

**FREE**

**SOFTWARE**

*for your*

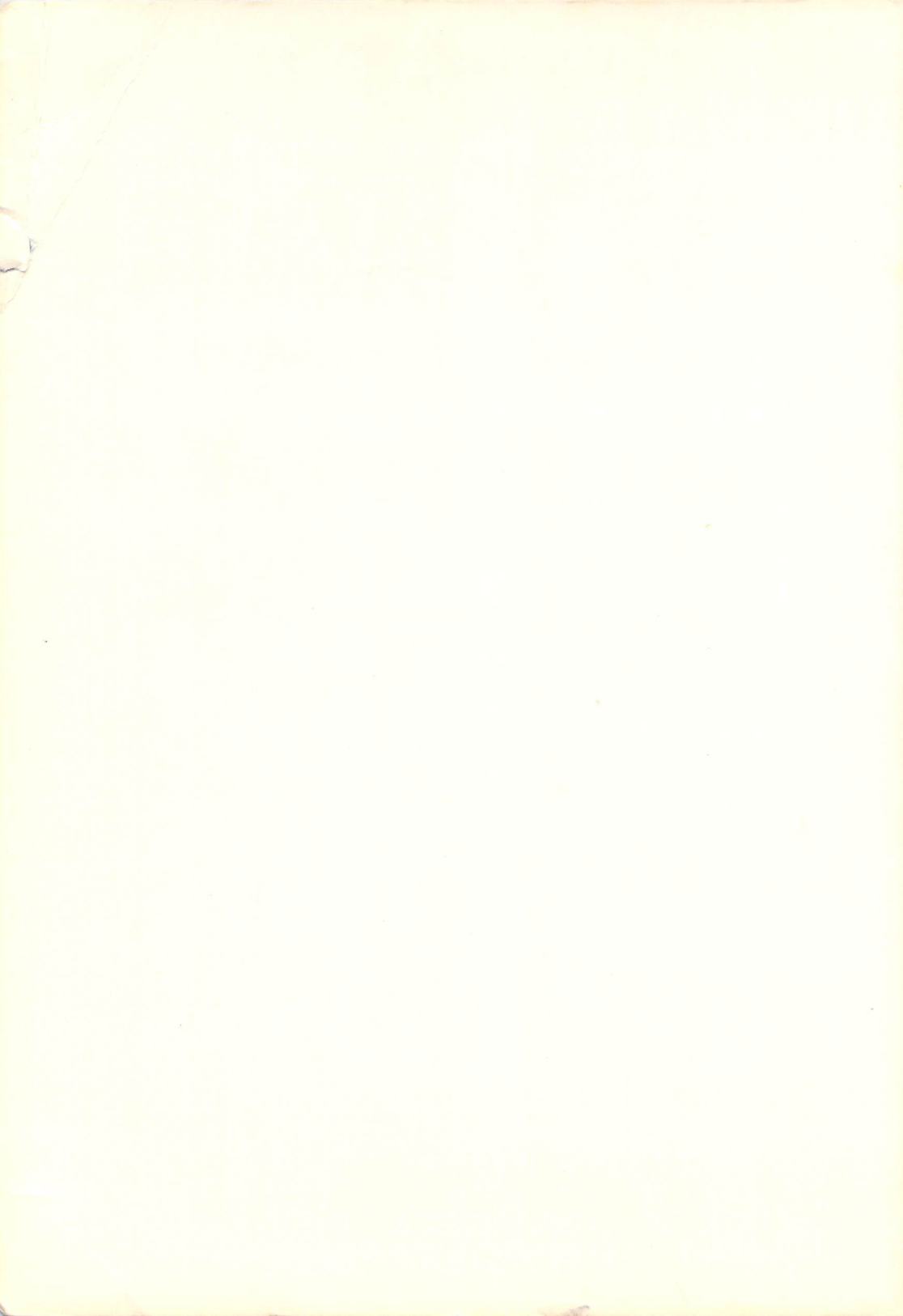
**COMMODORE 64®**

**VIC 20 / PET-CBM**

**FREE Software & Resources  
For Your  
Commodore Computer**

- What's Available
  - Where it is
  - How to get it
- 
- Educational Software for School and Home
  - Games • Home Management • Business
  - Users' Groups • Telecommunications

***"The Most Valuable  
Computer Resource  
You'll Ever Own"***



**FREE  
SOFTWARE  
FOR YOUR  
COMMODORE 64  
VIC 20/PET•CBM**

**David Heller  
Dorothy Heller**

**ENRICH/OHAUS  
San Jose, California**

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## ABOUT THE AUTHORS

Dorothy and David Heller believe that computers can be understandable and accessible to everyone! They specialize in books that help people get more enjoyment and utility from their computers. David is co-author of *Dr. Wacko's Miracle Guide to Designing and Programming Your Own Atari Computer Arcade Games* (Addison-Wesley, 1983); *Space Knights*, a science fiction novel with nine interactive games for the Atari computer (Reston, 1983); and is a frequent contributor to *Hi-Res*, *Atari Connection*, and *InfoWorld*.

Dorothy is co-author of *Computer Confidence: A Guide for Women* (Acropolis, 1983); *PET Games and Recreation* (Reston, 1981); and is a frequent contributor to *Hi-Res*, *Atari Connection*, *InfoWorld*, *Compute*, and *Interface Age*.

Dorothy and David have also co-authored *Free Software for your Atari* and *Free Software for your TI* (Enrich, 1984).

## ACKNOWLEDGEMENTS

Robert Sims, of San Francisco, helped us get started in the right direction. . . thanks Bob!

Generous and enthusiastic help from many Users' Group officers, and educators has made this book a reality. Thank you very much for your support and words of wisdom.

We'd like to say a special "thank you" to Tony Ott, Tim Tremmel and Steve Punter for their invaluable telecommunications technical help and advice.

Thanks to all the people at Commodore Computer, especially Ms. Diane LeBold and Ms. Barbara Karpinski for their generous support.

Jim Oldfield, publisher of the *MIDNITE/PAPER* shared his encyclopedic knowledge of Commodore activities with us.

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# INTRODUCTION

## ENRICH YOUR COMMODORE COMPUTING EXPERIENCE WITH *FREE SOFTWARE FOR YOUR COMMODORE*

For the Commodore 64, VIC-20, PET, and CBM Computers.

- Shows you where to find valuable free resources for you and your Commodore computer.

### *Users' Groups*

- Introduces you to the exciting world of Commodore Users' Groups. There are more than 200 of these groups **WORLDWIDE** offering extensive Free Software libraries, courses, informative newsletters, and help.

### *Free Software by Phone*

- Shows you how to get hundreds of **FREE** programs, by phone, without leaving your home!

Directory lists over 500 phone numbers to get Free Software.

- Gives you a starter Commodore phone directory of 50 phone numbers that puts you in contact today with other Commodore users and a wide variety of exciting Free services. And, as a bonus, we've included an additional 500 phone numbers for you to explore!

### *Start your own Bulletin Board Service (BBS)*

- An "electronic Bulletin Board" operator tells you how to start your own "base" station, and how to get the software you'll need! Exclusive interview with Tim Tremmel, SYSOP for the CHUSS BBS in Racine, Wisconsin and Modem Editor for the *Midnight Express*.
- How to get **FREE** public domain terminal software that will allow you to upload and download software.
- Complete instructions for Steve Punter's terminal software that you can use on your VIC 20, C64, or PET/CBM computer.

- A list of vendors of moderately priced commercial terminal software PLUS a description of and complete instructions for a unique and inexpensive commercial program with up and downloading features that is ideal for communicating with CompuServe and other BBS's!

*Attention—Parents and Educators*

- Shows you where to find the support you'll need to expand the use of your Commodore computer at home and in the classroom. We also show you how and where to get FREE educational software, and how to network with other parents and teachers to solve teaching problems, and to share ideas and programs.

*Looking for the right magazine?*

- Gives you a directory of magazines for Commodore computer owners, with subscription information.

\*\*\* AND MUCH, MUCH MORE \*\*\*

## A WORD AGAINST PIRACY

This book has been written to show you how to obtain free software *without* resorting to piracy.

Piracy is the theft of copyrighted software by unauthorized copying and distribution.

Piracy is not only illegal and immoral. . . it can actually drive a small software house out of business, destroy individual creative incentive, and make larger companies unwilling to make the investment required to produce high quality software.

Piracy can deprive you of a large software selection at the marketplace, and make it hard for you to pursue a job career as a professional programmer.

The overall result of piracy is to punish those who produce excellent software and encourage those who produce quick and dirty software.

When you buy programs from a reliable software house, you'll get the support you need to get the most out of their product. Customer service, documentation, updates, revision notices all cost money. The pirate can't offer any of these services. A thief can only sell you what has been stolen. . . then you're on your own.

# WELCOME TO FREE SOFTWARE

FOR YOUR COMMODORE COMPUTER







# WELCOME TO FREE SOFTWARE FOR YOUR COMMODORE COMPUTER

*COMMODORE 64, VIC 20 & PET/CBM OWNERS*

*NO MATTER WHERE YOU LIVE*

No matter where you live, in the U.S. of A., Canada, England, Europe, Australia, or even the Azores...we'll show you how to get FREE software and where to find valuable resources for you and your Commodore computer.

*USERS' GROUPS: ONE GREAT RESOURCE*

The first section of *Free Software* introduces you to the exciting world of Commodore Users' Groups. There are more than 200 of these groups WORLDWIDE offering extensive Free Software libraries, courses, informative newsletters, and help for Commodore owners. Many of these groups have special interests. Our detailed profiles of selected groups introduce you to clubs that specialize in EDUCATION, AMATEUR RADIO, ENGINEERING, COMPUTER ART, COMPUTER HARDWARE, SCIENCE, BUSINESS, HOME PLANNING, and much, much more!

We've listed all the clubs, WORLDWIDE, and tell you how to become a member of many of these groups without leaving your home! Or, if you'd like, we show you where your nearest group is, and the right person to contact, so you can attend their next meeting and get FREE software and support from other Commodore owners.

*HOW TO START YOUR OWN USERS' GROUP*

We even show you how to start your own Commodore Users' Group, wherever you live and whatever your interests may be.

## *FREE SOFTWARE BY PHONE*

The Free Software by Phone section shows you how to get hundreds of FREE programs without leaving your home! This detailed section begins by explaining the terms used in computer telecommunications, gives you a comprehensive equipment buyer's guide, and shows you how to get FREE programs to turn your computer into a telecommunications terminal today!

We show you how to get FREE software by phone, and include instructions for an inexpensive commercial terminal software package AND a FREE public domain communications program!

Handy 'Quick Reference' charts are provided to help you send and receive messages, get FREE software, send your programs to others or chat with distant computer owners.

## *SET UP YOUR OWN BASE STATION WITH BBS SOFTWARE*

In an exciting interview, an "electronic Bulletin Board" operator tells you how to start your own "base" station, and how to get the software and support you'll need!

## *OVER 500 FREE EXCHANGES TO CALL*

A starter Commodore phone director of 50 phone numbers puts you in contact today with other Commodore users and a wide variety of exciting Free services. And, as a bonus, we've included an additional 500 phone numbers for you to explore!

## *ATTENTION—PARENTS & EDUCATORS FREE EDUCATIONAL SOFTWARE*

*Free Software* is particularly valuable to parents and educators who use their Commodore computer in a learning environment. Our comprehensive section on Educational Software and Resources shows you where to find the support you need to expand the use of your

Commodore computer at home and in the classroom. We also show you how and where to get FREE educational software, and how to network with other parents and teachers to solve teaching problems, and share ideas and programs.

### *ALMOST FREE SOFTWARE*

A directory of magazines for Commodore computer owners, with subscription information and a synopsis of the type of material and FREE Commodore software listings each magazine provides, is in our Almost Free Software section. Knowing which publications are best for your needs saves you time and expense while increasing the enjoyment and utility you'll get from your Commodore computer.

### *ENRICH YOUR COMPUTING EXPERIENCE*

Regardless of your age, interests, or where you live, the valuable information in *Free Software* will expand and enrich your Commodore computing experience!

### *WHAT IS FREE SOFTWARE?*

As Commodore Users' Groups have grown, many members have become increasingly familiar and proficient with their computers. An outgrowth of this experience is an abundance of user-written public domain programs for your Commodore computer.

Public domain software is a user's gift to you. It is software that has been donated to the public by its creator.

### *WHERE IS IT? HOW CAN I GET IT?*

These valuable programs are in the libraries of Commodore Users' Groups throughout the world and are available to members and non-members alike for the cost of the disk or cassette, reproduction, and handling. No profit is built into this cost; the charge for a typical cassette loaded with as many as fifteen programs is usually between one to five dollars.

You can get public domain software by mail, by visiting a neighborhood club, or by using a modem to “ask” an electronic Bulletin Board to send the program to you over the phone lines.

You can also call up the Commodore Information Network on CompuServe to exchange software by modem, and take advantage of the public domain programs this service offers.

Our “Free Software By Phone” section shows you how to do these things.

### *WHAT IS IT WORTH?*

What’s free public domain software worth? The answer is . . . a lot! Public domain software allows you to build a useful and diverse software library without spending a fortune or resorting to piracy.

Most public domain software can’t replace the skills and expertise that professionals bring to heavy business application software. There are times when you’ll be happy to spend what a commercial software company asks. Their product will justify your investment.

Programs like WordPro™, Home Accountant™, and OmniCalc™, are examples of professional work that would be difficult to find in the public domain arena.

But what about all those other applications? Some of the best game, educational, and home management software is available free, and if you’re a computer programmer the choice of excellent public domain programming aids and utility software is almost endless.

Then there are those times when your kids want ten new games a month, or you need more software for your classroom than your school district can afford, or you want to take a look at a program’s listing to learn more about programming. Public domain software to the rescue!



### *Public domain software:*

- is useful, and enjoyable. . . there are free programs that range from games to home management to education.
- is really valuable. Although most public domain programs are not quite as polished as their commercial counterparts, many are just perfect for *your* special application. And, they're free!
- enables you to take advantage of the special applications knowledge and experience of different users—like programs that another parent has developed for a special learning disabled child, or a program for home management that another Commodore home computer owner developed that's perfect for your needs.
- teaches you how to judge commercial software. After you've been exposed to a variety of public domain programs, you'll know the difference between a good commercial product and one that really isn't worth your money. When you do decide to invest in a commercial product, you'll be an educated buyer; you'll get the best value.

### *NO MATTER WHERE YOU LIVE*

No matter where you live, you'll be able to get free software by mail by simply writing to many of the clubs listed in our Commodore Users' Group Directory.

Ask for their catalog of public domain software. If they have one, they'll be happy to send it to you.

Commodore Users' Groups offer a surprising variety of valuable information and software. The well known Toronto PET Users' Group has more than 50 disks of educational programs, plus thousands of other game, business, and utility programs for VIC 20, Commodore 64, and PET/CBM owners.

Many other clubs that aren't as well-known also offer lots of software goodies.

Toronto PET Users Group, Inc.'s Software Library is representative of the software services that many Commodore Users' Groups are offering on a smaller scale.

TPUG's Library is designed to allow the sharing of user-written programs. There are four ways to get programs from TPUG's Library:

1. If you live in the Toronto, Canada area, come to a TPUG chapter meeting with a blank disk and have programs copied for you.
2. Attend TPUG's annual conference and purchase the disks or cassettes you want.
3. Copy TPUG's disks from a friend or friendly dealer. It's fine with TPUG—as long as you respect the nature of public domain software and don't try to sell your copies for profit.
4. Order disks or tapes through the mail from the club office at 1912A Avenue Rd., Suite 1, Toronto, Ontario, Canada M5M 4A1. (See our Mini-Profile on TPUG in the "Users' Groups" section on page 35.)

If you donate original, user-written programs to the TPUG Library, you'll receive the disk or cassette of your choice in exchange!

TPUG is representative of the many clubs that will send public domain software to you by mail or exchange software with your local club.

### *WHAT TYPE OF SOFTWARE IS AVAILABLE?*

A wide variety of FREE software is now available. No matter where your interests lie, there's something for you!

**\*\*GAMES\*\***

**\*\*BUSINESS\*\***

**\*\*EDUCATION\*\***

**\*\*HOME MANAGEMENT\*\***

**\*\*COMPUTER UTILITIES\*\***

**\*\*GRAPHICS DEMONSTRATIONS\*\***

**\*\*SOUND AND MUSIC PROGRAMS\*\***

The following list, from TPUG's Library, is representative of the many choices available to you. New programs are being added daily, and this list only shows a fraction of the public domain software available.

(C)E2 - TUTORIALS.C

LIST ME E2  
 SPRITES TUT-1.64  
 SPRITES TUT-2.64  
 GRAPHIC TUT-1.64  
 GRAPHIC TUT-2.64

(C)G1 - PICTURES 1.C

LIST-ME CG1.L  
 CONT.LDR.ML  
 III RES LOADER  
 SCREEN  
 CONT.LDR.PAL  
 SPIRAL.1  
 SUE  
 KAREN  
 SNOOPY  
 ALBERT  
 DOLLAR  
 DIP  
 SNAIL  
 DES.1  
 7-3HILL  
 MUSIC  
 MAP  
 DIANE  
 WILLY  
 RACCOON  
 SINCOS1  
 WATCH  
 WINSTON  
 MICROMETER  
 NUDE

(C)G2 - PICTURES 2.C

LIST-ME CG2L  
 CONT.LDR.ML  
 III RES LOADER  
 SCREEN  
 CONT.LDR.PAL  
 SQUEEZE  
 TEX  
 IIOPALONG  
 GUY  
 FIG1  
 FIG2  
 FIG3  
 MOUND2  
 EYES  
 FRIENDS  
 SINCOS2  
 SATELLITE  
 DONALD.DUCK  
 VM.THINGS  
 SESAME.S1  
 NUDE.REV  
 VIS.ROSETTE  
 VIS.G1A

XMAS.CARD.1  
 4HILL5

(C)S1 - MUSIC/SOUND 1.C

LIST-ME CS1.L  
 THE KANON.C  
 BACH FUGUE  
 ENTERTAINER.C  
 YESTERDAY.C  
 BACH DUET.C  
 ORGAN.C  
 DIXIE.C  
 TWINKLE.C  
 YANKEE.C  
 GUNFIRE.C  
 PONG.C  
 RAYGUN.C  
 SIREN.C  
 ALIEN.C  
 BELL.C  
 BOMB.C  
 CLAP.C  
 PIANO.C

## VIC-20

(V) CONTEST

FALLING STAR  
 THE HELICOPTER  
 HELI. PART 2  
 FORT. HUNT.INST.  
 FORTUNE HUNTER  
 UXB PART 1  
 UXB PART 2  
 MINESLIDE  
 SUB-SINK.INST  
 SUB-SINK.MAIN  
 INDEX  
 VIC TEXT EDITOR  
 VIC-DATA BASE  
 VIC SPIRAL  
 MINER-8K-INTRO  
 MINER-8K-GAME

CANADIAN MORTGAG  
STAR DESTROYER  
VIC ARTIST  
MATHOFF  
POKER! INSTRNS  
ZARZON BASE  
SNAKES & LADDERS  
FLOW BY NUMBER  
DIANE'S NUMBERS  
TYPING TUTOR  
MARSTON CITY  
LUNAR LANDER  
MUSIC  
MUSIC - J.B.  
POKER - VIC  
VIC ALARM CLOCK  
LABEL MAKER V3

(V)TV - TPUG JUNE 83.V

LIST-ME VTV.L  
DRIVE DISM  
CROWN 3D  
CALCULATE BASE.V  
ALPHA. SORTER.V  
METRIC CONVERT.V  
DATE FORMATER.V  
SPEED READING.V  
ENROL LIST BK.V  
VISION TEST.V  
LONG DIVISION.V  
ONE ARM BANDIT.V  
TARGET SHOT.V  
STARSHIP 3K.V  
PING/PONG(T).V  
STATE CAPITAL.V  
USA SONG.V

## PET

(P) CONTEST

GRAPHIC AID 4.0  
G.AID 4.0  
DOS HEX DUMPER  
DOS DISSASSEM.  
DISK HEX DUMPER  
CHANGE LOAD ADD.  
HEADER CHANGER  
G.AID PROG#1.PAL  
G.AID PROG#2.PAL  
GRAPHIC AID INST  
I WRIGHT-----  
PITS!  
SCOTT ALLAN---  
SAFARI!  
QUEST  
MAZE MAN  
TRIPLE YAHTZEE  
INTERCEPTOR  
MISSILE COMMAND  
CENTURION  
ULTRA ZAP!  
ESCAPE  
W LEWANIAK----  
LIBRARY OVERDUE  
LIB TEACH EDIT  
LIBTCH B2/S2  
LIB MARCH '83  
R GERRARD-----  
PIHATE ADVENTURE

STOCK TICKER  
G SCHWARTZ----  
SEMI  
SEMI DOCUMENT.  
F ROSENTHAL---  
CYCLE!

C3 - DATA COMMUN.P

AUTODIAL TERM  
AUTODIAL ML  
INTELCOM3/40  
INTELCOM3  
INTELCOM4  
TERM.R12  
RS232 DOC  
AUTOTERM/16  
TERM R12A/16  
TERMINAL.R12  
TERMINAL.S12  
SUPERCOM  
FREQ GENERATOR!  
VT52BIN  
VT52BASIC  
CBM 8010  
COMM PRIMER  
8010 MODEM DRIVER  
LOGGER  
TERM INST WP 1  
TERM INST WP 2  
MORSE TUTOR  
MORSE-BTTRFLD  
TERMINAL DOC  
INTELCOM  
LIST-ME.C3.LV0  
TERMINAL.I12  
TERM.I12  
LIST-ME.C3.LV1  
LIST-ME.C3.LV2

X8 - TPUG BEST MISC.P

INVADERS 4.4  
FAST INVADRS 4.4  
ACROBAT.F  
CAR RACE.F  
MISSION IMP.F  
NIGHT DRIVER.F  
BACKGAMMON.F  
DISK MASTER V2P  
5TH SCOTTE-INST.  
5TH SCOTTE.P  
ML STOPKEY.P  
TAPE PHONPHILE.P  
DISK PHONPHILE.P  
PHONE NUMBERS.P  
WWW.0  
WWW1B  
WWW10  
WWW10B  
WWW10B  
WWW10B  
WWW10B  
WW WORD LIST.D  
WW14  
WWW14  
WWW14  
WWW14  
WWW14  
SUPER SPEED SORT.  
LIST-ME PX8L  
NOS TRANSLATOR3  
FINANCE 1.4  
MUSIC LESSON  
MUSIC LESSON 2

X9 - TPUG BEST MISC.P

COPY-ALL  
MULTI-INVADERS!  
WATERMELON  
SPREAD SHEET 40T  
SPREAD SHEET80DT  
PRINT USING  
PRINT USING&TEST  
PRNT USING ML  
SCREEN ROUTINES  
BAS&ML COMBINER  
QUIET AFTERNOON  
?)-BACK CHALLENGE  
COSMIC FIGHTER  
HEX DUMPER 80  
FIZZBIN  
FIZZBIN 8K RULES  
FIZZBIN 8K GAME  
PIJKMAN  
STAR SYSTEM  
WARLGRDS INSTR  
WARLORDS GAME  
BLOCKADE  
ALIEN BLASTER  
OUTPOST ML3  
OUTPOST  
LIST-ME PX9L  
MINEFIELD 2

XA - TPUG BEST MISC.P

VISIBLE PET  
TOLL BRIDGES  
STAR LANES  
TV SATELLITES  
BILLBOARD  
DOCTOR 8032  
DOCTOR.INS  
BOWLING  
SIMCAL INSTR.W  
SIMCAL.Z  
LOAN AMORT.8  
SCOPY5.0  
SCOPY INSTR.8  
FAST INVADERS.8  
CRYPTOGRAMS.P  
TURTLE.8  
CBM 4032 V2F.  
WP BUSTER/PET.P  
DISK LOGGER.P  
SUPERMON INSTR.P  
SUPERMON1.REL 4  
SUPERMON4.REL.P  
SUPERMON2.REL.P  
MORTGAGE.Z  
DISASSEMBLER.F  
PROG CONVERTER.Z  
STORYWRTR/V10.F  
LIST-ME PXAL

XB - TPUG BEST EDUC.P

SCREEN PRINT  
FILE MAKER  
SCREEN  
HOME ROW  
ALL ROWS  
G  
FLASH  
FILE MAKER II  
HIGH WRIST  
LOW WRIST  
SHIFT LOCK

? SIGN  
\$ SIGN  
% SIGN  
NUMBERS 1-5  
NUMBERS 6-0  
EACH NUMERAL  
ALPHA PROGRESS  
DUM 3.4  
KEYBOARDING  
COVER  
LIST-ME PXBL

## C-64

(C) CONTEST

D CAMPBELL-----  
LIGHT CYCLES 64!  
D FRANCIS-----  
VOYAGER VI  
40 RADIUS  
60 RADIUS  
SPHERE.1  
10 DEGREES  
20 DEGREES  
30 DEGREES  
45 DEGREES  
60 DEGREES  
70 DEGREES  
80 DEGREES  
90 DEGREES  
120 RADIUS  
150 RADIUS  
180 RADIUS  
ET.PLOT  
GLOBE

(C)TU - TPUG MAY/83.C

LIST ME TPUG MAY  
PONZO TUTOR-5.C  
PONZO TUTOR-6.C  
PONZO TUTOR-7.C  
BACH FUGUE.C  
ENTERTAINER.C  
TERMINAL.64.2C  
TERM.64.C  
NIGHTMARE PARK.C  
WHEEL FORTUNE.C  
YESTERDAY.C  
C-64 GRAPHIC.C  
64 H-R PLOT M/L  
BLACKJACK.C  
BIRTHDAY.C  
TWIN BAGELS.C  
SUBMARINES.C

(C)E1 - TUTORIALS.C

LIST ME E1  
PONZO TUTOR-1.64  
PONZO TUTOR-2.64  
PONZO TUTOR-3.64  
PONZO TUTOR-4.64  
PONZO TUTOR-5.64  
PONZO TUTOR-6.64  
PONZO TUTOR-7.64



## TPUG's This and That

It was great to meet so many of our members at the conference. A number of you pitched in and helped at the registration/disk return desk. A great big Thank You!!

### Club Chapters

There are now 3 club chapters affiliated with TPUG. More than 180 members of PET Educators Group (Windsor, Ontario), London Commodore Users Group, and Genesee County PET Users Group (Flint, Michigan) have saved \$5 each on their associate membership fees and each of these groups is receiving at least 1 free disk of the month. The details of their meeting places and contact people appears elsewhere in 'Calendar of TPUG Events'. Are there any other groups interested in a similar arrangement? Details are in the TPUG information package (the insert in the March/April TORPET).

### PET Emulator

It has finally arrived in Canada! We hope to have a summer student assess the PET library in order to find out which of the PET public domain programs work with the C-64. If you can tell us about any of our PET disks, please do. Many hands make light work.

### HAM Radio

VIC-20 NET 8:30 pm Mondays at 3760khz (75 meter band) NET Manager Joe Cain VE3ANJ, NET Control Bill Melhish VE3AOY

Commodore User's NET--9 am Saturdays at 7158 khz (40 meter band)

-also 2 pm Sundays, local time, at 14230 khz (20 meter band)

### TN Disk/Tape

TPUG has a policy of only having public domain software on TPUG disks. As soon as we become aware that a copyrighted program is on a disk/tape we remove it. This is why you will NOT find Frogger and Centipede on TN. The new listings for the library will delete any mention of them.

### Commodore Educational Software

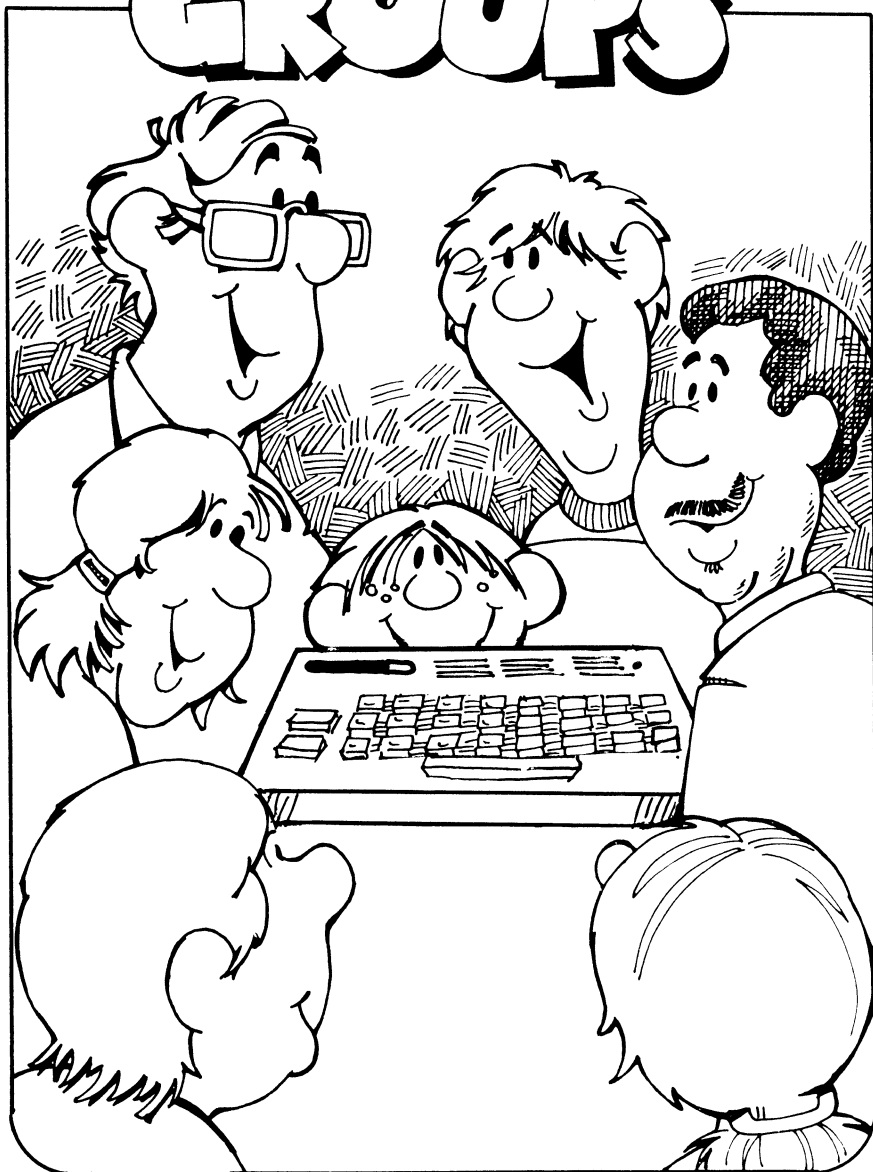
This summer, this software is being upgraded and enlarged (up to 1/3 more programs). This upgraded software will be available in the Fall.

### Stamps

A number of people closely associated with the TPUG office are stamp collectors (philatelists), so if you have the option please use unusual stamps rather than ordinary ones. In philatelic terms we like commemoratives rather than "definitives". Thanks.

**Doris Bradley**  
Assistant Business Manager

# USERS' GROUPS





# USERS' GROUPS

## *WHAT IS A COMMODORE™ USERS' GROUP?*

A Commodore™ Computer Users' Group is an organization of people who own Commodore computers. Their main purpose is to share information about Commodore related programs and products, and to help each other expand the usefulness and enjoyment of their computing experience.

## *DO YOU NEED A USERS' GROUP?*

Would you like to increase your software library with free public domain software?

Would you like to know where to find a commercial software package just right for your application?

Would you like to know what peripherals will work best with your Commodore computer?

Do you need help in hooking up the new hardware you've just bought?

Would you like to learn BASIC, FORTH, PILOT, LOGO, COMAL or Assembly language?

Do you have a program or idea that you'd like to share with other Commodore enthusiasts?

Would you like to work with others to develop software?

Would you like to get involved in community help projects?

Would you like to help your children learn from their computing experience?

Are you interested in computer telecommunications?

If you answered YES to any of these questions . . . you need a User's Group.

A User's Group can provide the solution to all of your computer-related questions. These questions represent only a small sampling of the wide range of services and support you can get from a Commodore™ Users' Group.

### *HOW CAN I FIND A LOCAL USERS' GROUP?*

We've provided a State-by-State Commodore™ Users' Group listing, accurate as of Fall 1983. Browse through this list, find the club nearest you, then call or write.

### *BUT, THERE'S NO CLUB NEAR ME!*

If there isn't a club near you, or if the local club doesn't seem to fit your needs, you might consider starting a new Users' Group.

The key ingredients for a successful group are:

1. Five or more people who want to share information about their computers.
2. Two or more people willing to get things started.

### *STARTING A NEW USERS' GROUP*

#### *FIVE IMPORTANT STEPS*

1. Make contact with other computer users. Together, draft a statement of your group's goals—to promote computer literacy, exchange software, support parents and educators.
2. Select temporary officers to take care of administration until you can hold elections. A president and group secretary will do.



3. Hold your first meeting and keep meeting on a regular basis. Decide on a name for your group that reflects your goals, keeping in mind trademark limitations. An original name is best.
4. Ask for help, share ideas and stay informed. Draw up tentative bylaws that your group can vote on. The bylaws should cover name, purpose of the group, membership, guidelines for officers and chairpersons, elections procedures, and other administrative details. Get in touch with more established Users' Groups to see how they've done it—they'll be glad to help.
5. When you're ready, announce the formation of your new group to the world. Write to *The Commodore Microcomputer Magazine* and/or *Power/Play Magazine* at:

Commodore Business Machines, Inc.  
1200 Wilson Drive  
West Chester, PA 19380

Send them the name and purpose of your group, the meeting time and place, and the address and/or phone numbers of contact people. They will publish the information in their *User Bulletin Board* section.

Also, request a copy of "How to Start a Users' Group" by Jeff Hand.

### *1. MAKING CONTACT*

Contact the nearest existing group and see if anyone there would like to join you, or knows of others who might. If there is no group of Commodore computer owners nearby, you'll have to develop your own contacts.

#### *Retailers*

Check in with local Commodore dealers, software stores, or general computer retailers in your area. Ask if they will:

1. Mail a notice to their customers for you, if you prepare it and pay

for the postage.

2. Allow you to post a bulletin announcing your new group.

### *Schools and Colleges*

Most schools and colleges have a newspaper, bulletin board, or public address system that will carry your message.

### *Local Companies*

Contact the personnel director and ask to have your announcement circulated. Companies with engineering departments are likely to have computer hobbyists among their ranks.

### *Post Notices*

Post notices on bulletin boards at the library, supermarket, and bank.

### *Use your modem*

If you have a modem, you can post a bulletin on a number of local BBS's. (See our "Free Software By Phone" section for more information.)

### *Advertise*

A small ad in your local newspaper can bring big results. Also, consider contacting local radio and television stations and ask them if they'll run your announcement as a public service.

## *2. THE ANNOUNCEMENT*

Be sure to include all the following information in all your announcements:

**A NEW GROUP is forming for those owning, using or interested in  
COMMODORE PERSONAL COMPUTERS.**

FIRST MEETING: Date

TIME:

LOCATION: Address of the meeting

PHONE: Please call (Name) at this number for further information or . . . come to our first meeting!

When you add your phone number to the notice, be sure to indicate the times you'll be available to chat. . . you don't want people calling you at any hour of the day or night.

### 3. MEETINGS

You should plan to hold meetings on a regular basis. Meetings can range from formal lectures to loosely moderated open discussions. It is always important to keep your meetings active, interesting and fun.

For many members, attending meetings will be their major form of participation. You must make sure that it's a rewarding experience for them.

#### *Your first meeting*

Make your first meeting an ACTIVE one. Most members will have just come from work and they'll want something INTERESTING!

Your first meeting should show your prospective members the value of your ACTIVE group. Demonstrations are the most convincing form of proof. You might invite a guest speaker, demonstrate software, or show off a favorite project. You could also invite a local manufacturer to demonstrate an interesting software product or peripheral device.

#### *Some things your new group can do*

There are no set rules about what your group can or can't do. Most groups do some or all of the following:

HOLD MEETINGS  
OFFER COURSES  
PRESENT SPEAKERS  
EVALUATE PRODUCTS  
PUBLISH A NEWSLETTER  
ANSWER MEMBERS' QUESTIONS  
SHOW OFF MEMBERS' PROJECTS  
MAINTAIN A SOFTWARE LIBRARY  
PARTICIPATE IN COMPUTER CONFERENCES  
ARRANGE GROUP PURCHASES AND DISCOUNTS

#### *4. ASK FOR HELP*

Ask for help from other Users' Groups. Share ideas and exchange information. Subscribe to other groups' newsletters...stay in touch...stay informed.

#### *THE COMMODORE INFORMATION NETWORK*

One of your best resources is the Commodore Information Network on CompuServe. The Network provides a place to trade ideas, information, and experiences. You can leave messages on the bulletin board or talk to other Users' Groups in real-time conference mode. Some groups that are far-flung geographically even meet electronically by teleconferencing on the Network.

You can also contribute original, user-written software to the Network. The best public domain program of the month is selected by Commodore and offered for sale on the system! You and/or your group can earn royalties for your original contribution.

You can also download public domain software from the Network to your computer.

The Network includes a database specifically for Users' Groups across the country to post announcements and newsletters on the system.

All you need to access the Commodore Information Network is a phone, a modem, computer, terminal software, and a CompuServe subscription. We tell you how to get free or inexpensive terminal software that will enable you to take advantage of all the Network's services as well as communicate with other electronic bulletin boards later in this book!

*MORE TO COME*

Commodore is now considering the possibility of hiring a Users' Group coordinator to provide organized support for groups in North America. New Commodore clubs are springing up all over the world—so there are lots more exciting developments to come in the world of Commodore Users' Groups.

# USERS' GROUPS

## Mini-Profiles

We phoned Commodore Users' Groups across the country and around the world to gather profiles of typical and not-so-typical clubs. The response from *all* club presidents and officers was both enthusiastic and extremely helpful. Without their help this book would not have been possible. THANK YOU!

We wanted to include profiles of the more than two-hundred Commodore Users' Groups in our book. However, our schedule and the voluminous amount of data would not permit us to do this. We'll be profiling more groups in *Update '84*—we hope to hear from your group.

We have profiled six clubs that demonstrate the spectrum of services and support you can expect to find as you explore the world of Commodore Users' Groups.

New groups are starting up every day all over the world, and many of the old groups are changing, as more and more people become excited about Commodore's new computers. The first things you can expect in the world of Commodore Users' Groups are change, variety, and surprises.

### *Who Joins a Commodore Users' Group?*

The answer is—anybody. You don't have to be a Ph.D. in Computer Science or a hard-core "computer type" to derive benefits from and make contributions to your Commodore Users' Groups.

Deb Christensen is President of Sixty-Forum, a new Users' Group in Fresno, California. Deb is young, female, a mother of young children, and a musician. She's also a self-taught expert on the Commodore Information Network. "We're re-educating the old-time hobbyists," Deb says. "When I get into conversations on the Network, everyone first asks me how old I am and if I'm married! They wouldn't ask me these questions if my name was John!"

Deb now teaches courses on BASIC, is president of her local Users' Group, is planning to start a computer club at her children's school, and is writing a manual on the Commodore 64 disk drive. One year ago she didn't know anything about computers.

"I bought a VIC-20 for my husband as a Christmas gift last year. We knew not a stitch about programming. Together, we stumbled through manuals and the back issues of magazines. Along the way, we acquired a Commodore 64 and I fell in love with programming. Right now, I'm working on learning Assembler."

Deb never went to college, "because I had too many other things to do," although her father once taught courses about mainframes. "Imagine that people once had to flip switches when they wanted to program! I never would have bothered."

