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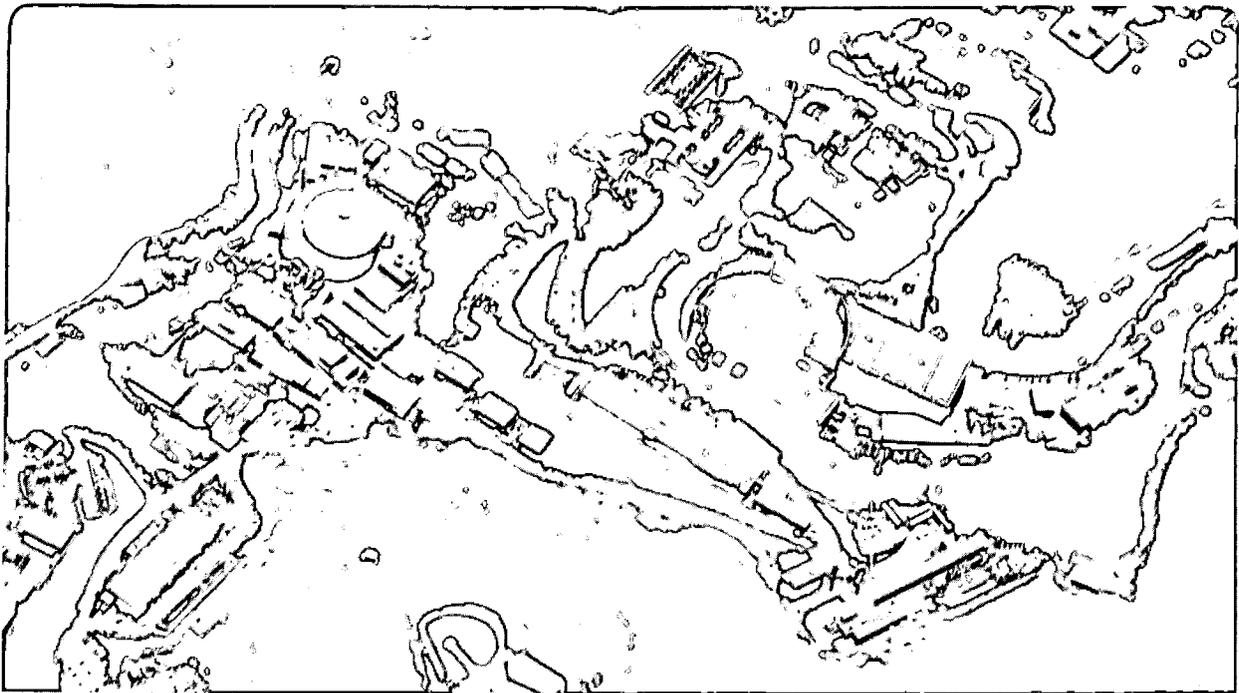
User's Guide for the UC Systemwide Labor Relations Communication (LRC) System at LBL

A. Konrad

August 1984

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User's Guide
for the
U C Systemwide Labor Relations
Communication (LRC) System
at LBL

Prepared for the U.S. Department of Energy under Contract DE-AC03-76F00098

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Office of Computing Resources

30 August 1984

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I. Introduction

- A. The Labor Relations Communication (LRC) System
- B. LBL Access to the LRC System

A. The Labor Relations Communication (LRC) System.¹

The Labor Relations Communication (LRC) System is designed to provide for prompt review and comment upon various types of labor relations documents by Labor Relations Council members and their staffs. A list of these participants is available online as described below.

The system supports four functions:

1. Document Drafting and Preparation (by the President's Office)
2. Sharing of Documents (with Council members)
3. Review, Drafting Comments, and Sharing of Comments on Documents
4. Re-drafting of Documents, if Necessary (by the President's Office)

1. Document Drafting and Preparation

Documents are prepared (only) by Office of the President staff using IBM Displaywriters.

2. Sharing of Documents

Once prepared and ready for review by Labor Relations Council members, a draft document is sent via use of communications facilities from a Displaywriter to the Office of the President Data Center Computer (referred to in this document at UC Systemwide Computing System, UCCVMA). Next, copies of the document are sent from the President's Office virtual machine (computer account) to the electronic mailboxes of Labor Relations Council members for review, also on the UCCVMA computer. Council members receive electronic mail by logging on to their virtual machine and using PROFS commands to receive, read, print, store, or respond to the mail.

¹ Section IA is extracted from text provided by the President's Office.

3. Review, Drafting Comments, and Sharing of Comments on a Documents

Council members check their electronic mailboxes *daily* by accessing the UC Systemwide Computer system. If a document is in the mailbox for review, it can be viewed on the screen or printed or both¹. Subsequent to review, comments on the document may be made by accessing the Systemwide computer, entering comments about the document in the PROFS mail system, and sending the PROFS mail to other Labor Relations Council members.

4. Re-drafting of Documents, if Necessary

The Office of the President users of the LRC System access the UC Systemwide computer, view comments provided by other members, and optionally print them. After review of these comments, the original document may be revised on the Displaywriter by *the Office of the President* and once again sent to the electronic mailboxes to the members or else printed in final hardcopy form.

Note: This system is not intended to require or support the re-drafting of documents by the Labor Relations Council members at campus and laboratory locations.

¹ Although the President's Office intends that LCR members will use the LRC system only for sending and reading mail, it is possible to store, copy, and edit a document in the CMS environment outside of PROFS, and to mail the edited version to another Council member or the President's Office. Please see Section IV.G, Appendices D and E for assistance.

