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OCTOBER
1991

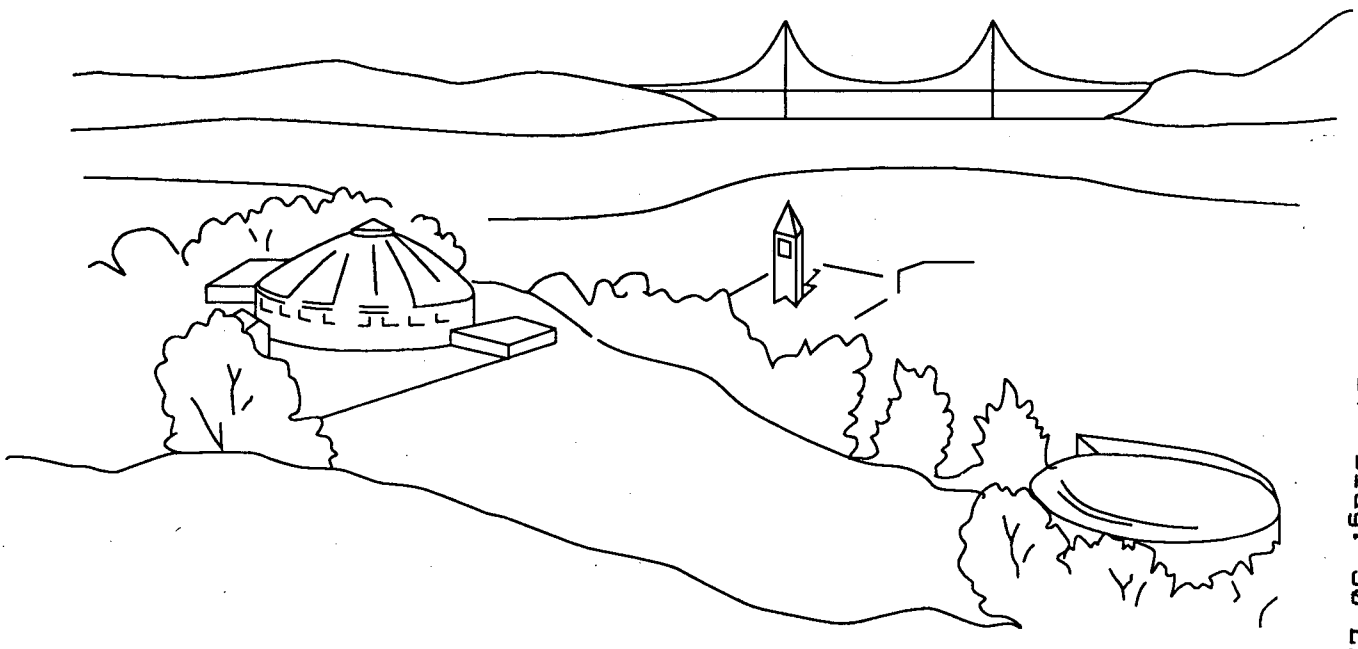
COMPUTING NEWSLETTER

UNICOS CLASSES AT NERSC

NORTON DESKTOP FOR WINDOWS

maX.500

ENTREZ



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Newsletter Closing Date is Wednesday, October 16, 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

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NEWS FROM NERSC

UNICOS CLASSES AT NERSC

To help NERSC users make a smooth transition from CTSS to UNICOS, classes in UNICOS are being offered at LLNL. These classes will be presented every month, continuing until all customers have had the opportunity to attend. The scheduled class dates are:

- **October 15-18**
- **November 15-18**
- **December 10-13**
- **January 14-17**

Further classes will be scheduled as needed.

The first two days of each class will be for customers who need an introduction to the full range of UNIX and UNICOS capabilities. A comparison of CTSS and UNICOS commands and capabilities will be stressed. The third day will be on shell scripts, with classroom exercises in the afternoon. Comparison between COSMOS and shell scripts will be emphasized. The fourth day will be on the CDBX debugger and the NQS batch system. Comparisons between DDT and CDBX and between BATCH and NQS will be emphasized.

These hands-on classes will be held in a classroom with 30 terminals and access to the UNICOS machine. Here is an outline of each class:

DAY ONE:

Introduction
Communication commands
VI and ED editors
File structures
Directory commands
I/O
File manipulation commands (compare CTSS and UNICOS utilities)
Regular expressions

DAY TWO:

Introduction to shell features
User environment
Special characters

DAY THREE:

Shell parameters and special variables
Shell functions
Advanced shell scripts

DAY FOUR:

NQS batch environment
CDBX debugger
Converting your codes to run on the UNICOS system

Classes will be limited to 30 people. The classes are free; workbooks and other documentation will be provided.

To register for the class, call the consultants at (510) 422-1544 or send E-mail (**tell consultants** on CTSS machines or **mailx consultants** on UNICOS).

Class attendees should be U.S. citizens. It may be possible for some non-citizens to attend, depending on Laboratory regulations. It will take at least 30 days to get the non-citizens badging process completed, so you should plan your trip accordingly and check with the Consultants for further details.

Please provide the following registration information:

Name:
Company:
User number:
E-mail address
Phone number:
U.S. mail address:
Which days of the class you will be attending:
Social Security Number (if you are not an LLNL employee):
Country of citizenship:
Other info: (Do you need **directions** on how to get there, do you want information on **hotels, etc.**)

VIDEOTAPES OF CRI CLASS AVAILABLE

The Cray Research, Inc. (CRI) "Introduction to UNICOS" four-day course that was presented to NERSC staff was videotaped: copies of these tapes are available for distribution. A UNICOS workbook will be sent with these 12 tapes. To obtain a copy of these tapes, please send E-mail to the consultants. This class followed the same course outline as the classes being presented and uses the same workbook provided by CRI.

Consultants are also available to go to customer sites for those who need additional help in code conversion and UNICOS instruction. NERSC has sent staff members to the Superconducting Super Collider to help them become familiar with UNICOS and to present application code classes. A CRI trainer and a NERSC programmer presented an introductions to UNICOS and offered help in code conversion at Oak Ridge and Princeton in August. If you need this service at your site, let the Consultants know so they can schedule their visits.

From Jean Shuler, Group Leader, User Information Systems, NERSC

FOCUS NEWS

FOCUS USER'S MEETING

Esther Schroeder

To communicate better with the various FOCUS users at the Laboratory, we have decided to resume periodic meetings of the FOCUS users. The purpose of these meetings will be—

A) to let Data Processing staff provide users with up-to-the-minute information about FOCUS & Toolkit changes and improvements,
B) to let those users keep Data Processing staff informed of needs and concerns, and
C) to provide a forum where users can share their concerns and solutions with each other.

Our first meeting will be on Tuesday, October 8th at 2 PM in the Training Room, Bldg. 50B, Rm. 1237. Tentatively, the agenda will be as follows -

A) Demonstration of recent enhancements to the Toolkit -
1) Property Clearance reports,
2) Purchase Order reports,
3) EXP reports from the General Ledger,
4) Training Database,
5) Sumsets, etc.

B) Discussion of the new ledger formats. Although we talked about it last fall, nothing was done; we have to convert to the new format with FY92.

C) Discussion of what features should next be incorporated in Toolkit II.

We encourage new users—as well as those who use the Toolkit—to come regularly. If you have a particular concern that you wish to have addressed, please call me at X5306 or

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

NEW FOCUS CLASS FOR BEGINNERS

Marilyn Graham

Information Builders, Inc. has recently announced a new beginning-level course called **FOCUS Basic Reporting for End Users.** This course (taught by an IBI instructor) will be offered at LBL October 30 thru Nov 1, 1991, from 9 AM to 4:30 PM in Bldg. 50B, Rm. 1237. Approximate cost, which will be adjusted according to the number of students attending, will be between $350 to $450 (somewhat less than the $550 it would cost for the same class in San Jose or San Francisco).

The new reporting class will emphasize hands-on experience with typical business applications, rather than syntax presentations. It's the course to take for anyone new to FOCUS. In addition to reproductions of the course presentation overheads, the students will receive a 200-page reporting manual that fully explains the course material for reference back at the office. Topics include an overview of FOCUS, selectively retrieving data, performing calculations, creating new fields, reporting from multiple files, and creating extract files and graphs.

Class size will be limited to 15 students.

For more information or to enroll, please call Marilyn Graham at x5688 or

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

GRAPHICS NEWS

NEW RELEASE OF NCAR

Nancy Johnston

The latest versions of the NCAR graphic libraries (3.0 for VMS and 3.01 for UNIX) are available for testing on Suns and VAXs running VMS. These new versions will replace the current (old) libraries on October 28. You'll find more information on the new libraries in the following README and CHANGES files:

/graphics_export/ncar.new/lib_sun4
(for UX5 and csr),

/graphics_export/ncar.new/lib_sun3 for
(UX1 and UX3)

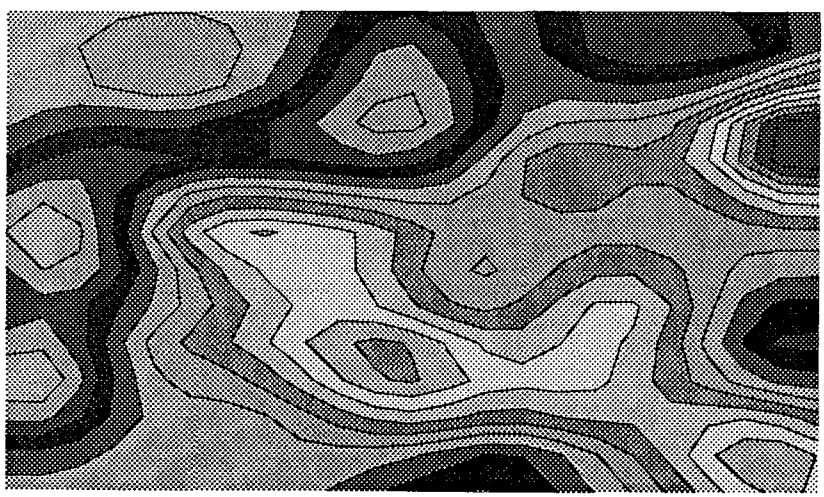
sy_graphics:[ncar_new]
(for VMS)

