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PUB-429

Volume 25, Number 8
August 1988

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LBL COMPUTING NEWSLETTER

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For Reference

Not to be taken from this room

PUB-429

AUGUST 1988

NAMES & NUMBERS TO KNOW

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

INFORMATION & COMPUTING SCIENCES DIVISION
Head: Stewart Loken (SCLoken) .....7474 50B - 2232E
Dept. Head: Sandy Merola (AXMerola) .....7440 50B - 2232C

COMPUTING AND COMMUNICATIONS RESOURCES
Head: Ken Wiley (KGWiley) .....7083 50B - 2258E
Office of Computing Resources:
Dave Stevens (DFStevens) .....7344 50B - 2258F
LBLnet Manager: Sig Rogers (SGRogers).....6713 50B - 2258G
Telephone Services: Sam Gibson (FSGibson) .4234 80A - 103

ADVANCED DEVELOPMENT PROJECTS
Head: Dennis Hall (DEHall).....6053 ....50B - 3238

WORKSTATION GROUP
Group Leader: Richard LaPierre (RLLaPierre)....4692.....50B - 2245
Software Evaluation & Acquisition.....6858 50B - 2231

COMPUTING SERVICES
Head: Marv Atchley (FMAtchley).....5455 50F - 104
Asst.Head: Serge Polevitzky (SIPolevitzky) ...4389 50F - 142
Central Office.....5871,2 50F - 106

VMS SYSTEM
Eric Beals (ERBeals) .....5351 50F - 143
System Manager (GPJohnson) .....6211 50B - 1225

UNIX SYSTEM
Dave Cleveland (DHCleveland).....5336 50F - 115
System Manager (RJCochran) .....5565 50F - 127

DISTRIBUTED PRINTING
Bob Rendler (RERendler).....5629 ....50F - 119
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(PGMurray).....5354 50B - 2259

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

CENTRAL ELECTRONIC MAIL FACILITY

FIRST INITIAL-MIDDLE INITIAL-LAST NAME is the standard recipient format in Lab-wide mailing address.
Examples: VMS: lbl::JASmith
UNIX: JASmith@lbl.gov
Software Tools: JASmith@lbl.gov

DEVELCON

DEVELCON Access Names

[VAX 8650's (GENERIC) .....CSA]

VAX 8650 (VMS) CSA1
VAX 8650 (VMS) CSA2
VAX 8650 (VMS) CSA3
VAX 8650 (VMS) CSA4
VAX 8650 (VMS) CSA5

SUN-3 / 280 (UNIX1).....UX1
SUN-3 / 180 (UNIX3).....UX3
SUN-3 / 180 (ISD) .....ISD

Dial-up Access Numbers

All Machines - 300 BPS 486-4959
All Machines - 1200 BPS 486-4979
All Machines - 2400 BPS 486-4969

Local TYMNET Access Numbers for DEVELCON

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

MFE Consulting Number is 422-1544

Newsletter Closing Date is Monday, August 15, 1988

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

Editor: Maggie Morley

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SCHEDULES FOR COMPUTER CLASSES

IN THE TRAINING ROOM, BLDG. 50B, RM. 1237
or
IN THE BUILDING 50F CONFERENCE ROOM

Jerry Borges

The following computer classes are to be offered by Computing Services. Most of these are free. There is a charge for those classes with a figure (¥) appended. To enroll, obtain your supervisor's approval and then contact Pat Bean (×7008). If you have questions about what's being offered, or suggestions for other computer-oriented topics, contact Jerry Borges (×5568).

DATE	TIME	DESCRIPTION	INSTRUCTOR
August 9, 11, 16, 18	9:30 AM - NOON	Beginning TEX	Jerry Borges
August 17, 1988	10 AM - NOON	Electronic Mail: Survey	William Jaquith
Sept 19 through 23	9:30 AM - 5 PM	Intermediate TEX (¥)	TEX Users' Group
Oct 17, 19, 21	9 - 10:30 AM	Introduction to UNIX	Ed Sheena
Oct 19 & 21	1 - 3 PM	Introduction to VAX/VMS	Marty Gelbaum

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

Carole Casaretto

The following computer classes will be offered by the Workstation Group. There is no charge for these classes. To enroll, obtain your supervisor's approval and then contact Carole Casaretto or Tom Pope (×6858). Those classes with asterisks (*) appended are already full.

Call now to sign up for classes later in the year. For more information, see THE WORKSTATION SCENE in this Newsletter. If you have any questions regarding these classes or suggestions for other computer-oriented topics, contact Richard LaPierre (×4692).

DATE	TIME	DESCRIPTION	INSTRUCTORS
Aug 8, 10, 12	1:00 - 2:30 PM	Introduction to MacDraw II	Karla Savage
Aug 16, 18, 23, 25	1:00 - 2:30 PM 3:00 - 4:30 PM	Beginning MS WORD 3.01*	Karla Savage, Tom Pope Claudia Madison, Jean Wolslegel
Aug 24	10:00 - 11:00 AM	Introduction to HyperCard	Bruce Burkhart
Aug 24	1:00 - 3:00 PM	Beginning Excel Charts	Nancy Travis, Carole Casaretto
Aug 29, 31	10:00 - 11:30 AM	HyperCard -- Creating Cards and Stacks	Bruce Burkhart
Aug 29, 31, Sept 2	1:00 - 3:00 PM	Beginning Excel Spreadsheet*	Claudia Madison, Dana Conant
Sept 13, 15, 20, 22	3:00 - 4:30 PM	Beginning MS WORD 3.01	Claudia Madison, Jean Wolslegel
Sept 21	10:00 - 11:00 AM	Introduction to HyperCard	Bruce Burkhart
Sept 26, 28	10:00 - 11:30 AM	HyperCard -- Creating Cards and Stacks	Bruce Burkhart
Sept 26, 28, 30	1:00 - 3:00 PM	Beginning Excel Spreadsheet	Nancy Travis, Carole Casaretto

LBLNET NEWS

Bob Fink
Sig Rogers

LBLnet Expansion Plans

In the last two issues we have presented overviews of LBLnet expansion plans. These plans included the support of TCP/IP routers in addition to protocol-insensitive bridges. This month we give a status report on the IP router activity.

IP Routers on LBLnet

LBLnet provides the wiring media for several protocol families at LBL. The most widely-used is the Internet, also known as TCP/IP. The Internet is formed of many networks, each of which may have many subnetworks.

LBLnet is a Class B network (this refers only to the structure of the address) with an Internet address of 128.3.s.h where the "s" and "h" fields are defined locally by LBL. The "s" field is an 8-bit subnet number and "h" an 8-bit host number. Each subnet may have no more hosts than the 8-bit field width allows. This is 254, disallowing all zeros and ones which are used for broadcast and other purposes.

LBLnet is the largest piece of the LBL Internet having over 200 hosts attached that utilize the TCP/IP protocols. The LBLnet subnet number is 254, so hosts on LBLnet are addressed as 128.3.254.h , where "h" is the host number. Recent IP host connection activity has rapidly driven the number of hosts on LBLnet close to the limit, thus necessitating the introduction of the first LBLnet IP router.

For several technical reasons we have chosen to use a Sun-4 based router to gain experience with routers prior to acquiring production routers during 1989. The Sun-4 is equipped with two Ethernet interfaces, one attached to the bridged LBLnet (LBLnetB) backbone, the other attached to the first Ethernet that is part of the routed LBLnet (LBLnetR).

The first Ethernet on LBLnetR is in the south part of Building 46 that serves the HP CAD workstations supporting the ALS project. During July most of these workstations will be moving to LBLnetR (which is Internet address 128.3.128.h). System managers of systems being moved will always notify affected users before any change takes place (John Milburn in this case).