B. LBL Access to the LRC System.

The UC Labor Relations Communication System, as used at LBL, runs on the UC Systemwide IBM 4341 (UCCVMA) under the VM/CMS operating system, via the UC Berkeley Campus IBM 3081 (UCBCMSA), also running VM/CMS. Your IBM PC/XT is primarily for use as a terminal and printer, although it is also capable of acting as an IBM computer which uses the Disk Operating System (DOS) for local editing and file manipulation.

It is possible to dial directly into the UC Systemwide IBM 4341 system over a telephone line. However that procedure has several disadvantages: First, it is limited to modem speed (30 characters per second, or at most 120 cps). Second, it requires always dialing a telephone. Third, it requires either installing and paying monthly charges for a telephone, or sacrificing the ability to use your existing telephone for voice communications during the time you use the computer.

A better alternative is to use a Develcon port to the Berkeley campus computer, then "PASSTHRU" to the UC Systemwide computer system. Use of the Develcon port allows you to communicate at 960 characters per second, and without tying up your telephone. It also avoids extra telephone expense although there will be a minimal monthly charge for use of the Campus IBM 3081. Additionally, use of the campus system allows you to print files on a printer in the LBL computer center should your local PC printer be unavailable. Further, it allows you access to the LBLSTAFF employee database which is an up-to-date source of mailstops and telephone extensions, and other employee information.

The President's Office has recommended that each site acquire use of an IBM Displaywriter for the LRC project. Displaywriters are in the neighborhood of \$15,000 for a *minimal* configuration. Further, Displaywriter support for LRC has encountered delays. For these reasons, we have implemented use of LRC system on an existing IBM PC in the Administration Division office. A \$2,500 10-megabyte disk, \$25 in software, and a \$200 sound cover for the printer completed the configuration, which is now installed and working.

Thus, the LBL implementation of LRC is about \$12,000 less expensive, 32 times faster, several months earlier and has more flexibility and functionality than implementations at other LRC sites.

Figure 1 illustrates the path between yourself and the target software system, the UC LRC mail system based upon the IBM product PROFS (PProfessional OFFice System).

Most of the icons are self-explanatory. The purpose of the SERIES/I is to make the user's terminal appear as an IBM 3270 terminal to the IBM 3081, and vice versa.

Section II describes the commands to move along the path from the terminal through the gateways into the LRC system. This generally requires less than a minute and becomes routine.

Section III describes procedures for printing files.

Section IV describes procedures for transferring files between computers.

Section V briefly describes use of LBLSTAFF on the Berkeley campus computer.

Appendices are provided for technical assistance. This document assumes that the user has appropriate consulting support available for the IBM PC and DOS. No information is included in this document about editing or manipulating DOS files on the IBM PC.