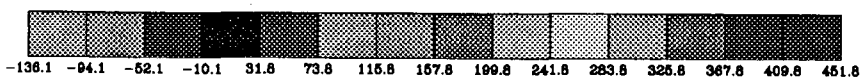
Changes

- NCAR has added a new set of contouring routines (see New Features below) which replace the previous sets of contouring routines. Thus, some of the sets of contouring routines (**conras, conraq**) are no longer in the NCAR library but are still distributed as separate object files. These routines will have to be loaded separately. (See the subdirectory "tests" to show how these new object files are loaded).
- NCAR has distributed a whole new set of examples which test the new contouring routines, Autograph, color, mapping, etc. These tests are available in the "examples" subdirectory on VMS and UNIX. The previous examples in the subdirectory "examples" have been moved to the subdirectory "tests". (This better reflects the organization of the NCAR release.) Both of these subdirectories have example Makefiles to show how to load NCAR.
- Now that NCAR supports more complete color contour lines, the locally-created routines **tcolran** and **tcolras** are no longer available.
- With the addition of color, users need to be careful about using the X11 driver (from ATC's GKS). The default configuration when you open the X11 driver is to only allow you to use 16 colors. This can be modified. For example:

```
      integer wtype, conid
      character*50 wsfile
      data conid /1/
c
      wtype = 5300
c
c     Set 100 colors for X11 driver — ATC GKS specific
      wsfile = '-nc 100'
      call gopks (6, 0)
      call guesc050 (conid, wsfile)
      call gopwk (1, conid, wtype)
      call gacwk (1)
```

Example





We really wanted you to see this example in color, but we couldn't, so you must envision in your mind's eye the Tidee-bowl Blue, the pond-scum green, the pigeon-visit yellow, the old inner-tube red, etc.

New Features

- NCAR has replaced the different contouring routines (**conrec, conrcspr, conrcqck, conran, conras, conraq**) with a new set of contouring routines which draws black-and-white or color contour plots from regularly-spaced (gridded) data. For random data, users are advised to first use BIVAR to interpolate from random data to gridded data, and then use CONPACK to produce the needed contours. The BIVAR routines are located in a separate object file.
- The other contouring routines are still available; check "Changes" above to see which ones have been moved to a separate object file.
- There is a new set of routines to convert from one color system to another. The color systems supported are HLS, HSV, RGB, and YIQ.
- **Plotchar** is a new utility for plotting high-quality characters using the Hershey character set. Character quality, text size, angle, and position, and sub- and superscripting are available. Use this new routine instead of the **pwritx** and **pwrity** routines.
- Another new utility is **Labelbar,** which draws a rectangular bar that may be filled, using color or patterns, and labeled to serve as a key for a filled plot. (See the example picture.)

Forward comments and questions to me at x5093 or

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

VISUALIZATION CORNER

Wes Bethel

This is the first in what will be a continuing monthly series of articles giving "how to" recipes for performing various types of visualization tasks.

What exactly is "scientific visualization?" Broadly speaking, scientific visualization is a "cyclic" process whereby data is transformed into images. From images, a scientist gains understanding or insight into either the data or the process that produced the data. Then, to complete the cycle, the scientist may use the newly-gleaned insight to alter parameters in the experiment or simulation, resulting in a new set of data. The ultimate goal of scientific visualization is scientific insight.

Visualization often results in static images, but it is entirely appropriate to consider dynamic images (movies) as well as audio as the result of a "visualization." Using movies to display data can have a dramatic impact, especially when used to display data which is time dependent in nature.

Scientific Visualization is an amalgamation of the largely independent fields of computer graphics, image processing, computer-aided design, signal processing and user interface studies. Computational scientists, "visualization" engineers, system support personnel, artists and cognitive scientists all have made meaningful contributions to the visualization pipeline.

Scientific Visualization has many different benefits. With the advent of software packages such as the Application Visualization System, the scientific users and consumers of visualization have at their disposal an integrated set of portable tools. It is possible to make scientific progress which has been hitherto difficult or impossible using these visualization tools (combined with faster and less expensive computing hardware, which in turn fosters the development of better visualization tools). Scientific discoveries can occur on a more frequent basis, as more and more time is spent "looking" at the data, rather than constructing tools (over and over again), or writing computer programs, to image the data.

At present, there are two broad classifications of visualization techniques, both of which result in images (there is an analogous category for producing audio output, but this discussion will be limited to the visual medium). These are called "pixel/voxel" rendering and geometric rendering. In both categories, the goal is the visualization of the abstract.

Pixel/Voxel Rendering

In pixel/voxel rendering, the data is an image, a "stack" of images (either computed or observed) along with some underlying structure (either explicit or implied). Next, the native format is converted into an image. Generally, this involves the use of some mapping from scalar/vector/tensor space into some color space.

Geometric Rendering

In geometric rendering, each scalar/vector/tensor data sample (generally not "images") is represented, in image space, with a geometric primitive. The "list" of geometric primitives is in turn rendered into an image.

In future "Visualization Corner" articles, we will discuss the application of an example visualization technique to some type of data. Both pixel/voxel and geometric techniques will be described.

As a postscript, the members of the Graphics Group are available for consultation in the area of visualization. The Graphics Group periodically offers an introductory-level class on the Application Visualization System (AVS). This package is well suited to many different types of visualization tasks and has been used with great success by many scientists at LBL.

Forward comments and questions to me at x6626 or

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

HUMAN GENOME CENTER NEWS

Marge S. Hutchinson
Manfred D. Zorn

NEW CONCEPT

The National Center for Biotechnology Information (NCBI), part of the National Library of Medicine, has defined a new concept for biological databases and is distributing a pre-release on CD-ROM. The CD-ROM contains an integrated view of DNA and Protein sequence data and their associated MEDLINE entries, together with a user-friendly retrieval system. We participate in the pre-release evaluation of the system and would like you to try it out and let us know what you think about it.

ENTREZ

The retrieval system **Entrez** was developed at NCBI and provides an intuitive, easy-to-use user interface for finding sequence information and associated bibliographic data. The program is currently available for Macintosh and PC/Windows. **Entrez** gives access to sequence databases, GenBank, PIR, and related citations in MEDLINE in which the sequences were referenced. A key feature of the system is the concept of neighboring, which connects like entries in the database. The user may tell it to

- find all papers about the same subject, or
- find all related sequence information.

The neighbors are connected by a precomputed statistical measure of similarity using an algorithm developed at NCBI. In addition, hard links are created between sequences and cited publications. The CD-ROM carrying the data has been copied to the Human Genome Center fileserver and can be accessed over the network using AppleShare. We describe here the procedures to install the Macintosh version, but feel free to contact us in case you plan to use the PC version.

Installation: Before you start make sure that your Macintosh has AppleShare available. To get **Entrez** you may choose to—

① copy it from a public folder:
use Public Folder (available from the Workstation group) to connect to **MDZorn** in the **csr** AppleTalk zone and fetch the **Entrez** folder.

② ftp from the genome fileserver:
ftp to UX5 from your Macintosh (either with HyperFTP or HostAccess), change directory to

```
/home/hgc/data2/DataBases/Entrez
```

and download **entrez.sea**. You need a valid userid to connect to UX5!

③ anonymous ftp from NCBI:
ftp to

```
ncbi.nlm.nih.gov
```

use "anonymous" as userid and your name as password, change directory to **entrez** and download **entrez.sea.hqx** to your Macintosh.

✔ Procedure ① requires the least amount of work since all the files are ready to use.
✔ If you got the **entrez.sea** from the fileserver, just start that application and it self-extracts all the data.
✔ The **entrez.sea.hqx** from NCBI needs to be converted using **StuffIt** and selecting the Bin/Hex conversion.

Customization
You will find a file **ncbi.cnf** in your Entrez folder. Create a folder called **Preferences** in your System Folder and move ncbi.cnf over there. This file contains information about the whereabouts of different resources such as the database and other configuration files. Open the file and change **yourharddisk** to the name of your hard disk as well as **yourdatafolder** to the pathname to your Entrez folder. Every folder in your path has to be separated by a colon.

Accessing the data
To access the database information open the Chooser and select AppleShare, switch to **twilight**AppleTalk zone and connect as guest to genome fileserver. You then select **SEQDATA** as the volume to be mounted on your Macintosh. You may close the Chooser now and an owl icon with the name **SEQDATA** will appear on your desktop ... hopefully.

Using the program Entrez
The main window shows pull-down menus for the database and the search field. The program starts out with **MEDLINE** database and the **free text** field, but you may select **Medical Subject Heading, Author Name, Abstract** or **Title** . For **GenBank** and **PIR** , the valid choices are **Author Name, Organism, SequenceID,** and **Gene** or **Protein Name.** When you pause after entering a **Select Term** the system goes off to the database to find the relevant information. Hit the **Accept** button if you want to select the terms—as many as you find appropriate. By clicking and moving you can combine terms. Hit the **Retrieve Document** button for a list of the selected items and you get an abbreviated view of the entry showing the first author or sequence entry name and the title. By clicking on the term you get the full view, including an abstract for **MEDLINE** entries and detailed sequence annotation for sequence entries. Selecting entries with the left-most box allows grouping terms to find their neighbors. The **save** button saves terms onto your hard disk; the button above it toggles between

Neighbor to find similar records, and **Lookup** to find hard links to sequence databases.

DATABASES

Table I lists the molecular biology databases currently available at the Human Genome Center at LBL. You may access sequence databases through the provided software. You can find the other databases, as well as manuals and documentation as provided by the distributors of the databases, in

`/home/hgc/data2/DataBases/`

directory on gregor and UX5.

ENTREZ: SEQUENCES

The Entrez database presents sequence information integrated with bibliographic references. It includes over 86,000 MEDLINE citations with abstracts which have been indexed under the Medical Subject Heading (MeSH) *Molecular Sequence Data* or are referenced in the sequence data. The bibliographic data are combined with over 53,000 protein sequence entries from the Protein Identification Resource (PIR) and translations from GenBank, and over 35,000 nucleotide sequences from GenBank on one single CD-ROM. The CD-ROM is distributed as an evaluation release to participating research groups and the data are available from the HGC fileserver.