As the 128.3.128 subnet of LBLnetR becomes filled (i.e., over 250 systems) new IP routers will be installed. Systems supporting more than one protocol family, e.g., DECnet or XNS, will not be moved. Eventually, LBLnet routers may support more than one protocol, but this has not yet been decided. Meanwhile, the bridged LBLnet will provide the interconnection method for systems using non-IP protocols.

It is our plan that eventually LBLnetB and LBLnetR will both be available in all buildings.

Other News

The Bevalac control project has isolated its control LAN from LBLnetB (the part now called BEVLAN) by adding their own IP router. (See the attached "Overview - Block Diagram".) This subnet is known as the Bev Ctrl LAN. The router is Sun-3 based and is supported by the Bevalac control project.

Network Contact Information

LBLnet new installations: Ted Sopher
x4559 or x5354

LBLnet trouble calls:
x5354

LBLnet comments or trouble reports:
lblnet@lbl

For DECnet administration: William Jaquith
x4388

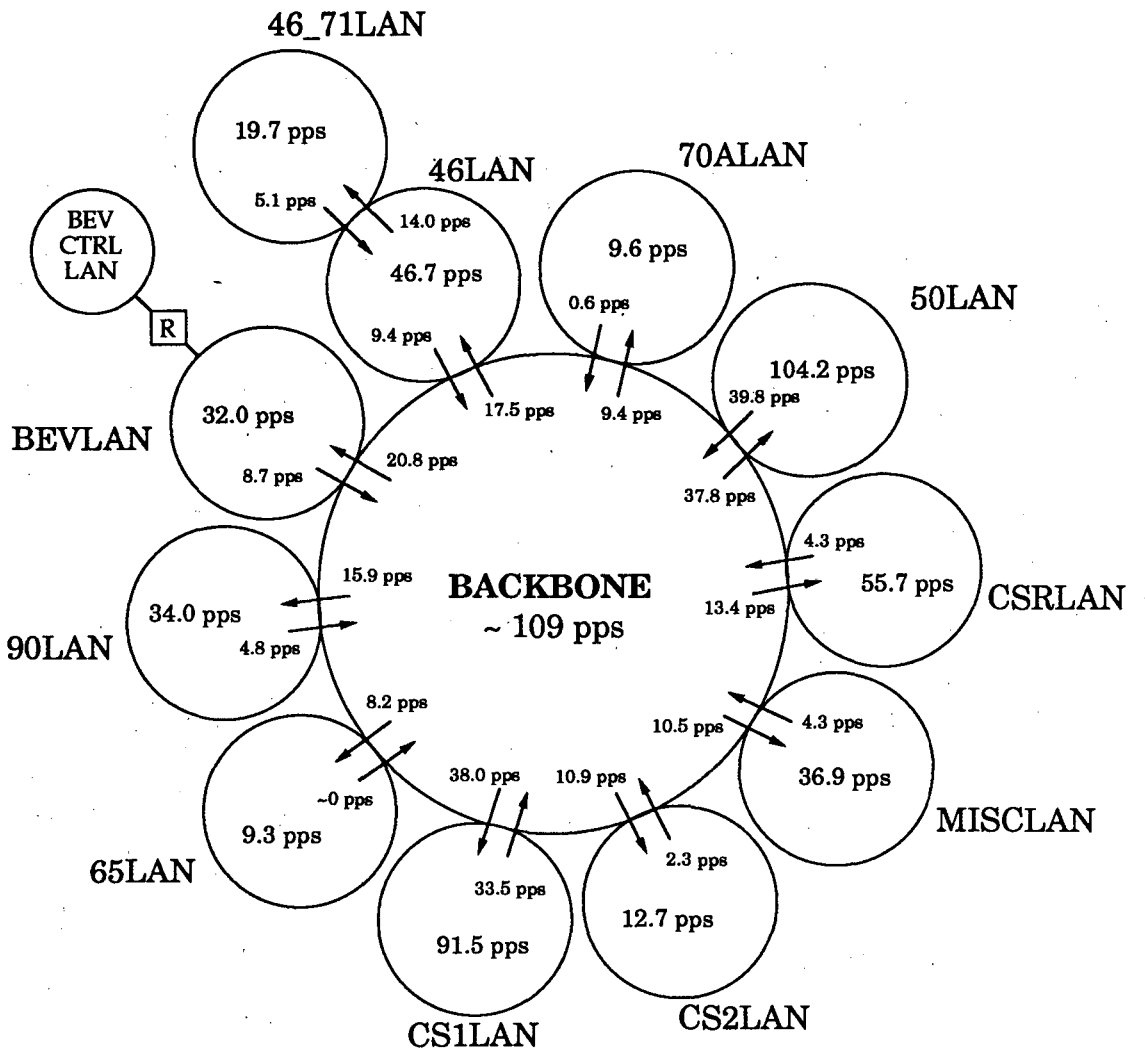
For Internet administration: Darren Griffiths
x6966

For IBM PC and Macintosh network administration: Richard LaPierre
x4692

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

If you are in doubt about whom to call, call:

Bob Fink	x5692
Serge Polevitzky	x4389
Sig Rogers	x6713



R = IP Router

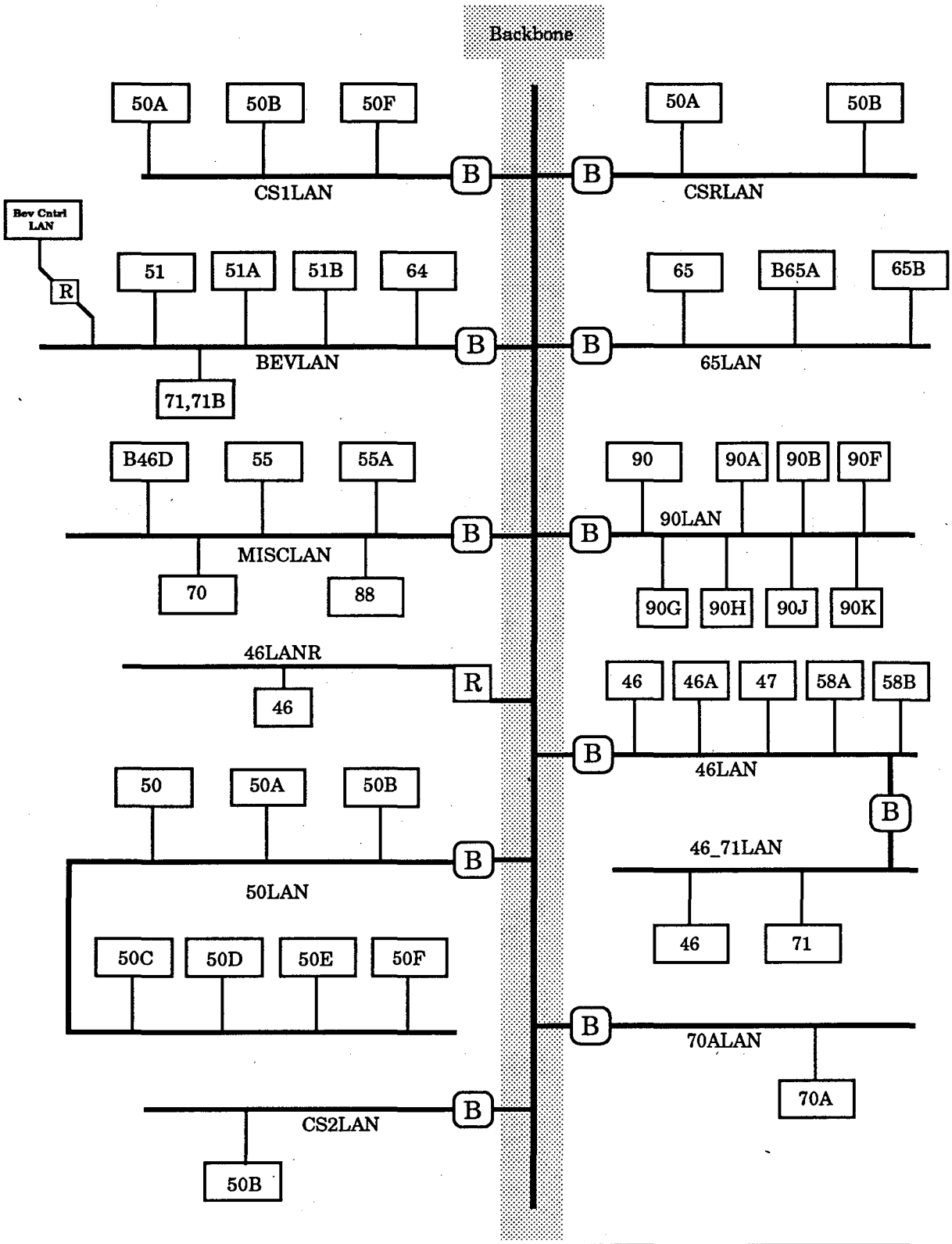
pps = packets per second; all figures are monthly averages

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

Note: Each ellipse shown above is a separate Ethernet that is interconnected to the others via a bridge (or router if indicated) that provides forwarding of packets based on address.