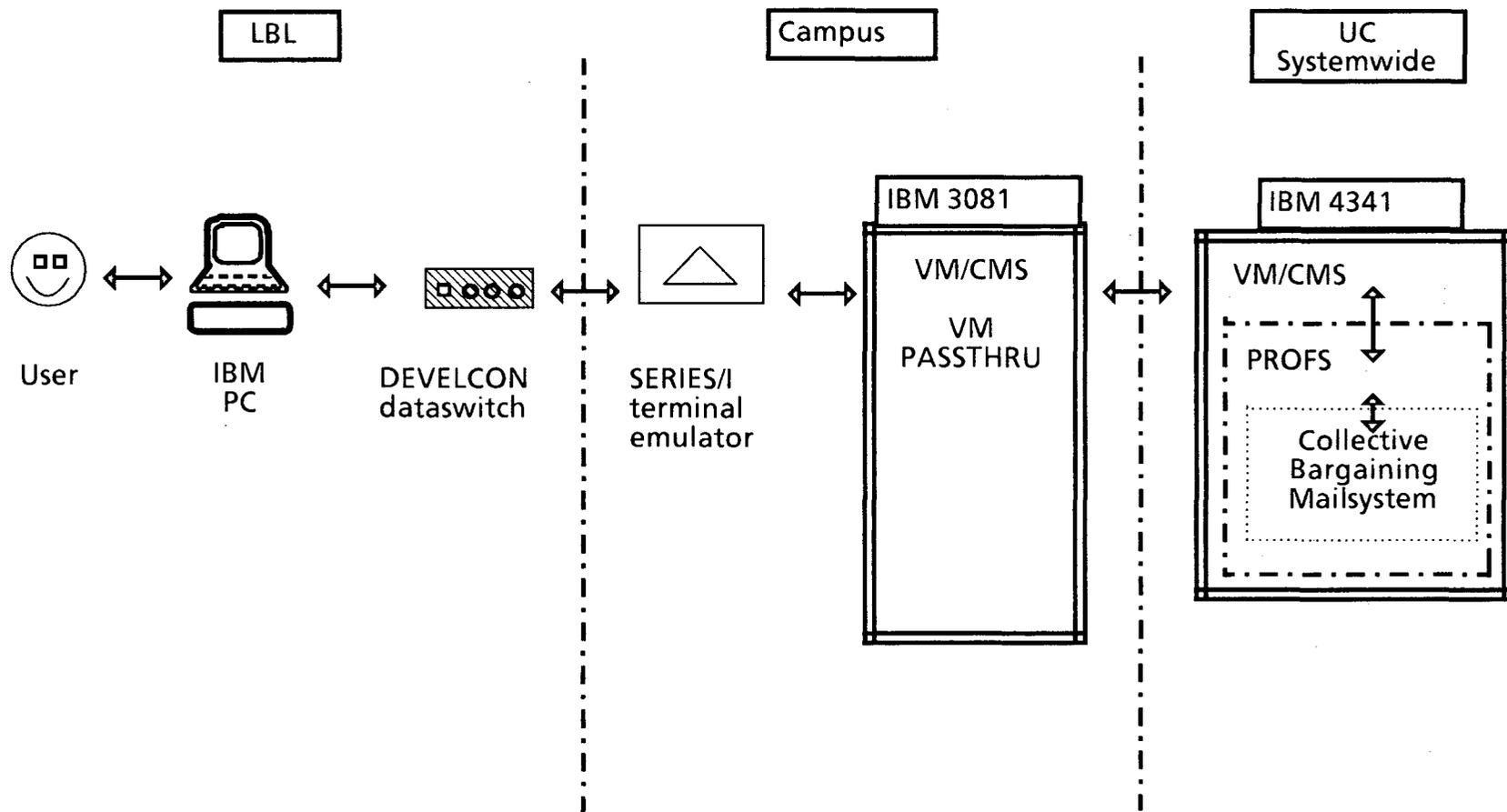


Figure 1. Pathway between user and the LRC PROFS System

II.A Logging On

- .1 Starting your IBM PC
- .2 Accessing the Berkeley Campus computer (UCBCMSA)
- .3 Accessing the UC Systemwide computer (UCCVMA)

II.A.1 Starting your IBM PC

1. Turn the PC power switch ON.
2. Turn the printer power switch ON.
3. Wait a few moments until the PC displays the prompt C: . Warmup requires 70-80 seconds.
4. Enter the command: **cd yterm**
5. Enter the command: **X**
6. Enter the command: **T 9600**

II.A.2 Accessing the Berkeley Campus computer (UCBCMSA)

1. Press the blue button on the blue TSB box and wait for green light.
2. When green light is illuminated, enter carriage return [CR].

The following dialogue should occur. The system response is in **bold**. The user response in modern font.
3. **Request:** ccdb [CR].
4. System will respond with a bell, and cursor and will jump to next line. Enter carriage return [CR].
5. **YALE ASCII TERMINAL COMMUNICATIONS SYSTEM V2.1**
enter terminal type: yterm [CR].
6. System will respond with a pseudo-three-dimensional display CFO over the letters VM. Enter another [CR].
7. The screen will clear. Enter:
L EKHYDE [CR].
8. **ENTER PASSWORD:**
Enter your password. It is not a good idea to write your password on this set of instructions. If you write it down, do so elsewhere.

Note: If your previous session ended "abnormally", i.e., by simply pushing the blue button on the TSB box to obtain a red light, you will have to enter, at this point in the logon procedure, the command: **IPL CMS** and then a [CR]. This should always be done when a lengthy paragraph beginning with the word **"RECONNECTED . . ."** appears. If this does not work, call for human help (Please see Appendix A).

II.A.3 Accessing the UC Systemwide computer (UCCVMA)

1. Enter yet another [CR]. This causes your PROFILE EXEC to execute. The system will first clear, then display:

DR. HYDE,
YOU HAVE ARRIVED AT THE UCB CAMPUS MACHINE,
TO PROCEED TO THE UC SYSTEMWIDE MACHINE, ENTER: PROCEED
TO SEARCH THE LBLSTAFF EMPLOYEE DATABASE, ENTER: SPIRES

2. Enter: PROCEED [CR].
3. System will respond with a pseudo-three-dimensional display of the letters VM under the numbers 370. Enter another [CR].
4. The screen will clear. Enter:
L LRCLB [CR].
5. **ENTER PASSWORD:**
Enter your password. It is not a good idea to write your password on this set of instructions. If you write it down, do so elsewhere. Enter [CR].
6. Enter yet another [CR]. This causes your PROFILE EXEC to execute. The system will first clear, then automatically enter into the MAIN PROFS menu.

You have now logged on to the UC Systemwide computer.

II.B Using PROFS

After completing the steps in section II.A.3 above, the system will display the **MAIN PROFS** menu of three choices (Please see figure 2):

1. Office System
2. Access to Corporate Systems
3. Automated Records Systems

Enter: 1 [CR].

(Access to Corporate Systems and the Automated Record Systems is not for use by UC LRC representatives.)

The screen will clear and eventually display the **PROFS OFFICE** System Menu. Distinguish between the **MAIN** and **OFFICE** menus (see figure 2.). Most of your work will be in the **OFFICE** menu. The **MAIN** menu is used primarily for logging in and out.

The **OFFICE** menu contains six frame displays from which you may select:

1. Open the mail
2. Send a note to another member
3. Process note logs
4. Change your password
5. Office Systems news
6. View the Central Directory

From this point, most of your tasks will be initiated by selection of menu items using "program function keys", PF keys. Each menu will generally list which tasks can be accomplished while in that display frame and which PF keys to use to accomplish them. Please see Appendix B, Terminal Control, for information about PF keys and PA keys.