For MEDLINE records, a list of its nearest neighbors has been computed by querying the record against the database using a cosine coefficient vector retrieval method developed by W. J. Wilbur et al. The relevant vectors are based on key terms from the title, abstract, and MeSH headings associated with each record and weighed in a manner to take advantage of the relative importance of the different kinds of terms. The top twenty documents become the neighborhood list and are stored on the CD-ROM. Thus, for any given MEDLINE record, 20 related documents can be immediately retrieved based on statistical similarity to the record. Although this method does not guarantee that all related articles are found or that all articles prove to be relevant for a particular record, there is a very high chance that many of them will be. Initial tests have shown that the first neighbor found is relevant to the query in about 80 of the test cases.

The sequence data have a similar neighboring scheme. Each record is compared against the database using the BLAST algorithm (S.F. Altschul, et al. *J. Mol. Biol.* **215**:403 (1990)) for finding ungapped local alignments. Thus for protein sequences, most biologically significant similarities will be classified as neighbors. However, some chance sequence similarities that do not have a biological meaning may be included as well and furthermore, because only ungapped alignments are allowed, some members of a protein family may go undetected as neighbors. For nucleotide sequences, sequence similarities are most often used to build contigs (contiguous sets of overlapping sequences) rather than finding biological relatedness. Thus nucleotid neighbors must either share common ends or be totally contained in one another in order to be considered as neighbors, in addition to having a sufficient similarity score.

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@lbl.gov**

VMS Mail: **lbl::MDZorn**

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

For comments regarding the Entrez call us or send mail to **entrez@ncbi.nlm.nih.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 nucleotide sequences		Integrated sequence information and bibliographic data
Prosite	A. Bairoch	7.10	Aug.. 91	508	patterns	Dictionary of sequence motifs
REbase	R. Roberts	9108	Aug. 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

NERSC is entering the brave new world of UNICOS. In particular, they are supporting NCAR/GKS graphics and presently can output CGM (I think binary) files. Is there an LBL utility that will take (cold turkey) a NERSC Cray-2 binary CGM file and print it out (properly of course) to an Imagen printer? Although I can convert (on the NERSC Cray) the file to Tektronix or Imagen (Impress) commands, the file grows bigtime and I would prefer not to ship such big files over FTP. Although I can guess there may be problems in the different formats of Cray binary and Sun binary, since both are UNIX machines, all is compatible, right? !! (-: Anyway, I await your wisdom. It would seem useful in the long run to have an utility at LBL that could look at CGM metafiles, display them under X or Tektronix emulation, and allow one to send individual frames to a printer. Maybe this exists already but I do not know about it. Thank you.

RESPONSE

There is a Mac program from Pgm Supercomputer Center which can read, animate, and print CGM files (to a LaserWriter). It's on the WKSG Server 2 in the lbl zone, Graphics folder, then MacGPlot folder.

I think (?) there is a similar UNIX/X program from the same source. Let me know if you're interested.

MESSAGE

Do we have a copy of EMACS editor on CSA ? I've started to use a UNIX workstation and would like to minimize the number of different editors that I use.

RESPONSE

Yes, we do. Put the following line in your LOGIN.COM to define symbols to invoke EMACS:

$ @gnu_disk:[gnu]gnu

MESSAGE

This morning I used "Print Screen" to capture a portion of the screen to a file SCR.TMP on this VAXStation 3200 running VMS 5.4. I then sent the resulting file to be printed with the command LPR -Pap6 SCR.TMP IPQ -Pap6 showed this job was printing a large number of bytes. When I got to the printer, I only found the job title page! After changing the first line in the file from

%!PS-Adobe-2.0 EPSF-1.2

to

%!PS-Adobe 2.0 EPSF-1.2

the file printed OK! Thought you might like to know. I wonder if it is a problem in the printer software or in the distributed printing software.

RESPONSE

Turns out that the LaserWriter Plus printers can NOT print the unmodified file, while the newer LaserWriter II printers (models NT and NTX) such as ap1 and ap4 use a much newer version of Adobe PostScript and can and did print this file. Therefore, please use ap1 or ap4 to print such files in the future. You will NOT need to modify the first line.

MESSAGE

I have been totally unable to get the Telnet application to stay open on my machine. I have been over the situation with the Workstation folks on the telephone; all the files and applications necessary to the operation are in appropriate places (and, for that matter, it all worked fine last night). I even imported a whole new copy of Telnet, just in case my copy was defective. I am sending this mail from xxx machine in Building xx. Could someone please call and tell me what to do (and what might be going on)? Thanks.

RESPONSE

Called the user and recommended the following, on the advice of Bill Benson:

(1) Throw away the MacTCP Prep file in your system folder
(2) Use the Control Panel and make sure you have checked the proper zone for MacTCP:
(3) Shutdown and reboot the Mac.

Total success.

MESSAGE

Hello - is there a running version of MATLAB on any UX?

RESPONSE

On csr - NOT on UX5/1/3.

MESSAGE

I have two nagging (unrelated) UNIX problems (SunOS 4.1.1)

1. When I boot my NIS server, the rpc.yppasswdd daemon is launched as usual. However, it doesn't work — when users use the "passwd" command, only /etc/passwd is changed (the NIS map remains unchanged). The symptom is easy to fix (I just kill the daemon and restart it), but there must be a reason for this.

2. I'm running quotas on the /home filesystem. I have a user "fred" who, at some point, gets removed. However, fred's legacy lives on in the /home/quotas file as "#2313" (2313 being fred's old uid). I checked the manuals, and they don't specify a way to remove a user's quota. Nothing bad seems to happen, but I'm wondering if the user deletion process should include removing one's quota.

RESPONSE

Response so far:
(1) Please have your users run the command "yppasswd", instead of "passwd".

(2) Regarding such quotas: UNIX experts here said: don't worry about it. Thanks for your patience and cooperation.

MESSAGE

When working with the statistical package, New S, we are forced to use a postscript printer to view any graphics. Will we, or can we, view these graphics on the monitor of a Sun in the UX5 system?
(It is possible to do this on the Suns of Berkeley's Statistics Department which saves paper and time.)

RESPONSE

If your file is monochrome and simple, you might try **xps** on UX5 (see **man xps**). If you run from UX5 with this program, make sure you are running X windows on your workstation and set the DISPLAY variable per the man article.

Otherwise, for color and more complex pictures try Sun's PageView. You must be running Sun's Openwindows server and preferably their window manager to run this program.

MESSAGE

Could you tell me where I can find a copy of the USERFUN which has been linked with MINUIT and DISPLAY in DISPLAY$LIBRARY:DISPLAY.EXE? I need to know the defenition of the parameters used there.

RESPONSE

Use CMS and fetch the source routine from **DISPLAY$SOURCES.**

MESSAGE

I have just installed a new version of **mypkg** on UX5. It requires a directory **/mypkgdir/** which is a symbolic link to **~mypkg/snarfmypkg/** . Please let me know if you can create this directory for us. If not I'll have to reconfigure the installation to look elsewhere (which is possible but a real pain).

RESPONSE

(1) We do not make such links for software which is not supported by Computing Services.
(2) We do not make such "root-level" symbolic links even for third-party software we do support (e.g., if we got "wingz"): the link would somewhere under /usr/...

MESSAGE

My understanding is that on the CSA cluster a command procedure suspends the queues, so if a similar device is used for the EOS cluster I have no way of determining that.

RESPONSE

Standby queues on CSA are turned on during non-prime time only. There is no procedure on the workstation clusters to pause the standby queues.

MESSAGE

The reason I ask is that I can see no difference between "background" and "standby".

RESPONSE

On the EOS cluster, BACKGROUND queues have base priority 2 and STANDBY queues have base priority 1.

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.

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 by typing

HELP <*package name*>

(on CSA) or via available man entries (on Sun or STARDENT), or by typing

HELP @PHYSICS_UTILITIES

(on CSA) and choosing the desired subtopic. 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/JET	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
JY411	CAMAC Drivers
MORTRAN	FORTRAN Preprocessing
PROBE	Examine Object Libraries
SWING	Directory Management
TOPDRAWER	Plot Processing
UGS	Unified Graphics Package

ON UX5 and STARDENT

● LAST MONTH

✔ DZEDIT 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

ON CSA

● NEWS

The library CERN$PACK_LIB now contains all CSPACK routines.

Recently installed:

CMZ Version 1.38/03 ....(in CERN$CERNEXE)
CSPACK Version 1.21/00 ....(in CERN$PACK_LIB)
GEANx GCORR V. 3.14/07 ....(in CERN$GEANT_LIB)
HBOOK4 Version 4.1/01 ....(in CERN$PACK_LIB)
HIGZ Version 1.13/00 ....(in CERN$GRAF_LIB)
HPLOT5 Version 5.11/00 ....(in CERN$GRAF_LIB)
KERNBIT Version 1.07/00 ....(in CERN$KERN_LIB)
KUIP Version 1.67/00 ....(in CERN$PACK_LIB)
PAW Version 1.12/00 ....(in CERN$PAW_LIB)
PDF Version 2.00/00 ....(in CERN$PDF_LIB)
ZEBRA Version 3.67 ....(in CERN$PACK_LIB)

