Lawrence Berkeley National Laboratory

LBL Publications

Title

LBL Computing Newsletter Vol 25 No 7

Permalink

https://escholarship.org/uc/item/0jt648rz

Author

Lawrence Berkeley National Laboratory

Publication Date

1988-07-01

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L B L COMPUTING NEWSLETTER

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JULY 1988

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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
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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 Friday, July 15, 1988

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
July 14, 1988	10 AM - NOON	Electronic Mail: Survey	William Jaquith
August 9, 11, 16, 18	9:30 AM - NOON	Beginning TEX	Jerry Borges
Sept 19 through 23	9:30 AM - 5 PM	Intermediate TEX $^{(¥)}$	TEX Users' Group
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
July 12, 14, 19, 21	1:00 - 2:30 PM 3:00 - 4:30 PM	Beginning MS WORD 3.01	Karla Savage, Carole Casaretto Claudia Madison, Jean Wolslegel
July 13	10:00 - 11:00 AM	Introduction to **HyperCard**	Bruce Burkhart
July 20	1:00 - 3:00 PM	Beginning **Excel Charts**	Nancy Travis, Carole Casaretto
July 22	1:30 - 3:00 PM	Using Your MAC as a Terminal	Cliff Stoll
July 25, 27, 29	1:00 - 3:00 PM	Beginning **Excel Spreadsheet***	Nancy Travis, Carole Casaretto
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 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

LBLNET NEWS

Bob Fink

Sig Rogers

LBLnet Expansion Plans

Last month, in the first article about LBLnet expansion plans, we gave an overview and statement of goals of LBLnet Phase II and III. This month we discuss physical topology of the existing LBLnet and how it is evolving with LBLnet Phase II.

LBLnet Physical Topology

LBLnet physical topology is constrained by several factors. The most serious constraint is the topology of LBL's underground conduit plant. Physical design constraints imposed by the Ethernet standard are also important. The choice of Building 50A as the central distribution point of LBLnet was influenced by the presence of LBLnet support staff and available space in this building. Thus, the LBLnet Phase I physical topology is a star network with fibers radiating outward from a backbone in Building 50A to the LANs in other buildings.

The ICS Project will replace Centrex voice and Develcon data switching services (currently underway with underground conduit construction and internal building wiring). A digital PBX, distributed over four Nodes around the Laboratory, is being installed. This decision was influenced primarily by the topology of LBL's physical plant and the availability of space (like LBLnet).

- o ICS Node 1 will be in Bldg. 50A, Rm. 1156 (adjacent to the LBLnet backbone and fiber cable distribution hub);
- o Node 2 will be in a new modular building next to Building 10 (close to the ALS site);
- o Node 3 will be in a new modular building near Buildings 62 and 66;
- o Node 4 will be in an environmentally controlled space located in the Donner Laboratory attic.

New fiber optic cable will be installed between the ICS Nodes -- and from the Nodes to many surrounding buildings. ICS will thus provide LBLnet with new fiber optic cable plant to Buildings 2 (AML), 5, 7, 16, 25, 29, 62, 66, 69, 72, 74, 76, 77, 80, 83, Donner Lab, Calvin Lab, and Evans Hall.

Evans Hall is included here to provide a high-reliability, high-performance interconnection between the LBL and UCB Internets. Fortunately for LBLnet, Evans Hall is located along the conduit path that ICS is using to reach the campus buildings. Thus it is cost effective to include this connection in the ICS Project.

The expansion of LBLnet for Phase II, therefore, depends on the topology of ICS, which is similar to LBLnet Phase I. Backbones in each ICS Node will service surrounding buildings in a radial fashion, using the fiber optic cable plant. This will allow the individual backbones to be interconnected using the new internode fiber optic cable plant. (See Figure "LBLnet Fiber Plant Overview".)

This topology will also serve LBLnet Phase III well since the four LBLnet Nodes can be interconnected with a high-performance fiber backbone to serve the radially-configured buildings.

Network Contact Information

LBLnet new installations: Ted Sopher
×4559
or
×5354

LBLnet trouble calls:
×5354

LBLnet comments or trouble reports:
lblnet@lbl

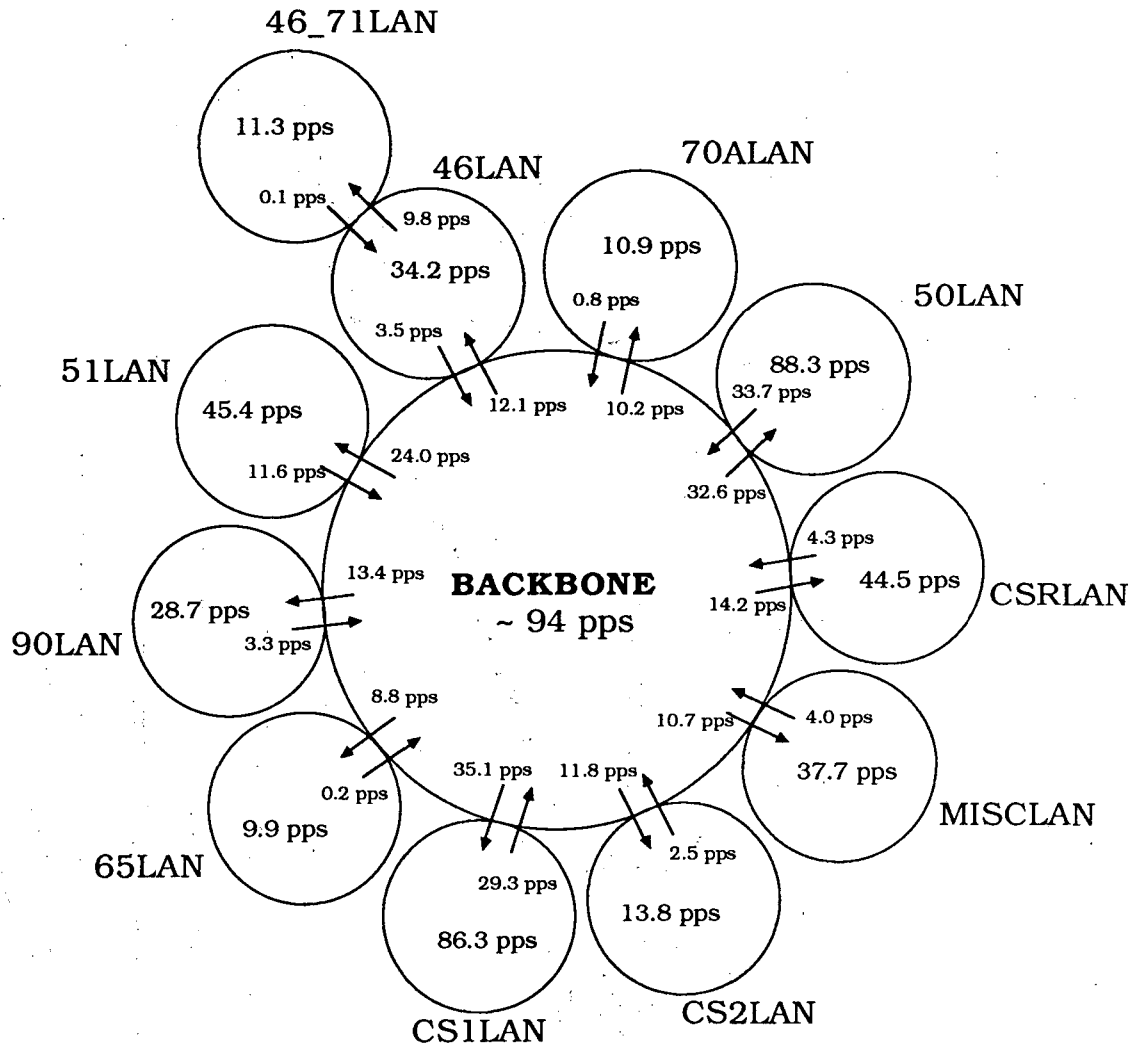For Decnet administration: William Jaquith
×4388

