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THE COMMODORE 64: A DESIGN CASE HISTORY — PART THREE

By TEKLA S. PERRY and PAUL WALLICH

(Continued from last issue)

The C-64 designers weren't the only ones revising their machine; even some assembly-line workers got into the act. Since testing color quality automatically is virtually impossible, assembly-line workers were instructed to turn a potentiometer that controls the color and black-and-white signals until they saw color. As Charpentier recalled, the workers soon discovered that if they turned the potentiometer as far as possible, it resulted in saturated color--but it also wiped out the black-and-white signal. Several thousand computers had been shipped before the assembly-line workers' "revision" was noticed; by then, some reviewers were lambasting the C-64 for its "garish" colors.

Though these modifications have been made in the C-64 since its introduction, designers who write commercial software for the machine would like to see a few more. One such change would be adequate quality control. "They don't test," said Nelson of Epyx. "I've opened up brand-new Commodores and found traces cut. They obviously use a power screwdriver to assemble the C-64, sometimes miss the screw, and chop the traces. How, you might wonder, could that have passed final inspection? Well, those traces are hooked up to the disk-drive connectors, which they obviously don't test."

In hindsight, Charpentier called one of Commodore's mistakes "not coming a little closer to quality."

One complaint voiced by designers of add-on hardware for the C-64 is that its minimalist design results in undesirable interactions between parts of the hardware and software. For example, the circuitry used to control the joystick and game-paddle port is borrowed once every 1/60 second to scan the keyboard for keys that have been pressed. If the joystick switches are closed, the keyboard-scanning software will report that a key has been pressed. Devices that attach to the joystick ports can cause unpredictable responses--a problem that would not occur if separate hardware had been used for the two functions.

Another flaw is the computer's crude internal software. The system comes up in BASIC when it is turned on. This is a leftover from the days of the first PET computer produced by Commodore, which had no disk-operating system, since there were no disk drives to be had then. "A decent disk-operating system wasn't developed until PET BASIC 4.0," Charpentier said. The C-64 doesn't use this advanced version of BASIC because "it would have required more ROM than we could put in." Instead, the machine uses a more primitive version of BASIC, borrowed from the VIC-20.

The more glaring omissions from the Commodore 64's BASIC are commands to control the sound and graphic chips. "There was never any intention that the system would have built-in software to control the graphics or the sound," said Yannes. "That was an obvious part of the Commodore philosophy: you don't waste money on things that make the product more expensive and that the majority of buyers aren't going to use."

"Commodore has always paid lip service to software," Charpentier said. "They do enough to get by and then rely on outside sources to fill the gap. Commodore was an extension of Jack Tramiel, and to him software wasn't tangible--you couldn't hold, feel or touch it--so it wasn't worth spending money for."

The C-64 designers had plans of their own for changes which haven't yet been implemented. They used the VIC-20 case to shortcut development, but they did have a new case designed that they intended to substitute in eight to ten months. "It was thinner in front and had more of a wedge shape to it," said Charpentier. "I always thought the VIC-20 case looked clunky." A few new features were also to be added to the machine.

The fact that these changes have not been made has not really affected the success of the C-64, asserted Brian Dougherty, president of the Berkeley Softworks of Berkeley, Calif. "This machine has the best graphics-display capability of anything that has yet been done for a TV screen," he said. "It came close to being an awesome system."

The one major flaw of the C-64 is not in the machine itself, but in its disk drive. With a reasonably fast disk drive and an adequate disk operating system (DOS), the C-64 could compete in the business market with the Apple and perhaps with other business computers. With the present disk drive, though, it is hard-pressed to lose its image as a toy.

"Business-oriented software does not look as good as it should on the C-64," said Dougherty, "not because the base system isn't good enough but because the disk-drive access is too slow: any business application requires a lot of disk access." And since the DOS is so weak and lacks features such as the automatic creating and maintaining of directories and keeping track of files, "it is a lot more difficult to develop business software" for the C-64, he added. Somebody like Lotus [Development Corp., manufacturer of a popular integrated business-software package] is facing a lot more difficulty than they did developing software for the IBM PC, because the PC has an operating-system structure that just doesn't exist for this product."

"The basic input-output system in ROM is done fairly cleanly, according to operating-system principles. All the routines that need to be there are there, but there should also be a facility for automatically reading the first track of the disk and booting a more sophisticated operating system into memory."

The disk drive does in fact have a facility for automatically reading the first track of a disk, according to Nelson of Epyx, but because it not documented, it is not widely used.

(Continued in next issue -- Earlier parts of this article available on the CCC BBS at 271-1082.)

CHANGES AFOOT AT CCC

As you are no doubt aware, the CCC is going through some changes in the last few months.

First off, the club has moved back to its "ancestral home," the Sunset Community Center at 404 East 51st Avenue. This is where the workshop meetings are now being held on the first Tuesday of each month at 7:00 p.m. The reason for this move was one of economy--the size of attendance at workshop meetings did not justify the considerable expense of renting the Thompson high school cafeteria. The attendance at the club's "lecture" meeting--held on the third Wednesday of the month at Emily Carr College--has also been declining, and thus has led to speculation that this meeting may be dropped altogether in the fall.

There is only one meeting remaining at Emily Carr, that being on April 16th. The workshop meetings (at Sunset) which have been scheduled at this time are on April 1st, May 6th, June 3rd.

Another change is that members will be allowed to sell items at the workshops. This move is on a trial basis only and has some stipulations. A maximum of three items will be allowed for sale per member at each meeting. Any number in excess of this must be approved by the club's directors. Application must be submitted to the directors for consideration at their meeting which takes place at Sunset on the second Tuesday of each month.

The last few months also saw the appearance of a course on machine language conducted by Murray Kopit (now completed). From all reports, it was very successful, and may be repeated. This course was in response to a survey taken in the club last year.

The newsletter schedule has been altered somewhat, though it is hoped that it will appear at least four times a year. If there are not sufficient articles contributed for each issue, the present tabloid format may have to be dropped in favor of an 8-1/2" x 11" newsletter.

NIX TO PROTECTION MEANS MORE SALES

A bid to create a mass market and to prevent piracy is under way as many of Canada's software developers have started to remove copy protection from personal computer programs, industry spokesmen say.

Developers are also cutting software prices--a trend expected to continue as more companies enter the market.

The elimination of copy protection is a "healthy trend and the direction in which the industry will be going in the next few years," said Reuben Lando, chairman of the Software Developers Association.

The practice is counterproductive "if you're trying to get into the mass market," said Lando. The industry will grow if programs can be easily copied, he added.

To be successful in the volume market, a product name must be familiar to users. Because copy protection prevents copying and lending, it encourages the public to purchase pirated software instead of the original.

For example, if the purchaser cannot copy a $200 software package and the product is later damaged he has lost the value of his purchase, said Michael Reichmann, president of Batteries Included.

"That's a disservice to the end user."

A year ago, Reichmann's company decided to move away from copy protection. Now that customers can make copies, they don't have to fear losing a program and money.

For the manufacturer, unbridled copying is "the best form of advertisement you can get," Lando said. Knowledge of the product translates into higher sales volume and customer loyalty.

For example, Batteries Included produced its first unprotected package last year and "we sold significant volumes of the product," said Reichmann.

Today, the company sells 50 software packages, compatible with major brands of hardware. Only three are protected and "we try to price our products as inexpensively as we can."

Because companies are pricing their products aggressively, they can sell twice as many software packages at half the usual price and still make the same money.

"We've dropped prices to the point where it's not worth copying," said Raj Manucha, president of MSR Inc.

After the company removed copy protection last year, its sales tripled.

When software is priced so low, it "cuts the pirates out because you're giving it away," said Peter Sprung, associate director of the department of computing services at the University of Waterloo.

The pirates are also cut out by the new "shareware" concept in which some manufacturers sell their unprotected product to user groups for as little as $5.

-- reprinted from *The Vancouver Sun*

THE WHOLE 64 LIBRARY

DISKS (DOUBLE-SIDED) COST $5.00 TO BUY OR REQUIRE A $10.00 DEPOSIT WHILE YOU BORROW THEM. 64 LIBRARIAN IS GLENN HAZLEWOOD — SEE HIM AT ANY OF THE CLUB'S VANCOUVER MEETINGS.