● LAST MONTH

✔ DZEDIT 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
```

● 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`.

● 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.

Forward comments and questions to me at x4398, or

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

LBLnet NEWS

. . . Find your colleagues!

NEW MACINTOSH-BASED X.500 INTERFACE

Russ Wright

maX.500, a Macintosh based application which lets you see LBL phone book information—and much more—is now available. This application, which a number of users have been beta-testing for the past few months, comes from a couple of very knowledgeable folks at University of Michigan.

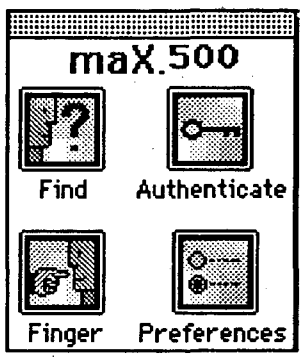
maX.500 is an application for the Macintosh which provides access to directory information contained in CCITT X.500-conformant servers. X.500 is a fully distributed directory service that currently provides "white pages", that is, information about people. See the March 1991 article (in the LBL Computing Newsletter) for more information on X.500. In addition, there is a nice write up on X.500 in the documentation that comes with *maX.500*.

We currently have a copy of the LBL staff database (updated about once a month) in X.500 directory at LBL. The information in this directory is the same as what's in the LBL phone book with the exception of home address and telephone (this information is not in the X.500 directory currently because of privacy concerns).

Why bother using *maX.500*?

- The data is updated on a regular basis by someone else. You don't have to update your *FileMaker* file or HyperCard stack.
- *maX.500* will support JPEG photos (high quality color photos) when the next release comes out. I hope to add photos (of LBL staff people) as they are requested. Once I am able to do this, I will let everyone know.
- Since the Government is mandating the use of X.500, many other companies are putting staff data into X.500. This means that you can search for information about people at other sites. For example, you can find information about the people at SRI by using the "Set Search Base" option in *maX.500*.
- The people who use it now (while it is still in the development stages) will be able to influence the features of the final version of *maX.500*.

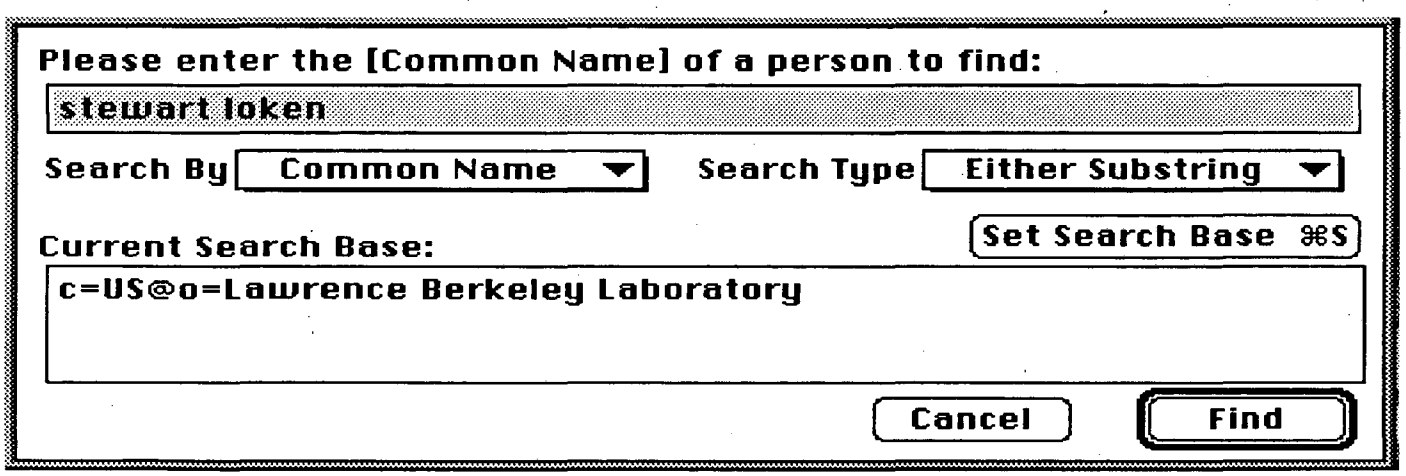
The *maX.500* interface to X.500 is very easy to use. Just click on **Find** and enter the name of the person you want to find.

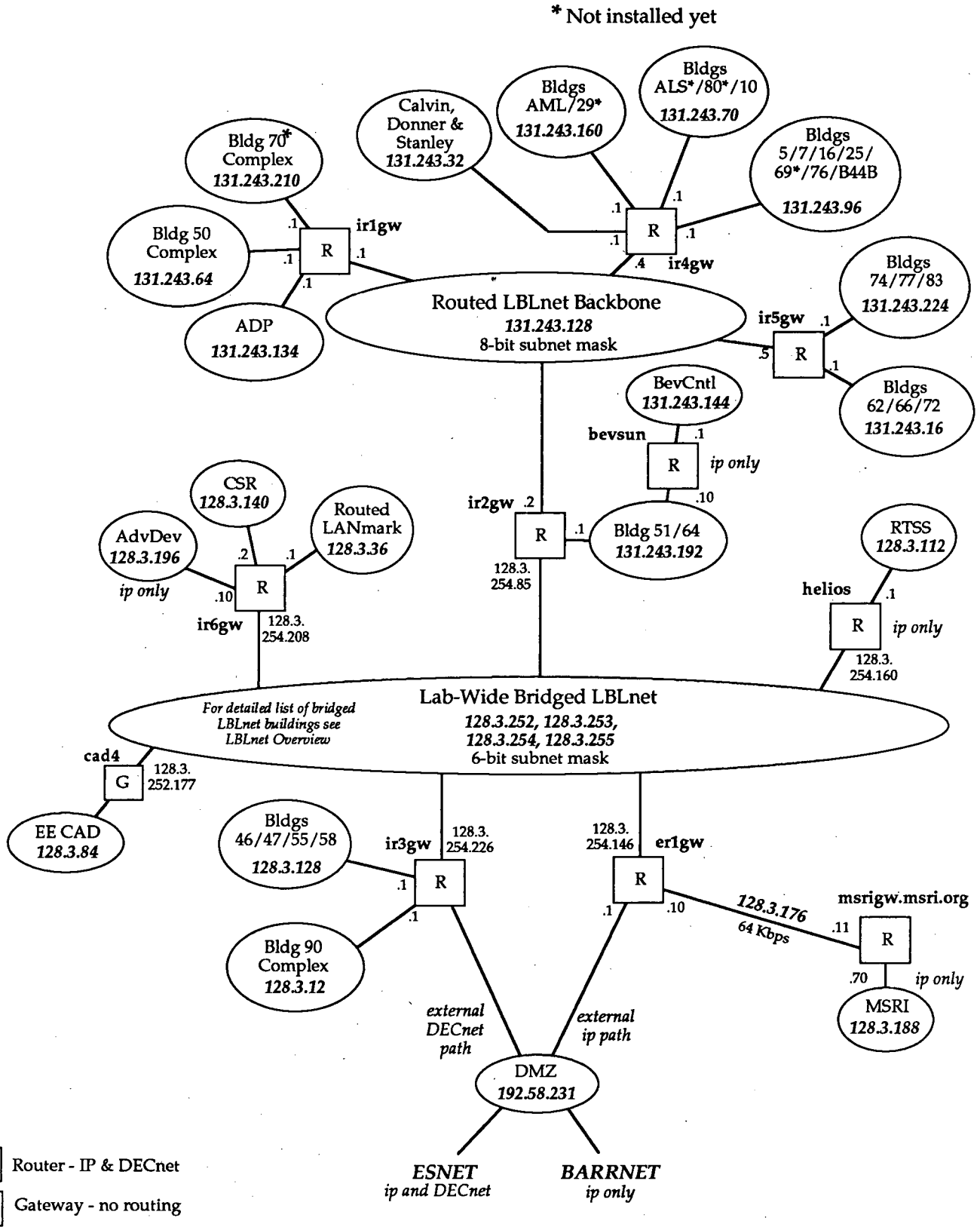


After you click on the Find button, you will see a dialog box with popup menus (see Figure below) that set the type of information you want to search by (a person's full name, a person's last name, an e-mail address, phone, or employee number) and the search type (which includes an "approximate search" option that will look for a match that "sounds like" the one you typed in. An approximate search for "stu loken" will match "stewart loken", for example).

How do I get this nice Macintosh application? Look for the "maX.500" folder in the "Communications" folder on the Workstation Server (lbl zone). Transfer the whole folder and read at least the first few pages of "maX.500 Release Notes (LBL)" **before you begin.**

One more thing . . . yes, like most applications, it does run under System 7.

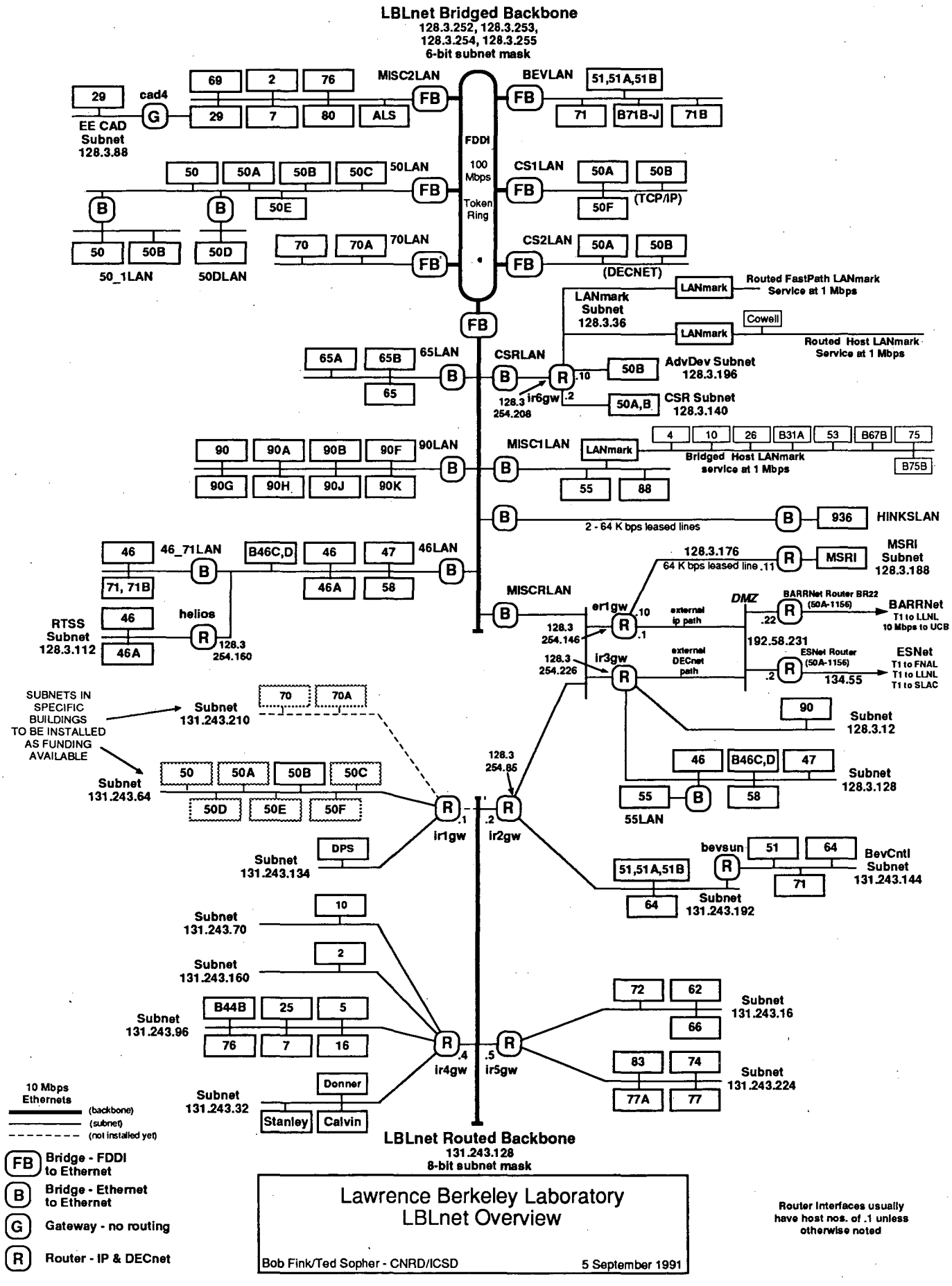




LBLnet Subnet Overview

R = IP Router, G = Gateway w/no routing
Circles Represent Routed Ethernets Subnets

Bob Fink/Craig Leres/Ted Sopher 5 September 1991


LBLnet Bridged Backbone
128.3.252, 128.3.253,
128.3.254, 128.3.255
6-bit subnet mask
FDDI
100 Mbps
Token Ring
MISC2LAN
BEVLAN
50LAN
CS1LAN
70LAN
CS2LAN
CSRLAN
65LAN
90LAN
MISC1LAN
MISCRLAN
46_71LAN
46LAN
50_1LAN
50DLAN
EE CAD Subnet 128.3.88
LANmark Subnet 128.3.36
Routed FastPath LANmark Service at 1 Mbps
Routed Host LANmark Service at 1 Mbps
Cowell
AdvDev Subnet 128.3.196
CSR Subnet 128.3.140
Bridged Host LANmark service at 1 Mbps
2 - 64 K bps leased lines
HINKSLAN
128.3.176
64 K bps leased line
MSRI Subnet 128.3.188
RTSS Subnet 128.3.112
helios
DMZ
BARRNet Router BR22 (50A-1156)
BARRNet
T1 to LLNL
10 Mbps to UCB
external ip path
external DECnet path
192.58.231
ESNet Router (50A-1156)
ESNet
T1 to FNAL
T1 to LLNL
T1 to SLAC
134.55
SUBNETS IN SPECIFIC BUILDINGS TO BE INSTALLED AS FUNDING AVAILABLE
Subnet 131.243.210
Subnet 131.243.64
Subnet 131.243.134
Subnet 131.243.70
Subnet 131.243.160
Subnet 131.243.96
Subnet 131.243.32
Subnet 131.243.16
Subnet 131.243.224
Subnet 131.243.192
Subnet 131.3.12
Subnet 128.3.128
BevCntl Subnet 131.243.144
55LAN
ir1gw
ir2gw
ir3gw
ir4gw
ir5gw
er1gw
LBLnet Routed Backbone
131.243.128
8-bit subnet mask
10 Mbps Ethernets
(backbone)
(subnet)
(not installed yet)
FB Bridge - FDDI to Ethernet
B Bridge - Ethernet to Ethernet
G Gateway - no routing
R Router - IP & DECnet
Lawrence Berkeley Laboratory
LBLnet Overview
Bob Fink/Ted Sopher - CNRD/ICSD
5 September 1991
Router interfaces usually have host nos. of .1 unless otherwise noted

ICSD TRAINING SCHEDULE

October - November 1991

CLASSES: COMPUTING SERVICES & CNR

The following courses are offered by Computing Services and CNR. To enroll in the FOCUS class, contact Marilym Graham, x5688. To enroll in the Electronic Mail Survey class, or if you'd like to see an "Introduction to C Programming" class scheduled, please 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.

Electronic Mail Survey	Oct. 17	10 AM to Noon	50B-1237
FOCUS Basic Reporting for End Users	Oct. 30	9 AM to 4:30 PM	50B-1237
FOCUS Basic Reporting for End Users	Oct. 31	9 AM to 4:30 PM	50B-1237
FOCUS Basic Reporting for End Users	Nov. 1	9 AM to 4:30 PM	50B-1237
ICS: ITE4 & Voice Mail	Oct. 23	9 to 10:30 AM	50B-1237
ICS: ITE12, ITE24 & Voice Mail	Oct. 23	1:30 to 3 PM	50B-1237
ICS: ITE4 & Voice Mail	Nov. 27	9 to 10:30 AM	50B-1237
ICS: ITE12, ITE24 & Voice Mail	Nov. 27	1:30 to 3 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		Oct. 15, 16 & 18 2:30 - 4 PM
Introduction to *Windows* for the IBM/PC	*	Sept. 10 & 12 9 - 10:30 AM
		Oct. 22 & 24 9 - 10:30 AM
		Nov. 12 & 14 9 - 10:30 AM

Macintosh: Bldg. 50B, Rm. 1229

Basic Macintosh		Oct. 9 12 - 1 PM no sign-up req.
Beginning *Microsoft Word*	*	Oct. 14, 16, & 17 10 - 12 Noon
		Nov. 11, 13, & 14 1 - 3 PM

(Macintosh Classes Continued)

Beg. *Excel* Spreadsheet	*	Sept. 16, 18, & 20 9 - 11 AM
	*	Oct. 28, 30, & Nov. 1 9 - 11 AM
		Nov. 18, 20, & 22 9 - 11 AM
Introduction to *FileMaker*	*	Sept. 24 & 26 10 - 12 Noon
	*	Oct. 29 & 31 10 - 12 Noon
		Nov. 12 & 14 10 - 12 Noon
		Dec. 10 & 12 10 - 12 Noon

The Workstation Group also offers **noon time class** (no sign-up required) on the following subject:

Basic Macintosh Class	9/4	50B/1229

See Workstation Scene Newsletter Articles for more details on this workshop.

THE WORKSTATION SCENE

to Judith Peterson. Her evaluation of *PageMaker* under Windows (see Pg. 25) was this month's Software Review Contest winner!

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-October (on a floppy disk—in Microsoft *Word* or *WordPerfect* format). If your review makes the November or December Newsletter, you win a free Microsoft or Claris software package.

[28.10.1] TRADING POST

Items advertised here are for Laboratory use only and must be purchased with a valid account number. If you have items you wish to advertise in the Trading Post **or** if a Contact name does not appear with an ad below, call Bruce Burkhart, x6858.

1. **For Sale:** Macintosh SE/30 with a built-in monitor, an 80 MByte hard disk and 4 megs of memory. Brand new; never been used. $1500. (List price is $2205). Contact Lynn Yarris, x5375.

2. **For Sale:** Five Mac SE accelerators (16 mHz - 68000) which will double the speed of the Mac SE. (These are older Mobius accelerators). $150 ea. Contact Bob Jahnigen, x5579.

[28.10.2] SCHOLAR"S WORKSTATION MOVE

The Scholar's Workstation (TSW), the campus-run computer store (at UC Berkeley), is moving from the Banway Building to its new location, 41 University Hall. TSW is open Monday through Thursday from 10 AM to 3 PM; it sells selected hardware and software (including products by Apple, IBM, NeXT, Microsoft, Claris, and Borland) to the campus community. It might be a good idea to call them ((510) 642-8424) before you drop by.

[28.10.3] KEEP CURRENT/KEEP LEGAL

Microsoft License Packs

The beginning of the new fiscal year is a good time to see where you stand software-wise. Do you—or more importantly does your group, department or division—have the latest in computer software upgrades? Are you keeping current? Are you keeping legal? It's definitely time to upgrade; Microsoft and the Workstation Group want to make it easy *and* inexpensive.

The 10-Pack License

There is a substantial discount with a 10-Pack purchase of software from Microsoft. True, you get only one set of documentation, but you do get 10 sets of disks, and you legalize 10 Workstations. The following bargains are available through the Workstation Lab (Bldg. 50B, Rm. 2231, x6858):

MS-DOS

- *Word* 5.5 in the Academic 10-Pack, 3 ½" or 5 ¼" disks is $250, ($25 per Workstation). The regular price is $67.50 for a single copy, or $45 for an upgrade copy.
- *Excel for Windows* Academic 10-Pack, either size disks, is $597.50, ($59.75 per Workstation). The normal, and upgrade price is $94.50 per copy.
- *Word for Windows* has a special price for the Academic 10-Pack now through 11/30/91. The 10-Pack is $210, ($21 per Workstation).

Macintosh

- *Word* 4.0, in the Academic 10-Pack is $250, ($25 per Workstation). *Word* is normally $60 per copy.
- *Excel* 4.0 in the Academic 10-Pack is $597.50, ($59.75 per Workstation). The regular or upgrade price for *Excel* is $94.50.

Keep Legal