For Internet administration: Darren Griffiths
×6966

For IBM PC and Macintosh network administration: Richard LaPierre
×4692

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

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

Bob Fink   ×5692
Serge Polevitzky   ×4389
Sig Rogers   ×6713

46_71LAN

11.3 pps

0.1 pps

46LAN

9.8 pps

34.2 pps

3.5 pps

70ALAN

10.9 pps

0.8 pps

50LAN

88.3 pps
33.7 pps

51LAN

45.4 pps

11.6 pps

24.0 pps

12.1 pps   10.2 pps

32.6 pps

13.4 pps

BACKBONE
~ 94 pps

4.3 pps

44.5 pps   CSRLAN

14.2 pps

90LAN

28.7 pps

3.3 pps

8.8 pps

10.7 pps   4.0 pps

37.7 pps

MISCLAN

0.2 pps

35.1 pps   11.8 pps

9.9 pps

65LAN

29.3 pps

86.3 pps

2.5 pps

13.8 pps

CS2LAN

CS1LAN

pps = packets per second; all figures are monthly averages

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

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

LBLnet Activity
May 1988

ICSD/CCR   Fink/Rogers

90
55
64
71
51
46
47
ICS Node 1
50
58
65
7
16
5
70
88
2
25
69
29
76
80
77
ICS Node 2
72
83
74
Donner
Evans
ICS Node 4
66
62
Calvin
ICS Node 3

8 fiber cable   (LBLnet Phase I)

16 fiber cable   (LBLnet Phase II)

48 fiber cable   (LBLnet Phase II)
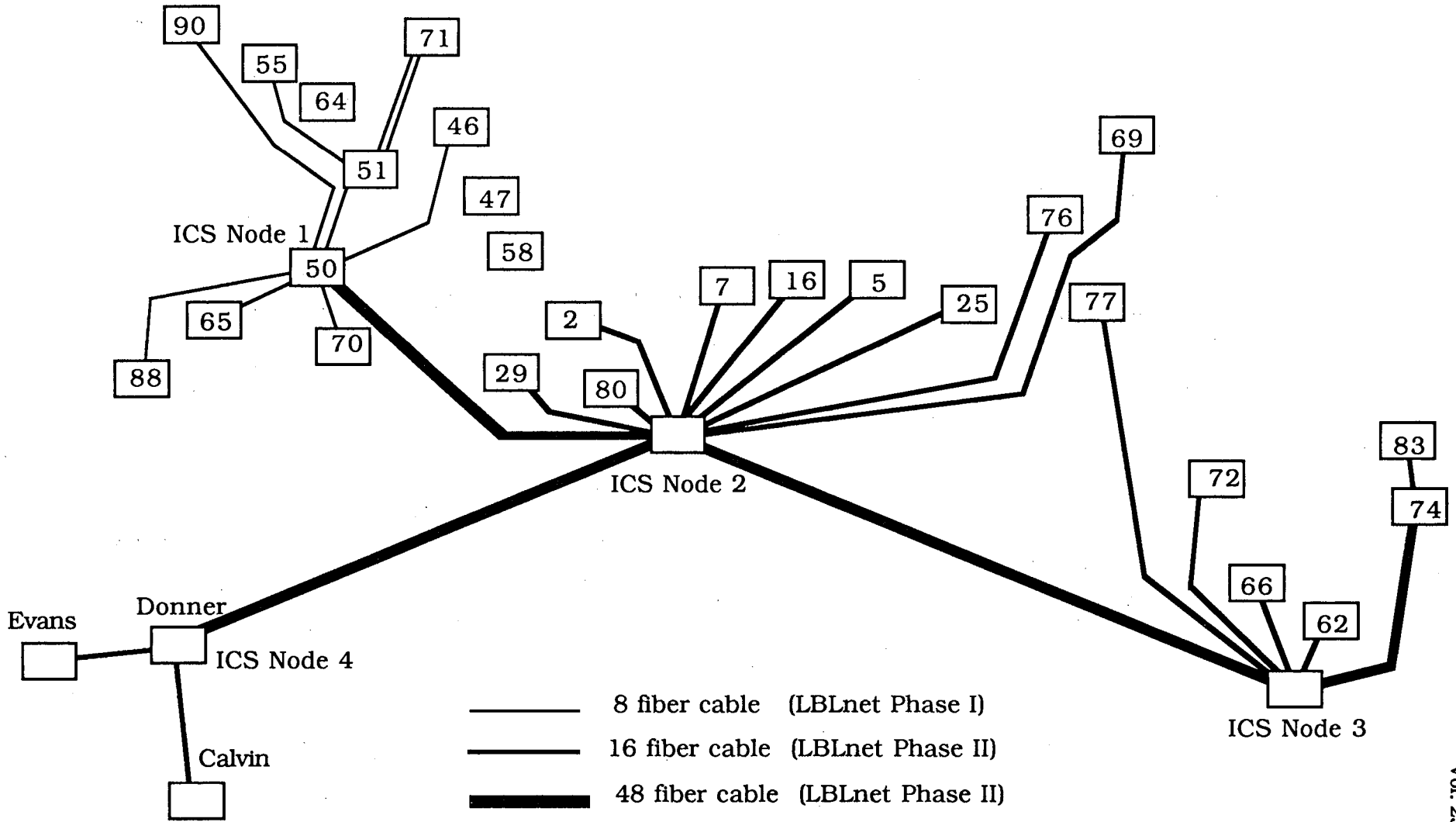
LBLnet Fiber Plant
Overview

Fink/CCR   8 June 1988

DIVISIONAL NEWS

COMPUTER SECURITY MONITORING

Dave Stevens

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

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

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

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

Forward comments and questions to me (×7344), or Marv Atchley at ×5455,

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

STEWART C. LOKEN APPOINTED ICSD HEAD

Leroy T. Kerth

I am pleased to announce that Dr. Stewart C. Loken, Senior Physicist at the Lawrence Berkeley Laboratory, has accepted the appointment as Division Head for the Information and Computing Sciences Division, effective July 18, 1988. He replaces Sandy Merola, who has held this position in an acting capacity since October 20, 1987. I wish to thank him for his dedicated service.

Dr. Loken received his B.Sc. degree from McMaster University, Hamilton, Ontario, Canada, and Ph.D. in Physics from the California Institute of Technology, Pasadena. He has made significant contributions to a number of High Energy Physics experiments and projects. Most recently he has led the team responsible for design and construction of the vertex chamber for the D0 Experiment at the Fermi Tevatron Collider. He has extensive experience with applications of computing to scientific problems and has served on numerous Laboratory and DOE advisory committees dealing with computing issues.

The Laboratory is very fortunate that a scientist of Dr. Loken's stature will lead information sciences at LBL into the 1990's.

CSAC - A DYNAMIC INTERFACE

Maggie Morley

CSAC is the Computing Services Advisory Committee, established by Roy Kerth in November 1983 to "advise [the Division Head] on all aspects of computer services." Its members represent every division in the Laboratory. It is designed to provide adequate input and interchange of information between those responsible for supplying computing services and those who need computing services to carry out their Laboratory programs.

CSAC meets at 10 AM on the first Friday of every month in Bldg. 50B, Rm. 4205.

Users are encouraged to forward comments, questions and concerns to their CSAC representatives. Current members are listed below.

CSAC MEMBERS
(As of June 20, 1988)

NAME	M/S	EXT.	DIVISION
William C. Bagot	65	7197	Administration
William L. Carroll**	90/2056	4890	Applied Science
Christine Celata*	47/112	7220	AFRD
Janis Dairiki	70A/3307	5673	Nuclear Science
Stephen Derenzo	55/151	4097	Biomed
Fred Gey	50B/3238	6208	ICSD
Ronald H. Huesman	55/151	4062	Biomed
Bing K. Jap	Donner	7104	Biomed
Roland Keunings	50C/101	6687	MCSD
Stewart C. Loken	50/137	6915	Physics
Ernie Majer	50E	6709	Earth Sciences
Steve Marks	53/131	5963	Engineering
Michael O'Keefe	72/131	4610	MCSD
Charles T. Schmidt	26/109	4270	Engrg. Medical Svcs.
Gary Smith	3/130	4326	Chem Biodynamics
Tjet Sun	90/4040	6933	SSC

* Chair   ** Acting Chair

VMS NEWS

GIGASTORE VHS TAPE STORAGE IS HERE

Jon Forrest

Computing Services is pleased to announce that a Digidata Gigastore VHS tape storage device has been acquired and placed on CSA5. The advantages of this device over standard tape drives are increased storage density and lower media cost. For example, one standard off-the-shelf VHS tape cassette can hold over 2.5 gigabytes of data at a cost of about $5 for the cassette.

The Gigastore was obtained for scientists to read/write large amounts of experimental data. It is *not* intended to be used as a backup device for normal user files. We recommend that data on this device be stored as BACKUP savesets. This is because BACKUP provides several important options to maximize the performance of the Gigastore. This is not to say that other commands will not work, but you will probably not be happy with their performance. For best results we recommend using the following BACKUP qualifiers and values when accessing the Gigastore:

```
/BUFFER=5
/NOCRC
/GROUP=0
/BLOCK=65024
```

This results in data being transferred fast enough for the Gigastore to maintain its maximum transfer speed of 120K bytes per second.