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"CCC LIBRARY DISK" A1 2A
1  "C-64 WEDGE"         PRG   23 "HANGMAN"            PRG
26 "BLACKJACK"          PRG   28 "SOLITAIRE"          PRG
14 "TARGET PONG"        PRG   27 "DOMAIN"             PRG
33 "ANDROID NIM 64"     PRG   20 "YAHTZEE"            PRG
38 "ATARI II.C2"        PRG   42 "PERSONALITY TEST"   PRG
25 "ENTERTAINER"        PRG   43 "ARTILLERY.C2"       PRG
37 "LABYRINTH"          PRG   2  "AQUA 2"             PRG
13 "KEYBOARD"           PRG   7  "TIME GUESSER"       PRG
26 "DISK DOCTOR"        PRG   12 "1 SIN+"             PRG
17 "PETALS/ROSE"        PRG   91 "AFRICAN ADVENTUR"   PRG
76 "CASTLE ADVENTURE"   PRG   4  "DOS 5.1"            PRG
16 "MAXIT"              PRG
57 BLOCKS FREE.
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"CCC LIBRARY DISK" A2 2A
1  "C-64 WEDGE"         PRG   11 "DOS IN BASIC"       PRG
4  "DOS 5.1"            PRG   11 "RES MORT"           PRG
4  "HIRES VIEW 2"       PRG   89 "MUSIC MAKER"        PRG
2  "HIRES VIEW 2.MAC"   PRG   20 "GRUMBY TOWERS"      PRG
32 "1-DOLLAR"           PRG   80 "SUPERTREK 64+"      PRG
32 "2-MAP"              PRG   9  "SUPERDOS267000"     PRG
33 "3-DBL BESSEL"       PRG   3  "SPRITE BOOT"        PRG
32 "4-KAREN"            PRG   43 " SPRITE EDITOR"     PRG
33 "5-DIP"              PRG   2  " SCROLL.DATA"       PRG
20 "FRENCH 64"          PRG   3  "SAMPLE SPRITES"     PRG
9  " STANDARD.SET"      PRG   33 "SPRITE INSTR. "     PRG
38 "SINGLE BACKUP"      PRG   4  "CHAR BOOT"          PRG
5  "MOUSE"              PRG   32 " CHAR EDITOR"       PRG
9  "SPRMON.SYS51201"    PRG   1  " ROTATE.DATA"       PRG
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15 "20 QUESTIONS"       PRG   6  "TYPING DRILL"       PRG
4  "ADDITION GAME"      PRG   10 "VOCAB 1"            PRG
2  "ASK"                PRG   13 "ANIMAL"             PRG
11 "BIG MATH 1.1"       PRG   27 "READER"             PRG
9  "CASH REGISTER"      PRG   13 "MATH.QUIZ"          PRG
5  "CRYPTOGRAM"         PRG   10 "ANIMAL.DATA"        SEQ
8  "DONUTS"             PRG   11 "NOT.SO.EASY"        PRG
34 "ELIZA"              PRG   13 "SPELLING.TEST"      PRG
10 "EUROPE"             PRG   14 "O'S & X'S"          PRG
6  "FRACTIONS"          PRG   23 "DISPLAY"            PRG
11 "FRENCH VERBS"       PRG   4  "HISTOGRAM"          PRG
5  "GRAMMAR"            PRG   27 "EDU-TILITIES"       PRG
13 "HAIKU 5"            PRG   16 "EUROPEAN CAPITOL"   PRG
11 "HANGMAN"            PRG   20 "FISHERY"            PRG
11 "HANGMAN(HJS)"       PRG   8  "FLASH CARDS"        PRG
7  "MATH DICE"          PRG   10 "FRENCH"             PRG
13 "MATH TUTOR"         PRG   6  "GLOBAL"             PRG
7  "MISSING NUMBER"     PRG   23 "ICE CREAM PAR"      PRG
9  "NO"                 PRG   26 "MATH IQ"            PRG
15 "PETS"               PRG   27 "HANGMAN 2"          PRG
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19 "STATES&CAPITALS"    PRG   28 "SINGLE BACKUP"      PRG
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10 "SPRITE DEMO"        PRG   12 "XMON64T(38083)"     PRG
9  "3-D DEMO"           PRG   10 "BKOOT"              PRG
3  "H/L DRAW DEMO"      PRG   5  "SEQUENTIAL FILE"    PRG
60 "STAR TREK IV-A"     PRG   13 "RANDOM FILE"        PRG
38 "SPRITE MAKER"       PRG   19 "DISASSEMBLER DIS"   PRG
38 "ATARI"              PRG   16 "DISK CHECKER"       PRG
44 "MASTER MIND"        PRG   7  "DISK VIEWER"        PRG
3  "PETSIM"             PRG   9  "DISK LOGGER"        PRG
12 "TRACK & SECTOR"     PRG   6  "SECTOR PRINT"       PRG
8  "MENU"               PRG   7  "DSK VIEW/CHANGER"   PRG
3  "   DIRECTORY    "   SEQ
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70 "PONZO TUTOR-1.64"   PRG   4  "SAVE FILE(S) PRG"   PRG
67 "PONZO TUTOR-2.64"   PRG   4  "SAVE FILE(S) SEQ"   PRG
74 "PONZO TUTOR-3.64"   PRG   28 "SINGLE BACKUP"      PRG
64 "PONZO TUTOR-4.64"   PRG   33 "SPRITE INSTR. "     PRG
67 "PONZO TUTOR-5.64"   PRG   10 "64 MEM CHART.GR"    PRG
61 "PONZO TUTOR-6.64"   PRG   3  "INDEX HARDCOPY"     PRG
60 "PONZO TUTOR-7.64"   PRG   3  "INDEX HARDCOPY 2"   PRG
12 "LISTER.V64"         PRG   8  "INDEX HARDCOPY 3"   PRG
4  "1525 CHAR.EDIT"     PRG   19 "WORLD CLOCK"        PRG
7  "TIME VEN INST"      PRG   11 "SUPER CHASE"        PRG
7  "TIM VEN SET UP"     PRG   25 "STARTREK"           PRG
18 "TIME ADVENTURE"     PRG
6  BLOCKS FREE.
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"CCC LIBRARY DISK" C2 2A
3  " LIBRARY NOTES "    PRG   4  "ADVF 3"             SEQ
7  "SCRLL.LDR.TAPE"     PRG   5  "ADVF 4"             SEQ
46 "SPRT.EDIT.TAPE"     PRG   3  "ADVF 5"             SEQ
25 "SIDMON"             PRG   8  "ADVITM"             SEQ
24 "SOUNDER"            PRG   5  "ADVKEYS"            SEQ
11 "DOS IN BASIC"       PRG   18 "ADVMAP"             SEQ
80 "SUPERTREK 64+"      PRG   15 "ADVSHOR"            SEQ
40 "ADVENTURE-64"       PRG   2  "HIRES VIEW"         PRG
9  "ADVF 0"             SEQ   32 "1-DOLLAR"           PRG
5  "ADVF 1"             SEQ   32 "2-MAP"              PRG
4  "ADVF 2"             SEQ   33 "3-DBL BESSEL"       PRG
3  "ADVF 20"            SEQ   32 "4-KAREN"            PRG
7  "ADVF 21"            SEQ   33 "5-DIP"              PRG
6  "ADVF 22"            SEQ   22 "DISK UTILITIES"     PRG
5  "ADVF 23"            SEQ   2  "COMM64"             PRG
6  "ADVF 24"            SEQ   56 "BACKGAMMON"         PRG
7  "ADVF 25"            SEQ   4  "PARTITION LOADER"   PRG
11 "ADVF 26"            SEQ   5  "PARTITION /4"       PRG
6  "ADVF 27"            SEQ   13 "SPEED TYPE 64"      PRG
5  "ADVF 28"            SEQ   12 "1 SIN+"             PRG
1  "ADVF 29"            SEQ
0  BLOCKS FREE.
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"CCC LIBRARY DISK" D1 2A
33 "ROM 1"              PRG   7  "64 SEARCHER"        PRG
33 "ROM 2"              PRG   4  "ULTRASORT TEST"     PRG
1  "KERNAL BOOT2"       PRG   23 "ULTRASORT"          PRG
1  "TRANS.A000-A"       PRG   1  "C-64 WEDGE"         PRG
1  "KERNAL BOOT1"       PRG   4  "DOS 5.1"            PRG
5  "DISK MENU"          PRG   3  "DOS INSTR."         PRG
15 "DISK BACKUP 1541"   PRG   45 "MONTANA"            PRG
20 "BIORHYTHMS"         PRG   94 "KANON"              PRG
20 "MUNCHMAID"          PRG   20 "STAR PILOT"         PRG
21 "OIL TYCOON"         PRG   14 "SKI-64"             PRG
42 "WUMPUS HUNT"        PRG   23 "DARK STAR"          PRG
21 "JAPANESE AFO"       PRG   27 "MARTIAN INVADERS"   PRG
4  "UNNEW"              PRG   56 "FOOTBALL64"         PRG
12 "FILECOPIER INSTR"   PRG   13 "1 SIN+"             PRG
16 "FILECOPIER"         PRG   3  "STRING THING 64"    PRG
4  "ALARM CLOCK"        PRG   5  "ENTERPRISE C64"     PRG
3  "AUTO PROOFREADER"   PRG   24 "CONSTRICTOR.4"      PRG
14 "DISASSEMBLER 64"    PRG   8  "EXPANDER.4"         PRG
3  "RAMTEST/MACHINE"    PRG   3  "SLOW LISTER"        PRG
5  "FOUR-SPEED BRAKE"   PRG
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"CCC LIBRARY DISK" D2 2A
13 "C-64 FILE CASE"     PRG   27 "TOKER64"            PRG
9  "LOCKDISK64"         PRG   22 "AFO"                PRG
6  "CROSS-REF64"        PRG   6  "CROSS-REF"          PRG
10 "COPY-ALL.64"        PRG   10 "SUPERMON64.V2"      PRG
109"BACH FUGUE.C"       PRG   12 "LISTER.V64"         PRG
14 "SPRITE MANIP.64"    PRG   10 "COPY-ALL"           PRG
24 "MUSIC MASTER"       PRG   30 "TELCOM232.4.17.4"   PRG
23 "YESTERDAY.C"        PRG   30 "TELCOM8010.4.8.4"   PRG
17 "HIRES GRAPHICS"     PRG   11 "TELCOM.INST.4"      PRG
1  "PET EM"             PRG   4  "MERGER"             PRG
6  "SCREEN PLOTTER"     PRG   8  "RS232.INSTR.4"      PRG
98 "MONOPOLE.C"         PRG   4  "FACTORS.VIC64"      PRG
14 "SUBMARINES.C"       PRG   10 "BLACKJACK!"         PRG
27 "MASTER"             SEQ   6  "BIRTHDAY.64"        PRG
14 "COWBOY SHOOTOUT"    PRG   12 "TWIN BARRELS"       PRG
11 "RES MORT"           PRG   14 "BATTLESHIPS"        PRG
1  "PET EMU BOOT"       PRG   9  "LINCOLNSHIRE"       PRG
17 "EMULATOR"           PRG   2  "COPY FILE 64"       PRG
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9  "HI RES LOADER"      PRG   32 "FRIENDS"            PRG
1  "SCREEN"             PRG   32 "SINCOS2"            PRG
7  "CONT.LDR.PAL"       PRG   32 "SATELLITE"          PRG
32 "SQUEEZE"            PRG   32 "DONALD.DUCK"        PRG
32 "TEX"                PRG   32 "VN.THINGS"          PRG
32 "HOPALONG"           PRG   32 "SESAME.ST"          PRG
32 "GUY"                PRG   32 "NUDE.REV"           PRG
32 "FIG1"               PRG   32 "VIS.ROSETTE"        PRG
32 "FIG2"               PRG   32 "VIS.G1A"            PRG
32 "FIG3"               PRG   32 "XMAS.CARD.1"        PRG
32 "HOUND2"             PRG   32 "4HILLS"             PRG
2  BLOCKS FREE.
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"CCC LIBRARY DISK" E2 2A
1  "LIST-ME CS1.L"      PRG   32 "DEB.1"              PRG
5  "CONT.LDR.ML"        PRG   32 "7-SHILL"            PRG
8  "HI RES LOADER"      PRG   32 "MUSIC"              PRG
1  "SCREEN"             PRG   32 "MAP"                PRG
6  "CONT.LDR.PAL"       PRG   32 "DIANE"              PRG
32 "SPIRAL.1"           PRG   32 "WILLY"              PRG
32 "SUE"                PRG   32 "RACCOON"            PRG
32 "KAREN"              PRG   32 "SINCOS1"            PRG
32 "SNOOPY"             PRG   32 "WATCH"              PRG
32 "ALBERT"             PRG   32 "WINSTON"            PRG
32 "DOLLAR"             PRG   32 "MICROMETER"         PRG
32 "DIP"                PRG   32 "NUDE"               PRG
32 "SNAIL"              PRG
3  BLOCKS FREE.
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"CCC LIBRARY DISK" F1 2A
47 "BITS AND BYTES"     PRG   52 "DISKVIEW-64"        PRG
5  "BYTSPRITES"         PRG   13 "MINIWORDPRO.64"     PRG
1  "DOS.BOOT.64"        PRG   20 "LIST"               PRG
4  "+DOS 5.1.64"        PRG   10 "ARTILERY"           PRG
2  "+DOS.INST.64"       PRG   26 "BACKGAMMON"         PRG
37 "PILOT INST.64"      PRG   13 "BUGS 64"            PRG
13 "PILOT TRANSL.64"    PRG   22 "CAVES & CAVERNS"    PRG
4  "DISK ADDR CHANGE"   PRG   12 "CHECKERS"           PRG
11 "COPY/ALL"           PRG   24 "CONCENTRATION 64"   PRG
13 "HOW TO USE"         PRG   12 "HAMMURABI"          PRG
5  "HOW PART TWO"       PRG   8  "MUKADE"             PRG
1  "C-64 WEDGE"         PRG   21 "OTHELLO"            PRG
4  "DOS 5.1"            PRG   16 "PI HUNT 64"         PRG
9  "PRINTER TEST"       PRG   16 "PI HUNT 64.2"       PRG
6  "VIEW BAM"           PRG   24 "YAHTZEE"            PRG
4  "CHECK DISK"         PRG   33 "MUGWUMPS"           PRG
14 "DISPLAY T&S"        PRG   50 "DISK CMDS"          PRG
9  "PERFORMANCE TEST"   PRG   69 "NUCLEAR DEMO"       PRG
5  "SEQUENTIAL FILE"    PRG   7  "GASSER"             PRG
13 "RANDOM FILE"        PRG
1  BLOCKS FREE.
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"CCC LIBRARY DISK" F2 2A
5  "BOOT.UK3.64"        PRG   58 "QUIET AFTERNOON"    PRG
23 "+SPRITES.64"        PRG   42 "O-BACK CHALLENGE"   PRG
3  "+MUSIC.64"          PRG   8  "GUESS A GRAPH"      PRG
7  "+LAND.64"           PRG   8  "SAFE CRACK"         PRG
71 "+DEMO.64"           PRG   6  "TORPEDO"            PRG
15 "1000 MILES/INST"    PRG   32 "3DMAZE"             PRG
25 "1000 MILES"         PRG   9  "FIFTEEN.64"         PRG
13 "1 SIN+"             PRG   14 "OUTPOST 64"         PRG
79 "STAR TREK-C64"      PRG   23 "IT"                 PRG
23 "DRAW POKER"         PRG   53 "SNOOPY MATH"        PRG
23 "CARD SNAP"          PRG   44 "LONE(64)RANGER"     PRG
25 "CLUE"               PRG   2  "ALPHABET TYPE"      PRG
17 "SPACE NIM"          PRG   2  "TEMPERATURE CONV"   PRG
14 "DUCKSHOOT"          PRG
2  BLOCKS FREE.
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"CCC LIBRARY        " G1 2A
10 "DISK MANAGER"       PRG   4  "CHRISTMAS"          PRG
1  "SPACE DUEL BOOT"    PRG   149"CHRISTMASMUSIC"     PRG
5  "SPACE DUEL49152"    PRG   17 "CHRISTMASCODE"      PRG
4  "AUTO PROOF"         PRG   5  "CHRISTMASBOOT"      PRG
12 "MLX"                PRG   3  "DEMO.BOOT"          PRG
4  "UNNEW"              PRG   17 "DEMO.C000"          PRG
8  "MERRY CHRISTMAS"    PRG   4  "SNAIL.C64.BOOT"     PRG
12 "WORD HUNT 10/10"    PRG   43 "SNAIL.C64.INST"     PRG
13 "WORD HUNT 30/30"    PRG   83 "SNAIL.C64"          PRG
12 "WORD HUNT 10/15"    PRG   3  "GEMINI SCR.DUMP"    PRG
2  "PRINT LOTTO 649"    PRG   11 "HAM CODE"           PRG
2  "SLOT.BOOT"          PRG   2  "CATALOG INST."      PRG
6  "SLOT.A"             PRG   44 "CATALOG"            PRG
45 "SLOT"               PRG   86 " BREAKOUT"          PRG
3  "KEYPRINT.INST"      PRG   28 "SINGLE BACKUP"      PRG
1  "KEYPRNT.$C000"      PRG   8  "INDEX HARDCOPY 4"   PRG
7  "KEYPRNT.PAL"        PRG
3  BLOCKS FREE.
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"CCC LIBRARY        " G2 2A
40 "MC.MASTER CAT"      PRG   103"MU.C64 MUSIC"       PRG
