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PUB-429

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Volume 22, Number 1
January 1985

LBL
COMPUTING
NEWSLETTER

TABLE OF CONTENTS

NAMES and NUMBERS to Know	2
The MICRO Computer Corner	3
Workstation News	4
MODEM is Up & Running on VMS and UNIX	6
IBM PC Device Driver	7
Macintosh Software	6
XEROX STAR Workstations & Communications	8

PUB-429 1-85/1300

Newsletter Closing Date is Tuesday, January 15, 1985 . . . and no later.

Address all communications for the Newsletter to Maggie Morley, Editor,
50B/1245 (415) 486-5529; or to login **mam** on UX5

"Christmas is over
And business is business"

. . . Franklin P. Adams

PUB-429

THE MICRO COMPUTER CORNER

QUESTION: When I copy a file on my IBM PC to a floppy diskette, how can I be sure that the copy is correct?

ANSWER: It's easy. You can either (1) execute the command VERIFY ON before the copy operation or (2) include that command in your autoexec.bat file.

Your IBM PC will then verify its disk copies and you can rest easy.

NOTE: the DISK WRITE operation will take longer because the PC must read back and verify the file just written. You can, of course, turn off the verify at any time by typing

C > VERIFY OFF.

For more info, see Pg. 6-144 of the DOS 2.0 manual or Pg. 2-142 of the DOS 2.1 manual.)

[JAN.85 3]

QUESTION: I'm seriously considering buying a Zenith Personal Computer. The 40 per cent discount UC offers to University and Laboratory staffers is very attractive. Do you think it's a good move?

ANSWER: Yes indeed. Two models of Zenith Data Systems computers are nearly 100 per cent compatible with IBM PC's (hardware AND software wise). From the price/performance standpoint, they're a great bargain.

The ZENITH ZF-151-52, with two disk drives, 320K of memory, one serial port, one parallel port, and a monitor adapter has a retail list price of \$2799. Our price is \$1479. Orders are placed directly with Zenith. You can obtain a packet containing information and order forms from UCB. (218 Evans Hall - 642-5205).

[JAN.85 2]

QUESTION: It seems that Lotus sometimes has a mind of its own about where it will print on the paper. Sometimes it works according to instructions and at other times it does its own thing. What can I do to take charge?

ANSWER: Chances are that you are printing a copy of your worksheet, going off-line to advance the printer paper, and forgetting to use the ALIGN function before printing another copy of your

spreadsheet.

QUESTION: Have the Workstation Wizards set up a library of utility programs yet?

ANSWER: Yup. There's an IBM-compatible disk, containing a useful DUMP program and several sorted directory listing programs, ready for you to check out at the HELP DESK. (Or, you can bring a disk for copying to Dan Van Zile, 50B/ 1245).

[JAN.85 3]

TIMELY TIP: The Hewlett-Packard 110, that classy little battery-driven portable the size of a collegiate dictionary, is still available for short-term trial use and evaluation (up to a week). Contact the Computer Center Library, (50B/ 1245A, x5529) or Dan Van Zile (50B/ 1245 x5589) if you're interested.

This 8 1/ 2 lb unit features:

- (1) Terminal communications (MODEM),
(2) Word processing,
(3) Lotus 1-2-3, and
(4) MS-DOS software stored in internal ROM .

[JAN.85 4]

TIMELY TIP: . . . to new PC owners. Be sure to keep your receiving document for warranty repairs. Label your system (in a highly visible place) with the warranty expiration date.

[JAN.85 5]

We hope you'll use this Corner to trade useful information, problems, opinions, and horror stories concerning your PC. You can also forward questions and comments to the Workstation Wizards on staff.

If you want feedback on your question or comment, drop a line to

THE MICRO COMPUTER CORNER,
c/ o HELP DESK (UX4 or PDM) 50B/ 1232, or
The Computer Center Library (mam on UX5) 50B/ 1245A

WORKSTATION NEWS

• TAKING IT EASY ON THE HARD DISK

The Winchester hard disk is wonderful. It's speedier than anything near it and has prodigious storage capabilities. It's a swell accessory for the IBM PC. However, you can hurt it mortally during handling; the READ/WRITE heads may bang the disk surfaces and damage data areas or cause a head crash later when you power up. Repairs are expensive.