The manufacturer claims that it is safe to turn off CRC checking and to set the group size to 0 because the Gigastore performs its own error detection and correction. This makes it unnecessary for BACKUP to also perform these tasks.

Note: the name of the tape drive is "MSA0:" and it is accessible only from CSA5. Other than the special BACKUP values shown above, this device can be used just like any other tape device. This means that any commands or qualifiers used to access 9-track tapes can also be used to access the Gigastore. The only difference between the two devices is that certain operations will take longer on the Gigastore. For example, it will take about 30 seconds for the Gigastore to come on-line when a previously-initialized VHS cassette is used. An uninitialized cassette takes about a minute.

The manufacturer also recommends that you use only high-grade VHS tapes and that you replace a tape after about 10 passes through the tape drive. This is probably overly conservative, but you should be aware that VHS tape was not designed with this use in mind.

Currently the Gigastore tape drive's location is not user-accessible due to limitations in the length of the cables that attach the tape drive to the computer. We plan to try to lengthen these cables so that the tape drive is user accessible. Meanwhile, you must ask an operator to mount and dismount your tape cassette for you.

As we learn more about this device, we may change our recommendations and procedures for use. Forward comments and questions to x4991.

VAX CMS 3.0 IS HERE - BUT BEWARE

Jon Forrest

We have received version 3.0 of CMS, DEC's Code Management System and we intend to install it on August 8, 1988.

● **RUN CMS VERIFY NOW**

This release features a reorganized CMS library structure which requires that ALL current CMS libraries be converted to the new format. While CMS 3.0 does provide a method for converting to the new format, this process assumes that your existing libraries have no structural problems. The only way to insure that your libraries are intact is to run the CMS VERIFY command. DEC says that you *must* run this command on all existing CMS libraries before we can convert to CMS 3.0.

● **THEN RUN CMS CONVERT LIBRARY AFTER AUGUST 8, 1988**

After CMS 3.0 has been installed, you must run the CMS CONVERT LIBRARY command on all libraries.

Since this requirement involves a significant amount of work, we are announcing the advent of V 3.0 now so that all you CMS users will have sufficient time to run the CMS VERIFY command. If you fail to do this, there is a small chance that your library won't be convertible to CMS 3.0. Note: none of this is our idea and we do realize that this will cause inconvenience to many of you. However, DEC claims that CMS performance will be significantly improved, especially with large CMS libraries.

As insurance against people who don't read this article in time, I will be installing Version 2 of CMS on my VAX station. Since this VAX station has access to all cluster disks, I will be able to solve conversion problems with CMS Version 2 libraries when CMS Version 3 is installed on the CSA cluster.

Forward comments and questions to me at x4991 or

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

UNIX NEWS

LBL PHONEBOOK ON UX1 and UX3

Dave Cleveland

There is now a copy of the LBL phone book on UX1 and UX3, and it will be updated once a month. The full path name of the phonebook file is:

/usr/local/lib/phonebook

Forward comments and questions to me at ×5336 or

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

CHANGING YOUR UNIX PASSWORD ON THE SUN

Dave Cleveland

Your UNIX password protects your login from unauthorized users. To assure maximum protection, you should change it periodically.

Ordinarily, you change a UNIX password with the command

passwd

However, the passwd command will not change your password on all of our Sun systems. To change your password on UX1, UX3, and our other Sun workstations, you have to use the command

yppasswd

To change your password, log in to UX1 (only) and type the command yppasswd. The system will prompt you for your old password, (type it in) and then for a new one (type it in). You'll have to type the new password again. It must be the same both times. A Password should be from six to eight characters long.

After you have changed your password with "yppasswd", the change will take effect on UX1 immediately. However, it may take an hour for the change to take effect on UX3 and our other Sun workstations on LBL's network.

XWINDOWS ON THE SUNS

Darren Griffiths

Xwindows, a window manager which is similar to *Sun View*, is now available on the Sun Workstations, booting from UX1 and UX3. We are currently running X10 and hope to have X11 up soon. To access software, type

/usr/local/X10
    and
/usr/local/lib/X10.

The fonts are in

/usr/local/lib/X10/font
    and
/usr/local/lib/X10/sun/fonts.

Additional documentation is on

/usr/local/X10/doc

Forward comments and questions to me at

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

THE HELP DESK

FEATURES OF THE CSA SPELL UTILITY

Marty Gelbaum

The SPELL utility on the CSA cluster is a proofreader that uses a default 90,000-word dictionary and an optional personal dictionary. The most common usage is

   spell *filename*

where *filename* is the file you want to check. See the HELP article **spell** for details. If you wish to check the spelling of a certain word, use the command

   spell/check *word*

where *word* is the word in question. The CSA SPELL utility recognizes TEX and LaTEX commands in files, so that it will *not* flag them as misspelled words.

In this article, I focus on two less-than-obvious points about this utility.

TERMINAL SETUP

SPELL will *not* work unless you use the DCL command

   set terminal

to tell VMS and SPELL that you are using a "known" terminal.

For example, if you have a VT100-type or VT240-type terminal and you use the command

   set terminal/device_type=vt100

SPELL will work fine. However, even with a VT100 terminal, if your terminal type is "unknown" when you type **show terminal**, SPELL will *not* work.

On the other hand, even if you have an ADM3A or other non-VT100 compatible terminal, SPELL *will* work properly if you set your terminal correctly using the **set terminal** command. For example, before running SPELL on an ADM3A terminal, you need to execute the DCL commands shown in the file SYS_UTILITIES:ADM3A.COM. You are free to use this command procedure if you like.

ADDING WORDS
TO YOUR PERSONAL DICTIONARY

When SPELL finds a word that is not in its default dictionary, it then checks for the word in a file in your home directory (named PERSDICT.DAT).

   Note: PERSDICT.DAT *is an "indexed file"; you should* **not** *edit it as the* SPELL *program itself updates it.*

There are two basic ways to enter words into your personal dictionary.

● **FIRST: DIRECT ENTRY**
If, for example, you use the word "singularities" in a file and this word is not in SPELL's default dictionary, SPELL will flag the word and give you these options:

Right Wrong Personal Ignore Check Guess Quit Help

Type the letter

   P

and the word in question ("singularities" here), will be entered into your personal dictionary and SPELL will accept that word from now on.

● **SECOND: REDIRECT**
Sometimes, SPELL will flag a word with:

This word has been entered by a user, but has not yet been checked in the main dictionary. Use it at your own risk!

   What this means is that this word has been entered in an auxilliary SPELL *lexicon, but it might not be a real dictionary word (it could be a partial command string, or an abbreviation, etc.). You can now prevent that entry from being flagged again by putting the word in your personal dictionary. Here's how.*

SPELL now asks you . . .

Do you want to accept it as correct? (Y or N):

If you are *sure* that the word is correctly spelled, type the letter

   N

(*not* the letter Y). SPELL will then give you these options:

Options: Right Wrong Personal Ignore Check Guess Quit Help

and you type the letter

   P

thus entering the word into your PERSONAL dictionary.

Now, when SPELL encounters that word again, it will find it in your personal dictionary and will accept it from now on.

If you had answered **Y** to the prompt, SPELL would still flag the word as "entered by a user" and the next time the word was encountered, you would have had to make a decision about it again.

Forward comments and questions to me (× 4749) or

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

USEFUL SETTING FOR VERSATERM

Marty Gelbaum

Some VMS users, who use their Macintoshes as terminals with the Versaterm software, experience the following problem:
They type a command like

    TYPE/PAGE

or use VMS MAIL to read their electronic mail. They then find the Macintosh has "lost" what was on the screen before the TYPE/PAGE or MAIL command cleared the screen. The user can *not* find that information by scrolling upwards via the "elevator bar" on the right hand margin of the Versaterm window.

What To Do

There is a simple fix for this problem:

- o pull down the Settings menu on the Versaterm menu bar,

- o open up the "Extras..." selection, and

- o click on the box labelled "Text scrolled on Clear Page".

This will cause the Versaterm program to save the screen in its memory even when some other command "clears" it. Thus, the user can use the elevator bar to "go back" to the MAIL message he or she just read and read it again by scrolling backward in the elevator bar.

Forward comments and questions to me at × 4749, or

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

MAC-TO-DISTRIBUTED-PRINTING CONNECTION

Maggie Morley

You can now print your **MAC** document on any one of the PostScript printers on the LBL Distributed Printing System. This may be useful when you want to print a document on one of the 600 DPI Varityper printers.