9  "MC.MAKE MASTER"     PRG   20 "MU.MACHINE OBJ"     PRG
5  "COMMANDS"           PRG   18 "TEXTMASTER 64"      PRG
30 "COM.TEXT DEMO"      PRG   40 "TM-INSTRUCT 1"      PRG
22 "COM.SORT DEMO"      PRG   40 "TM-INSTRUCT 2"      PRG
4  "COM.HOW FAST"       PRG   9  "TM-INSTRUCT 3"      PRG
38 "HR.GRAPHICS PAL"    PRG   10 "AN.INSTRUCTIONS"    PRG
24 "HR.GRAPHICS INST"   PRG   33 "AN.ELLIPSE"         PRG
9  "HR.GRAPHICS OBJ"    PRG   18 "AN.WIBBLE"          PRG
6  "HR.GRAPHICS DEMO"   PRG   54 "AN.ANIMATION PAL"   PRG
3  "HR.PICTURE LOAD"    PRG   6  "AN.ANIMATION OBJ"   PRG
33 "HR.PICTURE 1"       PRG   10 "AN.ANIMATION DEM"   PRG
2  "HR.HIRES TO 1525"   PRG   10 "64 TEST          "  SEQ
27 "MU.PLAYER PAL"      PRG
19 BLOCKS FREE.
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"CCC LIBRARY DISK" H1 2A
8  "MINEFIELD 2.P"      PRG   2  "REF.PAGE 126.1"     PRG
19 "STAR LANES.P"       PRG   2  "REF.PAGE 127.1"     PRG
17 "WORD-SEARCH.P"      PRG   2  "REF.PAGE 134.1"     PRG
20 "TV SATELLITES.P"    PRG   2  "REF.PAGE 139.1"     PRG
4  "SEQ DIR.C"          PRG   1  "REF.PAGE 142.1"     PRG
4  "THE BIRDS.C"        PRG   1  "REF.PAGE 142.2"     PRG
14 "DEMON STAR2.C"      PRG   7  "REF.PAGE 144.1"     PRG
39 "CYLON ZAP.C"        PRG   12 "REF.PAGE 147.1"     PRG
72 "DEATH STAR.C"       PRG   8  "REF.PAGE 148.1"     PRG
91 "DR. LIVINGSTON.C"   PRG   1  "REF.PAGE 155.1"     PRG
69 "PIRATE ADV.C"       PRG   1  "REF.PAGE 159.1"     PRG
8  "TINY.AID.C"         PRG   1  "REF.PAGE 160.1"     PRG
3  "KALEIDOSCOPE.C"     PRG   1  "REF.PAGE 161.1"     PRG
10 "MINEFIELD.C"        PRG   2  "REF.PAGE 163.1"     PRG
18 "SNOOP.C"            PRG   2  "REF.PAGE 168.1"     PRG
16 "VIPER.C"            PRG   5  "REF.PAGE 167.1"     PRG
1  "FEED.BOOT.C"        PRG   4  "REF.PAGE 181.1"     PRG
26 "+THE.EARTH.C"       PRG   2  "REF.PAGE 186.1"     PRG
1  "+FEED.ML.C"         PRG   7  "REF.PAGE 187.1"     PRG
16 "DIR. READER.C"      PRG   2  "REF.PAGE 193.1"     PRG
63 "SUPER64.SRC"        PRG   2  "REF.PAGE 197.1"     PRG
4  "CONTEXT INDEXER"    PRG   2  "REF.PAGE 200.1"     PRG
4  "LIST-ME (C)E3.L"    PRG   2  "REF.PAGE 203.1"     PRG
3  "REF.PAGE 20.1"      PRG   1  "REF.PAGE 205.1"     PRG
2  "REF.PAGE 45.1"      PRG   1  "REF.PAGE 206.1"     PRG
1  "REF.PAGE 85.1"      PRG   1  "REF.PAGE 207.1"     PRG
2  "REF.PAGE 110.1"     PRG   1  "REF.PAGE 208.1"     PRG
1  "REF.PAGE 111.1"     PRG   2  "REF.PAGE 344.1"     PRG
5  "REF.PAGE 114.1"     PRG   4  "REF.PAGE 347.1"     PRG
2  "REF.PAGE 117.1"     PRG   4  "REF.PAGE 356.1"     PRG
6  "REF.PAGE 118.1"     PRG   3  "REF.PAGE 357.1"     PRG
7  "REF.PAGE 119.1"     PRG   4  "REF.PAGE 371.1"     PRG
1  "REF.PAGE 123.1"     PRG   1  "USER.PAGE 43.1"     PRG
1  "REF.PAGE 123.2"     PRG   1  "USER.PAGE 44.1"     PRG
4  BLOCKS FREE.
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"CCC LIBRARY DISK" H2 2A
2  "USER.PAGE 46.1"     PRG   7  "DIR-LIST.64.C"      PRG
1  "USER.PAGE 47.1"     PRG   14 "DEMON STAR.C"       PRG
1  "USER.PAGE 49.1"     PRG   23 "HAMMEN"             PRG
2  "USER.PAGE 51.1"     PRG   28 "FOGBANK.C"          PRG
2  "USER.PAGE 58.1"     PRG   30 "LINK.INSTR.C"       PRG
1  "USER.PAGE 65.1"     PRG   19 "RELOCATOR 5.2.C"    PRG
2  "USER.PAGE 71.1"     PRG   12 "PAINT.C"            PRG
2  "USER.PAGE 74.1"     PRG   17 "WATERMELON-J.C"     PRG
1  "USER.PAGE 79.1"     PRG   7  "HEADS OR TAILS.C"   PRG
1  "USER.PAGE 80.1"     PRG   34 "MOON BUGGY.C"       PRG
2  "USER.PAGE 81.1"     PRG   14 "TERMINAL.64.C"      PRG
1  "USER.PAGE 85.1"     PRG   7  "+TERM.64.C"         PRG
1  "USER.PAGE 86.1"     PRG   41 "TOLL BRIDGES.P"     PRG
1  "USER.PAGE 87.1"     PRG   24 "MUSICMASTER"        PRG
2  "USER.PAGE 88.1"     PRG   90 "THE KANON.C"        PRG
1  "USER.PAGE 90.1"     PRG   19 "BACH DUET.C"        PRG
1  "USER.PAGE 90.2"     PRG   30 "LIGHT CYCLES 64!"   PRG
1  "USER.PAGE 99.1"     PRG   35 "NIGHTMARE PARK.C"   PRG
1  "USER.PAGE 110.1"    PRG   34 "WHEEL FORTUNE.C"    PRG
1  "USER.PAGE 111.1"    PRG   14 "SUBMARINES.C"       PRG
7  "USER.PAGE 145.1"    PRG   16 "64 TIMEPIECE"       PRG
4  "USER.PAGE 146.1"    PRG   8  "SILLY 64"           PRG
6  "USER.PAGE 147.1"    PRG   4  "OLD ENG.BOOT"       PRG
16 "BACKUP 1541"        PRG   9  "OLD ENGLISH(27)"    PRG
9  "GOBLIN"             PRG   7  "DISK NAME CHANGE"   PRG
9  "GOBLIN2"            PRG   24 "CONCENTRATION"      PRG
13 "DOS-AID.64.C"       PRG
1  BLOCKS FREE.
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"CCC LIBRARY DISK" I1 2A
12 "POTHOLES"           PRG   7  "S/SCRIPT COMMAND"   PRG
13 "DOTS"               PRG   10 "1 TOUCH COMMANDS"   PRG
10 "RE-BEEP"            PRG   23 "GRAPHIC TUT-2.64"   PRG
16 "64 TIMEPIECE"       PRG   71 "GRAPHIC TUT-1.64"   PRG
5  "COLOR BARS"         PRG   76 "SPRITES TUT-1.64"   PRG
14 "MLX ENTRY MON-3"    PRG   31 "SPRITES TUT-2.64"   PRG
6  "SPIKE.INST."        PRG   25 "LABEL.ASSEMBLER"    PRG
10 "SPIKE"              PRG   10 "GRAPHMASTER"        PRG
13 "SUPERBASIC"         PRG   5  "INV DISK DIR"       PRG
3  "MOIRE PATTERN"      PRG   6  "DATAWRITER"         PRG
2  "STAR DEMO"          PRG   9  "DISK HEADER"        PRG
3  "FALLING SHAMROCK"   PRG   13 "OLD.MON.WED"        PRG
8  "MERRY XMAS"         PRG   15 "R.REVENGE"          PRG
3  "64 RENUMBER"        PRG   3  "ULTRAFONT INST"     PRG
9  "TEST DRIVE 9"       PRG   12 "ULTRAFONT49152"     PRG
9  "TEST DRIVE 8"       PRG   27 "HAUNTED MANSION"    PRG
7  "SPRITE BASIC"       PRG   6  "PGM FUNCTION KEY"   PRG
5  "BUTTERFLY SPRITE"   PRG   2  "ASTRO PANIC INST"   PRG
5  "TIE FIGHTER"        PRG   1  "ASTRO PANIC BOOT"   PRG
26 "CANYONS OF ZELAZ"   PRG   7  "ASTRO 49152"        PRG
1  "ONE LINE"           PRG   1  "OSIRIS BOOT"        PRG
13 "SEA BATTLE"         PRG   8  "OSIRIS 49152"       PRG
5  "INDEX HARDCOPY 5"   PRG   20 "RETRIEVALS"         PRG
2  "1541 FORMATTER"     PRG   10 "FRACTION SHOOT"     PRG
19 "SPEEDSCRIPT"        PRG   11 "MATH DRAG"          PRG
2  "SPEEDSCRIPT.INST"   PRG
19 BLOCKS FREE.
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"CCC LIBRARY DISK" I2 2A
16 "VOYAGER VI"         PRG   32 "100 RADIUS"         PRG
32 "40 RADIUS"          PRG   32 "ET.PLOT"            PRG
32 "60 RADIUS"          PRG   32 "GLOBE"              PRG
32 "SPHERE.1"           PRG   11 "DMON/64"            PRG
32 "10 DEGREES"         PRG   13 "DOC/64"             PRG
32 "20 DEGREES"         PRG   8  "SBACK.64"           PRG
32 "30 DEGREES"         PRG   11 "SCOPY.64"           PRG
32 "45 DEGREES"         PRG   3  "LOADAT"             PRG
32 "60 DEGREES"         PRG   5  "MICROMON INST"      PRG
32 "70 DEGREES"         PRG   17 "MICROMON 49152"     PRG
32 "80 DEGREES"         PRG   9  "FUNCTION KEYS"      PRG
32 "90 DEGREES"         PRG   29 "DUAL 1541 BACKUP"   PRG
32 "120 RADIUS"         PRG   9  "DUAL 1541 INSTR."   PRG
32 "150 RADIUS"         PRG   4  "CHANGE DISK"        PRG
17 BLOCKS FREE.
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"CCC LIBRARY        " J1 2A
7  "CARDCO LOCK"        PRG   2  "GREEN EYE PLOT"     PRG
8  "INTERFACE TEST"     PRG   9  "TINY MENU"          PRG
4  "DEMONS INST"        PRG   2  "FLOWERS"            PRG
8  "DEMONS OF OSIRIS"   PRG   1  "COMAL STUFF-----"   SEQ
19 "CANYON CRUISER"     PRG   4  "STR().PROC.C"       SEQ
9  "PRACTICAL JOKE"     PRG   2  "VAL.F.207.C.I"      SEQ
10 "HARDHAT CLIMBER"    PRG   1  "REVERSE.PROC.C"     SEQ
7  "GRAPH PLOTTER"      PRG   3  "FACSUM.FUNC.R.C"    SEQ
4  "ASTRO-PANIC.INST"   PRG   2  "MIN/MAX.FUNC.C"     SEQ
7  "ASTRO-PANIC"        PRG   3  "HEXDEC.PROC.C"      SEQ
2  "MUNCHMAZE.INST"     PRG   13 "PLOTTER.PROC"       SEQ
7  "MUNCHMAZE"          PRG   2  "SUNFLAKE"           SEQ
8  "RED BARON.INST"     PRG   9  "SUNFLAKE.PLOT"      PRG
15 "RED BARON"          PRG   5  "DISK GET.IMPROVE"   SEQ
22 "ULTRAFONT.INST"     PRG   11 "PRINT DIRECTORY"    PRG
12 "ULTRAFONT"          PRG   10 "FORMATTER"          PRG
18 "TRENCHFIRE"         PRG   9  "PALINDROMES"        PRG
17 "1541 8-UP"          PRG   5  "6/49 SIM"           PRG
24 "POKER"              PRG   18 "FORMATTER.PLOT"     PRG
7  "64-KEY"             PRG   4  "HI"                 PRG
40 "CHARACTER EDITOR"   PRG   1  "PRINTER STUF-----"  SEQ
21 "TEST   .CHR"        SEQ   43 "MONTH CALENDAR"     PRG
10 "SILENT NIGHT"       PRG   14 "YEAR CALENDAR"      PRG
2  "BOOTMES"            PRG   8  "APPT. CALENDAR"     PRG
6  " MES"               PRG   8  "A LABEL MAKER"      PRG
10 "BARRIER BATTLE"     PRG   9  "2XCHAR.4"           PRG
8  "ROAD RUNNER"        PRG   14 "DISK DRIVE EXP"     PRG
10 "REACT"              PRG   5  "COLOR CHANGE"       PRG
7  "HI-RES.INST"        PRG   5  "BAM VIEW 64 H/C"    PRG
13 "HI-RES SKETCHPAD"   PRG   22 "DOCTOR.INS"         PRG
1  "PLOTTER STUFF---"   SEQ
37 BLOCKS FREE.
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"CCC LIBRARY        " J2 2A
11 "LIST-ME FIRST  "    PRG   14 "TEMP CONVERT.C"     PRG
25 "WORD PROCESSOR.C"   PRG   28 "REQ'D SUPPLY.C"     PRG
16 "EASY EDIT.C"        PRG   12 "BIO-COMPAT.C"       PRG
14 "TYPEWRITER.C"       PRG   12 "BIO-PLOTER.C"       PRG
9  "TYPER.C"            PRG   17 "BIO-PRINTER.C"      PRG
6  "TEXT EDITOR.C"      PRG   25 "CAR COST MILE.C"    PRG
13 "MINIWORDPRO.C"      PRG   18 "RECIPE SIZER.C"     PRG
8  "FOOD PRICES.C"      PRG   27 "ADDRESS BOOK.C"     PRG
23 "HEATING COST.C"     PRG   27 "RECORDINGS.C"       PRG
7  "MONEY EXCHANGE.C"   PRG   27 "LIBRARY CARDS.C"    PRG
22 "PROPERTY EVAL.C"    PRG   14 "CHECKBOOK.C"        PRG
18 "WEIGHT WATCHER.C"   PRG   28 "MAG INDEX.C"        PRG
23 "MEMORANDA.C"        PRG   9  "BIORHYTHM.C"        PRG
21 "LIFE EXPECT.C"      PRG
190BLOCKS FREE.
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"CCC LIBRARY        " K1 2A
12 "LIST-ME FIRST "     PRG   7  "MORT SCHED.C"       PRG
27 "INTEREST.C"         PRG   6  "MORT CALC.C"        PRG
21 "BOOKKEEPING.C"      PRG   12 "MORTGAGE.I"         PRG
30 "LUMP SUM.C"         PRG   23 "MEMORANDA.C"        PRG
23 "BOND YIELD.C"       PRG   13 "INVOICER.C"         PRG
4  "FICA TAX.C"         PRG   7  "DATES.C"            PRG
9  "STOCK OPTION.C"     PRG   5  "MILEAGE.C"          PRG
11 "STOCK LIST.C"       PRG   8  "MARKS.C"            PRG
15 "LOAN.C"             PRG   10 "GROWTH RATE.C"      PRG
25 "IRREG CASH FLOW.C"  PRG   4  "DAY OF WEEK.C"      PRG
12 "INVESTMENT.C"       PRG   6  "CALENDER.C"         PRG
11 "INVENTORY.C"        PRG   3  "TYPING TEST.C"      PRG
4  "GROWTH CALC.C"      PRG   12 "BUSPRCASHROI.C"     PRG
14 "DECISION MAKER.C"   PRG   24 "APARTMENT.C"        PRG
16 "FINANCIAL CALC.C"   PRG   19 "COPS BASE TAPE.C"   PRG
12 "PORTFOLIO.C"        PRG   20 "COPS BASE DISK.C"   PRG
7  "MORTGAGE.C"         PRG
230BLOCKS FREE.
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"CCC LIBRARY        " K2 2A
13 "MPRM SCREENS"       SEQ   19 "CATLOG.INS"         PRG
87 "MPRM.DOC"           PRG   6  "CHBOOT.INS"         PRG
67 "MPRMEXAMPLE"        PRG   7  "GRFUTL.INS"         SEQ
15 "MPRMSEQ"            PRG   1  "HO.INS"             PRG
74 "MPRMUTIL"           PRG   11 "PRTERR.INS"         PRG
30 "MPRM"               SEQ   7  "SNDUTL.INS"         SEQ
15 "DOC/64.LP"          PRG   3  "SEQ LISTER"         PRG
24 "BINGO"              PRG   3  "ACCEPT.INF"         SEQ
6  "SPRITE GEN"         PRG   7  "ACCEPT.INS"         PRG
8  "SUPER DIRECTORY"    PRG   3  "FORMAT.INF"         SEQ
11 "DISK EDITOR"        PRG   17 "FORMAT.INS"         PRG
9  "DIR ORGANIZER"      PRG   12 "CLUE1"              PRG
33 "DISK MASTER"        PRG   35 "CLUE TWO"           PRG
1  "COMAL---STUFF---"   SEQ
150BLOCKS FREE.
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"CCC LIBRARY DISK" L1 2A
1  "MENU"               PRG   6  "64MENU"             PRG
43 "PROPS"              PRG   7  "VICMENU"            PRG
15 "MIND BOGGLE/64"     PRG   21 "VICSPEEDSCRIPT"     PRG
13 "MIND BOGGLE/VIC"    PRG   3  "VICONTENTS"         SEQ
9  "MEMO WRITER/64"     PRG   3  "64 CONTENTS"        SEQ
9  "MEMO WRITER/VIC"    PRG   19 "SS"                 PRG
5  "BEGIN CORNER/64"    PRG   14 "SPEED1"             PRG
5  "BEGIN CORNER/VIC"   PRG   9  "SPEED2"             PRG
6  "MLBSS/64"           PRG   17 "SPEED3"             PRG
6  "MLBSS/VIC"          PRG   20 "SPEED4"             PRG
8  "SOUND STORY"        PRG   10 "SPEED5"             PRG
5  "STEP LISTER/64"     PRG   1  "64INSTR"            PRG
6  "STEP LISTER/VIC"    PRG   1  "INSTR"              PRG
4  "VIC PRINT SOUND"    PRG   1  "VICINSTR"           PRG
2  "CASS BEEPER/64"     PRG   8  "CONVERT64"          PRG
3  "CASS BEEPER/VIC"    PRG   8  "CONVERTVIC"         PRG
31 "SOUND SCULPTOR 1"   PRG   4  "COMPUTESCREEN"      PRG
19 "2"                  PRG   4  "COMPUTECOLOR"       PRG
33 "64SPEEDSCRIPT"      PRG   1  "COMPUTE!"           PRG
8  "SKI PHYSICS 1"      PRG   10 "GAZETTE"            PRG