She doesn't see lack of formal training as a reason to stop her, or anyone else, from enjoying Commodore computers. Her whole family now uses the computers, including the three- and six-year-olds. "PILOT is really nice for kids and beginners—it's so easy to grasp. I can see why teachers like it. The Commodore 64 is also a great instrument for musicians like my husband and myself."

Users' Groups "are a great way to meet people with similar interests," Deb says. "We've met lots of musicians through the club and the Commodore Information Network and made lots of new friends."

If you'd like more information about Sixty-Forum, write to:

Sixty-Forum  
4413 E. Iowa  
Fresno, CA 93702

or show up bright and early at 8:30 A.M. on the third Saturday of every month at Sixty-Forum's meeting:

Northwest Church  
corner of West & Barstow  
Fresno, California

## Mini-Profile I

NEW MEXICO COMMODORE USERS' GROUP  
Albuquerque, New Mexico

*EMPHASIS: Family-oriented Computer Activities*

**ADDRESS:**

121 Yale S.E.  
Albuquerque, NM 87106

**OFFICERS:**

Betsy Byrnes, President  
Susan Palmer, Vice-President

**PHONE:** (505) 821-5812

**MAGAZINE:** *On-Line*, monthly magazine on coverstock; included in dues or \$1.00/issue at selected computer stores.

**MEMBERS:** 300 members in Albuquerque area and still growing.

**MEETINGS:** Three section meetings and one general meeting monthly; call club office for times and meeting places.

### *Rapidly Growing Users' Group*

“Three hundred may not seem like a lot of members,” says New Mexico Users' Group's Betsy Byrnes, “but most churches in Albuquerque don't have congregations of 300!”

Albuquerque may not be Silicon Valley, but it contains a high proportion of Commodore-using enthusiasts. The group hosts monthly section meetings for VIC 20 owners, Commodore 64 users, and PET/CBM computerists; a general-interest meeting every month; and a variety of educational and support activities.

Section meetings cover machine-specific topics that really get into the nitty gritty, such as composing music on the 64 and interfacing the



computer with a stereo. The general meetings are organized to provide library time for members to copy software and consult written materials, general-interest demonstrations on new products and applications, a question-answer panel discussion, and socializing.

Individual members join for \$12 yearly; families pay \$15. In exchange, members participate in classes, community projects, and the software library, and get technical support with hardware and programming problems.

You can become part of this rapidly growing group by mail if you're an out-of-towner, or get membership applications at K-Mart and other department stores and retail outlets that sell Commodore computers in the Albuquerque area.

### *Support for Beginners*

"New computer users really need interaction with other people," says Betsy. "I know from my own experience that it can be very discouraging to learn everything totally on your own. You can spend weeks gnashing your teeth over unclear manual instructions and problems that a more experienced user can solve in minutes."

The New Mexico Group believes that support for beginners is a high priority. "Now that Commodore computers are being sold at general retail outlets, many new users are completely lost. They can't get any support from the retailer; they really need a strong Users' Group. We're not here to support products; we're here to help people."

Beginners find a warm welcome and lots of support activities at the New Mexico Users' Group. They can attend courses and workshops for beginners, make "computer friends they can learn and grow with," and get technical advice without being intimidated. "We encourage everyone to participate and ask questions. There's always more to learn and no one knows everything. We're really all beginners."

In addition to club activities, the Group gives computer courses for both members and the community through the Community Education

Program of the public school system. Qualified group members are paid by the Education Program for teaching the courses, which are available to beginning club members for only \$1/hour. The classes include general introductions for people who haven't yet bought a computer, "what computer applications are—why bother?"; programming graphics and sprites; beginning and advanced BASIC; Kids' BASIC; and Machine Language. The Group is currently offering nine courses and plans to add more.

Beginners can also attend special "New Commodore Users' Workshops", which cost \$10/3-hour workshop. The workshop covers advice and tips, corrections and revisions to the manuals, instructions on working with the disk, a "walk" through the computer written by group vice-president Susan Palmer, and a "New Members' Packet" of information written by club members.

### *Commodore Kids*

"Three-quarters of the computers out there are in the hands of kids," says Betsy. "Most of the people who join our group purchased their computers to advance their kids' education. One of our primary goals is to support families and computer learning for kids."

The group organizes summer computer activities for kids. "We find that children learn best when they learn on their own or with other kids—as long as there is someone available to help them through the rough spots." Kids' activities include programming in BASIC and learning how to use word processing.

Commodore kids are encouraged to participate in the Group and contribute to the club magazine, *On-Line*. "We tell all the kids that age is no barrier. If they're willing to do the work, they can get published, sell software, and become software stars."

The New Mexico Group strongly discourages piracy. "No one can be a pirate and a really creative programmer. You can't do both at the same time. You can program or pirate—you have to make a choice. Once kids are using their computer skills in the right direction, they can do amazing things."

## *Free Software*

The Group's software library is large and still growing. Members can purchase disks full of programs for \$5-\$10 each, educational disks for \$5 each, and programs on cassette for \$3-\$6. Out-of-towners can order both disks and cassettes for \$5-\$10.

Local members can rent tapes for \$3 to copy at home and return in person or by mail.

User contributions are strongly encouraged. A volunteer committee provides quality control and reviews each contribution to prevent piracy. "We open every meeting with statements against piracy. Both my husband and I write programs and documentation. We know what the investment of time and energy means."

Members can also take advantage of an extensive library of computer books and manuals. Copies can be taken out of the library for 50¢ or consulted at the club office and meetings. "We also have a large collection of product brochures that members can browse through—Users' Groups get the most wonderful junk mail!"

## *On-Line with Commodore Users*

The group's newsletter/magazine is a minimum 25-page publication that is printed on cover stock. *On-Line* goes to every member and is also sold through computer stores nationally. "We publish program listings, general interest articles, programming tips, lots of hardware and software reviews, and a kids' section written for and by kids. We avoid club politics and name-dropping; our emphasis is on information that can benefit Commodore users anywhere."

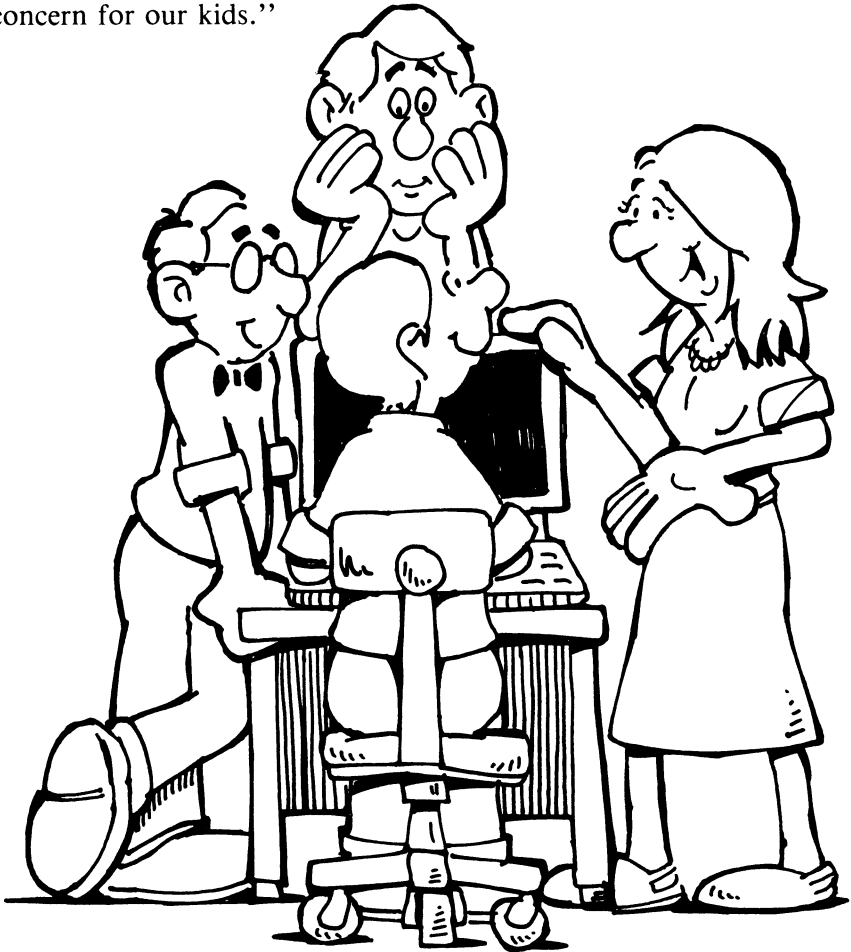
A special interest group is working on going on-line with an electronic bulletin board in cooperation with other New Mexico computer clubs. "We're now investigating possible BBS sites and sponsors with the New Mexico Atari and Apple Users' Groups." A university professor who works with mainframes heads the Commodore Group's telecommunications committee.

The Group is also planning computer demonstrations for local shop-

ping centers at Christmastime, and plans to participate in computer fairs.

*Something for Everyone*

“Commodore computers are so friendly and inexpensive that everyone is buying and joining. We have members who are garbage collectors, doctors, government employees, laboratory technicians, students who use their computers as terminals to communicate with the mainframe at the university, college professors, and housewives who want to be writers. My husband is a blue-collar worker at GE during the day and programmer at night. The main core of the Group is families and our concern for our kids.”



## Mini-Profile II

TPUG  
TORONTO PET USERS' GROUP  
Toronto, Ontario, Canada

*EMPHASIS: Centralized Software Exchange*

**ADDRESS:**

1912A Avenue Road, Suite 1  
Toronto, Ontario  
Canada M5M 4A1

**OFFICERS:**

Michael Bonnycastle, President  
Chris Bennett, Vice-President and Business Manager

**PHONES:**

Club Office, (416) 782-8900  
Michael Bonnycastle (416) 654-2381  
Chris Bennett (416) 782-9252/782-8900

**MAGAZINE:** *TORPET, The Independent Commodore Users' Magazine*, 10 issues annually

**BBS:** (416) 223-2625, evenings and weekends

**MEMBERS:** 9,000 in Toronto area and worldwide.

**MEETINGS:** Six different chapter meetings in Toronto area; affiliate chapter meetings in U.S.A. and England.

*In the Center of the Commodore World*

“Canada is the center for Commodore activities,” says Chris Bennett of TPUG. “Commodore pioneered computing in Canada when they introduced the PET. Now, 85% of the computers in Canadian schools are Commodore models.”

It's small wonder that TPUG is one of the largest and most active

Commodore Users' Groups. The club sponsors chapters within Canada and associate memberships all over the world, offers a wealth of public domain software, and publishes an informative glossy magazine, *The TORPET*.

### *Chapters and Associates*

TPUG sponsors six chapter meetings in the Toronto area: the PET chapter, the VIC 20 club, a group for the Commodore 64, the Super PET group, a West End chapter for those who live within 30 miles of Toronto, and a Machine Language study group. There are also special interest groups for ham radio operators and others.

Three to five hundred members regularly attend the PET Central meeting and the Commodore 64 group to exchange information. They see software and hardware demonstrations, and presentations of Commodore-related topics by videoprojector. The group also runs courses in BASIC, which are especially aimed at helping beginners.

Each meeting is run by different volunteers and supporting committees. "We have many dedicated and talented members in TPUG," Chris says, "and we're the only Users' Group in the world that has Jim Butterfield!" (Jim Butterfield is a long-time contributor of creative programs and articles to *TORPET*, *COMPUTE! Magazine*, and many other Commodore-related publications.)

TPUG offers a variety of membership options. All members receive subscriptions to *TORPET* and have access to TPUG's program library. Members who can attend chapter meetings in the Toronto area on a regular basis also have voting privileges at the annual club meeting. Regular membership is \$30 Canadian/year. Student members who attend a public or high school, community college, or university in the Toronto area pay dues of \$20 Canadian yearly.

Associate members in the U.S.A. who cannot attend meetings pay \$20 U.S. annually; overseas members who receive publications by surface mail pay \$30/year and overseas associates who receive materials by air mail pay \$40 U.S./year.

Other Commodore clubs can also become group associate members of TPUG. When fifteen or more members of another Users' Group join at the same time, each member pays \$15/person and still receives individual copies of *TORPET* and has access to the software library. When 25 or more people join at the same time, the group also receives one free disk for the VIC 20, Commodore 64, or PET/CBM every month. Groups of 45 receive two free disks monthly; 60 or more members receive all three monthly disks by air mail.

TPUG hopes to encourage centralized pooling of public domain programs and newsletter articles.

Associate group members currently include the Windsor PET Educators Group, London Commodore Users' Club, Genesee County Area PET Users' Group (Michigan), Indian Affairs Teachers Using Computers, Michigan Commodore 64 Users' Group, Sacramento Commodore Computer Club, and the Edmonton Commodore Users' Group.

### *Software Exchange Library*

TPUG's software library now contains more than 4,000 programs divided into five libraries for the Commodore 64, VIC, PET/CBM, and SuperPET. Program categories are: Assembler, Language (including COMAL, FORTH and Binary programs), Business, Education, Games, Math/Science, Utilities, Communications, Music/Sound, Dealer Demos and Miscellaneous.

The library also contains the entire Commodore Educational Series. Over 900 educational programs will be released as part of this series; the library currently has about 626.

Members also receive the "disk of the month" and participate in software swapping and contests. Regular members who can attend chapter meetings bring a blank disk to club meetings, where they can copy 30-40 new programs monthly. Cassettes are also available that cost about \$5 for 20 programs. Club disks are also available at the annual conference.

Out-of-towners can order software directly from the club office by

sending their membership number, return address, name of computer model and disk drive, and payment by check or money order. The club provides the media. Club disks for each 4040/2031/1540/1541 disk cost \$10; and \$12 for each 8050/8250 disk. VIC 20 and C-64 tapes cost \$6.00. PET/CBM owners and people ordering the Commodore Educational Software tapes can check in the library catalog to see how many tapes the programs require and send \$6.00 for each cassette.

Members can also submit original programs on tape or disk to the club office with a return address and their membership number.

### *Communications*

TPUG's library offers a variety of public domain communications software to access electronic bulletin boards and to upload and download software. The club BBS is available on evenings and weekends; members can leave messages, download programs directly to their computer, and upload original contributions to the Software Library.

You can access TPUG's BBS at:  
(416) 223-2625

Whether by mail, modem, or in person, get on-line with the services this active Users' Group offers to Commodore owners and educators.



## Mini-Profile III

ICPUG  
INDEPENDENT COMMODORE PRODUCTS USERS' GROUP  
London, England & United Kingdom

*EMPHASIS: Software Exchange and Technical Support*

### ADDRESS:

30 Brancaster Road  
Newbury Park, Ilford  
Essex, England  
IG2 7EP

### OFFICERS:

Jack Cohen, Membership Secretary and Technical Services

Terry Devereux, Regional Coordinator  
32 Windmill Lane  
Southall  
Middlesex, UB2 4ND

### PHONES:

Jack Cohen, Membership Secretary  
01-597-1229 (H)

Terry Devereux, Regional Coordinator  
01-574-2709

MAGAZINE: *ICPUG NEWS*, six times yearly, £7.50 England/£11  
Europe and Erie surface mail/£20 United States and air mail.

MEMBERS: several thousand members worldwide.

MEETINGS: 40 plus local chapter meetings throughout United  
Kingdom.

### *International Membership*

ICPUG was founded by PET users in 1978 and began publication of its informative newsletter in 1979. Now, the "newsletter" is 125 pages/issue and membership has grown to several thousand Commodore 64, PET/CBM, and VIC-20 users worldwide.

“We hear from members all over the world,” says Membership Secretary Jack Cohen. “We have people in Canada, Malaysia, Australia, New Zealand, the United States, Finland. . . there is even a group of Commodore 64 users in Antarctica—it gives them something to play at while they’re doing research.”

ICPUG members join the national group to take advantage of the broad range of services. ICPUG National then refers people to chapters in their area so they can also attend local meetings. “Chapter dues vary, depending on the activities they offer. Many charge as little as 50 pence.” (See list of ICPUG chapters on page 39.)

National ICPUG membership, which includes the comprehensive magazine/newsletter and other services, is 7.50 pounds for U.K. residents, 11 pounds for European members and/or sea mail newsletter delivery, and 20 pounds for air mail and international members.

ICPUG members cover the whole spectrum of users: business people, educators, government employees, and home users. “About 50% of our new members are Commodore 64 owners. Since the price of the 64 has come down to about \$300 in the U.K., enthusiasm is really growing.”

Jack himself is an accountant who purchased a 32K PET in 1979. “I created a payroll program on the PET for my clients and got interested in club activities. Now, our home looks like an electronics laboratory, with printers, expansion boards, disk drives, PETs, VICs and 64s all over the place. Currently, my son is working on a graphics program for the 64. Commodore activities really keep us busy!”

### *Free Software and Technical Support*

Members of ICPUG can take advantage of an impressive list of services, as well as participate in local chapter activities. One valuable ICPUG service is the public domain software library.

“We have many, many programs for the PET/CBM computers and the VIC 20. Our Commodore 64 software library is up to about 400 programs, and we add more every month.”

The group exchanges software with many clubs, accepts members' original contributions, and has recently acquired 20 educational disks from Commodore U.S.

Local members send stamped, self-addressed jiffy bags with blank disks or cassettes to program librarians. They can receive four programs at a time with no copying charge. Members pay only the cost of return postage.

To get more information about ordering software (both U.K. and international), contact the program secretaries.

**PET/CBM Program Secretary:**

Bob Wood  
13 Bowland Crescent  
Ward Green, Barnsley  
South Yorkshire S705 5J  
Phone: 0246-811585

**8050 Program Secretary:**

Stephen Rabagliati  
c/o Institute of Grocer Distribution  
Grange Lane  
Letchmore Heath  
Waford/Herts  
Hertsforshire WD28DQ

**VIC20/Commodore 64 Program Secretary:**

Brian Wise  
17 Knighton Close  
S. Croydon, Surrey CR2 6DP  
Phone: 01-668-3017

For disk utilities and technical questions, contact Jack Cohen.

ICPUG also offers discounts on Commodore products. "Our group purchasing schemes give us the buying power of a retailer."

ICPUG members can access valuable technical support. The *ICPUG NEWS*, which every dues-paying member receives, is full of useful information. ICPUG also offers a Technical Support Hot-Line, staffed by Mike Todd, a long-time computer veteran.

Technical support includes advice on programming and hardware problems; ROM chips developed by ICPUG SE members to aid program development, hints on using routines in the operating system and interpreter, 6502 machine code course, add-on hardware modifications by members, and full support in dealing with retailer and supplier problems.

For back-copies of the *ICPUG News* or other information, write to:

Ron Gear, Editor  
ICPUG NEWS  
109 York Road  
Farnborough, Hampshire  
GU14 6NQ

### *More Commodore Activities*

ICPUG members are very interested in telecommunications and “are eagerly awaiting the new direct connect modem for the Commodore 64.” They can take advantage of British Telecommunications network services, such as PRESTEL. “There are a number of PET and Commodore 64 bulletin boards for messages and up and downloading software. PRESTEL’s Micronet is a good resource for small computer users. After business hours, you can exchange software or leave messages for only the price of your phone call.”

ICPUG also participates in computer fairs, including The Personal Computer Show held yearly in London, “the largest computer fair in the world.”

ICPUG really believes in the products they support. “Commodore is clearly going to be the winner in the small computer sweepstakes. It’s a very user-friendly and reasonably priced system.”

## Mini-Profile IV

CHUG  
COMMODORE HOUSTON USERS' GROUP, INC.  
Houston, Texas

*EMPHASIS: Creative Computer Projects*

ADDRESS:  
8738 Wildforest  
Houston, TX 77088

OFFICERS:  
John Walker, President  
Sid Sitkoff, Vice President

Send membership applications to:  
Mack W. Allred, CPA  
480 North Belt East  
Suite 214  
Houston, TX 77060

PHONES:  
John Walker, (713) 999-3650  
Sid Sitkoff, (713) 392-3070

NEWSLETTER: *HARDCOPY*, monthly.  
MEMBERS: 200-plus in Houston area; 500 on mailing list.  
MEETINGS: Third Thursday of every month, 6:00-9:45 p.m. on Central Campus, University of Houston; check newsletter for changes in time or meeting place.

*"Huge Growth in Commodore Activity"*

It's no coincidence that CHUG's logo is the group's initials printed to look like a PET computer. "We're originally an older group of PET users," says club president John Walker. "But we've been overtaken by the unbelievable growth in Commodore activity that happened as a result of the VIC-20 and Commodore 64. We have lots of profes-

sionals, many teachers, and some of everybody else. Most of our members now are brand-new users. They're trying to learn as fast as they can."

### *Variety-Packed Meetings*

At a recent CHUG Meeting, the group set up 30 tables for members to set up their computers and peripherals and have their hardware and programming questions answered on the spot. Members participated in a free copy service of a new public domain disk. In an adjoining room, the Educational Special Interest Group met to exchange educational program listings.

Interested members joined the BASIC Clinic, then continued on to the Hardware Clinic. At 9 p.m., the group congregated to see product demos, meet with the Board of Directors, and take care of paperwork. Members participate in classes, community projects, and the software library and get technical support with hardware and programming problems.

CHUG's expanding software library includes public domain disks from CUE/Softswap, TPUG, and other groups, tapes for the VIC-20, Commodore 64 programs, and member-written contributions. Members can get software copies for 4040/1541 and 8050 formats. Members also participate in group discounts for software and hardware purchases.

CHUG membership is \$18/family for regular membership with voting privileges and \$10 for full-time students, associate out-of-town members, and dealers.

### HARDCOPY

All members receive copies of the group's newsletter, *HARDCOPY*. "We're proud to say that lots of our articles are used in other group's newsletters and *Midnite/PAPER*," John says.

A recent issue featured detailed instructions on how to build your own computer table, detailed reviews of voice synthesizers for Commodore

computers, and program listings in machine language to put BASIC programs onto EPROMs.

### *Creative Projects*

*Hardcopy's* content reflects the creativity of CHUG users, who like to do it themselves. Member David Valley decided to cure family conflicts about housing the Commodore 64 on the kitchen table by buying a computer stand. He found some nice tables for the price of the Commodore 64 and a medium-priced table "that would not have lasted a week around my kids." He decided to build his own computer table. The only question was "How?" Undaunted, David designed and built his computer table from one sheet of plywood. Want to know how? See *Hardcopy*, July 1983, or come to a CHUG meeting the next time you're in Houston!

Other creative members have developed a new EPROM burner and a new ROM for the Commodore 64.

Another group project is to set up a non-commercial electronic bulletin board to aid deaf people in the community. "We want to set up a network for deaf people, using the VIC-20 as terminals in their homes. Each member will be pre-registered and receive an ID number and emergency code. Members can communicate via modem, exchange information and software, and get immediate attention in case of emergency."

At present, the project is bogged down because of technical problems with the communications equipment. However, the folks at CHUG are used to finding creative solutions.

## Mini-Profile V

### SAN RAMON SOFTWARE EXCHANGE

Profile of a Commodore Educator  
Danville, CA

(Sponsored by the Steering Committee  
of the San Ramon School District)

*EMPHASIS: Educational Software*

#### ADDRESS:

Marilyn Nicholson  
968 Blemer Road  
Danville, CA

OFFICER: Marilyn Nicholson, President

PHONE: (415) 838-2900 (school)

NEWSLETTER: Mailings cover meeting announcements, general information.

MEMBERS: 50 people at typical meeting; large mailing list.

MEETINGS: First Wednesday of alternate months (October, December, February, April). 7:30-9:30 p.m. at Los Cerros Intermediate School, Danville, CA.

#### *Free Software for Educators*

“Most teachers don’t have time to write their own programs. The San Ramon Software Exchange is designed to provide teachers and parents with public domain educational software for home and classroom use,” says President Marilyn Nicholson.

Everyone is welcome at the Software Exchange meeting, and it only costs \$2.00 to be on the mailing lists and receive meeting announcements. “We don’t want to get involved with dues and overheads. We just want to disseminate educational software.”

Meetings are open, loosely structured events. Educators and teachers can exchange, review, and copy software in the computer lab adjoining the school library. They can choose from more than 1,000 programs on tape and disk for the PET/CBM and Commodore 64.



The Exchange has access to a tape duplicator and the entire library is available on cassette. People can come with their own tapes or purchase them at meetings for 75 cents.

Software Exchange meetings also include demonstrations and exchange of information on everything from programming tricks to opinions on commercial software. “We ask people to fill out questionnaires at the beginning of each school year. We concentrate on presentations that are relevant to teachers’ needs.” The Exchange has presented demonstrations of LOGO, student written programs and projects, and demonstrations on how to develop specific programming skills. “We’ve also had workshops on word processing, and other applications that are useful to educators.”

The San Ramon Software Exchange welcomes any interested educator or parent. If necessary, they can arrange alternative times for you to copy programs. “Free software is here for the taking,” Marilyn says.

### *A Commodore Educator*

Marilyn Nicholson, President of the San Ramon Software Exchange, started her computer career in library science. “As the librarian in an intermediate school, I saw computers as a tool kids could use to learn. I decided that this was a resource that I really had to know more about. Sooner or later, I had to deal with the computer as an educator.”

Marilyn began taking workshops and college courses on programming, “and fell in love with it; I really got hooked. I began working with the PET, and I still think it’s a neat machine—it’s self contained, the graphics on the keys make it easy for kids to draw pictures, and it has easy editing features.”

Despite the friendly PET, “learning was really hard at first. I really had to stress my brain. Some eighth-grade students helped me with my homework and got me through my first semester of college programming.”

“Some of the advocates of new programming languages make us feel terrible about teaching BASIC. I’m ready to learn new things, but I

don't believe in getting rid of BASIC—learning it was hard work!”

Marilyn's interest in computers coincided with a school administrator “who was keen on computers.” The San Ramon School District chose PETs as the first computers for the school system because of price and friendliness, and decided to stay with the Commodore line. “It made sense in terms of dollars and compatibility.”

Marilyn set up a computer on the library counter with self-documenting program demonstrations. Students got interested and a programming class sprang up before school. Soon, programming the PET was part of the curriculum.

The school district now has 400 computers for programming classes and computer-aided instruction in Math, English, and all Special Education classes. The district also offers courses on computer repair, which saves maintenance dollars as well as providing vocational training.

The school district sponsors a three-part in-service for teachers. “Computer activities differ from school to school. Some teachers resist computers; there has to be someone at the school who can give demonstrations to get other people excited.”

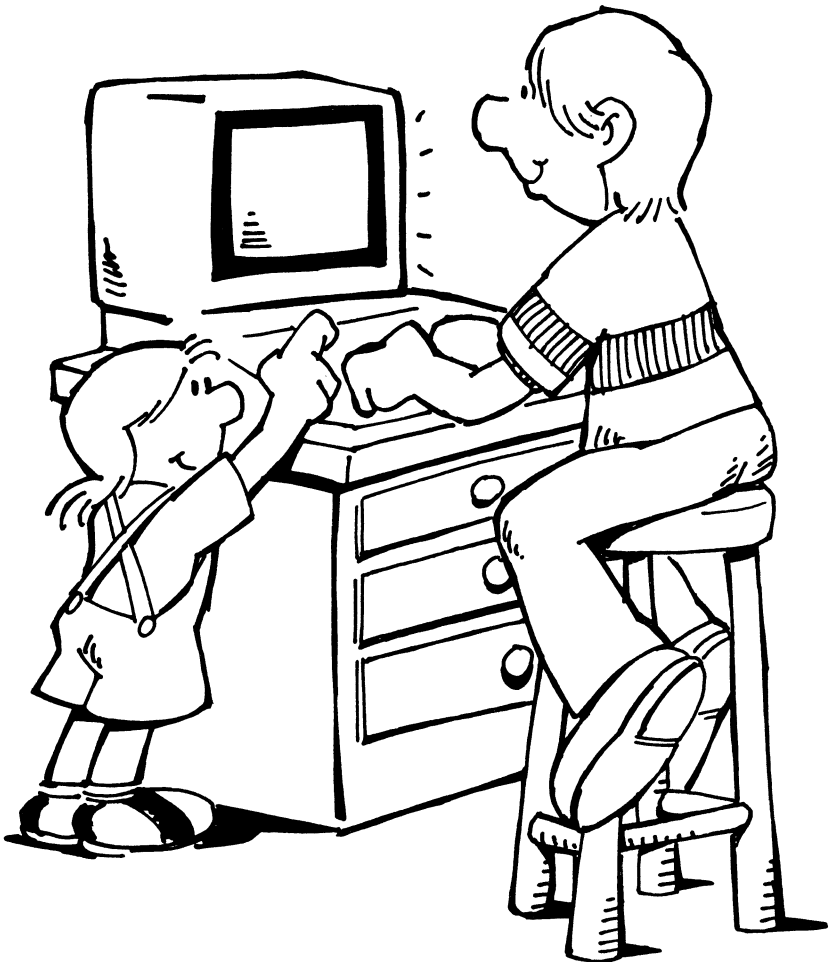
Marilyn evaluates software and writes programs in addition to her work as librarian and president of the Software Exchange. “Lots of primary school programs are excellent for special ed students. I've also written some vocabulary and word sound programs for use in our school's special ed classes.”

Marilyn also uses her programming skills to design library utilities. She has developed programs for overdues and ordering paperbacks, and a library data base, and is currently at work on a card catalog program. Another project is to use the data base program to develop student profiles for special education.

Marilyn recently visited German Commodore Users' Groups. “American and Canadian educators are way ahead,” she reports. “Most German computer users are still male, hardware-oriented

hobbyists. There is no money for computers in the schools, except for vocational training. There were only two computer stores in the metropolitan area I visited, and they were so well-hidden you needed inside information to find them. People are desperate for educational software and magazines.”

American schools are fortunate to have creative Commodore educators like Marilyn Nicholson and the San Ramon Software Exchange.



## Mini-Profile VI

PCG  
PITTSBURGH COMMODORE GROUP  
Pittsburgh, PA

*EMPHASIS: Calling All Commodore Users*

ADDRESS:  
2015 Garrick Drive  
Pittsburgh, PA 15235

OFFICERS:  
Joel Casar, President  
Steve Shulik, Vice-President/Librarian

PHONES:  
Joel Casar, (412) 371-2882  
Steve Shulik, (412) 381-2190

NEWSLETTER: *PCG NEWS*, monthly.  
MEMBERS: 252 families, 675 users; “35 new members every month.”  
MEETINGS: Third Sunday of every month, 10 a.m. at Duquesne University’s Mellon Science Hall.

*“Absorbing New Commodore Users”*

Joel Casar’s first computer was a GENIAC, a wooden computer that worked in binary, which he built from a mail-order kit in *Popular Mechanics*. Five years ago, Joel walked into his brother-in-law’s living room and encountered “a grayish box sitting on the table.” It was the thirty-seventh PET in the world. After several days of playing “Lunar Lander”, Joel was hooked. “I was enthralled.” He acquired a 24K PET computer, lots of other paraphernalia, one of the first issues of *COMPUTE! Magazine* (“remember it before it went glossy?”), and became active in PET Users’ Groups.

“For four years, we were a small group of PET owners. We had about thirty-five members and we fit comfortably into my family room.

Then the prices for the VIC 20 and Commodore 64 dropped and there was an explosion of new users. Suddenly, we had thirty-five new members joining every month—we still do! At a recent meeting, there were lines of people waiting for the treasurer so they could become dues-paying members! We debated long and hard whether we should stay a PET Club and let new users go their own way. We finally decided that we're all Commodore users and that we wanted to support the new VIC and 64 owners."

*"Something for Everyone"*

"It's hard to be all things to all people. Some of us meet as many as four times a month to organize group activities." PCG is succeeding, however, with innovative education for beginners and exciting group projects.

At a typical meeting the group demonstrates new software products, compares notes on dealers, discusses consumer awareness, takes care of business, and listens to two speakers. "We alternate VIC/64/PET topics so we can cover subjects that are of interest to everyone."

Recently, two representatives of *3M Corporation* talked to the group about storage media for computers and disk architecture; a member presented step-by-step theory and procedure to add joystick logic to PET programs; and Lou Sander talked about the trials and tribulations of "Getting Started" for new Commodore users.

Authorized club sponsors and members also sell products at meetings. Members can copy public domain software, put in orders for supplies bought by group purchase, and review programs and materials in the club library.

Dues were recently raised to \$12/yearly for families. In exchange, members participate in the software library, meetings, classes, group purchasing discounts, have voting privileges, and receive the club newsletter.

There is only one limitation at PCG meetings: no game-playing while the speakers are giving their presentations!

After PCG's meeting, many enthusiastic Commodore computerists carpool together to attend the Pittsburgh Area Commodore Club's meeting.

### *Education for Beginners*

One of PCG's major concerns is computer literacy and consumer awareness for beginning users. One group member, Lou Sander, is a long-time PET user who has become an expert on helping beginners. In addition to many articles for *Compute!*, *Micro*, *Commander*, and other Commodore-related publications, Lou offers the popular "Computer Kindergarten" to beginning PCG members.

"We have a beginning BASIC course at least three times a year," says Joel Casar. "We always have articles for beginners in our newsletter."

"We also encourage the exchange of information about area dealers and suppliers. We want to develop consumer awareness for new computer owners. The group really goes to bat for members if they're having problems with a dealer or supplier."

One innovative project of the Pittsburgh Commodore Group is to create a videotape library of lectures, classes, and product demonstrations. "It makes sense to have a videotape library that will provide a new user with all the basics of computer literacy, word processing, and beginning programming. We intend to videotape every speaker with the help of a member who is a professional in the field. Videotapes can't replace personal contact, but they can be an excellent way for a beginner to get started. We have a form letter going out to area cable companies to help us with this project."

### *PCG News*

The *PCG News* is now a twelve-page monthly that covers a wide range of topics. "We have a question & answer column, a 'Beginner's Corner', technical articles, club news, rumors and trivia, and many original contributions on member projects."

A recent issue featured a "VIC-20 Add On Connector" with

schematics; “BASIC for Beginners”, explaining “For-Next” loops; and an amusing series by Judy Hall, called “Love and the Black Box.”

“So your partner-in-life bought a new hobby (like a Pet, a VIC-20, or a C-64),” Judy writes. “Then they became a computer-aholic. What started out as just another small interest blossomed into a new life-style. This person in your life, who at one time spouted romantic notions, now speaks in a new language called computer-ese. Where do you go from here?” See *PCG News* for understanding and living with “the Black Box”.

### *Free Software*

PCG is developing an extensive software library for the PET, VIC-20 and Commodore 64, through member contributions, and exchanges with other groups such as Canada’s TPUG.

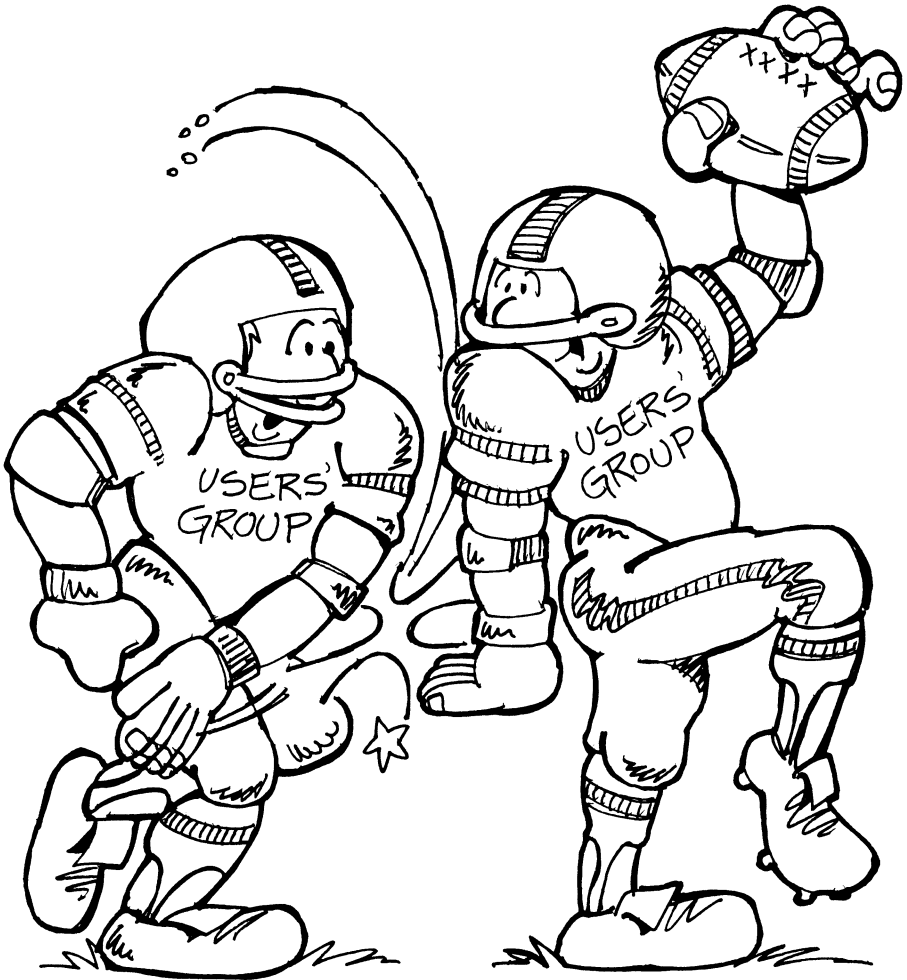
PCG is considering the possibility of a mail order service “but we’re not in this for the money. All proceeds from the sale of software is channelled back into the club. We’re investigating the possibility of becoming a non-profit organization.”

Members can copy programs at meetings or order copies for minimal costs. The club store features the “disks of the month” for \$4.00 each, “tapes of the month” for \$3.00, VIC/64 covers for \$5.00, boxes of 10 blank disks for \$20.00, and copies of *COMPUTE!’S COMMODORE GAZETTE* for \$1.25.

The “64/PET Disk of the Month” for July 1983 featured goodies such as a tutorial on accounting with a quiz, educational simulations like “Ice Cream” and “Lemonade”, budget programs, life tables, amortization programs, and other useful business-oriented public domain software. A new VIC Game Cassette offered “Invaders”, “Rocket Command”, “Breakout”, and many other popular games. The new 64 cassette featured “Nuclear Demo”, “Color Test”, and several sound programs.

## More Projects

PCG's indefatigable Commodore activists are also planning to participate in area computer shows; they are working on building lightpens for \$2.00; and they are contributing original programs to the Group's growing software library. Now Pittsburgh has more than coal and a football team; it has an active Users' Group for all Commodore owners!





## Help Us Stay Current

This list of Commodore Users' Groups was downloaded on October 1, 1983 from CompuServe's Commodore Information Network. Please help us keep this list current by sending any additions, deletions or corrections to:

Commodore Update '84  
2325 Paragon Drive  
San Jose, CA 95131

## Official Commodore Computer Users' Groups (as of 10/1/83)

### \*\*\*Alabama\*\*\*

Huntsville PET Users Club  
9002 Berclair Road  
Huntsville, AL 35802  
Contact: Hal Carey

### COUGAR

c/o Commodore Users Group  
of Arizona  
11020 N. 109th Avenue  
Sun City, AZ 85351  
contact: Stephan May

### \*\*\*Arizona\*\*\*

VIC Users Group  
1206 N. Frazer Dr.  
Mesa, AZ 85203  
Contact: Paul Muffuletto

### \*\*\*Arkansas\*\*\*

Commodore /PET Users Club  
Conway Middle School  
Davis Street  
Contact: Geneva Bowlin

Commodore User Group  
Metro Computer Store  
4500 E. Speedway, Suite 13  
Tucson, AZ 85712  
(602) 323-3116

Booneville 64 Club  
c/o A.R. Hederich  
Elementary School  
401 W. 5th St.  
Booneville Ak 72927  
contact: Mary Taff

Central Arizona PET People  
842 W. Calle del Norte  
Chandler, Az 85224  
(602) 899-3622  
contact: Roy Schahrer

### \*\*California\*\*

Lawrence Hall of Science  
UC Berkeley  
Computer Project, Rm 254  
Berkeley, CA 94720  
(415) 527-9286

PALS (PETs Around  
Livermore Society)  
886 South K  
Livermore Ca 94550  
contact:John Rambo

Valley Computer Club  
1913 Booth Road  
Ceres, Ca 95307

PUG of Silicon Valley  
22355 Rancho Ventura Road  
Cupertino, CA 95014

SCPUG Southern California  
PET Users Group  
c/o Data Equipment Supply  
Corp.