For more info, see item #25.7.7 in this month's **Workstation Scene**.

GRAPHICS DOCUMENTATION ON SALE!

Maggie Morley

Computing Services is having a sale on documentation for **TELL-A-GRAF**, Version 5.0 and **DISSPLA** Version 10. The reason for the sale is that we're overstocked and want to clear out our shelves.

We're offering all documentation related to these two systems at one-half off, first come first served, and while supplies last. This means that if we sell completely out of something and have to order new copies, the sale price does not apply to the new copies.

To purchase this graphics documentation at this bargain price, contact the Computing Library (Bldg. 50B, Rm. 1232B, × 4242).

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 will cover **msg** & UNIX and the second part will cover VMS mail.

Q UESTION:
I was receiving three or four pieces of mail every day recently but for the last two weeks now I have received no mail at all. Could something be wrong?

A NSWER:
It's possible, of course, that your correspondents have not sent you any mail, but to check to see that things are still running as you expect, try sending yourself mail. From any computer you can address mail to your login name. This is a very short test but will answer some questions. A slighter longer test would be to send mail to your LBL Electronic mail address (if you are registered). You can send mail to LBL in the Bitnet or LBL.GOV to check some of the network paths.

If you fail to receive your mail from this loop test then check the file protections on the mail files in your file space. The mail programs run with System permissions and if the System processes do not have permission to write in your file space then you will not receive electronic mail. When you are through setting file protections, check the files MAIL.MAI and MYMAIL. to see that they have as a minimum **System:RWE** and **Owner:RWE**. Now when the System mail process has mail to deliver it will have the required permissions to write the mail in your file space.

UNIX does not have this permission problem because mail files are initially stored in system space.

If your mail is not delivered at this point, forward any failure messages to **Postmaster at LBL**. The failure messages help us diagnose the reason that the mail was not delivered. If you received no message about the failure, send mail to the Postmaster at LBL explaining that it appears that your mail is not getting

through to you. Forward the results of any tests that you might have tried.

Q UESTION:
Help! I have many correspondents at FermiLab and some of the other HEPnet/DECnet sites and they're not available because of that fire in the Chicago telephone switch facility. How can I send mail to these people?

A NSWER: While the problems in Chicago have brought on this specific question, the situation is likely to occur periodically on all networks and computer installations. Many computers are on more than one network, and often when one of the network connections is down, the second or third network continues to be available.

In the specific case at FermiLab, many of the HEPnet computers are also members of the Bitnet. On the CSA cluster use the locally-defined symbol **bitnetlist fermi** to find all of the computers that have the string 'fermi' in their name or description. For example:

CSA> **bitnetlist fermi**

```
DEFINE FERMI    /ROUTE=UCBCMSA   !Fermilab, USA
DEFINE FNAL     /ROUTE=UCBCMSA   !Fermilab, USA
DEFINE FNALA    /ROUTE=UCBCMSA   !Fermi Natl Accelera
```

There are more than 20 nodes on the Bitnet at Fermi-Lab, so this is just a short sample. You might use a different string search with **bitnetlist** to get a shorter list.

With this information you can try to send mail via the second network path. Sometimes the second network may be down. Use some of the other CSA cluster-defined symbols to explore for other networks and node names. The symbols **decnetlist** *rst* and **milnet-list** *xyz* will examine the HEPnet/DECnet and Milnet/ARPA/Internet databases for the strings that you specify.

Recall that mail can be addressed to the Bitnet or Milnet/Internet from VMS Mail by using the call to the Software Tools mail interface. If your correspondent were Laurie at HEPnet node FNAL, you could use the Bitnet node FNAL and an address like this:

MAIL> **send/edit**
To: **st%"laurie@fnal.bitnet"**

Note that the mail domain '.bitnet' is required for the mail to be delivered correctly. Also realize that you can substitute any valid mail domain. For example:

MAIL> **send/edit**
To: **st%"thomas@hamlet.caltech.edu"**

Addresses of mail using the Software Tools MSG or from the UX1/3 computers would be:

laurie@fnal.bitnet
thomas@hamlet.caltech.edu

I should make several other comments about each mail service. The VMS Mail makes a virtual connection to the remote computer. The advantage of this is that you will know that your mail is delivered immediately. The disadvantage is that when circuits are marginal, large mail messages will not be delivered because the circuit does not stay up long enough. Also, if you are using a distribution list of 10 people and 9 are reachable and one is not, you must decide whether to send to the 9 and retry the one or wait and retry all 10 later.

The Software Tools and Bitnet mail systems are queued services and will wait in a queue if the process is unable to send the mail. These mailers will retry periodically -- up to a maximum time of three days -- to send the mail. In the case of up-and-down network connections, this can be an advantage because the mail system will retry in the middle of the night when network traffic is slower and the mail has a better likelihood of getting through. The disadvantage is that you will not know for a period of 3 - 5 days that your mail has not been delivered.

. . . Hermes...Postmaster

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

VMS Mail:	**lbl::WDJaquith**
UNIX or Software Tools Mail:	**WDJaquith@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:
When working on a Sun workstation and connecting to CSA, what terminal type should be specified?
RESPONSE:
There is a program, VT100TOOL, that lets you emulate a VT100 terminal on a Sun. It's part of the Sunlink products sold by Sun Microsystems.

****

MESSAGE:
I don't think it's a terribly good idea to have passwords expiring so near the boundaries of holidays and long weekends. If I hadn't bothered to log in today, I would've tumbled into a lot of unnecessary grief when I log in next. Thanks for your attention.
RESPONSE:
Passwords on the CSA cluster expire at 180-day intervals. Five days before your password expires you receive a notice at login that your password is about to expire. Once you set password the timer starts a new 180-day period. If you do not see this message you still receive one last login session where you have an opportunity to change your password. This provision allows for vacations and extended absences of any sort. Thus, should you fail to receive 5 days advance notice (possibly as a result of a vacation or unplanned absence), or you let the 5 days pass, you at least have one last chance to make the change.
Note: if you do not change your password during this special additional login, you will not be able to login without help.

****

MESSAGE:
The disk quota for my account on LBL129 is incorrect. It shows 398 blocks used instead of 21. I got an unusual error today when deleting a file. I did a DELETE/CONFIRM LBL129:[USERFILE]T.T;1
I was then prompted for confirmation. After replying 'Y', it then gave the error "file not found." The file is no longer in my directory, but it's still counted against my quota!!

RESPONSE:
Quota information is cached in memory and may not immediately be reflected. I verified the structure of the disk and your quota is now reported correctly.

****

MESSAGE:
When I try to access a file I get the message that the file does not exist. My statement uses USERNAMES_DEFAULT_DISK. Has that somehow changed? I thought that by using that, a disk change would not affect me. (The file is where the path indicates.)
RESPONSE:
In your LOGIN.COM, you have defined USERNAME_DEFAULT_DISK to be "u32" after you execute disklogicals. If you remove that unnecessary definition, you should be okay.
Note: USERNAME_DEFAULT_DISK had once been u32 for this user; it no longer is.

****

MESSAGE:
I want to overwrite the last saveset on my tape. I tried positioning to the previous saveset, then issuing a backup command. But before writing, the tape was advanced past the last saveset. Is there a way to overwrite or delete savesets?
RESPONSE:
Generally, it is not a good idea to play with a backup tape. If the saveset is in between others, then you certainly do not want to touch it. You can think of this as a reel of film, but there is no way to splice it as you can with a film. The last set may be "erased" with a DECUS utility by painfully positioning the tape at the end of the previous saveset and writing an EOF immediately after. My suggestion is to leave well enough alone. Tapes are fairly inexpensive.

****

MESSAGE:
How do I print a file which has the attribute of FORTRAN carriage control such that the FORTRAN carriage control will *not* be obeyed? Is there a way to change the attribute of the file or is there a way to adjust the print command? Thanks.
RESPONSE:
There are two ways to deal with this issue:

1) Use the
   CONVERT/FDL=SYS_UTILITIES:FIXCC.FDL
   This will convert the file's attributes to carriage
   return carriage control and the FORTRAN carriage
   control characters will be treated like ordinary
   characters.
2) Use the CARRIAGECONTROL='LIST' option in the
   FORTRAN OPEN statement.

****

MESSAGE:
I am a new user and wish to know whether you have
anything of the kind as a FINGER or WHO request
that provides names of users at CSA.