8  "SKI PHYSICS 2"      PRG   10 "64BOOKS"            PRG
16 "SKI PHYSICS/64"     PRG   7  "VICBOOKS"           PRG
14 "JOYSTICK CONTROL"   PRG   4  "COMPUTE!/VIC"       PRG
14 "FAST ADD/64"        PRG   6  "GAZETTE/VIC"        PRG
11 "FAST ADD/VIC"       PRG   1  "----------------"   SEQ
26 "SUPERSPRITE"        PRG   11 "FAST COPY-64"       PRG
122BLOCKS FREE.
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"CCC LIBRARY DISK" L2 2A
1  "MENU"               PRG   10 "SHAPE MATCH"        PRG
5  "COMPUTE!/VIC"       PRG   9  "WORD SCRAMBLE/64"   PRG
7  "GAZETTE/VIC"        PRG   8  "WORD SCRAMBLE/VI"   PRG
3  "VICONTENTS"         SEQ   10 "BEGIN CORNER/VIC"   PRG
2  "COMPUTE!"           PRG   15 "BEGIN CORNER/64"    PRG
8  "VICBOOKS"           PRG   8  "1 TOUCH KEYWORDS"   PRG
10 "64BOOKS"            PRG   10 "RANDOM NUMBERS"     PRG
17 "3-D TAC TOE/64"     PRG   2  "TAPE DATA FILES1"   PRG
17 "3-D TAC TOE/VIC"    PRG   2  "TAPE DATA FILES2"   PRG
7  "CASTLE DUNGEONVI"   PRG   2  "TAPE DATA FILES3"   PRG
13 "D"                  PRG   4  "FILE COPIER"        PRG
26 "CASTLE DUNGEON64"   PRG   8  "SCROLL 64"          PRG
9  "FRANTIC FISH/VI"    PRG   3  "64 CONTENTS"        SEQ
10 "FRANTIC2"           PRG   6  "MN"                 PRG
40 "FRANTIC FISH/64"    PRG   85 "CODE PRO-64 SMA"    PRG
13 "REVENGE CYON/VIC"   PRG   4  "COMPUTECOLOR"       PRG
13 "REVENGE CYON/64"    PRG   4  "COMPUTESCREEN"      PRG
22 "THERAPY/64"         PRG   7  "VM"                 PRG
22 "THERAPY/VIC"        PRG   10 "GAZETTE"            PRG
16 "SPELL CRITTER/64"   PRG   11 "FAST COPY-64"       PRG
9  "SPELL CRITTER.VI"   PRG
160BLOCKS FREE.
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"CCC LIBRARY DISK" M1 2A
1  "MENU"               PRG   12 "BONK BARRELS/VIC"   PRG
5  "COMPUTE!/VIC"       PRG   28 "SPACE PATROL/64"    PRG
7  "GAZETTE/VIC"        PRG   10 "SPACE PATROL/VI"    PRG
2  "COMPUTE!"           PRG   10 "SP"                 PRG
8  "VICBOOKS"           PRG   15 "ROBOT MATH/64"      PRG
10 "64BOOKS"            PRG   13 "ROBOT MATH/VIC"     PRG
7  "VM"                 PRG   25 "SC"                 PRG
6  "MN"                 PRG   11 "BEGIN CORNER/VIC"   PRG
4  "COMPUTECOLOR"       PRG   3  "COLOR CHART/VIC"    PRG
4  "COMPUTESCREEN"      PRG   3  "COLOR CHART/64"     PRG
10 "GAZETTE"            PRG   12 "BEEKEEPER/64"       PRG
4  "ULTRAFONT LOADER"   PRG   11 "BEEKEEPER/VIC"      PRG
13 "ULTRAFONT.OBJ"      PRG   2  "VICONTENTS"         SEQ
14 "REVISED MLX/64"     PRG   2  "64 CONTENTS"        SEQ
85 "CODE PRO-64 SMA"    PRG   1  "BEGIN CORNER/64"    PRG
15 "BONK BARRELS/64"    PRG
303BLOCKS FREE.
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"CCC LIBRARY DISK" M2 2A
32 "DISK MASTER"        PRG   4  "DIR.L2"             SEQ
32 "64 DISK MASTER"     PRG   7  "DIR.G1"             SEQ
2  "DIR.C1"             SEQ   3  "DIR.G2"             SEQ
3  "DIR.A2"             SEQ   3  "DIR.M1"             SEQ
2  "DIR.A1"             SEQ   1  "--------"           PRG
4  "DIR.B1"             SEQ   3  "DISK DIR XREF"      SEQ
3  "DIR.B2"             SEQ   19 "FUNCKEYS"           PRG
4  "DIR.C2"             SEQ   31 "AUDIO CATALOGGER"   PRG
4  "DIR.D1"             SEQ   8  "AUDATA"             SEQ
3  "DIR.D2"             SEQ   3  "PRINT LOTTO 649"    PRG
2  "DIR.E1"             SEQ   19 "64 WORD HUNT"       PRG
3  "DIR.E2"             SEQ   5  "LP RECORD TIMER"    PRG
4  "DIR.F1"             SEQ   2  "64 FANFARE"         PRG
3  "DIR.F2"             SEQ   4  "MULT TO 70 NOS"     PRG
3  "DIR.G1"             SEQ   8  "ALPHA-DIRECTORY"    PRG
3  "DIR.G2"             SEQ   8  "TINY-ALPH-DIRECT"   PRG
6  "DIR.H1"             SEQ   12 "UNSCRATCHER"        PRG
5  "DIR.H2"             SEQ   12 "COLOR PENTONIMOS"   PRG
5  "DIR.I1"             SEQ   12 "64 DISK EDITOR"     PRG
3  "DIR.I2"             SEQ   5  "TIGER SPRITE"       PRG
5  "DIR.J1"             SEQ   16 "BUDGET PLANNER"     PRG
3  "DIR.J2"             SEQ   4  "METEOR BOOT"        PRG
3  "DIR.K1"             SEQ   33 "METEOR TITLE"       PRG
3  "DIR.K2"             SEQ   2  "DATA 1"             PRG
5  "DIR.L1"             SEQ   6  "ML METEOR"          PRG
291BLOCKS FREE.
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"CCC LIBRARY DISK" N1 2A
1   "MENU"             PRG   31  "BB"               PRG
8   "COMPUTE!/VIC"     PRG   30  "CAMPAIGN MANAGER" PRG
7   "GAZETTE/VIC"      PRG   2   "CURSOR SET/VIC"   PRG
2   "COMPUTE!"         PRG   2   "CURSOR SET/64"    PRG
3   "64 CONTENTS"      SEQ   24  "64 BOOKS"         PRG
3   "VICONTENTS"       SEQ   1   "BALLOON BLITZ/VI" PRG
7   "VM"               PRG   4   "STRING SEARCH 2"  PRG
6   "MM"               PRG   5   "STRING SEARCH 1"  PRG
4   "COMPUTECOLOR"     PRG   1   "SPRITE MAGIC LOA" PRG
4   "COMPUTESCREEN"    PRG   2   "----------------" REL
10  "GAZETTE"          PRG   6   "GEMINI CHARS"     PRG
3   "ERROR TRAP/64"    PRG   9   "COMPUTER.SET 5"   PRG
3   "ERROR TRAP/VIC"   PRG   9   "GOTHIC.SET(19)"   PRG
9   "VIC BOOKS"        PRG   9   "ROMAN/SCRIPT(19)" PRG
2   "BEGIN CORNER 1"   PRG   12  "ART DECO SET(31)" PRG
2   "BEGIN CORNER 2"   PRG   9   "OLD ENGLISH(31)"  PRG
2   "BEGIN CORNER 3"   PRG   9   "SWORD SET"        PRG
2   "BEGIN CORNER 4"   PRG   9   "SCRIPTSET"        PRG
5   "BEGIN CORNER 5"   PRG   9   "SYDEWIND SET"     PRG
7   "SNO-CAT/VIC"      PRG   1   "----------------" SEQ
9   "SC"               PRG   4   "CHAR BOOT"        PRG
20  "SNO-CAT/64"       PRG   32  " CHAR EDITOR"     PRG
11  "SPRITE MAGIC"     PRG   1   " ROTATE.DATA"     PRG
5   "DISK PURGE"       PRG   9   " STANDARD.SET"    PRG
22  "BALLOON BLITZ/64" PRG
266BLOCKS FREE.
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"CCC LIBRARY DISK" N2 2A
48  "DISKFILER"        PRG   8   "STAND ALONE SCRA" PRG
35  "DISKFILER.DOC1"   SEQ   17  "QUILT GRAPHICS"   PRG
16  "DISKFILER.DOC2"   SEQ   43  "BILLIE JEAN ON!"  PRG
39  "BEAT IT  30120"   PRG   34  "BOOT.PROTOCOL.10" PRG
61  "STARTREK BURROUG" PRG   25  "LOAD.PROTOCOL.10" PRG
18  "SWEDGE4"          PRG   17  "TERM.OTT.C64.ML3" PRG
2   "SWEDGE4 INFO"     SEQ   137 "TERM.PROTOCOL.10" PRG
22  "ADDRESS FILER"    PRG   8   "INFO.PROTOCOL.10" SEQ
11  "SCROLLING SIGN"   PRG   7   "NBUILD"           PRG
11  "SEND MORSE"       PRG   1   "N E T"            SEQ
24  "SEMER"            PRG
67 BLOCKS FREE.
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"CCC LIBRARY DISK" O1 2A
32  "SPEEDSCRIPT.V.3"  PRG   4   "R2 1"             PRG
76  "S/S INST.V.3"     PRG   4   "R2 2"             PRG
43  "S/S ARTICLE"      PRG   33  "R2 3"             PRG
8   "FILE CONVERTER"   PRG   33  "R2 4"             PRG
3   "CUSTOMIZER BOOT"  PRG   4   "R3 1"             PRG
12  "THE CUSTOMIZER"   PRG   4   "R3 2"             PRG
3   "ROM EMULATOR.C"   PRG   33  "R3 3"             PRG
4   "SX 1"             PRG   33  "R3 4"             PRG
4   "SX 2"             PRG   6   "ART SHOW.C"       PRG
33  "SX 3"             PRG   1   "LOGO.D"           PRG
33  "SX 4"             PRG   9   "DISSOLVE.D"       PRG
4   "R1 1"             PRG   40  "JIMMY.D"          PRG
4   "R1 2"             PRG   40  "SIGNATURE.D"      PRG
33  "R1 3"             PRG   14  "FUNNYBASIC"       PRG
33  "R1 4"             PRG   10  "FASTCOPIER"       PRG
12 BLOCKS FREE.
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"CCC LIBRARY DISK" O2 2A
1   "MENU"             PRG   5   "BEGIN CORNER 1/V" PRG
5   "COMPUTE!/VIC"     PRG   6   "BEGIN CORNER 2/V" PRG
7   "GAZETTE/VIC"      PRG   1   "ROCKNEY SOFTWARE" PRG
2   "COMPUTE!"         PRG   5   "SCREEN HEAD/VIC"  PRG
24  "64 BOOKS"         PRG   6   "SCREEN HEAD/64"   PRG
9   "VIC BOOKS"        PRG   3   "ANIMATING VIC"    PRG
7   "VM"               PRG   9   "LEARN COUNT/64"   PRG
6   "MM"               PRG   9   "LEARN COUNT/VIC"  PRG
4   "COMPUTECOLOR"     PRG   4   "DISK TRICKS 1"    PRG
4   "COMPUTESCREEN"    PRG   4   "DISK TRICKS 2"    PRG
10  "GAZETTE"          PRG   5   "DISK TRICKS 3"    PRG
3   "64 CONTENTS"      SEQ   6   "DISK TRICKS 4"    PRG
3   "VICONTENTS"       SEQ   15  "SCREEN-80"        PRG
1   "SPEED CUST BOOT"  PRG   9   "CUSTOM-80"        PRG
8   "AD"               PRG   1   "CUST CHAR LOADER" PRG
1   "CUSTOM-80 LOADER" PRG   10  "CUST.80"          PRG
36  "MYSTERY MANOR/64" PRG   23  "TREASURE HUNT/64" PRG
14  "MYSTERY MANOR/VI" PRG   23  "TREASURE HUNT/VI" PRG
5   "BEGIN CORNER 1/6" PRG   1   "----------------" PRG
6   "BEGIN CORNER 2/6" PRG   16  "FAST GEMINI DUMP" PRG
338BLOCKS FREE.
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"CCC LIBRARY DISK" P1 2A
2   "MENU"             PRG   21  "CABBY/VIC"        PRG
5   "COMPUTE!/VIC"     PRG   35  "TURTLE GRAPHIC 1" PRG
7   "GAZETTE/VIC"      PRG   19  "TURTLE GRAPHIC 2" PRG
2   "COMPUTE!"         PRG   3   "TURTLE GRAPHICS"  PRG
9   "VICBOOKS"         PRG   18  "TOMB/64"          PRG
24  "64BOOKS"          PRG   10  "TOMB/VIC"         PRG
8   "MM"               PRG   3   "VICREATIONS 2"    PRG
8   "VM"               PRG   45  "FIRST AID"        PRG
4   "COMPUTECOLOR"     PRG   10  "HIRES DUMP/64"    PRG
4   "COMPUTESCREEN"    PRG   4   "VICREATIONS 3"    PRG
10  "GAZETTE"          PRG   1   "----------------" PRG
2   "VICREATIONS 1"    PRG   10  "HIRES EDITOR"     PRG
2   "VICONTENTS"       SEQ   1   "HIRES BASIC LOAD" PRG
2   "64 CONTENTS"      SEQ   10  "HIRES ML"         PRG
1   "ROCKNEY SOFTWARE" PRG   6   "HIRES BASIC"      PRG
8   "AD"               PRG   20  "LISTER"           PRG
46  "TREK"             PRG   2   "LISTER TESTER"    PRG
15  "VOCAB BUILDER"    PRG   9   "PICPRINT"         PRG
12  "TEACH ENGLISH"    PRG   1   "TRUE ID"          PRG
23  "QUIZ MASTER"      PRG   24  "HORSE RACE"       PRG
13  "QUIZ MASTER 2"    PRG   1   "CANYON RAIDER"    PRG
23  "MUSIC TUTOR"      PRG   11  "CR"               PRG
7   "HIRESDUMP/VIC"    PRG   25  "MISSILE MATH"     PRG
37  "CABBY/64"         PRG   32  "LIGHTSAVER"       PRG
83 BLOCKS FREE.
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"CCC LIBRARY DISK" P2 2A
3   "LOAD ME FIRST"    PRG   42  "ML6A"             PRG
1   "MACHINE LANGUAGE" SEQ   18  "ML6B"             PRG
1   "BOOK (C)1983 BY " SEQ   54  "ML7A"             PRG
1   "HAROLD BROCHMANN" SEQ   28  "ML7B"             PRG
20  "ML0"              PRG   43  "ML8A"             PRG
54  "ML1A"             PRG   16  "ML10A"            PRG
32  "ML1B"             PRG   28  "ML9A"             PRG
35  "ML2"              PRG   27  "ML9B"             PRG
48  "ML3A"             PRG   9   "UPD"              PRG
28  "ML3B"             PRG   6   "ML10B"            PRG
38  "ML4"              PRG   9   "ML10C"            PRG
56  "ML5"              PRG
87 BLOCKS FREE.
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"CCC LIBRARY DISK" Q1 2A
1   "CHECKER"          USR   19  "4040 COMMANDS.C"  PRG
13  "LIST-ME (C)TS.L"  PRG   14  "THE GREAT FRED.C" PRG
38  "AUTOTERM/1650.C"  PRG   20  "LIST-ME VIC 2.L"  PRG
7   "TERM.64.D"        PRG   89  "DEFINITION.C"     PRG
18  "WET PAINT.C"      PRG   18  "TEXTMASTER.C"     PRG
31  "VIPER.C"          PRG   40  "TM-INSTRUCT 1.D"  PRG
3   "LIST FREEZER.C"   PRG   40  "TM-INSTRUCT 2.D"  PRG
12  "RASTER INTERPT.C" PRG   9   "TM-INSTRUCT 3.D"  PRG
13  "SIM DISK COPY.C"  PRG   40  "USING 64 WEDGE.C" PRG
9   "JSTICK DOODLE.C"  PRG   1   "C-64 WEDGE.C"     PRG
3   "MILEAGE.Z"        PRG   4   "DOS 5.1"          PRG
83  "LIFESCORE.Z"      PRG   2   "FLAG BOOT.C"      PRG
17  "RANDOM LOTTO.C"   PRG   41  "WORLD FLAGS.D"    PRG
18  "MUNCHMATH.C"      PRG   2   "BOOT 25TH.C"      PRG
34  "WORD WORKER.C"    PRG   41  "25TH.D"           PRG
9   "64 FAST POKES.C"  PRG   1   "SYS 40784.D"      PRG
22 BLOCKS FREE.
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"CCC LIBRARY DISK" Q2 2A
2   "MENU"             PRG   9   "B"                PRG
5   "COMPUTE!/VIC"     PRG   9   "C"                PRG
7   "GAZETTE/VIC"      PRG   27  "C/G TERM"         PRG
2   "COMPUTE!"         PRG   27  "C/G TERM/VIC"     PRG
9   "VIC BOOKS"        PRG   11  "DISK AUTOLOAD"    PRG
24  "64 BOOKS"         PRG   18  "JUMP/64"          PRG
8   "VM"               PRG   13  "JUMP/VIC"         PRG
8   "MM"               PRG   15  "BUDGETEER/64"     PRG
4   "COMPUTECOLOR"     PRG   7   "BUDGETEER/VI"     PRG
4   "COMPUTESCREEN"    PRG   12  "B2"               PRG
10  "GAZETTE"          PRG   9   "FUNCTION KEY/64"  PRG
17  "ML BEG"           PRG   29  "SUPERTANK"        PRG
7   "MESGAMES"         PRG   11  "KAYLON/VIC"       PRG
35  "LJ.MD"            PRG   13  "KAYLON/64"        PRG
16  "BG"               PRG   10  "FUNCTION KEY"     PRG
15  "BC"               PRG   1   "C/G TERM/64"      PRG
9   "LJPATH.C"         PRG   2   "POWER BASIC"      PRG
4   "LJ.XYZ"           PRG   1   "ML BEG/VIC"       PRG
2   "JUMP/DEMO"        PRG   2   "ML BEG/64"        PRG
