screens on all three models were exceptionally bright, with good contrast. Although there is some "submarine" action with the cursor/arrow when you move around the screen quickly, it isn't too bad.
- A carry case will not be included. Third Party developers should soon have PowerBook Gucci bags in most any size, shape and description.

PowerBook 100

The PowerBook 100 is your basic, low-end Chevrolet model (M0567LL/A, $1563). It has a 16 MHz 68000 low power co-processor, 2 Mbytes of memory, a 20 Mbyte Hard Disk, a sealed lead-acid battery (2-4 hour life), a 9 inch backlit supertwist LCD (640 400 pixel) screen—it looks great! The PowerBook 100 does not include a built-in floppy drive. Size: 1.8 11 8.6 inches. It weighs 5.1 pounds. It you really need a floppy drive, order the PowerBook 100 with an external floppy drive (M1045LL/A, $1699).

The Workstation Group Laboratory, home of several Workstation members as well as the *Workstation Evaluation Library* is located in Bldg. 50B, Rm. 2231. The hours are:

Mon	8 AM - 1 PM
	3 PM - 4:30 PM
Tues - Fri	8 AM - NOON
	1 PM - 4:30 PM

You can also reach us from ICSD's UNIX machines or the VMS cluster by sending mail to:

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

We're here to help; please call us at x6858.

- An interesting option for the 100 model is the HDI-30 SCSI Disk Adapter (M2539LL/A, $31). This Adapter lets you use the PowerBook 100 as an external hard disk with another Macintosh system (a very quick way to transfer files). It also has
- an optional Fax/Data Modem (M0970LL/A, $220), and
- an additional Rechargeable Battery (M1183LL/A, $62).

PowerBook 140

The PowerBook 140 is an upscale Buick model. It has a 16 MHz 68030 co-processor and a built-in floppy drive. It weighs 6.8 pounds. The PowerBook 140 comes in three models:

- 2 Mbyte, 20 Mbyte Hard Disk model (M0511LL/A, $1971),
- 2Mbyte, 40 Mbyte Hard Disk model (M1049LL/A, $2175), and
- 4 Mbyte, 40 Mbyte Hard Disk model (M1227LL/A, $2379).

- The PowerBook 140 has a 10 inch backlit supertwist LCD screen.
- Apple changed the battery for the 140 and 170 models. It's a Ni-Cad, rated for 2-3 hours.
- The 100 and 140 models do not have math co-processor chips.
- Size of the 140 and 170 models is 2.25 11.25 9.3 inches.
- The Fax/Data Modem is optional for the PowerBook 140.

PowerBook 170

The PowerBook 170 (M1057LL/A, $3127) is the Cadillac of the PowerBooks. It has a 25 MHz 68030 co-processor and 25 MHz 68882 math chip, 4 Mbytes of memory, a 40-Mbyte Hard Disk, internal floppy drive and Fax/Data Modem.

- There is an extra rechargeable battery for both the 140 and 170 models (M5545LL/A, $62) and an extra 140/170 Battery Recharger (M1027LL/A. $100) that uses the AC Adapter.
- Unlike the other two PowerBooks, the Model 170 has a 10 inch backlit active matrix LCD screen (like the old portable).
- The PowerBook 170 weighs 6.8 pounds (any computer under 7 pounds is usually considered a laptop).

The Macintosh Quadras

The Macintosh Quadras are 25 MHz 68040-based machines with new faster SCSI controllers, improved NuBus data transfer rate,built-in Ethernet adaptors, and improved on-board video support. Guesses as to speed improvement vary from 40-80 percent over the Mac IIfx. Apple isn't talking about it, but there could be a major compatibility issue with the Quadras. Some sources have reported a failure rate of up to 15 percent of all software (the current versions of Microsoft *Word* and *Excel* do not work on the Quadras). Although many of these incompatibilities will be fixed soon, you may not want to be the first one on your block to order a Quadra.