Figure 2 partially illustrates the hierarchical menus of PROFS as implemented for the UC Labor Relations system:

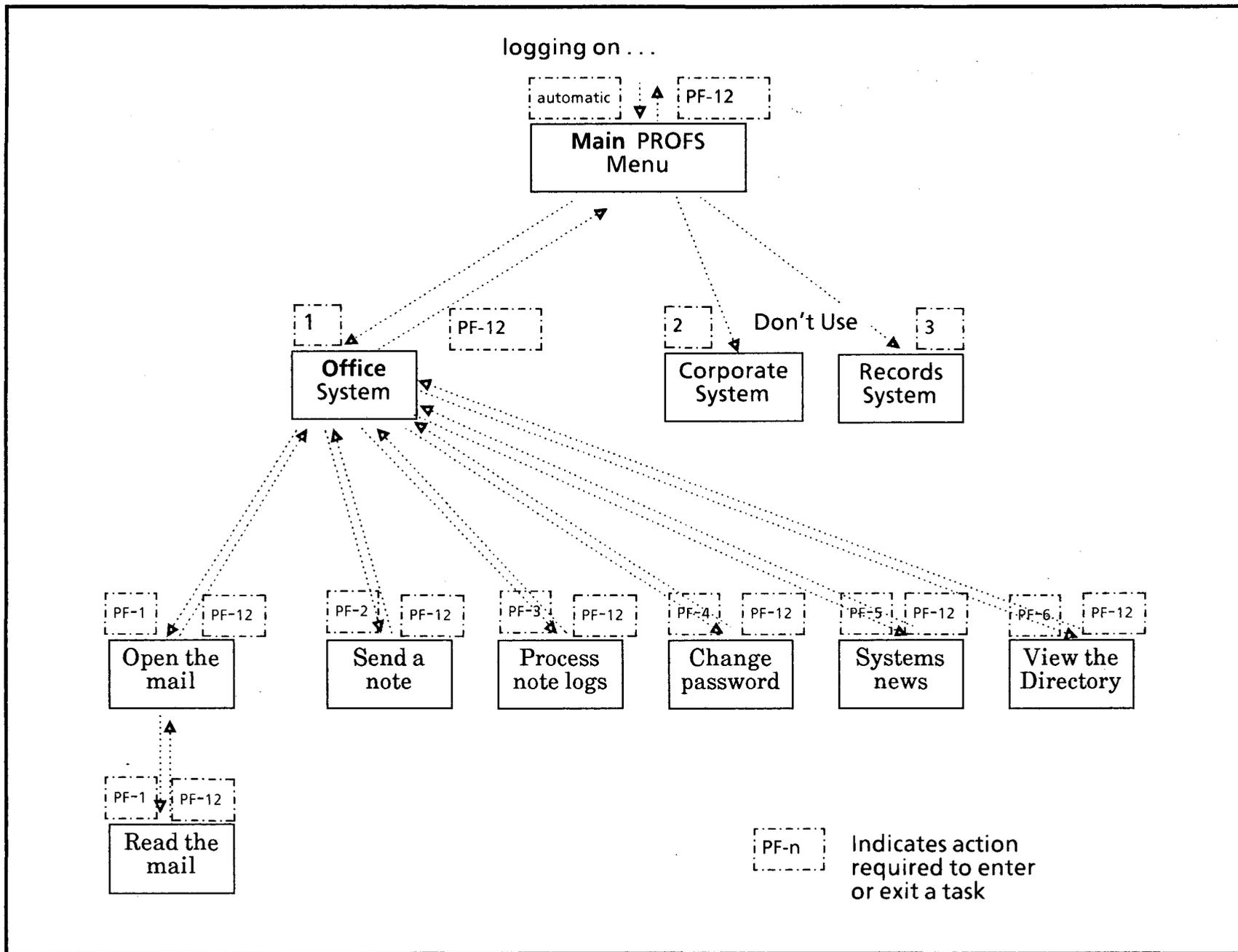


Figure 2. Actions Required to Enter Menu Frames

- II.C Disconnecting
 - .1 Temporarily
 - .2 Logging OFF

II.C.1 Disconnecting Temporarily

During your use of the UC Systemwide PROFS system, you may wish to return temporarily either to the UC Berkeley Campus system to use LBLSTAFF, or to your PC.

To return temporarily to the UC Berkeley System. To return temporarily to the UC Berkeley System, enter PA-1. (The PA-1 is implemented on the IBM PC by pressing the ALT key, and while holding, press PF-1. Please see Appendix B, Terminal Control, for assistance.)

This action will freeze your session in PROFS and return you to the Campus computer. You may then enter the command: SPIRES [cr] to use the LBL employee database or perform other tasks as desired (See Section V for instructions in using LBLSTAFF). When you are ready to return to PROFS, enter the command: PROCEED and a [cr].

To return temporarily to the IBM PC. Occasionally, you may wish to return control to your PC, to look at a file for example. To do so, enter the sequence: CONTROL and while holding, press SCROLL LOCK (BREAK). You will then be able to execute DOS commands on your PC. When you are ready to resume your session on whatever host computer you were last using, enter the command: T.

II.C.2 Logging Off

Log off from the UC Systemwide computer (UCCVMA). To log off from the UC Systemwide computer (UCCVMA), you must follow the reverse path used for logging on (Please see Figure 2 then Figure 1).

First, you must return to the MAIN PROFS Menu (Figure 2) which can usually be accomplished by entering a PF-12 for each level between your current screen and the MAIN PROFS Menu.

Once you have arrived at the MAIN PROFS Menu, one more PF-12 will end your session and log you off of the UC Systemwide computer and return you to the UC Berkeley system.

Log off from the UC Berkeley computer (UCBCMSA). If you have one of the SPIRES prompts (-?, +?, ->, +>), enter: EXIT The system will respond that it is Leaving SPIRES.