8315 Firestone Blvd.  
Downey, CA 90241  
(213) 923-9361

California VIC Users Group  
'VIC-VILLE'  
c/o Data Equipment Supply  
Corp.

8315 Firestone Blvd.  
Downey, CA 90241

BAMBUG  
1450 53rd Street  
Emeryville, CA  
(415) 523-7396

North Orange County  
Computer Club  
3030 Topaz, Apt A  
Fullerton, CA 92361

Lincoln Computer Club  
750 E. Yosemite  
Manteca, CA 95336

SPHINX  
1348 Rudgear Road  
Walnut Creek, CA 94596  
Milt Lee  
(415)939-1825

San Francisco Commodore  
Users  
278 27th Avenue #103  
San Francisco, CA 94121  
Roger Tierce  
(415)387-0225  
Micheal Rochester  
(415)928-2151

Napa Valley Commodore  
Club  
c/o Liberty Computerware  
2680 Jefferson St.  
Napa, CA 94558  
Mick Winter  
(707)944-2797

San Ramon Software  
Exchange  
968 Blemer Road  
Danville, CA  
Marilyn Nicholson  
(415)838-2900

Sixty Forum  
4413 E. Iowa  
Fresno, CA 93702  
Deb Christensen

Commodore User's Club  
1041 Foxenwoods Drive  
Santa Maria, Ca 93455  
(805) 937-4106  
contact:Greg Johnson

Valley Computer Club  
2006 Magnolia Blvd.  
Burbank Ca  
(213) 849-4094

PET on the Air  
525 Crestlake Drive  
San Francisco Ca 94132

Juropa Wizards  
4526 Kingsbury Pl  
Riverside Ca 92503  
contact: Walter Scott

Walnut Creek PET Users Club John F. Garbarino  
1815 Ygnacio Valley Road Skiff Lane Masons Island  
Walnut Creek, CA 94596 Mystic, CT 06355  
(203)536-9789

The Commodore Connection VIC Users Club  
2301 Mission Street c/o Edward Barszczewski  
Santa Cruz, Ca. 95060 22 Tunix Road  
(408) 425-8054 West Hartford, CT 06107  
Bud Massey

FALS (PETs around New London County  
Livermore Society) Commodore Club  
886 South K Doolittle Road  
Livermore Ca 94550 Preston, CT 06360  
(415) 449-1084 contact: Dr. W. Doolittle  
contact: J. Johnson

\*\*\*Florida\*\*\*

San Diego PUG JAPS  
c/o D. Costarakis Jacksonville Area PET  
3562 Union Street Society  
(714) 235-7626 401 Monument Road, #144  
Jacksonville, FL 32211

64 Users Group Richard Prestien  
6029 Conta Costa Rd. 6278 SW 14th Street  
Oakland Ca 94618 Miami, FL 33144  
contact: E.R. Kennedy

San Fernando Valley South Florida PET Users  
Commodore Users Group Group  
21208 Nashville Dave Young  
Chatsworth Ca 91311 7170 SW 11th  
(213) 709-4736 Westolywood, FL 33023  
(305) 987-6982

\*\*\*Colorado\*\*\*

VICKINPET User's Group VIC Users Club  
4 Waring Lane, c/o Ray Thigpen  
Greenwood Village 4076 Edgewater Drive  
Littleton, CO. 80121 Orlando Fl 32804  
contact: Louis Roehrs

\*\*\*Connecticut\*\*\*

Commodore Users Club PET and Friends  
Wethersfield High School 129 NE 44 Street  
411 Wolcott Hill Road Miami Fl 33137  
Wethersfield, CT 06109 contact: Richard Plummer

contact: Daniel G. Spaneas Sun Coast VICs  
P.O. Box 1042  
Indian Rocks Beach Fl  
33535  
contact: Mark Weddell

Bay Commodore Users Group  
c/o Gulf Coast Computer  
Exch.  
241 N Tyndall Pkwy  
P.O. Box 6215  
Panama City Fl 32401  
(904) 785-6441

\*\*\*Idaho\*\*\*

GHS Computer Club  
c/o Grangeville High School  
Grangeville, ID. 83530  
contact: Don Kissinger

S.R.H.S. Computer Club  
c/o Salmon River H.S.  
Riggins Id 83549  
contact:Barney Foster

\*\*\*Illinois\*\*\*

Shelly Wernikoff  
2731 N. Milwaukee Ave.  
Chicago, IL 60647

Central Illinois PET User  
Group  
635 Maple  
Mt. Zion, IL. 62549  
(217)864-5320  
contact: Jim Oldfield

VIC 20/64 Users Support  
Group  
c/o David R. Tarvin  
114 S. Clark Street  
Pana, IL. 62557  
(217)562-4568

ASM/TED User Group  
200 S. Century  
Rantoul, IL. 61866  
(217)893-4577  
contact: Brant Anderson

PET VIC Club (PVC)  
40 S. Lincoln  
Mundelein, IL. 60060  
contact: Paul Schmidt (pres.)

Rockford Area PET Users  
Group  
1608 Benton Street  
Rockford Il 61107

Commodore Users Club  
1707 East Main Street  
Olney Il 62450  
contact:David E. Lawless

VIC Chicago Club  
3822 N Bell Ave.  
Chicago Il 60618  
John L Rosengarten

DuPage-64  
708 Prairie Ave  
Glen Ellyn Il 60137  
312-858-0637  
coNhact:Gus Pagnotta

Oak Lawn Commodore  
Users Club  
The Computer Store  
11004 S. Cicero Ave  
Oak Lawn Il 60453  
contact: Bob Hughes

\*\*\*Indiana\*\*\*

Cardinal Sales  
6225 Coffman Road  
Indianapolis, IN 46268  
(317) 298-9650

PET/64 Users  
Jerry Brinson  
PO Box 36014  
Indianapolis, IN 46236  
(317) 898-3604

VIC Indy Club  
P.O. Box 11543  
Indianapolis, IN 46201  
Att: Ken Ralston  
317-898-8023

CHUG  
Commodore Hardware User  
Group  
12014 Meadow Lane  
Oaklandon, IN 46236

\*\*\*Iowa\*\*\*

Commodore Users Group  
965 2nd Street  
Marian Ia 52302  
(319) 377-5506  
contact: Vern Rotert

Quad City Commodore Club  
1721 Grant St.  
Bettendorf, IA 52722  
Att: John Yigas

Commodore Users Group  
114 8th Street  
Ames, IA 50010

\*\*\*Kansas\*\*\*

Wichita Area PET Users  
Group  
2231 Bullinger  
Wichita, Kansas 67204  
w(316) 838-0518

Kansas Commodore  
Computer Club  
101 S. Burch  
Olathe, KM. 66061  
contact: Paul Howard

Commodore Users Group  
6050 S> 183 Street  
West Viola, KS. 67149  
Walter Lounsbery

\*\*\*Kentucky\*\*\*

VIC Connection  
1010 S. Elm  
Henderson Ky 42420  
contact: Jim Kemp

\*\*\*Louisiana\*\*\*

NOVA  
917 Gordon St.  
New Orleans, LA 70117  
Att: Kenneth McGruder, Sr.  
504-948-7643

Franklin Parish Computer  
Club  
#3 Fair Ave.  
Winnsboro, LA 71295  
Att: James D. Mays, Sr.

VIC 20 Users Group  
5064 Bowdon St.  
Marrero La 70072  
(504) 341-5305  
contact: Wayne Lowery, R.N.

\*\*\*Maryland\*\*\*

Assoc. of Personal  
Computer Users  
5014 Rodman Road  
Bethesda, MD 20016

House Of Commodore  
8835 Satyr Hill Rd.  
Baltimore, MD 21234  
Ernest J. Fischer

Blue TUSK  
700 East Joppa Road  
Baltimore, MD. 21204  
contact: Jim Hauff

Long Lines Computer Club  
323 N. Charles St.  
Rm. 201  
Baltimore Md 21201

\*\*\*Massachusetts\*\*\*

The Boston Computer  
Society  
Three Center Plaza  
Boston, MA 02108  
(617) 367-8080

Berkshire PET Lovers  
CBM Users Group  
Taconic High  
Pittsfield, MA 01201

Commodore Users Club  
Stoughton High School  
Stoughton, MA 02072  
Contact: Mike Lennon

Eastern Massachusetts  
VIC Users Group  
c/o Frank Ordway  
7 Flagg Road  
Marlboro, MA. 02173

VIC Users Group  
193 Garden Street  
Needham, MA. 02192

VIC Interface Club  
c/o Procter & Gamble Inst.  
Shop  
780 Washington St  
Quincy Ma 02169

\*\*\*Michigan\*\*\*

VIC Users Club U. of  
Michigan  
School of Public Health  
Ann Arbor, MI 48109  
Contact: John Gannon

VIC Commodore Club  
2765 Bristol Road  
Dowling, MI 49050  
Att: Bill Kelley

David Liem  
14361 Warwick Street  
Detroit, MI 48223

Commodore User Club  
32303 Columbus Drive  
Warren, MI 48093  
Contact: Robert  
Steinbrecher

Commodore Users Group  
c/o Family Computer  
3947 W. 12 Mile Road  
Berkley, MI. 48072

W. Michigan VIC 20/64  
Users  
1311 Portland NE  
Grand Rapids Mi 49505  
(616) 459-7578

\*\*\*Minnesota\*\*\*

Twin Cities Commodore  
Computer Club  
6623 Ives Lane  
Maple Grove, MN 55369  
612-424-2425  
Att: Rollie Schmidt

MUFET (Minnesota  
Users of PET)  
P.O. Box 179  
Annandale, MN. 55302

\*\*\*Missouri\*\*\*

ACUB  
10378 Coburg Lands  
St. Louis, MO 63137  
(314)867-0016

KCPUG  
5214 Blue Ridge Blvd.  
Kansas City, MO 64133  
816-356-2382

PET/SET CLUB of St. Louis  
c/o Ed or Til Kiel  
1501 Carman Rd.  
Manchester, MO 63011  
314-527-3236

Clearwater Club  
Clearwater School  
Star Route  
Piedmont, MO 63957

\*\*\*Montana\*\*\*

Powder River Computer  
Club  
Powder River County High  
School  
Broadus, MT 59317

Commodore User Club  
1109 West Broadway  
Butte, MT 59701  
Contact: Jim McCarthy

\*\*\*Nevada\*\*\*

Las Vegas PET Users  
4884 Iron Avenue  
Las Vegas, NV 89110

\*\*\*New Jersey\*\*\*

Amateur Computer Group  
of New Jersey  
18 Alpine Drive  
Wayne, NJ 07470

Somerset Users Club  
49 Marcy Street  
Somerset, NJ 08873  
Contact: Robert Holzer

Educators Advisory  
P.O. Box 186  
Medford, NJ. 08055  
(609)953-1200  
John Handfield

VIC-TIMES  
46 Wayne Street  
Edison, NJ. 08817  
Thomas R. Molnar

\*\*\*New Hampshire\*\*\*

Northern New England  
Computer Club  
PET Users Of Hypot  
PO Box 69  
Berlin, NH 03570

TBH VIC-NIC's  
P.O. Box 981  
Salem, NH 03079

\*\*\*New Mexico\*\*\*

New Mexico Commodore Users  
Club  
121 Yale S.E.  
Alberquerque, NM 87106  
Att: Betsy Byrnes  
505-821-5812

\*\*\*New York\*\*\*

Capital District PET Users  
Ben Green  
Albany Area, NY  
(518) 370-1820

LIVE  
17 Picadilly Road  
Great Neck, NY 11023  
Contact: Arnold Friedman

Long Island PET Society  
Ralph Bressler  
Harborfield HS  
Taylor Ave.  
Greenlawn, NY 11740

West Chester Commodore User  
Gr  
P.O. Box 146  
Pelham, NY 10803  
Att: Joe Brown

SPUG  
4782 Boston Post Rd.  
Pelham, NY 10803  
Att: Paul Skipski

RCUG (Rochester  
Commodore Users Group)  
78 Hardison Road  
Rochester, N.Y. 14617  
contact: Tom Werenski

Commodore Masters  
25 Croton Ave.  
Staten Island, NY 11023  
Contact: Stephen Farkouh

VIC Users Club  
76 Radford St.  
Staten Island, NY 10314  
Contact: Michael Frantz

VIC Users Club  
c/o Christopher Kwasnicki  
44 Harvey Ave.  
Staten Island, NY 10314

PUG of Rockland County  
c/o Ross Garber  
14 Hillside Court  
Suffern, NY 10901  
914-354-7439

PET User Club of West  
Chester  
Box 1280  
White Plains, NY 10602  
Contact: Ben Meyer

Jean F. Coppola  
VIC 20 User Club  
151-28 22nd Ave.  
Whitestone, NY 11357

VIC 20 User Club  
339 Park Avenue  
Babylon, NY. 11702  
(516)669-9126

VIC User Group  
1250 Ocean Avenue  
Brooklyn, NY. 11230  
(212)859-3030

LIVE (Long Island VIC  
Enthusiasts)  
17 Picadilly Road  
Great Neck NY 11023  
c contact:Arnold Friedman

L&M Computer Club  
4 Clinton St  
Tully NY 13159  
(315) 696-8904

Commodore Users Group  
1 Corwin Place  
Lake Katrine NY 12449  
contact:Richard Wright

8\*8 Enthusiasts  
Box 28 Rhodes Rd  
Apalachin NY 13732  
contact:Keith Merrill

VIC 20/Commodore 64  
Users Group  
31 Maple Drive  
Lindenhurst NY 11757  
(516) 957-1512  
contact:Pete Lobol

\*\*\*North Carolina\*\*\*

Commodore Users Club  
4241 Castleton Road  
Charlotte, NC 28211

VIC Users Club  
Rt. 11, Box 686  
Hickory, NC 28601  
Att: Tim Gromlovits

Amateur Radio PET Users  
Group  
PO BOX 30694  
Raleigh, NC 27622  
contact: Hank Roth

MicroComputer Users Club  
Box 17142 Bethabara Sta  
Winston-Salem Nc 27116  
contact:Joel Brown



\*\*\*Ohio\*\*\*

Dayton Area PET  
Users group  
933 Livingston Dr.  
Xenia Oh 45385  
B. Worby-President  
(513) 848-2065  
J. Watson-Sec  
(513) 372-2052

Central Ohio PET  
Users Group  
107 S. Westmoor Ave.  
Columbus Ohio 43204  
(614) 274-6451  
contact:Phillip Lynch

Toledo PETs  
734 Donna Drive  
Temperance Mi 48182  
contact:Gerald Carter  
president

\*\*\*Oklahoma\*\*\*

Southwest Oklahoma  
Computer Club  
4311 Floyd Ave NW  
Lawton Ok 73505  
contact:Joe Teeples

Commodore Users  
BOX 268  
OKlahoma City, OK 73101  
contact: Monte Maker

Oklahoma City Commodore  
Users Group  
4000 Northwest 14TH ST  
Oklahoma City, OK 73107  
(405) 943-1370  
495-0164  
contact: Stanley B. Dow

\*\*\*Oregon\*\*\*

NW PET Users Group  
John J. Jones  
2134 N.E. 45th Ave  
Portland Or 97213

\*\*\*Pennsylvania\*\*\*

Bucks County Commodore  
User Gr.  
72 East Rambler Drive  
Holland, PA 18966  
215-322-0394  
Jim Dubrouilet  
PET User Group  
Gene Beals POBox 371  
Montgomeryville, PA 18936

Pittsburgh PET Group  
2015 Garrick Dr.  
Pittsburgh, PA 15235  
412-371-2882  
Att: Joel A. Casar

Penn Conference Computer  
Club  
c/o Penn Conference Of SDA  
720 Museum Road  
Reading, PA 19611  
Contact: Dan R. Knepp

ABAPET Users Group  
P.O. Box 6051  
Lehigh Valley Pa 18001  
contact:Bill Thomas

Westmorland Commodore  
Users Club  
c/o DJ&Son Electronics  
Colonial Plaza  
Latrobe Pa 15650  
contact:Jim Mathews

\*\*\*Puerto Rico\*\*\*

CUG of Puerto Rico  
1607 Calle Colon  
Santurce, PR 00907

The VIC 20 User's Group  
655 Hernandez St.  
Miramar, PR 00907  
Att: Robert Morales, Jr.

\*\*\*Rhode Island\*\*\*

Irving B. Silverman, CPA  
160 Taunton Ave  
E. Providence RI 02914

\*\*\*South Dakota\*\*\*

PET User Group  
515 South Duff  
Mitchell, SD 57301  
(605) 996-8277

\*\*\*Tennessee\*\*\*

River City Computer  
Hobbyists  
Memphis, TN  
First Monday at  
Main Library

Nashville VIC Users Group  
American Computer Store  
1004 8th Ave., S.  
Nashville, TN 37203  
Contact Jane Maggard  
615-242-8592

Commodore User Club  
Metro Computer Center  
1800 Dayton Blvd.  
Chattanooga, TN. 37405

\*\*\*Texas\*\*\*

SCOPE  
1020 Summit Circle  
Carrollton, TX 75006

PET Use Group  
John Bowen  
Texas A & M Microcomputer  
Club  
Texas A & M  
College Station, TX

Corpus Christi Commodores  
Contact Bob McKelvey  
512-852-7665

PET Users  
2001 Bryan Tower  
Suite 3800  
Dallas, TX 75201

Commodore Houston Users  
Group  
8738 Wildforest  
Houston, TX 77088  
713-999-3650

Larry Williams  
P.O. Box 652  
San Antonio Tx 78293

CHUG (Commodore Houston  
Users Group  
8738 Wildforest  
Houston Tx 77088  
(713) 999-3650  
contact:John Walker

Commodore Users Group  
5326 Cameron Rd.  
Austin Tx 78723  
(512) 459-1220  
contact:Dr. Frazee

\*\*\*Wisconsin\*\*\*

CUSSH  
3614 Sovereign Drive  
Racine, WI 53406  
Tim Tremmel

\*\*\*Canada\*\*\*

Canadian Commodore Computer Club c/o Strictly Commodore 47 Coachwood Place Calgary, Alberta T3H 1E1 Canada Roger Olanson	PET Users Club c/o Daniel Cayer R.R.6 Simcoe, Ontario Canada N3Y 4K5 W.P.U.G. 9-300 Enniskillen Avenue Winnipeg, Manitoba R2V 0H9
Toronto PET User Group 1912A Avenue Road Suite 1 Toronto, Ontario Canada, M5M 4A1 Contact: Chris Bennett (416)782-8900	VIC-TIMS 2-830 Helena Street Trail, British Columbia VIR 3X2 (604)368-9970
Vancouver PET Users Group Rick Leon Box 35353 Station E Vancouver, British Columbia Canada (604) 734-2060	Arva Hackers Medway High School Arva Ontario NOM 1C0 Icontact:D. Lerch

\*\*\*Great Britan\*\*\*

North London Hobby Computer Club Press Release The Polytechnic of North London Dept.of Electronic and Communications Engineering Holloway, London N78DB England	PET Users Group 49 x 9th Row Northumberland NE63 8JY England Contact: Thomas Turnbull
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ICPUG  
30 Brancaster Road  
Newbury Park, Ilford  
Essex, England  
IG2 7EP  
Jack Cohen  
01-597-1229

HAMPSHIRE  
RG069  
South Hants Regional  
Group  
Tony Cooke  
7 Russel Way, Petersfield,  
Hampshire, GU31 4LD

**\*\*Regional Groups\*\***

Regional Coordinator  
Terry Devereux  
32 Windmill Lane  
Southall, Middlesex, UB2 4ND  
01-574-2709

NORTHHAMPTONSHIRE  
RG098  
Peter Ashby  
215 Lincoln Way  
Corby, Northamptonshire  
(Corby: 05363-4442)

BERKSHIRE  
RG078  
Brian Jones  
Dept. Of mathematics  
& Computing  
Slough College of Higher  
Wellington Street  
Slough, Berkshire  
(Slough: 34585 ext:81)

SUFFOLK  
RG073  
Alan Morris  
30 Kelso Road  
Bury St. Edmunds, Suffolk  
(Bury St. Edms: 61870)

DURHAM  
RG071  
Jim Cocallis  
20 Worchester Road  
Newton Hall Estate  
Durham

DERBYSHIRE  
RG079  
Raymond Davies  
105 Normanton Road  
Derby, Derbyshire  
(0332-41025)

GLOUCESTERSHIRE  
RG080  
Mrs. Alison Schofield  
78 Hesters Way Road  
Cheltenham, Gloucester

ESSEX  
RG090  
A.G. SurrIDGE  
97 Shelley Road  
Chelmsford, Essex CM2 6ES

RG087  
Walter Green  
151 The Hatherley  
Basildon, Essex

GL51 0RQ  
(0242 580789)  
(0242 27588)

RG088  
Mrs. Janet Rich  
Rose Cottage  
20 Old Court  
Springhill, Cam  
Gloucester, GL11 5PF  
(Dursley: 0453 47708)

MIDDLESEX  
RG084  
Geoff Squibb  
108 Teddington Park Road  
Teddington, Middlesex  
(01-997-2346)

RG093  
North Hants Regional Group  
Ron Geere  
109 York Road, Farnborough  
Hampshire, GU14 6NQ

NORTHUMBERLAND  
RG075  
Graham J. Saunders  
Starling House  
22 Front Street,  
Guide Post  
Choppington  
Northumberland  
(Bedlington: 0670-823242)

NORTHERN IRELAND  
RG101  
David Bolton  
19 Carrickburn Road  
Carrickfergus  
County Antrim, BT38 7ND  
Northern Ireland

YORKSHIRE  
RG070  
Bob Wood  
13 Bowland Crescent  
Ward Green, Barnsley  
South Yorkshire  
(0246-811585)

DEVON  
RG107  
Matthew Stibbe  
The Lawn  
Lower Woodfield Road  
Torquay, Devon

KENT  
RG095  
South East Regional  
Group  
Wng. Cdr. Mick Ryan  
164 Chesterfield Drive  
Riverhead, Sevenoaks,  
Kent

RG094  
Carol Taylor  
101 Courtland Avenue  
Cranbrook, Ilford, Essex

RG082 Ron Moseley  
Rosemont, Lord Romney  
Hill  
Weaving, Maidstone,  
Kent  
(0622-27643)

LONDON  
RG097  
Dept. of Business Studies  
Polytechnic of North London  
Holloway Road  
London, N7

MIDLANDS

RG076

M.J. Merriman  
12 York Street  
Stourport-on-Severn  
Worcestershire

RG099

Wolverhampton & Telford  
District VIC Users' Group  
Joe Bowman  
6 The Oval, Albrighton  
West Midlands

OXFORDSHIRE

RG104

John Temple  
'Kibanda', Rose Bank  
Bloxham, Oxon

RG105

Ian Blyth  
40 Wilmot Close, Witney  
Oxon, OX8 7NL  
(Witney: 5171 Home)  
(Witney: 3671 Work)

WARWICKSHIRE

RG086

J. A. McKain  
P.F.I. Limited  
177 Lozells Road  
Birmingham  
(021-544-0202)

DORSET

RG110

Bournemouth & Poole  
Independent  
Commodore Products User Group  
Douglas M. Shave (Chairman)  
97 Canford Cliffs Road  
Poole, Dorset, BH13 7EP

HERTFORDSHIRE

RG092

Herts/Watford Regional Group  
Stephen Rabagliati  
c/o Institute of  
Grocery Dist'n  
Grange Land, Letchmore  
Heath  
Watford, Herts

RG083

Herts/Stevenage Regional  
Group  
Brian Grainger  
73 Minehead Way  
Stevenage, Herts  
(Stevenage: (0438)-727925)

NORFOLK

RG100

VIC-20 Group  
J Blair  
7 Beechroad, Cromer  
Norwich, Norfolk

RG103

Peter Petts  
Bramley Hale  
Wretton, Kings Lynn  
Norfolk  
(Stoke Ferry: 500692)

WALES

RG089

John Poole  
6 Ridgeway Close  
Connah's Quay  
Clwyd, CH5 4LZ

RG109  
Frank Jones  
77 Millbank Road  
Rhyll , Clwyd  
(Rhyll: 0745-54820)

RG072  
Simon Kniveton  
Penpompren Hall  
Talybont, Dyfed  
(Talybont: 303)

RG085  
F. J. Townsend  
The Hill, Rhydowen  
Llandyssul, Dyfed,  
SA44 4QD  
(05455-5291)

LANCASHIRE

RG096  
Tony Bond  
27 Ince Road, Thornton  
Liverpool, L23 4UE  
(051-924 1505)

RG091  
David Jowett  
197 Victoria Road East  
Thornton-Cleveleys  
Blackpool  
Lancashire  
(Cleveleys: 86108)

RG081  
John Ingham  
72 Ardwick Street  
Burnley, BB10 1BJ  
Lancashire

SCOTLAND  
RG102  
John Smith  
19 Brewlands Road  
Symington  
Kilmarnock, KA1 5RW  
Ayrshire, Scotland  
(0563-830407)

RG074  
Dr. Jim MacBrayne  
27 Paldmyre Crescent  
Newton Mearns  
Glasgo, Scotland  
(041-639-5696)

RG106  
A. J. Quin  
Dept. Of Environment  
Studies  
Glasgow College of  
Building & Printing  
60 North Hanover Street  
Glasgow, G1 2BF Scotland  
(041-332-9969)

RG108  
John Shankland  
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Strathclyde, Scotland

WARWICKSHIRE  
RG077  
Will Light  
22 Ivybridge Road,  
Styvechale  
Coventry, Warwickshire  
(0202-413511)

\*\*\*Korea\*\*\*

Commodore Users Club  
K.F.O. Box 1437  
Seoul, Korea  
contact: S.K. Cha

\*\*\*Mexico\*\*\*

Club de Usaios Commodore	Association De Usuarios
Sigma del Norte	Commodore
Mol del Valle, local 44	c/o Alejandro Lopez
Garza Garcia, N.L. 66220	Arechiga
	Holbein 174-6°Piso
	Mexico 18,D.F.

\*\*\*New Zealand\*\*\*

Commodore Users Group	Nelson VIC Users Group
Meet at VHF Clubrooms	c/o P.O. Box 860
Hazel Avenue, Mount Roskill	Nelson New Zealand
Roger Altena 278-5262	contact:Peter Archer

\*\*\*Norway\*\*\*

VIC Club of Norway  
Nedre Bankegt 10,  
1750 Halden, Norway



# FREE SOFTWARE BY PHONE

READ BEFORE DIALING





# READ BEFORE DIALING

The MODEM (MOdulator/DEModulator) is an inexpensive device that allows you to use your Commodore computer to communicate with other computers through regular telephone lines. It has brought the age of telecommunications and FREE software within your reach.

A diverse network of services and recreations is now as close to you and your Commodore computer as your telephone. Hundreds of information services and electronic bulletin boards (BBS's) are standing by at this moment waiting for you . . . and most of the ones you'll learn about in this book cost no more than the price of an ordinary phone call.

## *IN THIS SECTION WE WILL SHOW YOU:*

- The FREE software and services that are available to you.
- Representative FREE software lists available from Public Domain Bulletin Boards and CompuServe.
- MODEM terms fully explained.
- A review of and operating instructions for Commodore's VIC modem and the new Commodore-64 Automodem . . . PLUS, the names and addresses of major MODEM manufacturers.
- How to get sophisticated communications programs FREE.
- Complete operating instructions for the three most versatile public domain communications programs available: TERMINAL.64, VIC.TERMINAL, and TERMINAL.V13TJ. These programs, written by Steve Punter, feature complete *uploading*<sup>1</sup> and *downloading*<sup>2</sup> capabilities and are available in versions for the PET/CBM, Commodore 64, and VIC-20 computers.

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<sup>1</sup>Upload: To send a program from your Commodore computer to a distant computer over the phone lines.

<sup>2</sup>Download: To receive a program over the phone line, temporarily capture it in your Commodore's memory, then permanently save it on cassette or disk for later use.

- An in-depth look at Speed Term II, a popular commercial communications software package that makes it easy for you to access the large CompuServe library of public domain software. PLUS, the names and addresses of other manufacturers of excellent communications software for your Commodore computer.
- The Punter public domain BBS system is explored. We'll show you how to use this valuable resource to expand your knowledge of your Commodore computer, leave messages and bulletins, and how to download free public domain software.
- The CompuServe service is explored with emphasis on its large library of free public domain software.
- Special recreational systems like the "Living Tree" and "DIAL-YOUR-MATCH" are fully covered.
- A comprehensive phone directory of over 500 numbers that puts you in touch *today*, with BBS and recreational systems. Commodore BBS phone numbers are listed by type of system and alphabetized by State, to help you reach the system closest to you.
- How to set up your own BBS. Featuring interviews with three Commodore telecommunications pioneers: Tim Tremmel, Tony Ott and Steve Punter.

## **Free Bulletin Board Services (BBS)**

Commodore Users' Groups, hobbyists and entrepreneurs throughout the world are operating electronic Bulletin Boards and information terminals. These are loaded with easy-to-access features that allow you to *increase your software library* and expand the usefulness of your computer.

### *The FREE Electronic Classified Ad*

The Message Center is the heart of each electronic Bulletin Board. Do you have information to share with other Commodore enthusiasts?

Something to sell? Looking for some programming help or some new or used equipment? You'll probably find what you want listed in the "computer classified ad department", the electronic Message Center.

Later in this section you'll learn how to retrieve and place messages on the Punter type electronic bulletin boards. Here's what a typical message looks like:

**MSG#0326 DATE: 02/02/83 TIME: 18:26:49**  
**FROM: Mary Dillon; Cupertino, CA Educators**  
**TO: All**  
**SUBJ: Classroom reading programs**

**Looking for (Commodore) reading skills programs  
for 1st grade students. Please leave message on this  
BBS if you can help.**

Using this FREE service offers many exciting possibilities. You can advertise a product or service, find out the latest Commodore news, or leave a message for a friend.

### *FREE Public Domain Software*

Public domain software is either uncopyrighted software that has been contributed by a fellow Commodore enthusiast, or copyrighted software that has been put on a BBS with the author's approval.

### *SAVE PROGRAMS TO DISK*

You'll find 'Terminal Software' in this section that allows you to call a BBS, check its list of available software, and download public domain programs to *your* computer. We'll also show you how to save your newly acquired program to disk, adding it to your software library.

All types of programs are available: utility programs that ease your programming chores, adventure and arcade games, educational software, business software, communications software, home management software. There are even public domain programs available that allow you to set up your own BBS!

For example, over one hundred programs are currently offered FREE from St. Louis, Missouri's *Commodore Communications* BBS. Their constantly updated selection of Communications Programs, Computer Utilities, Games, Text Files, Business Programs for all types of *Commodore computers* is typical of the wide variety of software available FREE from BBS systems throughout the world.

When we contacted Commodore Communications by calling (314) 867-6950 and "asked" what software was available for downloading, this list was presented on our screen:

P VIPER.64	P WARLORDS INSTR.
P SPIRAL.1	P AUTODISK BOOT.Z
P CONT.LDR.PAL	P COLOUR.PICT
P SCREEN	P EXPANDER.4
P HI RES LOADER	P CONSTRICTOR.4
P TERMINAL DOC	P IRQ-PATCH.GEN
P CONT.LDR.ML	P BAS-PATCH.GEN
P MENU	P INVOICER
S DIRECTORY	P TAX 82 ONT V1.0
P SCOPY INSTR	P COPY-ALL
P SCOPY5	P TOMBS C64
P LIST-ME LIST-ME	P LABYRINTH
P LIST-ME2.W	P SPADES
P LOAN AMORT.8	P SPADE.INSTRUCTS
P SIMCAL.Z	P MILLE BOURNE
P SIMCAL INSTR.W	P M.B.INSTRUCTION
S DP106-3.Z	P DOMINOES
P GRADEBK-GRADES.	P -C64 RE-RELEASE
P GRADEBK-NAMES.Z	P PETALS ARND ROS
P LIST-ME.L	P CHARACTER GEN 6
P CUBE.4	P WEAVE
P WARLORDS GAME.4	P ENTERPRISE C64
	P REVERSE C64

P DRAW POKER C64	P V BACKGAMMON
P CHAR DISPLAY C6	P VIC UXB 2
P PGMABLE CHARSET	P VIC UXB 1
P -D. CAMPBELL C6	P VIC GRAPH PLOT
P CUBE	P V ADDRESS FILE
P BALANCE ADD/SUB	P V SUBTRACT PRAC
P BOWLING	P V ADDITION PRAC
P VIC.BUDGET	P VIC ZIG ZAG
P BUDGET	P VIC FUNCTION KE
P REVIVE	P V CHARS@1C00
P DOCTOR.INS	P VIC PRG CHARS
P DOCTOR 8032	P VIC REL WRITE
P LONE (64) RANGER	P VIC LOTTARIO
P GERMAN (64) BOMBE	P V JIM IN COLOUR
P CONTEXT INDEXER	P BILLBOARD
P FACTORS.VIC64	P TV SATELLITES
P FACTORS.PET	P WORD-SEARCH
P VISIBLE C64	P STAR LANES
P VISIBLE VIC	P MINEFIELD 2
P VISIBLE PET	P HIGH Q
S DIANE.CDATA	P REACTION
P DIANE.C64	P EYE
P COL.PICT.BOOT	P EAR
P C64 PET SCREEN	P TOLL BRIDGES
P VIC FREE-FALL	P OUTPOST
P V LO PASS FILTE	P OUTPOST-ML3
P VIC FINANCE	P ALIEN BLASTER
P V 555 TIMER	P BLOCKADE
P V COMPLEX MATRI	P WARLORDS GAME
P V MAILING EDITO	P WARLORDS INSTR
P VIC CHECKBOOK	P N.Z.QUIZ
P V ZAP	P STAR SYSTEM
P VIC-POLY-TURTL	P PUKMAN

“P DRAW POKER C64” is, you guessed it, a great game of poker designed for the Commodore 64. The “P” to the left of the program’s name tells us that this is a BASIC Program. An “S” to the left of a listing indicates a Sequential text file.

The “LIST ME” programs found on this list contain complete descriptions of the programs they precede. The LIST ME program can be loaded and listed on *any* model Commodore computer. “LIST ME LIST ME” explains how this documentation system works in detail.

We decided to download “DRAW POKER”. Minutes later, by following a few simple steps that are fully explained in the Terminal Operating chapter, we had added this entertaining program to our permanent software library.

Some BBS's offer “computer posters”, graphic designs and portraits of famous people like Albert Einstein and Raquel Welch. These posters can be printed out using a standard printer, then displayed proudly on the wall of your computer room.

Other BBS's offer a broad spectrum of public domain software, from challenging games like BLASTER, to educational programs like TYPER, a typing tutorial.

A complete word processing program can be downloaded from some BBS's. Soon you will be writing the great American novel on your computer, using FREE software!

When you call a BBS, you can also get an updated listing of other Commodore BBS's, talk via the keyboard to the SYSOP (System Operator), upload your programs to the system, get current Commodore related news, or take part in a BBS experiment. One BBS offers its callers a short quiz, and awards prizes for the correct answers.

The BBS network has software and features for every Commodore computer owner. It's all FREE, and as close as your telephone! *This section will show you where it is and how to get it.*





## Other Free Services

Once you've been bitten by the "computer communications bug" you'll discover many new and interesting recreations and services.

### *THE LIVING TREE*

Later we'll give a list of "Living Tree" system telephone numbers.

As its name implies, a "Living Tree" service is a vast and *ever-expanding information bank* structured like a living tree. After making contact with your local "Living Tree", you enter the system's data base at its "top". By inputting commands like "down", "up", "left" or "right", you slide down its "trunk" or climb onto its various "limbs" and "branches".

Personal Mail Boxes reside in one branch of the tree, Classified Ads in another, and a "Living Story" in yet another.

In the "Living Story", you'll be able to contribute your own continuation to the existing narrative. If you're a budding writer, this may be your chance to show your literary talents. Many youngsters who participate in this activity have measurably improved their writing and reading skills while using their creative talents.

Most "Living Trees" don't offer free software, but they do give you the opportunity to add to their ever-expanding structure and access lots of valuable information.

### *DIAL-YOUR-MATCH*

DIAL-YOUR-MATCH is another good example of the many FREE services available to Commodore communicators. This confidential "find-a-mate by modem" service is available FREE in more than 25 locations throughout the U.S. You enter a code name, answer a brief questionnaire, and check back periodically to see if you've been matched with the romance of your life.

A complete phone directory of *all* available DIAL-YOUR-MATCH terminals can be found on page 137.

*THE LIST IS GROWING*

The list of FREE services available to Commodore computer owners is growing daily. Entering this exciting world is as easy as buying a modem, hooking it up, and dialing your phone.

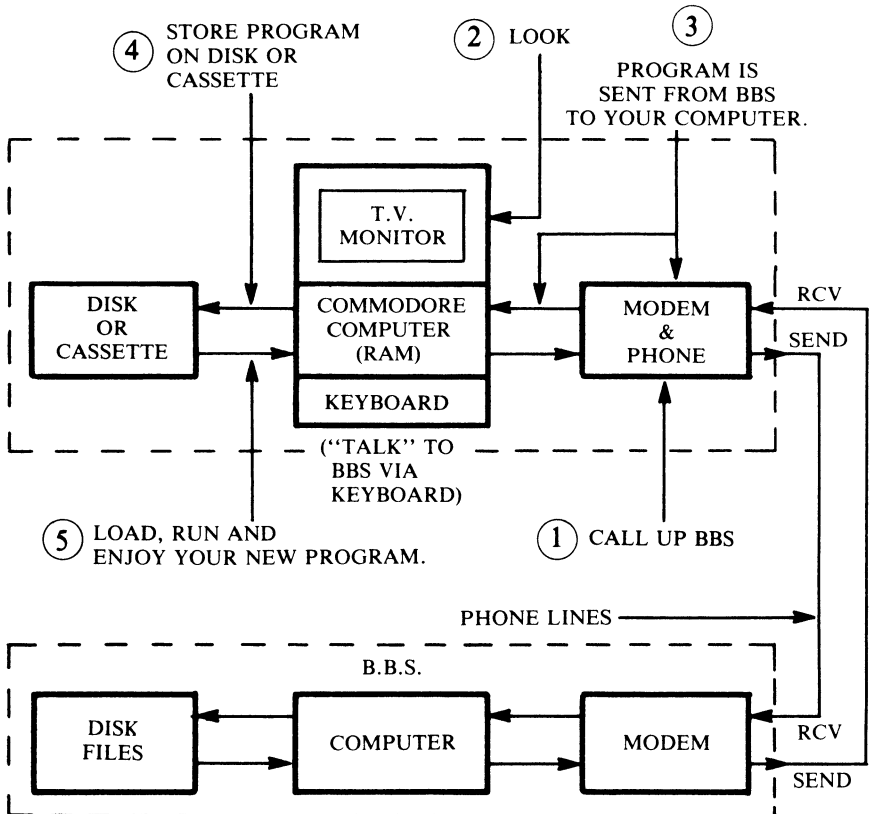
*READ ON!*

Read on, and learn how you can enter this exciting world of computer communications.