RESPONSE:
Some commands of that sort:

LOOKUP	- to find out the Electronic Mail address of a user
RESOLVE	- to find out the username, etc., of a CSA user
SHOW USERS	- to see who is currently logged on
WHO	- to see who is logged on, what command they are using, etc. ("man who" gives details)

****

MESSAGE:
Can you tell me the correct sequence to extract
Software Tools Mail messages please?

RESPONSE:
There are 2 commands that move files from MSG to
your current directory. The command p[ut] moves
your current message to a file name that it prompts
for. The command m[ove] also moves your current
message to a named file but it also deletes the message
from the mail. There is an i[nformation] command
that gives additional information (e.g. at the <- prompt
of the MSG program, type i p to find information on
the PUT command.)

****

MESSAGE:
Is there a way to send a message to a number of
BITNET nodes at once, without having to go through
"SEND, address, ..." for each receiver (like an address
list)? I have an account on the 88vax and on the CSA
cluster.

RESPONSE:
On CSA, compose a file named "bmail.dis" as shown
below:
        st%"user1@das1.bitnet"
        st%"user2@lamp.bitnet"
        st%user3@lbl.bitnet"
        etc.

where user1 and user2 are login names on remote
computers das1 and lamp. Compose your message in
a file named, for example, "bitnet.message". From the
DCL prompt on CSA, type (all on one line):
        $ Mail/subject="optional subject field"
        bitnet.message@bmail
This should send the message to the various addresses.

****

MESSAGE:
Are there any plans to add the geographical location
of DECnet nodes to the "decnetlist" search file (i.e..
similar to bitnetlist node description)?

RESPONSE:
It is unlikely that the geographical location of DECnet
nodes will be added any time soon. Unlike BITnet,
users of the DECnet can add a node without going
through any kind of formal registration, so the location
of a machine is not always available. I wouldn't be
surprised if the DECnet registration procedures were
formalized within the coming months, but even then it
would be difficult to get useful information from the
hundreds of sites on the DECnet.

****

MESSAGE:
Our group has a Macintosh SE with a LaserWriter.
We would like to be able to route IROFF/ITROFF files
to the LaserWriter from the CSA machines and from
our VAXstation 2000 (which is connected to
Ethernet). Is there any easy way to do this, while
allowing the Macintosh SE to use the LaserWriter
also?

RESPONSE:
There is currently a product available (Kinetics
Fastpath-2 Gateway) that will allow you to do this.
Please contact the Workstation Group, x6858, for
details.

****

MESSAGE:
Will the Apple LaserWriter accept LaTeX output, i.e.,
DVI files? I use the Imagen for all my LaTeX output.
RESPONSE:
Yes, the Apple LaserWriters on LBL's Distributed
Printing Network can print LaTeX and TeX output
files (DVI) files: use the command
        lpr -Pprinter -d filename.dvi
where "printer" is the name of the Apple LaserWriter,
such as ap6.
For details on options available, see the HELP article
LPR, under the subtopic TeX_output.

****

MESSAGE:

Hello, As soon as I can figure out how to do it, I will be trying to send files from the MFE cray to the CSA VAXes. I have been told I need to register my username and other information in a database on CSA. What information do you require in that database? I am specifically interested in transferring source codes (FORTRAN) and binary files (of the type generated by unformatted writes). I would also be interested in knowing 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:
(1)   Your CSA username;
(2)   Your MFE user-id (the 5 or 6 digit number that you alone use there);
(3)   The exact directory on CSA to which you want files sent.

You should be able to transfer 5000 block files through MFEnet; that will naturally take some time and you may well want to do it at night. You can transfer Fortran source code back and forth between the MFE Crays and the CSA cluster. You can transfer binary files, too; the on-line 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.

****

CORRECTION to last month's Trouble Mail:

If you issue the "*iprm*" command on a HOST COMPUTER different from the one you originally queued the job from, *iprm* will refuse to remove the job with a "permission denied" message. Thus, should you *imprint* a file from CSA1, and try to *iprm* it from CSA3, *iprm* will refuse. You can successfully issue the *iprm* command from any terminal connected to the host computer from which you queued the job.

****

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

[25.7.1]...

● **WORKSTATION GROUP ELECTRONIC MAIL**

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

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

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

[25.7.2]...

● **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 (×6858).

[25.7.3]...

● **WE WELCOME YOUR INPUT**

If you are a regular reader of the **Workstation Scene** you already know that we print lots of newsy items -- announcements, evaluations, critiques, helpful hints, warnings – sent to us by Workstation users. It goes without saying that you (our readers/correspondents) are a valuable resource. We'd like to see more of your contributions to this section.

We encourage you to send us (to one of the electronic addresses above) any Workstation-related news items you'd like to share with fellow users.

Remember, folks, this is a family show. The more you contribute, the more everybody profits.

[25.7.4]...

● **REFMENU**

... *from Paul Licht on campus*

I have developed and am selling (with campus approval) a program designed to maintain a bibliographic/reprint collection on any IBM or IBM-compatible machine. It allows you to store references with notes with very fast retrieval and formatting of citations for preparation of manuscripts, dvs etc. The program, called REFMENU, is already in wide use on campus but I would like to have it more widely reviewed. I think it will be ideal for many LBL NEWSLETTER readers. It sells for $89.95, but a discount to campus users could be arranged. I can

also be reached by phone in the Zoology Dept (642-2286) or by EMAIL at lci - licht@ic.

[25.7.5]...

● **LASERPLOTTER: PLOTTER EMULATION FOR THE HP LASERJET**

LaserPlotter is a program that enables LaserJet printing from graphics programs that normally output to a plotter.

The program is easy to use and offers additional printing options that may cause your plotter to gather dust. Plots are produced more quickly with a LaserJet without any loss of high quality output. In addition to speed, other advantages include:

--- adjustable line width: finer lines can be produced than on a plotter

--- reverse (negative) printing

--- batch printing for many files

The settings menu lets you

--- select size and patterning for 8 different color pens,

--- adjust the output size as a percentage of the actual plot,

--- specify multiple copies, and

--- control the resolution of your plot.

Resolutions from 75 to 300 dpi are supported. A files menu option allows you to select a group of files to be printed while you are away from your computer.

Some of the programs that *LaserPlotter* supports are *AutoCAD, Lotus 1-2-3*, and *Symphony*. We have also seen high quality output from Timeline, OpenPlan and Atlas Advanced Mapping. If you are doing any graphics plotting, the program will widen your print options and speed up your output. Even if your final output requires oversized pages, *LaserPlotter* is an excellent tool for previewing and running draft copies.

The Workstation Group has a copy available in the Software Lending Library for evaluation.

[25.7.6]...

● **TOTAL WORD – THE OLD VOLKSWRITER**

... *WKSG member Claudia Madison has some good words about TotalWord.*

Users of the old *Volkswriter/Volkswriter Deluxe* on IBM PC's will feel right at home with this incarnation of the program. It has the same complex interface – some menus, some function keys, some keyboard keys, some embedded commands -- which seems confusing at first but, after enough practice, turns out to be a fast, powerful interface.

Total Word has most of the features we've learned to expect of our word processors, but the feature that sets it apart is its built-in down-loadable font (Times Roman) for HP LaserJet and PostScript printers. Using this font makes printing a breeze if you want to use

bold,

italic,

small headline,

large headline,

small text,

and standard.

(For those who cannot make do with this selection, LaserJet cartridge and soft-font support is provided.)

Most happily, *Total Word* has not abandoned Volkswriter's traditional support for scientific users and has included an extended character set. I mean extended! 250 special scientific characters are organized on nine special keyboards.

A few of my own personal favorites:

$$\wp \quad \ell \quad \mathcal{L} \quad Å \quad \nabla \quad \leftrightarrow \quad \hbar$$

$$y = 2 \int_0^\infty \frac{dx}{2\,\alpha}$$

While typing equations is not fun, using a layout to specify reduced line-spacing, no word-wrap, etc. and the built-in macro recorder to create integrals and other large symbols makes the job easier.

Total Word isn't a real powerhouse program on the order of *Word* and *WordPerfect*. (For example, I couldn't use footnotes in a multi-column layout.) It is probably adequate for most manuscript preparation applications.

Total Word is available from Lifetree Software, 408 Pine Street, Monterey, CA 93940. LBL price: $95. There's a copy available at the Workstation Lab for evaluation.

[25.7.7]..

● **MAC-TO-DISTRIBUTED-PRINTING CONNECTION**

. . . From Roy Kerth and Marty Gelbaum

You can now print your MAC document on any one of the PostScript printers on the LBL Distributed Printing System. This may be useful when you want to print a document on one of the 600 DPI Varityper printers.

First we describe the steps needed and then for the hacker we explain why.