To terminate you session on the Campus system, enter: LOG

III. Printing

- A. Printing Locally on the IBM PC
- B. Items received via PROFS mail
- C. Printing on the LBL IBM 3203 Printer
- D. Carriage Control

A. Printing Locally on the IBM PC.

Both the UC Systemwide computer and the UC Berkeley Campus computer support software that enables an IBM PC to print files locally, i.e., on its own attached printer from the host system. It requires that you know the CMS filename (which has three parts: filename, filetype and file mode, e.g., ACTIVE FILE A see Appendix D) of the file on the host computer.

To print the file, enter the command

PCPRINT FILENAME FILETYPE

For example, for the CMS file ACTIVE FILE A:

PCPRINT ACTIVE FILE

If the file has carriage control (see Section III.D for explanation of carriage control) characters in column 1 rather than text, use the (CC option:

PCPRINT FILENAME FILETYPE (CC

B. Items received via PROFS mail

The PROFS mail system enables you to receive mail and store it into a "log" file. The default filename is NOTE. You have the option of changing the filename before pressing the PF-2 key in the mail-receiving frame. When you receive mail in this manner, PROFS assigns the CMS filetype and filemode. The filetype assigned causes the PCPRINT command described in Section A above not to work properly. Therefore, an interface is provided for printing PROFS mail on the IBM PC. The syntax is:

PCPR filename

Prior to issuing the command, make sure the printer is turned on, is "ONLINE", and the paper is properly positioned. An error message referring to "line 0" may appear upon execution of the PCPR command. It is spurious and should be ignored. Use the FLIST commands described in Appendix D if you are unsure of the filename.

C. Printing on the LBL IBM 3203 Printer

If the printer on your IBM PC fails, it is possible to print files on the IBM3203 printer located in the Computer Center on the first floor of Bldg. 50B.

To send a file from either UCBCMSA or UCCVMA to the IBM3203, issue the command from the OFFICE menu command line:

LPR FILENAME FILETYPE FILEMODE

For example, for the CMS file ACTIVE FILE A:

LPR ACTIVE FILE A

If the file contains carriage control characters, use the LPRCC command:

LPRCC FILENAME FILETYPE FILEMODE

For example, for the CMS file ACTIVE FILE A:

LPRCC ACTIVE FILE A

D. Carriage Control.

A file probably includes carriage control if most of the text begins in column 2 and column one contains characters such as: 1, 0, and +. For example, it may look something like:

```
1
MARY HAD A LITTLE LAMB
ITS FLEECE WAS WHITE AS SNOW
+           WHITE AS SNOW
0
AND EVERY WHERE THAT MARY WENT
THE LAMB WAS SURE TO GO.
```

IV. File Transfer

- A. To transfer a file from UCCVMA to PC
- B. To transfer a file from UCCVMA to UCBCMSA
- C. To transfer a file from PC to UCCVMA
- D. To transfer a file from PC to UCBCMSA
- E. To transfer a file from UCBCMSA to UCCVMA
- F. To transfer a file from UCBCMSA to PC
- G. Mailing from LRCLB to other UCCVMA accounts

Both the UC Systemwide computer and the UC Berkeley Campus computer support software that enables you to transfer files from one computer to another.

File transfer usually requires that you know the CMS filename (which has three parts: filename, filetype and file mode, e.g., ACTIVE FILE A) of the file on the host computer. If the filemode is not specified, then "A" is assumed. For help in accessing your CMS files, see Appendix D.

Note that in the PCTRANS command, the file name for the PC *always* precedes the CMS filename and file type *regardless* of the direction in which the file will be moved. Upper and lower case are not significant, they are interpreted the same.

In this section, the following abbreviations are used:

UCCVMA refers to the UC Systemwide computer system at University Hall.
UCBCMSA refers to the UC Berkeley Campus computer system at Evans Hall.
PC refers to your own IBM PC.

"myfile.fil" refers to the name of the DOS file to be sent or the DOS file to be created on the PC from the host.

"fn ft" refers to the CMS filename and filetype of the existing file to be sent to the PC, or the CMS file to be created from the PC (Please see Appendix D).

A. To transfer a file from UCCVMA to PC

Log in to UCCVMA and issue the command:

```
PCTRANS DOWN myfile.fil fn ft
```

For example,

```
PCTRANS DOWN active.fil active file
```

If *active.fil* already exists on the PC, it will be silently overwritten. Remember, the new file will be written in your YTERM directory in DOS.

B. To transfer a file from UCCVMA to UCBCMSA

Log in to UCCVMA and issue the command:

```
BITN UCBCMSA EKHYDE fn ft
```

For example,

```
BITN UCBCMSA EKHYDE active file
```

Then, return to UCBCMSA using the PA-1 key and use RDRLIST to receive the file.

C. To transfer a file from PC to UCCVMA

Log in to UCCVMA and issue the command:

```
PCTRANS UP myfile.fil fn ft
```

For example,

```
PCTRANS UP active.fil active file
```

If ACTIVE FILE already exists as a CMS file, it will be silently overwritten.

D. To transfer a file from PC to UCBCMSA

Log in to UCBCMSA and issue the command:

```
PCTRANS UP myfile.fil fn ft
```

For example,

```
PCTRANS UP active.fil active file
```

If ACTIVE FILE already exists as a CMS file, it will be silently overwritten.

E. To transfer a file from UCBCMSA to UCCVMA

Log in to UCBCMSA and issue the command:

```
BITN UCCVMA LRCLB fn ft
```

For example,

```
BITN UCCVMA LRCLB active file
```

Then, log on to UCCVMA using the **PROCEED** command. Once logged in, use **RDRLIST** from the **OFFICE** menu to receive the file.