# Downloading a Program from a BBS

## *FIVE EASY STEPS TO FREE SOFTWARE*

1. Call up a friendly BBS.
2. Look over the BBS's files and choose the public domain program you'd like to download.
3. "Tell" the BBS to send the program to your computer's (RAM) memory.
4. Store the program on your disk or tape.
5. You have now added a new program to your permanent software library...ENJOY!

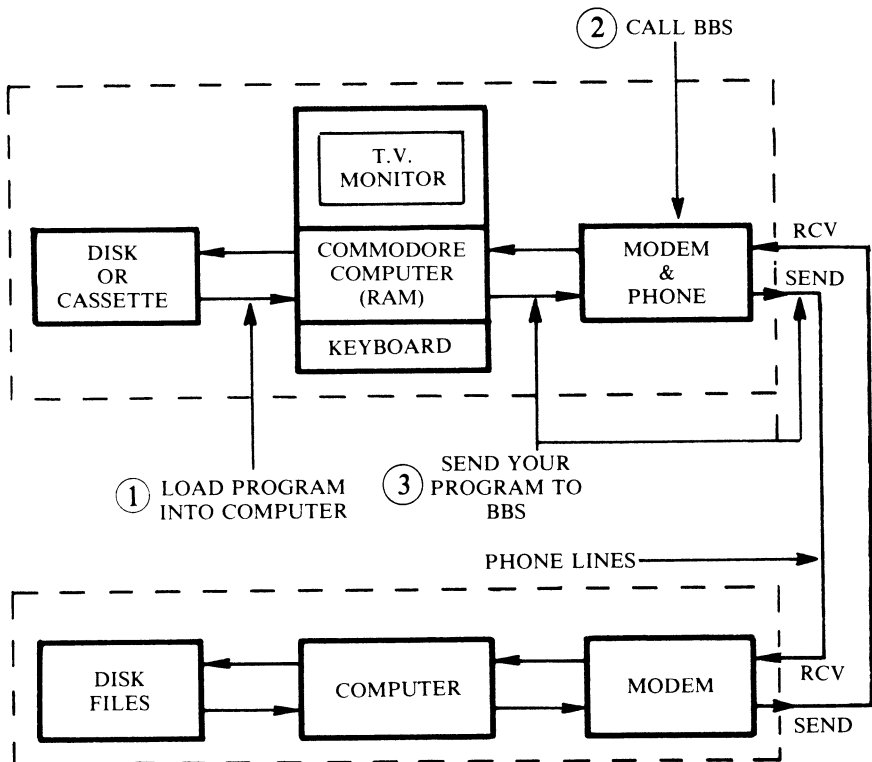


# Uploading Your Program to a BBS

## *SHARING YOUR PROGRAM WITH OTHER COMMODORE ENTHUSIASTS*

1. Transfer your program from disk or cassette to your computer's (RAM) memory.
2. Call up a friendly BBS and "ask" to upload your program.
3. Send your program to the BBS.

Your program is added to the public domain software file for use by other Commodore enthusiasts.



# MODEMS

## Modem Terms and Features

Now that you have an idea of all the FREE services and recreations available to Commodore communicators, it's time to start thinking about buying a MODEM. Before you run down to your local computer store, take a few minutes to read this short chapter. It will familiarize you with MODEM telecommunications terms and help you select the *right* MODEM for your needs.

### *MODEM*

“MODEM” is the abbreviated combination of the two words MODulator and DEModulator (Modulator = Transmit, and Demodulator = Receive).

A MODEM is used to interface between your computer and a telephone line. It enables your computer to communicate with other computers.

### *MODEMS FOR YOUR VIC-20 OR COMMODORE 64*

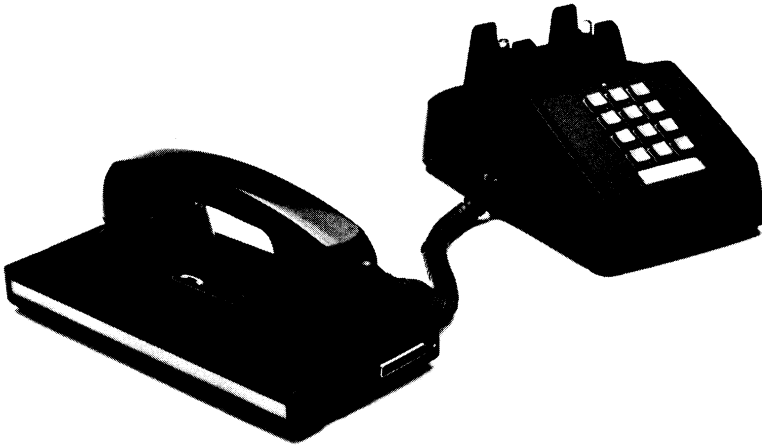
If you own either a VIC-20 or Commodore 64 computer you'll be presented with two basic choices: Commodore's VICMODEM or their new Model 1650 AUTOMODEM. Many other manufacturers produce excellent modems that have features you might be interested in. A list of modem manufacturers is included at the end of this section. However, because of the low cost of the Commodore modems, and their guaranteed compatibility with your computer, unless you have some very special needs, such as setting up your own BBS, these units will do an admiral job for you.

Commodore also produces a complete line of modems for use with your PET/CBM computer.

If you are interested in starting your own Bulletin Board service, read *HOW TO START YOUR OWN BBS* for special modem information.

### *Acoustic or Direct-Connect?*

An acoustic modem is equipped with two soft rubber cups that accept a telephone's handset and form a tight seal around both the mouthpiece and earpiece.



This type of modem can only be used with “standard” business type telephones. Fancy phones with odd shaped mouth and earpieces, like the “Princess” model, won’t fit securely into the specially designed rubber cups. A tight, sound proof fit between telephone and modem is critical for proper operation. Extraneous noise can distort the data transmission.

Acoustic modems are generally less expensive than direct-connect modems and are quite suitable for Up and Downloading information to your computer. However, acoustic modems do not have the ability to automatically answer the phone, require special adaptation to your VIC-20 or Commodore 64 computer, and require modification for BBS base station use.

To use an acoustic modem you pick up the phone, dial a BBS number, listen for the answering tone, and insert the phone’s headset into the two rubber cups to establish contact.

## *Direct-Connect Modem*

Both the VICMODEM and AUTOMODEM are “direct-connect” modems.

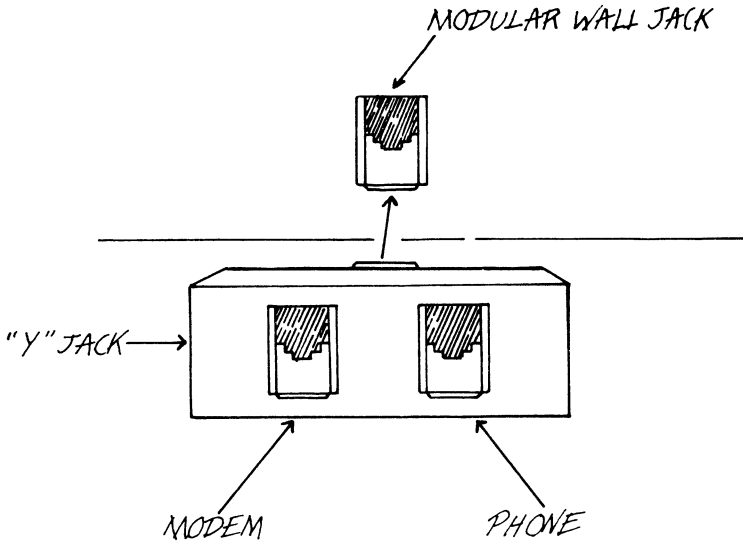


Commodore VICMODEM

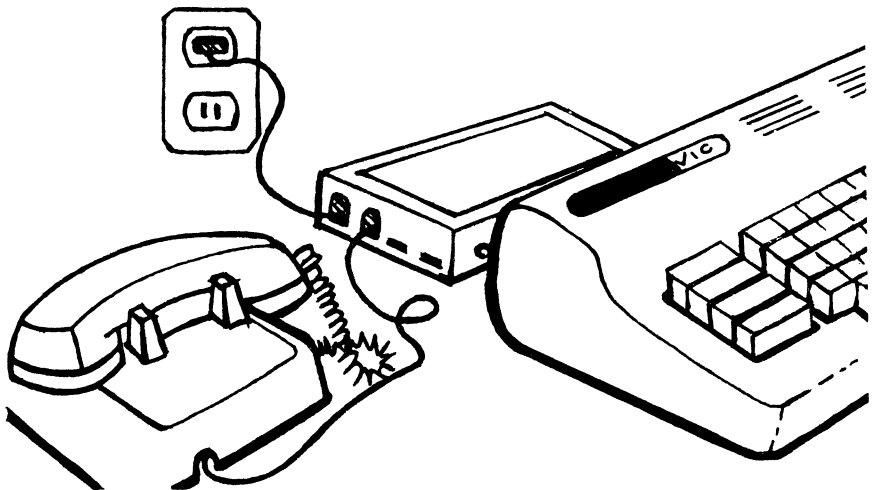
A direct-connect modem plugs directly into a telephone wall or handset jack. This eliminates any possible noise problems.

Make sure that your home is equipped with a modular phone jack, since you'll need this for connecting the Commodore AUTOMODEM.

A phone is usually plugged into a modular wall-jack *with* the direct-connect modem via an inexpensive “Y” jack. (You can purchase a



"Y" jack at any phone store and at most department stores for less than \$5.00.) A "Y" jack is built into the Commodore AUTOMODEM. This dual hookup lets you manually dial up the BBS or service of your choice. When connection is made an indicator will light on the modem, and communications can begin.





### *Automatic Dialing*

The Commodore AUTOMODEM direct-connect modem is provided with software (TERM 64) that provides an automatic dialing feature. You store commonly called phone numbers in the modem's terminal software. When you turn on your system your screen displays a menu listing of these BBS's or services. By typing the number to the left of a listing the modem will automatically dial the phone number of your choice. Here's what a typical autodial menu list might look like:

#### AUTODIAL

1. C.U.S.S.H.
2. Com. Central
3. DATA BANK
4. S.C.B.B.S.
5. Stuart-S'vale
6. Santa Clara PMS
7. CompuServe

#### SELECT

### *Automatic Answering*

Many direct-connect modems, including the Commodore AUTOMODEM can automatically answer a modem call. This feature not only insures that you'll get all your computer messages, but is a must for Bulletin Board System Operators.

### *Data/Voice Switch*

In most direct-connect modems you can select either Data or Voice operation by pressing a switch.

The Data position lets you automatically dial out.

The Voice selection allows you to dial a number manually.

### *Other Options*

Other options available on some direct-connect modems include automatic disconnect, and unattended automatic dialing and passing of data with other systems.

### *BAUD RATE*

A baud rate is simply a measure of how fast a modem communicates. *All the BBS services available to Commodore computer owners operate at 300 Baud.* This translates to a rate of 30 characters per second.

Modems are also available that are capable of transmitting and receiving at 1200 Baud (120 characters per second). You might consider one of these faster units *if you are planning to do a lot of communicating* with commercial main frame computer networks and services.

*The faster the baud rate, the higher the cost of the MODEM.*

### *DUPLEXING*

Most modems or the terminal software needed to operate the modem include the ability to operate either in full-duplex or half-duplex mode.

#### *Full-Duplex*

Full-duplex communication is similar to a telephone conversation, where both parties can talk simultaneously.

When you contact a BBS, make sure that the "Duplex" switch is set to "Full". The BBS will echo the characters you've sent back to your computer for display on your screen as it receives your information. This requires full-duplex operation.

#### *Half-Duplex*

Half-duplex can be compared to Ham radio communications, where only one party can talk at a time.

When in doubt as to the proper setting, try the setting that gives you the best results, or if you can, check the host computer's reference manual. Most computers use full duplex.

### *Stop Bits*

Some computer systems you'll contact require that blank bits be sent after each character. This blank bit signals the end of each character. In normal 300 baud communications 8 bits of data represent 1 character; so, a total of ten bits, including the start and stop bit are required. Most terminal software packages allow you to set these parameters.

### *Word Length*

Most terminal software will allow you to set the word length, *the number of bits in each character*. Most computers use 7 or 8 bits per character.

## *EXTRA FEATURES*

### *Self-test*

A test switch is provided on some modems that allows you to determine if your system is functioning correctly or if there is a problem at the other end of the connection.

### *Carrier Detection*

When you make contact with another computer it responds by transmitting a carrier tone. Most modems let you know that you're in contact by emitting a tone or turning on a light or LED.

### *The VICMODEM*

Commodore's VICMODEM, as pictured above, is an inexpensive direct-connect modem for use with your VIC-20 or Commodore 64 computer.

The VICMODEM plugs into the User Port at the rear of your

computer, and connects to your telephone via the handset cable. (See diagram above.)

To use:

1. To call out, set the Answer/Originate switch to "O".
2. Dial the number of the BBS or service you would like to communicate with.
3. When you hear an answering carrier tone, disconnect the cable from the telephone's headset and plug it into the VICMODEM.
4. The indicator light on the side of the modem will glow red and communications can begin.

### *The 1650 AUTOMODEM*



Commodore's AUTOMODEM is a direct-connect modem that works with either your Commodore 64 or VIC 20 computer. Among its features are:

1. Built-in Phone and "Y" Adapter: Your phone and the AUTOMODEM can be connected at the same time. (See the connection diagram above.)
2. Automatic Answering: Perfect for unattended operation.
3. Automatic Dialing.

### *PET/CBM Owners*

Neither the VICMODEM nor AUTOMODEM will work with your PET/CBM computer. However, read on! We've provided a list of modem manufacturers who produce RS-232C modems that, with the proper IEEE to RS-232C interface, will turn your computer into a "communications machine".

### *Terminal Software*

Terminal software is needed to turn your computer into a communications terminal.

FREE terminal software VICTERM I/Term 64 is included with the purchase of either of these modems. Both of these software packages will allow you to get on line immediately to contact a BBS or commercial service. However, *neither of these two programs will allow you to download or upload files.*

Commodore manufactures and sells two programs, EasyComm 64 and VICTERM40 that will let you upload files to distant computers or download files and save them to disk or tape.

### *Free Smart Terminal Software PET/CBM, VIC-20 and Commodore 64*

"Smart Terminal Software" allows you to up or download.

Later in this chapter we'll introduce you to FREE *Smart* terminal software for your VIC-20, Commodore 64 or PET/CBM computer.

## Helpful Modem Buying Tips

### *RS-232C Interface*

You'll find a list of modem manufacturers at the end of this section. Most of the modems they produce require what is called an "RS-232C interface" to operate with your Commodore computer. If you plan to buy and connect an RS-232C modem to your Commodore 64 or VIC-20 computer you'll need an "RS-232C interface" unit.

Commercial interface units are available and relatively inexpensive.

ECX Computer Company, in Walnut Creek, California, (415) 944-9277, is one modem interface manufacturer that specializes in units for the Commodore computer.

ECX offers their model CX-6402 RS-232C Serial Interface unit that allows your Commodore 64 or VIC-20 computer to use any RS-232C compatible modem.

The CS-6402 is priced at \$59.95 and has some nice features.

- Does not require external RS-232C cable.
- Operates at all VIC-20/Commodore 64 baud rates.
- No external power is required.

You'll find advertisements for other similar products in many of the magazines listed in the "Almost Free Software" section of this book. Browse through these magazines, and after you've found an interface unit that appeals to you, write or call the manufacturer and get as much information as you can. Be sure to shop around, and compare before you buy.

## *Modem/Interface Buyer's Check List*

Before you run out and buy your new RS-232C modem:

1. Purchase either the VIC-20 or Commodore 64 Programmer's Reference Manual to learn how to use the RS-232C feature of your computer.
2. Contact your local Users' Group and learn as much as you can from other members who are using RS-232C modems with their Commodore computers.
3. Set up your system (computer, interface and RS-232C modem) at the dealer's store and insure that it all works together.

### *Talk to the Manufacturer*

Below is a listing of modem manufacturers.

It is a good idea to send each manufacturer a short letter requesting information on their line of Commodore compatible modems. Ask them to send you their brochures, then sit back in the comfort of your home and make your selection. You might also ask where their nearest distributor or retail outlet is. This can save you a lot of leg work. All the manufacturers we spoke to were extremely helpful and responded with literature within a few days.

## **Modem Manufacturers**

Anderson Jacobson, Inc.  
227 Devcon Drive  
San Jose, CA 95112

ESI Lynx  
123 Locust Street  
Lancaster, PA 17602

Hayes Microcomputer Products, Inc.  
5923 Peachtree Industrial Blvd.  
Norcross, GA 30092  
404-449-8791

Kesa Company  
774 San Miquel Avenue  
Sunnyvale, CA 94086

Lexicon Corporation  
1541 N.W. 65th Avenue  
Ft. Lauderdale, FL 33313

Racal-Vadic  
222 Caspian Drive  
Sunnyvale, CA 94086  
408-744-0810

MFJ Enterprises, Inc.  
921 Louisville Road  
Starkville, MS 39759

TNW Inc.  
3351 Hancock Street  
San Diego, CA 92110  
(914) 225-1040

Microbits  
434 W. 1st Street  
Albany, OR 97321  
503-967-9075

TRW Corporation  
Modem Department  
3444 Hancock Street  
San Diego, CA 92110

Micromint, Inc.  
917 Midway  
Woodmere, NY 11598

U.S. Robotics, Inc.  
1035 West Lake  
Chicago, IL 60601

The Microperipheral Corporation  
2643 151st Place N.E.  
Redmond, WA 98052  
206-881-7544

Universal Data Systems  
5000 Bradford Drive  
Huntsville, AL 35805  
205-837-8100

Novation, Inc.  
18664 Oxnard Street  
Tarzana, CA 91356  
213-996-5060

Prentice Corporation  
266 Caspian Drive  
Sunnyvale, CA 94086  
408-734-9810



# FREE, SMART TERMINAL SOFTWARE

*PET/CBM, VIC 20 and Commodore 64*

Congratulations! You have a modem, it's hooked up to your Commodore computer and you're ready to call up a friendly BBS and get FREE software by phone! But, first you'll need TERMINAL SOFTWARE to turn your Commodore into a communications terminal.

Fortunately, some very dedicated individuals and groups have developed excellent public domain \**Smart* terminal software packages for use with your CBM/PET, VIC 20, or Commodore 64 computer. In this chapter, we'll show you what's available and how to get and use this excellent FREE software.

You are going to encounter some strange new words in this chapter, words you've never heard before. Some of the text *may* look "technical". Don't panic! You are an explorer entering a new world, a world filled with exciting, educational, and rewarding experiences. All those "technical" sounding words will become second nature after you've made your first calls from your computer terminal.

## *The PUNTER BBS Network*

Three years ago, Steve Punter (the creator of the WordPro word processing program) developed Bulletin Board software for the PET/CBM computers.

He initially introduced two products: Base station software and terminal software. Both of these software packages have evolved over the years, and free, public domain *terminal* software is now also available for your VIC-20 and Commodore 64 computers.

Currently, the base station software works only with the PET/CBM. However, recent developments point to the introduction of base station software for the Commodore 64. The base station software is

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\*"Smart" terminal software lets you up- and down-load programs and text to and from other computers.

not in the public domain. Read the “How to Start Your own BBS” section for more details.

### *25 Punter BBS's*

There are now twenty-five Punter BBS's located throughout the United States and Canada that you can access using the Punter public domain software. The phone numbers of these BBS's are listed at the end of this chapter.

To help smooth your way, we've included complete operating instructions for the *Punter* series of Terminal Software packages. Plus, we take you on a guided tour through a typical Punter BBS.

Read these sections to familiarize yourself with the Punter BBS system. Then use the terminal software instructions *with the program up-and-running on your computer*.

We've found that “diving right in” is the best way to get comfortable with this new way of communicating. Don't worry about making mistakes while you're on-line with another computer. IT'S ONLY A MACHINE! You can't hurt it...and it can't hurt you!

### *Available Public Domain Terminal Software*

Three versions of Punter's terminal software, all on disk, are now in the public domain and can be yours for free, or for a nominal copying fee.

**IMPORTANT:** The standard versions of the Punter software will only allow up and downloading to or from a Punter BBS. These versions will not allow up or downloading with any other BBS or commercial system.

### *Error Free Reception*

When you up or download programs or text using the Punter series of terminal software you are virtually guaranteed error free reception.

A system called “check-sum protocol” is built into the software that checks for transmission errors.

### *TERMINAL.V13TJ for PET/CBM Computers*

TERMINAL.V13TJ is the latest version of the Punter terminal software. It is a result of work done by Steve Punter (the original author), Bob Fairbairn (machine language modifications), and Keith Peterson (basic language modifications). If you own either a PET or CBM computer, this is the package you want.

TERMINAL.V13TJ is a highly evolved product that offers sophisticated features not yet incorporated into the VIC-20 or Commodore 64 versions.

He initially introduced two products: Base station software and terminal software. Both of these software packages have evolved over the years, and free, public domain *terminal* software is now also available for your VIC-20 and Commodore 64 computers.

### *TERMINAL.V13TJ features*

1. General computer communications: Turns your computer into a telecommunications terminal allowing you to call *any* bulletin board or commercial service to scan its contents and leave or retrieve messages.
2. Uploading: Enables you to upload programs, sequential files, or WordPro files to any Punter BBS.
3. Downloading: Enables you to download programs, sequential files, or WordPro files from any Punter BBS.
4. Auto Dial: Store frequently called phone numbers and, at the press of a button, your computer will automatically dial out for you.
5. Screen Dump to Disk: Allows you to capture the information presented on your screen and save it to a disk as a sequential file.

6. Print a disk file: Allows you to print out sequential files that you have saved to disk.

### *TERMINAL.VIC for the VIC-20 Computer*

TERMINAL.VIC is a version of TERMINAL.V13TJ that has been modified for use with your VIC-20 computer and disk drive.

This is a new product and still contains some bugs. Even though the "Screen Dump" and "Print from Disk" prompts can appear on your computer's screen, these features are still being worked on.

### *TERMINAL.VIC Features*

1. General Computer Communications
2. Uploading only to a Punter BBS
3. Downloading only to a Punter BBS

### *TERMINAL.64 for the Commodore 64*

TERMINAL.64 is also a version of TERMINAL.V13TJ that has been modified for use with your Commodore 64 computer and disk drive.

It has the same limitations and features as TERMINAL.VIC above.

### *UP AND DOWNLOAD TO ANY BBS OR SERVICE WITH TERM.OTTCBM, TERM.OTTVIC, & TERM.OTT64*

Tony Ott, System Operator (SYSOP) of the *Commodore Communications* BBS in St. Louis, Missouri has modified all three versions of Punter's Terminal software.

### *TERM.OTTCBM*

In addition to the features provided in TERMINAL.V13TJ listed above, TERM.OTTCBM allows you to up and download to *any* BBS or commercial system such as CompuServe.

The TERM.OTTCBM software also includes a text editor that lets you compose your message before you go on line with a BBS or commercial service. This feature, usually found in the best commercial terminal software, saves you precious on-line time.

An Auto-LOG-ON feature is also included in the TERM.OTTCBM software. Your access code or I.D. number and password are stored on the terminal software. When you log-on, you press a button and the terminal software transmits this information automatically. This feature speeds up your log-on procedure, and insures that you transmit the correct information. Because different BBS's or commercial services require different access codes, the TERM.OTTCBM software allows you to store a number of these codes.

### *TERM.OTTVIC & TERM.OTT64*

These software packages are enhanced versions of TERMINAL.VIC and TERMINAL.64. They both include the ability for up and downloading to *any* BBS or commercial system.

## **How To Get This Great Free Software**

### *TERM.OTTCBM, TERM.OTTVIC, & TERM.OTT64*

These three terminal software programs are only available from their writer, Tony Ott. Tony strongly feels that, "the public domain communications sector should remain free and open to the public. It should not become a profit-making affair." In keeping with this philosophy, Tony will send you a FREE copy of all three programs provided you:

1. Mail him a formatted blank disk.
2. Include a return addresssed and stamped disk-mailer.

Write to:

Mr. Tony Ott  
10378 Coburg Lands  
St. Louis, MO 63137

## *TERMINAL.VI3TJ, TERMINAL.VIC & TERMINAL.64*

These three terminal programs can be found in most user group public domain libraries. Look at the list of Users' Groups in this book, find the one closest to you and call, write, or stop in at their next meeting.

If your local Commodore Users' Groups doesn't have terminal software in their library, the most up-to-date versions are available by mail from:

1. Toronto PET Users' Groups Inc.  
1912A Avenue Rd., Suite 1  
Toronto, Ontario M5M 4A1

See the TPUG mini-profile in the Users' Group section of this book for information on TPUG's extensive software library, ordering facts, and membership requirements.

TPUG's list of terminal software also includes software on cassette.

2. C.U.S.S.H.  
3614 Sovereign Drive  
Racine, WI 53406

Send a blank formatted disk, return addressed envelope, and postage. Request the "Terminal" software package.

3. Central Illinois PET User Group  
635 Maple  
Mt. Zion, IL 62549

Write this group and ask for information about their public domain terminal software. They have an extensive library and will help you get the terminal program for your needs.

### *Call a Punter BBS*

We've provided a list of Punter BBS's at the end of this section. Just call the BBS closest to you using your VICTERM or TERM64 software and leave a message for the SYSOP. He or she will help you get this great free terminal software.

## Let's Get Some Free Software

Now you have everything you need to begin your adventure in computer communications: a Commodore computer, a modem, and your copy of the Punter Terminal software.

### *USING PUNTER TERMINAL SOFTWARE*

These instructions are written for the full-feature `TERMINAL.V13TJ` terminal program.

The operation of both the `TERMINAL.VIC` and `TERMINAL.64` programs are identical to the `TERMINAL.V13TJ`. However, only three functions, Terminal Mode, Uploading, and Downloading, are currently available. These are the most important functions.

These two new programs are constantly being updated, improved, and modified. It is anticipated that VIC-20 and Commodore 64 owners will soon have full-function versions of this software.

### *Getting Started*

Before you can get started, format a blank disk so you'll be ready to use it to save your downloaded programs.

#### *Step 1*

Turn on your disk drive, modem, and TV or monitor. (If you are using a PET/CBM, turn on the computer before the disk drive.)

#### *Step 2*

Turn on your Commodore computer (if you are using a VIC-20 or Commodore 64).

#### *Step 3*

Insert your terminal program disk into your disk drive.

#### *Step 4*

Type: LOAD“TERMINAL.V13TJ”,8[RETURN]

VIC-20 Computer: Insert “TERMINAL.VIC” between quotes.

Commodore 64 Computer: Insert “TERMINAL.64” between quotes.

#### *Step 5*

After your disk drive stops whirring the word READY will appear on your screen. Your terminal program is loaded and ready to go.

Type: RUN [RETURN]

#### *Step 6*

The “Main Function Menu” will appear on your screen:

1. Terminal Mode
2. Receive A Program
3. Transmit A Program
4. Open A Disk File
5. Print A Disk File
6. Change System's Operating Parameters
7. Automatic-Dialing Menu
8. Exit Terminal Program

To select an option from the menu just type the number to the left of the description and press RETURN.

ONLY OPTIONS 1, 2, 3, and 8 are available to VIC-20 and Commodore 64 users.



*What each option does*

*(Option #1)*

*TERMINAL MODE*

The Terminal Mode option engages the modem and gets you started.

*Your computer is now a computer communications terminal! You are ready to access all the FREE software and services available to you!*

*IMPORTANT: Review the BBS section prior to calling a BBS.*

Call one of the Punter BBS's listed at the end of this chapter. If you are using an acoustic modem you'll hear a tone when contact is established. Place the headset of the phone into the modem cups and you're ready to start communicating.

If you've got a direct-connect modem the carrier light will come on when you've made contact.

If your screen remains blank after you think that contact has been made, press RETURN a few times...that usually gets the BBS's attention!

*(Option #2)*

*RECEIVE A PROGRAM*

This is the option you'll use to download a program.

After you've established contact with a BBS *and you are ready to download a program* this BBS prompt will appear on your screen:

```
*****  
Command >  
*****
```

Respond to this prompt by typing: LOAD [RETURN]

You will now be asked:

```
*****  
The Program Access Code?  
*****
```

The BBS is asking you if you have the proper terminal program for downloading from this BBS. If you are using one of the Punter terminal programs you're doing fine.

The universal Program Access Code for public Bulletin Board Systems that use Steve Punter's software is:

```
*****  
EEZOO  
*****
```

After you enter this Access Code and hit RETURN, the BBS will prompt with:

```
*****  
Name of Program?  
*****
```

Enter the name of the program you'd like to download and hit RETURN.

(How do I know the name of the program? It's easy, the BBS will list all its available software at the press of a button. It's all in the "Bulletin Board" section of this chapter.)

When you enter the name of the desired program, don't worry about capitalization, this will be done automatically for you by the BBS.

If you change your mind, and decide not to download a specific program you can cancel out of the downloading routine by hitting the RETURN key without entering any program name.

If the program name you've entered can't be found, the following message will appear on your screen:

```
*****  
Not Found  
*****
```

In this case, "Name of Program?" will appear on your screen and you can try your luck again.

Some programs on the BBS are secured, and only available for downloading to people with the correct security code.

If the program is SECURED, you will now be asked:

```
*****  
Security Code?  
*****
```

If you enter an incorrect Security Code you will be returned to the BBS "Command >" prompt.

Now that you have gotten this far, the actual downloading takes place.

First you will be shown the approximate time that it will take the BBS to transmit the program to you:

```
*****  
Estimated Transmission  
Time = 2.5 Minutes  
*****
```

There will be a short delay while the program file on the BBS is loaded, then the following will be printed:

```
*****  
Waiting for START Signal  
(or 'A' for ABORT)  
*****
```

*This is an IMPORTANT Sequence!  
Follow these step-by-step Instructions.*

1. Press the CLR/HOME key and you will be returned to the Main Function Menu.
2. Select the RECEIVE A PROGRAM option by pressing: 2 [RETURN]
3. You will now be asked to assign a name to the program you've selected.

```
*****  
Name of File?  
Default drive is #0  
*****
```

If you'd like to save your program on drive #0, simply enter the program's name and press RETURN.

If you want to save your program to another drive enter the drive number followed by a colon and the program name like this:

```
1:Program File Name [RETURN]
```

In this example your program will be saved on disk drive #1.

A word of caution. If the name you choose already exists on your disk, it will be replaced by the incoming material, so be careful!

4. A file will now be opened on your disk and the downloading will begin.

The program is transmitted in 254 byte sections. If a section is received badly, the BBS will automatically send it again.

During the download process a “—” will appear on your screen every time a good block is received. “:” will appear for bad blocks. In the event that a block can't be successfully sent after 5 tries, the downloading attempt will automatically disengage and the following

message will be displayed:

```
*****  
Over 5 Tries For A Single Block!  
*****
```

After the download is successfully completed you will be returned to the BBS and “Command >” will appear asking for your next command.

*(Option #3)*  
*TRANSMIT A PROGRAM*

You’ll use this option to upload one of your programs, a WordPro file, or text file (sequential file) to a BBS.

Your file should be on a disk in your disk drive before you begin the uploading sequence.

At the BBS prompt:

```
*****  
Command >  
*****
```

type in: SAVE [RETURN]

You will now be asked:

```
*****  
The Program Access Code?  
*****
```

The BBS is asking you if you are using the proper terminal program for uploading to this BBS. If you are using one of the Punter Terminal programs you’re doing fine.

The universal Program Access Code for Public Bulletin Board Systems

using Steve Punter's software is:

```
*****  
EEZOO  
*****
```

After you enter this Access Code and hit RETURN, the BBS will prompt with:

```
*****  
Name of Program?  
*****
```

Enter the name of the program as you would like it to appear on the BBS's program directory.

When you enter the name of the program, don't worry about capitalizing, as this will be done automatically for you by the BBS.

If you change your mind, and decide not to upload your program, you can cancel out of the upload routine by hitting the RETURN key before entering the program's name.

If the program name you've entered already exists in the BBS file, the following message will appear on your screen:

```
*****  
Program Name Already Exists  
*****
```

In this case, "Name of Program?" will appear on your screen and you can try again using another program name.

Next, the BBS will prompt with:

```
*****  
Security Code? or [RETURN] for  
General Distribution >  
*****
```

If you'd like to donate your program to the public domain, for general distribution, hit RETURN.

If you would like to secure your program, and make it accessible only to people who know your security code, enter up to 6 characters (no commas, colons, or semi-colons are permitted) and hit RETURN.

You can also enter an exclamation point “!” followed by a User's full name. The BBS will then use that particular User's Access Code as the Security Code. This way you can send a secured file to another User without having to relay the Security Code.

Once past this point you will be asked:

```
*****  
Deletion Code  
*****
```

Up to 6 characters can be accepted for the Deletion Code.

This code will be used to allow ONLY YOU to remove your program from the system.

If you just hit the RETURN key without entering a Deletion Code, only the SYSOP will be able to remove your program.

After a short delay, while the BBS is taking care of some record keeping, the following will appear:

```
*****  
Waiting for START Signal  
(or 'A' for ABORT)  
*****
```

*This is an IMPORTANT Sequence!  
Follow these step-by-step Instructions.*

1. Press the CLR/HOME key and you will be returned to the Main Function Menu.
2. Select the TRANSMIT A PROGRAM option by pressing: 3 [RETURN]

3. You will now be asked to enter the name of the program file on your disk that you want to send:

```
*****  
Name of File to Send?  
*****
```

4. Enter the name of your program file exactly as it appears on YOUR disk and hit [RETURN].

5. The next question the BBS will ask is:

```
*****  
Type of File:  
(P)rogram, (W)ordPro, or (S)eq?  
*****
```

6. Press the appropriate letter. The BBS will set itself up for proper reception based on your response, and the transfer will begin.

Your program is transmitted in 254 byte sections. If a section is received badly at the BBS, the BBS will request that your computer send it again.

During the uploading process a “—” will appear on your screen every time a good block of information is received by the BBS. “:” will appear for bad blocks. In the event that a block can’t successfully be sent after 5 tries, the uploading attempt will automatically disengage and the following message will be displayed:

```
*****  
Over 5 Tries For A Single Block!  
*****
```

After the upload is successfully completed you will be returned to the BBS, and “COMMAND >” will appear on your screen asking for your next command.

*(Option #4)*  
*OPEN A DISK FILE*

This option opens a file on your disk and allows you to save everything that you see on your screen to your disk file.



After you press: 4 [RETURN] you will be asked to enter a file name. After you select a file name and hit RETURN a file with that name will be opened on disk #0. If you want to open your file on another disk drive, precede the file name with the disk number and a colon like this:

*1:file name*

In this example, a file will be opened on the diskette in disk drive #1.

After your file is opened you will be returned to the terminal mode of operation. (Press: 1 [RETURN] if the program does not return automatically to terminal mode.)

When you are in contact with the BBS and are ready to save screen information to your disk:

- Press the CURSOR DOWN key to SAVE screen information.
- Press the CURSOR UP key to turn off this feature.
- Hit the HOME Key to close your file.

*(Option #5)*

#### *PRINT A DISK FILE*

This option allows you to print the data you've saved on disk, sending it to your printer in either ASCII or CBM code.

Press: 5 [RETURN], then enter the correct file name, press RETURN again and your file will be printed out.

*(Option #6)*

#### *CHANGE PROGRAM'S OPERATING PARAMETERS*

This option allows you to turn ON or OFF automatic line feeds, and select between MARK, EVEN or ODD parity while you are in contact with the BBS.

*(Option #7)*

#### *AUTOMATIC-DIALING MENU*

This software will work with the Hayes Smartmodem and TNW-103 modem and will support the automatic-dialing capabilities of these two units.

After you press "7" and RETURN, a numbered phone menu will appear on your screen. Just press the number to the left of the phone

entry and the software will automatically dial the number for you.

The program has several phone numbers already built in, including *all of the currently known and working Commodore BBS numbers operating in North America.*

You can also add numbers of your own to the software. The special phone operations are listed in lines 9500 to 10000 of the program. You can LIST the program, enter or delete phone numbers, then reSAVE it to disk. (Some of the phone numbers included in the software are preceded with area codes or "1"'s. You may also want to add or remove these.)

### *CONTROL KEYS*

**OFF/RVS:** This key has been designated as the CONTROL Key. Press the OFF/RVS key followed by any letter from A to Z. When you use this feature you must *release* the OFF/RVS key *before* typing in the control character. Press the OFF/RVS key, then release it, then press the desired control character.

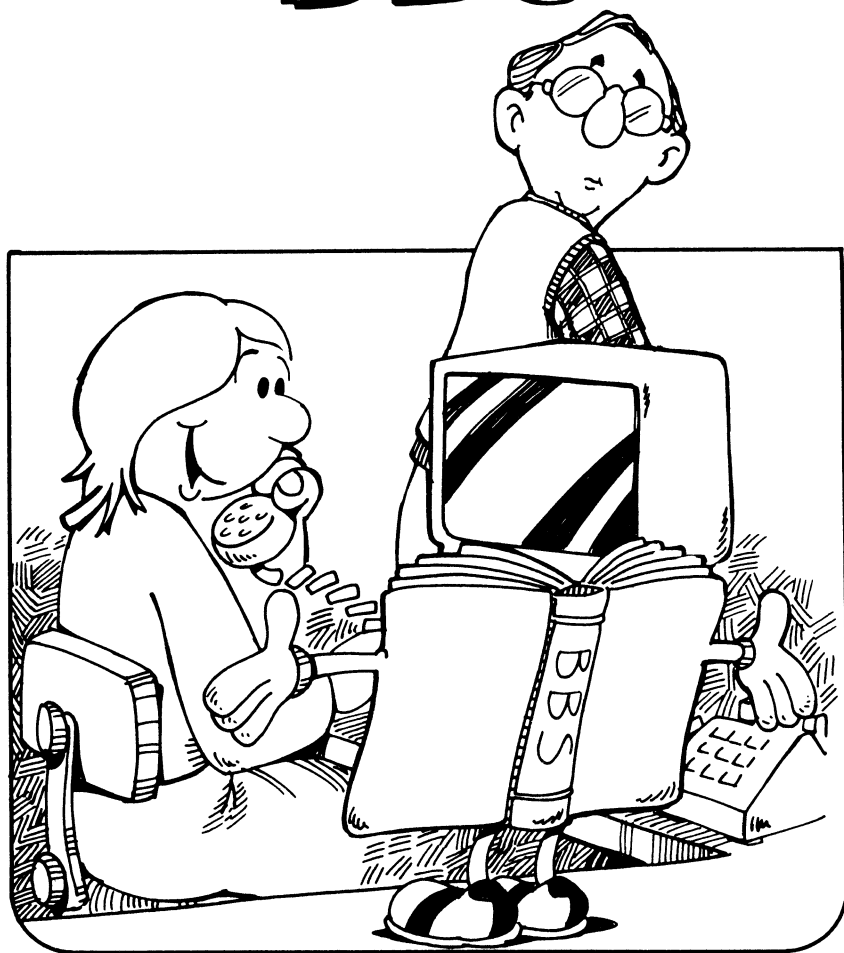
**HOME:** Press the HOME key while in the Terminal Mode and you will be returned to the Main Menu. You will not be disconnected. Just press Option 1 to reenter the Terminal Mode.

You are now well prepared to use one of the best FREE Terminal Software packages available. Remember, if you ever need help it's as close to you as your telephone. Just call up the System Operator at a nearby BBS and chat via modem, or leave a message on the BBS's message board.

We've found that the people who use and operate the FREE BBS systems are ready and willing to give a hand to a newcomer. (We've gotten plenty of help.) Don't be shy...get on line today and start experiencing this exciting new communications medium.

*Have fun with  
your new FREE Software!*

# YOUR FRIENDLY BBS





# YOUR FRIENDLY BBS

## *Commodore Bulletin Boards*

A number of Bulletin Board Services cater specifically to the Commodore computer owner. They can provide you with FREE Commodore public domain software, message centers, and helpful Commodore-related tips and information. In this chapter, we'll take an in-depth look at the Punter Bulletin Board. Using your Punter Terminal software, you'll learn how to get in touch with these BBS's and how to get the most out of each contact. We also provide you with a Commodore BBS Telephone Directory so you can call these BBS's today!