The best way to avoid the potential problem is to use the SHIPDISK.COM utility program provided on the IBM diagnostic disk. SHIPDISK is run when you use option 3 on that disk. We recommend that you copy the SHIPDISK.COM program to your DOS subdirectory and then execute it just before shutting down your system.

[22.1.1].....

• DISPLAYING THOSE GRAPHICS CHARACTERS

If the file you wish to view on your IBM PC screen is a graphics display (such as pie charts, bar charts, line graphs, rectangles, etc.), the PC-DOS GRAPHICS command must be executed. If you use this command, it's best to insert it in your AUTOEXEC.BAT file which will be executed at POWER ON (boot-up) time. (You'll need a color/ graphics monitor adapter and the IBM [or other compatible] parallel printer to view it and/or to get a hardcopy).

(For more info, refer to Pg. 6-106 of the DOS 2.0 manual or Pg. 2-96 of the DOS 2.1 manual.)

[22.1.2].....

• MAKING THE SYSTEM PROMPT WORK FOR YOU

You can make your IBM PC prompt give you the directory you are in, the date, the time, and other good things.

A typical PC prompt is "C >". You can make it do more for you.

to show the *current directory*, type

```
C > PROMPT $ p <return>
```

to show the *current directory* and the *default drive*, type

```
C > PROMPT $ p $ g <return>
```

to show the *date*, type

```
C > PROMPT $ d <return>
```

To show the *date* and *time*, type

```
C > PROMPT $ d $ t <return>
```

It's mighty handy if you include a PROMPT command in your AUTOEXEC.BAT file; your new prompt will automatically replace "C >" at POWER ON (boot up) time.

Leave a blank after your last character if you want a space between the **new** prompt and your command.

(For more info, refer to Pg. 10-18 of the DOS 2.0 manual or Pg. 2-116 of the DOS 2.1 manual.)

[22.1.3].....

• HP LASERJET PRINTER

Hewlett Packard has loaned the Workstation Group an HP LaserJet Printer with two font-cartridges. It is available for demonstration and evaluation. Many commercial word-processing programs now support this printer. (We use an updated *Volkswriter DeLuxe*, V 2.1) We will gladly give you a demonstration and show how to print out your *Lotus* worksheets with it. To arrange a demonstration, contact Richard LaPierre, x4692.

[22.1.4].....

• LOTUS SETUP TABLES FOR THE LASERJET PRINTER

Russ Montello of the Administration Division, has provided us with a table of the setup strings required to print various *Lotus* worksheets on the LaserJet printer. You can call for landscape orientation, for example, or for 132 characters/ per/ line, and 60/ lines/ per/ page. To get a copy of this table, call the Computer Center Library, (50B/ 1245 - x5529 or x6094).

While we're on the subject . . . You can empty the buffer of your LaserJet by issuing a PAGE command after printing your *Lotus* worksheet.

[22.1.5].....

• SCIENTIFIC WORD PROCESSORS FOR THE IBM PC

We have several Scientific Word Processor programs available to Laboratory employees for testing and evaluation. Included in that number are:

- **Volkswriter Scientific**
- **TechFont with Proofwriter**
- **Spellbinder Scientific**
- **VuWriter**
- **T³ from Triad Computing**

To arrange for a loan (and evaluation), contact Richard LaPierre, (x4693) or Dan Van Zile (x5589).

[22.1.6].....

• **MACGET & MACPUT ARE HERE**

The Computing Division has installed **MACGET** and **MACPUT**, two utilities to support file transfer between the Macintosh and the Computer Center's machines.

At this time the programs have been installed on **UX4**, **UX5**, and **UX6**.

Macintosh users must have a version of **MacTerminal Production V 1.1** to use the file transfer utilities. (See Van Jacobson's article elsewhere in this Newsletter).

For more info, contact Richard LaPierre (x4692) or Dan Van Zile (x5589)..

[22.1.7].....

• **NETWORK UPGRADES FOR 3COM**

3Com has announced upgrades for the **IBM PC Network Server Software**.