Quadra 700

The Macintosh Quadra 700 has 4 SIMM slots, two NuBus 90 slots, and is similar in size to the Mac IIci. The Quadra 700 comes in three configurations, each with 4 Mbytes of RAM memory:

- 1 floppy drive and no hard disk (M5921LL/A,. $3590),
- 80 Mbyte Hard Disk (M5922LL/A, $4031),
- 160 Mbyte Hard Disk (M5923LL/A, $4409).

An upgrade path from the Mac IIci to the Quadra 700 will not be available until early 1992.

Quadra 900

The Macintosh Quadra 900 (called the Tower) has 16 SIMM slots, five NuBus 90 slots; it comes in two configurations, each with 4 Mbytes of RAM memory

- 1 floppy drive and no hard disk (M4210LL/A, $4535),
- 160 Mbyte Hard Disk (M4230LL/A, $5354).

The Mac Classic II

Another addition to entry level computing is the Classic II. This new Classic model sports a 16 MHz 68030 co-processor, (twice the speed of the original Classic) 2 SIMM slots, and an option for a larger hard disk. The Classic II does not have an expansion card slot, but does have an available slot for a 68882 (math chip) or future ROM upgrade. The Classic II is not intended to replace the discontinued Mac SE/30.

- The Classic II comes in two models:
  - a 2 Mbyte, 40 Mbyte Hard Disk (M1540LL/A, $1291),
  - a 4 Mbyte, 80 Mbyte Hard Disk (M1542LL/A, $1631).
- The original Classic (M0435LL/A, $1019) 8 MHz 68000 co-processor, 2 Mbyte, 40 Mbyte Hard Disk model is still available.

Promotional Bundles

Apple has put together an extensive array of Macintosh Classic, LC, and Mac IIsi computer/printer packages. The list is long: call the Workstation Group , x6858, for details. If you are in the market for a StyleWriter or Personal LaserWriter printer to go with your Mac, you shouldn't miss this special pricing. Bundle prices are good through the end of the year.

You may have heard the rumor that Apple is including a free Cache Card with Mac II ci's purchased after October 21. It's true.

NEW APPLE PRINTERS

The LaserWriter IIf

The LaserWriter NT and NTX are history. As of October 21, the LaserWriter IIf (B0627LL/A, $2267) and the LaserWriter IIg (B0628LL/A, $2897) are now the Apple LaserWriters of choice. In addition to better printing quality, speed, and increased memory capacity, both printers have

- simultaneous connection to LocalTalk and serial interfaces,
- simultaneous connection to multiple types of computers or networks,
- support for Adobe PostScript Level 2 software and HP LaserJet IIP (PCL 4+) emulation.

The LaserWriter IIf delivers 8 pages per minute; its 300 dot-per-inch resolution is enhanced with FinePrint for text and line art. It's actually a Mac IIci and it comes with a 20 MHz 68030 co-processor (twice as fast as the LaserWriter II NTX) and 2 Mbytes of RAM, expandable to 32 Mbytes. You can get the optional PhotoGrade for printing high-quality scanned images, illustrations, and graphics by increasing RAM to 5 Mbytes (any old 1 Mbyte SIMM will work).