Is it okay to copy my colleague's software? No, it's *not* okay! Software is protected by copyright law. *No one* is exempt from the copyright law, as defined in the **LBL Policy and Procedure, June 9, 1989**, *Computer Software Policy*,

"...supplying copies of such software for use on more than one machine and/or by other persons than the original buyer, is strictly forbidden." In other words, there must be one authorized copy of a software product for every computer upon which it is run.

[28.10.4]

TIMELY TIP: FALL BACK (PC USERS)

PC Users: Daylight Savings time is on Oct 27. If you have a standard AST Board, you run the AST-supplied program SET-CLOCK.COM as follows (what **you** type is in boldface):

C> **SETCLOCK**

It will respond

resident DATE/TIME processor loaded

Current date is 10/27/91
Current time is 02:01:22.07

Now, issue the following DOS Time command

C> **time <cr>**

It will respond with the current time and prompt you to enter the new time.

Current time is 02:01:22.07
Enter new time; **01:01 <cr>**

PC-AT Owners: If you're using PC-DOS Version 3.3, just use the **Time** Command. If your PC-DOS is Version 3.2 or earlier, you must run the Setup program to set your clock. The program is on the Diagnostics disk supplied with your system. The disk is usually stored in the rear of the Guide to Operations manual.

Note : Network file servers get their time settings from the name server, so there's no need to worry about manual adjustment.

[28.10.5]

NORTON DESKTOP FOR WINDOWS

. . . A software review
from Administration's Russ Montello

✔ ***Norton Desktop For Windows***, from Symantec Corp. Street price: $110.

Are you anxiously awaiting a graphic interface for your PC that's similar to Mac's? Do you consider *Windows* 3.0 to be only a nice start? If so, *Norton Desktop for Windows*, (NDW), may be just the ticket. While NDW also has a number of different and useful utilities, its ability to mimic the Macintosh environment is especially interesting.

NDW replaces and greatly improves both the Program and File Managers. Since there are so many facilities included, I'll concentrate on the important elements only.

The Desktop

Norton's Desktop refers both to the complete package and to the replacement for *Windows* Program Manager. "Desktop" is an accurate moniker, for it covers the entire screen and integrates the complete environment. Group windows, programs that are running or iconized, access to the file system, and all the other utilities are available from this desktop. The group windows can contain other groups as well as single programs. The standard Accessories window might contain a group which then includes all public domain utilities that you employ. There is a special group called Auto Start that initiates all programs contained within its menu whenever *Windows* begins. Of course, placing documents into this menu will start the associated application as well. Also the placement of desktop facilities is preserved when *Windows* is later restarted so you won't have to rearrange your work space when starting *Windows* each time.

Drive icons are displayed down the side of the desktop and provide access to NDW's file manager. Double clicking on a drive icon brings up a directory tree and the default directory contents. Double clicking on a second drive icon—it can be the same—brings up a second copy arranged so that both are in complete view. Of course, clicking on a different directory within a tree changes the view of the files within the new directory. Files, directories, branches, or complete drives can be copied or moved by tagging, dragging, and dropping between these two views of the NDW file manager.

Viewing

- A "View Pane" button displays the contents of the selected file in a sub-window. This viewer can handle many file formats including *Word, Excel, Lotus* and several bitmaps.
- The NDW utility called "Viewer" provides the same capability. It also demonstrates one of the Mac-like

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 - NOON
	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

facilities of NDW since you can drag a file over to the Viewer icon to display the file's contents.

The above features also work with network drives, assuming that the linkages exist and the user has appropriate network privileges (I have tested it with 3COM 3+). A drop down list box of the NDW's file manager lets you easily change the drive displayed within a particular window from the drive icon originally selected. Iconizing a file manager window preserves that drive and directory view for later use.

"The Windows desktop utility landscape will never be the same ... NDW is an amazing collection of just about all the general-purpose utilities you could ever want for Microsoft Windows . . . "

...Barry Simon
PC Magazine 09.24.91

Now for a few words about some of the utilities which accompany the software.

Smart Erase
A Smart Erase function will delete files that are dragged over to it. It will hold files for a predefined period of time before actually deleting them, and if you "choose" one of those files before the time runs out, it will become active again. Files can still be held in "Smart Erase" past the expiration deadline; they'll have a question mark at the beginning of the file name when shown and can also be recovered if the sectors belonging to the file have not been reused. When you select the Smart Erase icon, its window looks similar to that of the file managers; however, only files that you intend to delete can be displayed.

Printing
Files can be printed by dragging and dropping a file on the Printer icon. This function works with many different formatted files. I printed an ASCII, *Excel*, and *Word* file using this Printer function. The combination of the File Manager, Viewer, Smart Erase, and Printer allow many functions to be performed on data files without starting the original application.

Backup
A very powerful Backup facility is also included. It performs an extensive test when first used to insure that the software is properly matched and that a compatible backup can be generated. It uses a proprietary method to format the diskette; compression techniques let you place much more data on each diskette. I found that twice as much data was packed on each diskette as was otherwise possible. You can define setup scripts to describe which files systems to backup.

Scheduler
You can create a particular setup script to be executed interactively or scheduled to run at a prescribed time using the NDW's Scheduler utility. Since the program can be run in the background, you can perform other work while a Backup executes. This program has many options to allow it to be tailored to individual tastes; it's really a pleasure to use.

Much more . . .
Other useful utilities include
- a calculator (both scientific and paper tape models),
- a disk doctor (for repairing disk damage),
- Super Find (for finding files or character strings across drives), and
- System In (which describes system internals and performs a simple performance test).

A Flaw or Two
Norton Desktop For Windows in a fine product but it is not without flaws. It loads very slooowwwly although it does operate reasonably well once called. It also does not know about file changes made outside of its file manager. Files that have been deleted or added this way may not be reflected on the file manager windows until you request that the view be refreshed. In general, most of the utilities are intuitive and simple to use but often they have advanced features that may take some effort to learn. Now, some of these features are rumored to be part of *Windows* 3.1 but why wait?

[28.10.6] PAGEMAKER 4.0 FOR WINDOWS

. . . ICSD's Judith Peterson[1] installed it on her PC

PageMaker is easily installed under Windows, but I do have one complaint about the installation program. By default, it puts a directory called **ALDUS** and another one called **PM4** in the root. This is not what I call good file management, but if you change the default and tell it where to put things, it does just fine. I installed **ALDUS** under my Windows directory and had it put **PM4** under that.

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[1] The Workstation Group does not support *PageMaker*, but Judy (x7477) will gladly share her expertise.

PageMaker came with *Adobe Type Manager*; installing that was easy. What a difference it makes in the way the fonts appear on screen as well as in print!

I went through the *PageMaker* **Getting Started** manual, and did all the lessons to get a basic knowledge of the program. *PageMaker* is intuitive for basic layout, but for the more complicated jobs you'll need to reference the manual. I would advise that you read through the **Supplement** manual. It is a good resource on importing and exporting text and graphics.

FEATURES

Pasteboard

PageMaker gives you a pasteboard; your page sits on it. You can move text and graphics on and off the page onto the pasteboard (or visa versa). What's neat about this is that the pasteboard never prints out with the publication, so you can leave stuff on it. Say you've got a graphic you plan to use several times throughout a publication; you can leave it on the pasteboard and just copy it over to the page each time you need it.

Page View

PageMaker lets you display a single page or facing pages on the screen. With facing pages you can see how the layouts on adjacent pages come together. In **Page View** you can view graphics with the text, and get a good preview view of your printed publication.

Master Page

It's a good idea to plan and create the **Master Page** first thing. On your master page, define your column guides, place your headers & footers for each page, and select your page-numbering codes. You can also create Master Pages for facing pages. You don't really want to discover this neat tool later, unless you like to do a lot of extra work.

