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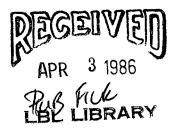
Author

Morley, M.

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DISCLAIMER

L B L
COMPUTING
NEWSLETTER

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"The intelligent man finds almost everything ridiculous,
the sensible man hardly anything."

. . . *Goethe (1749-1832)*

NAMES & NUMBERS TO KNOW

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

COMPUTING DIVISION
Head: Leroy Kerth (LTKerth) ....7474　　50B - 2232

OFFICE OF COMPUTING RESOURCES
Head: Ken Wiley (KGWiley) ....7083　　50B - 2258E
Ethernet Manager: Sig Rogers (SGRogers)..6713　　50B - 2258G

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Head: Marv Atchley (FMAtchley)...................5455　　50B - 2245
Asst.Head: Sandy Merola (AXMerola)............4389　　50B - 2239B
　Central Office ....5871,2　50B - 2239

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FIRST INITIAL-MIDDLE INITIAL-LAST NAME is the standard
recipient format in Lab-wide mailing address.
Example: "LBL::JASmith"

DEVELCON

DEVELCON Access Names

　　[VAX 8600's (GENERIC)....................CSA]
VAX 8600 (VMS) CSA1
VAX 8600 (VMS) CSA2
VAX 8600 (VMS) CSA3
VAX 8600 (VMS) CSA4
VAX 8600 (VMS) CSA5

VAX 11/780 (UNIX4)...........................UX4
VAX 11/750 (UNIX5)...........................UX5
VAX 11/750 (UNIX6)...........................UX6
VAX 11/780 (UNIX7)............................UX7

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

Oakland	430-2900	Vallejo	707-644-1192
Walnut Creek	938-9550	Concord	685-6003
Pleasanton	462-8900	Fremont	490-7366
San Francisco	974-1300	Antioch	754-8222
Santa Clara	408-986-0646	Palo Alto	415-366-1092

COMPUTER CLASS SCHEDULE

Jerry Borges

The following computer classes are to be offered by the Computing Division starting in April 1986. There is no charge for these classes; 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
Apr 1	8:30 AM - 4:30 PM	DISSPLA, GKS, Dynamics	ISSCO/Lederer
Apr 2	9 AM - 4:30 PM	TELL-A-GRAF & PINPOINT	ISSCO/Lederer
Apr 3	9 AM - 4:30 PM	TELL-A-GRAF (cont.) & TABLES	ISSCO/Lederer
Apr 8, 10, 15, 17	9 AM - 11:30 AM	The C Programming Language	Marty Gelbaum
Apr 10, 11	9 AM - 5 PM	Precision Visuals Graphics - DI3000	PVI/C. Lederer
Apr 15, 17, 22, 24	1 PM - 4 PM	Introduction to VAX/UNIX	Dave Cleveland
Apr 15	10 AM - noon	Electronic Mail: DEC/VMS	William Jaquith
Apr 16	9 AM - 5 PM	Software Management Using DEC/CMS and DEC/MMS	Edgar Whipple
Apr 22	10 AM - noon	Electronic Mail: UNIX	William Jaquith
Apr 29	10 AM - noon	Electronic Mail: Software Tools, Intro.	William Jaquith
May 5	10 AM - noon	Introduction to SPSS	Elon Close
May 6	10 AM - noon	Electronic Mail: Software Tools, Adv.	William Jaquith
May 13	10 AM - noon	Electronic Mail: UNIX	William Jaquith
May 19, 20, 22	9 AM - noon	Introduction to VAX/VMS	Rosemary Allen
May 27	10 AM - noon	Introduction to the IMSL and NAG mathematical software libraries	Elon Close
May 29	10 AM - noon	Electronic Mail: DEC/VMS	William Jaquith
July 14, 15, 17	9 AM - noon	Introduction to VAX/VMS	Rosemary Allen
Jul 15, 17, 22, 24	1 PM - 4 PM	Introduction to VAX/UNIX	Dave Cleveland
Nov 3	10 AM - noon	Introduction to SPSS	Elon Close

CORRECTIONS PLEASE

Maggie Morley

Two corrections to the March 1986 Newsletter:

> In the article entitled "TWO NEW TAPE UTILI-TIES", the appropriate command lines to define the utilities are:
>
>   **tapedisk :== $sy_systools:tapedisk**
>   **tapert   :== $sy_systools:tapert**

> In the article entitled "FILE TRANSFER USING DECNET AND PROXY ACCOUNTS", the first example of a copy should read
>
>   LBLG>**copy**
>   _From: **CSA1**"*userid password*"::[**DIR**]**file**
>   _To: **file**

UPDATE ON DOE-MACSYMA

Marty Gelbaum

A new and simpler method of running DOE-Macsyma has been implemented on the CSA cluster. To run DOE-Macsyma, simply type

    @doemacsyma

Please change any procedures and symbols you have for running DOE-Macsyma to use "@doemacsymsa". Please read the on-line help article "macsyma", which has been updated to reflect this change and expanded to explain much more about using DOE-Macsyma.

IMPROVEMENTS IN NETWORKING FROM LBL TO MFE

Sandy Merola

If you are an NMFECC[1] user, you may have noticed a change in your response time and throughput when communicating between CSA2/CSA4 to MFE via our NAP (Network Access Processor).

Previously the NAP connected to its CCP (Communications Control Processor) at the NMFECC via a 9.6KBaud line. The LBL super-computing community experienced delays in file transfer which have resulted in a two-phase plan that will change the configuration between LBL and MFE.
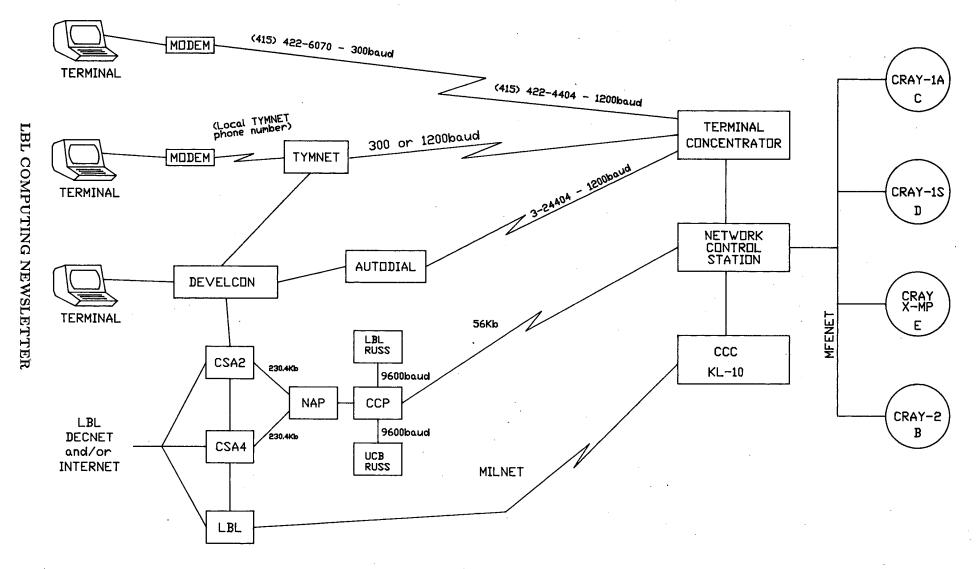
Phase I includes the installation of a CCP at LBL and the replacement of the existing 9.6KBaud line with a 56KBaud line. This change was effected on March 6, 1986. Within the next 24 hours, throughput had increased by a factor greater than 3. During late March (hopefully before this article is published), we expect the UCB Campus RUSS (Remote User Service Station) and the LBL building 4 Fusion RUSS to be connected to the new CCP. The Fusion RUSS had previously operated to MFE over a 2400 bps line; it will be connected to the CCP at 9600 bps, so the response time from the RUSS should improve dramatically .

Phase II of the slated changes may take place in late spring. At that time, a second NAP will be located at LBL so that CSA2 and CSA4 will have separate NAPs connecting them to the CCP. This second phase of the plan is tentative and will not be implemented if it is not needed by the LBL super-computing community. Therefore, it is important that our NMFECC users let us know if they are satisfied the LBL/MFE link. We need the input.