LBLnet Activity
June 1988

ICSD/CCR Fink/Rogers



B MAC Layer Bridge

R IP Router

Lawrence Berkeley Laboratory - LBLnet

Overview - Block Diagram

Ted G. Sopher / CCR July 12, 1988

HELP DESK

NETLIB: FREE MATHEMATICAL SOFTWARE BY E-MAIL

Jon Forrest

There's a great method for getting source code to most public domain mathematical software without having to ask Computing Services to acquire it for you. This method is to use the NETLIB automatic software distribution system.

You do this by accessing a computer system at Argonne National Labs on which almost all of the important public domain mathematical software in the country has been collected. This computer runs a 'server' program that responds to E-Mail requests for software by mailing you the software you request. Your request must be in a format recognized by the server.

The best way for you to find out more information about this service is to send the message

send index

to NETLIB@ANL-MCS.ARPA
if you use the Unix
or the Software Tools mail system

or to ST%"NETLIB@ANL-MCS.ARPA"
if you use VMS mail.

The contents of the subject field in your message are ignored. Make sure your request is in lower case or else whatever you receive will all be in upper case. You will receive information describing all the available software as well as the commands necessary to request the software.

Keep in mind that software you receive using this method is not supported in any way by Computing Services.

Forward comments and questions to me at ×4991 or

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

. . . Avoid using Kermit with set host/dte.

HOW GOOD CITIZENS USE KERMIT

Cliff Stoll

Most of you use Kermit as a terminal emulator and to transfer files from your microcomputer into and out of the VAX. Whether you dial in from home or use the develcon, Kermit's neat, discreet, and quite complete.

However, some of you have discovered the two dial-out ports (TXJ1 and TXJ2) on the CSA4 computer. You can use SET HOST/DTE and the modems on these ports to make phone calls out of the laboratory.

There's a bunch of problems when you use Kermit to transfer files. First, there are only two modems. Don't hog 'em. Besides the fact that these constitute a limited resource, those long-distance toll charges can mount up.

More important, for every character that you send or receive through a SET HOST link, several dozen bytes must be processed by the VAX. This processing must be done at a high priority (or else some data will be swallowed). The high-priority processing of that many bytes takes precedence over more mundane things, like running users' jobs.

When you run Kermit over a SET HOST link, you can chomp up a quarter of the thinking power of the VAX. We find that jobs running Kermit through SET HOST/DTE are significantly slowing down everyone.

So, out of courtesy to your neighbors, please don't run Kermit using SET HOST/DTE. All of us will appreciate it.

PHYSICS UTILITIES NEWS

Werner Koellner

- **PHYSICS UTILITIES**
  Access to the Physics Utilities, including the CERN Library and the PAW (Physics Analysis Workstation) Library, is available after executing the DCL command

  @Physics$Manager:Setup_Phys

  It is best to include this line in your Login.Com file. Type

  help @physics_utilities

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

  help *'subtopic'*

  to get help on a particular utility directly.

- **CERN LIBRARY**
  Object libraries are updated at unpredictable times. Changes are documented in the CERN Computer Newsletter, and sometimes also in the directory **Cern$Inform**. In some cases, a previous version of an object library is available as **xxxxx.old**. The following Object Libraries have been updated recently:

LIBRARY	UPDATED TO . . .
COMIS	Version 1.03
GENLIB	Version 1.26
GRAFLIB	Hbook4 Vers.4.03
	Hplot5 Vers.5.03
HBOOK4	Version 4.03
HIGZ/HIGX	Version 1.02
	Note: HIGX is the GKS version
HPLOT	Version 4.18
HPLOT5	Version 5.03
KERNLIB	Kernfor Version 4.18
	Kernvax Version 2.26
KUIP	Version 1.28
MGKS	Version 1.09
PACKLIB	Epio Vers. 1.57
	Kapack Vers. 2.10
	Zbook Vers. 1.57
	Ffread Vers. 3.04
PACKLIB4	with HBOOK4
PAW	Version 1.03
ZEBRA	Version 3.57

- **GEANT**
  GEANT, a system of detector description and physics simulation tools, is available as part of the CERN Libraries. Seven sample programs, consisting of user code, input data, and a command procedure, to help introduce a new user to the features of this program, are now available. Type

  help geant

  for additional information.

- **PAW,**
  PAW, the Physics Analysis Workstation, has been interfaced with the full GKS (Graphics Kernel System) interface, furnished through license from Advanced Technology Center. You can use most terminals, which are capable of graphics, in their native graphics display mode. A sample program,

  paw$library:paw_atc.exe

  is available. Type

  help paw

  for additional information.

Forward comments and questions to me at ×4398 or

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

POSTMASTER'S CORNER

William Jaquith

This is the Postmaster's Corner. We'll answer frequently-asked Electronic Mail questions here.

You can also get answers to your Electronic mail questions by sending them to **Postmaster** or **PostOffice** on the CSA cluster.

This month there will be one Electronic Mail class offered. (See Page 3 of this Newsletter). The first part of it is introductory and the second part will cover further topics.

QUESTION:
I am working with six people on a project. We have agreed that electronic mail is a straightforward way to communicate. Is there a way to send mail to all six people without typing their names each and every time?

ANSWER:
Yes. You can create mail distribution lists on any of the three mail systems (VMS, Software Tools, and UNIX) which cause mail to be delivered to all members of a group at one time. Each mail system uses a slightly different setup to accomplish the same thing.

VMS MAIL:
To send mail to a distribution list in VMS Mail you must first create a file containing the logins of all prospective recipients. These lists can be as long as you like. I have seen distribution lists containing hundreds of names. Best to call the file something relating to the group, and be sure to append the extension .DIS to it. It helps to include comments inside the file (use an exclamation mark in Column 1 to identify the comment line). For instance, to set up a file containing the logins of all the folks who are participating in the planning of the "September meeting," type the following -- (prompts are in regular typeface; what you type is bold):

CSA> **create sept_meeting.dis**

Enter the appropriate logins

```
smitty
cithex::james
bnl::kris
st%"tony@ucbcmsa.bitnet"
st%"karen@ux3.lbl.gov"
!Logins of people working on the September Meeting.
!Note that comments are marked by an exclamation
!mark. Mail can be sent off the HEPnet/DECnet by
!using the CSA specific call to the Software Tools
!mail interface ST%"...
<control> Z
```

CSA>

Now, when you want to send a message to all the people in this group, you type

CSA> **mail**
MAIL> **send/edit**
To: **@sept_meeting**

(Please note that when sending a message to a group, you **must** put an 'at' sign (@) in front of the filename in order to activate the group mailing feature.)

Subject: **Some subject**
***Insert**

Your message ...
more message ...

OR if you have a file you wish to send

***include filename.ext**

Then to send it, type

***exit**

If a remote node is not available at the time you send your message, you will receive a message indicating the username and node that is unavailable. (However, copies of your message will successfully reach the logins at 'available' nodes).