15  "JUMPER.C"         PRG   1   "----------------" USR
3   "64 CONTENTS"      SEQ   6   "DISK MENU"        PRG
2   "VICONTENTS"       SEQ   19  "DISKMANAGER"      PRG
14  "MLX/64"           PRG   21  "ARITH. PROBS"     PRG
12  "MLX/VIC"          PRG   8   "TINY AID"         PRG
16  "BAGDAD/64"        PRG   33  "AMORTIZA'N REV'D" PRG
8   "BAGDAD/VIC"       PRG
85 BLOCKS FREE.
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"CCC LIBRARY DISK" R1 2A
2   "MENU"             PRG   3   "AUTOLINE/64"      PRG
5   "COMPUTE!/VIC"     PRG   14  "MLX 64 V2.02"     PRG
7   "GAZETTE/VIC"      PRG   1   "C/G BOARD 1"      PRG
2   "COMPUTE!"         PRG   63  "C/G BOARD 2"      PRG
9   "VIC BOOKS"        PRG   1   "C/G BOARD 3"      PRG
24  "64 BOOKS"         PRG   1   "C/G BOARD 4"      PRG
8   "VM"               PRG   9   "LETTER ATTACK"    PRG
8   "MM"               PRG   10  "LETTER ATTACK/64" PRG
4   "COMPUTECOLOR"     PRG   2   "VICONTENTS"       SEQ
4   "COMPUTESCREEN"    PRG   3   "64 CONTENTS"      SEQ
10  "GAZETTE"          PRG   5   "MLBEG/64"         PRG
11  "3-D LABYRINTH"    PRG   2   "MLBEG"            PRG
4   "COS COMBAT"       PRG   1   "COS COMBAT/64"    PRG
16  "CB"               PRG   1   "CC"               PRG
14  "WORD GUESS"       PRG   5   "MLBEG/VIC"        PRG
4   "TIME CLOCK"       PRG   1   "LABYRINTH"        PRG
6   "CASS INDEX"       PRG   11  "3D"               PRG
27  "DISK BACKUP"      PRG   1   "NAME"             PRG
4   "AUTOLINE/VIC"     PRG   2   "ML BEG"           PRG
4   "PROOFREADER"      PRG   54  "TABLES"           PRG
10  "COS COMBAT64"     PRG   2   "MSGFILE1"         REL
5   "TIME CLOCK/64"    PRG   172 "USTAT"            REL
8   "MAGIC VOICE"      PRG   41  "QUICKCOPY V2.0"   PRG
17  "WORD GUESS/64"    PRG
40 BLOCKS FREE.
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"CCC LIBRARY DISK" R2 2A
66  "64EXCH"           PRG   60  "BLITZTERM.C1"     PRG
27  "64EXCH.DOC"       SEQ   35  "BLITZTERM.DOC"    SEQ
13  "TERM.C1"          PRG   13  "BT64.C1"          PRG
56  "GAYOUTERM2"       PRG   16  "TERM80"           PRG
36  "KCARET"           PRG   40  "TERM80.DOC"       SEQ
29  "KCREAT"           PRG   17  "NEWTERM"          PRG
72  "KERNAL BBS"       PRG   7   "TERM.C"           PRG
16  "KERNAL.DOC"       SEQ   47  "VERSA-TERM"       PRG
37  "AUTO PUNTER TERM" PRG   7   "AVT.ML1"          PRG
10  "DT64.C"           PRG   7   "AVT.ML2"          PRG
6   "BLITZTERM.BOOT"   PRG   19  "BKC"              PRG
34 BLOCKS FREE.
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"C64 COMAL 0.14  " S1 2A
5   "BOOTCOMAL"        PRG   16  "RECURSIONS"       PRG
131 "COMAL80.CAN"      PRG   18  "FORMATTER"        PRG
1   "----------------" SEQ   1   "FILE'TO'PRINT"    PRG
1   ">--------------<" SEQ   1   "FILE'TO'SCREEN"   PRG
1   ">ERROR MESSAGES<" SEQ   7   "DISK'COMMANDS"    PRG
1   ">     FILE     <" SEQ   11  "C64 COMAL INFO"   PRG
1   ">----------- --<" SEQ   3   "REMOVE COMMENTS"  PRG
5   "COMALERRORS"      SEQ   6   "SEE'ROLL/DEMO"    PRG
1   ">---------- ---<" SEQ   5   "SEE'PAGE/DEMO"    PRG
1   ">FILE GENERATOR<" SEQ   3   "CURSOR/DEMO"      PRG
1   ">---------- ---<" SEQ   2   "VALUE/DEMO"       PRG
10  "GENERROR.E.L"     SEQ   2   "SHIFT/DEMO"       PRG
1   ">-------- -----<" SEQ   2   "JIFFY/DEMO"       PRG
1   ">AUTO BOOT PROG<" SEQ   10  "QUICKSORT/DEMO"   PRG
1   ">--------- ----<" SEQ   4   "JOYSTICK/DEMO"    PRG
4   "HI"               PRG   3   "PADDLE/DEMO"      PRG
1   ">------- ------<" SEQ   7   "DISK'GET/DEMO"    PRG
1   ">SEQ DATA FILES<" SEQ   4   "LOGICAL'OPS/DEMO" PRG
1   ">------ -------<" SEQ   1   ">- ------------<" SEQ
21  "INFORMATION83NOV" SEQ   1   "> SPRITE DATA  <" SEQ
43  "INSTRUCTIONS0.14" SEQ   1   ">    FILES     <" SEQ
1   ">----- --------<" SEQ   1   ">-- -----------<" SEQ
1   ">COMAL PROGRAMS<" SEQ   4   "ROBO"             SEQ
1   ">---- ---------<" SEQ   1   "SANTA"            SEQ
6   "SEE'INFORMATION"  PRG   1   ">--- ----------<" SEQ
6   "SEE'INSTRUCTIONS" PRG   1   ">END OF COMAL  <" SEQ
20  "LOGO'BOOK'SAMPLE" PRG   1   ">DEMO PROGRAMS <" SEQ
4   "SNOWFLAKE"        PRG   1   ">              <" SEQ
6   "SPRITE/TURTLE"    PRG   1   ">THE FOLLOWING <" SEQ
34  "LOGO EMULATOR"    PRG   1   ">TWO PROGRAMS  <" SEQ
18  "LANDER"           PRG   1   ">ARE WRITTEN IN<" SEQ
21  "MUSIC"            PRG   1   ">    BASIC     <" SEQ
11  "SANTA'GAME"       PRG   1   ">    -----     <" SEQ
3   "BOUNCE"           PRG   1   ">DO NOT LOAD   <" SEQ
21  "SPRITE'DESIGNER"  PRG   1   ">THEM INTO     <" SEQ
7   "READ'DIRECTORY"   PRG   1   ">COMAL.        <" SEQ
8   "PRINT'DIRECTORY"  PRG   1   ">- ------------<" SEQ
15  "EXPRESSION"       PRG   17  "1541BACKUP(FREE)" PRG
8   "UTILITIES"        PRG   16  "SINGLE FILE COPY" PRG
87 BLOCKS FREE.
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"CCC LIBRARY DISK" S2 2A
41  "BBS"              PRG   2   "DOWNLOAD MENU"    SEQ
41  "BBSR3.INS"        PRG   3   "FEED INTRO"       SEQ
41  "BBSMOD"           PRG   1   "FEED NUM"         SEQ
35  "CELINE BBS"       PRG   2   "MAIN MENU"        SEQ
7   "TERM.64"          PRG   1   "POST INTRO"       SEQ
35  "CELINE"           PRG   1   "READ INTRO"       SEQ
1   "CALL NUM"         SEQ   1   "TESTFILE"         SEQ
1   "CATEGORIES"       SEQ   2   "THIS 1"           SEQ
26  "CIS BROWSE"       SEQ   1   "THIS 2"           SEQ
3   "CIS CAT"          SEQ   2   "THIS 3"           SEQ
1   "CLUB 1"           SEQ   1   "WELCOME"          SEQ
1   "CLUB 2"           SEQ   1   "BOARDS 1"         SEQ
1   "CLUB 3"           SEQ   1   "BOARDS 2"         SEQ
1   "CLUB INTRO"       SEQ   1   "BOARDS.FD"        SEQ
1   "CLUB LIST"        SEQ   1   "----------------" SEQ
1   "DELETE INTRO"     SEQ   17  "NEWTERM"          PRG
2   "DOWNLOAD INTRO"   SEQ   7   "TERM.C"           PRG
381BLOCKS FREE.
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"CCC LIBRARY DISK" S3 2A
11  "LIST-ME PLEASE"   PRG   2   "INX.D"            SEQ
31  "6510 OPCODES"     PRG   1   "INXQ.D"           SEQ
1   "INST.LIST.PRT"    PRG   2   "INY.D"            SEQ
1   "---DATA FILES---" SEQ   1   "INYQ.D"           SEQ
10  "D1.W"             PRG   3   "JMP.D"            SEQ
3   "D2.W"             PRG   1   "JMPQ.D"           SEQ
32  "D3.W"             PRG   3   "JSR.D"            SEQ
6   "D4.W"             PRG   1   "JSRQ.D"           SEQ
9   "D5.W"             PRG   2   "LDA.D"            SEQ
58  "INST.LIST.D"      SEQ   3   "LDAQ.D"           SEQ
1   "----------------" SEQ   1   "LDX.D"            SEQ
1   "-OPCODE---FILES-" SEQ   2   "LDXQ.D"           SEQ
3   "ADC.D"            SEQ   1   "LDY.D"            SEQ
3   "ADCQ.D"           SEQ   2   "LDYQ.D"           SEQ
3   "AND.D"            SEQ   2   "LSR.D"            SEQ
3   "ANDQ.D"           SEQ   2   "LSRQ.D"           SEQ
3   "ASL.D"            SEQ   1   "NOP.D"            SEQ
3   "ASLQ.D"           SEQ   2   "NOPQ.D"           SEQ
2   "BCC.D"            SEQ   2   "ORA.D"            SEQ
2   "BCCQ.D"           SEQ   3   "ORAQ.D"           SEQ
1   "BCS.D"            SEQ   1   "PHA.D"            SEQ
2   "BCSQ.D"           SEQ   1   "PHAQ.D"           SEQ
2   "BEQ.D"            SEQ   1   "PHP.D"            SEQ
3   "BEQQ.D"           SEQ   1   "PHPQ.D"           SEQ
2   "BIT.D"            SEQ   2   "PLA.D"            SEQ
1   "BITQ.D"           SEQ   1   "PLAQ.D"           SEQ
2   "BMI.D"            SEQ   1   "PLP.D"            SEQ
3   "BMIQ.D"           SEQ   1   "PLPQ.D"           SEQ
2   "BNE.D"            SEQ   2   "ROL.D"            SEQ
3   "BNEQ.D"           SEQ   2   "ROLQ.D"           SEQ
2   "BPL.D"            SEQ   2   "ROR.D"            SEQ
3   "BPLQ.D"           SEQ   2   "RORQ.D"           SEQ
3   "BRK.D"            SEQ   4   "RTI.D"            SEQ
3   "BRKQ.D"           SEQ   1   "RTIQ.D"           SEQ
2   "BVC.D"            SEQ   3   "RTS.D"            SEQ
4   "BVCQ.D"           SEQ   1   "RTSQ.D"           SEQ
1   "BVS.D"            SEQ   3   "SBC.D"            SEQ
4   "BVSQ.D"           SEQ   2   "SBCQ.D"           SEQ
1   "CLC.D"            SEQ   1   "SEC.D"            SEQ
2   "CLCQ.D"           SEQ   1   "SECQ.D"           SEQ
1   "CLD.D"            SEQ   1   "SED.D"            SEQ
2   "CLDQ.D"           SEQ   1   "SEDQ.D"           SEQ
1   "CLI.D"            SEQ   1   "SEI.D"            SEQ
3   "CLIQ.D"           SEQ   1   "SEIQ.D"           SEQ
1   "CLV.D"            SEQ   1   "STA.D"            SEQ
2   "CLVQ.D"           SEQ   2   "STAQ.D"           SEQ
2   "CMP.D"            SEQ   1   "STX.D"            SEQ
1   "CMPQ.D"           SEQ   2   "STXQ.D"           SEQ
2   "CPX.D"            SEQ   1   "STY.D"            SEQ
3   "CPXQ.D"           SEQ   2   "STYQ.D"           SEQ
3   "CPY.D"            SEQ   1   "TAX.D"            SEQ
2   "CPYQ.D"           SEQ   1   "TAXQ.D"           SEQ
3   "DEC.D"            SEQ   1   "TAY.D"            SEQ
1   "DECQ.D"           SEQ   1   "TAYQ.D"           SEQ
2   "DEX.D"            SEQ   2   "TSX.D"            SEQ
2   "DEXQ.D"           SEQ   1   "TSXQ.D"           SEQ
2   "DEY.D"            SEQ   1   "TXA.D"            SEQ
2   "DEYQ.D"           SEQ   1   "TXAQ.D"           SEQ
3   "EOR.D"            SEQ   2   "TXS.D"            SEQ
3   "EORQ.D"           SEQ   1   "TXSQ.D"           SEQ
2   "FILE NAMES.D"     SEQ   1   "TYA.D"            SEQ
3   "INC.D"            SEQ   1   "TYAQ.D"           SEQ
1   "INCQ.D"           SEQ   3   "MENU.D"           SEQ
292BLOCKS FREE.
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"CCC LIBRARY DISK" S4 2A
70  "PONZO TUTOR 1"    PRG   61  "PONZO TUTOR 6"    PRG
67  "PONZO TUTOR 2"    PRG   60  "PONZO TUTOR 7"    PRG
75  "PONZO TUTOR 3"    PRG   76  "SPRITES TUTOR 1"  PRG
64  "PONZO TUTOR 4"    PRG   31  "SPRITES TUTOR 2"  PRG
67  "PONZO TUTOR 5"    PRG
93 BLOCKS FREE.
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"CCC LIBRARY DISK" S4 2A
71  "GRAPHIC TUTOR 1"  PRG   77  "MICROS'NCHIPS 4"  PRG
23  "GRAPHIC TUTOR 2"  PRG   79  "MICROS'NCHIPS 5"  PRG
77  "MICROS'NCHIPS 1"  PRG   80  "MICROS'NCHIPS 6"  PRG
77  "MICROS'NCHIPS 2"  PRG   83  "PONZO DISKVIEW 3" PRG
77  "MICROS'NCHIPS 3"  PRG
20 BLOCKS FREE.
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"CCC LIBRARY DISK" T1 2A
1   "BOOT.NEWUTW"      PRG   6   "TOUCH TONES"      PRG
183 "DOC.NEWUTW"       SEQ   1   "CLICK-SYS828"     PRG
49  "WEDGE"            PRG   15  "80 COLUMN+"       PRG
7   "VICTERM/NEWPUNTE" PRG   1   "BOOTSWDGE"        PRG
7   "TERM/VIC.C1"      PRG   27  "SWDGE9"           PRG
38  "NEWPUNTER W/GRFX" PRG   69  "RAVICS TERMINAL"  PRG
8   "PUNTER.ML"        PRG   2   "BIN TO DEC"       PRG
59  "PTER."            PRG   4   "BIN TO GCR"       PRG
40  "ASM15"            PRG   1   "DEC TO BIN"       PRG
14  "CBTERM"           PRG   1   "DEC TO HEX"       PRG
19  "CBTERM.DOC"       SEQ   6   "GCR TO HEX"       PRG
74  "XMOSUP 6.7"       PRG   2   "HEX TO DEC"       PRG
60  "CROSS REFERENCE"  PRG   5   "HEX TO GCR"       PRG
36  "DISKALL"          PRG
8   BLOCKS FREE.
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"CCC LIBRARY DISK" T2 2A
2   "MENU"             PRG   4   "PROOFREADER"      PRG
5   "COMPUTE!/VIC"     PRG   14  "MLX/64"           PRG
7   "GAZETTE/VIC"      PRG   12  "MLX/VIC"          PRG
2   "COMPUTE!"         PRG   2   "VICONTENTS"       SEQ
9   "VIC BOOKS"        PRG   3   "64 CONTENTS"      SEQ
24  "64 BOOKS"         PRG   1   "CHOMPER/VIC"      PRG
8   "VM"               PRG   1   "CHOMPER/64"       PRG
8   "MM"               PRG   1   "C/G BOARD 1"      PRG
4   "COMPUTECOLOR"     PRG   1   "C/G BOARD 4"      PRG
4   "COMPUTESCREEN"    PRG   81  "C/G BOARD 2"      PRG
10  "GAZETTE"          PRG   1   "C/G BOARD 3"      PRG
2   "POWER BASIC/V"    PRG   8   "C-64 WEDGE 5.1E"  PRG
9   "TRAP'EM/VIC"      PRG   5   "DOS 5.1E"         PRG
8   "VT"               PRG   16  "COMPACTOR II"     PRG
11  "CV"               PRG   11  "UNCOMPACTOR II"   PRG
6   "KABLAM/VIC"       PRG   2   "SAMPLE PROGRAM"   PRG
11  "MAG INDEX"        PRG   2   "UNCOMPACTED PGM"  PRG
1   "VIC MAG DRAW"     PRG   1   "COMPACTED PGM"    PRG
18  "MD"               PRG   1   "UNCOMPACTED #2"   PRG
39  "MATH DUNGEON"     PRG   67  "BACGAMMON V2"     PRG
7   "DISK MERGE"       PRG   6   "3-D CLOCK"        PRG
1   "C/G BOARD 3"      PRG   46  "BRUNHILDE"        PRG
16  "TRAP'EM/64"       PRG   22  "BURN RUBBER"      PRG
7   "CHOMPER"          PRG   4   "NESSIE.INST"      PRG
26  "KABLAM/64"        PRG   12  "NESSIE.ML"        PRG
2   "POWER BASIC/64"   PRG   2   "TUNNELS"          PRG
2   "BAKER'S DOZEN 1"  PRG   25  "MISSILE MATH"     PRG
3   "BAKER'S DOZEN 2"  PRG   5   "DRAGON"           PRG
3   "BAKER'S DOZEN 3"  PRG   13  "SNOOPER PGM C-64" PRG
5   "BAKER'S DOZEN 4"  PRG   7   "ANTIQUE CAR"      PRG
27 BLOCKS FREE.
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CCC BBS:
271-1082