Highlights of the upgrade include support for the **IBM PC/AT** and for the **HP LaserJet --** and an improved **Network Server**.

In addition to price reductions, the file server provides full functionality while running on a system that also performs as a workstation.

For further information contact Richard LaPierre, x4693.

[22.1.8].....

• **ARE YOU RUNNING THE LATEST SOFTWARE ?**

Here's a list of the latest versions of most of your favorite software, now available from **LLNL**¹

NAME/ VERSION	NAME/ VERSION
dbase II, 2.41	pfs:report, A.01
dbase III, 1.0	pfs:write, A.01
Friday, 1.1	R:base Series 4000, 1.13
Harvard Project Mgr, 1.1	SuperCalc2, 2.
KnowledgeMan, 1.07	Supercalc3, 2.0
Lattice C, 2.13	The Final Word, 1.18
MultiMate, 3.22	Norton Utilities, 2.01
MultiPlan, 1.20	Volkswriter Deluxe, 2.1
Lotus 1-2-3, 1A	Word, 1.15
pfs:file, A.01	WordStar, 3.3

Here's a concurrent list of your favorite software, now available at **LBL**:

NAME/ VERSION

- VTERM, 2.0
- KERMIT, 2.26
- VISED, 3.5

[22.1.9].....

• **TRAINING NEWS**

The Employee Development and Training Group, in conjunction with the Workstation staff, has developed a **PC and Microcomputer Training Resources Guide**. This Guide was sent to all Divisions on December 12; it contains current class schedules and an outline of each course. If you're interested in enrolling in one of these courses, contact your Division Administrator.

[22.1.10].....

• **COLOR CONTROL ON PC/ FOCUS**

Jack Zelter of **RTSG** forwards the following helpful info . . . If you are getting random color combos in **PC/ FOCUS** you may not have your **CONFIG.SYS** file set correctly. (see Pg. 2-05 of the **FOCUS "Guide to Operations"**).

- Your **ANSI.SYS** file controls background and foreground color changes in **FOCUS**
- Your **CONFIG.SYS** file must be in your root directory.

Assuming your **ANSI.SYS** DOS subdirectory, enter the following three lines in the **CONFIG.SYS** file:

```

BUFFERS=10
BREAK=ON
DEVICE=C:\DOS\ANSI.SYS
    
```

- Line 1 sets the number of buffers to 10
 - Line 2 tells the systems to monitor the keyboard during disk operations to allow quicker cancellations of unintended disk operations with the **BREAK** key
 - Line 3 tells the system that the **ANSI.SYS** file is on drive **C** in directory **DOS**
- (You can customize line 3 to match your own system).

[22.1.11].....

¹ Reprinted from the **LLNL TENTACLE** December, 1984.

• PUBLIC DOMAIN SOFTWARE AVAILABILITY

Some Public Domain Software is being made available by diskette checkout from the HELP DESK (50B / 1232). Only Public Domain or user-supported software is available in this way. It comes with the following caveats:

- (1) It is available on a **TOTALLY UNSUPPORTED** basis only.
- (2) We make no claims of usability or reliability.

While there is undoubtedly much "chaff amongst the wheat," some of it may be very well suited to your needs. We make no claims that it is bug-free. Use at your own risk.

We'd appreciate your feedback (contact the HELP DESK) if you make any interesting discoveries, good or bad.

[22.1.12].....

" When ideas fail,
words come in very handy. "
(Goethe, 1749-1832)

MODEM IS UP AND RUNNING ON VMS AND UNIX

Noel Brown

MODEM, a popular file transfer program in the public domain, is now up and running on UX1 & UX3 and VMS.

It is called by different names on different systems.

On VAX/VMS, it's called XMODEM,

On UNIX systems it's called UMODEM

On micro computers it's called MODEM or MODEM7.

The protocol was originally developed by Ward Christensen of the CP/M users group and modified by others. Versions of MODEM are incorporated in such commercial products as SYMPHONY and VTERM and in user-supported products such as PC-TALK. It is also used as the terminal communications protocol in the portable Hewlett Packard 110.

