

'PUBLIC DOMAIN'TM, INC. SOFTWARE MANUAL VOL. 1 1984



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INTRODUCTION

The Commodore software contained within this program manual is the result of over two years work by people just like yourselves. The programs rate from "just OK" to commercial quality.

This guide will aid you in picking the right software for the job. Or if you already own one or more of the collections, will aid you with the added instructions you may need to use the program to its fullest extent.

Many of the programs contain instruction screens or instructions in REMark statements within the program. These programs were given a simple extended review. Programs without instructions now have printed instructions to aid you, the user, in making full use of the program.

If you would like to order any of the collections, please read the ordering information in the rear of this manual.

We hope you enjoy the collections you own or will own in the future.

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Key to Requirements

NONE

Program requires nothing added to operate in an unexpanded system. System must include a cassette or disk drive for loading purposes.

TAPE

Requires Commodore cassette drive for storage of files, etc...

DISK

Requires Commodore disk drive, (1540 / 1541), for storage of files, etc...

PRINTER OPTIONAL

Program may be used with or without printer at user's option. Supports Commodore or Commodore compatible printers.

PRINTER

Program requires a printer be used to run properly. Supports Commodore or Commodore compatible printers.

JOYSTICK OR PADDLES

Requires Commodore or Commodore compatible joystick(s) or paddles to run properly.

3K-8K-16K-24K

Program requires added memory to load or run properly. A plus sign (+) as in 8K+ indicates more memory can be used to store larger data files, etc...

SUPEREXPANDER

Requires Commodore Superexpander cartridge to load or run. All other memory should be disconnected unless otherwise indicated.

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C-64 COLLECTION #1

LOAD"!,8 RUN program. Automatically boots C-64 DOS WEDGE program.
Requirements: Disk

3D TIC TAC TOE

This game is a bit more challenging than regular TIC TAC TOE. It comprises of 4 grids. The object is to get 4 in a row in any direction. When you first play the game, in response to row, column, level; enter all "1's". A "0" should appear in the upper left corner of level 1. With a little tinkering, you should be able to figure out the numbering scheme.
Requirements: None

64 MEMORY CHART

This program displays the complex C-64 memory layout in convenient bar graph form. Use the "+" key to move the graph up, and the "-" key to move the graph down. Use the "0-9" and "A-F" to move to specific "pages" of memory.
Requirements: None

64 RENUMBER

Append this program to the end of a BASIC program. RUN 30000, and the original program will be renumbered by 10's starting at line 10. This program WILL NOT renumber GOTO's & GOSUB's.
Requirements: None

BASEBALL 64

Excellent two player baseball game for the 64. Use "Q" and "E" to move your outfield left or right respectively. "F1" swings the bat while "F3" causes the runner on 3rd to hold up.

For pitching controls, "A" is a slow knuckle ball while "Z" is a fast one. "S" is a slow straight ball and "X" is a fast one. Finally, "D" is a slow curve and "C" is fast. You will find these keys are in a convenient layout, and are easy to learn.

Some older C64's have a ROM bug. If you can't see any players on the field, stop the program and type in the following:

```
175 FOR I=55296 TO 56295:POKE I,13:NEXT <RETURN>
```

Requirements: None

BLACK BOX

Rather complicated, but challenging detection game. The computer places 5 balls randomly in the box. You must send in "probes" to find the balls. Each probe that is not a direct hit will be deflected or reflected in some direction. You must deduce the positions of all 5 balls
Requirements: None

=====

CHECKBOOK

This program will aid you in keeping track of your checkbook. It stores its information on tape, but with modifications, it can be converted to disk. Contains reconciliation, transactions, change & delete functions.

Requirements: Tape

CHESS FOR TWO

2 player chess game. Moves are entered through the keyboard. The board is set up in a grid pattern. Entering "A2A4" moves the piece on "A2" to "A4".

Requirements: None

CONCENTRATION

This is a 1 to 4 player matching game. Pick 2 cards and try to find a match. The player with the most matches wins. You pick your cards from the keyboard. Enter number/letter like "1A", or "3F". Use your memory and watch your opponent's choices. You may find a match.

Requirements: None

CONNECT FOUR

Get 4 blocks in a row before your opponent does. Enter a number between 1 & 7. 2 players.

Requirements: None

DR. LIVING

This is an exciting adventure game set in deepest Africa. Your goal is to rescue Dr. Livingston and get treasures. Use 2 word VERB/NOUN commands such as "GO EAST". Good Luck!

Requirements: None

DRAGON PIX

Graphics. LOAD and RUN.

Requirements: None

ENTERTAINER

Music. LOAD and RUN.

Requirements: None

FUGUE

Music. LOAD and RUN.

Requirements: None

GUN FIGHTER

Do you think you are a fast draw? Try to outdraw the C64. You must shoot the bad guy before he shoots you, but be careful that you don't draw too fast. You draw by hitting any key on the keyboard.

Requirements: None

=====

HANGMAN

Classic game for 1 player. Guess the word before your best friend gets hanged. Words are easily modified. List the program, the words are in DATA statements.