Styles Palette

Use **Styles** to keep consistency in your publication and make formatting changes easier. Let's say you want to change the font and size in your headings. Instead of going through the entire document making changes to each heading, just do it once under the style specifications. The changes will update throughout your publication wherever that style has been assigned. A nice extra: the **Next Style**, where the style is automatically applied to the next paragraph, like the body.

Guides

The ruler guides, in addition to the column guides, are especially handy. You can pull these out—horizontally or vertically—from the ruler, and place as many as you wish (or need) on the page to line up objects and text. You can align objects by having them "snap to ruler" guides or you can align them manually. (Warning: when positioning manually you lose accuracy, and you may not get what you see on the screen when you print it out).

Typographical Control

PageMaker gives you powerful features for manipulating text. There's **kerning** (reducing or increasing space between characters) and **leading** —pronounced "ledding"—(spacing between lines, Proportional or from Top of Caps). You can customize the spaces between letters, words and lines under the **Spacing Attributes** dialog box, or you can use the proportional settings given to you. *PageMaker* gives five choices for track kerning, and if those choices aren't what you want, it provides command keys to kern ±1/25 or ±1/100 of an em space. You can use Auto Leading (auto leading is proportional), or set your own preferences.

Another interesting feature is the **Set Width**. You can make your text look short and fat, or long and skinny, by changing the percentage of the character width or just leave it normal. If you're tired of looking at text horizontally and you want to add a little style to your work, you can always rotate your text (in 90° increments).

Story Editor

PageMaker now comes with its own word processor, the **Story Editor** opens on top of your **Page View**. Select story view, and a Story Editor window comes up. Story Editor is great for editing text quickly and easily while in *PageMaker*. You can import text from another word processor into the Story Editor. *PageMaker* lets you do **Find** and **Changes** for reformatting type styles, paragraph styles, tabs, text and so on.

I suggest you use Styles in your word processor (if it's available), and use the same style names as the ones you will be using in *PageMaker*. *PageMaker* does import styles, and when the style names are the same as the ones in *PageMaker*, *PageMaker* will apply its own style definitions to the text.

Unfortunately, NONE of the equations translated over, and the tables came over only as tabbed text!

Importing from a Word Processor

As an experiment, I tried importing an engineering report I had done in *WordPerfect* 5.1 into *PageMaker*. I chose **Place** from the menu, chose the *WordPerfect* file and clicked OK. It gave me a text icon to position on the page. I clicked and the text appeared. Unfortunately, NONE of the equations translated over, and the tables came over only as tabbed text, which means all the equations would need to be recreated and placed as a graphic, and the tables recreated in the **Table Editor**.

If your publications tend to have a lot of equations, you may want to purchase an equation editor to make *PageMaker* more functional for you.

Table Editor
PageMaker's **Table Editor** is a good feature, but it would have been a better feature if it weren't a separate program . With the Table Editor you can create some sophisticated tables with lines separating columns and cells. You can add shading in cells, and center text horizontally as well as vertically within a cell. Another plus: you can import data from spreadsheets to create a new table.

Placing and Linking Graphics and Tables
This is really quite simple.
- Placing graphics and tables are essentially the same procedure, with different options for each. You just click on **Place**, highlight the file name of the graphic or table, click OK, and then you get an icon you place on the page.
- To link, you just select the object, select **Links** from the menu, and give the file name of the object. The best part about Linking is that if you make any changes to your linked file, it will automatically update in your publication.

☛ Here's a handy shortcut when working with tables and linking; if you want to edit your table while in your publication, just select the table you want to edit, then hold down the **Control** key and double click on the table, and the **Table Editor** will open with the file you need to edit over your page view. You can make your changes, save and close, and your publication will be automatically updated.

☛ **Short cuts for zooming.** Place your pointer in the area you want to zoom in, click your right button on your mouse, and you get a 100% view. To get a 200% view, do the same thing as above, but hold the **Shift** key while you click. To go back to full page view, just click the right button on your mouse again.

Book
In *PageMaker* you can have up to 999 pages in each publication. You can put chapters in separate files and create a **Book Publication List**; you can run a Table of Contents and Index automatically on the entire publication. With the **Book Publication List**, you get auto page numbering for the entire publication.

☛ **Use "Save As" When Saving Your Publication.** When *PageMaker* saves, it appends the new changes to the old file, producing very large files after a few saves. I would suggest doing a **Save As** and overriding the old information, keeping files smaller.

PageMaker is a powerful program. I find it easy and fun to use. The only weaknesses I can speak of are that
(1) the Table Editor is a separate program, and
(2) there's no equation editor.

[28.10.7] RADIUS PAGEVIEW COLOR PIVOT

. . . Huzzahs from WKGS member Nancy Travis

A picture may be worth a thousand words, but a thousand words would still be inadequate to describe Radius' new Pageview Color Pivot monitor. I really can't tell you about this one: you'll have to come by the Workstation Lab and see it for yourself.

I have always disliked large monitors because of their space requirements. Although I admired the color and clarity of some these monsters, I had neither the space on my desk nor the inclination to see more information on the screen than necessary. Apple's 12" and 13" color monitors are too small to see a full page; in fact you must go all the way to a 19" screen before a page can be viewed in its entirety.

The Pageview Color Pivot is actually a 15" monitor, but the screen is the same size and shape as a piece of 8 ½ " x 11" paper. It displays a full page at a time in either portrait or landscape orientation. The monitor swivels on a pivot between the two positions and the software automatically adjusts to the movement. By simply turning the monitor, you can look at a full document page or a wide spreadsheet.

The Color Pivot supports both 72 and 82 dots per inch and it can be adjusted gracefully (no rebooting required!) from the Control Panel. At 72 dpi, text is the exact size that it will appear on the page (true WYSIWYG). At 82 dpi, everything is slightly smaller and the entire image of the page fits the display.

"The best color I've seen . . . "
Although the Color Pivot will work with the onboard video of the SI or CI, it is limited to 4 bit color (16 colors). To bring the Color Pivot up to full 8 bit color (256 colors) you need an interface card. We tested the monitor with the interface: the color is the best I've seen. The interface works on all Mac II new bus systems and can be used on SE/30 or LCs with a new bus adaptor.

This monitor gets five stars from me as well as a permanent home on my desk. It fits nicely on the IIci CPU and is a joy to work with. Last, but not least, it meets the Swedish low level emission standards! LBL price for The Pageview Color Pivot is ~$1400; LBL price for the 8-bit color adaptor is $550.

[28.10.8] SECURITY ISSUES WITH MACINTOSH SYSTEM 7

. . . from CIAC Bulletin # B-42

The Computer Incident Advisory Capability has been working with Apple, Inc, to identify areas of security concern within the Macintosh System 7 Operating System. The default installation provides very good security in general. However, user customization raises several security issues.

System 7 allows an individual Macintosh to provide network access to the local file system ("File Sharing"). When file sharing is enabled, all file folders are accessible over the network. Control over file sharing is provided through the utilities of "Sharing Setup" and "Users & Groups", (in the Control Panel), and through the "Sharing..." dialogue (in the File menu of the Finder). Each of these is discussed below.

Sharing Setup
The "Sharing Setup" control panel device is used to start file sharing on a Macintosh. File sharing is turned on by selecting the "start" button. Once this happens, the entire network has access to the machine; **there is no way to deny access to a particular host.**

Users & Groups
Access Control is defined using the "Users & Groups" control panel device. Two users, the Owner and <Guest>, are defined with full privileges when file sharing is initially activated. Passwords are unavailable to <Guest>. If sharing access to a disk volume is allowed through the use of the "Sharing..." dialogue (see below) this default access will allow **anyone on the network** to have total access to that disk volume by simply selecting your machine.