We'll also introduce you to some FREE and interesting recreational services that are waiting for your call.

## *More Bulletin Boards*

There are more than 500 *other* Bulletin Board Services located throughout North America that you can contact using the software provided FREE with your VICMODEM or AUTOMODEM, or with your Punter Terminal software.

Even though many of these BBS's are designed to operate with other computers (Apple, Atari, TRS-80, etc.), you can still get on-line with them to leave a message, chat with the System Operator (SYSOP) or review the latest computer news and events.

To help you explore this fascinating world, we've included a directory of these Bulletin Boards. Call them up and take advantage of the services they have to offer . . . it will expand your horizons. You might discover that some of these BBS's have special Commodore download sections . . . we did!

## *You've Made Contact!*

You've just made your first contact with a BBS. Your heart beats faster, your fingers poise over your computer's keyboard ready to

respond to any question that might appear on the screen. You want to call in friends and family to show them this marvel of communications, but a cold sweat breaks out on your forehead as you are asked to supply a “6 character USER CODE”. “What’s the right answer? What’s a ‘User Code’ anyhow?”

Your first contact with a BBS can be exciting instead of traumatic. We’ve done it before and we’ll help guide you through your first BBS experience.

### *DIFFERENT BULLETIN BOARDS HAVE A LOT IN COMMON*

First, you should know that most BBS’s ask the same kinds of questions at sign-on, and accept the same types of commands when you’re past the sign-on stage. This makes it easy for you to call up and “talk” to virtually any type of BBS.

We’ll show you how to sign-on to a Punter BBS, share a few helpful hints, then list the Punter BBS commands and explain each command’s function. Then you can make your first contact with confidence!

#### *Calling a Punter BBS*

#### *SIGNING ON*

After you “dial” a BBS using an acoustic modem, you will hear a few rings followed by a steady tone, or an indicator light will glow if you are using a direct-connect modem. You’ve got ‘em! If you are using an acoustic modem, plug your handset into the two rubber cups. If you have a direct-connect modem, communications will begin automatically, or at the flip of a switch.

#### *HELPFUL HINT 1*

**If your screen remains blank after you think that contact has been made, press ENTER a few times. That usually gets the BBS’s attention!**

Now that you've got the BBS's attention it will start bossing you around. The first thing that most BBS's (Punter BBS's included) will tell you to do is: PRESS RETURN. After you've done that, the BBS will probably begin its transmission with an informative introductory message.

The *COMMODORE COMMUNICATIONS* BBS in St. Louis, Missouri, begins its transmission by pointing out that "regardless of what you have read, heard from a vendor, and so on, YOU will not be able to UP or DOWN-LOAD a thing on this system unless you are using a Punter variety terminal program."

The bulletin goes on to tell you how to get the Punter terminal program FREE OF CHARGE.

After the BBS finishes its pitch, it will print your log-on time.

#### *WHAT'S YOUR NAME?*

If you know your name, this part is really easy! The BBS will ask for your name, then the City and State you are calling from. Answer these questions and your screen will say: "Standby, One Moment Please. . . ." So, standby a minute!

#### *WHAT'S THIS USER CODE STUFF?*

If you are using a Punter BBS for the first time, you will be asked for your USER CODE. Don't panic! The Punter Bulletin Boards want their users to have User Codes to keep out the "riff-raff". Since you're not riff-raff *you qualify for a User Code*. Getting one is very simple and straightforward.

You'll be asked to enter a 6 character code. My User Code is the first six letters of my wife's name: DOROTH. Every time you call this BBS, type your User Code to get into its system. If you use a different User Code for each BBS that requires one, things could become a bit confusing, so don't forget to write it down next to the BBS's phone number. It's like remembering your Secret Code for your friendly ATM (Automated Teller Machine) at the bank. Use something simple.

## *YOU'RE NOW INSIDE THE BBS!*

You've made it! You've seen the BBS's grand opening show, "logged-on", and are ready to start using all the FREE services this BBS has to offer.

We called the COMMODORE COMMUNICATIONS BBS (314-867-6950), as first time users and were treated to a complete description of this system.

We've reprinted an edited version of this information below, so you can familiarize yourself with a Punter BBS *before* you call one up. Reviewing this material will help you make your first contact with confidence.

### *A TOUR THROUGH A PUNTER BBS*

(Transcribed from a contact with  
the Commodore Communications BBS)

=====  
**FIRST TIME/NEW USERS**  
=====

If this is your first time on the system, enter 'B' at the 'Command >' prompt to get into the 'Bulletin Board' area of this system.

Once in the 'Bulletin Board' area of the system, enter 'FIRST' at the 'Sub Command >' prompt to get introductory information and learn about the system.

Command >**B** (*We entered 'B' at this prompt.*)

Enter the desired Sub Command or 'H' to obtain a summary of the Sections available in this area of the system.



=====

BULLETIN BOARD

=====

**\*\*SECTION SUMMARY\*\***

Enter	Section Description	Last Up-Dated
H	- Reprint This List	- 06/26/83
NEWS	- News	- 12/25/82
COL	- Columns By Users	- 08/25/82
ADV	- Advice From 'Pros'	- 08/25/82
REV	- Reviews	- 08/25/82
REF	- References	- INACTIVE
PHO	- BBS Telephone #s	- 06/26/83
USE	- User Groups	- 05/20/83
DEAL	- Retail Dealers	- INACTIVE
VEN	- Vendors	- INACTIVE
MES	- Msg Enterint Instr	- 08/25/82
U&D	- Up&Down Load Instr-	01/20/83
LIB	- Program Library	- INACTIVE
OB	- Opening Bulletin	- 11/19/82
FIRST	- New User Info	- 01/20/83
EXP	- Commands Explained-	INACTIVE
SYS	- BBS Configuration	- 01/20/83
RES	- Membership Area	- 08/25/82
INDEX	- Master Index	- INACTIVE

Choose and enter one of the above Sections or hit 'Return' at the 'Sub Command >' prompt to exit the 'Bulletin Board' area of the system!

Sub-Command > **FIRST** (*We entered FIRST at this prompt to get new user information.*)

=====

## BULLETIN BOARD

-----

**\*\*FIRST TIME/NEW USER\*\***  
**INTRODUCTORY INFORMATION**

=====

Type 'S' anytime to stop this listing. Once stopped, use 'S' to start again, or 'A' to abort routine.

### *USER ACCESS CODE*

When you logged-on to the system you were asked for a 6-character "User Access Code". What you used is not important. Just REMEMBER it and use the same code every time, or the system won't let you in. This keeps others from logging-on with your name.

### *OPENING LOG-ON GREETING*

For those users who wish to get around the opening log-on greeting, which might get rather time-consuming for frequent users, use 'S' to stop the listing, then once stopped, use 'A' to abort. This sequence will also take you around all the things you might not want to waste time seeing again.

### *PLAN OF ACTION*

With this system we plan to offer several new community services for the Commodore line of computer users, especially those living in the St. Louis Metro Area, namely:

1. A general message service.
2. An information and reference system.
3. Public Domain programs available for up and downloading.
4. A reserved membership area for special activities and projects.

Expressed another way, with this system we will strive to always provide a method of sharing up-to-date and comprehensive information, reference material, applications, tidbits, and programs RELATING SPECIFICALLY TO THE COMMODORE LINE OF COMPUTERS, between the many owners, users, vendors, distributors, user groups, retail dealers, and the folks at Commodore.

For more details on how you can make the most of this system, leave a message to the System Operator, commonly referred to as the SYSOP. Don't forget to include your phone number.

Once again, welcome to the system.

\*\*\*\*\*  
OVERVIEW OF SYSTEM  
\*\*\*\*\*

This BBS is divided into the following three main areas:

1. MESSAGES
2. BULLETIN BOARD
3. PROGRAMS

*MESSAGE AREA*

The MESSAGE AREA allows callers to communicate with the SYSOP as well as with each other.

A message may be entered by anyone and may be left for anyone who is listed on the system.

The command to enter a message on this BBS is 'E'. Refer to the Bulletin Board area of this system for instructions on how to enter a message.

*BULLETIN BOARD AREA*

The BULLETIN BOARD AREA of the system (you are in the

BULLETIN BOARD AREA of the system now) is entered by typing a 'B' at the 'Command >' prompt.

While you are in the 'Bulletin Board' area you may read any of the bulletins by entering the appropriate command and then pressing RETURN.

You may enter 'H' for a detailed listing of all available sections.

You may also enter 'INDEX' for a detailed listing of all available Bulletins.

To exit the 'Bulletin Board' area just press RETURN without entering any characters.

### *PROGRAM AREA*

You paid hundreds, or even thousands, of dollars for your Commodore computer.

By now it may be dawning on you that a computer, regardless of its cost, is useless without software.

You need programs to make your computer go. But, how do you get good programs for your system?

Do you pay tons of money buying just a few simple programs?

Do you spend hours and hours trying to write the programs you need?

There is a better way to get the software you want. From the **DOWNLOAD AREA OF THIS SYSTEM!**

The PROGRAM AREA contains programs that are available, **FREE OF CHARGE**, for downloading. Naturally, programs may also be uploaded to this system.

Hopefully, this system will eventually (**REMEMBER, WE SAID EVENTUALLY**) be your complete 'Reference Guide' to the

thousands upon thousands of published public domain programs . . . all available FREE OF CHARGE . . . for use on your Commodore computer.

The programs currently available for downloading may be seen by entering the 'LIST' command. However, the programs with an (\*) beside their names are restricted to persons with a special security code.

You can get most of the information needed for this area of the system by reading the "Instructions for Up-Loading and Down-Loading Programs on This BBS", available in this Bulletin Board Area.

### *IF YOU EVER GET STUCK*

If you ever get stuck in any portion of the system, you can generally hit RETURN to get un-stuck and return to the main 'Command >' prompt. In fact, whenever things don't seem to be working, a RETURN or two will often bring things back to recognizable shape.

### *YES/NO ANSWERS*

For any question that requires a YES/NO answer, remember that simply hitting RETURN without entering anything else will answer "YES".

### *SIGNING-OFF THE SYSTEM*

Finally, since this system is presently using an 8050 Disk Drive, we are extremely hampered for accessible disk space. When you sign-off please delete all the messages that were sent to you.

This is easily done by answering 'Y' to the final question: "Delete YOUR old messages?" as you sign-off.

End Transcript

-----

## PUNTER BBS COMMANDS

Commands on most bulletin boards are either single letters or short words. These letters and short words represent the keys you press to communicate with the BBS.

For example, if you press the letter ‘E’ while talking to a Punter BBS, you will be allowed to Enter a message on their message board. Pressing the letter ‘B’ will take you to the Bulletin Section.

Here’s what entering commands will do on a typical Punter BBS:

<b>Command</b>	<b>Description</b>
=====	
HELP	- REPRINT This List
A	- READ ALL Messages
B	- BULLETIN Section
BO	- Change ‘BELL’ Mode
BYE	- Goodbye or Log-Off System
CHAT	- Page SYSOP to CHAT
CONT	- Change ‘CONTINUOUS’ Mode
*DM	- Delete a MESSAGE
DP	- Delete a PROGRAM
DUP	- Change ‘ECHOPLEX’ Mode
E	- ENTER a Message
EXP	- Change ‘EXPERT’ Mode
#F	- FORWARD Message Reading
FROM	- List Messages FROM A USER
G	- Goodbye or Log-Off System
GO	- Goodbye or Log-Off System
LF	- Change ‘LINE FEED’ Mode
LIST	- Programs for DOWNLOADING
LOAD	- DOWNLOAD a Program from BBS
*MINE	- List Messages YOU SENT
NEW	- READ NEW Messages
NEXT	- CONTINUE READ Function
*O	- OVERVIEW of Messages
OFF	- Goodbye or Log-Off System

Q	- Goodbye or Log-Off System
QUIT	- Goodbye or Log-Off System
R	- RECALL A SPECIFIC Message
#R	- REVERSE Message Reading
*RALL	- READ Messages SENT TO ALL
READ	- READY ONLY YOUR Messages
*S	- SUMMARY of Messages
SAVE	- UPLOAD a Program to BBS
STAT	- LOAD/SAVE Status Variable
TIME	- Change 'CONNECT TIME' Mode
*TO	- List Message RECIPIENTS
*TOME	- List Messages SENT TO YOU
U	- List USER'S OF SYSTEM

All commands with a '#' next to them are *always* followed by either a MESSAGE NUMBER or a REFERENCE NUMBER. When a REFERENCE NUMBER is used, the command is separated by a hyphen symbol like this: "S-4500".

Commands with a "\*" next to them *can* accept a MESSAGE or REFERENCE NUMBER. But, this is *OPTIONAL*.

### *ENTERING PARAMETERS*

Here's how REFERENCE and MESSAGE NUMBERS are added to the basic command. We'll use the 'S' Command in this example.

NO parameter	S
MESSAGE Number	S55
REFERENCE Number	S-4500

When you enter a REFERENCE number and there is no EXACT match to the one you've specified, the BBS will advise you of the mismatch by printing: "NO REFERENCE # AVAILABLE!"

The goin' is easy once you're in contact with a BBS. If you're ever in trouble, just type "?" or "H" to review the operating instructions. If that doesn't help, type "CHAT" or "C" and chat with the System Operator.

Instructions for downloading and uploading, and complete instructions for using your Terminal software are found on most BBS's. As we said before, "Dive in!" Get on-line today and start communicating!

*SO, WHERE'S ALL THAT FREE SOFTWARE?*

To find out about the program section of the Punter BBS enter "U&D". You'll be presented with this menu, and it should answer all your questions!

*INSTRUCTIONS\*\*  
FOR  
UP-LOADING AND DOWN-LOADING PROGRAMS  
ON THIS BBS*

<b>Enter</b>	<b>Category Description</b>	<b>Last Up-Dated</b>
U&D1	- What You Need: The Requirements	11/19/82
U&D2	- The User Port To RS232 'Intelcom Cable'	11/19/82
U&D3	- Up-Dating Your Current Terminal Program	11/19/82
U&D4	- Modifying Your Current Terminal Program	01/20/83
U&D5	- Instructions For Using The BBS ***CBM/PET*** Terminal Program (TERMINAL.V13TJ)	11/19/82
U&D6	- Instructions For Using The BBS ***VIC-20*** Terminal Program (TERMINAL.VIC)	INACTIVE
U&D7	- Up-Load/Down-Load Protocol	01/20/83
U&D8	- Terminal Program 'Fix' For RS-232 Users With 3.0 Basic Or Up-Grade ROMS	01/20/83



Choose and enter one of the above Categories or enter 'H' at the 'Sub Command >' prompt to return to the main 'Bulletin Board' Menu.

### *The Download File*

When you're in contact with a Punter BBS, just enter the command "LIST" to see all the software that's available for downloading.

We've printed a list of more than one hundred programs available from just one Punter BBS in the "Read Before Dialing" section of this chapter. This is typical of the many BBS's waiting for your call. So, what are you waiting for? *PICK UP THAT PHONE!*

*Pick up your phone now!  
Leave a message on a BBS  
and  
Download FREE software.*



# HOW TO START YOUR OWN BBS

*Based on interviews with:  
Tim Tremmel, Tony Ott and Steve Punter*

Tim Tremmel and Tony Ott are both excited about computer telecommunications. So much so, that today they operate two of the most active Punter-type BBS base stations in the United States.

Steve Punter started it all when he developed and introduced his widely used *Punter BBS* software.

Because of Steve's creative programming, and the dedication of people like Tim and Tony, owners of PET/CBM, Commodore 64, and VIC-20 computers can now access one of the best FREE bulletin board systems available in the world.

*“Why did you start your BBS?”*

We put this question to Tim Tremmel who operates the local club's C.U.S.S.H. Punter BBS in Racine, Wisconsin. Tim told us that, “telecommunications first caught my interest about three years ago. *It was something I could do with my computer that didn't require lots of software or hardware knowledge.*”

Tim called a number of BBS SYSOPS (system operators) trying to locate a decent BBS software package. “Three years ago there wasn't any good base station software available.” Tim had almost given up hope when Steve Punter started selling his software. “I jumped on it!”

“There were no Bulletin Boards in Racine, everything was long distance.” This was Tim's opportunity to get involved.

When he first went “on the air”, all the callers owned PET computers. At that time his BBS and Users' Group was called S.E.W.P.U.G. (S.E. Wisconsin PET Users' Group). Now, with the introduction and wide use of the Commodore 64 and VIC-20 “it was decided that a

name change was in order...C.U.S.S.H. is the acronym for Commodore Users of Systems, Software and Hardware.”

*“What services does your BBS provide?”*

Tim answered this by saying, “the SYSOP provides the BBS service and sets up the rules by which it will be operated. In general, he or she watches over things. A SYSOP might also provide bulletins for users to read, and sometimes supply public domain programs for downloading. But, because the system is free a SYSOP can’t provide everything.”

“A BBS is basically a message system (Bulletin Board). The bulletin and download section is secondary. Most SYSOP’s really appreciate users who upload bulletins or programs for use on the system. *A BBS is made up of its users.*”

*Users are the Key*

“Users are the key to a successful BBS. If the users don’t contribute to its use, it’s nothing. By this I don’t mean just calling up to read and download...a user must participate. If everyone just called to read messages and download programs the BBS would atrophy.”

*The BBS helps others*

Tim feels that operating the C.U.S.S.H. BBS “is a chance to help others.” He derives a lot of pleasure from his telecommunications pioneering and is always ready to lend a hand to a beginner or talk shop with an old pro.

*What hardware & software is needed?*

Here’s what you’ll need to start your own Punter BBS:

### *1. SOFTWARE*

The current version of the Punter BBS software (Version 2.04) is available from Steve Punter, president of Professional Software, Inc.,

for \$200 Canadian or \$167 U.S. We spoke to Steve (the creator of the WordPro word processing program) and he asked that interested parties contact him by phone, rather than by mail. You can reach him during the week between 10 a.m. and 6 p.m. EST at 416-624-5431. This phone number doubles for his BBS number in the evenings.

A forty-three page instruction manual accompanies the software, and owners of Punter software are eligible for updated versions at a nominal cost. Registered owners send \$10 and a blank disk to Steve and he loads it and mails back the latest edition.

### *New Software Developments*

Steve is currently working on:

- A version of his BBS software that will work with newer model modems.
- Commodore 64 base station software. This version will not work with the 1541 disk drive. An IEEE interface and 4040 disk drive will be required.

Both of these new software packages are planned for release prior to the end of 1983. Check Steve's BBS for details. [(416) 624-5431, Mon.-Fri. 7 p.m. to 9 a.m.]

## *2. HARDWARE*

- A. 32K CBM Computer. (8032 or 2001 series CBM/PET)
- B. CBM 4040 or CBM 8050 disk drive.
- C. IEEE modem.

### *CBM-8010 and Livermore Star Modems*

Although neither of these two modems is currently being manufactured, the Punter software is designed to work with them. If you can locate either of these two models you'll have to add a simple auto-

answer device. A schematic is included in the instruction booklet and the parts are readily available for less than fifty dollars.

### *TNW-103 Modem*

You can get a version of the Punter BBS software that will work with the TNW model 103 direct connect modem.

This modem, which sells for \$449, is manufactured by:

TNW Inc.  
3351 Hancock St.  
San Diego, CA 92110  
(914) 225-1040

The TNW package includes all the necessary cables, plus terminal software that allows the computer to up or download files to or from most BBS's. The software also has provisions for unattended operation.

### *Special TNW Compatible Software*

A special, modified version of the Punter BBS software is needed to use the TNW-103 modem. *It is available only to registered owners of the Punter BBS software.*

If you own a copy of the Punter base station software and want to learn how to get your free copy of the modified software, contact the System Operator at one of these Punter BBS's:

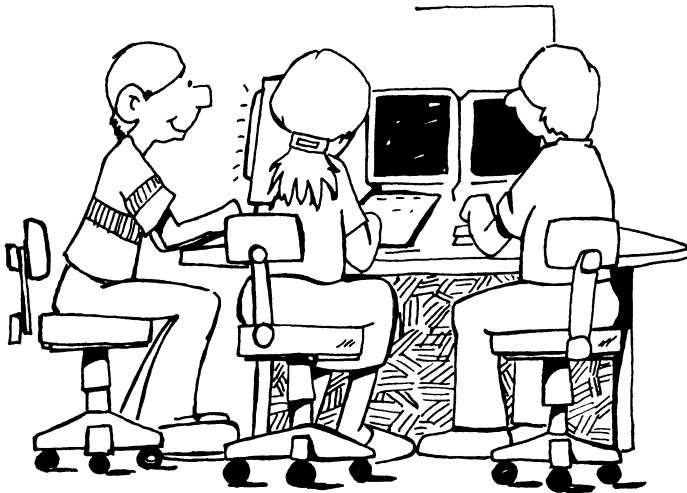
WI - C.U.S.S.H./Tim Tremmel: (414) 554-9520  
MO - COMMODORE COMMUNICATIONS/Tony Ott:  
(314) 352-2753  
IL - COMMODORE CHICAGO/Richard Kurts:  
(312) 397-0871  
IN - RF COMMTROLE SYSTEMS/Eric J. Benson:  
(317)357-8597  
IL - VIDEO KING/Gene Alder: (312) 674-6502  
TX - BRAZOSPORT ACCESS/David McCutchen:  
(409) 265-0694

*If you have any questions*

If you'd like to set up a Punter BBS base station and are having any problems, Tim Tremmel has offered his assistance. Call him at (414) 554-0156 (voice) or contact him at the C.U.S.S.H. BBS: (414) 554-9520 (modem). If you'd like to write to Tim, his address is:

Mr. Tim Tremmel  
3614 Sovereign Dr.  
Racine, WI 53406

For a reply, please enclose a stamped self-addressed envelope.



# DIRECTORY OF COMMODORE BULLETIN BOARDS<sup>1</sup>

These Bulletin Boards are loaded with FREE public domain Commodore software.

The symbol "cd" indicates that the BBS was temporarily closed down for updates when we called to verify the accuracy of this list.

=====

**\*\*COMMODORE BBS\*\***

=====

\*\*\*\*\*

**PUNTER BBS SYSTEMS**

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- |    |   |    |  |
|----|---|----|--|
| CO | <i>*The Front-Line</i><br>Ft. Collins/24 hrs.<br>Sean Kelly, SYSOP<br>(303) 223-4305                    | IN | <i>*RF Commtrole Systems, Inc.</i><br>Indianapolis/24 hrs.<br>Eric J. Benson, SYSOP<br>(317) 357-8597                        |
| IL | <i>*Commodore Chicago</i><br><i>Public</i><br>Chicago/24 hrs.<br>Richard Kurtz, SYSOP<br>(312) 397-0871 | KS | <i>*The Gin Board</i><br>Dodge City<br>Mon-Sat: 7 p.m. to 8:30 a.m.<br>Sun: 24 hrs.<br>Gary Noyes, SYSOP<br>(316) 225-2628   |
| IL | <i>*The Video King</i><br>Chicago/24 hrs.<br>Gene Alper, SYSOP<br>(312) 674-6502                        | MA | <i>*MASSPET</i><br>East Taunton<br>Mon-Fri: 7 p.m. to 8 a.m.<br>Sat-Sun: 24 hrs.<br>David A. Rogers, SYSOP<br>(617) 824-4878 |
| IN | <i>*AVC-Commline</i><br>Indianapolis/24 hrs.<br>Tim Renshaw, SYSOP<br>(317) 898-5027                    |    |  |

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<sup>1</sup> Every effort was made to insure that the information provided in this directory is current and accurate. Because Bulletin Boards may change their phone numbers, we cannot accept responsibility or be held liable for any errors.

\* - utilizing Steve Punter's BBS software.

- MO \*KCPUG  
 Kansas City/24 hrs.  
 Rick West, SYSOP  
 (816) 257-2502  
 formerly  
 (816) 356-2382
- MO \*Commodore Communications  
 St. Louis/24 hrs.  
 Tony Ott, SYSOP  
 (314) 867-6950  
 formerly  
 (314) 625-4576
- MO \*St. Louis CBM  
 St. Louis  
 Mon-Fri: 7 p.m. to 8 a.m.  
 Sat-Sun: 24 hrs.  
 Louis Pucel, SYSOP  
 (314) 352-2753

- OH \*Ohio Valley cd D  
 Marietta  
 John Buckley, SYSOP  
 (614) 423-4422

- TX \*Brazosport Access  
 Brazosport  
 Mon-Fri: 6 p.m. to 9 a.m.  
 Sat-Sun: 24 hrs.  
 David McCutchen, SYSOP  
 (409) 265-0694

- TX \*RPCC  
 Richardson  
 Mon-Fri: 5 p.m. to 8 a.m.  
 Sat-Sun: 24 hrs.  
 Don Lambert, SYSOP  
 (214) 996-7994  
 (214) 996-6806  
 (214) 996-6808

- UT \*Commodore Central  
 Salt Lake City  
 Mon, Wed, Fri, Sat:  
 6 p.m. to 10 a.m.  
 Tues & Thur: 8 p.m. to 10 a.m.  
 Sun: 24 hrs.  
 Alan Cook, SYSOP  
 (801) 277-3913  
 formerly  
 (801) 277-2620

- WA \*NWCUG  
 Edmonds/24 hrs.  
 Dean L. Johnson, SYSOP  
 (206) 743-6021

- WI \*CUSSH (formerly: SEWPUG)  
 Racine/24 hrs.  
 Tim Tremmel, SYSOP  
 (414) 554-9520

- WY \*THE WYOMING  
 COMMODORE BBS  
 (formerly:  
 SE WYOMING CU)  
 Cheyenne/24 hrs.  
 Roger Keslar, SYSOP  
 (307) 637-6045

\*\*\*\*\*  
 CANADA  
 \*\*\*\*\*

- NS \*The Lantz Electronics BBS  
 Sydney/24 hrs.  
 Kim Lantz, SYSOP  
 (902) 794-7886
- ON \*InterComm cd  
 Agincourt (Toronto Area)  
 Karl J. Hildon, SYSOP  
 (416) 499-4228

- ON \*PSI-WordPro  
 HEADQUARTERS  
 Mississauga (Toronto Area)  
 Mon-Fri: 7 p.m. to 9 a.m.  
 Sat-Sun: 24 hrs.  
 Steve Punter, SYSOP  
 (416) 624-5431



ON *\*R.T.C.*  
Richmond Hill  
(Toronto Area)  
Mon-Fri: 5 p.m. to 9 a.m.  
Sat-Sun: 24 hrs.  
Len Lekx, SYSOP  
(formerly Troy Hacker, SYSOP)  
(416) 884-6198

ON *\*Pritchard Information System*  
(\$35 membership fee required  
for access to all functions)  
Toronto  
Mon-Fri: 6 p.m. to 9 a.m.  
Sat-Sun: 24 hrs.  
Bob Pritchard, SYSOP  
(416) 282-0314

ON *\*The \*\*NEW\*\* A.S.C.*  
(formerly: ASCII Computing)  
Thunder Bay  
Mon-Fri: 6 p.m. to 8 a.m.  
Sat-Sun: 24 hrs.  
Eric Rikkinen, SYSOP  
(807) 345-7199

ON *\*The 680 CFTR Data Base*  
Toronto  
Mon-Fri: 6 p.m. to 9 a.m.  
Sat-Sun: 11 a.m. to 9 a.m.  
Bob Saint, SYSOP  
(416) 366-2069

ON *\*NORTEC*  
Toronto  
Mon-Fri: 7 p.m. to 9 a.m.  
Sat-Sun: 24 hrs.  
David Bradley, SYSOP  
(416) 487-5833  
(416) 598-0492  
(416) 487-2593  
(416) 782-7320

ON *\*TPUG*  
Toronto  
Mon-Fri: 7 p.m. to 9 a.m.  
Sat-Sun: 24 hrs.  
Tony Prijately, SYSOP  
(416) 223-2625

\*\*\*\*\*  
PUERTO RICO  
\*\*\*\*\*

PR *\*DSM*  
San Juan/24 hrs.  
Julio Martinez, SYSOP  
(809) 781-0350

\*\*\*\*\*  
 NON-PUNTER BBS SYSTEMS  
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|---|---|
| <p>CA <i>Q.I.N.2 Message Center!</i><br/> <i>HEADQUARTERS</i><br/> <i>[VIC-20 Based]</i><br/>           San Francisco/24 hrs.<br/>           xxxxx, SYSOP<br/>           (415) 763-4751</p>   | <p>MI <i>PET BBS cd</i><br/> <i>[PET/CBM Based]</i><br/>           Ypsilanti<br/>           (313) 484-0732</p>  |
| <p>CO <i>PETULA</i><br/> <i>HEADQUARTERS</i><br/> <i>(similar to NETWORKS System)</i><br/> <i>[PET/CBM Based]</i><br/>           Denver/24 hrs.<br/>           Steve Renfrow, SYSOP<br/>           (303) 232-8509</p>   | <p>NY <i>RAVICS/VTUG cd</i><br/> <i>[VIC-20 Based]</i><br/>           New York/24 hrs.<br/>           Adam Jacobs, SYSOP<br/>           (212) 534-3149</p>  |
| <p>FL <i>VIC BBS</i><br/> <i>[VIC-20 Based]</i><br/>           Largo/2 p.m. to 10 p.m.<br/>           John Hoinacki, SYSOP<br/>           (813) 391-5219</p>  | <p>NY <i>VIC BBS cd</i><br/> <i>[VIC-20 Based]</i><br/>           New York/24 hrs.<br/>           Marc Rosenthal, SYSOP<br/>           (212) 836-3019</p>   |
| <p>IA <i>Teleport 64 System 3 cd</i><br/> <i>[Commodore 64 Based]</i><br/>           Cedar Rapids/Davenport/24 hrs.<br/>           xxxxx, SYSOP<br/>           (319) 323-3723</p>   | <p>NY <i>Teleport 64</i><br/> <i>System 1</i><br/> <i>HEADQUARTERS</i><br/> <i>[Commodore 64 Based]</i><br/>           West Chester/Yonkers/24 hrs.<br/>           Michael Kleinert, SYSOP<br/>           (914) 623-4248</p>  |
| <p>LA <i>VIC-On-Line Users Group cd</i><br/> <i>Volume #Authors</i><br/> <i>HEADQUARTERS</i><br/> <i>[VIC-20 Based]</i><br/>           Lake Charles/24 hrs.<br/>           Al Jones, SYSOP<br/>           (318) 477-7547</p>                                    | <p>NY <i>Teleport 64 cd</i><br/> <i>System 2</i><br/> <i>[Commodore 64 Based]</i><br/>           West Chester/Yonkers<br/>           Mon-Fri: 7 p.m. to 7 a.m.<br/>           Sat-Sun: 24 hrs.<br/>           Peter Levinson, SYSOP<br/>           (914) 623-3958<br/>           (914) 425-1028</p> |
| <p>MI <i>Holland Michigan</i><br/> <i>VIC-20 Users' Group</i><br/> <i>[VIC-20 Based]</i><br/>           Holland<br/>           Mon-Fri: 6 p.m. to 9 p.m.<br/>           Sat-Sun: 2 p.m. to 6 p.m.<br/>           xxxxx, SYSOP<br/>           (616) 396-7106</p> | <p>OK <i>TIE-Tulsa</i><br/> <i>Information Exchange</i><br/> <i>[TRS-80 Based]</i><br/>           Tulsa/24 hrs.<br/>           Jerry Morgan, VIC-20/<br/>           Commodore 64 SYSOP<br/>           (918) 438-3363</p>  |

- TX *Victory Station cd  
for the VIC-20  
[TRS-80 Based]  
Elgin/24 hrs.  
Peter Banz, SYSOP  
(512) 285-5028*
- TX *VIC-On-Line Users' Group  
Volume #1  
[VIC-20 Based]  
Houston/24 hrs.  
John Osborn, SYSOP  
(713) 474-7293*
- WI *VIC-On-Line Users' Group  
Volume #2  
[VIC-20 Based]  
Madison/24 hrs.  
xxxxx, SYSOP  
(608) 233-7711*
- WI *PET BBS cd  
[PET/CBM Based]  
Milwaukee  
(414) 282-8118*
- WI *VIC BBS cd  
[VIC-20 Based]  
Milwaukee/24 hrs.  
Tom xxxxx, SYSOP  
(414) 654-7487*

### *LIVING TREE*

- CA LVNG VIDEO TEXT 415-327-8876  
CA FAR WEST LABS 415-565-3037  
CA COMPUTER PLUS 408-735-8181

### *DIAL-YOUR-MATCH*

- CA DIAL-YOUR-MATCH#26 209-298-1328  
CA DIAL-YOUR-MATCH#1 213-842-3322  
CA DIAL-YOUR-MATCH#11 213-242-1882  
CA DIAL-YOUR-MATCH#4 213-783-2305  
CA DIAL-YOUR-MATCH#9 213-345-1047  
CA DIAL-YOUR-MATCH#22 213-990-6830  
CA DIAL-YOUR-MATCH#17 415-991-4911  
CA DIAL-YOUR-MATCH#3 912-233-0863  
CA DIAL-YOUR-MATCH#18 617-334-6369  
CA DIAL-YOUR-MATCH#20 919-362-0676  
CA DIAL-YOUR-MATCH#23 402-571-8942  
CA DIAL-YOUR-MATCH#14 201-272-3686  
CA DIAL-YOUR-MATCH#24 713-783-4136  
CA DIAL-YOUR-MATCH#12 713-556-1531  
CA DIAL-YOUR-MATCH#16 206-256-6624

# PUBLIC ACCESS MESSAGE SYSTEMS

We have included this valuable list of Public Access Message Systems to allow you to explore the many types of BBS's and services available to you.

This directory was downloaded from the People's Message System, of Santee, California. Call this, and other Bulletin Boards, to get their latest list of active Bulletin Boards and services.

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## PUBLIC ACCESS MESSAGE (and file transfer) SYSTEMS

Compliments of Peoples' Message System, Santee CA  
(619) 561-7277

Compiled and maintained by Bill Blue  
(with a lot of help from his friends)

Please send updates/corrections to:  
PMS Santee, TCB117, 70315,1305 or BBLUE

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- \*24 denotes 24-hour operation
- #1 denotes original system of that type
- rb denotes call, let ring once and call back
- rl religious orientation
- ! new system or new number to existing system
- \$ Supports VADIC 1200 baud operation
- & Supports 212A 1200 baud operation
- % Supports BAUDOT operation

Regular updates of this list may be found on  
CompuServe MAUG XA4, The Source PUBLIC 112,  
and most participating independent PMS systems.  
Current filesize is 36,252 bytes.