Then to leave mail, type

MAIL> **exit**

Note that VMS Mail creates a virtual circuit to the remote node so that it will take many minutes to send messages on very large distribution lists.

SOFTWARE TOOLS MAIL (msg):
In Software Tools mail you create a file called **malias.** (you must append that period; this tells the system that it is not a type .LIS file.) You can create the file **malias.** in your default home directory or in the directory in which you are currently working.

```
CSA> create malias.
     # This is my personal malias. mail distribution
     # file for Software Tools
     project_b642(upgrade of software codes in B642 project):
          sharon,kathy,tonia@slacvm.bitnet,
          etw@fnal.hepnet,thomas@romeo.mit.edu, rtj@cernvm.
     lunch_bunch(Wed. lunch gettogether group):
       sharon,tomm,david,bobt,liz;
     #malias.. file comments are marked by the '#' in column
     #1. The alias or distribution name occurs at
     #the beginning of the line. You may elect to include a
     #description within parenthesis. Use the colon to
     #indicate the start of the distribution list.
     #Put as many alias or distribution names as you
     #like in the malias. file. The distribution
     #list consists of valid Software Tools MSG addresses.
     #Commas separate each address. The end of the distri-
     #bution list is marked by a semi-colon. Most errors in the
```

#malias. file occur because the semi-colon is
#missing.

CSA>

To send a message to all folks in the B642 project, type

CSA> **sndmsg project_b642**
Subject: **sending mail to folks in project_b642**
sm>

To insert text, type

sm> **i**
This puts you in the input mode.
Type your message
When finished, end the input mode with
. (period) <return>

To include a file, type

sm> **r filename**

To send the message to everybody, type

sm> **s!**

Any valid network address can be installed in the **malias.** file. The Software Tools mailer will look for the file **malias.** in two places: (1) in your default home directory, and (2) in the directory where you are currently located.

The mailer will expand the distribution name that it finds. Note that Software Tools is a store-and-forward (queued) mail service. If one of the addressees cannot be reached because their computer is down, the mailer will retry at hourly intervals until the remote computer comes back on-line.

UNIX MAIL:
The UNIX mail distribution list or alias is similar to the Software Tools mail setup. Create a file called **.mailrc** and include your alias definitions in the file. (Be sure to put the period at the beginning of the filename). In the first column is the key word "alias," in the second column is the name of the alias, and the rest of the space is the list of valid user addresses.

UX1> **vi .mailrc**
alias workshop smith,john@csam,
dana@csa2,RJKoch@lbl.gov,
garibaldi
alias weekly_meeting janet,jake,
tina@dante.lbl.gov,
sheila@bevax.lbl.gov,
RMSun@lbl.gov
:wq
UX1>

Now, to send a message to the five people in the file "workshop", type

UX1> **mail workshop**
Subject: **a sample message to alias 'workshop'**
Start typing in your message.
(There is no prompt here)
More message . . .

If you wish to read in a file, type

~r (that's tilde 'r') filename

To send your message, type

<control> d

.mailrc can contain as many aliases as you want.

Caveat: Be careful when using aliases or distribution lists. You can easily forget or not know who is on these distribution lists and say things in a mail message that you would not have said in person or at a meeting with all of the people who are reading this mail.

This is not to say that you cannot express strong or controversial opinions; you should simply be careful when you send electronic mail. For example, when you are at a meeting and give an unpopular opinion, you can readily explain your position right then and there. When using electronic mail, you no longer have that option. You won't have the ability to read some of the subtle physical body language as you can at a face-to-face meeting.

Frequent users of electronic mail and bulletin boards do express outrageous and highly controversial opinions. They typically note the opinions as "hot" by bracketing the opinions with things like "FLAME ON" and "FLAME OFF". Readers of comments that are bracketed by flame markers should not take the opinions in a personal manner; the originator knew the opinions were inflammatory and controversial. There is an implicit invitation to reply in like manner and the originator of the message will also not be taking the opinions personally. One sees comments like "MAXIMUM FLAME" etc. to indicate even more controversial opinions.

In day-to-day mail, people sometimes use the dash, colon, parenthesis, and brace keys to express a variety of emotions. The figure :-) (colon dash right parenthesis) is meant to represent a happy face. For the sad occasion there's :-((colon, dash, open paren); for the lopsided grin :-; (colon, dash, semi-colon); for the sinister smile some suggest :-} (colon, dash, curly brace); and for the very happy :-)))))) (colon, dash, close paren, etc., etc.) In any event, all of the body language and comments and quick interchange that exists at a meeting cannot exist in electronic mail. Comments like faces and FLAME ON and FLAME OFF give a user the ability to temper his expression of controversial opinions.

. . . Hermes, Postmaster

Forward comments or queries to William Jaquith (×4388) or

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

UNIX NEWS

LBL PHONEBOOK ON UX1 AND UX3

Dave Cleveland

On UX1 and UX3 there is a new command, **lblphone**, that finds the most current phone numbers of LBL employees. For example, if you type

lblphone jaquith

on your terminal's keyboard, the phone numbers of everyone named Jaquith will be displayed on your terminal's screen. If you type

lblphone

the phone number of everyone in the phonebook will be displayed, one page at a time.

Forward comments to me (×5336) or

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

UX1 AND UX3 SPELL UTILITIES, PART 1

Dave Cleveland

SPELL

The **spell** command on UX1 and UX3 is a utility to find spelling errors. If you wish to run a file named 'document' through the **spell** utility, type

spell document

and the words in 'document' are looked up in the system spelling list. Misspelled words are displayed on your terminal's screen. The **spell** command ignores most "iroff", "itroff", "qroff", "troff", "tbl", and "eqn" constructions.

If you wish to check the spelling of a certain word, type 'spell' and hit the Return key. Next type the word, followed by a **<Control> D**. If the word is redisplayed on your screen, it is misspelled.

To create your own list (of correctly-spelled words), first create a file that is a word list, say 'mywords', with one word on each line. Next type the command

spellin /usr/dict/hlist < mywords > hmywords

to create your spelling list, 'hmywords'. Then to use your list to check the spelling of words in 'document', type the command

spell document -d hmywords

LOOK

The **look** command finds (correctly spelled) words in the system list of words, or in your own word list. To find all of the words in the system list that begin with a particular string of letters - say, 'est' - type the command

look est

and all of those words will be displayed on your screen. To find matching words in your own list, type the command

look est mywords

Next month there will be an introduction to the interactive spelling checker, 'Spell' (with a capital "S").

Forward accolades, comments, gripes, and questions to me (×5336) or

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

FOCUS NEWS

Bert Albrecht

- NEW RELEASE

A production release of FOCUS **Version 5.2** has been installed on the Cluster. We've been waiting for this release for a long time. Following is a summary of new features in this new release:

--- Mixed FOCUS-nonFOCUS JOINS
--- WINDOWS
--- PERFORM, SCREENINDEX and GETHOLD
--- New date formats
--- Regis color graphics
--- *ModifyTalk*
--- Enhanced ALL-IN-1 integration
--- Absolute file integrity
--- Multiple users sharing one default directory
--- IMPORT
--- FOCUS interface to SYBASE, *Ingres*, and DBMS

- MANUALS AVAILABLE for the NEW RELEASE

The Computer Center Library (Bldg. 50B, Rm. 2232B, ×4242) has ordered pertinent new manuals, namely the "New Features Manual," "Talk Technology," and "FOCUS WINDOWS Users' Manual." These will be available as soon as they arrive.

- WARNINGS

Here are some things you should be aware of before you begin using this new release:

--- You must execute the command procedure

NEWFOCUS.COM

in directory [BERT] prior to invoking FOCUS. In VMS, type

RESOLVE ALBRECHT

to find which disk contains directory [BERT].

--- HOLD files will default to BINARY with Release 5.2, instead of ALPHA, which has been the default until now. A new SET command -

SET HOLDDEF --

will allow you to override the default.