If you have any questions about this please contact William Jaquith (**WDJaquith@LBL**) or me (**AXMerola@LBL**) via electronic mail. Please let us know if you have observed any changes since March 6th and please provide input to us as to your general satisfaction with the LBL to MFE networking.

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[1] National Magnetic Fusion Energy Computer Center

ACCESS PATHS FROM LBL TO MFE

TERMINAL — MODEM — (415) 422-6070 - 300baud

(415) 422-4404 - 1200baud

TERMINAL — MODEM — (Local TYMNET phone number) — TYMNET — 300 or 1200baud — TERMINAL CONCENTRATOR

TERMINAL — DEVELCON — AUTODIAL — 3-24404 - 1200baud

NETWORK CONTROL STATION

CRAY-1A C

CRAY-1S D

CRAY X-MP E

CRAY-2 B

MFENET

CSA2 — 230.4Kb

LBL RUSS

56Kb

CCC KL-10

NAP — CCP — 9600baud

LBL DECNET and/or INTERNET

CSA4 — 230.4Kb

UCB RUSS — 9600baud

MILNET

LBL

3/13/86   fma

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NMFECC SIG-USC REPORT

Dennis Hall
Sandy Merola

The NMFECC USC-SIG and MFE-SIG meetings (MFE User Service Center and MFE Special Interest Group) were held on February 11th at General Atomics in San Diego. The official minutes of that meeting will not be available for some number of months. What follows are some preliminary notes on the proceedings.

The reports from sites which have been allocated computing time at MFE indicated that all major sites now have 8600s installed which front-end remote users to NMFECC by the use of NAPs (Network Access Processors). There were some detailed concerns about the current release of MFEnet NAP-related software. LBL played a role in generating that list of concerns and we are currently in the process of providing assistance to MFE in effecting necessary improvements.

The security of the network was discussed. It was agreed that the network itself is not the proper place for security implementation. Every machine attached to the network must (1) protect itself from users remotely accessing that machine from the network and (2) protect the network from users locally accessing that machine.

A substantial part of the meeting was dedicated to discussing MFEnet Futures. Joe Sventek of LBL presented a comparison of DECnet, MFEnet, and TCP/IP to the attendees. This was very useful in providing background for the MFE presentation of MFEnet II. The MFEnet will be evolving toward ISO (International Standards Organization) standards and a more open architecture. As the first step, the IP (Internet Protocol) will become the standard interface to nodes on the network. (LBL is providing assistance in installing IP on the Cray Time Sharing System (CTSS)). This change will be invisible to the users, as NETTY, NETOUT, etc. will continue to survive. X.25 will be added in the future as well as ETHERNET servers. The net result of this first pass should be improved response time to the user community as the IP Gateway (formerly the NAP) throughput will greatly increase. Longer term, NMFECC networking will likely evolve into an ER (Energy Research) wide network with support for DECNET and TCP as well.

A committee of the USC-SIG had been formed six months ago regarding the future direction of the NAP. Princeton, Oak Ridge, and LBL were represented on that committee. The committee fully supports the direction of the MFEnet discussed above.

The Advanced Software Committee requested standard, high-level computer graphics facilities for CTSS. These should be compatible with the users' "home" system whether it be IBM, DEC, CDC, or Brand X. The feeling was that "you shouldn't have to be a computer jock to do good graphics."

The NMFECC is experimenting with a GUSS-to-VCR interface. The committee felt that a "low-tech" interface between an IBM PC and a VCR would be useful.

The performance problems of FILEM were reviewed and a number of approaches ranging from short-term "administrative" solutions to long-term hardware-software upgrades were suggested. Nothing definite was decided.

Copies of the MFEnet presentation transparencies and the committee report on MFEnet Futures are available for the asking. Call the Computing Services office (**x5871**) if you want them.

"God made integers.
All else is the work of man."
Leopold Kronecker (1823-1891)

WORKSTATION NEWS

[23.4.1]...

● SPICE on the PC

Many circuit designers are familiar with "SPICE", a circuit design and simulation program originally written at UC Berkeley.

At LBL, this program is available on several VAX machines. Public Domain versions for use on PC's have been around for a while.