THE HOW

First you must generate a PostScript file on your MAC. (You must *not* be in MultiFinder.) Print the document in the usual way and just after you click "ok" in the print dialog box, hold down the Command and the F keys (do not use Command K!). Hold them down until the message "Creating PostScript File" appears on the screen. After the cursor comes back you will find a file called **PostScriptX** in your directory. The "X" is a number that starts with 0 and is incremented on each additional file you create. You may rename this file if you wish. Do not load the file into *Word, Macwrite,* or any other application!

Second, you need to transfer this file to your directory on either the CSA cluster, UX1 or UX3. (Use *Kermit* or some other file transfer program. With *Kermit* be sure you are set for transferring a Text file.)

Now you can send this file to any of the PostScript printers on the distributed printing system with the **macpr** command. For example if you have named the file *mytxt.ps* and you want to print it on the Varityper in 50B/1215 type:

    macpr -pvt1 *mytxt.ps*

Then just go pick up your output.

THE WHY (for the hacker).

Why all this fooling around? First, you must understand that what you send to a PostScript Printer is not just a file made of ASCII-coded characters but is a program that is executed by the processor in the printer. This program contains the routine necessary for the printer to draw the text output. In the case of the MAC it does not send a complete program but rather expects the printer to have a set of subroutines already in memory. This is the infamous *LaserPrep* file. When you use your local printer, the MAC downloads this file if it is not in the printer. The printers on the distributed printing system are not normally printing PostScript files; thus, the program that is running in the printer takes input and just prints it as a string of characters. If you send your PostScript file to the printer in the usual way, you will get some 20 pages of listing of your PostScript program -- not quite what you want.

The **macpr** command invokes a program that first puts the *LaserPrep* file on the front end of your PostScript file then sends the whole mess to the printer with a code telling the printer "This is a PostScript program: execute it, don't list it!"

Currently, there are four versions of *LaserPrep* that may be in use. They are versions 3, 4, 5 and 6 and each is different! The program **macpr** must look at your PostScript file and decide which one to use. That is why each new version of *LaserPrep* breaks **macpr** until it is told about the new one.

When you type Command-F to capture the PostScript file on the MAC, the output of the MAC is diverted to a disk file rather than to the printer. You use the F version of this command as it does not include the *Laser-Prep* file as does the K version. You may well ask why not get the *LaserPrep* file at this time so that **macpr** won't have to worry about it? As you might guess, there are some modifications that must be made in *LaserPrep* to use it as an appended file!

The reason we warn you not to touch the PostScript file with a MAC application has to do with line lengths. It is possible for the application to inadvertently break a PostScript line with an end-of-line character so that it it no longer makes sense to the printer.

If you want to know more about *LaserPrep*, etc., we suggest the manual for a program called Lasertalk. You can pick up a loaner copy at the Workstation Lab.

[25.7.8]...

● **MORE ON WYSIWYG**

. . . *Bob Masterson at TID forwards this from "The Editorial Eye"*

A ccording to Ron Abler of United Information Systems, Inc., WYSIWYG comes in many forms. The term, pronounced "wizzy wig," means "what you see is what you get," and it is used to describe desktop publishing software that allows the user to view on screen all the graphic elements of a page before the page is printed. Here are eight variations of WYSIWIG to muse on.

- IKIWISI (icky-wizzy): *I'll know it when I see it*
- WYGINWYS (wiggin-wiz): *What you get is not what you see*
- WYSIWYAG (wizzy-wyag): *What you see is what you almost got*
- WYSIWYL (wizzy-will): *What you saw is what you lost*
- WYSIRWYG (wizzer-wig): *What you see is really what you get*
- WYGIWYS *(wiggy-wiz): What you get is what you see*
- WYBIWYG *(wibby-wig): What you buy is what you get*

- WYSIAC (wizzy-ack!): *What you'll see is a challenge*

[25.7.9]...

● **APPLE UNIX (A/UX) DEMO IN JULY**

Representatives from Apple Computer Corp. with give a presentation of **Apple UNIX (A/UX)** at 10 AM and 1:30 PM Thursday, July 21, 1988, in Bldg. 70A, Rm. 3377 (the Conference Room). There will be a general overview of the product at the morning session and a detailed technical Question and Answer meeting in the afternoon session.

For more details see the Currents article which will appear later this month or contact Workstation member Carole Casaretto (×6858).

[25.7.10]...

● **THE NEW APPLE SYSTEM, VERSION 6.0**

System version 6.0 and MultiFinder 6.0 are now available in the Workstation Lab. Adventurous users are welcome to stop by and update their version 5.0 disks at no charge (with no documentation). The upgrade package, disks and documentation, available from Apple, costs about $30.

On the up side of the new release, one of the major new features is *MacroMaker*. This utility lets you automate repetitive tasks by assigning keys (including the function keys) to activate various applications or operations.

On the down side, there are reports of "bugs, incompatibilities and surprises, especially in the areas of color and sound" with Software Release 6.0. Applications that definitely have problems are *Excel*, *4th Dimension*, and *FullWrite* Professional. The makers of these products plan to send "fixes" to their users in the near future. With these revelations and possibly other unreported problems, most users might find it preferable to wait for the bug fixes before upgrading.

[25.7.11]...

● **SAFETY FIRST! SOFTWARE SECURITY PROGRAMS**

. . . *From WKSG member Nancy Travis*

S ecurity may not be a concern for all personal computer users, but when it is, it presents a greater problem for Macintosh users. IBM owners may turn the key on the hard disk and walk away, but MAC users don't have that option. In addition, the Macintosh is so friendly that the casual user is not intimidated and might boot up your machine more readily. Budget and salary information kept in a spreadsheet can be easily read by anyone! If you need to secure sensitive data on your Macintosh, there are several good software security programs to consider.

o MacSafe

MacSafe, from Kent & Marsh, Ltd., is an easy-to-use program that creates password protected safes where confidential data can be moved. While in the safe, a file disappears from its folder. Safes also have a "drop-box" feature that enables others to leave confidential data in your safe without knowing the password. My only complaint is that files can only be locked up one at a time. If files must be accessed frequently, security procedures may become tedious and not practiced as faithfully as they should be. Locked files can be restored en masse. When the data is moved out, however, and the data files automatically return to their previous folder locations. In addition to hiding files, encryption can be performed to further protect data.

Multiple safes can be created for separate filing areas, using different passwords. A few words of caution about passwords: if you forget the password, a locked safe containing data can't even be thrown away, let alone opened! Be consistent in your choice of passwords and share them with a supervisor, or someone else that you can trust. If that's not possible, at least write them down and lock them up someplace safe!

MacSafe utilizes an interesting copy-protection scheme. An authorized copy can be created from the Master Disk, but if the program is simply copied, it becomes a "demo" version. Only one safe can be created with the demo and file encryption is disabled.

o Nightwatch

Nightwatch, also from Kent & Marsh Ltd., works in an entirely different manner. The hard disk is secured with a password and disappears from the desktop. This "all or nothing" approach to security is much easier to use. The machine can still be used by others with floppy disks. The machine can still be used by others with floppy disks, so the equipment is not entirely disabled. However, the hard disk is protected from prying, editing and erasure.

The program functions are separated into administrator and user privileges. The suggested implementation: designate one person in a group to be the administrator and to set up user names and passwords for a work group. This is better for a group than the single-user system, because passwords can be accessed if necessary, and disks can be unlocked by an authorized administrator if emergency access is needed.

Volumes which are published on a Tops network are not secured, nor are files encrypted in any manner. Although this security program does not protect your disk from theft, it will make all programs and files on that disk unusable.

MacSafe and *Nightwatch* all support two types of file

encryption: a quick-and-dirty encryption (*QuickCrypt or SuperCrypt*) and *DES* (the U.S. Bureau of Standards' data encryption algorithm). While *DES* is "extremely rigorous" and a tougher nut to crack, it is also time-consuming and probably not necessary unless the data is extremely sensitive. In most cases, minimum security practices will be adequate to deter unauthorized access. The quick encryption is recommended, since the speed factor is roughly 20 to 1. (Note: data can be encrypted, but programs cannot.)

Making a Choice

Which program is the best? If you only have occasional sensitive data, and don't mind sharing your hard disk with other users, try *MacSafe*. If you have quite a bit of confidential material and would also like to protect your software from roving pirates, *Nightwatch* would be a better choice. In both cases, colleagues will be able to use your machine in a pinch. With *Nightwatch*, however, they'll need to furnish their own software.

[25.7.12]...