The LaserWriter IIg

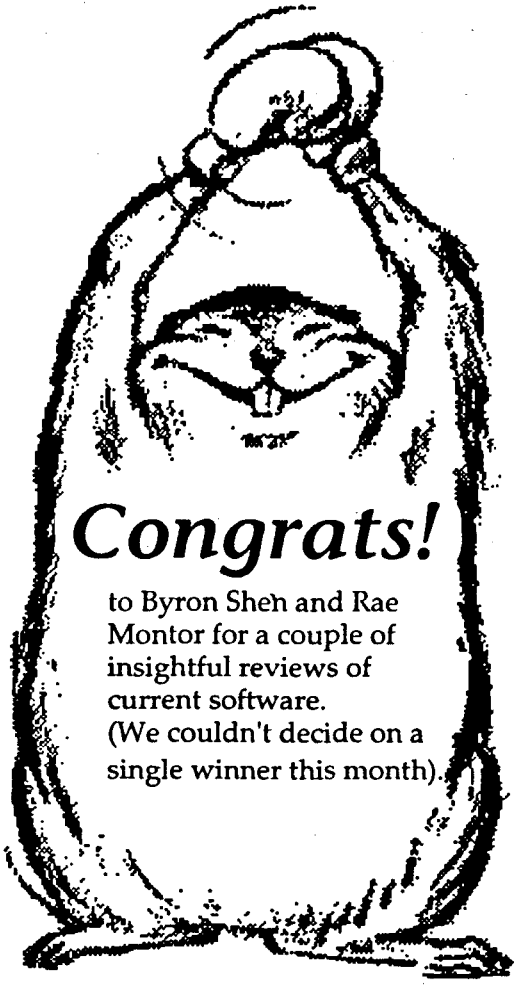
The LaserWriter IIg also delivers 8 pages per minute and its 300 dot-per-inch resolution is enhanced with FinePrint for text and line art. It also has PhotoGrade. The IIg is slightly faster than the IIf: it comes with a 25 MHz 68030 co-processor and 5 Mbytes of RAM, expandable to 32 Mbytes.

IIf and IIg Printer Upgrades

Apple has made it easy and inexpensive to upgrade the old NT and NTX models.

- The upgrade to the IIf printer from the NT or NTX models (M6501LL/A) is $676 and $576 respectively.
- The upgrade to the IIg printer from the NT or NTX models (M6500LL/A) is $1306 and $1206 respectively.

(The prices includes the credit on return of the old NT or NTX Board.) Simply order the upgrade through the Purchasing Department. When your upgrade kit arrives, call CSE (formally RTSS) at x7554, for the upgrade installation.



The contest continues. If you're an LBL employee, drop by the WKSG lab (Bldg. 50B, Rm. 2231) and choose from our stack of new software. Return your review by mid-November (on a floppy disk—in Microsoft Word or WordPerfect format). If your review makes the December Newsletter, you win a free Microsoft or Claris software package.

[28.11.2] MACDRAW PRO

The Workstation group supports and sells *MacDRAW Pro* (LBL Cost: $90); it will continue to support *MacDRAW II*, but will no longer sell it. On the Mac Plus and the SE, *Pro* requires a large amount of memory to run and execution time is slow; however, we've found that most Mac platforms at LBL are on newer Macs, where *Pro* is the preferred basic graphics program.

If you currently own a copy of *MacDRAW II* and want to upgrade to *MacDRAW Pro*, bring your original program disk of *MacDRAW II* to the WKSG lab, Bldg. 50B, Rm. 2231, with a current, valid account number. The upgrade is $49.

[28.11.3] ADDRESS MANAGER

... from WKSG member Tom Pope

✔ *Dynodex* by Portfolio Systems, Brooklyn, NY, $149.95

Let's face it, you don't always need a powerful database to manage a simple mailing list. A streamlined address book manager will do. There has been an increasing number of them for the Mac and PC on the market lately; among them I found *Dynodex*.

I had been using Power Up!'s *Address Book Plus* (or "ABP") but I've found that *Dynodex* beats ABP hands down in entry options, printing options and file size.

Shorthand

Dynodex has several options for streamlining data entry (which *ABP* lacks); the most significant of these is the Shorthand™ feature. This feature, which can be turned on or off for nearly every entry field, lets you enter "keys" of frequently-used entries. As you type, *Dynodex* "figures out" what you're typing and finishes the entry for you. If it turns out you were writing something else, the completed entry is replaced by what you actually type, so you're not locked into anything.

Other entry options include initial and full capitalization and remembered fields, which keep the value of the previous record when you create a new one — very handy for entry dates and other repetitive information.