F. To transfer a file from UCBCMSA to PC

Log in to UCCBCMA and issue the command:

```
PCTRANS DOWN myfile.fil fn ft
```

For example,

```
PCTRANS DOWN active.fil active file
```

If **active.fil** already exists on the PC, it will be silently overwritten. Remember, the new file will be written in your YTERM directory in DOS.

G. Mailing Edited Files from LRCLB to Other UCCVMA Accounts

- (a) Although the President's Office intends the LRC system primarily for sending mail *about* documents, it is possible to store, copy, and edit the document themselves in the CMS environment outside of PROFS, and to mail the edited version to another Council member or the President's Office.
- (b) To store a document which is mailed to you, use the LRC PROFS menus described above to Open the Mail, Read the Mail, and Receive it. You have the opportunity to assign the piece of mail a new filename before entering the PF2 key which moves it into your directory.
- (c) To copy a piece of mail, return to the PROFS OFFICE menu and enter the command **FLIST**. This will display a list of your files. Then do **PF9**. This resequences the list of files chronologically, leaving your new file at the top.
- (d) If you desire to edit this document, you can either edit your only copy, or, for safety, make a copy of it and edit one of the copies. This leaves one unaltered copy should you experience a disastrous editing session on your other copy. To copy the original file, enter the command:

COPY / newfn FILE =

(where newfn is a new filename of ≤ 8 characters) on the screen just to the right of the filename (the cursor should already be there).

- (e) If the copy was successful, an asterisk will appear where the C of COPY used to be. Then enter **PF3** and then do **FLIST** again, and then **PF9** again. Now your copy will be at the top.
- (f) To edit the file, enter an **X** and a [cr], and edit according to the instructions in Appendix E.
- (g) When you are finished editing and have issued the **FILE** command, you will be returned to the **FLIST** display. Do a **PF3**.
- (h) To mail the edited document, enter the command:

SEND addressee fn ft

where "addressee" is the recipient's virtual machine, fn is the filename and ft is the filetype. The filetype will be **FILE** if you copied the file according to instruction (d) above.

- (i) Because this method of sending mail does not use the PROFS mailing facility, you should also send the addressee a short note in PROFS notifying him to issue the **RDRLIST** command on his virtual machine to read his non-PROFS mail.

V. Searching LBLSTAFF

The LBLSTAFF database (subfile SERVICE) provides very rapid searching and access to information about LBL employees and guests. This database is available only on the UC Berkeley Campus system. To use the database, enter the command SPIRES.

The data elements displayed are:

Employee ID (or guest ID)
Mailstop
Building & room
Telephone extensions
Payroll account number
Termination date (if any)
Date the record was last updated.
(Classification provided only upon request, data not presently maintained)

This database is automatically entered when you enter the command SPIRES on the UC Berkeley Campus system. The system provides the prompt:

ENTER SEARCH STRING:

To search, simply enter either none, all or the first few characters of first name (or initial) followed by the surname, or first few characters of surname. The first name or initial is optional, but should always precede the surname. The following are all legal search strings:

Lincoln
Linc
Abraham Lincoln
A Lincoln
A Linc
Abe Linc
A L
Abraham Li

Of course, the more letters you specify, the more likely you are to get only the name you desire. On the other hand, if you are unsure of the spelling, enter only the characters of which you are certain.

When you are finished searching the database, enter an asterisk (*) and a carriage return:

ENTER SEARCH STRING: * [cr]

and you will be returned to CMS where you can enter either **PROCEED** to use PROFS at UC Systemwide or logout.

APPENDIX A

Human help

For assistance, call:

LBL

Allan Konrad (OCR)	x 5458
Dave Stevens* (OCR)	x 7344
Joyce Putnam* (IBM PC, DOS file manipulation)	x 4014
Saul Duenas (communications)	x 5354

UC Systemwide

Rich Hintz	642-5607
Greg Vierra	642-3169
Jim Dalgonas	642-7273

UC Berkeley Campus

Laura Wingerd (YTERM, PC's)	642-7647 (limited hours)
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* LBL confidential or exclusionary employee, not subject to union membership

APPENDIX B

Terminal control for IBM PC using YTERM

VM/CMS is a screen-oriented system rather than a line-by-line-display system. When the system is displaying output on the CRT screen, it will stop after 22 or 23 lines, depending on the kind of terminal. The message **MORE** will be displayed at the lower right. At this point, one has four options:

1. Do nothing. After 50 seconds, the bell will sound. After an additional 10 seconds, the system will clear the screen and display the next page.
2. Enter + (The large "plus" key on the far righthand side of the keyboard). This causes the next 23 lines to be displayed immediately.
3. Enter a [CR]. This causes the message in the lower right portion of the screen to change from **MORE** to **HOLDING**. The timer holds, and the screen will not change. Another [CR] causes the message in the lower right returns to **MORE** and the timer to reset.
4. Enter HT [CR], then + (The large "plus" key on the far righthand side of the keyboard). This halts typing (HT) preventing the rest of the lines from displaying, and then clears the screen (+).

CONTROL-N	go to next line
left arrow (numeric 4 key)	move cursor to the left
right arrow (numeric 6 key)	move cursor to the right
up arrow (numeric 8 key)	move cursor up
down arrow (numeric 2 key)	move cursor down
DEL	deletes a character
CONTROL-E	deletes a line
INS	enter or leave <i>character</i> insert mode
+ ("plus" key on right)	clear screen and display next screen

These sequences work in the editor as well as outside the editor. "CONTROL" is often abbreviated CNTL.

Program Function (PF) keys and Program Attention (PA) keys.