XMODEM (Version 5.11) is now running on the VAX/VMS computers and UMODEM (Version 3.1) is running on the UX1 and UX3 computers.

XMODEM has been tested successfully at LBL using PC-TALK and VTERM. We transferred text and

binary files between an IBM PC and the VAX/VMS machines. However, we encountered problems testing the modem protocol in the HP 110. We could download files from the VAX/VMS computer to the HP but could not upload files from the HP to the VAX.

UMODEM has been tested at LBL using PC-TALK and VTERM on the IBM PC. We transferred text and binary files between an IBM PC and the UX1 & UX3 systems. We do not currently have a version of UMODEM that runs on the VAX/UNIX (V 4.2)² system. If anyone has access to a working version of UMODEM under 4.2 BSD, please contact the Workstation Group (ATTN: Bob Rendler) We will install and test the code.

To use MODEM on the mainframe computers, log on and type the command XMODEM on VAX/VMS or UMODEM on UNIX. You will enter the MODEM program and be prompted for the command to send or receive files as well as the file name to be transferred.

The typical choices are:

XMODEM (VAX/ VMS)

S	<file>	send a binary file TO the PC
R	<file>	receive a binary file FROM the PC
ST	<file>	send a text file TO the PC
RT	<file>	receive a text file FROM the PC

UMODEM (UX1 & UX3)

SB	<file>	send a binary file TO the PC
RB	<file>	receive a binary file FROM the PC
ST	<file>	send a text file TO the PC
RT	<file>	receive a text file FROM the PC.

There's on-line assistance . . .

On VMS (XMODEM) type HELP

On UNIX (UMODEM) type MAN UMODEM

For a protocol description of MODEM and/or a sample session using MODEM with PC-TALK and VTERM, contact the Computer Center Library (50B/ 1245, x5529/x6094).

For more assistance or more info, call Noel Brown (**nbrown on VMS, x4387**) or Bob Rendler (**ren on UX4, x5629**).

²UX4, UX5, and UX6.

IBM PC DEVICE DRIVER

Carmen Chan

An IBM PC device driver for the DI-3000 is now available on the IGM.

You need the following hardware & software to use the PC as a graphics terminal in a DI-3000 environment.

- 96K RAM (minimum)
- one disk drive (minimum)
- asynchronous communications adapter board
- IBM color/graphics monitor adapter board
- IBM PC DOS V 1.1 or V 2.x (x = 0, 1, ... 9)
- PVI's device controller software PVI_PLOT).

You can buy the PVI_PLOT floppy disk (Cost: \$90) at the Computer Center Library (50B/ 1245A, x5529 or x6094). A two-page handout, describing the installation of the PVI_PLOT software and settings of the communications parameters is also available there.

After you have installed the above software, you can use the IBM-PC to logon to the IGM.

To compile and link a program with DI-3000, type

```
$ D13 .....Define DI-300 symbols
$ FOR < yr program >.....Compile your program
$ D13LOAD < yr program > ....Link your program with
                           the DI-300-3000 library and
                           the IBM PC driver.
```

```
$ RUN < yr program >
```

For more information about the DI-3000 linking procedure, type:

```
$ HELP @GRAFHELP DI-300 LINKING
```

The IBM PC DEVICE DRIVER USER'S GUIDE (for DI-3000) is available at the Computer Center Library (50B/ 1245, x6094).

For more info, contact Carmen Chan (**carmen on igm, x4750**) or Vivian Morgan (**vivian on igm, x5461**).

MACINTOSH SOFTWARE

Van Jacobson

Lots of "free" software for the Apple Macintosh is being developed by members of a loosely-knit nationwide assemblage called the Mac University Consortium. Much of this software eventually shows up in MAIL messages on the ARPANET or USENET. Members of the RTSG staff have been collecting this software as it flies by, bringing it up on local machines. They hope to provide a publicly-accessible archive of Mac materiel for the LBL user community. The first fruits of their efforts have recently appeared on the Computing Division VAXes:

MACGET & MACPUT

MACGET and MACPUT are programs that allow you to transfer files from a MAC to a VAX and back. They work in conjunction with the "SEND FILE" and "RECEIVE FILE" capabilities of MacTerminal and provide a simple, reliable way to download new programs to the Mac, upload Mac files for archiving on the VAX, upload MacWrite files for later conversion to troff or TeX, etc. MacGet & MacPut are available on all the UNIX VAXes (UX4, UX5, UX6) and on the VMS VAXes running Eunice (NMC, GEN). Normal UNIX manual entries are available for both programs (i.e., type "man MacGet" or "man MacPut" to the UNIX or Eunice shell). A short tutorial document describing the programs is in preparation (we'll announce its availability in a future Computing Newsletter).