Printing capabilities

Dynodex's printing capabilities are also very strong.

- It comes with over forty pre-fab templates for printing mailing labels, address book pages, envelopes and rolodex cards.
- It has a great layout editor for creating custom layouts.
- It gives you full control over fonts and sizes.

- It is also the first—and so far the only—program I've been able to find (and I include *FileMaker* and *4th Dimension* here) that can print on *all eleven rows* of Avery mailing label stock,

Compact file size

One more consideration in choosing a mailing list manager is file size. The mailing list I manage has about 400 records. In *FileMaker* the file was about 92K, in *ABP* it was 88K, in HyperCard (which I never actually tried) it probably would have been about 400K, and in *Dynodex* it's 42K — less than half the size of the next largest format. I'm impressed.

The only place where *Dynodex* fell short was price. At $149.95 it's more expensive than *ABP*, but its entry and printing features make it well worth it.

[28.11.4]

CORRECT GRAMMAR FOR WINDOWS

. . . a Review from MCSD's Byron Shen

✔ *Correct Grammar* for Windows, Lifetree, $99.

Although major word-processing programs come with built-in spell checkers, they are not able to spot simple typos such as "to small", "from/form" and so on. A grammar checker can (at least tries to) parse and analyze your sentences, checking grammar, punctuation and style.

Correct Grammar for Windows works with any Windows applications. It also includes a 135,000-word spell checker, so you can use it to spell-check your Windows spreadsheet, presentation, and desktop publishing programs that have no built-in spell checker. It is easy to install and simple to use, and fairly fast. I compared it with *Grammatik for Windows*, the best-seller in the category. I was rather surprised to see that it bests *Grammatik* in grammar-checking. Although its interface shows some rough edges, and the context-sensitive tutorials are too laconic, it is the power which matters. The program works interactively, sentence by sentence. You simply select the text and copy to the clipboard, and then choose "Correct Grammar" from the System menu. (You cannot do that with *Grammatik*.) You can also choose to open your document in *Correct Grammar*. You can disable a particular rule temporarily or permanently to accommodate your own preferences. You can install it as a menu option in *Word for Windows* or *AmiPro for Windows*. It also works with major DOS word processors such as *WordPerfect* and *Microsoft Word for DOS*. The DOS and Macintosh versions are also available.

If English is not your mother tongue, you should get *Correct Grammar* soon. While it won't transform you into a linguist, it will help you improve your English. Even if you are a native, it is still useful and handy to help proofread your writing although nothing can replace a skilled human editor. Do not expect any grammar checker to be 100 percent effective no matter how sophisticated the program might be. English is just too complex and illogical.

You can reach Byron at x5320

[28.11.5]

NEW BOOK ON FILEMAKER PRO

. . . from WKSG member Carole Casaretto

Finally, *Filemaker* users have a supplement to the manual. There is a new book on the market called "The Macintosh Bible Guide to FileMaker Pro," by Charles Rubin and I'm happy to report this book is written very well. It promotes good database management practices and offers many helpful hints. There is even a troubleshooting section at the end of most chapters where you will find some of the most common problems and their solutions. I certainly would not throw the manual away and use this book instead, but it does fill-in enough gaps to make it well worth reading. I would especially recommend this book to the new *FileMaker Pro* user.

The first three chapters cover introductory concepts, terms, and creating a database. The remaining chapters (Four through Twelve) cover a variety of subjects, from entering and changing information to using *FileMaker Pro* on a network.

If you would like to take a look at this book, please stop by my office (Bldg. 50B, Rm. 2239) in the Workstation Group sector. You can order it through the Information and Computing Sciences Division Library. ISBN Number is 0-940235-22-6. It's published by Goldstein & Blair, Box 7635, Berkeley, CA 94707. Cost per copy is $18. (Call Jeanine Augst, x6922).