"IS_SPICE" is a commercial version of SPICE from INTUSOFT (PO Box 6607, San Pedro, CA, 90734-6607, 213/833-0710. Cost: $250.) The package includes "SOFT_SCOPE", a program for graphic display of the output of IS_SPICE. This commercial version offers several features -- such as documentation*, telephone support, and graceful file handling on abort -- that are not available on the public domain versions for the PC. There are several users of IS_SPICE in the Electronics Dept. and all are quite pleased with it.

If your work involves circuit design, this program may be worth investigation.

*Editor's Note: You **must** specify "files ≥ 10" in your CONFIG.SYS file. This requirement was omitted from the documentation.

[23.4.2]...

● A USER LOOKS AT PC-VI

If you're a UNIX[1] user and a *vi* devotee, you're going to LOVE PC/VI, the powerful full-screen editor for MS-DOS or PC-DOS. It's a *vi* lookalike. I can now do everything with PC/VI on my PC that I can do with UNIX *vi* on the Computing Center's systems. I'm delighted. The manufacturer, (*Custom Software Systems, P.O. Box 551 M.O., Shrewsbury, MA 01545, 617-842-1712*) recommends a hard-disk system with 512 Kbyte memory, (it's quite speedy thataway) but I'm willing to live with the pretty-small difference in performance time when it operates on my 2-floppy system.

... M. Morley

The Workstation Group has acquired a site license for PC/VI and copies of this editor can be purchased for $75 each (list price is $149).

[23.4.3]...

● CAN YOU SPARE YOUR WORDSTAR?!

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[1]UNIX is a trademark of AT & T Bell Laboratories

We know there are a few copies of WORDSTAR out there gathering dust on someone's bookshelf.

How would you like to loan your unused copy of WORDSTAR to an LBL group for two weeks begining the last week in April. The group needs three copies for that time and would like to avoid purchasing WORDSTAR for such a limited use. If you would care to "lend" or "give" your copy please contact Glenda Fish (×6859).

[23.4.4]...

● NEW ZENITH PRICES FOR EMPLOYEES

Zenith Data Systems has supplied us with its new "Educational Pricing Guide" for personal computers and accesories. Many prices have been lowered but the big news is that they are selling systems with more memory, with monitors included, and -- in general -- with more options being standard. For example,

- The entry level system (148) now includes 256K RAM, two floppy drives and either amber or green monochrome monitor for $999.00.

- The 171 portable (that has been in the news as being the one the IRS has agreed to purchase), is $1,349.00 -- and

- The 158 with 20 Mbyte hard disk is now the price of their old 10 Mbyte unit ($1,999.00).

For the complete price list call Dan Van Zile (×5589).

[23.4.5]...

● MICROVAX LOCAL USER GROUP MEETS

The first meeting of the MicroVAX Local Users Group will be on from 2 to 3:30 PM on Wednesday, April 2, in Bldg. 50B, Rm. 4205. Topics to be discussed will include:

- introduction of the participants;
- organization of mailing lists;
- use of bulletin board software on the CSA cluster for communication;
- arranging future meetings;
- individual applications and first impressions;
- other business.

For more information, please contact Mark Tincknell (MLTincknell@LBL, ×6460).

[23.4.6]...

● EXPANDED MEMORY BOARDS

In last months column we discussed expanded memory boards and the fact that there were two competing specifications.

We just received an AST Rampage board for the IBM PC/AT and will have a report on its operation with the new DESQview software in next month's newsletter.

[23.4.7]...

● ATARI and AMIGA DEMO

The Workstation Group is in the process of arranging a presentation of both the ATARI and AMIGA 68000-based computers. We expect to have representatives from both companies on-site. The presentation is scheduled for Wednesday, May 7, 1986 and will be in the Bldg 70A conference room.

More details will be announced in the May newsletter and in the Currents.

[23.4.8]...

● CDC HARD DISKS ARE JUST FINE

It has been called to our attention that after many months of reporting on the status of hard disks for the IBM PC/AT, the Workstation Group has been rather silent on this issue.

Well, this is a case where no news is good news.

In the last nine months we have purchased approximately one hundred 30 Mbyte disk units from Control Data Corp. We have experienced two failures; one unit had a hard failure and one developed a noisy bearing.

This is an excellent performance record and we continue to recommend these units.

The disk drive has a one-year warranty and our net cost is $832.26.

YES I would like to receive the Computing Newsletter

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