All that you need to use MacGet or MacPut is a version of MacTerminal. There are 3 versions of MacTerminal floating around the Lab: 0.15, 0.5 (both pre-releases) and 1.1 (you can find out which version you have by getting into MacTerminal, then looking at the "About MacTerminal" item on the "Apple" menu). If you have Version 0.15, you will need to use the "-o" ('old') flag on MacGet & MacPut (if you don't, things hang). If you have Version 0.5 or 1.1, you don't need to do this.

People who are interested in installing MacGet or MacPut on their own VAXes should have their VAX System Manager get in touch with me via computer mail (**van@lbl-rtsg** or **rtsgvx::van**). Don't try to reach me by phone.

IN THE NEAR FUTURE ...

Programs already exist to print MacPaint documents on one of LBL's high-resolution laser printers (such as the Imagen in Bldg. 50). There is also a simple program to convert the text of a MacWrite document to

a troff input file (for high quality printing on the laser printer or photo-typesetter). By the time you read this, a program that can convert everything in a **MacWrite** document, including fonts, special characters, etc., should be running. These programs should show up on the Computing Division VAXes shortly after we get them working.

Sometime in January, a program to convert a **MacWrite** document to a **TEX** input file should appear. There should also be a **KERMIT** file transfer program for those who would prefer **KERMIT** to **MacGet/Put**. We also hope get our **Mac** archive set up in January. With luck, the February Computing Newsletter will contain a list of the programs in the archive & what you have to do to download them to your **Mac**.

XEROX 8010 STAR WORKSTATIONS and XEROX COMMUNICATIONS

William Jaquith

There are ten XEROX 8010 Star Workstations located in the Building 50 complex. These workstations are linked to two XEROX printers, to a file server, and to a XEROX 873 CIU by a XEROX Ethernet standard cable. This system is an example of an office automation system.

Each workstation has a 10 megabyte hard disk (29 and 42 Mbyte disks are available), which contains the workstation software. Optional software includes TTY communications, advanced graphics, records processing, spreadsheet, and equations. The graphics facility along with the high resolution printer is capable of producing excellent output. The workstation disk can also be used to backup each user's desktop (files) on that machine. In the upcoming release of XEROX Version 5.0, the workstations will be capable of stand-alone operation.

There are XEROX printers located in 50B, 2231 and 50A, 311G. Both printers are connected to each workstation by the XEROX Ethernet standard cable. Files are edited and formatted on the workstations. After the files are formatted, they can be previewed on the terminal screen and then sent to either printer. These are high-resolution printers capable of producing camera-ready copy.

The Ethernet standard cable also allows each workstation to communicate using mail facilities. Mail can also be sent to UNIX and VAX/VMS via the TTY

Communications package.

The XEROX Ethernet connects to a XEROX 873 CIU. (Communications Interface Unit) is connected to the Develcon switch. The workstation user can select from several options in a workstation area known as TTY Communications. One option allows the user to logon to UNIX and another option permits the user to logon to VAX/VMS. A Star workstation user logs on to UNIX (or VAX/VMS) and uses the "make document" feature of XEROX to "capture" a document or file. The document is now available for editing and formatting on the workstation and finally printing on the XEROX printer.

File transfer from the XEROX workstation to UNIX (or VAX/VMS) is available using line-by-line movement.

For more information contact the System Administrators, Mary Clary (x4940), Buck Koonce (x5739), or William Jaquith (x4388).

YES I would like to receive the Computing Newsletter

NAME.....

FIRM.....

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COMMENTS.....

.....

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Return to:Newsletter - Bldg. 50B, Rm 1245
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Attention: DORTHA HINES

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