--- Compiled MODIFY procedures must be recompiled.

--- FOCUS 5.2 Beta 1 sites must reconvert WINDOWS transferred from PC/FOCUS.

--- PC/FOCUS 3.1 WINDOWS are not supported.

It's important that as many LBL users as possible try this new release. Check to see that the new release functions as the current release for the applications you have. As soon as we are reasonably certain that everything works as the current version, we can put Version 5.2 into 'production.' Then it becomes important to test the new features for feedback to Information Builders, Inc.

Your cooperation is appreciated (and vital!). Please report errors and success stories (especially) to Bert Albrecht, ×6280. Please test current applications as soon as possible.

- FOCUS USERS GROUP

The next FOCUS Users Group meeting will be from 1 to 4 PM Thursday, August 25, in the Bldg. 50B Training Room (Bldg. 50B, Rm. 1237). There'll be a general discussion concerning Version 5.2. We hope users will share new 'discoveries.' Then perhaps we'll have some demonstrations of new features. There will also be further discussion and a demonstration of how to use the **Tool Kit**'s personnel file for inputting salary adjustments to Compensation. Plan to attend and add to local expertise.

Forward comments and questions to

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

GRAPHICS NEWS

GRAPHICAL KERNEL SYSTEM IS UP AND RUNNING

Nancy Johnston

The **Graphics Kernel System** (GKS), as described in the June 1988 Newsletter, is now available on all machines in the VAX/VMS Cluster (CSA1-CSA5). GKS is also available on UX1, UX3, and Sun Workstations served by UX3.

Documentation is available in the Computing Services Library, Bldg. 50B, Rm. 1232B (×4242) and includes:

GRAFPAK-GKS User's Guide
GRAFPAK-GKS Reference Manual C Binding
GRAFPAK-GKS Reference Manual FORTRAN Binding
MicroGKS FORTRAN (for the IBM/PC user)
Notes on all the different Device Drivers

For more information on GKS on the Cluster, type:

$ help graphics gks

On UX1 and UX3, type:

% man gks

The **NCAR** example programs have been modified on the Cluster to use the new GKS. Now, NCAR can be used on all machines in the Cluster. (Previously, use of NCAR was limited to CSA1). NCAR is also now available on UX1, UX3, and the Sun Workstations served by UX3.

For more information on NCAR on the Cluster, type:

$ help graphics ncar

On UX1 and UX3, type:

% man ncar

Forward comments and questions to:

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

NOTES FROM TROUBLE MAIL

Dana Conant, Computing Services

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

****

MESSAGE:

As soon as I can figure out how to do it, I will be trying send files from the MFE Cray to the CSA VAXs. I have been told that I need a rights identifier to do this. Can you give me this qualifier, or can you tell me what information you require before you can give me the qualifier? I am specifically interested in transferring source codes (FORTRAN) and binary files (of the type generated by formatted writes). I would also like to know what massaging of the unformatted files is necessary for the data to be transferred correctly. Some of these files may be large (5K blocks on the VAX) and I am interested in knowing if doing this through networks is possible.

RESPONSE:

We need:

- your CSA username;
- your MFE user--id (the 5 or 6 digit number that you alone use there);
- the exact directory on CSA to which you want files sent.

You should be able to transfer 5000 block files through MFEnet; this will naturally take some time and you may want to do it at night.

You can use Fortran source code back and forth between the MFE Crays and the CSA cluster. You can transfer binary files too; I took it you meant that such files were created by "unformatted writes"; the online HELP article NETOUT on CSA explains the various options for using NETOUT to send files *from* CSA to the MFE Crays. You can use the document command on the MFE Crays to read about their NETOUT command.

****

MESSAGE:

I am trying to send a 100,000 block file to the MFE Cray. I get a NETOUT output device error:

%RMS-F-FUL, device full (insufficient space for allocation).

RESPONSE:

Transferring a 100K block file in MFE will fail. Use the /NOCOPY option to allow you to transfer large files. The default netout file transfer will create a copy of your file in system space that has a total of 30K blocks available. Depending on traffic, 10-20K may already be in use. So while 20K block files should transfer in default mode, 100K block files will fail. The /NOCOPY option does not move your file into the system space and permits files of unlimited size to be transferred. See the VMS HELP article NETOUT /COPY for additional information. With /NOCOPY, the data is not copied by NETOUT. The input file is opened and read at the time the transmission actually occurs. The user is responsible for ensuring that the input file remains available until the transmission completes.

****

MESSAGE:

Your HELP entry on NETOUT specifies that one should type TYPEHOST on the Cray to see a list of MFEnet sites. Doing this gives an error message.

RESPONSE:

Yes, *all* commands for the CTSS system must be typed in lower case letters; their documentation uses the convention that commands are shown in upper case letters, but they *must* be typed in lower case. You can see what hosts are on MFEnet by typing the string "typehost" in lower case on the MFE Crays.
The HELP article NETOUT also suggests trying

```
HELP MFE_HOSTS
```

which does work fine here on the CSA cluster.

****

MESSAGE:

A sudden glitch of some kind red-lighted me while I was logged on to CSA2 in the editor. Logging back on later, I discovered that my process is still around, and that the editor journal file I was working with is locked and can't be deleted. Can somebody kill this process for me? or do I have to wait for a reboot?

RESPONSE:

You should be able to kill any process which you own. The command is:

```
STOP 'process_name'
```

You can use HELP STOP if you need more information.

****

MESSAGE:

How can I remove the definition of LOO*KUP == st_... so that I can give some of my own commands LOO* type names?

RESPONSE:

The command

DELETE/SYMBOL/GLOBAL lookup
will delete the global symbol "lookup" from your symbol table. You may want to make another symbol that runs the same program so that you can still easily check the electronic mail database.

****

MESSAGE:
How does one perform linking when many subroutines live in CMS? Fetch them all?

RESPONSE:
One way to deal with lots of subroutines in CMS libraries is to use MMS which knows how to extract files from CMS libraries and how to do what is necessary to link with them. See HELP MMS for more information.

****

MESSAGE:
My correspondents in Paris (using Bitnet) are unable to reply to my messages; their Multics system does not recognize my address here. Do you know a way they could reach me?

RESPONSE:
The simplest way is to have yourself registered in the LBL Electronic Mail Database. Your correspondents can then send you mail by

yourname@LBL

and the Mailer program will deliver the mail according to the information you give when you register. Thus, you could have the Mailer program deliver your mail to yourname@ux1.lbl.gov.
The "man lookup" command explains how to get registered in the LBL database.

****

MESSAGE:
Why can't I use VAX NOTES? I get an error when typing NOTES. I am on CSA4. Thank you.

RESPONSE:
VAX Notes are available only on CSA3. We only own one copy since it's quite expensive, and the demand doesn't justify the cost.

****

MESSAGE:
I need to look at some data a former coworker left behind.

RESPONSE:
We can restore deactivated accounts for a $50 charge. We will need the login name and approximate date of last use. We will further ascertain that the account belongs to your group. The files may be restored into your account.

****

MESSAGE:
Hello. I'd like to know how one finds and uses font and size specifications for both the Imagen and LaserWriter printers under IMPRINT. A few people at the Snowmass conference want to reduce the size of their output (I suppose for overhead or slide presentations) and have indicated their present plots, even when rotated, don't quite fit.
I know the LaserWriters support such (w/ -f) but was about the Imagen, and where can I find more info to pass along?

RESPONSE:
The following works for the Apple LaserWriters; it *will not* work for the Imagens:

imprint -psnow2 -fcourier8 filename

This example will print the "filename" in the Courier font, point size 8; the default font is Courier 10. See the HELP article IMPRINT FONTS for details and names of some other PostScript fonts available.