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"CCC LIBRARY DISK" U1 2A
2   "MENU"             PRG   4   "PROOFREADER"      PRG
5   "COMPUTE!/VIC"     PRG   12  "VIC MLX"          PRG
7   "GAZETTE/VIC"      PRG   14  "CYPHER/64"        PRG
2   "COMPUTE!"         PRG   44  "CRYPT/64"         PRG
9   "VIC BOOKS"        PRG   12  "NAMETHATNOTE/64"  PRG
24  "64 BOOKS"         PRG   11  "COLOR-SWAP/64"    PRG
9   "VM"               PRG   10  "LINE CROSS REF/6" PRG
9   "MM"               PRG   2   "VICONTENTS"       SEQ
4   "COMPUTECOLOR"     PRG   4   "BAKER'S DOZEN 2"  PRG
4   "COMPUTESCREEN"    PRG   3   "BAKER'S DOZEN 3"  PRG
10  "GAZETTE"          PRG   3   "BAKER'S DOZEN 4"  PRG
5   "BAKER'S DOZEN 1"  PRG   5   "BAKER'S DOZEN 5"  PRG
13  "CYPHER/VIC"       PRG   24  "PEEK A BYTE DEMO" PRG
1   "CRYPT/VIC"        PRG   7   "MOCA AD1"         PRG
16  "A"                PRG   1   "W1"               PRG
12  "B"                PRG   3   "64 CONTENTS"      SEQ
9   "ADDRESS"          PRG   1   "----------------" USR
14  "NAMETHATNOTE/VIC" PRG   35  "CLASSICS"         PRG
6   "VIC QUIZ GEN"     PRG   26  "MOONLIGHT SNATA"  PRG
2   "VIC INVERTER"     PRG   76  "PRELUDE & FUGUE"  PRG
7   "COLOR/VIC"        PRG   19  "CHORALE"          PRG
11  "LINE REF/V"       PRG   82  "CLAIRE DE LUNE"   PRG
14  "MLX 64 V2.02"     PRG   38  "EL-SHADDAI"       PRG
28 BLOCKS FREE.
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"CCC LIBRARY DISK" U2 2A
2   "MENU"             PRG   14  "MLX 64 V2.02"     PRG
3   "64 CONTENTS"      SEQ   9   "MM"               PRG
11  "ALPHA ANX/64"     PRG   32  "NEW 64 BOOKS"     PRG
11  "ALPHA ANX/VIC"    PRG   14  "NEW VIC BOOKS"    PRG
7   "AVAIL"            PRG   4   "POWER BASIC"      PRG
1   "BAKER'S DOZEN 1"  PRG   4   "POWER BASIC/64"   PRG
3   "BAKER'S DOZEN 2"  PRG   4   "PROOFREADER"      PRG
3   "BAKER'S DOZEN 3"  PRG   11  "V2"               PRG
8   "BAKER'S DOZEN 4"  PRG   12  "VICMLX V2.02"     PRG
2   "COMPUTE!"         PRG   2   "VICONTENTS"       SEQ
5   "COMPUTE!/VIC"     PRG   9   "VM"               PRG
4   "COMPUTECOLOR"     PRG   1   "--------------"   USR
4   "COMPUTESCREEN"    PRG   22  "TAX RETURN 1984"  REL
15  "D1"               PRG   41  "BOHEMIAN"         PRG
12  "DG"               PRG   28  "RHAPSODY"         PRG
1   "DIGGER64"         PRG   18  "B RHAPSODY"       PRG
2   "DIGGERVIC"        PRG   44  "MPYTHON 30120"    PRG
6   "DIR SORT"         PRG   10  "FONTASIA"         PRG
19  "GAZETTE"          PRG   5   "METABASIC INST"   PRG
7   "GAZETTE/VIC"      PRG   54  "METAINST PCLIP"   PRG
10  "HEAT SEEKER/V"    PRG   16  "BASIC 36864"      PRG
10  "HEAT SEEKER64"    PRG   2   "FICLDR"           PRG
2   "MLFB1/QUIZ"       PRG   32  "ELLEN"            PRG
1   "MLFB2/TABLE"      PRG
110BLOCKS FREE.
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"CCC LIBRARY DISK" V1 2A
28  "SPEEDSCRIPT V3.0" PRG   6   "SPIDER ML"        PRG
67  "S/S INST.V3.0"    PRG   23  "SPIDER BASIC"     PRG
11  "S/S FILE CONVERT" PRG   20  "GAMELIFE"         PRG
21  "BIGSET LETTERS"   PRG   33  "ACROBAT C-64"     PRG
4   "DAZZLE-DO"        PRG   1   "PRINT FILE"       PRG
17  "MEMORY TRAINER"   PRG   19  "SPACE CAVERNS"    PRG
8   "TINYTALLY"        PRG   1   "WARM START FLASH" PRG
5   "A STORY"          PRG   5   "VERIFIZER"        PRG
23  "ROBOT"            PRG   7   "VERIGEN"          PRG
67  "OREGON TRAIL    " PRG   5   "RND(0) RND(1)"    PRG
21  "SCHEDULE"         PRG   11  "PACHELBEL"        PRG
11  "VANISHING MAZE"   PRG   10  "BUG REPELLENT"    PRG
31  "S.C. SLOT MACHIN" PRG   11  "BIG PRINT"        PRG
15  "MEMO DIARY"       PRG   17  "HOP AROUND"       PRG
5   "DEVASTATOR"       PRG   6   "C-64 TURBODISK"   PRG
7   "DEVML"            PRG   18  "FLANKSPEED.MOD"   PRG
6   "DEVBASIC"         PRG   4   "TURBODISK.OBJ"    PRG
3   "SPIDERS"          PRG   21  "TURBODISK.CREATE" PRG
102BLOCKS FREE.
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"CCC LIBRARY DISK" V2 2A
2   "DM-BOOT"          PRG   17  "HAL.ML"           PRG
3   "DM-1"             PRG   100 "HALSET"           PRG
18  "DM-2"             PRG   39  "TAX84 MUL-PLN"    REL
10  "DM-3"             PRG   5   "CONTAX.INSTRUCT"  PRG
32  "DM-4"             PRG   55  "EAGLETERM.C3"     PRG
65  "DM-5"             PRG   7   "TERM.C3"          PRG
1   "DM-6"             PRG   3   "FIRSTDIAL3 BOOT"  PRG
1   "DM-7"             PRG   4   "FIRSTDIAL3"       PRG
2   "DM-8"             PRG   1   "FIRSTTERM3 BT"    PRG
23  "DM-9"             PRG   54  "FIRSTTERM3"       PRG
8   "DM-A"             PRG   46  "FIRSTTERMDOC1W/P" PRG
5   "DM-MENU"          PRG   33  "FIRSTTERMDOC2W/P" PRG
131 "HAL"              PRG
3   BLOCKS FREE.
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"CCC LIBRARY DISK" W1 2A
59  "RAINBOW"          PRG   15  "SWEET DATA.D"     PRG
35  "MUSICBOX DNCER"   PRG   7   "BARRICADE"        PRG
36  "BACH PRELUDE"     PRG   15  "SLITHER"          PRG
29  "BACH INVENTN08"   PRG   15  "SLITHER 4.C"      PRG
36  "MORNING BROKEN"   PRG   15  "SLITHER DUEL.C"   PRG
38  "FROSTY"           PRG   9   "SHUFFLE"          PRG
9   "LINCOLNSHIRE"     PRG   23  "BARB'S BOAT.C"    PRG
9   "RANDOM MUSIC"     PRG   18  "CRAZY 8'S"        PRG
2   "M/L MUSIC"        PRG   31  "DOCTOR WHO.C"     PRG
19  "SIMON"            PRG   42  "RECOL"            PRG
45  "MUSIC LESSON"     PRG   41  "BATTLESHIPS"      PRG
34  "FUGUE"            PRG   32  "BAY STREET"       PRG
2   "SWEET MUSIC"      PRG   28  "HANGMAN"          PRG
35 BLOCKS FREE.
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"CCC LIBRARY DISK" W2 2A
2   "MENU"             PRG   4   "HORIZONS"         PRG
5   "COMPUTE!/VIC"     PRG   11  "QUEST/VIC"        PRG
7   "GAZETTE/VIC"      PRG   9   "HI RES DUMP"      PRG
2   "COMPUTE!"         PRG   7   "ZAP/VIC"          PRG
32  "NEW 64 BOOKS"     PRG   7   "NO ZAP/64"        PRG
14  "NEW VIC BOOKS"    PRG   11  "APPLE/VIC"        PRG
9   "VM"               PRG   20  "APPLE/64"         PRG
9   "MM"               PRG   12  "F2"               PRG
4   "COMPUTECOLOR"     PRG   12  "FOOL/VIC"         PRG
4   "COMPUTESCREEN"    PRG   16  "MS"               PRG
10  "GAZETTE"          PRG   85  "AAC64 AD"         PRG
2   "VICONTENTS"       SEQ   1   "ASTROPANIC!"      PRG
14  "MLX 64 V2.02"     PRG   2   "64 CONTENTS"      SEQ
4   "PROOFREADER"      PRG   3   "MLFB64"           PRG
12  "VIC MLX V2.02"    PRG   1   "METABASIC"        PRG
11  "V2"               PRG   1   "FOOL/64"          PRG
15  "FL"               PRG   3   "MLFBVIC"          PRG
2   "TRIPLE 64"        PRG   13  "AP"               PRG
13  "NUMBER QUEST/64"  PRG
268BLOCKS FREE.
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"CCC LIBRARY DISK" X1 2A
12  "MIND BUSTERS"     PRG   4   "TRIDENT.INST"     PRG
21  "FILE PROTECTOR"   PRG   10  "TRIDENT/49152"    PRG
29  "80 GVS FRM SPC"   PRG   41  "SPACE THIEF"      PRG
56  "DATABASE"         PRG   6   "CUTOFF/49152"     PRG
102 "JEDI ADVENTURE"   PRG   2   "CUTOFF LOADER"    PRG
11  "MATH DRAG"        PRG   12  "MOSQUITO"         PRG
41  "TANK 2064"        PRG   50  "AMORT/FEB 10/85"  PRG
3   "SOFTSCROLL64"     PRG   7   "AMORT/REDUC'N/YR" PRG
2   "EDIT-TIME"        PRG   9   "HI-RES ML(49152)" PRG
40  "EDIT"             PRG   5   "HI-RES BASIC 1"   PRG
1   "----------------" SEQ   5   "HI-RES BASIC 2"   PRG
13  "INST64"           SEQ   10  "HI-RES BASIC 3"   PRG
22  "ASMFIX"           SEQ   15  "ATOM HANDBALL"    PRG
17  "MACROS"           SEQ   9   "BIG TIME"         PRG
13  "DISK-O-64 INST."  PRG   4   "KALEIDOSCOPE"     PRG
6   "DISK-O-64"        PRG   9   "DEFLECTION 2"     PRG
23  "FRENCH 64"        PRG   12  "3 OF A KIND"      PRG
4   "ADSR ENV DEMO"    PRG
30 BLOCKS FREE.
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"CCC LIBRARY DISK" X2 2A
6   "SPEED360 BOOT"    PRG   72  "ALPHADOT"         PRG
14  "SPEEDSCRIPT3X.D"  PRG   35  "MULT QUIZ"        PRG
3   "SPEEDTRANS3.D"    PRG   23  "PLUS/TERM-64"     PRG
31  "UNIVERSAL MODEM"  PRG   10  "P/T.ML/64"        PRG
7   "TERM.C1"          PRG   7   "SHADING"          PRG
7   "TERM.64.NEW"      PRG   1   "SHADINGML"        PRG
26  "TERM MITEY MO 3"  PRG   12  "CHESS64"          PRG
9   "TERM.BL"          PRG   19  "CHESS2"           PRG
3   "CIRCLES"          PRG   23  "CRAZY CLIMBER"    PRG
11  "DRINK & DRIVE.C"  PRG   13  "MOSQUITO"         PRG
33  "ALIEN CITY.C"     PRG   2   "RATS"             PRG
33  "RUN RIKI RUN.C"   PRG   26  "RATS.OBJ"         PRG
72  "ALPHADOT.C"       PRG   4   "TAXMAN"           PRG
35  "MULT QUIZ.C"      PRG   24  "TAX.OBJ"          PRG
3   "THUNDER LOADER.C" PRG   16  "THINGS IN DARK"   PRG
38  "THE THUNDERER"    PRG   17  "TAG"              PRG
3   "MINUTE LOADER.C"  PRG   1   "APRIL FOOL"       PRG
34  "MINUTE WALTZ"     PRG   9   "C-64 JUKEBOX"     PRG
3   BLOCKS FREE.
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"CCC LIBRARY DISK" Y1 2A
2   "MENU"             PRG   5   "QUICKSORT/64"     PRG
9   "MM"               PRG   3   "BS"               PRG
9   "VM"               PRG   3   "SS"               PRG
14  "MLX/64"           PRG   4   "QS"               PRG
12  "MLX/VIC"          PRG   4   "POWER BASIC/64"   PRG
11  "V2"               PRG   3   "POWER BASIC"      PRG
4   "PROOFREADER"      PRG   19  "JOG LOG/64"       PRG
10  "GAZETTE"          PRG   17  "JOG LOG/VIC"      PRG
7   "GAZETTE/VIC"      PRG   1   "BUBBLE SORT"      PRG
32  "64 BOOKS"         PRG   1   "SHELL SORT"       PRG
14  "VIC BOOKS"        PRG   1   "QUICKSORT"        PRG
2   "COMPUTE!"         PRG   44  "SID EDITOR"       PRG
5   "COMPUTE!/VIC"     PRG   9   "SQUARES"          PRG
4   "COMPUTECOLOR"     PRG   13  "FREEZE FACTORY"   PRG
4   "COMPUTESCREEN"    PRG   11  "FREEZE/VIC"       PRG
3   "VICONTENTS"       SEQ   2   "ML BEG"           PRG
3   "64 CONTENTS"      SEQ   3   "ASSASSIN"         PRG
83  "ALL ABOUT 64"     PRG   3   "ASSASSINATION"    PRG
10  "ALIEN ARMADA/64"  PRG   8   "RELATIVE"         PRG
12  "ALIEN ARMADA"     PRG   9   "SCREEN-40"        PRG
12  "AR"               PRG   2   "SCR-40.BOOT"      PRG
1   "JOURNEY"          PRG   1   "----------------" USR
5   "Y"                PRG   12  "DOODLE LOADER"    PRG
35  "Z"                PRG   37  "DDCOMAL CALVIN"   PRG
19  "CHARLEMAGNE/64"   PRG   37  "DDMIDDLE EARTH"   PRG
10  "CHARLEMAGNE"      PRG   37  "DDGRAN PRIX"      PRG
6   "BUBBLE SORT/64"   PRG   5   "RND(0) RND(1)"    PRG
4   "SHELL SORT/64"    PRG
10 BLOCKS FREE.
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(Continued On Next Page)