In some utilities, such as PROFS, FLIST and Xedit, PF keys are assigned specific functions. When using an IBM PC, the PF keys are implemented as a single key. A menu of valid PF keys will be displayed in utilities where they are recognized.

PF Keys. On the IBM PC using YTERM, the PF keys are the numerical keys on the far left-hand side of the keyboard.

To invoke **PF1** thru **PF10**, use the appropriate number key on the left side of the keyboard.

To invoke **PF-11**, enter **NUM LOCK**

To invoke **PF-12**, enter **SCROLL LOCK**

In PROFS, **PF-12** is nearly always used to "stop the task and return" to the previous menu or, indeed, to LOGOFF when in the MAIN Menu. In other CMS facilities, **PF3** is generally used to quit.

PA KEYS In addition to PF keys, CMS employs Program Attention keys (PA keys). The PA-1 key is used by VM PASSTHRU to disconnect temporarily from the UC Systemwide computer to return to the Berkeley Campus Computer. The PA-1 key is implemented by pressing the **ALT** key, and while holding it, pressing the **PF-1** key.

Miscellaneous. Occasionally, the system will not accept characters typed on the keyboard, but rather sound the bell. To clear this keyboard lock, depress the **CONTROL** key and, while holding, enter the letter sequence: **RTXQV**. This is notated

CNTL-RTXQV

APPENDIX C

Documentation

IBM PC (including DOS file manipulation and the editor)

Disk Operating System, by Microsoft, Inc., Version 2.00, latest edition.

YTERM

Using the YTERM Package at UC Berkeley, MIC 2.3.1, July 1983.

CMS

System Product Editor User's Guide (SC24-5220-1)

System Product Editor Command and Macro Reference (SC24-5221-1)

CMS User's Guide (SC19-6210-2)

PROFS, LRC

No formal documentation has been provided by the President's office about the PROFS-based Labor Relations system itself as yet.

APPENDIX D

Accessing your CMS files

UC Berkeley Campus Computer & FLIST.
UC Systemwide Computer.
CMS Filenames.
Receiving mail.

UC Berkeley Campus Computer & FLIST

When using the UC Berkeley system, you can issue the **FLIST** command to see a listing of your files. The CMS FLIST facility provides a listing of your permanent files and several capabilities to browse, edit, copy, rename, and delete them. To use the FLIST facility, enter the command **FLIST** and your files will be displayed, with the cursor at the top of the list. You may move the cursor up and down to select any file. You may use the **PF** commands on the menu at the bottom to perform various operations, e.g., **PF4** or an **X** invokes the editor on the selected file, **PF2** allows you to browse the file, **PF8** allows you to see the next screenful of files on your list if you have more files than can be listed on one screen, and **PF3** will exit FLIST. All the terminal control keys work in FLIST.

There are other file listing facilities besides FLIST. FLIST currently provides the most functionality. For assistance with FLIST see Appendix A, for human help.

UC Systemwide Computer

The President's Office attempts to make CMS transparent to the user so that one only needs to understand PROFS. Thus LRC configures member's virtual machines so that they enter directly into PROFS and exits in such a way that you do not have to be concerned about CMS.

It is possible to issue CMS commands such as FLIST from the command field at the bottom of main PROFS OFFICE menu (the 6-item menu) screen. For help with CMS commands, issue the command **HELP** [cr], or call for human help.

CMS Filenames.

Files in the VM/CMS system have three-part names:

filename filetype filemode

usually abbreviated

fn ft fm

The filemode is generally assumed to be A

Receiving CMS mail.

To receive mail when in CMS, issue the command

RDRLIST [cr]

You may then use the menu of PF keys to browse and receive mail. This should not be confused with PROFS mail which is sent between users only on the UC Systemwide machine in the PROFS environment.

APPENDIX E

Tutorial on Xedit

Files in the VM/CMS system have three-part names:

filename filetype filemode

usually abbreviated

fn ft fm

The filemode is generally assumed to be A

To edit a file, either use the **X** subcommand in **FLIST**, or issue the command

X fn ft

For example, to edit the CMS file **ACTIVE FILE A**, enter

X ACTIVE FILE

The document will then appear ready to edit. Case is not significant on this command. You could also enter:

x active file

If the file **ACTIVE FILE** did not exist (on your A disk or any other attached to your virtual machine) the editor would create a new empty file, with only a top-of-file and a bottom-of-file marker.

Once in the editor, you can:

Use the **DEL**, **INS**, **CNTL-N** and **CNTL-E** keys (see Appendix B)

Use the "cursor" keys to move the cursor around on the screen (see Appendix B).

Use the prefix field on the left side of the screen (the five columns of equal signs) to copy, delete or move whole lines or groups of lines.

When you are finished editing, enter the command **FILE** on the command line at the bottom of the screen to save the file (or **QQ** to discard the changes and retain the original file).

Often-used Prefix-field Commands.

D (delete)

To delete one line, place a **d** anywhere in the prefix field to the left of the line you wish to delete. Then hit [CR]. E.g.,

```
==== This is line one
==d== This is line two
==== This is line three
```

results in:

```
==== This is line one
==== This is line three
```

To delete a known number of contiguous lines, enter **d** and the number of lines to be deleted.

```
==== This is line one
==d2= This is line two
==== This is line three
==== This is line four
```

results in:

```
==== This is line one
==== This is line four
```

To delete an *unknown* number of contiguous lines, that is, a "block" of lines enter **dd** on the first line to be deleted and on the last line to be deleted. E.g.,

```
==== This is line one
==dd= This is line two
==== This is line three
dd=== This is line four
==== This is line five
```

results in:

```
==== This is line one
==== This is line five
```

I (insert)

To insert a new blank line that can be edited, place an **i** in the prefix field on the line which you want the new line **to follow**. E.g,

```
==== This is line one
==i== This is line two
==== This is line three
==== This is line four
```

results in:

```
==== This is line one
==== This is line two
====
==== This is line three
==== This is line four
```

The new blank line can now be edited by moving the cursor to anywhere to the right of the prefix field and the first blank column following it.