****

If you want wider distribution of your comments or questions, we encourage you to send them to **trouble** *since it is seen by a wide range of people, including Divisional management.*
To use **trouble**, *enter the* **VMS, Software Tools,** *or* **UNIX** *mail system and send mail to the address*

trouble<cr>

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

The Workstation Scene

[25.8.1].....

• WORKSTATION GROUP ELECTRONIC MAIL

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

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

We hope this alternative (to the telephone) will help users who have problems or who want to share helpful hints.

[25.8..2].....

• WHERE WE'RE AT

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

[25.8.3].....

• COMPARE UTILITY FOR PC-DOS MACHINES

. . . From Dan Van Zile

The Workstation Group has downloaded a very useful utility from PC-Magazine's bulletin board. For a long time, we PC users have needed a good procedure to compare two files for differences. *COMPARE* does exactly that.
Files need not be of the same length. They may be compared either as ASCII or as binary.

Text Processor files which use the high-order bit (such as WordStar) may be displayed in ASCII by using the /W option in the command line which invokes 'COMPARE'.

Files are displayed in two on-screen windows. Any differences will be shown in inverse video. Several lines before the located difference will be displayed to provide context.

Using one of the most useful features of 'COMPARE' it's easy to find inserted text or code. When 'COMPARE' finds a difference, it searches ahead up to 400 bytes (the reach value) for 10 consecutive matching characters (the sequence value). Both the reach and sequence values may be changed. These additional features make this program far more useful than the 'COMP' program in PC-DOS.

The executable program and its documentation file may be downloaded from the CSA cluster via Kermit file transfer from the directory pointed at by

SET DEF IBMPCSOFTWARE

or by bringing a blank floppy disk to the Workstation Group Laboratory, Bldg. 50B, Rm. 2231.

[25.8.4].....

• LOTUS 1-2-3 VALUE PACK

Here's a current release from Lotus which has several interesting new options for the 1-2-3 user. Most important is a new initialization program which lets you remove copy protection from your 1-2-3 disks and make a backup copy in accordance with the legal guidelines given in the Lotus License Agreement.

The 1-2-3 Value Pack also contains some new drivers which enhance 1-2-3 text display, graphics resolution, and print quality. The new drivers support the following display adapters with 1-2-3:

1. IBM Enhanced Graphics Adapter (EGA)
2. IBM Video Graphics Array (VGA).

This 1-2-3 Value Pack is free. For your copy, bring a disk to the Workstation Lab (Bldg. 50B, Rm. 2231).

[25.8.5].....

• SCIENTIFIC DATA ANALYSIS AND PLOTTING ON THE MAC

Thanks to Lori Shininger for looking at these three programs for us. Be warned: these are programs for people who understand statistics and multi-dimensional plotting.

MACSPIN
MacSPIN offers 3- and 4-dimensional rotatable graphics but limited data-analysis functions. The Workstation Group has a demo disk.

SIMUL
SIMUL, a memory hog (don't try it with less than 2M), allows animated manipulation of drawings or parts of drawings. The program itself has only rudimentary drawing tools, but it can accept more detailed drawings from other programs. At $1195 (list price--educational discount available), this is not a mass-market item. The Workstation Group has a demonstration disk.

DATA DESK
DATA DESK Professional from Odesta Corporation is a truly powerful data analysis and graphics It does 3-dimensional plotting, histograms and scatter plots. Besides doing graphics, it provides statistical summaries of the data. The documentation is excellent and includes what amounts to a statistics textbook. This product has a $495 pricetag. The Workstation Group has a copy for evaluation.

[25.8.6].....

• IBM PC GOODIES

SPECTRA CALC
SPECTRA CALC is a heavyweight data analysis and graphing program with 3-dimensional capabilities. It also has a data acquisition module. Plotting is interactive and can be done on multiple files and in multiple fonts for presentation purposes. It imports from and exports to Lotus, J-Camp, DIF, ASCII, and IEEE floating point files and supports common graphics adaptors, plotters, and printers. There's a demo disk at the Workstation Lab.

SAS ON THE PC
Users of *SAS* , the statistical modelling software on IBM mainframe and VAX systems, might be interested in looking at *SAS* on the IBM PC. The Workstation Group has a demonstration disk. Unfortunately, it is geared to business applications, but it does show some of the program's power in statistical and matrix analysis.

PAGEVIEW
PAGEVIEW is a page layout and preview utility for Microsoft *Word* or Microsoft *Works* documents. The program allows users to adjust margins, page numbers, and placement of headers and footers, to import and position graphics, and to print documents. It works separately from *Word*. The preview is fairly crude, and the program is probably not worth the trouble of installing if you are not already working under Microsoft *Windows*. Pricetag: $19.95. There's an evaluation copy in the Workstation Lab.

IZE
IZE is a text retrieval system with certain hypertext characteristics. Not only does it search documents according to designated key words, but it can also do boolean and wildcard searches and can search on non-designated words. Users can associate different documents by creating hypertext-like links. When a query results in more than one document found, *IZE* creates an outline of the target documents. It has its own word processor or can be made to work with documents created in most major word processors or spreadsheet programs. The Workstation Group has a demonstration disk--perhaps interesting less as an application for use right now than as a taste of applications to come.

GALAXY
GALAXY is a very fast word processor. This is because your text file is kept in RAM; you don't swap parts from RAM to disk. *Galaxy's* Macintosh-like drop-down menus help you manage the large number of commands. The current version (2.3) is a good value for the money. It is shareware, and the $49.95 price includes free updates and documentation. If you would like to try it, check it out of our Lending Library at the Workstation Lab (Bldg. 50B, Rm. 2231) or call x6858 for more information.

[25.8.7].....

• PC-NDX: KEYWORD INDEX TO THE PC MAGAZINE

PC-NDX is a disk index for readers of PC Magazine. It consists of a search program and a database. Currently the database covers 1986, 1987, and the first quarter of 1988. Quarterly updates will be available through 1988. The disks contain the citations and keywords for each year and are stored in a compressed format. In the install process, the records are decompressed. In all, this process is very simple and works.

There are three steps in the operation process: selecting, browsing, and citation. First, enter your keyword or volume for the year you want to search. A browse screen appears and shows all the article titles and keywords which match the search criteria. When you select one of these titles, a complete citation shows all the information about the article in which your keyword appears.

It comes from the folks at PC-NDX in Mishawaka, Indiana (219-256-1045). The 1986, 1987, and 1988 databases cost $8, $9, and $19 respectively, with a $3 mailing charge. If you would like to see this program in action, stop by the Workstation Lab (Bldg. 50B, Rm. 2231) for a test drive.

25.8.8].....

• MAKING LABELS WITH FILEMAKER

Carole Casaretto of the Workstation Group has prepared a document to show you how to produce 3" mailing labels in *FileMaker Plus* on a LaserWriter. If you'd like a (free) copy, contact Carole at x6858.

[25.8.9] .....

• NEWS FOR AUTO CAD USERS:

The new AutoCAD Version 10 for the Mac is scheduled for shipment in September. If you currently run Version 9 on a Sun, Apollo, DEC, IBM or any other clone, you can upgrade to Version 10 on a Mac for approximately $250.

[25.8.10] .....

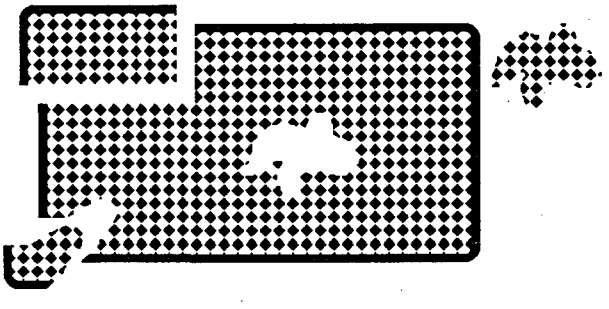
•WKSG GRAPHICS SUPPLEMENT:

. . . From Tom Pope

Macintosh graphics programs come in a variety of styles, and in this article we'll attempt to clarify some of the differences between the many graphics packages available for the Macintosh.