[28.11.6] *MINDWRITE*: AN OUTLINE PROCESSOR

. . . Rae Montor, of the Chemical Bio-dynamics Division, has mixed emotions . . .

✔*MindWrite* from Deltapoint, Inc.

Although its manual says it's a word processor. 'tain't so. *MindWrite* is an outline processor: if you have trouble organizing your thoughts, and want to be able to "develop your document from a list of topics," *MindWrite* can be a nifty little product.

It allows you to hide or show text in subtopics, so you can "focus your attention on details or the big picture."

Here's an example of a *MindWrite* outline:

- ◆ Review
  - ✧ Introduction
  - ◆ Good Points
    - ◆ Good outline processor
      - ✧ Quick Keys for entering and changing levels
      - ✧ Can change fonts/formats for all heads at once
    - ✧ Can move text with the mouse
    - ✧ Can highlight changes by date
    - ✧ Has accumulating clipboard
    - ◆ Has neat options
      - ✧ Homonym dictionary
      - ✧ Go to page
      - ✧ Check spelling in changed sections only
      - ✧ Check for double words
  - ◆ Bad Points
    - ✧ Not a word processor
    - ✧ Sluggish typing response
    - ◆ No real document formatting
      - ✧ Mickey Mouse
    - ✧ Memory hog
  - ✧ Conclusion

As you can see, this works in levels. Level one, "Review," is the overall heading. If this were a *MindWrite* document on your screen, you could double-click to the left of the black diamond next to "Review," and the rest of the document would disappear, folded under the heading. You can do the same thing on each level, closing and opening sections simply and rapidly. And you can easily tell which headings have items hidden under them: the white diamonds turn black as soon as you add copy. (And when sections are closed off, you can select their headings and change fonts and formats in one pass — a feature which can be a real timesaver.)

What's more, you can print your choice of levels—e.g., headings only for making overheads or handouts, and then the entire thing for podium notes; or exams for students, and exams with answers for TA's.

It is also extremely simple to create new levels: *MindWrite* has its own Quick Keys for indenting to a new level, backing a line up a level, and otherwise reorganizing your work. In addition, you can rearrange the whole thing simply, if oddly.

The Grabbing Hand . . .

With *MindWrite*, the pointer that used to look like an arrow or an I-beam has become a hand — and, more, a hand that actually closes, pinching the beginning of whatever section you might wish to move with the mouse (entire sections only). You then drag the line or paragraph where you want it (in an appropriate hierarchical place, not in the middle of a paragraph), and let go. (It's a little hard to tell precisely where you're putting the words you're moving, especially if you're trying to insert them between two adjacent lines, but you can always try again — or go back to good old Cut and Paste.) Basically convenient, but a trifle spooky.

MindWrite . . . is treated by its parent company like an unexpected cuckoo bird hatched in a starling nest.

Highlighting Current Changes . . .

MindWrite also has what looks like a serious goodie: it highlights text changed since last review to speed approval cycles. You can, in fact, ask it to highlight any changes that have occurred since a particular date — good for catching up those out-of-town-at-the-time types. Clearly, in situations where multiple approvals are needed on several levels, this can be quite wonderful.

And *MindWrite* has quite a few nice extras, especially in the spellcheck department. Among these:

- a homonym dictionary,
- the option of checking for double words (to make up for those interrupted typing moments when you go brainless),
- the option of checking the spelling only in changed sections,
- a "go to page" option (although I've always used "Find" in Word without any trouble).

So what's wrong with it? Read on.

Some shortcomings

First off, it's not a word processor. It can't type as fast as I can; there's no real way to format a document as a whole; its margin settings are idiosyncratic; it won't even show me spaces between words; and, worst, its intrinsic structure affects the way one thinks when using it.