WHOLE 64 LIBRARY

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"CCC LIBRARY DISK" Y2 2A
8   "1ST.TERM.BOOT"       PRG    40  "2ND.DIAL.DOC2N/P"    PRG
4   "1ST.TERM.DIAL.01"    PRG    1   ">+++-------------++<" USR
1   "1ST.TERM.DATA.02"    PRG    8   "SCRIPTSAVE 3.1"      PRG
84  "FIRSTDATA3"          PRG    25  "SPEEDSCRIPT.V3.1"    PRG
1   "------------------"  USR    48  "S/S INST.V3.1"       PRG
3   "WORDPRO READER"      PRG    11  "S/S FILE CONV3.1"    PRG
1   "+----------------+"  USR    1   ">++++---------++++<" USR
48  "1ST.DIAL.DOC1N/P"    PRG    47  "BACGAMMON V2.1"      PRG
33  "1ST.DIAL.DOC2N/P"    PRG    1   ">+++++-------+++++<" USR
1   ">----------------<"  USR    31  "WINTER SCENE.C"      PRG
8   "2ND.TERM.BOOT..."    PRG    18  "FIFTEEN PUZZLE"      PRG
4   "2ND.DIAL.DATA.01"    PRG    9   "C-64 JUKEBOX"        PRG
1   "2ND.TERM.DATA.02"    PRG    11  "CELESTIAL BRAIN1"    PRG
73  "SECONDDATA"          PRG    11  "CELESTIAL DATA"      PRG
1   ">+---------------+<" USR    5   "CHESS BOOT"          PRG
3   "WORD PRO READER"     PRG    50  "CHESS-64"            PRG
1   ">++-------------++<" USR    8   "CHESS/CLK"           PRG
44  "2ND.DIAL.DOC1N/P"    PRG    9   "CHS/CHAR"            PRG
8   BLOCKS FREE.
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"CCC LIBRARY DISK" Z1 2A
3   "MINUTE LOADER"       PRG    57  "THE VALLEY"          PRG
34  "MINUTE WALTZ.D"      PRG    52  "CASTLE ADVN"         PRG
2   "THOSE LOADER"        PRG    61  "HOLYHALTER 1"        PRG
21  "THOSE WERE THE.D"    PRG    61  "HOLYHALTER 3"        PRG
56  "THIRSTY WELLAN"      PRG    61  "HOLYHALTER 4"        PRG
18  "SWERVE"              PRG    61  "HOLYHALTER 5"        PRG
83  "ATLANTIS ADVN."      PRG    44  "CENTRIPOD"           PRG
38  "WESTWARD HO!"        PRG    22  "SLITHER ON"          PRG
23  "OTHELLO"             PRG
7   BLOCKS FREE.
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"CCC LIBRARY DISK" Z2 2A
6   "BIKE QUIZ INST.C"    PRG    3   "PRINT SEQ FILE.C"    PRG
92  "BIKE QUIZ MON.C"     PRG    9   "2DRIVECOPY.C"        PRG
1   "SERIAL PRINTER.C"    PRG    9   "WILLIE'S WEDGE.C"    PRG
98  "BIKE QUIZ PRNT.C"    PRG    10  "WILLIE'S INST.C"     PRG
1   "-----------------"   SEQ    1   "- -------------- -"  SEQ
1   "NEXT  12  FILES "    SEQ    21  "GUN RELOADCOST"      PRG
1   "ARE RELATED FILE"    SEQ    9   "BULLET DIST"         PRG
1   "    BY  WILLIE   "   SEQ    41  "SIMPLE SENT"         PRG
1   " --------------- "   SEQ    44  "COMPOUND SENT"       PRG
37  "INSTRUCTIONS.C"      PRG    15  "CINQUIAN"            PRG
2   "BASIC CAT LIST.C"    PRG    26  "DRILL ER/IR/UR"      PRG
16  "FILE DIRECTORY.C"    PRG    17  "DRILL IE/EI"         PRG
3   "LIST CATALOG.C"      PRG    18  "DRILL OU/OW"         PRG
4   "LIST CAT SORT.C"     PRG    3   "FILE/BOOT"           PRG
4   "LIST MEMORY.C"       PRG    40  "FILE/MASTER"         PRG
9   "1DISKFILECOPY.C"     PRG    24  "FILE/EXPLAIN"        PRG
3   "PRINT CATALOG.C"     PRG    19  "FILE/TITLES"         PRG
4   "PRINT CAT SORT.C"    PRG    3   "FILE/SORT"           PRG
5   "PRINT MEMORY.C"      PRG
27  BLOCKS FREE.
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"CCC LIBRARY AA   " A3 2A
2   "JUL/AUG/SEP MENU"    PRG    1   "HYPERWARP"           PRG
9   "MN"                  PRG    3   "DECELERATOR"         PRG
9   "VN"                  PRG    3   "THREE REASONS"       PRG
4   "COMPUTECOLOR"        PRG    7   "REDISK"              PRG
4   "COMPUTESCREEN"       PRG    7   "REDISK/VIC"          PRG
7   "64 CONTENTS"         SEQ    7   "REDISK 8K"           PRG
3   "VICONTENTS"          SEQ    7   "REDISK 16K"          PRG
1   "-----------------"   SEQ    2   "MLBAS"               PRG
1   "  COMPUTE GAZETTE"   SEQ    9   "TEXT PRINT"          PRG
1   "   JULY PROGRAMS "   SEQ    1   "---- ------------"   SEQ
1   " ----------------"   SEQ    1   "COMPUTE GAZETTE  "   SEQ
2   "BENT LASER"          PRG    1   "  SEPT. PROGRAMS "   SEQ
2   "SNIR SNINT"          PRG    1   "---- ------------"   SEQ
2   "MINOR THRILLER"      PRG    2   "ALIEN BOOT"          PRG
2   "THREE TOED WHEEL"    PRG    3   "CSET1"               PRG
1   "SLIDING FOREST"      PRG    4   "CSET2"               PRG
3   "RING THING"          PRG    9   "CSET3"               PRG
16  "SLEUTH"              PRG    5   "CSET4"               PRG
13  "SLEUTH/VIC"          PRG    1   "EMULATOR BOOT"       PRG
2   "TURBODISK BOOT"      PRG    2   "FALLING GITAR"       PRG
4   "TURBODISK"           PRG    22  "FRIENDLY ALIEN"      PRG
19  "TDISK GENERATOR"     PRG    22  "FRIENDLYALIEN"       PRG
18  "TDISK/VIC"           PRG    2   "GLISSANDO"           PRG
22  "VICTT GEN"           PRG    2   "HARMONIX"            PRG
26  "64TTAPE GEN"         PRG    3   "HEAR SEE CHORD"      PRG
2   "POWER BASIC"         PRG    24  "MAZE-MANIA"          PRG
1   "64TTAPE BOOT"        PRG    16  "PRINTER WEDGE"       PRG
1   "64TTAPE GEN BOOT"    PRG    2   "QUICKSCAN/VIC"       PRG
1   "VTT GEN BOOT"        PRG    3   "QUICKSCAN"           PRG
11  "SPACE GALLERY"       PRG    3   "RUBBER BAND"         PRG
6   "TURBOTAPE"           PRG    7   "TINYTERM/VIC"        PRG
8   "TTAPE/VIC"           PRG    7   "TINYTERM"            PRG
1   "- ---------------"   SEQ    24  "TRACKER"             PRG
1   "COMPUTE  GAZETTE"    SEQ    8   "VIC EMULATOR"        PRG
1   "   AUG. PROGRAMS "   SEQ    1   "WAVEFORM"            PRG
1   "--- -------------"   SEQ    52  "WEATHER PROPHET"     PRG
2   "MLBAS/VIC"           PRG    4   "CCC INFORMATION"     PRG
7   "TOOLBOX"             PRG    1   "------ -----------"  SEQ
1   "CRUNCH.BOOT"         PRG    1   "  END   OF  THE  "   SEQ
7   "CRUNCH"              PRG    1   "GAZETTE PROGRAMS"    SEQ
10  "VIC CRUNCH"          PRG    1   "------ ----------"   SEQ
1   "SPACE DOCK.BOOT"     PRG    8   "SCRIPTSAVE 3.1"      PRG
6   "SPACE DOCK"          PRG    25  "SPEEDSCRIPT.V3.1"    PRG
12  "SPACEDOCK"           PRG    48  "S/S INST.V3.1"       PRG
2   "THE LAST ZITHER"     PRG    6   "SPEED3SD BOOT"       PRG
3   "STAR WALKER"         PRG    3   "SPEEDTRANS3.D"       PRG
2   "NOT A BELL"          PRG    14  "SPEEDSCRIPT3X.D"     PRG
5   BLOCKS FREE.
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"CCC LIBRARY AA   " A4 2A
1   "SECTERMBOTS 1"       PRG    18  "VIC OLD PROTO"       PRG
7   "STERMV2.EXT"         PRG    7   "VIC OLD PROTO ML"    PRG
73  "SECONDTERM"          PRG    15  "VIC NEW PROTO"       PRG
1   "SECONDTERM.BOOT"     PRG    7   "VIC NEW PROTO ML"    PRG
3   "WORDPRO  READER "    PRG    4   "ANTIKNOCK"           PRG
63  "STERM V2.DOC1-PC"    PRG    12  "TRANSLATE1.C"        PRG
58  "STERM V2.DOC2-PC"    PRG    13  "UNSCRATCHER"         PRG
20  "KABOOM"              PRG    11  "HEX-DEC-BIN"         PRG
14  "CROSSWORDS"          PRG    31  "WINTER SCENE"        PRG
14  "BOOGIE BRKOUT"       PRG    8   "BATTLE HYMN 1"       PRG
19  "TIPTOAD"             PRG    8   "BATTLE HYMN 2"       PRG
20  "CHECKBOOK"           PRG    40  "SYNTH MUSIC"         PRG
13  "FILCOP"              PRG    10  "REL FILE COPY"       PRG
16  "COLORBOT/64 02"      PRG    20  "ASTERIX"             PRG
21  "WEBSTER DINGS"       PRG    29  "NOEL"                PRG
13  "MOSAIC PUZZLE/64"    PRG    11  "SNOOPY PILOT"        PRG
2   "PROTOS"              SEQ
35  BLOCKS FREE.
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" CCC LIBRARY BB " B3 2A
7   "MAGIC MUSIC MENU"    PRG    14  ")DANIEL"             PRG
1   "M-LOADER"            PRG    20  ")BREAK MY STRIDE"    PRG
2   "M-LINE"              PRG    17  ")THRILLER"           PRG
4   "MUSIC-MASHER"        PRG    16  ")STAY THE NIGHT"     PRG
27  ")MAMP1"              PRG    11  ")CHEERS THEME"       PRG
36  ")BILLIE JEAN"        PRG    21  ")BOLERO"             PRG
31  ")BEAT IT"            PRG    11  ")RAIN DROPS"         PRG
16  ")WE ARE WORLD"       PRG    16  ")GREAT LORD"         PRG
16  ")ROCKY 3 THEME"      PRG    19  ")AFRICA"             PRG
22  ")LONGEST TIME"       PRG    19  ")FLASHDANCE"         PRG
7   ")CBM THEME"          PRG    15  ")E.T. THEME"         PRG
11  ")DOCTORJAY"          PRG    18  ")GHOST BUSTERS"      PRG
13  ")B.BAILEY"           PRG    23  ")MANIAC"             PRG
12  ")I WILL"             PRG    15  ")MAGIC"              PRG
12  ")HARD MONEY"         PRG    16  ")THE CARS"           PRG
20  ")EVERGREEN"          PRG    26  ")UPTOWN GIRL"        PRG
14  ")GIRLS WANT FUN"     PRG    11  ")RAIDERS"            PRG
29  ")NOVENA"             PRG    13  ")STAR TREK THEME"    PRG
11  ")DOWNTOWN"           PRG    11  ")MASH THEME"         PRG
11  ")DIZZY"              PRG    11  ")SURFING USA"        PRG
16  ")GLORIA"             PRG    17  ")LIKE A VIRGIN"      PRG
6   BLOCKS FREE.
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" CCC LIBRARY BB " B3 2A
7   "MAGIC MUSIC MENU"    PRG    14  ")DANIEL"             PRG
1   "M-LOADER"            PRG    20  ")BREAK MY STRIDE"    PRG
2   "M-LINE"              PRG    17  ")THRILLER"           PRG
4   "MUSIC-MASHER"        PRG    16  ")STAY THE NIGHT"     PRG
27  ")MAMP1"              PRG    11  ")CHEERS THEME"       PRG
36  ")BILLIE JEAN"        PRG    21  ")BOLERO"             PRG
31  ")BEAT IT"            PRG    11  ")RAIN DROPS"         PRG
16  ")WE ARE WORLD"       PRG    16  ")GREAT LORD"         PRG
16  ")ROCKY 3 THEME"      PRG    19  ")AFRICA"             PRG
22  ")LONGEST TIME"       PRG    19  ")FLASHDANCE"         PRG
7   ")CBM THEME"          PRG    15  ")E.T. THEME"         PRG
11  ")DOCTORJAY"          PRG    18  ")GHOST BUSTERS"      PRG
13  ")B.BAILEY"           PRG    23  ")MANIAC"             PRG
12  ")I WILL"             PRG    15  ")MAGIC"              PRG
12  ")HARD MONEY"         PRG    16  ")THE CARS"           PRG
20  ")EVERGREEN"          PRG    26  ")UPTOWN GIRL"        PRG
14  ")GIRLS WANT FUN"     PRG    11  ")RAIDERS"            PRG
29  ")NOVENA"             PRG    13  ")STAR TREK THEME"    PRG
11  ")DOWNTOWN"           PRG    11  ")MASH THEME"         PRG
11  ")DIZZY"              PRG    11  ")SURFING USA"        PRG
16  ")GLORIA"             PRG    17  ")LIKE A VIRGIN"      PRG
6   BLOCKS FREE.
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" CCC LIBRARY BB " B4 2A
7   "MAGIC MENU TWO"      PRG    12  ")THOSE WERE DAYS"    PRG
1   "M-LOADER"            PRG    27  ")THE THUNDERER"      PRG
2   "M-LINE"              PRG    1   " ----------------"   SEQ
8   ")KARMA KAMELIAN"     PRG    1   "COMPUTE! GAZETTE"    SEQ
11  ")CA.GIRLS"           PRG    1   "OCT/85  PROGRAMS"    SEQ
20  ")STAIRWAY"           PRG    1   "-----------------"   SEQ
21  ")PANAMA"             PRG    10  "ATOM SHOOT"          PRG
20  ")99 BALLOONS"        PRG    1   "CHECKER.BOOT"        PRG
33  ")NUTCRACKER"         PRG    4   "SYNTAX CHECKER"      PRG
18  ")TELEPHONE"          PRG    1   "TURNABOUT.BOOT"      PRG
12  ")RADIO GA GA"        PRG    10  "TURNABOUT"           PRG
15  ")OUT OF TOUCH"       PRG    1   "X BASIC.BOOT"        PRG
15  ")GOLDEN SLUMBER"     PRG    12  "X BASIC"             PRG
18  ")CAN'T DRIVE 55"     PRG    43  "FARM GAME"           PRG
15  ")EVERY BREATH"       PRG    1   "GRADEBOOK.BOOT"      PRG
15  ")SAY SAY SAY"        PRG    13  "GRADEBOOK"           PRG
16  ")ROCK OF AGES"       PRG    2   "JOYSTICK READ/64"    PRG
12  ")HILL ST BLUES"      PRG    11  "KALEIDOSCOPE/64"     PRG
23  ")SUPERMAN"           PRG    1   "- ---------------"   SEQ
13  ")JINGLEBELLROCK"     PRG    12  "ALIGN 1541"          PRG
14  ")NO MORE LONELY"     PRG    28  "1541 INST."          PRG
21  ")REVISED BEAT IT"    PRG    11  "LAST WARRIOR"        PRG
21  ")BAND ON THE RUN"    PRG    11  "DISK COMMANDER"      PRG
20  ")MINUTE WALTZ"       PRG    30  "SHOPPING LIST"       PRG
33  BLOCKS FREE.
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"CCC LIBRARY CC   " C3 2A
27  "HYPERERRORCHECK"     PRG    6   "MORTGAGE PAYMENT"    PRG
40  "SUPER DOC.64"        PRG    17  "MORT-HC.INST.PC"     PRG
18  "2.5 MIN COPY"        PRG    17  "DISK CHECKER"        PRG
69  "HOME BUDGET"         PRG    8   "MICRO.ML"            PRG
17  "ETML.7"              PRG    60  "MICROTERM 1"         PRG
97  "EAGLETERM 7.0"       PRG    2   "PR1111-A-ALF"        PRG
14  "LOTTO5.5"            PRG    2   "PR-1111-A-MLO"       PRG
6   "DISK DIR. SORT"      PRG    30  "CUSTOM-PRINT 2.0"    PRG
5   "PRINT SMALL DIR."    PRG    7   "ANDY BUGGER"         PRG
13  "ERASER64"            PRG    15  "FILE LOCK"           PRG
21  "SOLITARE"            PRG    40  "SOLITAIRE 64"        PRG
7   "CRUNCH.49152"        PRG    29  "ADDRESS BOOK"        PRG
10  "MORTGAGE-HC"         PRG
81  BLOCKS FREE.
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"CCC LIBRARY CC   " C4 2A
61  "HAL BOOT"            PRG    31  "LUSCHER.TEXT0"       SEQ
133 "HAL"                 PRG    30  "LUSCHER.TEXT1"       SEQ
17  "HAL.ML12"            PRG    31  "LUSCHER.TEXT2"       SEQ
110 "HALSET"              PRG    35  "LUSCHER.TEXT3"       SEQ
7   "HAL CHANGE DOCS"     SEQ    33  "LUSCHER.TEXT4"       SEQ
29  "HALPHASORTER"        PRG    1   "CCCCCCCCCCCCCCCC"    USR
1   "GGGGGGGGGGGGGGGG"    USR    30  "DAVID'S DESIGNER"    PRG
36  "LUSCHER.C"           PRG    67  "3RD TERM 1.1"        PRG
4   BLOCKS FREE.
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" CCC LIBRARY DD " D3 2A
3   "MENU"                PRG    6   "VBANNER 1526"        PRG
9   "MN"                  PRG    2   "WARNING VIC"         PRG
9   "VN"                  PRG    2   "PROTECT.BOOT"        PRG
4   "64 CONTENTS"         SEQ    1   "WHIRLYBIRD.BOOT"     PRG
2   "VICONTENTS"          SEQ    13  "WHIRLYBIRD"          PRG
3   "AUTO FILE.BOOT"      PRG    11  "SPEEDCHECK"          PRG
4   "AUTO FILE"           PRG    5   "SPEEDMENU"           PRG
13  "GAMMON/VIC"          PRG    10  "DCOPIER"             PRG
14  "BACKGAMMON"          PRG    15  "DMANAGER"            PRG
10  "CHICKEN/VIC"         PRG    6   "A"                   SEQ
10  "CHICKEN CATCHER"     PRG    3   "B"                   SEQ
8   "DIGI CLOCK"          PRG    7   "C"                   SEQ
1   "DISK ENCODE.BOOT"    PRG    4   "D"                   SEQ
7   "DISK ENCODER"        PRG    4   "E"                   SEQ
6   "GOBBLEDYGOOK"        PRG    3   "F"                   SEQ
1   "MUSIC MAKER.BOOT"    PRG    2   "G"                   SEQ
2   "MUSIC MAKER"         PRG    2   "H"                   SEQ
25  "POWER POKER"         PRG    4   "I"                   SEQ
1   "PREVIEW 80.BOOT"     PRG    1   "J"                   SEQ
8   "PREVIEW 80"          PRG    1   "K"                   SEQ
3   "SCREEN CUST"         PRG    2   "L"                   SEQ
4   "SCREEN CUSTOM"       PRG    3   "M"                   SEQ
4   ".DIR"                PRG    1   "N"                   SEQ
2   "ARCHIVE.BOOT"        PRG    3   "O"                   SEQ
2   "AUTO TIME.BOOT"      PRG    5   "P"                   SEQ
8   "AUTO TIME/DATE"      PRG    1   "Q"                   SEQ
7   "BANNERS 1525"        PRG    4   "R"                   SEQ
7   "BANNERS 1526"        PRG    6   "S"                   SEQ
20  "CONSTRUCTION SET"    PRG    3   "T"                   SEQ
9   "CREATURE"            PRG    2   "U"                   SEQ
6   "HOUSE"               PRG    3   "V"                   SEQ
9   "SHAPES"              PRG    2   "W"                   SEQ
2   "DISK PROTECT"        PRG    1   "X"                   SEQ
3   "DISK UNPROTECT"      PRG    1   "Y"                   SEQ
20  "DRAGONS DEN"         PRG    1   "Z"                   SEQ
2   "FILE ARCHIVER"       PRG    1   "-----------------"   SEQ
4   "FILE PROTECT"        PRG    1   "  THE FOLLOWING  "   SEQ
4   "FILE UNPROTECT"      PRG    1   "   FOUR FILES    "   SEQ
4   "LIST PAGER"          PRG    1   "   ARE THE NEW   "   SEQ
2   "PAGER.BOOT"          PRG    1   "THIRD TERM  V1.1"    SEQ
2   "PROTECTION.BOOT"     PRG    1   "       AND       "   SEQ
1   "QUICKCHANGE.BOOT"    PRG    1   " DOCUMENTATION   "   SEQ
9   "QUICKCHANGE"         PRG    1   "      FILES      "   SEQ
9   "SOUNDPIX"            PRG    1   "+++++++++++++++++"   SEQ
3   "TRACKMOUSE"          PRG    67  "3RD TERM 1.1"        PRG
12  "VARIABLE SAVER"      PRG    46  "3RD TERM.DOC1-PC"    PRG
2   "VARIABLE.BOOT"       PRG    43  "3RD TERM.DOC2-PC"    PRG
6   "VBANNER 1525"        PRG    3   "WORDPRO READER"      PRG
31  BLOCKS FREE.
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" CCC LIBRARY DD " D4 2A
3   "MENU"                PRG    1   "EDITOR.BOOT"         PRG
10  "MN"                  PRG    1   "FILER.BOOT"          PRG
9   "VN"                  PRG    6   "HORIZONS"            PRG
3   "64 CONTENTS"         SEQ    5   "IMAGES"              PRG
1   "VICONTENTS"          SEQ    1   "KICKER.BOOT"         PRG
1   "ASSEMBLER.BOOT"      PRG    7   "KICKER"              PRG
11  "ASSEMBLER"           PRG    17  "LEXITRON"            PRG
19  "BASIC BACKUP"        PRG    0   "MINI FILER"          PRG
5   "BASIC WINDOWS"       PRG    17  "MLX"                 PRG
20  "DISASSEMBLER"        PRG    4   "PROOFREADER"         PRG
27  "FACE-OFF"            PRG    4   "SNAPSHOT DEMO"       PRG
34  "FUER.MUS"            PRG    2   "SNAPSHOT.BOOT"       PRG
3   "HIGHLIGHTER 64"      PRG    9   "SNAPSHOT"            PRG
3   "HIGHLIGHTER"         PRG    1   "SPROT.OBJ"           PRG
3   "INEX.MUS"            PRG    2   "VBLINK.BOOT"         PRG
20  "KPLAY"               PRG    2   "VBLINKOBJ"           PRG
4   "OFF SCREEN TRACK"    PRG    1   "-----------------"   SEQ
2   "PRINT MAKER.BOOT"    PRG    1   "OTHER GOOD STUFF"    SEQ
2   "PRINT MAKER"         PRG    1   "CCCCCCCCCCCCCCCC"    SEQ
2   "PRINT.BOOT"          PRG    1   " A SPREADSHEET"      PRG
2   "PRINTMAKER"          PRG    1   "FOR SPEEDSCRIPT"     PRG
1   "SPACE ARENA.BOOT"    PRG    1   " FROM COMPUTE!"      PRG
16  "SPACE ARENA"         PRG    31  "SPEEDCALC"           PRG
3   "SPRINT DEMO"         PRG    2   "INTEGRATOR"          PRG
1   "SPRINT.BOOT"         PRG    1   "FFFFFFFFFFFFFFFF"    SEQ
24  "SPRINT"              PRG    22  "SWEEP TERM.8"        PRG
1   "TRACE.BOOT"          PRG    9   "SYSTEM'S"            SEQ
27  "VIVALDI.MUS"         PRG    7   "TERM.64.NEW"         PRG
58  "ASSEMBLER.SOURCE"    PRG    4   "LINE LITER"          PRG
7   "BLINK MODE/VIC"      PRG    13  "COLOR PLOT DEMO"     PRG
8   "BLINK MODE"          PRG    33  "FASTPRINT"           PRG
3   "BLINK.BOOT"          PRG    2   "SPLIT SCREEN"        PRG
2   "BLINKOBJ"            PRG    1   "SCREEN SIZZLE"       PRG
10  "CUSTOM LABELS"       PRG    9   "VIC.SCRN-40/8192"    PRG
7   "DEMO 1/VIC"          PRG    16  "QUADPRINT.SEM101"    PRG
8   "DEMO 1"              PRG    8   "VIC EMULATOR/64"     PRG
5   "DEMO 2/VIC"          PRG    10  "TURTLE GRAPHICS"     PRG
5   "DEMO 2"              PRG    3   "TURTLE DEMO"         PRG
8   "DISK EDITOR"         PRG    6   "MONTY P. POEM"       PRG
15  BLOCKS FREE.
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"CCC LIBRARY EE   " E3 2A
1   "MULTI PLAN FILES"    SEQ    2   "SCREEN PRINT 3"      PRG
1   "E3---------------"   SEQ    31  "FINANCE AID"         PRG
10  "SOURCE DEDUCTION"    SEQ    42  "DISK MASTER"         PRG
16  "SCHEDULE 4"          SEQ    19  "GRAPHMAKER"          PRG
11  "SCHEDULE 9"          SEQ    27  "MEMO"                PRG
8   "DEPENDENTS"          SEQ    1   "DIPL. DILEMMA.C"     PRG
13  "T1G PAGE 1"          SEQ    4   "DILEMMA.DOC"         SEQ
19  "T1G PAGE 2"          SEQ    9   "ADILEMMA"            PRG
4   "UI REPAYMENT"        SEQ    76  "BDILEMMA"            PRG
4   "SCHEDULE 10"         SEQ    2   "GHOUL DOGS"          PRG
17  "T1G PAGE 4"          SEQ    11  "GD/COLOR.M"          PRG
36  "MP INCOME TAX"       PRG    11  "GD/MONOCHROME.M"     PRG
1   "E3-------------- -"  SEQ    3   "GHOUL COLORS"        PRG
1   "MERRIMANAGER"        SEQ    6   "GHOUL DOGS.DOC"      SEQ
19  "MERRI.DOC"           PRG    8   "MANDELZOOM 1.4"      PRG
25  "MERRIMANAGER 2.3"    PRG    19  "EASY WINNERS"        PRG
6   "MM/DUMMY FILE"       SEQ    1   "PRINT DIAGONALLY"    PRG
1   "E3------------ -"    SEQ    18  "TV SATELLITES"       PRG
25  "BAR CHART"           PRG    2   "CALCULATOR"          PRG
46  "RUNTERM"             PRG    15  "MICROTERM 1"         PRG
31  "SCREEN PRINT"        PRG    13  "BIORHYTHM"           PRG
5   "SCREEN PRINT 2"      PRG    13  "O' XMAS' TREE"       PRG
31  BLOCKS FREE.
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"CCC LIBRARY EE   " E4 2A
1   "MENU"                PRG    19  "MLX II (MOD)"        PRG
10  "MN"                  PRG    19  "MLX II (UPPER)"      PRG
2   "64 CONTENTS"         SEQ    19  "MLX II (U/L)"        PRG
15  "VN"                  PRG    2   "THAT WHICH FLIES"    PRG
1   "VICONTENTS"          SEQ    2   "WHICH FLIES NOT"     PRG
13  "CONSTRUCTION KIT"    PRG    1   "MEMORY SCOPE"        PRG
6   "SURVIVOR 1"          PRG    4   "QUAKE!!"             PRG
13  "SURVIVOR 2"          PRG    1   "COLOUR CHECK"        PRG
8   "KEY TO JOY"          PRG    2   "MOVING STAR"         PRG
6   "KEY TO JOY DEMO"     PRG    1   "12DAY CALCULATOR"    PRG
7   "CLAVIER"             PRG    33  "BASIC 4.5"           PRG
14  "CATALOGER"           PRG    2   "RESTORE DEMO"        PRG
24  "SHIFTER"             PRG    5   "SPRITE DEMO"         PRG
6   "TELECONVERTER"       PRG    3   "MOVE VIDEO RAM"      PRG
6   "VIC DUMP"            PRG    6   "ANIMATION DEMO"      PRG
15  "COORDINATOR.LDR"     PRG    6   "WINDOW DEMO1"        PRG
1   "OBJECT MAKER"        PRG    3   "WINDOW DEMO2"        PRG
20  "COORD DEMOS"         PRG    4   "MUSIC DEMO"          PRG
1   "A COORD.OBJ"         PRG    14  "SEE ME"              SEQ
3   "B COORD.OBJ"         PRG    22  "SUPERMON INSTR."     SEQ
3   "NT"                  PRG    17  "WEDGE-64-8C000"      PRG
1   "E4---------------"   SEQ    17  "WEDGE-64-87000"      PRG
10  "TURNABOUT49152"      PRG    19  "EDITOR PLUS"         PRG
15  "LASER BEAM"          PRG    62  "4.5 ARTICLE-1"       SEQ
9   "COLOR PLOTTER"       PRG    27  "4.5 ARTICLE-2"       SEQ
3   "COLOR PLOTTER 64"    PRG    60  "4.5 ARTICLE-3"       SEQ
15  "MINICOMP"            PRG
65  BLOCKS FREE.
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" CCC LIBRARY FF " F3 2A
83  " RAINBOW SSS"        PRG    1   "DUNK.BOOT"           PRG
10  "RAINBOW.ML"          PRG    8   "DUNK"                PRG
87  "RATS!"               PRG    19  "GAZETTE"             PRG
1   "F3---------------"   SEQ    2   "INPUT DEMO"          PRG
77  "COMMTERM III"        PRG    10  "INPUT WINDOWS"       PRG
23  "ML.VER3+"            PRG    4   "INPUT.BOOT"          PRG
54  "CT.DOCS"             SEQ    2   "INPUT.OBJ"           PRG
3   "PROT"                SEQ    4   "LIDOM"               PRG
1   "F3------------- -"   SEQ    17  "MLX"                 PRG
1   "MENU"                PRG    10  "MN"                  PRG
32  "64 BOOKS"            PRG    3   "NT"                  PRG
2   "64 CONTENTS"         SEQ    6   "PROOFREADER"         PRG
9   "CHRSET"              PRG    2   "TURBOCOPY.BOOT"      PRG
2   "COMPUTE!"            PRG    11  "TURBOCOPY"           PRG
4   "COMPUTECOLOR"        PRG    4   "UPSTART"             PRG
4   "COMPUTESCREEN"       PRG    2   "VN"                  PRG
16  "DIR FILER"           PRG    9   "64 SEQ READ"         PRG
79  BLOCKS FREE.
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" CCC LIBRARY FF " F4 2A
36  "DATAFILE"            PRG    19  "SPRITE DELIGHT"      PRG
20  "   DFMAIL"           PRG    17  "FAST LOAD"           PRG
32  "   DFREPORT"         PRG    14  "GL"                  PRG
39  "DFPRINT"             PRG    16  "SPACEARENA.49152"    PRG
66  "DFCALC"              PRG    25  "SPEED WRITE"         PRG
34  "SUPER JACKET"        PRG    12  "1541 HOUSEKEEPER"    PRG
18  "CHECKBOOK 2"         PRG    20  "WALL CALENDAR"       PRG
18  "HEAT SEEKER"         PRG    27  "TRONIC CYCLE"        PRG
15  "80 CLOUMN"           PRG    24  "LIBRARY.UTIL"        PRG
8   "SIDE WRITER V1.2"    PRG    33  "BARTERM"             PRG
10  "SHOOP"               PRG    5   "BARTERM.DOC"         SEQ
1   "DOS/80 CLOUMN"       PRG    6   "ML TO BASIC CONV"    PRG
8   "BOUNCE"              PRG    1   "C-64 TURBO WEDGE"    PRG
1   "BOUNCE.OBJ"          PRG    17  "TURBO DOS 5.1"       PRG
3   "BOUNCE.SPR"          PRG    10  "K-PIC-CONVERT"       PRG
82  "GIRL ON STOOL"       PRG    5   "USEKEYSIN64MODE"     PRG
9   "SPEEDY"              PRG
40  BLOCKS FREE.
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WORD PROCESSING