First: here are a few of the different types of graphics that can be generated on the Mac. After that comes a brief list of some of the products that are out there.

Bit-mapped Graphics (*Paint*):
Bit-mapped graphics offer some real flexibility by letting you manipulate an image as a whole, or letting you chop out parts of the image, like so:



Object-oriented Graphics (*Draw*):
Object-oriented graphics packages are typically used for drafting, blueprint generation and the like. In this type of environment you create objects which can be manipulated much more easily than bit-mapped art. However they cannot be "cut up" like the image above. Though they are not as intuitive as painting programs, drawing programs can be much easier to use (depending on what kind of effects you're after) once you master the techniques involved.

PostScript Graphics:
Now that LaserWriters and other high-resolution printers are being widely used, there is a growing need for graphics programs designed specifically for high-resolution output. These programs tend to be pretty complicated and are not meant for rainy-day painting. They are designed for the serious graphic artist and can be used to create truly stunning artwork.

Touch-Up Applications:
Scanned photographs can, and often do, look pretty shoddy, but now with the new grey-scale monitors you can retouch scanned images to create near-photo-quality digitized images which can be manipulated as easily as any other Mac-generated graphic. This is a real breakthrough, especially for desktop publishers who can now do the entire page layout process, including photos, without doing any physical cutting and pasting at all.

Clip Art Packages:
These are collections of ready-made Mac artwork in a variety of formats, usually with a particular theme or topic (business images, people, sports, etc.). They range from inexpensive public domain packages in *Paint* or *Draw* format to professionally-produced artwork in high-resolution EPS (encapsulated PostScript) format for use with LaserWriters. If you're looking for clip art, the best thing to do is check the trade magazines and find something that catches your eye. Then see if it's going to have the resolution you want. If you're going to be using a LaserWriter you'll want something that has 300dpi resolution, otherwise curves will be jagged. *MacPaint* -formatted clip art will not usually have this degree of resolution. EPS-formatted packages will, but they require programs like Adobe *Illustrator* or Aldus *FreeHand* to be of any use. Clip Art packages are priced anywhere from $3 to $300, so there's lots to choose from, whatever your price range.

Here's a short list of some of the graphics packages available for the Mac, by category:

Paint Programs:
MacPaint (Apple/Claris)
SuperPaint* (Silicon Beach) [1] †
Canvas* (Deneba)
FullPaint (Ashton-Tate)
PixelPaint (SuperMac) [1]
(Mac II w/color required)

Draw Programs:
MacDraw/MacDraw II (Apple/Claris) [1]
MacDraft (Innovative Data Design)
SuperPaint* (Silicon Beach) [1]†
CricketDraw (Cricket) [1]
Canvas* (Deneba)[1]

PostScript Programs:
Illustrator 88 (Adobe) [1]
FreeHand (Aldus) [1]

Touch-Up Programs:
Digital Darkroom (Silicon Beach)
ImageStudio (Letraset USA)

Clip Art Packages:
There are really so many of these that they can't even begin to be listed here.

For more information on clip art, graphics applications and Mac products in general, check out MacUser's "Minifinders" section. It lists around 300 software and hardware products every month, with short descriptions and MacUser's famous 1-5 mouse rating system. It is possibly the single most useful column in any Macintosh publication. Copies are available in the Workstation Lab.

---

* Both *Canvas* and *SuperPaint* have two separate environments, or layers -- a paint layer and a draw layer -- so they fall under both categories. This feature also makes them two of the most versatile low-end graphics programs available for the Macintosh.

[1] Supports color

† [*SuperPaint* Version 2.0 (due in July or August) will support color editing. The present version (1.1) does not.]

[25.8.11] .....

• SCHOLAR'S WORKSTATION UPDATE

The Scholar's Workstation, UCB's Macintosh Store, is located in 203 Moffitt Library, and is open Monday through Thursday, from 10 AM to 2 PM. Staff and employees can make personal purchases, taking advantage of educational discounts for Macintosh hardware and Apple software products.

New Prices
A new price list, effective July 5, is now available at the Workstation Lab (Bldg . 50B, Rm. 2231). Prices are slightly higher overall from those in the listing of January 19. However, the price of the Mac Plus, including the keyboard, is down 13% (to $1079). The price of the Mac SE with a hard disk has increased by $51 and is now $2159. This same Mac SE will cost you around $2600-2700 in a retail computer store. All the prices above do not include State sales tax.

[25.8.12] .....

• SYSTEM 6.0 - ANOTHER UPDATE

The uproar of dissatisfaction from users of Version 6.0 has prompted Apple to announce Revision 6.0.1 for the Macintosh. This new version should be available for testing in late July or early August. As we suggested last month, only the adventurous should be using the new system. The rest should stay with Version 5.0.

[25.8.13] .....

• HYPERCARD CORNER

CD-ROM Device
Apple is now shipping its Compact Disk - Read Only Memory device (CD-ROM). It is a Sony model, and and there is one presently set up in the Workstation Group Lab. With Apple's commitment to the CD-ROM and HyperCard's new compatibility with this device, users should be reassured that CD-ROM's are a viable data resource. Although there are few major CD-ROM application products available right now, many are under development in the Reference and Art world. Look for a large number of such disks this to be released this fall.

Mac Expert Systems
Those of you who have been waiting for Mac expert systems will be pleased to learn that several will be introduced at the Boston MacExpo this August. HyperPress Publishing will introduce *Intelligent Developer* and *IntelliCard*. *IntelliCard* is a stack that will extract information from a knowledge base and produce a deliverable expert system in a stack. VP Expert will also enter the Mac market with *Mac VP Expert*, a development shell that is compatible with their PC expert system. *Mac VP Expert* will also have access to data residing in HyperCard. *NEXPERT*, a very expensive Mac expert system, now has a link to HyperCard which operates as the Mac interface.

[25.8.14 .....

• SUPERLASERSPOOL: SPEEDY PRINT SPOOLING FOR THE MAC

. . . From Jeff Zalkind and Tom Pope

Those of you who use computers (and you know who you are) are probably aware that print spoolers are the spiffiest things since sliced bread, and those of you who use MultiFinder are probably familiar with PrintMonitor (Apple's free print spooler). But those who don't have enough memory to run MultiFinder, or who use MultiFinder-hostile software, or just don't like MultiFinder finally have a viable alternative in Version 2.0 of SuperLaserSpool (SLS).

Produced by SuperMac Software, SLS supports all Apple LaserWriters and ImageWriters, as well as compatibles like the VT600. It has been able to spool every document we've given it -- from *Word*,

MacWrite, MacPaint, MacDraw, Excel, PowerPoint, and *Hypercard*. Multi-user SuperLaserSpool is suggested if you're on a network, though single users can run SLS on the same network with PrintMonitor.

SuperLaserSpool runs seamlessly with systems 5.0 and 6.0 under both Finder and MultiFinder, and has some real advantages over PrintMonitor. The best is SLS's *LaserQueue* desk accessory which has such good features as document preview, on-line help, a pause button, a printer switch option which lets you change printers without going to the chooser, an alarm option which lets you know when your document has finished printing, and a priority switch for those times when you need that letter done NOW.
We tried our best to crash the program on a 2 MByte Mac II running MultiFinder. We had to try pretty hard. We spooled a Hypercard report, a 10-page *Word* document, and a semi-complicated *MacDraw* document within about 5 seconds of each other and SLS handled them all without a hitch. We experienced crash problems only when we were launching and quitting applications rapidly – this can upset SLS to the point where applications will quit unexpectedly (Print Monitor experiences this, too). To avoid problems, always save documents before printing (this is always a good idea no matter what you're doing) ... and try not to have too many applications open at once.

SuperLaserSpool requires at least a Mac 512KE with 2 800K disk drives (as usual, a hard disk is recommended, but you can make do without it). Multi-user SLS costs $395, and regular SLS costs $99. If you've got a memory shortage, this program is the thing for you. If you don't, you'll have to decide whether you want to pay for SLS or just stick with Print Monitor.