✖ Most important from my point of view, the very process of creating outlines in this format leads one to think in headline bytes—a kind of reflexive Gannett-thought. This does not promote (and is, in fact, counter-productive to) easy flow of sentences; it certainly does not allow for the descriptive narrative required by magazine articles, experiment documentation, or grant proposals, or give room for the emotional tones required for delicate negotiations. This is very much a brisk and to-the-point idea jotter.

✖ Its typing response time is also unnervingly sluggish: I can see the words coming up on the screen after I've finished typing them. It feels—as the letters appear, one-at-a-time—as if an alien teletype was at work, or a movie of a typewriter. This is not a Mac wordprocessor. Trust me.

✖ Formatting is not an option:

- There is no reasonable way to set margins, and no way at all to format the document as a whole. You set left margins by using arrows in the ruler, but the Print dialog box won't let you set them below .417" (still too narrow to print on a laser printer). The right margins, however, can only be set by using the arrows, but they sometimes reset themselves, and you have no way to insure that the actual size of the document will fit into the space allowed by your printer.
- In addition, the top and bottom margins are irrevocably set at .5", with the addition of "header" and "footer" lines (which seem to be separate from Headers and Footers with copy in them). If you want larger margins (for use with stationery, for example), you have to convert the number of inches you want to the measurements in the "header" line (which are in "lines" — i.e., 12 point lines, each being 1/6 of an inch). In fact, if you use a larger font size in your "Header" than is used in your "header" lines, and if you aren't careful, you'll get printover.
- And, of course, there is no "Print Preview" feature. Disney's Mouse would be proud.

✖ Word Count???

As another indicator of the thought processes that went into programming this item, *MindWrite* does word count by giving you the number of characters, followed by a divisor of your choosing, to determine number of "words". It doesn't employ the concept of spaces between groups of letters delineating words at all. 'Nuff said?

✖ It's a bit of a memory hog,

with 1 meg suggested (although only 512K is required, and 700K is "what most people are using.")

All in all, my guess is that if *MindWrite* had been marketed specifically as an outline processor, an idea organizer, or a "does it all for you" proposal and report writer, and called something like Executive Secretary, it would be much better received. But as it is, it's a single-purpose, quirky critter that disappoints the expectations its marketing raises: it's an application that hasn't been upgraded in nearly two years, and is treated by its parent company like an unexpected cuckoo bird hatched in a starling nest.

Rae can be reached at x6900.

YES, I would like to receive the LBL Computing Newsletter

NAME .....

ADDRESS .....

.....

CITY

STATE .....

ZIP

PHONE .....

Return to .....LBL Computing Newsletter
Computer Center Library - MS 50F
One Cyclotron Road
Berkeley, CA 94720

Attention: NL MAILING LIST

COMMENTS, QUESTIONS, SUGGESTIONS FOR FUTURE ARTICLES:

Lawrence Berkeley Laboratory
Computer Center Library - MS 50F
One Cyclotron Road
Berkeley, CA 94720
ATTN: Newsletter Mailing List

NAMES AND NUMBERS TO KNOW

From on-site, dial <xxxx> From off-site, dial (510) 486-<xxxx> From FTS line, dial 451 <xxxx>