> We recommend that you disallow guest access by opening the <Guest> icon and de-selecting "Allow Guests to Connect".

Sharing...
If you select "Sharing..." from the File menu, and check the box entitled "Share this item and its contents", all folders and files become available to **anyone who has access to your Macintosh**, as defined in "Users & Groups"" above. By default, Everyone has the ability to See Files, See Folders and Make Changes.

> We recommend that you remove all access to Everyone and User/Group immediately, by ensuring the six boxes for Everyone and User/Group are **not** selected. Also, click the box "Make all currently enclosed folders like this one" to remove access to current folders on the shared item. This will protect all current folders residing in the shared volume. At this point, access to folders can be given on a case-by-case basis for each user or group.

Note: When you turn sharing OFF for a volume, protection for that volume and its contents returns to initial default.

Forward comments and questions to D. F. Stevens at x7344 or

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

[28.10.9] SYSTEM 7 — IT'S REALLY HERE!

. . . by Workstation Member Bruce Burkhart

We will all need to upgrade one day or another, and that day may be sooner than you think. The jumpstart to System 7 may be news you didn't want to hear. Nevertheless, all new Macs shipping since very late last August come installed with System 7. It seems that Apple feels confident about System 7, and wants users to jump on board soon.

With the lid of Pandora's box ajar, we have to deal with System 7, finally! September has definitely brought more calls on installation of System 7. With the late surge of Mac purchases in August and September, the infusion of System 7 operating systems is causing some concern. Several considerations need to be dealt with immediately.

- ✔ First, Version 2.2.3 of *QuickMail* does not work with System 7. Version 2.5, released in September, is System 7.0 compliant and should install with no problems. For more info, contact Jake Jaquith (x4388).
- ✔ Second, when a new Mac installed with System 7 is hooked into an existing AppleTalk network, the print drivers of the "other" Macs on the network *must* be upgraded. This avoids "LaserWriter Wars." The

LaserWriter upgrade process is relatively simple—use the Installer on the System 7 Printer diskette. Finding the appropriate person to upgrade the network may not be so simple. For major problems, the Workstation Group (Bldg.50B, Rm.2231) is always glad to assist, give us a call at x6858.

✔ Third, the "other" Macs on the network *do not* have to upgrade to System 7 immediately. System 6.x and System 7 users are completely compatible on the same AppleTalk network (that is, IF everyone is using the System 7 print drivers). Upgrading from System 6.x to System 7 is a bit more involved than upgrading print drivers. If you want to upgrade, contact your Network administrator, local expert, or give us a call. An Apple Personal System 7 Upgrade Kit is available from the Workstation Group for $79.

[28.10.10]

TIMELY TIP: FALL BACK (MAC USERS)

Mac Users: Daylight Savings time is Oct. 27. If you didn't Fall Back yet, here's how to set your clock:

(1) Select the Apple icon

(2) Select Alarm Clock

(3) When the Time window opens, click on the flag on the right side of the window. That will open Time and Date Set functions.

(4) Click on the Clock (not the Alarm Clock) icon. Select numbers in the hour portion. Type in the new number. Select the numbers in the minutes portion. Type in the new number (if you need to). Select numbers in the seconds portion. Type in the new number (if you're that fussy).

(5) Click on the Clock again.

(6) Close Alarm Clock.

Good News! Your clock-setting ritual works the same under System 7.

[28.10.11]

MAC COLOR MONITORS II 19" & 21" DISPLAY SYSTEMS

. . . by Workstation member Bruce Burkhart

In our look at color monitors last month ("Mac Color Monitors/Low cost 8-bit, 16" display systems," *LBL Computing Newsletter*, Sept. 91), my pick of the litter—and the choice of many other critics—is the E-Machines T16, 8-bit color system (LBL cost: about $2000). The review was short on technical data (see References), and for this final episode, let's continue the trend with very little in the way of "spec specifics". Instead, we'll address more general issues, like, "Do I really need 21 inches of glorious color? Will 13" or 16" be enough?" Or, "Should I get 8- or 24-bit color?" And the most important question, "Can I really get a quality large color system at a good price?" Our goal: to look at a *micro*-selection of 19" and 21" color systems for the Macintosh, each system with matched monitors and 8- & 24-bit boards from the same company. But before we get into a mire of detail, let's pick some winners.

THREE TOP 19-INCH CHOICES

The following three vendors produce excellent video boards, meaning that there's very little variation when testing the measurable parameters.

It's even harder (than it was last month) to make subjective evaluations: they're all great! Since a single pick is impossible, and a bit unfair, we chose to highlight three of the very best 19" Sony Trinitron monitor systems. Although the *other* monitor makers are catching up fast, Sony still makes the best monitor.

1. **SuperMac 19" Dual-Mode Trinitron System** with a Spectrum/24 PDQ video board (24-bit color with exceptional QuickDraw acceleration). This is a very pricey choice ($5330). If you choose the 8-bit color system (Spectrum/8 board), the savings are substantial ($3400). Either system has the added advantage of two viewing modes (1024 × 768, 72 dpi & 1152 × 870, 78 dpi). This monitor has an exceptional white background when you look at it next to the slightly blue tint of other Trinitron monitors.

2. **RasterOps 19" Trinitron System** with a 24XLi 24-bit board w/accelerator (1024 × 768, 72 dpi). It too is expensive at $5070.

   A better buy might be the 8XL 8-bit (1024 × 768) unaccelerated board ($3770). Since RasterOps has more monitor/board options than most other vendors, choose carefully from the many combinations seen in advertisements.

Best Bargain...

3. **E-Machines T19 Trinitron System** (1024 × 808, 76 dpi) and a Futura MX 24-bit color board w/accelerator. It's also a top choice as best bargain of the group at $4100.

   An alternative best choice might be the Futura SX/8 board, an 8-bit color (832 × 624, 72 dpi) system ($3500). Like its 16" little brother, the E-Machine 19" system also offers exceptional brightness, contrast, and displays sharper text than many other monitors.

NOTE: All prices are quoted from a retail source, with an LBL educational discount applied. Since dealers have frequent "best buys", prices can vary greatly. Use these figures for a "ballpark" reference. Monitor prices reflect the 19" Sony Trinitron model. Color graphics board(s) prices are for the Macintosh II family (NuBus boards); board prices are similar for the other Macintosh platforms.

Other choices
Obviously missing from the "best" choices above are color systems by Radius, MegaGraphics, PCPC, Moniterm, Mirror Technologies, Relax Technologies, and Sigma Designs. These vendors, with few exceptions, put together a relatively high-quality color system. As with any expensive purchase, you really should check it out before you buy.

The 21" Choice
Since vendors of the 19" "best" choices also produce a 21" system, look at these monitors first. Get an actual viewing experience: variations in this size are not as uniform as in 19" technology. However—**big news**—a new player is about to make the scene. It's reported that an Apple Computer 21" color monitor will be introduced at the Seybold Exposition in early October (see: *MacWeek*, 08.20.91). What this will mean to the lineup of "best" 21" choices is unclear: let's wait and see.

AFFORDABILITY VS. QUALITY

In the past year, Ikegami, Hitachi, Seiko, and Toshiba have entered the color monitor market in a big way. Sony, the biggest monitor supplier, has had to cut prices. Video boards have also dropped in price. Has an "affordability gap" been created by this competition between the major Macintosh monitor makers? Very possibly. There are some very inexpensive mail-order specials for 19" and 21", 8- and 24-bit color systems (some good ones—some *not* so good). Check out the ads in the back of any MacWeek, MacUser or MacWorld magazine. Another affordable option, think down to a 8-bit, 16" system in the $1500-$2000 range.

If you want *really* cheap color, there are some mail-order bargains. For about $1000 you can pick up a 19" (Ikegami) with an 8-bit board. Bear in mind, however, that this monitor and a few others in this price range rate poorly in most tests. Monitor systems near the top of the scoreboard obviously cost more, and this quality may be important. Are you going to be happy with poor convergence, marginal tracking, or squint-making "fuzzy green tinted characters" hour after hour?

8-bit vs. 24-bit
If you can justify a purchase with quality in mind, the cost may not be as bad as you think, particularly if you opt for an 8-bit system (256 colors) instead of the 24-bit system (millions of colors). The savings could be $500 to $700 or more. Do you really need the 24-bit option? If you spend more than half your time with word processing, spreadsheets, or other normal office applications, 8-bit color is fine. Better yet, for sharper text, get a 19" monochrome L-View Multi-Mode (six resolutions) monitor from Sigma Designs. It's a better choice ($1250).