[Editor's Note – *It's very important that you remove Backgrounder and PrintMonitor from your system folder before installing SuperLaserSpool. This is outlined in the SLS documentation.]*

[25.8.15] .....

•NEW DEMO DISKS

Macintosh demo disks and product pamphlets for *Passage* and *MacLab System* from World Precision Instruments Inc. recently arrived at the Workstation Lab. Drop over and have a look.

Passage
Passage is a robust, powerful and easy-to-use 2-dimensional plotting and numerical analysis program for the Mac. It can analyze large amounts of data and produce publishable graphics. Currently there are several *Passage* users at LBL; the Workstation Group has *Passage* on order for the Lending Library.

MacLab
MacLab is a data acquisition system for use with the Apple Macintosh computer. Controlled by a Mac, *MacLab* consists of a peripheral hardware unit containing four differential high-gain input amplifiers, a fast 12-bit analog-to-digital converter and a microprocessor with 16K of memory. Two applications for *MacLab*: are available now.

- *Scope*, which emulates a single-channel storage oscilloscope, and
- *Chart*, which emulates a four-channel paper chart recorder.

[25.8.16] .....

• FONTS AND *WORD*: A HANDY HINT

. . . From Tom Pope

Microsoft *Word* is one of the most powerful word processing programs available for the Macintosh. A good example is *Word*'s customizable menus, particularly the font menu. Not all of you have the time or the desire to go to the character dialog box every time you want to change fonts. With *Word* , however, your system fonts* don't automatically show up in the font menu as they do with MacWrite. You can, however, make them show up with a few relatively simple steps:

To install fonts into the font menu,
1. Choose "**Character...**" from the **format** menu.
2. While holding down the and Option keys, press the "+" key on the alpha keypad. (Don't use the "shift" key here). The pointer will change to a "+".
3. Scroll through the font window until you see the font you want to install onto your font menu.
4. Click on the font with the "+" cursor. You should see the menu bar flash once, telling you that your font is now installed on your font menu. It will remain there in all your documents -- every time you launch *Word* -- until you remove it.

To remove fonts from the font menu,
1. Do **not** go to the "**Character...**" dialog box.
2. Hold down the and Option keys and press the "–" key (next to the "+" key on the alpha keypad). The pointer will change to a "–".
3. Go to the font menu and choose the font you want to remove, just as you would normally choose a font.
4. The menu bar will flash once to tell you that the font has been removed.

- *To add or delete more than one item, hold down the shift key while selecting.*
- *Use the "+" and "-" from the keyboard; the number pad"+" and "-" won't work.*

This process works for most of the formatting commands like bold, italic, small caps, hidden text, etc. so you can really customize your own copy of *Word*. See the **Menus** section of the Word Manual for more assistance.

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*Fonts are entered into the System with Apple's "Font/DA Mover"

[25.8.17] .....

• DARE TO INSTALL!!

. . . From Fearless Fixer Claudia Madison

(The following article was first printed in the September 1987 LBL Computing Newsletter.)

The prospect of installing a new microcomputer is scary to those of us who are not quite sure how a light bulb works, much less how a computer does its thing. But unpacking and installing a new Macintosh SE (with hard disk!) is easier and less traumatic than setting up a new stereo receiver/tape deck/speaker set or programming a microwave oven to cook a small turkey. I know because I've attempted all of these tasks in the past few months (except cooking the turkey -- I couldn't even figure out how to open the microwave door). And I'm not joking when I say that having unpacked and installed the SE myself I feel like the computer is indeed my tool, something within my control, and not a mysterious hunk of wires and what-not plunked down in front of me and liable to blow up or break down if I look at it the wrong way.

So, assuming you have a new Mac SE, still in its cartons, here's what to do:

• MAC SE SET-UP

Tools needed
A sharp object (not to slit your throat, but to slit the multiple layers of tape and shrink-wrap encasing your Mac).

Step one
Slit the tape and shrink wrap. This is the most difficult part of the whole procedure.

Taking Inventory
The big box contains the actual computer and a smaller box. The smaller box holds an electric cord, mouse, software diskettes, manuals, and a registration card. Keyboards come in a separate box. A cord should be in the same box as the keyboard.

The thickest of the manuals, "Macintosh Macintosh SE" (I don't know why it says "Macintosh" twice), has a well-illustrated chapter on setting up the machine.

Powering up
(1) Plug in the power cord.

(2) Plug in the keyboard and mouse. You can't make a mistake here. The connectors on the cords will only plug into the proper plug on the back of the computer. There are little icons (pictures) near each plug that match the pictures on the cord connectors. Aligning the plug sockets with the tiny prongs on the connectors is tricky for the less spatially coordinated of us, but persevere. This is the second most difficult part of the procedure.

(3) Done.

Well, in a sense, it's done. The machine is ready to run software that's on a diskette (like the tutorial), but initializing the hard disk requires more steps. At this point, the manual instructs new Macintosh users to read the chapter on Learning Macintosh Basics before attempting to initialize the hard disk. If you already know how to insert a diskette and get the Mac started and you can open folders and files from the desktop, click dialog box buttons, select from a list box, and copy files from one disk to another, you're ready to move on to initializing the hard disk. However, if you have any doubts about forging ahead, don't. Work on the basics until you feel more secure.

Initializing Your Hard Disk
Initializing the hard disk means getting it ready to store information and then copying to it the information the com- puter needs in order to run. Instructions for initializing the hard disk are in Appendix A of the manual.

You insert the System Tools disk and open the Utilities folder and HD SC Setup icon. Away you go. Follow the instructions in the manual to initialize the disk. Remember, at this point, there is no information on your hard disk. You cannot hurt anything if you somehow make a mistake.

(The setup also includes options to update the system and assign drive numbers; you don't need to worry about those now. You may want to run the test; it's most reassuring when you get the message that the test was a success.)

Installing System Software
System software is the instructions the Mac needs to do basic work like opening files, displaying messages, and so forth. While still using the System Tools disk Utilities folder, open the Installer icon. Follow the instructions for installing the SE and whatever printer(s) you'll be using.

DONE!

Shut down (from the Special menu), remove the System Tools diskette, and restart the Mac. Copy the utilities files from the Utilities diskette. You are ready for business.

Well, almost ready for business.

At this point you install your applications software like *Word, Excel,* SuperDuperPainter or whatever; this is usually a simple process of copying files from a diskette to your hard disk. The software manuals give specific details.

Finally, if you want fonts or desk accessories that weren't included on your System Tools disk (and installed earlier when you ran the installation program discussed above), check out the Font/DA mover section of the small manual that came with your Mac ("Macintosh Macintosh Utilities User's Guide".

[25.8.18] .....

• MOUSE PADS NOW A STORES ITEM

LBL Stores stocks, mouse control pads for any type of computer which uses a Mouse device. The Pads are available in two sizes,
7x8-3/4" LBL Catalog #7544-70439 ($8.22) and
8x11", LBL Catalog #7544-70440 ($10.97).
Called the "Image II Speed Pad", it features a clear flip up cover for your visual reference to notes on software or any other memoranda. The 'sandblasted' surface of the plastic top also helps with increased cursor control. We've got samples of these two models at the Workstation Lab for your inspection.

[25.8.19] .....

• EXCEL UPGRADES HAVE ARRIVED!

Microsoft *Excel* Version 1.5 is here. This upgrade is free to those who bought *Excel* after October '87, and $12.50 to those who purchased it before October '87. Bring your original disk to the Workstation Lab to get the upgrade.

• [25.8.20] .....

• MACDRAW II ALERT

Users of the new MacDraw II application must have LaserWriter and LaserPrep Version 5.1 or 5.2 installed. If you are using LBL fonts, and you don't have the appropriate LaserWriter and LaserPrep files, you will get weird results.

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