● MICROSOFT MACINTOSH NEWS

o Major Releases for Word, Excel, File, Power-Point

Word 4.0 for the MAC

Word is staying in the competition as a high-end MAC word processor. Features in the new version (V. 3.02) include

- --- *Page View*, a fully WYSIWYG editing environment
- --- *Tables* for easy positioning of side-by-side paragraphs, numbers or graphics
- --- automatic repagination
- --- the ability to flow text around objects
- --- macro recorder
- --- color support and
- --- automatic linking with *Excel*.

The new package will also include the *Word Finder* thesaurus and *AutoMac* macro program (these two utilities were recently shipped free to most registered *Word* users).

The new *Tables* feature was one of the most impressive new features in *Word*. An adjustable grid makes it easy to construct side-by-side paragraphs, spreadsheet-like data or graphics & text without setting tabs. Borders, underlines or rules can also be easily applied for emphasis.

The new *Word* version keeps the size within the "1 MByte zone". This is perhaps the most important new feature. It will still run in 512 KByte RAM with two 800 KByte floppy drives or a hard disk. Version

4.0 will be shipped with a thesaurus and macro package and (rumored) *SuperPaint 1.1* from Silicon Beach Software.

○ Excel 1.5 for the MAC

The demo showed the advanced customization features of V 1.5; it's a major upgrade for *Excel*. Menus, commands and dialog boxes can be completely customized and there is full multitasking support for *MultiFinder*, and color capabilities for color charts and worksheets. There are 30 new macro sheet functions and 44 new worksheet formulas; printing can now be initiated directly from within *Page Preview*. In the mixed microcomputer environment, *Excel* for the MAC and IBM PC now share the same macro language and similar interfaces.

Excel, like *Word* 4.0, will run with 512 RAM. However, an external disk drive or hard disk is recommended. *Excel* runs fairly well in the 1 MByte RAM world of the MAC SE, however, MAC II users are cautioned not to run *Excel* in *MultiFinder* mode with 1 MByte of RAM.

○ PowerPoint 2.0 for the MAC

Microsoft's newly-acquired product has received some major enhancements in this new version. In addition to full color capabilities on the MAC II in *MultiFinder*, *PowerPoint 2.0* includes a spelling checker and a find-and-replace command for the word processing function. For graphics, Version 2.0 can also import graphics directly in encapsulated PostScript file format used in Adobe *Illustrator* and *FreeHand*; PICT and PICT II file formats (found in *MacDraw, SuperPaint*, and *Cricket* products) can be imported using the clipboard. There are additional features for enhancing color and black & white presentations.

○ File 2.0 for the MAC

Although not well known by most LBL users, Microsoft's *File* is a database management program for the MAC. This new version is highly compatible with *Word* for creating form letters, mass mailings and mailing labels. *File* can also be used with *Excel* to create flexible forms and data entry screens for tracking large amounts of information. Microsoft *File* is fully compatible with *MultiFinder* on the MAC II in color, and is compatible with major color printers.

[25.7.13]..

● MICROSOFT UPGRADE NOTICE

The WKSG Lab will be handling Microsoft upgrades for Macintosh products *Word 4.0*, *Excel 1.5*, and *Power-Point 2.0*.

○ Word 4.0

This major upgrade from 3.x will be shipping sometime in October, 1988. If you purchased the regular version of *Word*, the upgrade cost is $25. Owners of

the Academic version (the $40 package) will be charged $35 for the upgrade. In both cases, the upgrade will include new manuals and disks.

○ Excel 1.5

Another major upgrade from 1.0x will be shipping shortly (sometime in July). If you purchased your *Excel* prior to October, 1987, the upgrade cost is $12.50. Purchases after that date are free.

○ PowerPoint 2.0

This first upgrade from 1.0 will also be shipping shortly. If you purchased your copy prior to April 1, 1988, the upgrade cost is $20. Purchases after that date are free.

Note to users updating *Word* and *Excel*: you do not have to contact the WKSG Lab to order an upgrade. There will be an announcement in the *LBL CURRENTS* when the upgrades are available. *Excel 1.5* upgrades should be available sometime in July, *Word 4.0* will not be available until an October timeframe. *PowerPoint 2.0* users, contact Bruce Burkhart (x6858) for upgrade information.

[25.7.14]..

● HYPERCARD CORNER

... From WKSG member Bruce Burkhart

○ Atkinson's Presentation

An audience of about 300 BMUG faithful attended its June 2 meeting,[1] as Bill Atkinson, author of *HyperCard* introduced and demo'd his latest V 1.2 of *HyperCard*. Attendees were thoroughly delighted and entertained by the author as he whizzed through his second, almost major, revision of *HyperCard*. Although this release was written especially to support the Apple CD ROM, there are extensive bug fixes and some important new features and enhancements. For a detailed review of these additions, see the Version 2.1 Release Notes stack in the update disks (they're very nicely done).

The official Apple release is Version 1.2. However, at the BMUG meeting Bill showed us his Version 1.2.1. "I had to fix a few bugs at the last minute," he said, "so there is now a slightly newer version." Version 1.2.1 will be at the Workstation Lab sometime in mid June. About Version 1.2: a few comments from the author are in order.

Atkinson first calmed everyone by assuring them that the new version is completely upwardly-compatible and now works faster and in less space than previous versions, or about 700K. It seemed to me that each

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[1] The Berkeley Macintosh User Group meets at 6:30 PM every Thursday in the PSL Hall on the UC Berkeley campus. MAC fans and MAC friends are welcome to attend.)

new feature or enhancement seemed better than the last, so it was difficult to pick a favorite. When Bill finished his demo, the Q&A afterwards brought a field of waving hands. Many had their problems solved by the *HyperCard* master. Others asked about coming features in the next release. Bill answered some, ducked others. He ducked questions about when color was going to arrive and when multicards were coming to the screen.

o Latest Buyer's Guide

The summer issue of the **Macintosh Buyer's Guide** is out, and the list of *HyperCard* stackware is growing and growing. A sampling includes:

□ *SuperExpert/HyperCard*, an example-based expert system development tool. This is an expensive little stack, retailing at $395.

□ *ChemStack* is a new one. It is used to design and index chemical structure graphics.

□ *HyperBook Maker*. This keeps your cards printed out in a ready-to-staple booklet?

These are just a few of many other available stacks listed in the Guide. (We don't know about shipping costs.) By the way, we don't have any of the abovementioned stacks in the Workstation Lab, but we do have others. Have a look at the WKSG Lending Library Stack, and check 'em out.

o MAC Personal Class

Need an information organizer for cataloging personal records? *MAC Personal Class*, a $59 stack, can be customized for business use too. The program provides a framework for keeping track of names, numbers, dates and other information needed to fill out forms.

[25.7.15]...

• 1988 HYPEREXPO AND STACKMART

. . . WKSG member Bruce Burkhart went to the very first all-HyperCard show.

Pre-reviewers were a bit apprehensive about the success of this event. And with good reason. Many of the major players, including Apple, announced they wouldn't attend this show. Some were probably holding back major products for release at the August Macworld Expo in Boston. Others might have been waiting for good reviews, planning to come next year. In any event, I was delighted with this first *HyperCard* show.

The show was small, intimate, and a bit pricey ($30 per day). It filled the main floor of the San Francisco's Civic Auditorium. The crowds were tolerable and the food was great. Panel discussions throughout the two-day event covered many *HyperCard* subjects, and fifty-plus exhibitors displayed their wares. I found the CD ROM & Video Disk panel discussions and hardware displays the most interesting items at the

show. With *HyperCard* as its driving interface, this technology is taking off!

o Xiphias' Technology Progress

One example of CD Rom excellence was the Xiphias CD ROM-based educational stack of *Technology Progress* dating from 600BC. Because the search speed in *HyperCard* is so slow, Xiphias developed its own *Xearch* engine to get fast access to the 150 MByte stack.

o Stack Starter

Utilities are always popular, and *Stack Starter* lives up to its name. The stack is filled with buttons, effects, icons, sounds and other items for the *HyperCard* user.

o HyperMac Subjects

Another show hit for me was *HyperMac Subjects* by Pointer Publications. It is a subject index to more than a dozen popular Macintosh magazines and is now available as a bi-monthly stack or printed publication (or both). The database of publications will be updated every other month. The Workstation Lab has a demo stack of this subject index.

o Sticky Notes

For those of us who live in the yellow Post-it pad world, a show exhibitor demonstrated *Sticky Notes* for *HyperCard*. Now you can use these little self-stick notes in any *HyperCard* stack. It works especially well with appointment and "name & address" type stacks.

o TemplatePro

And finally, we saw *PageMaker 3.0* templates from *TemplatePro* by Image Express. While in *HyperCard*, hundreds of stationery packages, newsletters, business forms, brochures, and other designer layouts can be automatically loaded into *PageMaker* for final customization. These are great stacks if you need or would like pre-designed layouts for *PageMaker*.