ABBS ABACUS II, Toledo, OH.....(419) 865 1594  
 ABBS AGS, Atlanta, GA.....(404) 733 3461\*24  
 ABBS Akron Digital Group, Akron, OH.....(216) 745 7855\*24  
 ABBS Apple Crate I, Seattle, WA.....(206) 935 9119  
 ABBS Apple Crate II, Seattle, WA.....(206) 244 5438  
 ABBS Apple-Med, Iowa City, IA.....(319) 353 6528  
 ABBS Apple-Mate, New York, NY.....(201) 864 5345  
 ABBS Baileys Computer Store, Augusta, GA.....(404) 790 8614  
 ABBS Baton Rouge, LA.....(504) 291 1360  
 ABBS Byte Shop, Ft. Lauderdale, FL.....(305) 486 2983  
 ABBS Byte Shop, Miami, FL.....(305) 261 3639  
 ABBS Calvary Mission Church, Mnpls, MN.....(612) 471 0252-r1  
 ABBS CCNJ, Pompton Plains, NJ.....(201) 835 7228  
 ABBS Century Next Computers, St. Louis, MO... (314) 442 6502  
 ABBS Charlotte, NC.....(704) 364 5254  
 ABBS CODE, Glen Ellyn IL.....(312) 537 7063\*24  
 ABBS Colortron Computer, WI.....(414) 637 9990\*24  
 ABBS Compumart, Ottawa, Ontario, Canada.....(613) 725 2243  
 ABBS Computerland, Fremont, CA.....(415) 794 9314  
 ABBS Computer Corner, Amarillo, TX.....(806) 355 5610  
 ABBS Computer Conspiracy, Santa Monica, CA... (213) 829 1140  
 ABBS Computer Crossroads, Columbia, MD.....(301) 730 0922  
 ABBS Computer Lab, Memphis, TN.....(901) 761 4743  
 ABBS Computer Room, Kalamazoo, MI.....(616) 382 0101  
 ABBS Computer Store, Toledo, OH.....(419) 531 3845  
 ABBS Dallas Info Board.....(214) 248 4539  
 ABBS Denver, CO.....(303) 759 2625  
 ABBS Detroit, MI.....(313) 477 4471  
 ABBS Electro-Mart, Spokane, WA.....(509) 534 2419\*24  
 ABBS Fort Walton Beach, Destin, FL.....(904) 243 1257  
 ABBS Gamemaster, Chicago, IL.....(312) 475 4884\*24  
 ABBS Hayward, CA.....(415) 881 5662  
 ABBS Illini Microcomputer, Naperville, IL....(312) 420 7995  
 ABBS Ketchikan, AK.....(907) 225 6789  
 ABBS Livingston, NJ.....(201) 994 9620\*24  
 ABBS Madam Bokeatha Society, Houston, TX....(713) 455 9502  
 ABBS Michigan Apple-Fone, Southfield, MI....(313) 357 1422  
 ABBS Newport Beach, CA.....(714) 645 5256\*24  
 ABBS Omaha, NE.....(402) 339 7809  
 ABBS PCnet, San Francisco, CA.....(415) 863 4703\*24  
 ABBS Pacific Palasades, Los Angeles, CA....(213) 459 6400  
 ABBS Peoria, IL.....(309) 692 6502

ABBS Phoenix, AZ.....(602) 898 0891  
 ABBS Pirates Cove, Long Island, NY.....(516) 698 4008  
 ABBS Rogers Park, Chicago, IL.....(312) 973 2227  
 ABBS Software Sorcery, Herndon, VA.....(703) 471 0610  
 ABBS South of Market, San Francisco, CA.....(415) 469 8111  
 ABBS St. Louis, MO.....(314) 838 7784\*24  
 ABBS Teledunjon I, Dallas, TX.....(817) 469 1626  
 ABBS Teledunjon II, Dallas, TX.....(214) 530 0858  
 ABBS Teledunjon III, Dallas, TX.....(214) 960 7654  
 ABBS The Moon, Dallas, TX.....(214) 931 3437\*24  
 ABBS Turnersville, NJ.....(609) 228 1149  
 ABBS Vancouver, B.C.....(604) 437 7001  
 ABBS Vermont, Essex Junction, VT.....(802) 879 4981\*24  
 ABBS West Palm Beach, FL.....(305) 848 3802  
 ABBS Rob Roy Computer, Yakima, WA.....(509) 575 7704  
 ABBS Youngs Elect Svc., College Station, TX.,(713) 693 3462\*24  
 ABBS #X, Atlanta, GA.....(404) 256 1549

A-C-C-E-S-S Annapolis, MD.....(301) 267 7666\*24  
 A-C-C-E-S-S Olympia, WA.....(206) 866 9043\*24  
 A-C-C-E-S-S Phoenix, AZ.....#1 (602) 996 9709\*24  
 A-C-C-E-S-S Phoenix, AZ.....&(602) 957 4428\*24  
 A-C-C-E-S-S Phoenix, AZ.....(602) 274 5964  
 A-C-C-E-S-S Scottsdale, AZ.....(602) 998 9411\*24  
 A-C-C-E-S-S Wyckoff, NJ.....(201) 891 7441\*24

BBS IBM Hostcomm Atlanta, GA.....!(404) 252 4146  
 BBS IBM Hostcomm Claremont, CA.....!(714) 624 1767  
 BBS IBM Hostcomm Fairfax, VA.....!(703) 978 9592\*24  
 BBS IBM Hostcomm Fairfax, VA.....!(703) 978 0921\*24  
 BBS IBM Hostcomm Fairfax, VA.....!(703) 591 5120\*24  
 BBS IBM Hostcomm Fairfax, VA.....!(703) 425 9452\*24  
 BBS IBM Hostcomm Springfield, VA.....!(703) 425 7229\*24  
 BBS IBM Hostcomm Houston, TX.....!(713) 890 0310  
 BBS IBM Hostcomm Toronto, Ontario, CN.....!(416) 499 7023\*24

BBS IBM PC Annandale, VA.....!(703) 560 0979\*24  
 BBS IBM PC Atlanta, GA.....!(404) 294 6879  
 BBS IBM PC Atlanta, GA.....!(404) 252 9438\*24  
 BBS IBM PC Beltsville, MD.....!(301) 937 4339\*24  
 BBS IBM PC Bethesda, MD.....!(301) 460 0538\*24  
 BBS IBM PC Billings, MT.....(406) 656 9624

BBS IBM PC California Users Group.....!(805) 987 4127\*24  
BBS IBM PC Dale City, VA.....!(703) 680 5220\*24  
BBS IBM PC Denver, CO.....!(303) 773 2699\*24  
BBS IBM PC Gaithersburg, MD.....!(301) 251 6293\*24  
BBS IBM PC Madison, WI.....!(608) 262 4939\*24  
BBS IBM PC New York, NY.....!(201) 678 6670\*24  
BBS IBM PC Rockville, MD.....!(301) 949 8848\*24  
BBS IBM PC Vienna, VA.....!(703) 560 7803\*24  
BBS IBM PCmodem Chicago, IL.....!(312) 259 8086\*24

BULLET-80 Boston, MA.....&(617) 266 7789\*24  
BULLET-80 Chesterland, OH.....(216) 729 2769  
BULLET-80 Clarks Summit, PA.....(717) 586 2112  
BULLET-80 Danbury, CT.....#1(203) 744 4644  
BULLET-80 Fayetteville, GA.....(404) 461 9686  
BULLET-80 Hawkins, TX.....(214) 769 3036  
BULLET-80 Holstein, IA.....(712) 368 2651  
BULLET-80 Houston, TX.....(713) 331 2599  
BULLET-80 Ironton, OH.....(614) 532 6920  
BULLET-80 Laguna Hills, CA.....(714) 770 5052  
BULLET-80 Langhorne, PA.....(215) 364 2180  
BULLET-80 Littlefield, TX.....(806) 385 6843  
BULLET-80 New York, NY.....(212) 740 5680\*24  
BULLET-80 Orange County, Anaheim, CA.....(714) 952 2110  
BULLET-80 San Jose, CA.....(408) 241 0769  
BULLET-80 Seymour, CT.....(203) 888 7952  
BULLET-80 Springfield, IL.....(217) 529 1113  
BULLET-80 Tulsa, OK.....(918) 749 0059\*24  
BULLET-80 Waterford, MI.....(313) 683 5076\*24

CBBS AMRAD, Washington, DC.....(703) 734 1387\*24  
CBBS Atlanta, GA.....(404) 394 4220\*24  
CBBS Baton Rouge, LA.....(504) 273 3116\*24  
CBBS Bloomington, IN.....(812) 334 2522  
CBBS Boston, MA.....(617) 646 3610\*24  
CBBS Cedar Rapids, IA.....(319) 364 0811  
CBBS Chicago, IL.....#1 (312) 545 8086\*24  
CBBS Corpus Christi, TX.....(512) 855 1512  
CBBS CPEUG/ICST Gaithersburg, MD.....(301) 943 5717  
CBBS Lambda, Berkeley, CA.....(415) 658 2919  
CBBS Lawrence General Hospital, Boston, MA...!(617) 683 2119  
CBBS LICA LIMBS, Long Island, NY.....(516) 561 6590\*24

CBBS London, England..(European standard)..(044) 1 399 2136  
 CBBS Long Island, NY.....(516) 334 3134\*24  
 CBBS MAUDE Milwaukee, WI.....(414) 241 8364\*24  
 CBBS MicroStar, Worcester, MA.....(617) 752 7284  
 CBBS NW, Portland, OR.....(503) 646 5510\*24  
 CBBS PACC, Pittsburgh, PA.....(412) 822 7176\*24  
 CBBS Prince George, B.C., Canada.....(604) 562 9515  
 CBBS Proxima, Berkeley, CA.....(415) 357 1130  
 CBBS RAMS, Rochester, NY.....(716) 244 9531  
 CBBS Richfield ? .....(612) 423 5016  
 CBBS Strictly Software, Honolulu, HI.....(808) 944 0562  
 CBBS TSG, Tucson, AZ.....(602) 746 3956\*24

COMNET-80 Akron, OH.....&(216) 645 0827\*24  
 COMNET-80 Las Vegas, NV.....&(702) 870 9986  
 COMNET-80 Mt. Clemens, MI.....&(313) 465 9531  
 COMNET-80 North Wales, PA.....(215) 855 3809  
 COMNET-80 Riverside, CA.....&(714) 359 3189  
 COMNET-80 Riverside, CA.....&(714) 877 2253  
 COMNET-80 Wichita Falls, TX.....(817) 767 5847

CONNECTION-80 Centereach, NY.....(516) 588 5836  
 CONNECTION-80 Denver, CO.....(303) 690 4566\*24  
 CONNECTION-80 Escondido, CA.....(619) 746 6265  
 CONNECTION-80 Fremont, CA.....(415) 651 4147\*24  
 CONNECTION-80 Gaithersburg, MD.....(301) 840 8588\*24  
 CONNECTION-80 Great Neck, NY.....(516) 482 8491\*24  
 CONNECTION-80 Lansing, MI.....(517) 339 3367  
 CONNECTION-80 Laval BELE, Laval, Quebec, CN..(514) 622 1274\*24  
 CONNECTION-80 Little Rock, AS.....(501) 372 0576  
 CONNECTION-80 Manhattan, NY.....(212) 991 1664  
 CONNECTION-80 Orlando, FL.....(305) 644 8327\*24  
 CONNECTION-80 PAUG, Portland, OR.....(503) 281 7653  
 CONNECTION-80 Peterborough, NH.....(603) 924 7920  
 CONNECTION-80 Tulsa, OK.....(913) 747 1310\*24  
 CONNECTION-80 W. Mich. Micro Group, MI.....(616) 457 1340\*24  
 CONNECTION-80 Winter Garden, FL.....(305) 894 1886\*24  
 CONNECTION-80 Woodhaven, NY.....(212) 441 3755\*24  
 CONNECTION-80 Tampa, FL.....(813) 977 0989

CONFERENCE-TREE #3, Hayward, CA.....(415) 538 3580  
 CONFERENCE-TREE #4, Santa Monica, CA.....(213) 394 1505



CONFERENCE-TREE Anchorage, AK.....(907) 344 5251  
CONFERENCE-TREE Computerland, Honolulu, HI...(808) 487 2001\*24  
CONFERENCE-TREE Flagship, Denville, NJ.....(201) 627 5151\*24  
CONFERENCE-TREE Kelp Bed, Los Angeles, CA....(213) 372 4800  
CONFERENCE-TREE Minneapolis, MN.....(612) 854 9691  
CONFERENCE-TREE ?, New Jersey.....(201) 627 5151  
CONFERENCE-TREE Victoria, TX.....(512) 578 5833

FORUM-80 Augusta, GA.....(803) 279 5392  
FORUM-80 Charleston, SC.....(803) 552 1612\*24  
FORUM-80 Cleveland, OH.....&(216) 486 4176  
FORUM-80 #2, Denver, CO.....(303) 399 8858\*24  
FORUM-80 El Paso, TX.....(915) 755 1000\*24  
FORUM-80 Ft. Lauderdale, FL.....(305) 772 4444\*24  
FORUM-80 Hull, England.....(011) 44 482 859169  
FORUM-80 Kansas City, MO.....#1 &(816) 861 7040\*24  
FORUM-80 Kansas City, MO.....&(816) 931 9316  
FORUM-80 Las Vegas, NV.....(702) 362 3609\*24  
FORUM-80 Linden, NJ.....(201) 486 2956\*24  
FORUM-80 Medford, OR.....(503) 535 6833\*24  
FORUM-80 Medical, Memphis, TN.....(901) 276 8196\*24  
FORUM-80 Monmouth, Brielle, NJ.....(201) 528 6623\*24  
FORUM-80 Montgomery, AL.....(205) 272 5069  
FORUM-80 Nashua, NH.....(603) 882 5041  
FORUM-80 Prince William County, VA.....(703) 670 5881\*24  
FORUM-80 San Antonio, TX.....!(512) 655 8143  
FORUM-80 Seattle, WA.....(206) 723 3282  
FORUM-80 Sierra Vista, AZ.....(602) 458 3850\*24  
FORUM-80 Shreveport, LA.....(318) 631 7107\*24  
FORUM-80 Westford, MA.....(617) 692 3973  
FORUM-80 Wichita, KA.....&(316) 682 2113\*24  
FORUM-80 Wichita Falls, TX.....(817) 855 3916  
FORUM-80 Wild goose board, Tampa, FL.....(813) 988 7400

Greene Machine, WPB, FL.....(305) 965 4388-  
Greene Machine Fricaseed Chicken, Arcadia, CA.(213) 445 3591\*24  
Greene Machine, Riverside, CA.....!(714) 354 8004  
Greene Machine Corsair, WPB, FL.....!(305) 968 8653  
Greene Machine, Los Alamitos, CA.....!(213) 431 1443  
Greene Machine, Rome, NY.....!(315) 337 7720  
Greene Machine, Irvine, CA.....!(714) 551 4336  
Greene Machine, Temple City, CA.....!(213) 287 1363

HBBS Denver, CO.....(303) 343 8401\*24  
 HBBS El Paso, TX.....(915) 592 1910  
 HBBS Oklahoma City, OK.....(405) 848 9329\*24  
  
 MCMS C.A.M.S. Chicago, IL.....#18(312) 927 1020\*24  
 MCMS J.A.M.S. Lockport, IL.....(815) 838 1020\*24  
 MCMS L.A.M.S. Round Lake, IL.....(312) 740 9128  
 MCMS P.C.M.S. Wheaton, IL.....!8(312) 462 7560\*24  
 MCMS Metro West Database, Chicago, IL.....8(312) 260 0640\*24  
 MCMS NC Software, Minneapolis, MN.....(612) 533 1957\*24  
 MCMS WACO Hot Line, Schaumburg, IL.<pvt>....(312) 351 4374\*24  
  
 NET-WORKS ABC, Kansas City, MO.....(816) 483 2526  
 NET-WORKS Apple Grove, Dallas, TX.....(214) 644 5197  
 NET-WORKS Apple Shack, Dallas, TX.....(214) 644 4781\*24  
 NET-WORKS Armadillo, Grand Forks, ND.....(701) 746 4959  
 NET-WORKS Beach BBS, Pensacola, FL.....(904) 932 8271  
 NET-WORKS Big Apple, Miami, FL.....(305) 948 8000  
 NET-WORKS C.A.M.S., Decatur, IL.....(217) 429 5541  
 NET-WORKS Charleston, WV.....(304) 345 8280  
 NET-WORKS Chipmunk, Hinsdale, IL.....(312) 323 3741\*24  
 NET-WORKS Coin Games, Los Angeles, CA.....(213) 336 5535  
 NET-WORKS COMM Center NW3NAGAD, Laurel, MD...(301) 953 3341  
                                   (301) 792 0305  
 NET-WORKS Computer City, Providence, RI.....(401) 331 8450\*24  
 NET-WORKS Computer Emporium, Des Moines, IA..(515) 279 8863  
 NET-WORKS Computer Emporium, San Jose, CA....(408) 227 0227  
 NET-WORKS Computer Market, Honolulu, HI.....(808) 521 7312  
 NET-WORKS Computer Pro, Ft. Worth, TX.....(817) 732 1787  
 NET-WORKS Computer Station, St. Louis, MO....(314) 432 7120  
 NET-WORKS Computer Store, Honolulu, HI.....(808) 488 7756  
 NET-WORKS Computer World, Los Angeles, CA....(213) 859 0894\*24  
 NET-WORKS Crescent City, Baton Rouge, LA....(504) 454 6688  
 NET-WORKS Dallas, TX.....(214) 361 1386\*24  
 NET-WORKS Dayton, OH.....(513) 223 3672  
 NET-WORKS Eclectic Computer Sys., Dallas, TX.(214) 239 5842  
 NET-WORKS Granite City, IL.....(618) 877 2904  
 NET-WORKS Greenfield, IN.....(317) 326 3833\*24  
 NET-WORKS Hacker-net, Dallas, TX.....(214) 824 7160  
 NET-WORKS Hawaii.....(808) 521 7312  
 NET-WORKS Hawaii Connection, Honolulu, HI....(808) 423 1593\*24  
 NET-WORKS MAGIE, Galesburg, IL.....(309) 342 7178

NET-WORKS Magnetic Fantasies, Los Angeles,CA.(213) 388 5198  
NET-WORKS New York, NY.....(212) 410 0949  
NET-WORKS North Parks, Chicago, IL.....(312) 745 0924  
NET-WORKS Pirate's Harbor, Boston, MA.....(617) 720 3600  
NET-WROKS Pirate's Lodge ???.....(914) 634 1268  
NET-WORKS Pirate's Ship, Chicago, IL.....(312) 935 2933\*24  
NET-WORKS Pirate's Trek.....(516) 627 9048  
NET-WORKS Portsmouth, NH.....(603) 436 3461  
NET-WORKS Softworx, West Los Angeles, CA.....(213) 473 2754  
NET-WORKS Sparklin' City, Corpus Christi, TX.(512) 882 6569  
NET-WORKS Toronto, Ontario, CN.....(416) 445 6696\*24  
NET-WORKS Warlock's Castle St, Louis, MO.....(618) 345 6638  
NET-WORKS Winesap, Dallas, TX.....(214) 824 7455  
NET-WORKS ???.....(914) 725 4060  
  
ONLINE CDC, San Diego, CA.....(619) 452 6011  
ONLINE Computerland, Montreal, Quebec, CN....(514) 931 0458\*24  
ONLINE Dickinsons Movie Guide, Mission, KS...(913) 432 5544  
ONLINE Indianapolis,IN.<ID#=GUES, pswd=pass>.(317) 787 9881\*24  
ONLINE Saba, San Diego, CA.....(619) 692 1961\*24  
ONLINE Santee, CA....<ID#=GUEST, pswd=PASS>..(619) 561 7271\*24  
  
PASBBS Torrance, CA.....#1 (213) 516 7089\*24  
  
PBBS Co-operative Comp Svc, Palatine, IL.....(312) 359 9450\*24  
  
PET BBS S.E.W.P.U.G., Racine, WI.....(414) 554 9520\*24  
PET BBS Commodore Comm., Lake St. Louis, MO..(314) 625 4576\*24  
  
PMS - \*\*IF\*\*, Anaheim, CA.....(714) 772 8868\*24  
PMS - Anchorage, AK.....(907) 344 8558  
PMS - Apple Bits, Kansas City, MO.....!(913) 341 3502\*24  
PMS - Apple Guild, Weymouth, MA.....(617) 767 1303\*24  
PMS - Baltimore, MD.....(301) 764 1995\*24  
PMS - Campbell, CA.....(408) 370 0873\*24  
PMS - Century 23, Las Vegas, NV.....(702) 878 9106\*24  
PMS - Chicago, IL.....(312) 373 8057\*24  
PMS - Cincinnati, OH.....(513) 671 2753  
PMS - Computer City, Danvers, MA.....(617) 774 7516  
PMS - Computer Merchant, San Diego, CA.....(619) 582 9557  
PMS - Computer Solutions, Eugene, OR.....(503) 689 2655\*24  
PMS - Datel Systems Inc., San Diego, CA.....!(619) 271 8613\*24

PMS - Downers Grove/SRT, Downers Grove, IL... (312) 964 6513  
 PMS - El Cajon, CA..... (619) 579 0553  
 PMS - Ellicott City, MD..... (301) 465 3176  
 PMS - Escondido, CA..... (619) 746 0667  
 PMS - Ft. Smith Comp. Club, Ft. Smith, AK.... (501) 646 0197  
 PMS - Gulfcoast, Freeport, TX..... (713) 233 7943\*24  
 PMS - Indianapolis, IN..... (317) 787 5486\*24  
 PMS - Lakeside, CA. (type PMS to activate)... (619) 561 7271\*24  
 PMS - Los Angeles, CA..... (213) 334 7614\*24  
 PMS - Massillon, OH..... (216) 832 8392\*24  
 PMS - McGraw-Hill Books, New York, NY..... (212) 997 2488  
 PMS - Minneapolis, MN..... (612) 929 6699\*24  
 PMS - I.A.C., Lake Forest, IL..... (312) 295 6926\*24  
 PMS - O.A.C., Woodland Hills, CA..... (213) 346 1349\*24  
 PMS - Pikesville, MD..... (301) 653 3413  
 PMS - Pleasanton, CA..... (415) 462 7419\*24  
 PMS - Portland, OR..... (503) 245 2536  
 PMS - Portola Valley, CA..... (415) 851 3453\*24  
 PMS - RAUG, Akron, OH..... (216) 867 7463\*24  
 PMS - Rutgers Univ. Microlab, Piscataway, NJ. (201) 932 3887  
 PMS - Santa Cruz, Aptos, CA..... (408) 688 9629\*24  
 PMS - Santee, CA..... #1 (619) 561 7277\*24  
 PMS - Shrewsbury, NJ..... (201) 747 6768  
 PMS - Software Unltd, Kenmore, WA..... (206) 486 2368\*24  
 PMS - Twin Cities, Minneapolis, MN..... (612) 929 8966  
 PMS - Your Computer Connection, KS Cty, MO.. (913) 677 1299  
  
 PSBBS Baltimore, MD..... (301) 994 0399\*24  
 PSBBS Washington, DC..... (202) 337 4694\*24  
  
 RATS Systems..... #1 (201) 887 8874  
 RATS Homewood, IL..... (312) 957 3924  
 RATS Wenonah, NJ..... (609) 468 5293  
 RATS Wenonah, NJ #2..... (609) 468 3844  
  
 RCP/M A.B. Dick Co., Nilas, IL..... & (312) 647 7636\*24  
 RCP/M AIMS Hinsdale, IL..... (312) 789 0499\*24  
 RCP/M Arlington, VA..... (703) 536 3769  
 RCP/M CBBS CP/M Net Simi Valley, CA..... (805) 527 9321  
 RCP/M CBBS Columbus, OH..... (614) 272 2227\*24  
 RCP/M CBBS Dallas, TX..... (214) 931 8274  
 RCP/M CBBS Frog Hollow, Vancouver, BC, CN.... (604) 873 4007\*24

RCP/M CBBS Pasadena, CA.....(213) 799 1632\*24  
RCP/M CBBS RLP, MacLean, VA.....(703) 524 2549\*24  
RCP/M CBBS Sacramento, CA.....(916) 483 8718\*24  
RCP/M Chuck Forsberg, OR.....(503) 621 3193  
RCP/M Collossal Oxgate, San Jose, CA.....(408) 263 2588  
RCP/M CUG-NOTE, Denver, CO.....(303) 781 4937\*24  
RCP/M CUG-NODE, PA State College.....(814) 238 4857\*24  
RCP/M Detroit, MI.....(313) 584 1044-rb  
RCP/M Geneseo, IL.....(309) 944 5455  
RCP/M HAPN Hamilton, Ontario, CN.....(416) 335 6620\*24  
RCP/M IBM PC, Niles, IL.....(312) 259 8086  
RCP/M Logan Square, Chicago, IL.....(312) 252 2136  
RCP/M MCBBS Keith Petersen, Royal Oak, MI....(313) 759 6569-rb  
RCP/M MCBBS Ken Stritzel, Flanders, NJ.....(201) 584 9227\*24  
RCP/M MCBBS Superbrain, Lexington, MA.....&(617) 862 0781\*24  
RCP/M MCBBS TCBBS Dearborn, MI.....(313) 846 6127\*24  
RCP/M Mississauga HUG, Toronto, Ont., CN...&(416) 826 5394\*24  
RCP/M NEI, Chicago, IL.....(312) 949 6189  
RCP/M Palatine, IL.....&(312) 359 8080\*24  
RCP/M RBBS Allentown, PA.....(215) 398 3937\*24  
RCP/M RBBS ANAHUG, Anaheim, CA.....(714) 774 7860\*24  
RCP/M RBBS Arvada Elect.,Colorado Springs,CO.(303) 634 1158\*24  
RCP/M RBBS BBS Valley.....!(213) 360 5053  
RCP/M RBBS Boulder, CO.....(303) 499 9169  
RCP/M RBBS Bethesda, MD.....(301) 229 3196  
RCP/M RBBS Brewster, NY.....(914) 279 5693  
RCP/M RBBS Comp. Tech. Assoc., El Paso, TX...(915) 533 2202\*24  
RCP/M RBBS Computerized Services, Tampa, FL..(813) 988 7400\*24  
RCP/M RBBS Computron, Edmonton, Alberta, Can.(403) 482 6854\*24  
RCP/M RBBS Cranford, NJ.....(201) 272 1874  
RCP/M RBBS DataTech 001, San Carlos, CA..#1&(415) 595 0541\*24  
RCP/M RBBS DataTech 004, Sunnyvale, CA.....(408) 732 2433  
RCP/M RBBS DataTech 006, San Francisco, CA...(415) 563 4953  
RCP/M RBBS Edmonton, Alberta, Canada.....&(403) 454 6093\*24  
RCP/M RBBS El Paso, TX.....(915) 598 1668  
RCP/M RBBS Fort Mill, SC.....(803) 548 0900\*24  
RCP/M RBBS GFRN Dta Exch. Garden Grove, CA.&(714) 534 1547\*24  
RCP/M RBBS GFRN Dta Exch. Palos Verdes, CA.&(213) 541 2503\*24  
RCP/M RBBS Grafton, VA.....(804) 898 7493  
RCP/M RBBS Houston, TX.....(713) 497 5433  
RCP/M RBBS Huntsville, AL.....(205) 895 6749-rb  
RCP/M RBBS Laurel, MD.....(301) 953 3753\*24

RCP/M RBBS Larkspur, CA.....(415) 461 7726\*24  
 RCP/M RBBS Marin County, CA.....(415) 383 0473\*24  
 RCP/M RBBS Mike's, Milwaukee, WI.....!(414) 647 0903  
 RCP/M RBBS MUG, Mission, KS.....&(913) 362 9583\*24  
 RCP/M RBBS Napa Valley, CA.....(707) 253 1523??  
 RCP/M RBBS Ocean, NJ.....&(201) 775 8705  
 RCP/M RBBS Piconet Oxgate, Mountain View, CA.(415) 965 4097\*24  
 RCP/M RBBS San Jose Oxgate, San Jose, CA.....(408) 287 5901\*24  
 RCP/M RBBS Surrey, Vancouver, BC, CN.....(604) 584 2643\*24  
 RCP/M RBBS Pontiac, MI.....(313) 338 8575  
 RCP/M RBBS Paul Bogdanovich, NJ.....(201) 747 7301  
 RCP/M RBBS Rochester, NY.....(716) 223 1100\*24  
 RCP/M RBBS Rutgers, New Brunswick, NJ.....(201) 932 3879\*24  
 RCP/M RBBS San Diego, CA.....\$(619) 273 4354\*24  
 RCP/M RBBS Sofwaire Store, Los Angeles, CA...(213) 296 5927\*24  
 RCP/M RBBS Software Tools, Australia..... (02) 997 1836  
 RCP/M RBBS Southfield, MI.....(313) 559 5326\*24  
 RCP/M RBBS Westland, MI.....(313) 729 1905-rb  
 RCP/M RBBS Woodstock, NY.....(914) 679 8734\*24  
 RCP/M RBBS Yelm, WA.....(206) 458 3086-rb  
 RCP/M Silicon Valley, CA.....(408) 246 5014\*24  
 RCP/M SJBBS Bearsville, NY.....(914) 679 6559-rb  
 RCP/M SJBBS Johnson City, NY.....(607) 797 6416  
 RCP/M Terry O'Brien, Vancouver, BC, Canada...(604) 584 2543

Remote Northstar Atlanta, GA.....#1 (404) 926 4318\*24  
 Remote Northstar Denver, CO.....(303) 444 7231  
 Remote Northstar Largo, FL.....(813) 535 9341\*24  
 Remote Northstar NASA, Greenbelt, MD.....(301) 344 9156  
 Remote Northstar Santa Barbara, CA.....(805) 682 7876  
 Remote Northstar Santa Barbara, CA.....(805) 964 4115  
 Remote Northstar Virginia Beach, VA.....(804) 340 5246

ST80-CC Lance Micklus, Inc. Burlington, VT.#1(802) 862 7023\*24  
 ST80-PBB Monroe Camera Shop, Monroe, NY.....(914) 782 7605

TCBBS B.A.M.S. New York, NY.....(212) 362 1040\*24  
 TCBBS Leigh's Computer World, NY.....(212) 879 7698  
 TCBBS AstroCom, New York, NY.....#1!(212) 799 4649

TRADE-80 Albany, GA.....(912) 439 7440\*24  
 TRADE-80 Ft. Lauderdale, FL.....#1 (305) 525 1192

TRADE-80 Omaha, NE.....(402) 292 6184  
TRADE-80 Erie, PA.....(814) 898 2952\*24

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**MORE EXCITING SERVICES**  
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ABBS (?) Queens, NY.....(212) 896 0519  
? (Western Massachusettes).....(413) 637 3515  
Adventure BBS.....(516) 621 9296  
All Night BBS.....(213) 564 7636  
Alpha, Tampa, FL.<acct#=ABCD00, pwd=TRYIT>..(813) 251 4095\*24  
Aphrodite-E.....(201) 790 5910  
Apollo's Chariot, Apollo, FL.....(813) 645 3669  
Apple-Gram.....(313) 295 0783\*24  
Applecrackers, Columbus, OH.....(614) 475 9791\*24  
ARBB Seattle, WA.....(206) 546 6239  
Armadillo Media Services, Houston, TX.....(713) 444 7098  
Aviators Bulletin Board, Sacramento, CA.....(916) 393 4459  
Bathroom Wall BBS, San Antonio, TX.....(512) 655 8143  
Baton Rouge Data System, Baton Rouge, LA.....(504) 926 0181  
Blue BOSS IBM PC, Berkeley, CA.....(415) 845 9462\*24  
BBS Annandale, VA.....(703) 978 9754  
BBS Apollo, Phoenix, AZ.....(602) 246 1432\*24  
BBS B.R., Los Angeles, CA.....(213) 394 5950\*24  
BBS Computer Applications Co., Poland, OH....(216) 757 3711  
BBS Homestead, FL.....(305) 246 1111  
BBS Living Videotext, Menlo Park, CA.....(415) 327 8876\*24  
BBS Metro Detroit, MI.....(313) 455 4227  
BBS Pensacola, FL.....(904) 477 8783  
BBS SUE Milwaukee, WI.....(414) 483 4578  
BBS The BULL, Toronto, Ontario, CN.....(416) 423 3265  
BBS-80 DALTRUG, Dallas, TX.....(214) 235 8784\*24  
Big Top Games System, Milwaukee, WI.....(414) 259 9475  
Boston Information Exchange, Boston, MA.....(617) 423 6985\*24  
Bronx BBS, NY.....(212) 933 9459  
Bradley Computer BBS .....(813) 734 7103  
BSBB Tampa, FL.....(813) 885 6187

Capital City BBS, Albany, NY.....(518) 346 3596\*24  
 Carrier 2 Alexandria, VA.....(703) 823 5210  
 C-HUG Bulletin Board, Fairfax, VA.....(703) 360 3812\*24  
 COMM-80 Queens, NY.....(212) 897 3392\*24  
 Compuque-80, Houston, TX.....(713) 444 7041\*24  
 Compusystems, Columbia, SC.....(803) 771 0922  
 Computer Connection.....(213) 657 1799  
 Datamate, Canoga Park, CA.....#1 (213) 998 7992  
 Davy Jones Locker.....(313) 764 1837  
 Dimension-80 Orange, CA.....(714) 974 9788  
 Distra-Soft, Montreal, Quebec, CN.....(514) 327 5764\*24  
 Dragon's Game System.....(pass=DRAGON)...(213) 428 5206  
 Drummer.....(415) 552 7671  
 Electric Line Connection, Sherman Oaks, CA...(213) 789 9512  
 Experimental-80 Kansas City, MO.....(913) 676 3613  
 Hermes-80 Allentown, PA.....(215) 434 3998  
 HEX Silver Spring, MD.....%(301) 593 7033\*24  
 IDBN Info-Net, Costa Mesa, CA.....(714) 545 7359  
 INFOEX-80 West Palm Beach, FL.....(305) 683 6044\*24  
 INFOEX-80 Akron, OH.....!(216) 724 2125\*24  
 Irvine Line, Irvine, CA.....(714) 551 4336  
 JCTS Redmond, WA.....(206) 883 0403\*24  
 Kinky Kumputer, San Francisco, CA.....(415) 626 5465  
 Kluge Computer.....\$&(213) 947 8128\*24  
 L.A. Interchange, Los Angeles, CA.....(213) 631 3186\*24  
 Lehigh Press BB, PA.....#1 (215) 435 3388  
 Lethbridge Gaming system, Lethbridge, AB.....(403) 320 6923  
 LITHO/NET.....(800) 831 6964  
 Long Beach Community Computer.....(213) 591 7239\*24  
 Mail Board-82 Seattle, WA.....(206) 527 0897\*24  
 Micro-80 West Palm Beach, FL.....(305) 686 3695  
 Micro Design, Houston, TX.....(713) 864 4672  
 Micro Informer.....(813) 884 1506  
 Midwest, St. Louis, MO.....(314) 227 4312  
 Mini-Bin Seattle, WA.....(206) 762 5141\*24  
 MOUSE-NET Orlando, FL.....(305) 277 0473\*24  
 MRCBBS.....(415) 968 1093  
 MSG-80 Everett, WA.....(206) 334 7394  
 NBBS Norfolk, VA.....(804) 444 3392  
 NESSY Chicago, IL.....#1 (312) 773 3308  
 New England Comp. Soc., Maynard, MA.....(617) 897 0346  
 New Jersey TELECOM.....#1 (201) 635 0705\*24



North Orange County Computer Club.....(714) 633 5240  
 Novation CO., Los Angeles, CA....<pass=CAT>..(213) 881 6880  
 Nybbles-80 Elmsford, NY.....(914) 592 5385  
 Nybbles-80 NY.....(212) 626 0375  
 OARCS Portland, Oregon.....(503) 641 2798  
 OCTUG Orange County, Garden Grove, CA.....(714) 530 8226  
 Ohio Valley BBS.....(614) 423 4422  
 Oracle North Hollywood, CA.....(213) 980 5643  
 Orange County Dta Exchange, Garden Grove, CA.(714) 537 7913  
 OSUNA Scarsdale, NY.....(914) 725 4060  
 Personal Msg. System-80, Deerfield Bch,FL...&(305) 427 6300\*24  
 PET BBS Commodore, Chicago, IL.....(312) 397 0871\*24  
 PET BBS AVC Comline, Indianapolis, IN.....(317) 255 5435\*24  
 PET BBS KCPUG, Kansas City, KS.....(816) 356 2382\*24  
 PET BBS SE Wyoming PUG.....(307) 637 6045\*24  
 PET BBS PSI WordPro, Ontario, CN.....#1 (416) 624 5431\*24  
 PET BBS TPUG, Toronto, Ontario, CN.....(416) 223 2625\*24  
  
 PHOTO-80, Haledon, NJ.....(201) 790 6795  
 FIG-STY Costa Mesa, CA.....(714) 545 4648  
 PMBBS.....(713) 441 4032  
 Potomac Micro Magic Inc., Falls Church, VA...(703) 379 0303\*24  
 RACS V Fullerton, CA.....(714) 524 1228  
 Remote Apple Jackson, MS.....(601) 992 1918\*24  
 SATUG BBS, San Antonio, TX.....(512) 494 0285  
 Scream Machine.....(312) 680 9613  
 Seacomm-80 Seattle, WA.....(206) 763 8879\*24  
 SIGNON Reno, NV.....<pswd=FREE>..(702) 826 7234  
   \$(702) 826 7277  
 SISTER Staten Island, NY.....(212) 442 3874\*24  
 Software Referral Service.....(603) 625 1919  
 Sunrise Omega-80, Oakland, CA.....(415) 452 0350  
 Switchboard, Alexandria, VA.....(703) 765 2161\*24  
 System/80 San Leandro, CA.....(415) 895 0699  
 Talk-80 ROBB, Portsmouth, VA.....(804) 484 9636  
 TBBS Canopus, Milwaukee, WI.....!(414) 281 0545\*24  
 TCUG BBS, Washington, DC.....(703) 836 0384\*24  
 TECOM-80, Tampa, FL.....(813) 839 6746  
 Telcom 7 New Fairfield, CT.....(203) 746 5763\*24  
 Telemessage-80, Atlanta, GA.....(404) 962 0616  
 Treasure Island.....(313) 547 7903

Twilight Phone.....(313) 775 1649\*24  
Vanmil, Milwaukee, WI.....!(414) 271 7580\*24  
Visiboard, Wellesley, MA.....!(617) 235 5082  
Weekender, Houston, TX.....(713) 492 8700  
Westside Download, Detroit, MI.....(313) 533 0254  
XBBS Hamilton, OH.....(513) 863 7681\*24  
Zachary\*Net, Houston, TX.....(713) 933 7353\*24

# CompuServe

## *CompuServe™ and Commercial Software*

Even though CompuServe™ is not a FREE resource, it is a valuable resource for Commodore computer owners.

The Commodore Information Network which resides within CompuServe is packed with—you guessed it—information!

Here's a listing of some Commodore Information Network features:

**Hotline:** If you've got a Commodore Computer related question, ask the people at the Hotline and your toughest questions will be answered promptly by electronic mail.

**Bulletin Board:** Leave a message for a friend or for other Commodore Computer owners. Or, if you'd like to join in on a heated debate or scholarly discussion, get together with people from around the country in an Online Conference.

**Database:** Access the large database to up and download valuable public domain software for your PET/CBM computer, or find the software package of your dreams in the Vendor section. If you'd like to let Commodore owners know about your product, advertise in the database. . . The list goes on.

You can access the database by using the "TERM.OTT" series of public domain software (page 98), or select from one of the excellent commercial packages listed on pages 156 to 158.

Educational Resources, Commodore Tips, Software Tips, Technical Tips and Price Lists are only a few of the services you can find on CompuServe's Commodore Information Network.

For more information on CompuServe, call toll free: 800-848-8990. Ohio residents call: 614-457-8600. Or write to:

CompuServe  
P.O. Box 20212  
Columbus, Ohio 43220

When you call or write to CompuServe be sure to tell them what model Commodore computer you own. Ask for the "SIG (Special Interest Group) Manual" that relates to your model. This manual will prove invaluable as you explore the CompuServe system.

*Public Domain Programs  
For  
VIC-20 & Commodore 64*

Many of the Commodore owners we interviewed said that it often pays to download software from CompuServe. One user summed it up when she said, "When I call CompuServe it's just a local call, and I get instant access. I save money on the phone bill and spend less time downloading my program."

*DOWNLOADING, STEP-BY-STEP*

The first step in downloading a program from CompuServe is to get to the database containing the software.

Before you can do this you've got to go to your computer's SIG (Special Interest Group).

1. If you're looking for Commodore 64 software, type in the command: GO PCS-156 [RETURN]

If you're a VIC-20 owner type in the command: GO PCS-155 [RETURN]

2. When you arrive at the SIG (Special Interest Group), enter the command: XA2 [RETURN] to enter the public domain program file database.

3. To see what's in the download file type in: CAT/DES

Here's what typical entries in the catalog look like:

-----

[70007,533]

HEX.SEQ

30-May-83 1005

Accesses: 93 05-Sep-83

Keywords: UTILITY COMMODORE 64  
COMMODORE 64

This program was originally written for VIC-20. It converts Hexadecimal to Decimal and vice-versa. Submitted by SYSOP/ Jim Darrough

-----

[70006,10212]

SEQRED.IMG

29-Aug-83 3860

Accesses: 50 05-Sep-83

Keywords: 64, SEQUENCE  
FILE,FILE  
READ,CBM,1541,COMMODORE

This is a program which will allow you to read or print a sequential file from disk.

-----

These two entries are typical of what you'll see when you type "CAT/DES". This description includes:

- (a) The name of the program and the program type (SEQ/BAS/DOC/IMG).
- (b) The contributor's CompuServe I.D.#.
- (c) The date the file was placed in service.
- (d) The length of the file in bytes. (There are "3860" bytes in SEQRED.IMG)

- (e) How many people have accessed the file, and the date of last access.
  - (f) What type of computer the program will run on.
  - (g) A brief description.
4. Once you know the name of the program you'd like to download, the rest is easy. Just enter: DOW PROGRAM.EXT(CompuServe I.D.)

Here's an example: I wanted to download the BASIC program "PLOT.BAS" and entered this command: DOW PLOT.BAS (75545,33)[RETURN]

The rest of the downloading sequence is automatic.

### *COMMERCIAL TERMINAL SOFTWARE*

There are a number of excellent commercial software packages available for your Commodore computer that are ideal for use with CompuServe.

The companies listed below have software for your VIC-20 or Commodore 64 computer. And, if you don't have a disk drive, some of these companies have excellent Smart Terminal software on cassette.

1. We reviewed the SpeedTerm II package manufactured by:

Astral Image  
812 B Street, Studio A  
San Rafael, CA 94901  
(415) 453-6213  
Price: \$29.95 (from manufacturer)

SpeedTerm II is a machine language full-feature terminal program on disk for use with the Commodore 64.

We found it easy to use and loaded with features. In short, we felt that it was a good value.

Here are some of SpeedTerm II's major features:

- Uploading and Downloading of any type of file (Sequential, BASIC or Image) to or from CompuServe, with the added capability of capturing programs or text from most BBS's (except Punter type).
- Automatic Log-on: Customize your log-on procedure and get on-line at the push of a button.
- Change Terminal Options: Reconfigure your terminal in any way imaginable. Change baud rate, parity, duplexing and more, all on a one-screen menu.
- Text Editor: Compose your messages *before* you get on-line then transmit them at the push of a button. This feature can save you on-line time, and money.

2. THE SMART 64 TERMINAL by MicroTECHNIC SOLUTIONS, Inc.

The SMART 64 TERMINAL is a terminal software package for your Commodore 64 with disk drive, that is loaded with features.

MicroTECHNIC SOLUTIONS, Inc.  
P.O. Box 2940  
New Haven, CT 06515  
(203) 389-8383

3. SMART TERMINAL is a terminal software package for your Commodore 64 or VIC-20 with 32K expansion that is available on either tape or disk.

Tape: \$16.95  
Disk: \$18.95  
(plus postage and handling)

Available from:

BYTE-RYTE  
P.O. BOX 205, Station Cart.  
Montreal, Quebec  
H4K 2J5 Canada

4. SuperTerm is a full-feature terminal software package manufactured by Midwest Micro, Inc., for your Commodore 64 or VIC-20 with 16K expansion that is available on either tape or disk.

Price: \$99.95

Midwest Micro, Inc. also manufactures two lower priced units: Terminal-40 Plus (VIC) and '64 Terminal Plus. The VIC version requires 8K memory expansion.