INFORMATION AND COMPUTING SCIENCES DIVISION

Director: Stewart Loken (SCLoken)	7474	50B	2232E
Deputy Director: Sandy Merola (AXMerola)	7440	50B	2232C
OFFICE OF COMPUTING RESOURCES			
Head: Dave Stevens (DFStevens)	7344	50B	2270B
INFORMATION AND COMPUTING RESOURCES			
Head: Sandy Merola (AXMerola)	7440	50B	2232C
ADVANCED DEVELOPMENT PROJECTS			
Head: Dennis Hall (DEHall)	6053	50B	3238C
COMMUNICATIONS & NETWORKING RESOURCES			
Head: Bob Fink (RLFink)	7083	50B	2258B
NETWORK SYSTEMS			
Bob Fink (RLFink)	5692	50B	2258B
COMMUNICATIONS & NETWORKING FACILITIES			
Sig Rogers (SGRogers)	6713	50B	2258F
INTEGRATED COMMUNICATIONS SYSTEM OFFICE			
Head: Sam Gibson (FSGibson)	4234	50B	2258D
TELEPHONE SERVICES			
Linda Smith (LKSmith)	4440	50B	2267J
ICS SERVICE CENTER			
Richard Gregory (R_Gregory)	7947	50B	2267K
ICS OPERATIONS ENGINEER			
Cindy Wood (CLWood)	4777	50B	2258E
COMPUTING SERVICES			
Head: Marv Atchley (FMAtchley)	5455	50F	117
Deputy: Harvard Holmes (HHHolmes)	5742	50F	115
Central Office	5871,2	50F	125
VMS SYSTEM			
Eric Beals (ERBeals)	5351	50F	143
UNIX SYSTEM AND DISTRIBUTED PRINTING			
Craig Eades (CAEades)	6569	50F	146
UNIX (DHDavis)	5336	50F	110
Distributed Printing (RERendler)	5629	50F	129
System Manager: Roger Cochran (RJCochran)	5565	50F	127
USER RESOURCES			
Accounting	7008	50B	1232A
HELP DESK	5981	50B	1215
Math Libraries	4749	50F	114
Document Management	5534	50F	132
Opening a New Account (PSBean)	7008	50B	1232A
UNIX and Cluster:			
Software Acquisition & Management	5534	50F	132
GRAPHICS			
Nancy Johnston (NEJohnston)	5093	50F	145
COMPUTING FACILITIES			
Connecting a Remote Terminal	5354	50B	2215
Terminal Repair			
Paul G Murray (PGMurray)	5354	50B	2215
Operations Area	6211	50B	1215
Duncan Connor (DJConnor)	6211	50B	1225
Dan Van Zile (GDVanZile)	5534	50F	132
WORKSTATION GROUP			
Acting Group Leader:			
Sandy Merola (AXMerola)	7440	50B	2232C
Software Evaluation and Acquisition	6858	50B	2231
IMAGING TECHNOLOGY GROUP			
Head: William E. Johnston (WEJohnston)	5014	50B	2276

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			
William Jaquith (WDJaquith)	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 -	129
AppleTalk & Kinetics FastPath Support	5354	50F -	2215

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

IP Numbers for CSA Cluster:
CSA1.....128.3.254.196
CSA2.....128.3.254.197
CSA3.....128.3.254.198

ICS

ICS Access Names

[VAX 65xx's (Generic).....CSA]

VAX 6510 (VMS)	CSA1
VAX 6510 (VMS)	CSA2
VAX 6510 (VMS)	CSA3
SUN-3/280 (UNIX 1)	UX1
SUN-3/180 (UNIX 3)	UX3
SUN-4/490 (UNIX 5)	UX5
SUN-3/180 (ISD)	ISD

Dial-up Access Numbers for ICS

Incoming Baud Rate	Connect Baud Rate	Number
3/12/2400 BPS	3/12/2400 BPS	486-7930
3/12/2400 BPS	9600 BPS	486-7900
9600 BPS	9600 BPS	486-7996

Local TYMNET Access Numbers for ICS

	1200 BPS	2400 BPS
Oakland	430-2900	633-1896
Walnut Creek/Concord	935-0370	935-1507
San Francisco	974-1300	543-0691
Santa Clara	408-432-3430	932-8618
Palo Alto	415-366-1092	361-8701
San Jose	408-432-3430	432-8618
Fremont	510-490-7366	490-7366
Davis	916-758-3551	
Burlingame	415-588-3043	
Vallejo	707-644-1192	
Antioch	754-8222	
Pleasanton	462-2101	

NERSC Consulting Number is 510-422-1544

Lawrence Berkeley Laboratory
Computer Center Library - MS 50F
One Cyclotron Road
Berkeley, CA 94720