If you would like to go through all the hand-outs and other material we collected at the show, stop by the Workstation Lab (Bldg. 50B, Rm. 2231)

[25.7.16]...

• CONUS CODE HYPERSTACK

Lisa Long of the Engineering Division has contributed a HyperCard stack of Conus rates for travel document preparation.

If you'd like a copy of your own, bring a blank disk to the Workstation Lab. Of course, neither Lisa nor the Workstation Group can be responsible for updating the stack.

[25.7.17]...

● WORD PROCESSING FOR THE MAC

. . . from WKSG member Claudia Madison

F inally there are full-featured word processing programs for the MAC to compete with Microsoft *Word* 3.0. This is not to say, however, that either *WordPerfect* for the MAC or *FullWrite Professional* is the ideal word processing program.

I tried both of these programs on a MAC II under Multifinder. Both crashed at least once, neither read a certain *Word* 3.0 file, and *FullWrite* had trouble printing a document.[2] This does not mean these are bad programs; many a good program has been stressed by first encounters with the real world, and once I stopped trying to crash them, both worked fine.

○ **WordPerfect**

If you like *WordPerfect* on the PC, you'll love it on the MAC. The program essentially has two interfaces: one using extended keyboard function key commands identical to those used on the PC and one using a more MAC-like pull-down and slither-to-the-side menu system. MAC fiends may be offended by the mongrelized interface, but there's no need to be haughty. *WordPerfect* is known and loved for its interface on the PC, and the entire package shows a careful attention to the basics of word processing which is often missing in programs that are truer to the MAC interface.

One of the basics: file and folder handling. To my knowledge, *WordPerfect* is the only MAC application that supports creation of new folders from within the application. This is wonderful. In addition, *WordPerfect* supports copying of files, appending of the contents of an open document into another document file and insertion of a file from disk into an open file--all without opening source or target files and doing the select-copy-paste routine we usually have to do on the MAC. Such fantastic file-handling ease should be required of all programs, and I hope Microsoft is taking note.

Other features for Microsoft to note: word count, lower-case character formatting option, system date and time formatting options, mixed-width newspaper-style columns, vertical page centering, and support for up to five categories of lists (tables, references, etc.).

What I wish *WordPerfect* had done differently: The system of embedded codes, difficult enough to control

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2 The message -- "The document may be too complex for your printer." Should a MAC program LET me create a document too complex for a LaserWriter Plus?

on the PC, is almost impossible to control on the MAC. These formatting codes are searchable, editable, and so forth, which gives much power and versatility in re-formatting, but that advantage is outweighed by the need to always be aware that selecting text does not necessarily select the code or may select codes inadvertently. Besides which, editable codes would not be so necessary if *WordPerfect* supported stylesheet creation. (It does have a macro recorder to automate repetitive tasks--not a replacement for stylesheet support, but better than no macro recorder at all.)

WordPerfect's tutorial lessons are good examples of how tutorials should be written The reference manual is good. The program comes with summary card and function-key template.

○ **FullWrite**

No wonder it took so long to bring this behemoth to market. It's a word processor-drawing program-page layout program combined. There are four editing/preview modes, support for author's notes, footnotes, endnotes, and bibliography citations AND referencing of any number of categories such as tables or illustrations. It can take sidebars and wrap text around graphics, draw rule lines down columns and merge print a background graphic such as a border or line-numbered form.

FullWrite is true to the MAC interface, making full use of side-winder menus and icons to represent the numerous note/graphics options available. As documents get complex, the array of icons is staggering, and the most valuable part of the program may be the summary card page that interprets the icons.

For all that *FullWrite* does, its performance as a full-featured word processor is not first rate. Its organization by chapters encourages creation of dangerously large document files--far better to support chaining of smaller document for sequential printing, creation of indices, contents, and so forth. Insertion of rulers to change paragraph formatting is a throw-back to MacWrite[3] which has some advantage in being able for format large blocks but also means the formatting is lost when the paragraph gets moved into the area of influence of another ruler. A serious defect is that one cannot mix the number of columns on a single page. (A work-around involves creation of sidebars--doing that is what caused my document to become too complex to print.)

FullWrite does support styles, but there is no concept analogous to *MS Word*'s based-on style. This means

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3 Actually, it's a throwback to old pre-IBM computer programs (yes, there were microcomputers before IBM).

that if I change the font family of my document style, I have to change it in the style for each of the numerous features--header, footer, endnote, footnote, sidebar.

People who love *FullWrite* will most likely love it for its integrated drawing program. I'm not good with drawing programs so I don't really know about the drawing part. What I do know about and love is the variety of supported notes. Many users need automatic referencing support for more than a single set of footnotes. (Microsoft, do you hear this?) Other nice features include word count, readability index, and edit mode display of newspaper columns (no mixed widths in the columns, though). My favorite feature is the window clean up command to neatly tile multiple open windows.

The manual is in two parts: A lackadaisical tutorial—no example files, no point--and an adequate reference. A quick reference card is included.

[25.7.18]...

● PAGEMAKER RELEASE 3

. . . From new WKSG member Tom Pope

Aldus *PageMaker*, generally thought of as THE desktop publishing program, has just released V 3.0, a major upgrade with some important new features. *PageMaker* is a page layout program. You do not create publications from scratch with it, but rather take the pieces made with other applications, such as Microsoft *Word*, *MacPaint* or Aldus *Freehand*, and "paste" them onto a page. The page itself is what is designed in PageMaker. Its accompanying manual is well thought-out and very easy to use. The tutorial section takes you through the entire process of creating a publication (except creating the actual text and graphics, which are provided with the package). Though I didn't go too far with the graphics importing, I did do quite a bit of fiddling with text. I imported a table-heavy *Word* document and was very pleased with the results. *PageMaker* kept all my tables aligned over a 14-page document, requiring only some very minor tweaking.

I didn't like the text-editing ruler, which lets you move or place tabs and the like but doesn't show the results as you edit. This means that you have to move the tabs, get rid of the dialog box, then check to see if the tabs are really where you want them to be. Tedious, but still only a minor flaw.

Certainly the most welcome new feature of *PageMaker* 3.0 is the Autoflow option, which automatically lets text flow from column to column and page to page, creating new pages whenever necessary. Users of older versions of *PageMaker* will be thrilled at the amount of time and hassle saved by this new feature. However, *PageMaker* does not recognize **manual page**

breaks, so be prepared to move things around a little.

Style sheets are another new option; they allow you to define text attributes such as size, font or style and call them up from a palette, doing in one or two keystrokes what might ordinarily take up to half a dozen or more. (V 3.0 also recognizes and imports style sheets created in MS *Word*). So, by building on an already impressive package, Aldus has kept *PageMaker* in the forefront of the desktop publishing world.

[25.7.19]...

● MAC HAZARD - UNTIDY DESKTOPS!

It may be worth repeating what was said in an article in "Macintosh Today," April 5, 1988, Pg. 18.

Keep your desktop clean.

Remember, when copying complete disks, the Apple System ignores anything left on the desktop. Although the data is resident in the disk, the operating system does not include "exterior" files in the disk catalog, nor during copying routines. You could lose data.

Now, the Apple system makes the copy operation very easy and almost painless. Most MAC novices and even experienced users do it with almost reckless abandon. Drag that icon on another and that's it. Well, that may not be just it!

If you routinely leave folders and programs out on the desktop, (and I've seen plenty of screens with icons all over the place), you could get into trouble in the copy process. And with the advent of more and larger screens, the temptation to pile more icons on the desktop is even greater.

To lessen the hazard, clean off your desktop early and often. Hopefully, Apple will correct this system weakness in a subsequent system update. However, an update could be sometime off, so don't wait. Keep the desktop uncluttered and keep those folders organized!

[25.7.20]...

● ANOTHER MAC HAZARD - DISK CRASHES

It's easy to put off backing up your disks. But then a floppy disk -- containing valuable data -- crashes. If it's backed up, there's no problem. However, we've observed that this is not normally the case. As a result, we've been gaining experience in recovering data from users' unreadable floppy disks. We have various tools which do a pretty good job of restoring files from such casualties. If you get into similar difficulty, call us (x 6858) and we'll try to get your data back.

Meanwhile, your best bet is to keep disk backups! There are several good backup programs for your MAC at the Workstation Lab. Come in and check them out.

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