By MIKE QUIGLEY

Search and Replace in a word processor is a handy feature which allows you to find and substitute one word or phrase -- or even a particular group of letters -- for another. Let's say you write an article with numerous references to a "Mr. Smith" and then find out the person is actually Mrs. Jones. Using Search and Replace, you can go through the entire document, and sometimes even subsequent documents which are chained to the first one, automatically substituting one name for the other.

You may think this is something you will rarely use, but there are many occasions when it is a real godsend. A woman who writes articles of a veterinary nature told me that she had one long feature which used some complicated medical expression many times. Every time she came to this express she would create a dummy expression like "qzq", something which would never be encountered "in real life". Then, when the article was finished, she searched and replaced this combination ... zap, zap, zap!

There are certain limitations with this feature. One is that you have to define the item you wish to Search carefully. Let's say you wanted to replace every occurrence of the word "the" in a document with "a". Since Search and Replace is quite literal, you could end up with words like "other"--containing "the" in its middle--becoming "oar". To avoid this, you would have to search [space]the[space] and replace it with [space]a[space]. Most good WPs give you the option of Searching and Replacing all occurrences automatically, or else prompting you with "Yes/No" before each change.

One thing to watch with Search and Replace is how literal it is. With some WPs, searching for "the" will find all instances of "the" as well as "THE", "The", "tHe" and so forth. This can prove a hindrance. You should also consider how many characters can be dealt with at once. The usual limitation is 40 — the width of the screen. If the expression you wish to replace is longer than this, you may have to divide it into two pieces, and the first one with another dummy phrase and then replace that dummy phrase with the remainder of the expression.

Most word processors are limited to searching for ordinary upper and lower class characters and numbers. If you have any reverse or graphic characters (sometimes used to activate special printer features), forget it! I have yet to find a word processor which will search for, let alone replace, its RETURN character--usually depicted as the left arrow.

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Club meetings are normally held: *Workshop:* first Tuesday of the month, 7:00 p.m., Sunset Community Centre, 404 East 51st Ave.; *Lecture:* third Wednesday of the month, 7:00 p.m., Emily Carr College of Art and Design, 1399 Johnston, Granville Island. For up-to-date information on any changes, please call the club BBS at 271-1082 or the club's 24-hour answering machine:

PET-3311 (738-3311)

Club Executive: President -- Philip Seligman; Vice-President -- Gary-Lee Nova; Secretary -- Al Townsend; Recording Secretary -- Ellenor Jonsson; Treasurer -- Hu Reijne; Directors -- Dave Allen, Guenter Hake, Glen Hazlewood, Helen Hing, Douglas Johnson, Murray Kopit, Bob Mascott, Ken Moren, Larry Phillips, Timothy Pinnell, Mike Quigley, Nick Shevchenko, Sig Steiner, Stewart Tait.