If you insist on color, bear in mind that it's almost impossible to tell if you're seeing 256 or millions of colors using an 8-bit board. True, this board must use dithering to simulate the colors it can't directly render. However, very few users need the super smooth color gradation you get with 24-bit boards. Working with 256 colors is adequate for most users, and it's cost effective.

An interesting sidelight for users who think 8 MBytes of RAM memory is more than they will ever need. If you do get into 24-bit color, you're probably going to face this scenario. You start a 24-bit color paint program (which is very expensive) load a color image, then send it to one the Computer Center color printers. Surprise! A dialog box pops up, declaring, "YOU ARE OUT OF MEMORY". My experience has shown that 15 to 20 MBytes of RAM (around $800) are required for "uninterrupted" multifinder computing with 24-bit color applications. (Note: It's not clear yet whether or not virtual memory will take care of this particular memory problem).

19" vs. 21" monitors
The move to a quality 19" or 21" color system easily breaks the $3000 level. Price tags on brand names for 21" 24-bit color systems begin around $3500 with an Everest climb to $5000-$6000 . This is heady stuff considering that you could buy two Mac computer systems in this price range. But have courage: a *quality* 19", 24-bit color system from a reliable vendor will only eat a $4000 hole in your budget. For a 21", 24-bit version, you might have to add another $1000. It may be significant to some users that 21" monitors display text that is less sharp than that of most 19" monitors. And not surprisingly, most 16" monitors display text that is sharper than that of either 19" or 21" monitors. Resolution and pixel density are characteristics best covered another time.

References: Material for this article was referenced from "Color Monitors Put to the Test", MacWorld, July 90; "Color Monitors", MacWorld, October 91; "Color Gear", Buyers Guide, MacUser, May 91; assorted datasheets from various vendors, manufacturer's representatives, and product brochures.

[28.10.12]

COLOR PRINTING ON THE MAC WITH LBL COLOR POSTSCRIPT PRINTERS

...by Workstation member Bruce Burkhart

Page Setup...
The Page Setup... command mainly controls the paper size and orientation of the printed image. You can also specify image reduction or enlargements and special printer effects. When you click on Page Setup..., a LaserWriter Page Setup dialog box will be displayed on

the desktop. If you want to access the page sizes for the QMS ColorScript and Tektronix Phaser PX color printers[2] when you click on the Tabloid button, configure your system as follows:

The options for the ColorScript or Phaser are not included with the normal Apple Printer System 6.x or System 7 installation.

- If you have System 6.x installed, *be sure* you are using LaserWriter &LaserWriter Prep version 6.0 (version 6.1 will not work). The special version (mentioned in the next bullet item) may also be used with System 6.x.

- If you have System 7 installed, there is a *special version* of the LaserWriter that replaces the normal, installed version. The special version can be found on the AppleShare server (now renamed "WKSG Server 2" in the lbl zone—look in the Graphics folder, then in the LaserWriter 7.0 folder—or get a copy from the Workstation Lab, Bldg. 50B, Rm. .2231).

The advantage of choosing either a Phaser or ColorScript option eliminates the problem of pictures being cut off at the margins. The new LaserWriter Page Setup practically guarantees a perfect print every time.

Reference: Material for this article was referenced from "Your LaserWriter and System 7", *LBL Computing Newsletter*, Vol. 28, No. 7, July, 1991.

[28.10.13] HYPERCARD CORNER

. . . by HyperFan Bruce Burkhart

'91 Boston MacExpo & HyperCard

System 7 Savvy
HyperCard upgrades

*Hyper*Com 2.1 upgrade by GAVA Corp ($99 two user copy) is made up of two parts. For networks with a file server, adding a simple script allows read-write access to shared stacks, so multiple users can create new cards and edit existing cards. HyperCom also includes the "Tell" command that lets stack writers send HyperTalk messages of any size to other stacks on the network to execute. For example, if the Workstation had the LBL Phonebook (read-only) on its server, network users could query the database without having HyperCard on their Mac. HyperCom could work nicely for small groups who need to simultaneously read and edit the same stack.

DB/WRITE 2.1 upgrade by Metropolis Software ($129) is System 7 savvy. Do you need a word processor/mail merge add-on for your HyperCard 2.0 stacks? And if you need features like

- Full WYSIWYG multipage word processing XCMD
- Multiple fonts, sizes and styles
- Left, center, right and decimal tabs
- Headers and footers
- Data merge from a HyperCard stack or 4D application
- Paste-in graphics such as MacPaint, MacDraw, PICT, PICT2, EPSF, etc.
- Text flow around graphics,

This HyperCard add-on may be for you. The software also has a command language, so you can programmatically create new documents, open existing documents, merge and print documents, and quit out of DB/WRITE.

New stuff

This was the first Expo in which Apple Computer set up a major "Apple Tools Exhibition"—completely open to the public —off the main floor. In Cityview Ballroom 1, the Apple Programmer Developer Association (APDA) group was assembled.

The APDA *Tools Catalog* was handed out to everyone . This new catalog (formerly the APDA*log*) has an extensive HyperCard section: Apple Toolkits, Third-party Tools, and Books & References. New additions to this section are

- 3d Graphic Tools *XCMD* v3.0 by Micro System Options
- *Dialoguer Professional* 2.0 by Heizer Software
- *HyperKRS+*, *HyperIndexer* v2.0.2 by KnowledgeSet
- *ScriptEdit* v2.0 by Somak Software
- OnTrack by Abbate Video Consultants.

There were many mini-tables set up in the APDA area to help Macintosh developers with a very wide array of Mac applications.

Apple's QuickTime Technology Preview Center was setup in Cityview Ballroom 2. Of the small group of developers showing *QuickTime* (*QT*) technology demos, DiVA (Digital Video Applications) had found a most impressive use for HyperCard with their QT toolkit for *VideoShop*. *VideoShop* is a new QT movie (digital video) creation and presentation tool. It will ship late 4th quarter—early 1st quarter 1992, after Apple incorporates *QT* in a major System 7 upgrade.

If you're interested in seeing (instead of just reading about) QuickTime movies, drop by the Workstation Lab and pickup a free digital video demo by SuperMac (bring a hi-density floppy). You don't need a special card or adaptor in your Mac to run QT movies. However, you do need a Mac with a hi-density floppy drive and a color monitor.

[2] The printers are located on the first floor of Bldg.50B in the Computer Center user area. There is a charge of $1 per print. In the Chooser, go the the "CompServ" zone, then select the ColorScript or Phaser printer.

Claris AnswerLines

The general technical support number for Claris products is 408-727-9054. The "touch-tone" number is "5" for HyperCard help. Now you're on hold—not forever, but just about. However, you have some options. You can

- hang on for 6 minutes, leave a message and a support tech will get back to you in four hours, or
- FAX your question to 408-987-7447 and they will FAX you an answer, or
- forget it all, and go to lunch.

If you try the automated AnswerLine or FAX AnswerLines you will wait forever. A very nice gentleman consoles you with, "we're sorry, all circuits are busy now." Thanks a lot Claris!

HyperCard 2.1—continued

The Claris 2.1v1 upgrade to HyperCard will be available very soon, and it will be completely compatible with System 7. If you would like more information on Version 2.1 check out Claris' summer, 1991 issue of *Technical Solutions*. With all this wonderful news about HyperCard 2.0 and a newer 2.1, let's pause for a moment: **it's time for a bit of perspective** on HyperCard.

HyperCard has taken some giant strides in the past year. During the transition from Apple and now fully under Claris, HyperCard has developed into a powerful developmental environment. It's also an application and even part of the Mac operating system. We're talking complexity here. It's interesting to speculate if Bill Atkinson had still been at the helm—would we be where we are now? It seems clear to this user, Claris is heading away from a simple, everyday tool for all—to a tool for developers only. Clearly, HyperCard is becoming less and less accessible to the average Mac user. Given this direction, it becomes questionable whether this monthly column is really necessary for users at LBL.

Bon Voyage?

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Deputy Director: Sandy Merola (AXMerola)	7440	50B	2232C

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Bob Fink (RLFink)	5692	50B	2258B
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ICS SERVICE CENTER			
Richard Gregory (R_Gregory)	7947	50B	2267K
ICS OPERATIONS ENGINEER			
Cindy Wood (CLWood)	4777	50B	2258E

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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	146
UNIX (DHCleveland)	5336	50F	110
Distributed Printing (RERendler)	5629	50F	129
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
Document Management (EHSheena)	5176	50F	120
Opening a New Account (PSBean)	7008	50B	1232B
UNIX and Cluster:			
Software Evaluation and Acquisition	5568	50F	144

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

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

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*

Internet Names: 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	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 422-1544

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