Requirements: None

INK BLOT

Random patterns on the screen. Run the program, and enter two numbers: (X,Y). By entering different numbers, different patterns will result.

Requirements: None

JOYSTICK TEST 64

Plug a joystick into PORT 2, run the program.

Requirements: Joystick

JUMBO JET LANDER

Great simulation. You are the pilot, and you must bring your 747 in for a landing. You control climb & thrust. When you run the program, all of your controls and directions will appear on the screen.

Requirements: None

LABYRINTH (J)

Plug your joystick into PORT 2 and travel through a 3-D maze. This is not an easy maze that you look down into, you are actually inside this maze. Excellent graphics make the maze fun to navigate. By pressing the fire button, you get some help because you can see the maze from overhead. Very well done.

Requirements: Joystick

LANDER

Your on board computers have failed, so you must land the lunar lander. Use the number keys (0-9) to give you different thrusts. The asterisk (*) gives you a thrust of 20. Try not to crash.

Requirements: None

MACHINE DRAW

Random graphics. LOAD and RUN.

Requirements:

OLD SHELL GAME

Classic con game. Guess which shell the ball is under.

Requirements: None

PETALS

Try and guess the algorithm by finding the score for each dice roll.

Requirements: None

=====

PROGRAM LISTER

Print Commodore special charters on non-Commodore printers.

Requirements: Disk/Printer

SCENARIOS

Have your C-64 generate funny scenarios. Load, run, and enjoy.

Requirements: None

SPRITE EDITOR

Excellent utility to help you generate sprites. Separate versions for tape and disk users. Disk versions have a SEQ file called "ME.SPRITE" which is used with this program. Create and save sprites and generate BASIC DATA statements. Use the cursor keys to move about the sprite grid. Press RETURN to turn on bits in the grid. For more detailed information on the way sprites are used, consult the "COMMODORE 64 PROGRAMMERS REFERENCE GUIDE".

Requirements: Tape/Disk

STOCK BROKER

1 to 6 player game. Try to make the most cash by playing the stock market.

Requirements: None

TREK 64

You are the Captain. Press RETURN for a command list. Hours of fun.

Requirements: None

WORLD TIME

Enter the date, time, and time zone of your location. This program creates a world map with your time on it plus time around the world.

Requirements: None

=====

C-64 COLLECTION #2

!

LOAD"!,"8 RUN program. Automatically boots C-64 DOS WEDGE program.

Requirements: Disk

HIRES (DISK & TAPE)

Show off the hires graphics of the 64. Load and run "HIRES DISK" if you use disk, or "HIRES TAPE" for tape users. Run the program. The files named CAVEMAN, MAN, PATTERN, SATTILITE, and SNAIL are all hires pictures. Pressing keys 1-5 determines how long each picture will be displayed.

Requirements: Disk/Tape

AMERICAN FLAG

Demo program. Load and run.

Requirements: None

BABY CARE

You are taking care of a baby. You must keep your baby happy, well fed, and dry all without going insane.

Requirements: None

BAR GRAPH

You enter the names and values for up to 6 items. The C-64 generates a bar graph.

Requirements: None

CITY PATTERNS

Demo program. Load & run.

Requirements: None

EPIDEMIC

Control the effects of a various on an island community. Study the pattern of disease as it spreads on the island.

Requirements: None

FLIGHT

Take off in a small plane, make a 360 degree turn, and land again. You control your throttle, elevators, and your ailerons.

Requirements: None

=====

FOREST WALK

Take a walk through the forest. Beware, you will encounter many different animals in your travels. You must decide wether to shoot it, pet it or feed it.

Requirements: None

GEIGER COUNTER

Check radiation values for different compounds the safe way. Test sorces are plutonium, stromtium, radium, potassium & background.

Requirements: None

LIFE EXPECTANCY

Answer all of the quiz questions honestly, and find out how long you will live. This is only ment to give a possiable range in years.

Requirements: None

MASTER GUESS

You must try to break the secret code in less than 10 moves. Keep your eyes open, and watch for clues. Break a four color code.

Requirements: None

MONOPOLE 64

This is an excellent, complete version of the popular MONOPOLY board game for 2 players. This version allows your choice of auction and free parking rules. Color, sound & graphics.

Requirements: None

NUKE 64

Try your hand at operating a nuclear reactor. You must produce the most output power without causing a reactor meltdown.

Requirements: None

O'HARE'S ADV. #1

Welcome to the "CAVERN OF RICHES" adventure. You must find all 12 treasures and return them to thier proper places. Input a Noun/Verb combination.

Requirements: None

OTHELLO FOR 2

2 player Othello game. Uses a number/letter input. Game has full scoring and false move protection.

Requirements: None

=====

PATTERNS

Random patterns. Load & run

Requirements: None

PHAROH'S NEEDLE

Try and move the disks from 1 of the 3 needles to another. Start small and work up until you can work up to 9 disks. Excellent puzzler.

Requirements: None

POKER

Draw poker with the 64. Watch the dealer because he is not very smart.

Requirements: None

REG'D SUPPLY

Design a regulated power supply by inputting the desired output voltage and current. Several different designs available, basic transformer & bridge supply, regulated supply or both. many variations within each area.