To insert a specified number of new blank lines that can be edited, place an **i** and the number of blank lines needed in the prefix field on the line which you want the new line **to follow**. E.g,

```
==== This is line one
==i3= This is line two
==== This is line three
==== This is line four
```

results in:

```
==== This is line one
==== This is line two
====
====
====
==== This is line three
==== This is line four
```

It is also possible to insert lines by entering the command **i** on the command line at the bottom of the screen. This will clear the screen below the column-counter line. You can then enter text and use **CNTL-N** to go to the next line. When you hit a **[CR]**, your text will be shifted up above the column-counter line and the lower part of the screen will be available for more input. Two consecutive **[CR]**'s will return you to normal edit mode.

C (copy)

To copy one line, place a **c** anywhere in the prefix field to the left of the line you wish to copy and a **p** on the line before which the newly created line should be placed. E.g,

```
==== This is line one
==c== This is line two
====p This is line three
```

results in:

```
==== This is line one
==== This is line two
==== This is line two
==== This is line three
```

the **p** stands for *prior* and instructs the system to put the new copy of the line prior to the line with the **p**. You can use the **f** instead, which means *following*:

```
==== This is line one
==c== This is line two
==== This is line three
===f= This is line four
```

results in:

```
==== This is line one
==== This is line two
==== This is line three
==== This is line four
==== This is line two
```

To copy a known number of contiguous lines, enter **c** and the number of lines to be copied on the first line to be copied, and an **f** or a **p** to mark where the copied lines should be placed:

```
==== This is line one
==c2= This is line two
==== This is line three
===f= This is line four
```

results in:

```
==== This is line one
==== This is line two
==== This is line three
==== This is line four
==== This is line two
==== This is line three
```

To copy a *unknown* number of contiguous lines, that is, a "block" of lines, enter **cc** on the first line to be copied and on the last line to be copied, and an **f** or a **p** to mark where the copies should be placed:

```
=p== This is line one  
=cc= This is line two  
===== This is line three  
cc== This is line four  
===== This is line five
```

results in:

```
===== This is line two  
===== This is line three  
===== This is line four  
===== This is line one  
===== This is line two  
===== This is line three  
===== This is line four  
===== This is line five
```

M (move)

the move command, **m**, works similarly to copy:

```
===== This is line one  
=m= This is line two  
=====f This is line three
```

results in:

```
===== This is line one  
===== This is line three  
===== This is line two
```

and,

```
=p== This is line one  
=mm= This is line two  
===== This is line three  
mm= This is line four
```

results in:

```
===== This is line two  
===== This is line three  
===== This is line four  
===== This is line one
```

Most terminals can only display about 22 lines of text. Therefore, if the file you are editing is longer than 22 lines, not all of them can be displayed simultaneously.

Think of your file as if it were a very tall building. The building is a strange building however, because its floors are numbered from top to bottom rather than from bottom to top! So the first floor is at the top of the building.

Our building has a rather unique elevator. Unquestionably the oddest thing of all is that the elevator doesn't move, the building does! The elevator is fixed, but the building moves up and down, into and out of the ground.

But that's not all! First, its doors are always open, so you can always see out as the building moves up and down in front of you. Furthermore, your elevator is 21 stories high! Stranger yet is that half-way up this tall elevator is a platform on which you stand. Thus, you can see the floor that is level with yourself, the 10 floors lower, and the 10 floors higher.

This peculiar building is like your file and your terminal is like its elevator which provides you with a view of some portion of the building. Imagine standing in the fixed elevator as the building moves up and down in front of you. This is exactly the phenomenon you experience using the editor.

When you first enter the editor, it automatically gives you a view of the top 10 lines of your file. This is like standing in your elevator at the top of the building, with a view of the 10 floors beneath you and 10 stories of thin air above you.

If you wish to look at lower floors of the building, what would you do? You would command the building to shift **up** (which is equivalent to the elevator going down). This is exactly what you do in the editor. The following is a brief summary of the commands that you can use to move around in your file. They are entered on the command line at the bottom of your screen when you're in the editor.

+5 shifts the file up 5 lines so that your view is the next 5 lines **down**. The "+" is optional. Just a 5 or any number is acceptable.

To adjust your view in the opposite direction, i.e., towards the top of the file, use a minus sign preceding the number of lines you want to shift, e.g., **-20** will display the portion of the file 20 lines above your current position.

The command **top** will go to the top of the file. The command **bot** will go to the bottom of the file.

When a number is preceded with a colon, the editor will go directly to that absolute line number. E.g., **:104** would display lines 93 through 115, with line 104 exactly in the middle of the screen.

To locate a string of characters, enter a slash (/) and the character string to be searched for. It will locate the first instance of that string. If you want to search for later occurrences, continue entering equal signs (=) until you find the occurrence you desire.

Finally, the insert command, **i**, discussed above, is entered from the command line and allows you to insert a virtually infinite number of new lines at that point in the file.

It would not be useful to give every detail of the editor here. If you need assistance, please see Appendix A for human help.

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