Price: \$49.95  
(Mail order add \$1.50)

Midwest Micro, Inc.  
311 West 72nd St.  
Kansas City, MO 64114

5. J&G Software manufactures terminal software for both the VIC-20 and Commodore 64 on both cassette and tape. Many of the Commodore communicators we spoke to rate the J&G products as "excellent".

Write to:

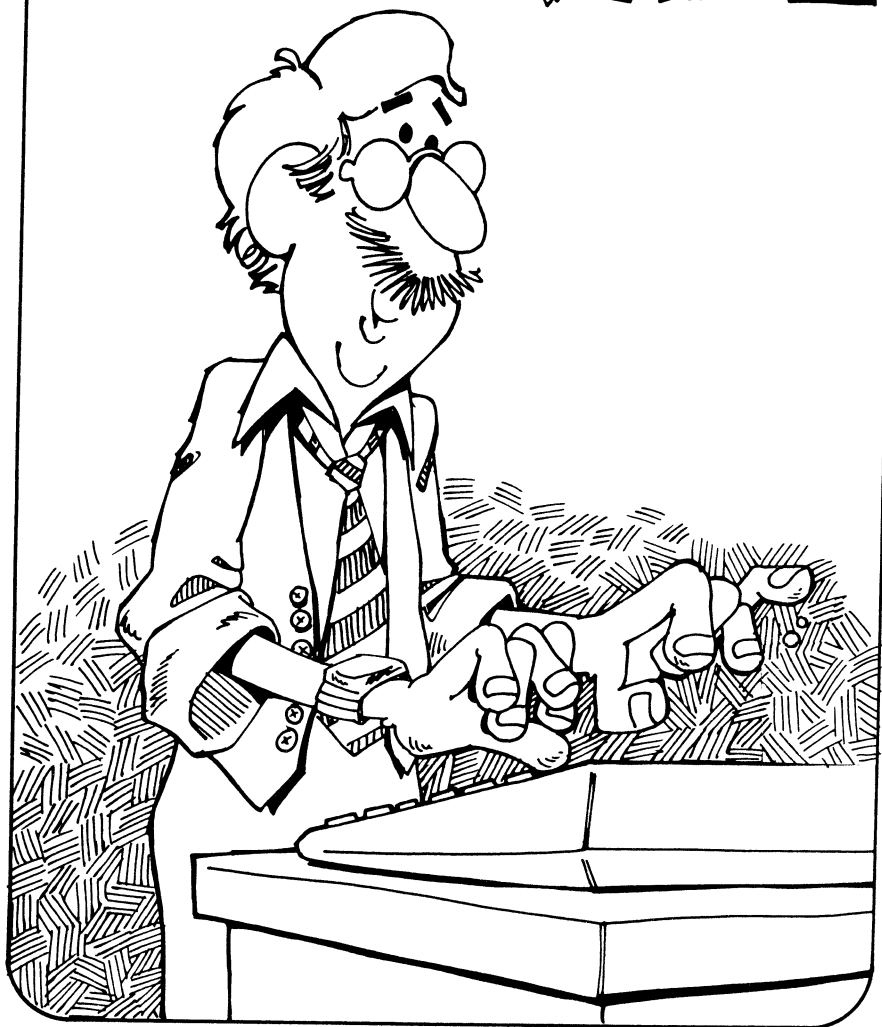
J&G Software  
P.O. Box 146  
Penham, New York 10552

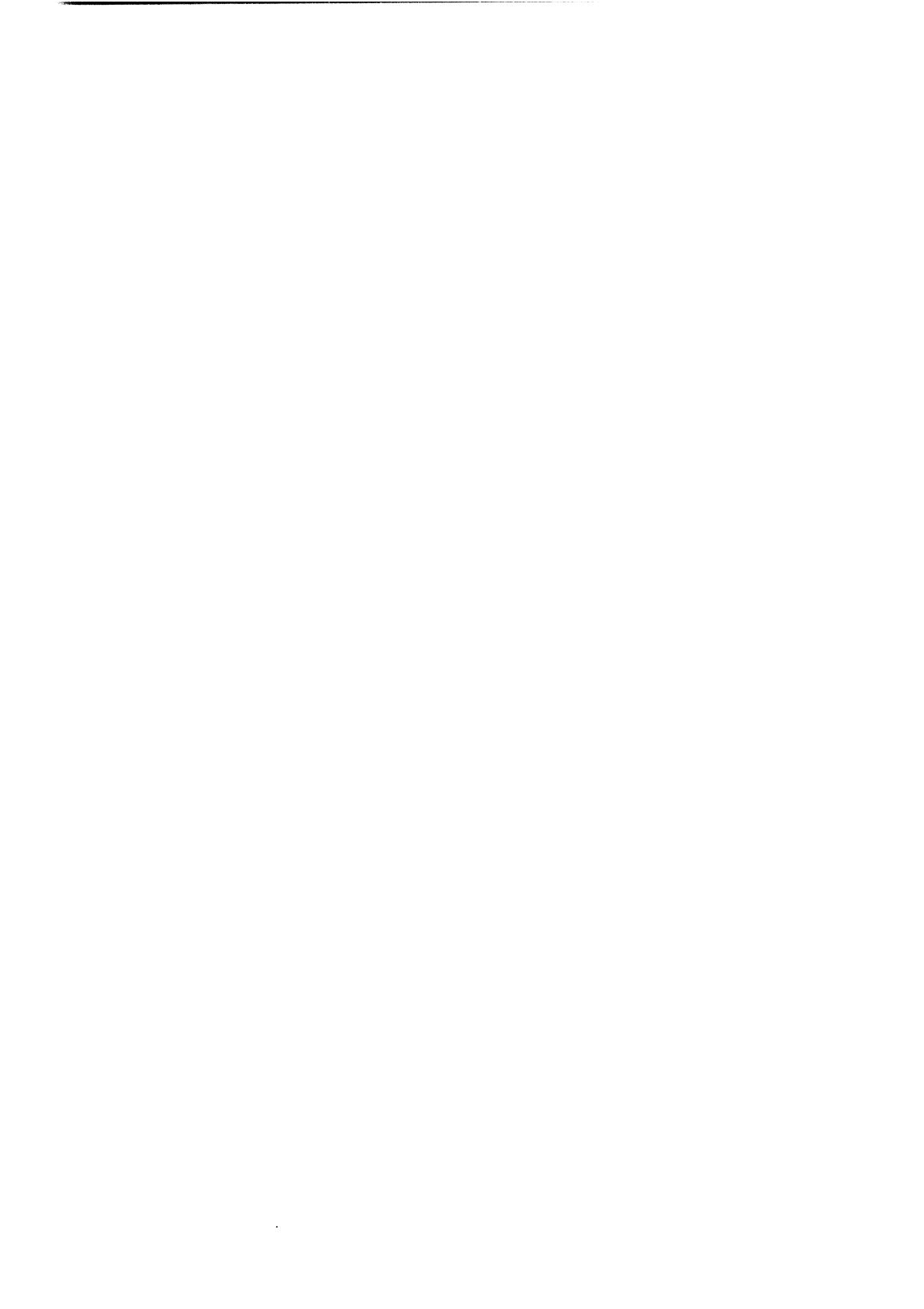
### *BEFORE YOU BUY*

Before you buy any terminal software, write or call a number of manufacturers, get their latest literature, and compare features and prices.



ALMOST  
**FREE  
SOFTWARE**

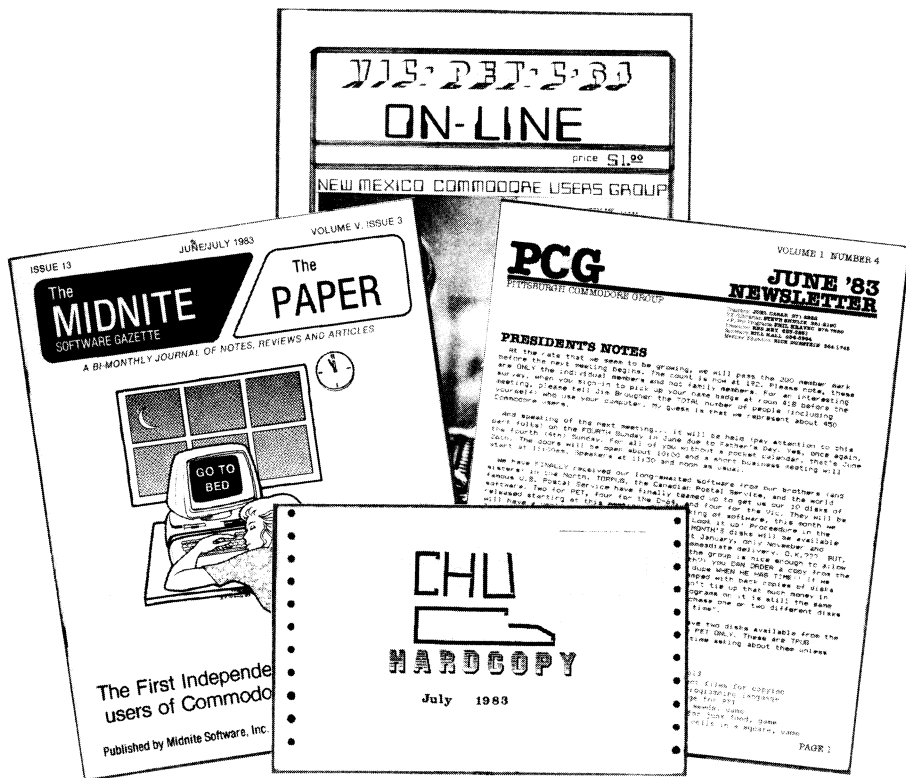




# ALMOST FREE SOFTWARE

## Magazines

Magazines are a valuable resource for the Commodore personal computer owner. The ones we've listed offer programs to turn your computer into anything from a word processor to a game machine. Informative articles designed to help you get more use from your computer and help you make intelligent software, hardware and book buying decisions are also found in these publications.



Some of these magazines are available on the newsstand, some only on a subscription basis. Regardless of where you get them, you'll find a wealth of Commodore information and Almost Free Software.

Write to these publications for more information.

## USERS' GROUP PUBLICATIONS

### *THE TORPET*

The Independent Commodore Users' Magazine

TPUG

Box 100

Station 'S'

Toronto, Ontario

Canada M5M 4L6

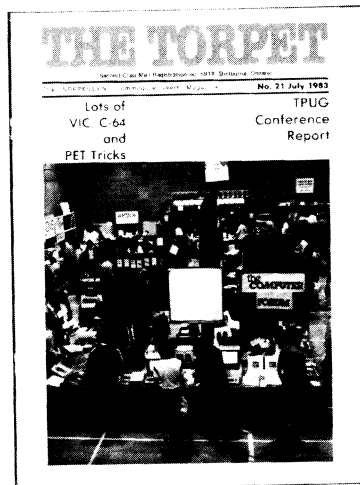
*THE TORPET* is a valuable magazine for all Commodore users. It contains program listings, schematics, hardware and software reviews, and information about TPUG's incredible public domain software library.

### *The Pittsburgh Commodore Group Newsletter*

2015 Garrick Drive

Pittsburgh, PA 15235

The Pittsburgh Commodore Group publishes an informative and often amusing monthly newsletter with program listings, hardware tips on enhancements and interfaces, information on how to order public domain software, and useful advice to Commodore users.



### *HARD COPY*

The Commodore (Houston) Users' Group publishes a small but informative newsletter of general interest to all Commodore owners. The July 1983 issue featured diagrams on how to build a home computer table, program listings, reviews of voice synthesizers, and lots of other good stuff. For more information, write to:

John Walker  
CHUG  
8738 Wildforest  
Houston, TX 77088

### *ICPUG NEWS*

The official publication of the Independent Commodore Products Users' Group of the United Kingdom.

The *ICPUG News* is published six times yearly. The last issue was 120 pages, and it's packed with useful information for Commodore people everywhere, plus information on Commodore activities in England, and how to order public domain software from ICPUG's library. *The ICPUG News* has subscribers in Australia, Malaysia, the United States, and Europe. For more information, write to:

*ICPUG News*  
30 Brancaster Road  
Newbury Park, Ilford  
Essex, England  
IG2 7EP

### *The 8-Bit BOZART*

A San Francisco Journal for the Computer Arts  
c/o 4210 Balboa Street, No. 202  
San Francisco, CA USA 94121

Telephone (415) 221-2041  
Commodore ID 75005,1553  
Dow-Jones ID V074642

*The 8-Bit BOZART* is the interesting, useful, and entertaining creation of Robert Sims. Although he publishes the newsletter independently,

he is an active member and affiliate of San Francisco's BUG Users' Group.

*THE MIDNITE/PAPER* is one of the most comprehensive and useful journals for Commodore owners. It is published independently by Midnite Software, Inc., but includes the offerings of many Commodore Users' Groups. Columns include an excellent Modem and Telecommunications section by Tim Tremmel of the Racine, Wisconsin Users' Group and a Ham Column by Clark Stewart.

The editors and publishers are Commodore Users' Group activists from way back. Says Jim Oldfield:

"This is the U.S. magazine attempting independent reviews of every product for Commodore computers. We are also known for timely Commodore news and hints. Subscribe today so we can continue this outrageously useful magazine!"

For more information on subscriptions and advertising, write to:

Jim and Debbie Oldfield  
*The Midnite/PAPER*  
635 Maple  
Mt. Zion, IL 62549 USA  
(217) 864-5320

Send reviews, notes and products to:

Jim and Ellen Strasma  
Midnite Software, Inc.  
1238 Richland Ave.  
Lincoln, IL 62656 USA  
(217) 735-2703

### *COMMODORE PUBLICATIONS*

Commodore publishes two comprehensive magazines:

*Commodore: The Microcomputer Magazine* and *Power/Play*



The two magazines feature games, program listings, articles on programming, new product announcements, Users' Group listings and bulletins, and special sections on education and other applications.

For more information, write to:

Commodore Business Machines, Inc.  
Attn: Diane LeBold, Editor  
1200 Wilson Drive  
West Chester, PA 19380

*SPECIAL INTEREST PUBLICATIONS*

THE COMPUTERIST'S DIRECTORY  
15350 River Road  
Guerneville, CA 95446

ON-LINE COMPUTER TELEPHONE DIRECTORY  
Box 10005  
Kansas City, MO 64111

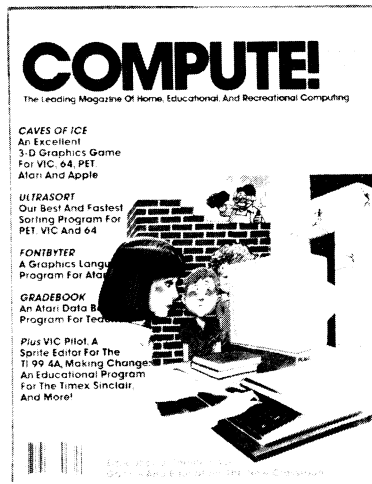
TURTLE NEWS  
1208 Hillsdale Drive  
Richardson, TX 75081

*Commodore and other General Interest Publications*

**COMPUTE and COMPUTE's VIC GAZETTE**

P.O. Box 5406  
Greensboro, NC 27403

Although PET coverage has decreased, these magazines are still excellent sources of Commodore free software and information.



**COMMANDER MAGAZINE**

Microsystems Specialties  
3418 S. 90  
Tacoma, WA 98409

Tutorials, reviews, and general interest articles for all Commodore computers.

**CREATIVE COMPUTING**

Call toll free  
800/801-8112

**KEEPING PACE**

466 Rosewood  
Pittsburgh, PA 15236

**ELECTRONIC GAMES**

Box 1128  
Dover, NH 07801

**POPULAR COMPUTING**

70 Main Street  
Peterborough, NH 03458

**INFOWORLD**

275 Cochituate Rd.  
Box 837  
Framingham, MA 01701

**SOFTLINE**

11021 Magnolia Blvd.  
North Hollywood, CA 91601

**SOFTSIDE**

100 Pine Street  
Holmes, PA 19043



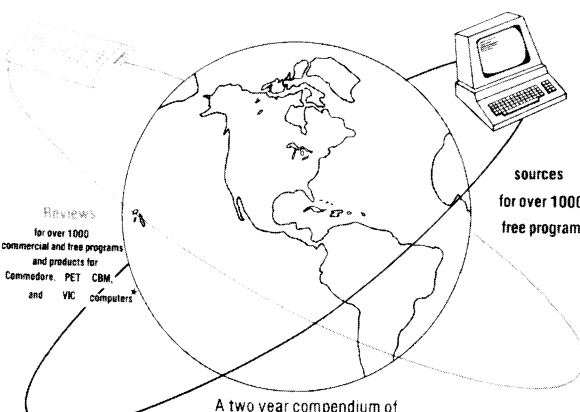
*PET Almost Free Software*

*The Whole PET Catalog* is available through the *Midnite/PAPER*. It's an invaluable source of product reviews and information for any PET users. Send \$8.00 to:

Midnite/PAPER  
635 Maple  
Mt. Zion, IL 62549  
(217) 864-5320

The ★  
**WHOLE PET**  
**CATALOG**

Edited by  
James and Ellen Strasma with Bruce Beach



Reviews  
for over 1000  
commercial and free programs  
and products for  
Commodore, PET, CBM,  
and VIC computers

sources  
for over 1000  
free programs

A two year compendium of  
THE MIDNITE SOFTWARE GAZETTE Issues 1 - 7  
and other sources  
with **much** new material.

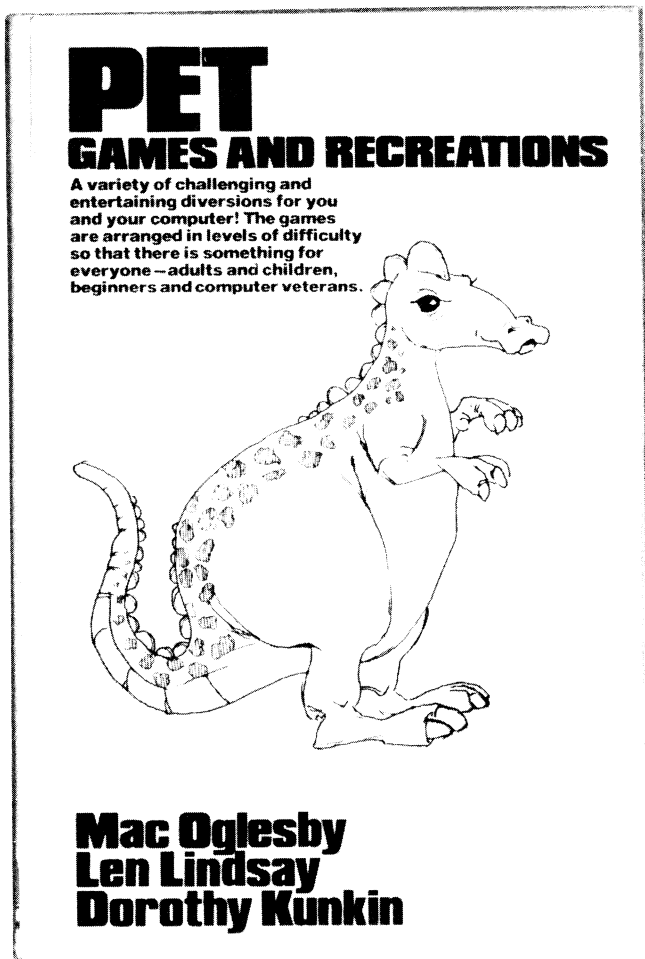
★ CBM, PET, and VIC are trademarks of **Commodore Business Machines.**

\$10.00

This book is **NOT** from Commodore.

*PET GAMES AND RECREATIONS* is loaded with program listings for family and school use, plus a bibliography on games. The program instructions are clear and each program is graded for difficulty and learning value.

**PET GAMES AND RECREATIONS**, by  
Mac Oglesby, Len Lindsay, Dorothy Kunkin;  
Reston Publishing Company, Inc.  
Reston, VA 22090



# EDUCATIONAL RESOURCES





# **FREE (AND ALMOST FREE) SOFTWARE & EDUCATIONAL RESOURCES**

**For Parents and Educators**

## **Welcome to Free Educational Software**

If you are a parent, you want your computer to be more than a game machine—you want it to be a significant part of your child's education. If you are a teacher, you may already have some ideas about the potential of the computer as a learning tool in your classroom. How can parents and educators reach their goals effectively and economically?

One answer is by taking advantage of the public domain educational software and expertise available—for free or at a nominal charge—from educational BBS's and Users' Groups that are springing up all over the world.

Included in these resources are people and organizations that are using the computer to benefit learners of all ages plus those who have physical or learning disabilities. With modified equipment and software, computers can enable blind people to "see" and deaf people to "hear". Physically limited individuals can learn to program, do word processing, and "telecommute" to their jobs—even if they can't use the computer keyboard! Students of all ages can learn at their own pace, using computers as an infinitely patient teaching tool.

This is an exciting time to be a parent, educator, or child. There are lots of people willing to share their enthusiasm, specialized knowledge, and software with you and your family—for free or for a nominal charge!

## **Computers Help Children Learn**

Children learn from every contact with a computer. Even when they're playing an arcade game, they're getting comfortable with the machine,

developing game-winning strategies, and improving eye-hand coordination.

### *What's Educational Software?*

Software that has been designed for educational uses—that teaches a subject, improves sequential learning skills, and/or provides a planned learning experience—falls into four categories:

#### *1. Computer-Aided Instruction*

Computer-Aided Instruction (CAI) was the first educational application for computers. CAI software teaches through question/answer drills. The “States and Capitals” game is one example of CAI. CAI software can be boring or lively, judgemental or supportive, depending on the person who wrote it.

Good CAI programs take advantage of sound and graphics and provide children with an appropriate reward. Well-written CAI software encourages children and gives them lots of chances to get the right answer. Avoid any program that puts children down or tells them they're “stupid” if they don't get the right answer!

CAI isn't the most creative application for computers in education, but it can be very useful. Your children or students can practice skills and drill themselves on subject matter at their own pace. Computers have lots of patience!

#### *2. Learning Games*

Learning Games are programs that combine recreational features with sequential learning skills. Their philosophy is to present learning as a game with the kind of sounds, graphics, action, challenges, and rewards you would find in a program written for entertainment. Learning games are the hottest new development in commercial educational software. If you want to see examples of learning games, look for the GameWare series of products by Spinnaker Software Corp., and HesWare's programs, among others. You can also find less sophisticated, but highly enjoyable learning games in public domain software libraries.

### *3. Simulations*

Simulations are programs that “simulate” a real situation where the child has to make decisions and see the consequences of his or her actions. In “Cartels”, the player is in charge of a multimillion-dollar company. In “Lemonade”, the player learns about math and money while managing a lemonade stand. “Hammurabi” is another public domain simulation that puts kids in the role of the ruler of ancient Sumeria. They must make important decisions about economics, crops, and feeding their subjects—or risk an uprising.

### *4. Programming Languages*

A fourth kind of educational software consists of programming languages designed for kids and beginners. PILOT and LOGO are programming languages that are simple and easy to learn. Kids can write stories, create dialogues, and draw colorful pictures with “Turtle Graphics”, while learning to program.

### *Classroom Management Software*

Teachers can also use software that is designed for classroom management to create their own lessons, keep a data base of grades and student information, or do routine record-keeping.

### *How Can You Get Free Educational Software?*

Now that you know what kinds of educational software are available, how can you get it—for free or for a minimal charge?

The rest of this chapter is devoted to organizations and resources that disseminate public domain software to parents and educators. Just as valuable are the bulletin board services, Users’ Groups, and publications that allow you to communicate directly with other educators.

These resources will also help you to evaluate software, so you get only the best in public domain or commercial software. An additional

valuable feature is the ability to share special needs and experiences in teaching and learning about computers with other educators.

### *Commodore Users' Groups*

Your first resource for educational software and information is your Commodore Users' Group. Almost all of the Users' Groups listed in this book include educational software in their libraries. Many clubs are also resources for some or all of the public domain educational programs from Commodore.

## **High-Quality Educational Software**

With the cooperation of Commodore, the Toronto Users' Group has compiled a volume of 50 disks containing 656 public domain educational programs for Commodore computers. These are standardized, high quality programs, categorized by subject matter and clearly stating which computers they will run on (PET/CBM or Commodore 64). Commodore is preparing more disks as this book goes to press—a real bonanza for educators and parents everywhere!

For information on these public domain educational programs, contact your Commodore educational representative, selected Commodore dealers, or your local Users' Group, or write to:

Toronto PET Users' Group Inc.  
1912A Avenue Rd., Suite 1  
Toronto, Ontario  
Canada M5M 4A1  
(Also see our Mini-Profile on TPUG, page 35).

or

Keith Marshall  
Silver Creek High School  
3434 Silver Creek Road  
San Jose, CA 95121

SOFTSWAP in San Mateo, California, is another source of Commodore educational disks, (See write-up on page 187.)



Another excellent source for more than 5,000 public domain programs (educational, game, utility, business and others) is the Folklife Club. Order a "Catalog Disk" first, which contains an Automatic Disk Cataloging Program, a listing of available programs, and instructions. The software for the PET, CBM, and VIC computers is free; the charge for copying and mailing is \$10/disk:

Folklife Club  
Box 2222  
Mt. Vernon, NY 10551

### *New Mexico Commodore Users' Group*

New Mexico's Commodore Users' Group is one of the clubs most dedicated to kids, families, and educational software. Their software library includes the Commodore educational disks and other user-written programs contributed by club members and other groups.

Club president Betsey Byrnes estimates that "three-quarters of the computers out there are in the hands of kids. Most of the people who join our group are primarily interested in using the computer to further their children's education."

In addition to many child and family-oriented activities (see Mini-Profile, page 30), the New Mexico group publishes *On-Line*, a 25-30 page monthly magazine available both through the club and through selected computer retailers. The magazine contains a kids' section, written both for and by children. "We encourage kids to avoid piracy and use their own creativity. Age doesn't have to keep any kid from becoming a software star."

If you're interested in ordering software or a copy of *On-Line* from the New Mexico Commodore Users' Group, write to:

The New Mexico Commodore Users' Group  
121 Yale, S.E.  
Albuquerque, NM 87106  
(505) 821-5812

The group is also planning to start an electronic bulletin board service that will permit uploading and downloading of software in cooperation with area Apple and Atari clubs.

### *Commodore Programmers in Apple Heaven*

“We’re all alone here in Apple heaven,” says Bob Lemon, West Chicago high school math teacher. A little isolation hasn’t kept “ICUSS” from educational programming on Commodore computers.

West Chicago’s District 94 has a long computer history. A former school superintendent acquired a mainframe in the 1960’s to be used both for administrative and teaching purposes. In the 1970’s, the school district won a federal grant to implement Computer Appreciation Classes on the H-P programmable calculator.

District 94 now has more than 25% of its student body signed up for computer courses and is acquiring Super-PETs for their computer labs.

Bob Lemon got involved with the PET during a sabbatical, began writing programs for classroom use, and got other teachers “turned on”.

“ICUSS” is now a select educational programmers’ group that designs software for district teachers.

“We’re down on drill and practice,” says Bob, “but we have designed drills to which teachers can add their own input. We’ve written programs for grading and classroom management, including random test and homework generators. The teachers can design tests for individual students, based on a random selection of questions, and randomize homework assignments. This can really cut down on cheating! Lately, we’re getting into developing tutorials and converting our micro labs to use for BASIC courses.”

“ICUSS” also designs programs to teachers’ specifications. “We’ve designed programs for school psychologists and won over some P.E. teachers with a program that keeps stats on basketball games on the PET.”

If you would like to exchange ideas and customized educational software with ICUSS, write to:

Bob Lemon  
326 Joliet Ave.  
West Chicago Community High School District 94  
West Chicago, IL 60185

*Educators on Ice—Commodore in Alaska*

Commodore-using educators can program under any conditions. The Commodore Programmers of Old Harbor are 42% of the teaching staff of Old Harbor School on Kodiak Island, Alaska. The school is located in a village of Alaskan Aleut Indians, and is separated from southwest Alaska by ten hours of dangerous sailing or an equally risky trip in a small plane.

COMPOOH-T's devoted members have to order everything by mail, and often must wait for delivery until the mail plane can get through the snow, fog, and rain. Despite all obstacles, the group now owns several Commodore 64's and VIC 20's, and more supplies are on the way.

COMPOOH-T's software library is almost "100-percent member-contributed", despite frequent power fluctuations and outages that make saving programs more exciting than usual!

Parents and educators can join "the most remote Commodore Users' Group in the world" and exchange educational software and experiences with the frozen North.

Send \$1.00 to:

COMPOOH-T  
C/O Box 118  
Old Harbor, AK 99643

*YPLA (The Young People's Logo Association)*

YPLA is an educational resource organization that supports PILOT,

versions of the LOGO language on several machines, and other languages or machines that feature “Turtle Graphics”. They also encourage the formation of YPLA Learning Centers all over the world and actively support people and organizations who are using computers to help the handicapped.

YPLA is not completely free—but it’s an excellent value. Membership in the organization costs \$25 for adults and \$9 for students.

### *Turtle News & Free Software*

Once you become a member, you receive the monthly *Turtle News*, which includes programs in PILOT and LOGO. YPLA also offers a program exchange, so you can exchange software that you’ve developed at home or in school for a free tape or disk of member-contributed programs. Or you can send \$10 for a cassette or a disk full of public domain PILOT and LOGO programs. YPLA now offers a 45-page catalog of public domain software for members—and their library is growing all the time!

YPLA doesn’t have a BBS—yet. They’re actively pursuing this project so “turtles” all over the world can get on-line with each other.

For more information about YPLA, contact:

James H. Muller  
1208 Hillside Drive  
Richardson, TX 75081  
(214) 783-7548

### **An Electronic Bulletin Board for Educators**

The Far West Laboratory for Educational Research and Development has teamed up with Computer-Using Educators to create an electronic Bulletin Board specifically for educators. Users can ask questions, exchange ideas, leave messages, and share news about computers in the classroom.

The system is a “Living Tree” BBS. You climb a “tree” of informa-

tion, branching out to explore areas of special interest to you.

Any interested educator or parent who has access to a modem can use the BBS.

Dial:

415-565-3037

If you want to talk to the SYSOP, call:

Kendra Bonnett

415-565-3221

For more information on the BBS, write:

Carolyn Cates/Kendra Bonnett

Far West Laboratory

1855 Folsom Street

San Francisco, CA 94103

## **More BBS's for Educators**

*Be sure to read the general chapters on telecommunications: "Read Before Dialing" and "Your Friendly BBS", pages 71-115 for an overview of electronic communications, how to obtain terminal software, and other resources.*

Bulletin board services and networks for educators are springing up all over the country. The following is a list of additional BBS's that educators with modems can dial up at no charge:

*Ed Tech PMS—(619) 265-3428, available evenings and weekends. This BBS is operated by the San Diego State University Department of Educational Technology (and active members of CUE's San Diego chapter).*

*Kids' PMS—(619) 578-2646, available almost 24 hours daily. This BBS is a message board designed for children. It features jokes, puzzles, and other kid-oriented computer activities. Darlene and Lee Tydlaska are the "Sysops", or system operators.*

*Notre Dame BBS*—(219) 239-5875, operated by Prof. Barry Keating and used principally by students and teachers at Notre Dame. This BBS is also known as “The Leprechaun”.

*Bullet-80*—(203) 629-4375 available 24 hours daily. This BBS is operated by the Mead School for Human Development in Greenwich, Connecticut. The “Sysop” is Bob Jackson.

## **Other Educational Networks**

There are several worthwhile for-fee resources for educators who telecommunicate.

*EDSIG* is the nationwide bulletin board and electronic message center available on CompuServe. EdSig also offers software downloading. The charge is \$5.00 per hour, which is billed to your CompuServe account and credit card. Contact a local computer store for information on starting a CompuServe account.

*THE KNOWLEDGE INDEX* offers access to educational data bases at reduced charges during evenings and weekends. The information includes Psych Abstracts, ERIC, the Microcomputer Index, the International Software Database, and newspaper and magazine databases. The charge is \$24/hour, billed to your credit card. For more information, call or dial:

(800) 227-5510 or (415) 858-3796—California residents.

*Also see our section on resources for handicapped computer users on page 203!*

### *ICCE (International Consortium of Computer Educators)*

ICCE is a “grass-roots umbrella organization” dedicated to furthering instructional computing and the effective and proper use of computers in education. Currently, thirty-three educators’ groups belong to ICCE with over 15,000 individual members world-wide. Member organizations will soon be linked by a BBS that group officers can access.

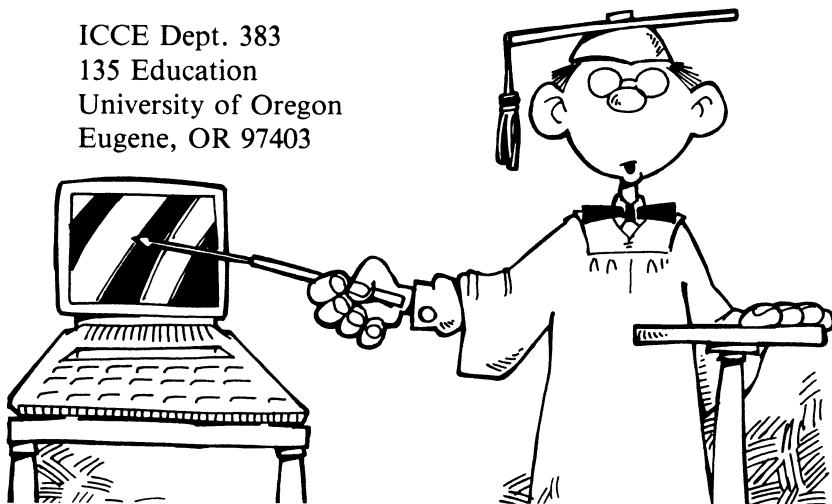
ICCE organizes educational conferences and publishes *The Computing Teacher* and many valuable and low-cost booklets for parents and educators.

### *The Computing Teacher*

*The Computing Teacher* is a valuable journal that is published nine times a year. Each issue is full of application stories by every kind of teacher who uses computers; it also contains programs, reviews, conference announcements, and news. A recent issue featured an in-depth article on how to teach programming, "Some Logo Drawing Ideas", articles by computer-using teachers of learning disabled and handicapped students, and more!

ICCE's booklets (in size and contents they are more like small paperback books) cost from \$1.50 - \$3.00 for individual copies. They are packed with useful information for parents and educators. To become a member of ICCE, receive *The Computing Teacher*, and receive ordering information for booklets, write:

ICCE Dept. 383  
135 Education  
University of Oregon  
Eugene, OR 97403



### *Want to form an Educators' Group?*

ICCE supports the formation of educators' groups and provides assistance and guidelines. If you would like to form an educators'

group, or if you're involved in a group that would like to join, write or call:

David Moursund, President  
ICCE  
135 Education  
University of Oregon  
Eugene, OR 97403  
503-686-4414

ICCE does not disseminate public domain software as an organization, but many of their members do. (See CUE/SOFTSWAP, page 187. There may be an ICCE member group near you!

## **ICCE Organization Members**

### **Alaska Association for Computers in Education (AACE)**

Contact: Kathleen L. Castle, Adult Education  
Coordinator, The Northern Institute,  
650 W. International Airport Rd., Anchorage, AK 99502  
907/563-3174

### **Alberta Association for Educational Data Systems**

Contact: Ann Brebner, President  
838 Education Tower, University of Calgary,  
2500 University Dr. NW, Calgary, Alberta, Canada T2N 1N4  
2061

### **Association for the Development of Computer-Based Instructional Systems (ADCIS)**

Contact: Dr. Gordon Hayes, Executive Director  
ADCIS—Miller Hall 409, Western Washington University  
Bellingham, WA 98225  
206/676-2860



**Computer Education Society of Ireland**

Contact: Mary Devlin

85 Limetrees Road East, Douglas, Cork, Ireland

**Computers, Learners, Users, Educators Association (CLUES)**

Contact: Henry J. Petersen, Executive Director

50 Nellis Drive, Wayne, NJ 07470

201/696-3157

**Computer-Using Educators (CUE)**

Contact: Don McKell

P.O. Box 18547, San Jose, CA 95158

408/288-7642

**Computer-Using Educators of British Columbia (CUEBC)**

Contact: Barry Underwood

509 Alder St., Campbell River, B.C., Canada V9W 2N9

604/287-8346

**Computer-Using Educators of Kentucky (CUE-KY)**

Contact: Janet Parker

School of Education, University of Louisville

Louisville, KY 40292

502/588-6431

**DIDACOM**

Contact: Inno Broekman

Avenbeeck 98, 2182 RZ Hillegom, The Netherlands

**Educational Computing Consortium of Ohio**

Contact: Ellen Richman, Coordinator

4777 Farnhurst Road, Cleveland, OH 44124

216/291-5225

**Educational Computing Organization of Ontario (ECOO)**

Contact: Robert E. Drake, President

252 Bloor Street West, Toronto, Ontario, Canada M5S 1V6

**Educational Microcomputer Users Group of Central New York  
(EMUGCNY)**

Contact: Jane McCrohan  
Roxboro Middle School, Mattydale, NY 13211  
315/457-4618 (H)

**Educators Interest Group of the San Diego Computer Society**

Contact: Melvin L. Zeddies  
P.O. Box 81537, San Diego, CA 92138

**Florida Association of Science Teachers (FAST)**

Contact: Carol Collins, President  
15817 Country Lake Drive, Tampa, FL 33624

**Idaho Computer Educators' Association (ICEA)**

Contact: Jay Larson  
Lewis Clark State College, Continuing Education,  
8th Avenue and 6th Street, Lewiston, ID 83501

**Illinois Association for Educational Data Systems (ILAEADS)**

Contact: Lyle B. Smith, President  
Computer Science Department, Northern Illinois University,  
DeKalb, IL 60115  
815/753-0378

**Indiana Computer Educators**

Contact: David A. Flowers  
Ft. Wayne Community Schools, Adm., Cwt.  
1230 So. Clinton St., Ft. Wayne, IN 46802  
219/425-7228

**Manitoba Association for Educational Data Systems (MAN-AEDS)**

Contact: E. Boorsma, Secretary-Treasurer  
1577 Wall Street, East Winnipeg, Manitoba, Canada R3E 2S5

**Michigan Association for Computer Users in Learning (MACUL)**

Contact: Lary R. Smith, Communications Sect.  
33500 Van Born Road, Wayne, MI 48184  
313/326-9300, ext: 562

**Minnesota Association for Educational Data Systems**

Contact: Sue Talley  
1925 W. County Rd BS, St. Paul, MN 55113  
612/638-2340

**National Institute for Microcomputer Based Learning (NIMBL)**

Contact: Stanley Silverman, President  
348 Plymouth Ave., Brightwaters, NY 11718

**New Hampshire Association for Computer Education Statewide (NHACES)**

Contact: Anne Knight, Acting President  
University of New Hampshire, Computer Services  
Durham, NH 03824  
603/862-3527

**Northwest Council for Computer Education  
(Oregon, Washington and Northern Idaho)**

Contact: Howard Bailey  
Computing Center, Eastern Oregon State College  
La Grande, OR 97850  
503/963-1582

**Oklahoma Educational Computer Users' Program (OECUP)**

Contact: Richard V. Andree  
Department of Mathematics, 601 Elm St., Room 423  
The University of Oklahoma, Norman, OK 73019  
405/325-3410

**Pennsylvania Learning Resources Association (PLRA)**

Contact: George H. Zook, Director, IMS  
Lancaster-Lebanon I.U./IMS  
P.O. Box 5026, Lancaster, PA 17601  
717/569-8561

**Saskatchewan Association for Computers in Education**

Contact: Duncan Campbell  
Mt. Royal Collegiate, 2220 Rusholme Road  
Saskatoon, Saskatchewan, Canada S7L 4A4

**The Science Teachers' Association of Ontario**

Contact: Warren Sirrs

1032 Harness Ave., Ottawa, Ontario, Canada K1V 6P2

613/733-6552

**Society of Data Educators (SDE)**

Contact: Robert Behling

Bryant College, Smithfield, RI 02917

401/231-1200

**Texas Computer Education Association**

Contact: Vicki S. Smith

201 Kinkaid School Drive, Houston, TX 77024

**The Utah Council for Computers in Education**

Contact: Dr. Larry C. Christensen

1295 North 1200 West, Mapleton, UT 84663

801/798-2151

**West Australian Computer Educators**

Contact: P.C. Farrell, President

12 Lilac Place, Dianella, 6062, Western Australia

276-5891

**Wyoming Educational Computing Council**

Contact: Robert L. Morissette, President

Laramie County School District #1, Administration Bldg.

2810 House Ave., Cheyenne, WY 82001

**Young People's LOGO Association (YPLA)**

Contact: James H. Muller

1208 Hillsdale Drive, Richardson, TX 75081

214/783-7548

## *CUE/SOFTSWAP*

Computer-Using Educators (CUE) is a California-based group of educators that has over 5,000 members in 49 states, 4 provinces, and 12 nations outside the United States. Because of their active membership and strategic position in "Silicon Valley", California, CUE is in close contact with new developments in the industry. They evaluate new educational software and frequently influence the decisions of manufacturers about educational issues.

CUE also publishes a bi-monthly newsletter and organizes several major conferences per year. CUE's many volunteer workers make it possible for the organization to offer membership and a bi-monthly newsletter for the unbelievable price of \$8.00!

### *Public Domain Software from SOFTSWAP*

A joint project of CUE and the San Mateo County Office of Education is the SOFTSWAP project. SOFTSWAP is dedicated to the dissemination of public domain educational software for several of the major personal computers, including the Commodore computers. About one-fourth of the programs are drill and instruction (CAI), but their large software library also includes many creative simulations and learning games. Each "dissemination" disk contains from five to 28 programs for grades K-12.

SOFTSWAP is staffed by four part-time employees, student aides, and lots of volunteers. The project's Chairperson, Ann Lathrop, is a leader in the area of educational software evaluation.

### *SOFTSWAP's COMMODORE Library*

SOFTSWAP currently offers seven disks for the PET computer, and is starting to acquire educational software for the Commodore 64. The disks are loaded with useful software for parents, educators, and administrators.

### *How to get SOFTSWAP Software*

There are two ways to get software from this terrific educational

resource (if you can't visit their Microcomputer Center in Redwood City, California). One way is to "swap" software by sending your *original* program to SOFTSWAP on disk or cassette tape in exchange for any disk or cassette of your choice. SOFTSWAP welcomes program exchange and is happy to add your original contributions to their ever-expanding library.

Or you can send \$1 for their software catalog and order the Commodore dissemination disks of your choice for \$10 per disk. The cost of the disks pays for copying, mailing, and more free software for educators.

SOFTSWAP is happy to share their software. You are welcome to copy and give away all the software you receive—as long as you give it away for free.

*Find out more about SOFTSWAP*

To find out more about this wonderful library of free educational software, write:

Ann Lathrop, Chairperson  
Microcomputer Center, SMERC Library  
San Mateo County Office of Education  
333 Main Street  
Redwood City, CA 94063

Send \$1 for each software catalog. (Listings of new acquisitions are also published in CUE's newsletter and *The Computing Teacher*.)

Send \$10 for each Commodore dissemination disk.

*CUE's Newsletter*

CUE's newsletter is also a gold mine of programs, teaching ideas, software and book reviews, news items, product announcements, and discussions of educational issues and policies that are relevant to educators anywhere. To become a member of this dynamic

organization and receive their newsletter, write:

Don McKell  
Computer-Using Educators  
CUE Membership  
P.O. Box 18547  
San Jose, CA 95158

Send a check to CUE for \$8.00 for U.S. membership, \$10.00 for Canada, \$20.00 for other countries, and \$20.00 for institutional subscriptions and memberships.

*CUE Welcomes Editorial Contributions*

CUE welcomes your editorial contributions. If you would like to contribute announcements, letters, programs, teaching ideas and curricula, reviews of software or hardware, humor, quotable quotes or anything else of interest to computer educators, submit material to:

Dr. Sandy Wagner, Editor  
CUE Newsletter  
127 O'Connor St.  
Menlo Park, CA 94025

(Also see page 178 for Far West/CUE's joint BBS for educators.)

*Free Math and Science Software*

Twelve science and math programs for junior high school students are now available on the PET Computer from the State University of New York at Stony Brook. Their new series of educational software includes programs on water pollution, mathematics, automation, a Home Gas & Electric Bill Program, and other useful programs.

For more information, write:

Department of Technology and Society  
College of Engineering and Applied Sciences  
State University of New York at Stony Brook  
Stony Brook, New York 11794

## *¿ Habla Español? Free Bilingual Software*

One California high school's computer science department has accumulated or developed between four to five thousand educational programs for the PET! Almost all of them can be used on the Commodore 64 with an emulator.

Their collection includes bilingual Spanish-English programs in a variety of subjects. This is a great resource for teachers with Spanish-speaking students.

Write or phone:

John Hosman  
Department of Computer Science  
W.C. Overfelt High School  
1835 Cunningham Ave.  
San Jose, CA 95122  
(408) 259-0540

## *Commodore Support for Educators*

According to David Rosenwald, Commodore's Director of Education Marketing, "Commodore is more deeply committed than ever to increasing service and support to our educational users."

To further this goal, Commodore has created a comprehensive support program that includes:

1. a regional network of Commodore educational specialists,
2. special discounts on equipment for qualifying schools,
3. Education Resource Centers for educators to help other educators,
4. regional seminars for teachers,
5. increased participation in state, regional and national educators' conferences.



The educational specialists, who come from teaching and administrative backgrounds, work with educators and Commodore dealers, and support teacher seminars in their regions. Contact the specialist in your area:

*Midwest:*

Mrs. Terry Anders  
Commodore Business Machines  
2246 N. Palmer Drive  
Schaumburg, IL 60915  
(312) 397-0075

*South:*

Mrs. Pam Spillios  
Commodore Business Machines  
4350 Beltwood Parkway S.  
Dallas, TX 75234  
(214) 458-1000, ext. 220

*East:*

Ms. Pat Walkington  
Commodore Business Machines  
761 Fifth Avenue  
King of Prussia, PA 19406  
(215) 666-6800

*West:*

Mr. Jim Bussey  
3824 Cougar Place  
Modesto, CA 95356  
(209) 526-0223

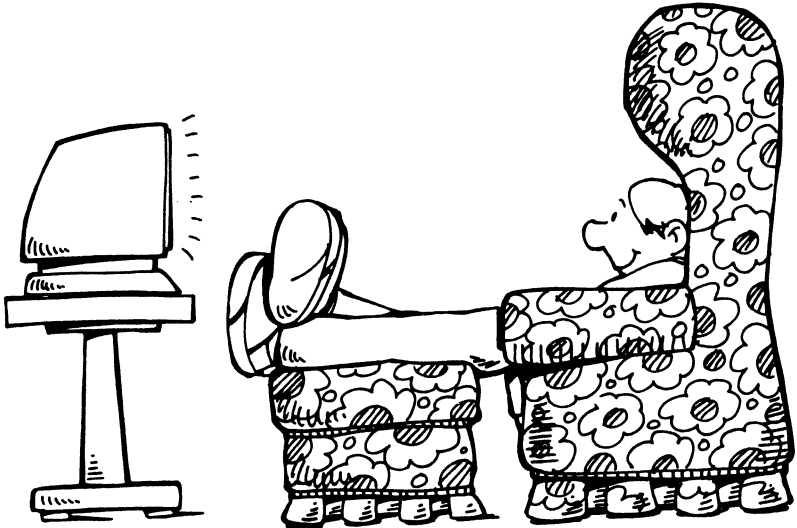
Commodore is also establishing Educational Resource Centers. To qualify, you must be a non-profit school organization or agency (public or private) serving students in preschool, K-12, post-secondary education, two- or four-year colleges or universities, or adult education. Your school must have at least five Commodore computers and be willing to provide support, in-service training and advice to other educators at reasonable intervals.

For more information, write to:

Education Resource Center Coordinator,  
Commodore Business Machines  
1200 Wilson Drive  
West Chester, PA 19380

Commodore can also provide you with information on how to get federal block grant funding to buy computers for your school. For more information, write to:

Dan Kunz  
Program Manager for Educational Systems  
1200 Wilson Drive  
West Chester, PA 19380



## Commodore LOGO: The Language For Learning

Commodore has introduced a powerful educational tool: a version of the LOGO language for the Commodore 64. Commodore LOGO is now available from retailers for \$59.95 for software and manuals.

As more teachers, parents, and kids become familiar with LOGO, organizations are being formed that provide support and promote the exchange of public domain software.

### *What's So Special About LOGO?*

If you haven't already worked with LOGO, you may be wondering what the fuss is all about.

LOGO is a programming language based on an artificial intelligence language called LISP. Seymour Papert, one of LOGO's most influential developers, combined features of LISP with the theories of the Swiss educator and psychologist, Jean Piaget. Papert's main goal, explained in his popular book *Mindstorms* (Basic Books, 1980), is to have children controlling the computers instead of letting computers control children. In the process, children learn problem-solving and come to feel completely comfortable with mathematical concepts.

The result—LOGO—is both a programming language and a learning tool. As a programming language, LOGO is “friendlier” and easier to learn and use than BASIC. BASIC is a more abstract language that children usually can't begin to learn until sixth or seventh grade. Some children (and adults) never really learn how to program with BASIC.

Because of LOGO's friendly English-like commands and “structured” approach, children as young as three and four have been able to program. Some educators believe that LOGO will replace BASIC as a first programming language.

As a learning tool, LOGO helps children to develop problem-solving skills. Kids can enjoy creating graphic designs on their computer screens. At the same time, they are actually learning “structured programming”, becoming computer-literate, and seeing geometry in action.

“LOGO is much more than a programming language,” says educator Judy Morton of the St. Louis, Missouri, School District. “It’s an environment for learning.”

### *Programming Piece by Piece*

In LOGO, children construct their programs out of building blocks called “procedures”.

A six-year-old child writes a brief series of instructions that draws a “box” on the screen. She then names her procedure “BOX”. Every time she wants to use this box shape in a project, she simply writes the command “BOX”, and the shape appears on the screen.

She can combine the box with other shapes, make patterns by placing boxes at different angles on the screen, or use “BOX” as a building block for a larger program.

She can easily build a house by combining her procedures, such as “BOX”, “WINDOW”, and “DOOR”.

LOGO encourages kids to break down every problem or project into “modules”, “subprocedures”, or in plain English, smaller pieces. The children then learn to organize all the pieces in a way that will produce the desired result. They are using structured programming to solve a problem.

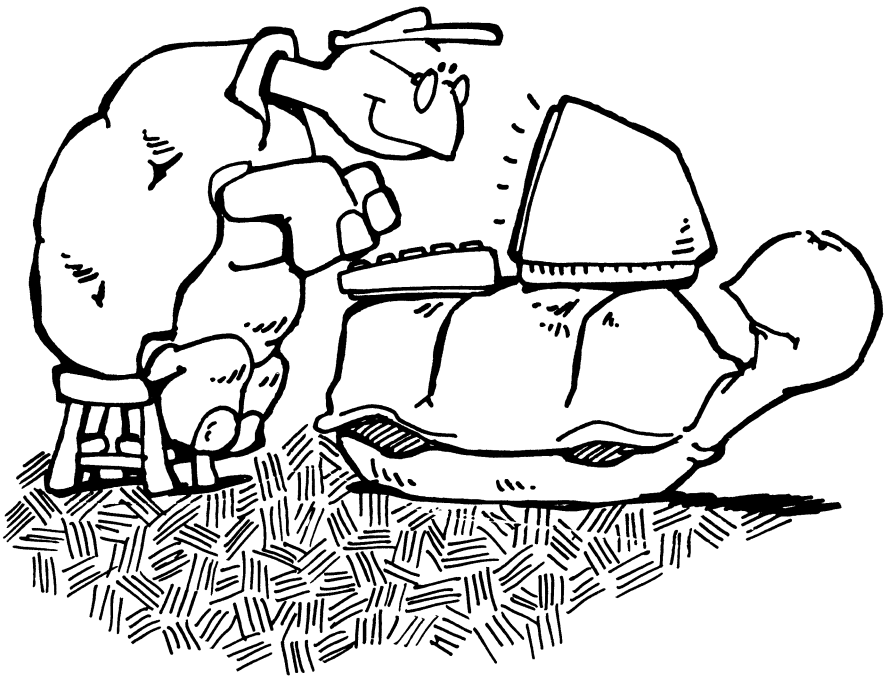
The ability to work with procedures that the child creates and names, and the easy English-like commands, are only two of the features that distinguish LOGO as a programming language.

### *Seeing Geometry in Action*

According to M.I.T. educator Dan Watt, part of LOGO’s strength comes from the fact that the user controls the computer. “LOGO users can draw on a monitor, create animated cartoons, invent video games and interactive quizzes, or compose poetry and music. LOGO builds a bridge between abstract reasoning and actual experience. . . sidestepping many of the conceptual difficulties people have in learning to program a computer.”

One of the features that enables kids to control the computer and see mathematical concepts in action is the “turtle”.

The “turtle” is a shape on the screen that you use like a pen. You control the turtle by commanding it to go FORWARD or BACK, LEFT and RIGHT, UP or DOWN. Using these simple commands, you can draw almost any geometric shape.



When a child tells the turtle to go LEFT 90 degrees, he sees the result immediately on his screen. Abstract numbers and angles turn into a concrete object.

Says Watt, “To draw a stick figure of a person . . . a learner encounters many of the key ideas in geometry, algebra, and general problem solving, as well as important concepts of computer programming. Far from being limited to introductory activities, turtle graphics can incorporate the complex mathematical concepts of trigonometry, calculus, and topology.”

## Resources and Free Software for LOGO

*FOLLK (Friends of LOGO, LISP, and Kids)* is a San Francisco based non-profit organization that supports all versions of LOGO.

FOLLK's goal is "to spread the word about LOGO and LISP, the languages of learning" to "folk of all ages, interests, and levels of computer expertise." Their projects and services include the FOLLK-Lore Meets, curriculum advising for educators, the FOLLK-Net Bulletin Board System, group and individual workshops in LISP and LOGO, and the unique FOLLK-Flash hotline service.

You don't have to live in California to be "one of the FOLLKs." Out-of-town members can still take advantage of their newsletter and other services.

### *FREE SOFTWARE*

FOLLK has developed a public domain software library that steadily expands. They are also publishing software, such as a LOGO Utilities disk and a LOGO demonstration disk. All the software is available for a small charge or in exchange for your own original contribution.

### *ANSWERS TO QUESTIONS*

FOLLK-Flash is a question-answer service for members. If you have a problem you can't solve, call the FOLLK phone number, leave a message, and a member of the organization will get back to you with an answer within 24-48 hours.

If you or your school has access to a modem, you can dial up the FOLLK-Net, the organization's 24-hour BBS. FOLLK-Net provides a variety of services, including a public message board so you can telecommunicate with other LOGO users.

Regular members pay \$25.00/year; students and seniors pay only \$15; and institutions pay \$100. Subscriptions to the newsletter only are available for \$7.50/year.

For more information about FOLLK, write or call:

FOLLK  
254 Laguna Honda Blvd.  
San Francisco, CA 94116  
(415) 753-6555

*YPLA (Young People's LOGO Association)*

See page 177 for information on this invaluable resource for FREE public domain LOGO software.

*The Center for the Study of Technology in Education*

This new organization, based in St. Louis, Missouri, is dedicated to serving the needs of LOGO-using educators.

“LOGO is a learning tool, not an end in itself,” states Judy Morton, Director of the Center. “It creates a learning environment where children can really learn to think and to solve problems.”

### *USING LOGO IN THE CLASSROOM*

One of the problems that the Center is endeavoring to solve is the lack of LOGO curriculum activities for teachers. “Everyone talks about the power of LOGO. But how can teachers really use LOGO as a teaching tool in the classroom? We’re working on ways that teachers can use LOGO as part of their normal curriculum. We want to support learning with LOGO, not get in the way of the subject matter that the teacher has to cover. Teachers need tools that resemble the SRA reading materials—they are made to be integrated into normal classroom activities.”

The Center emphasizes LOGO tasks that are related to the subject matter that is being taught. One Center project is the development of “task cards”. The “task cards” present problems that are related to subject matter and that require simple programming. “The student then breaks the problem down into smaller sections and solves the problem. During the process, the student reports to the teacher so he

can discuss problem-solving techniques and receive guidance, if necessary.”

For example, children as young as three years old can be introduced both to LOGO and the concepts of left and right. “LOGO is especially effective in grades K-5,” Dr. Morton says. “One school district I work with has created Turtle Geometry materials for three to five-year-old children who can’t even read yet. They made a giant grid out of plastic that the kids can move around on. It works like a combination of a compass and a roulette wheel. The kids learn about left and right, forward and back; learn about numbers by moving a certain number of spaces in each direction; and absorb concepts about angles and geometry. They can then transfer their learning to using Turtle Geometry on the computer.”

### *SUPPORT FOR EDUCATORS*

Teachers can write directly to the Center to receive materials and task cards and to exchange ideas about ways of using LOGO in the classroom setting.

For more information, write or call:

Dr. Judy Morton  
The Center for the Study of Technology in Education  
Lindell & Skinker Blvds.  
St. Louis, MO 63130  
(314) 889-5150

### *The Micro Computer Research Center*

Teachers who live in the Northeastern United States now have an additional resource for LOGO. The Micro Computer Research Center at Columbia University’s Teachers College is now offering LOGO courses as part of the Masters program in Computers in Education.

Additional seminars and summer programs, open both to educators and parents, teach LOGO Procedures and introduce gifted young children to computers.



Teachers who live in the New York/New Jersey/Connecticut tri-state area can write to the Center for more information on upcoming classes and seminars:

Ursula Woltz  
Assistant Director  
The Micro Computer Research Center  
Box 18  
Teachers College  
Columbia University  
West 120th St.  
New York, NY 10027

More LOGO resources include:

Boston Computer Society  
LOGO Users' Group  
One Center Plaza  
Boston, MA 02108

Center for Children and Technology  
Bank Street College  
610 West 112th St.  
New York, NY 10025

Friends of the Turtle  
P.O.B. 5537  
Eugene, OR 97405

David Thornburg, a prolific author, inventor, and LOGOphile, writes a "Friends of the Turtle" column for *Compute!* that is full of free software, resources, and teaching ideas.

For current and back issues of David's "Friends of the Turtle" column, see *COMPUTE!* If the magazine is not available at your local newsstand or at your favorite computer store, write:

COMPUTE! Publications  
P.O. Box 5406  
Greensboro, N.C. 27409.

For more reading about LOGO, see:

Seymour Papert, *Mindstorms: Children, Computers and Powerful Ideas*, New York: Basic Books, 1980.

Dan Watt, "What Makes LOGO Exciting?", *Popular Computing*, August, 1983.

Dorothy Heller, "User-friendly languages of the future," *Interface Age*, December 1981.

For a comprehensive bibliography on LOGO, see *Commodore: The Microcomputer Magazine*, April/May 1983, pp. 44-45.

Also see our section on "Almost Free Software", page 159 for more LOGO resource materials.

### *More Educational Languages for Commodore Computers*

That's not all! Commodore offers a wide selection of programming languages on various machines. Two more languages that are of special interest to educators are PILOT and COMAL.

PILOT for the Commodore 64 combines the unique features of the language with the capabilities of the computer.

PILOT was originally developed as a computer literacy and authoring language for children and educators by Dr. John Starkweather. Commodore's version of PILOT, based on Western Washington University's COMMON PILOT, is a language that enables teachers to easily author CAI programs that are customized to their students' needs.

Most CAI programs are one-way drills. Because PILOT is a language that is designed for dialogues, students can interact with the program. The teacher can build conversational hints into the program that help a student along in a friendly, non-threatening way. PILOT programs can also record how long it takes a student to answer correctly and how many tries he or she made.

Commodore enhanced PILOT with the 64's sound and graphics capabilities. Teachers can program their own specialized characters for science, mathematics, and foreign languages. Even more exciting, you can create and use "sprites"—graphic images that you can define and move anywhere on the screen. Sprites can add action, arcade animation, and a video game quality to your CAI programs.

In addition to graphics, PILOT enables educators to create a wide variety of music and sound effects.

CAI will never be the same again!

For more information on PILOT, see:

Stephen Murri, "Understanding PILOT," *Commodore: The Microcomputer Magazine*, June/July 1983.

Dorothy Heller, "User-Friendly Languages of the Future," *Interface Age*, December 1981.

COMAL is a little-known language in the United States, but it is already the official computer language for all schools in Denmark and Ireland. It was developed only a few years ago by Borge Christensen, a Danish educator.

COMAL enthusiasts claim that the language has "the ease of BASIC with the power of PASCAL...Anyone who uses the FULL ENHANCED COMAL for a week will not want to go back to BASIC." Some educators believe that COMAL should replace BASIC as the standard beginning programming language.

COMAL is an easy-to-learn, structured language with readable program listings. Keith Marshall, a California educator, describes COMAL as an advanced programming language for the non-professional programmer.

For more information on COMAL, see Len Lindsay's articles in:

*Commodore: The Microcomputer Magazine*, April/May 1983 and June/July 1983.

There is a COMAL Users' Group in the United States, as well as activities in Ireland and Denmark:

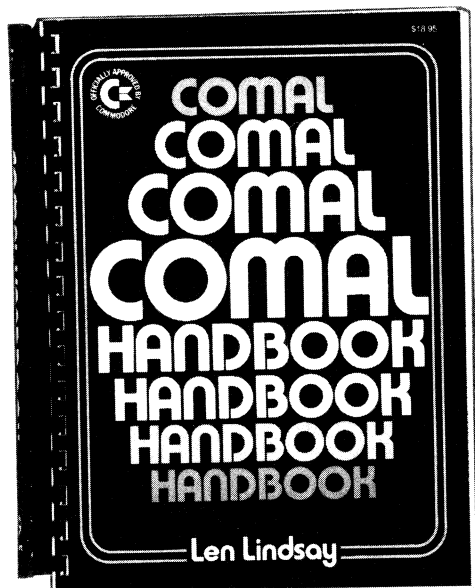
The COMAL Interest Group  
505 Conklin Place  
Madison, WI 53703

Another newsletter is now available for COMAL users. The newsletter will cover clubs, resources, free software, technical advice, events, and articles by Borge Christensen, Len Lindsay, and other COMAL experts.

Subscribers pay \$20.00 yearly for six issues; international subscribers pay \$25.00; and a sample issue is available for \$2.00.

Write or phone:

*COMAL CATALYST*  
5130 E. Charleston  
Suite 5-315  
Las Vegas, NV 89122  
(702) 542-3368.



# FREE RESOURCES FOR HANDICAPPED AND LEARNING DISABLED STUDENTS

Computers offer a wonderful opportunity for people who have physical or learning limitations. As teaching tools, computers are endlessly patient. Modified equipment and software can compensate for physical limitations. Computer software can also be used in novel ways. Word processing software, for example, can enable students who lack fine motor skills to easily express their ideas in print.

## *Contest Aids Handicapped*

Commodore helped sponsor the first contest to aid handicapped computer users: The competition on *Personal Computing to Aid the Handicapped*. The competition encourages the creative development of hardware and software programs to aid handicapped people of all ages.

For more information about the contest and its participants, contact:

Paul Hazan  
Johns Hopkins University  
Applied Physics Laboratory  
Johns Hopkins Road  
Laurel, MD 20810

## *ICCE Has Handicapped Resources*

ICCE (International Council for Computers in Education) publishes several excellent booklets on computing resources for handicapped and physically limited students.

## *A Teacher's Guide Book*

*Learning Disabled Students and Computers: A Teacher's Guide Book* is available from the ICCE for \$2.50/copy.

## *A Comprehensive Resource Guide*

ICCE also publishes a comprehensive resource guide on *Computer Technology for the Handicapped in Special Education and Rehabilitation* for \$7.00/copy. The guide categorizes and summarizes the available literature on computer technology for special education and rehabilitation.

For ordering information, write:

ICCE  
135 Education  
University of Oregon  
Eugene, OR 97403

### *Networking*

There are also several networks for learning disabled and handicapped teachers and students.

SpecialNET (Special Education Community Network)  
National Association of State Directors of Special Education  
1201 16th St., N.W.  
Washington, DC 20036  
(202) 833-4218

HEX (The Handicapped Educational Exchange)  
Richard Barth  
11523 Charleton Drive  
Silver Springs, MD 29092  
(301) 681-7372

### *Community Health Information Project*

The *Community Health Information Project* in California is about to go on-line with an electronic BBS for handicapped computer users in cooperation with the Center for Independent Living and organizations for the physically limited and victims of cerebral palsy. For more

information, contact:

Joel Yudkin  
Community Health Information Project  
(415) 968-8798 (voice)

### *Deafnet*

*Deafnet*, a government-funded project, can provide selected community organizations with public domain software for setting up a BBS for deaf people.

*Deafnet* is a pilot project to develop and disseminate software for computer communications to deaf people.

### *Deafnet Brings Computers to the Deaf*

“Previously, the whole world of computers—or anything else that uses the ASCII code—was closed to deaf people. One of the goals of our project is to open up that world,” states Hal Huntley of SRI International. Many TTD’s (devices that enable deaf people to use the telephone) were designed to use a BAUDOT code. One of DEAFNET’s challenges has been to develop software that translates Baudot into the ASCII code that computers and computer telecommunications use.

The project’s goal is to introduce the Deafnet system and train community leaders to use it in 20 major cities in the United States before the project’s grant ends in October, 1984.

*Deafnet* can make its public domain network software for the deaf available to selected community groups by special arrangement. For more information, contact:

Hal Huntley  
DEAFNET  
SRI International  
333 Ravenswood Ave.  
Menlo Park, CA 94025  
(415) 326-2816 (voice) or (415) 326-1802 (TTD)

## *The National Paraplegia Foundation*

The NPF is developing a variety of computer projects to bring computing skills to paraplegics and implement hardware modifications that enable paraplegics to operate the keyboard with only a headpointer. Jack Kishpaugh, foundation president, was one of the winners of the first Johns Hopkins University competition to aid the handicapped. For more information, write to:

National Paraplegia Foundation  
3400 Hulen  
Ft. Worth, TX 76107  
(817) 737-6661

## *Computer Systems, Inc.*

Commodore computers mean a new life for Gene Spalding, an electrical engineer who became a quadriplegic in 1979. Just five days after returning from his honeymoon, Gene dived into his swimming pool and broke his neck. An injury to the spinal cord at the neck resulted in Gene's being paralyzed from the neck down with minimal use of his right arm.

Two years of hospitalization and home rest proved to be traumatic and depressing until Gene's vocational rehabilitation counselor introduced him to microcomputers.

Gene began working with a micro and entered a course given by the Georgia Institute of Technology in Atlanta, called "The Georgia Computer Programming Course for the Severely Handicapped." Gene was able to communicate with the university's mainframe computer from his home via a remote link.

A friend, Dennis Pellerin, who later became Gene's business partner, introduced Gene to the Commodore CBM microcomputer. Gene developed BASIC programs that provide telephone information services to companies.

Gene, his wife Starr, and the Pellerins founded Computer Systems,



Inc., a Commodore microcomputer dealership in Columbus, Georgia, 90 miles southwest of Atlanta.

As another plus, Gene's work on the Commodore computer with a "typing pen" improved strength and movement in his right arm.

If you'd like to communicate with Gene, he can be reached at:

Computer Systems, Inc.  
Columbus, Georgia  
(404) 324-7000

### *Miller Elementary School*

PETs became a powerful aid to children with a variety of handicaps who attend the Miller Elementary School in Brighton, Michigan. Children who are physically or health impaired, emotionally impaired or learning disabled, or who have other learning problems have all benefitted from microcomputer use.

Teachers William Brown and Mary Schillinger state: "The dexterity required to manipulate the PET keys is minimal." Children have improved fine motor dexterity; can receive non-threatening, immediate feedback from the computer; can practice skills in an organized, distraction-free environment; and are motivated by the fun and excitement of using a computer.

For more information on how the staff and principal of Miller Elementary School teamed up to use the PET to help handicapped kids, write to:

William L. Brown  
Mary Schillinger  
Miller Elementary School  
Brighton, MI

or see *Commodore Magazine*, October 1981.

### *The Delmarva Computer Club*

The Delmarva Computer Club is active in developing computer aids for the blind, deaf, and motor-impaired. The club has developed "Manual Alphabet Tutorial Programs", a "Peg Box" program on the PET/CBM computer that tests intelligence and provides computer stimulation, and a human communications workshop for the Marine Science Consortium. The club also promotes computer awareness by giving demonstrations to local schools, groups and businesses.

For more information on these creative educators, write to:

Delmarva Club  
c/o Jean Trafford, Secretary  
P.O. Box 36  
Wallops Island, VA 23337

The Delmarva Club has also contributed many articles to *COMPUTE! Magazine*. See "Almost Free Software" on page 161 to obtain back issues that contain their contributions.

### *LOGO and Handicapped Learners*

LOGO is a valuable learning tool for special needs and handicapped students.

An excellent book on LOGO and special needs students is:

Paul E. Goldenberg, *Special Technology for Special Children*, Baltimore: University Park Press, 1979.

# EDUCATIONAL, ALMOST FREE SOFTWARE

## Magazines

Magazines and newsletters are valuable resources for Commodore-using educators. We've listed journals that offer valuable advice on computer classroom use, a wide variety of educational applications, and last but not least, actual program listings.

Some of these magazines are available on the newsstand, some only on a subscription basis, but regardless of where you get them you'll find a wealth of Commodore information and Educational, Almost Free Software. Be sure to check the section on "Almost Free Software" for general-interest magazines that also contain programs and articles of interest to educators.

Write to these publications for more information.

### *USERS' GROUP PUBLICATIONS*

#### *ON-LINE*

Official Publication of the New Mexico Commodore Users' Group  
121 Yale S.E.  
Albuquerque, NM 87106

The New Mexico group publishes a minimum 25-page magazine on coverstock that is also sold through selected computer stores. The emphasis of this Users' Group is how to use the Commodore computers to advance your children's education. The magazine features program listings and articles by children as well as adult members.

### *EDUCATIONAL JOURNALS*

*Classroom Computer News*  
Box 266  
Cambridge, MA 02138

*The Computing Teacher*  
Department of Computer Information Science  
University of Oregon  
Eugene, OR 97403

*Creative Computing*  
Box 789-M  
Morristown, NJ 07690

*CUE Newsletter*  
The Newsletter of Computer-Using Educators  
127 O'Connor Street  
Menlo Park, CA 94025

*Educational Computer*  
Box 535  
Cupertino, CA 95015

*The Journal of Courseware Review*  
Advancement of Computer-Aided Education  
Box 28426  
Portland, OR 97204

*Midnight Express*  
635 Maple Court  
Mount Zion, IL 62549

*N.A.C.U.L.*  
c/o Wayne County Intermediate School District  
P.O. Box 807  
Wayne, MI 48184

*Pipeline Conduit*  
University of Iowa  
Box 388  
Iowa City, IA 52244

*School Microwave Reviews*  
Dresden Associates  
Box 246  
Desden, ME 04342

*SPECIAL INTEREST PUBLICATIONS*

*THE COMPUTERIST'S DIRECTORY*  
15350 River Road  
Guerneville, CA 95446

*ON-LINE COMPUTER TELEPHONE DIRECTORY*  
Box 10005  
Kansas City, MO 64111

*TURTLE NEWS*  
1208 Hillside Drive  
Richardson, TX 75081

*ELECTRONIC GAMES*  
Box 1128  
Dover, NH 07801

*INFOWORLD*  
275 Cochituate Rd.  
Box 837  
Framingham, MA 01701

*KEEPING PACE*  
466 Rosewood  
Pittsburgh, PA 15236

*SOFTLINE*  
11021 Magnolia Blvd.  
North Hollywood, CA 91601

*SOFTSIDE*  
100 Pine Street  
Holmes, PA 19043

## *MORE ALMOST FREE SOFTWARE*

Many commercial publishers of educational software sell products that are very moderately priced. They're not free—but they can be an excellent value. Three publishers to consider are:

Sunburst Communications  
Room Y  
39 Washington Avenue  
Pleasantville, New York 10570  
(800) 431-1934

Sunburst Communications publishes some moderately priced courseware for the PET (\$19.95-\$35.00) including computer literacy programs, CAI programs, and Newberry Award children's books with accompanying computer activities.

MICRO-ED, Inc.  
P.O. Box 444005  
Minneapolis, MN 55344  
1 (800) 944-8750

MICRO-ED has a comprehensive catalog of educational software for the Commodore 64. Although prices vary, there are programs that sell for as little as \$7.95.

MICRO-PHYS is another good source of medium-priced educational software. The company publishes programs for the Commodore and VIC-20 that cover a variety of subjects for grades K-12. Their offerings include an SAT program, vocabulary, spelling, chemistry, mathematics, physics, and calculus programs. For more information, write or phone:

MICRO-PHYS  
1737 W. 2nd St.  
Brooklyn, NY 11223  
(212) 375-5151

## *THE CHIPS ARE DOWN*

You can purchase self-teaching cards for the Commodore computers to teach children and beginners how to program. The cards cost \$10.00 plus \$1.23 for tax and shipping. The CHIPS ARE DOWN has been favorably reviewed in the *CUE Newsletter*.

### *THE CHIPS ARE DOWN*

Lida Cate and Marilyn Peterson  
Edwin Markham School  
Placerville, CA 95667

## *MORE USEFUL INFORMATION*

Before you buy any commercial software, check out:

### *Courseware Reviews-1982*

Fifty Classroom Based Evaluations of Microcomputer Programs  
California Library Media Consortium for Classroom Evaluation  
of Microcomputer Courseware  
SMERC Library Microcomputer Center  
San Mateo County Office of Education  
333 Main Street  
Redwood City, CA 94063

The courseware reviews cost \$10.00 (10% discount for orders of 10 or more copies).

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We're planning to update *Free Software* regularly, but we can't do it without your help!

Please help us keep this valuable resource book current and meaningful for all Commodore computer users.

*USERS' GROUPS*

If you've started a new Commodore Users' Group please let us know the details. We'd also like to know more about activities and developments in your club. If your club publishes a newsletter, please put us on your mailing list!

*TELECOMMUNICATIONS*

New BBS phone numbers, new products, new telecommunication software—any information that will give future readers the most up-to-date information about this rapidly growing field.

*EDUCATION*

Please let us know about your new Commodore educational project(s)—we want to publish this information in the next *Free Software*.

*CORRECTIONS*

Events change rapidly in the computer field. If you've found any inaccurate information in this printing, we'd like to know. We'll be sure to correct it in our future revised edition.

*NEED HELP?*

Write to us at “UPDATE ’84” and we’ll try our best to answer your questions.

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All contributors to the next issue of *Free Software* will be listed in the acknowledgment section of the book.

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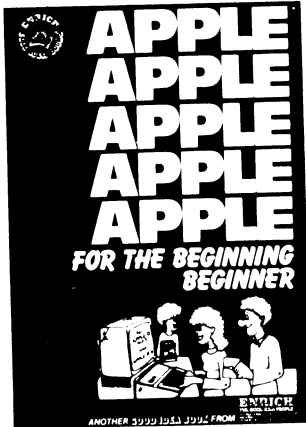
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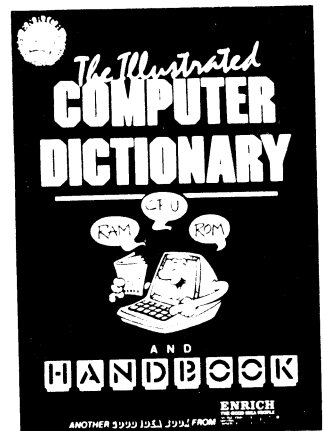
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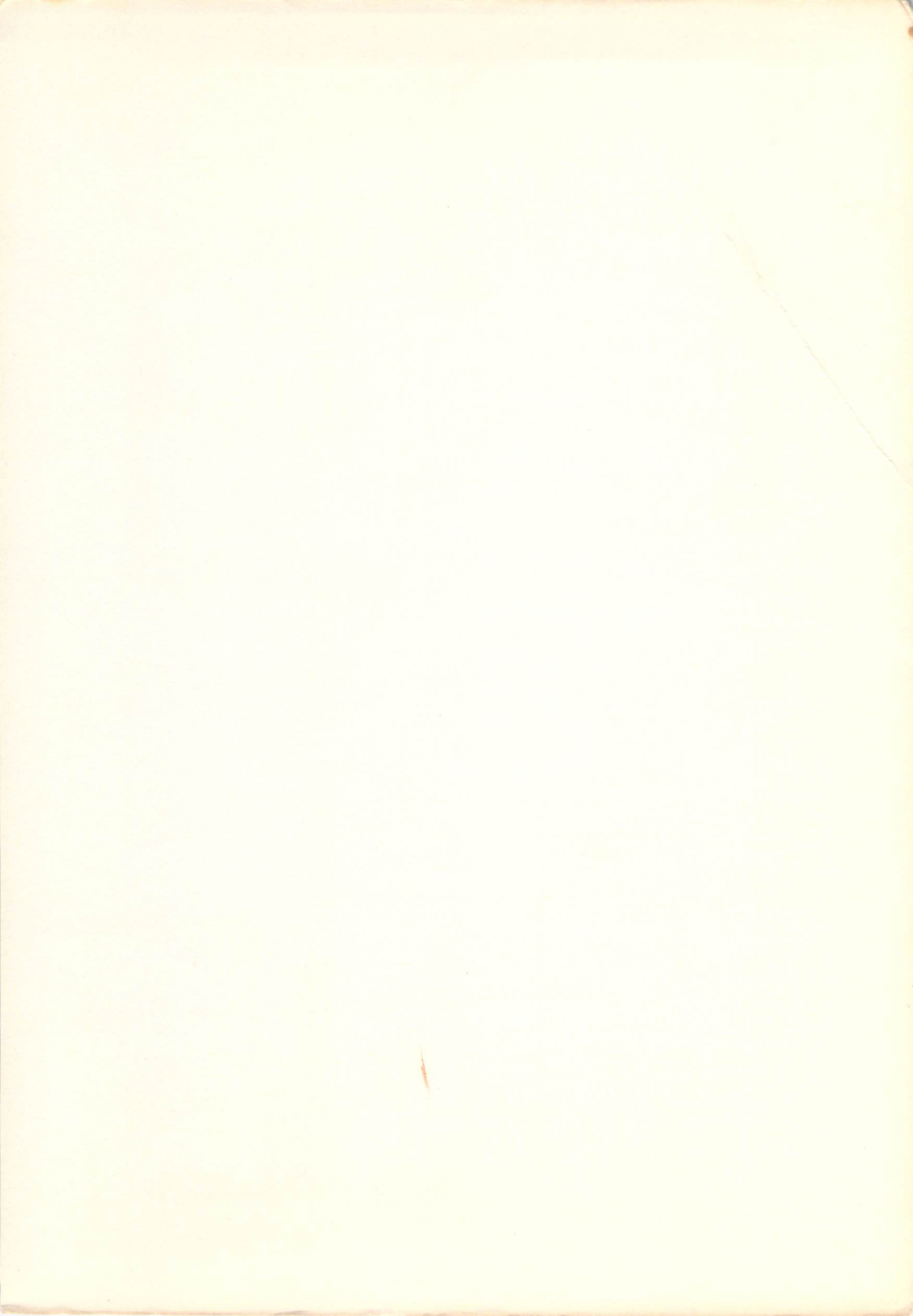
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