Requirements: None

SUPERMON64

Machine language monitor with simple assembler & disassembler.

Requirements: None

TEMP. CONV.

Weather program. You can make temperature conversions, temperature humidity index, wind chill, and relative humidity and dew point.

Requirements: None

=====

C-64 COLLECTION #3**BIORYTHMN 1.5**

Biorythm chart calculator. Enter your name, birthdate, and starting date of your chart. Your results will be shown on the screen.

Requirements: None

CHECKERS

Play checkers with your C-64. Enter your moves with the keyboard via column and row.

Requirements: None

CLEW-SO

You are the great Inspector Clew-so. You must find the murderer. Be careful, because your suspects are liars. They will try to mislead you so watch your interigation.

Requirements: None

DAM BUSTERS

Use your bomber to break the dam. Watch out, there is a anti-aircraft gun on the dam. You have 3 planes. Break the dam before you are shot out of the sky.

Requirements: None

HI-Q

This is a European logic game. You must remove all pegs by jumping them. All jumped pegs are removed from the board.

Requirements: None

MILLE BOURNES IN

Instructions for MILLE BOURNES PR. Load & run.

Requirements: None

MILLE BOURNES PR

French card game. Try to reach 1000 miles before the computer does.

Requirements: None

O'HARES ADV. #2

The great Pyramid adventure. Search for lost treasures. Use 2 word NOUN/VERB commands.

Requirements: None

=====

PI6

Roll the dice until you get 100 points. You can roll as many times as you want, but if you roll an ace, (1), you lose all of your points.

Requirements: None

WRAP TRAP

Try to build a wall around the C-64. You must build this wall without backtracking where you had previously been.

Requirements: None

BASE

This program will convert any number from one "base" to another. For example, when the "NUMBER, BASE, MEASURE" prompt comes up, enter "255,10,16" and press return. What you have done is converted 255 base 10 (standard numbers) to its base 16 (hexidecimal) counterpart, which is FF. This is usefull for any number and any base.

Requirements: None

BIO PRINTER

Print out a chart of your biorythm cycles. Enter proper dates and everything takes care of itself. A printer will produce a hard copy for you.

Requirements: Printer optional

BOND YIELD

Calculate bond values including current yield, yield to maturity, future value, present value, intrest & market value.

Requirements: None

CALENDER

This program creaytes a calender for any year starting at 1 A.D. Enter numbers and calender appears on there screen.

Requirements: None

DISSASSEMBLER.

Dissassemble machine code in any part of memory on the screen. Tape and printre outputs are optional.

Requirements: Tape/Printer (optional)

FICA TAX

Calculate your FICA tax. Enter your income, and your tax is printed on the screen.

Requirements: None

FOOD PRICES

Simple data base for food expences.

Requirements: None

=====

HEATING COST

Analyze heating efficiency around your home. Enter dimensions, insulation, door & window information for cost/usage requirements.

Requirements: Printer optional

INTERMOD

This program calculates Intermodulation distortion for all frequency combinations you enter.

Requirements: None

J/20 MORSE R/T

CW receive and transmit software for the 64. First appeared in "JOURNAL 20" magazine. See Collection NS for circuit diagram.

Requirements: Home built T/U

MENU

Automatic disk menu program. Place disk into drive, and run program. You can load any program on your disk with one or two keystrokes.

Requirements: Disk

MONEY EXCHANGE

Convert your money to any other countries' money. Enter the country you are and the exchange country and the amount.

Requirements: None

PCB PRINTER

Print out design boxes on your printer to design your programmable custom character sets.

Requirements: Printer

PORTFOLIO

Keep track of your stocks with this program. Enter buys, sells, etc. When done, the program writes a tape or disk file for you.

Requirements: Tape/Disk

PROPERTY EVAL.

Evaluate the value of your property. Enter required information for estimated value. Also includes tax deduction & cash flow information.

Requirements: Printer optional

TIMER

Use this timer to clock up to 9 different events simultaneously.

Requirements: None

TYPING AID

Drill yourself on your typing skills. Random drills for both hands or for each.

Requirements: None

=====

TYPING TEST

Check your own typing speed and accuracy.

Requirements: None

VIEW DISK

Examine any track and sector of a disk. Results go th screen or printer.

Requirements: Disk / Printer optional

WEIGHT WATCHER

Graphically keep track of your dieting progress. To get a graph of your own progress, modify the DATA statements in the program.

Requirements: None

CHEMICAL DRILL

This program will help you to learn the Periodic Table of the Elements. It will give you either an element, or a symbol for an element. You must answer with the correct name or symbol. Then you must give its valence number.

Requirements: None

COLL.LIKE.TERMS

Algebra drill of collecting like terms.

Requirements: None

CRYPTOGRAMS

Solve or create.

Requirements: None

ESP TEST

Test your ESP skills. Try to determine which symbol the computer is holding. There are 5 to choose from

Requirements: None

FRENCH SENTENCE

Tutor yourself on French sentences. Fill in the blanks with the proper word.

Requirements: None

FRENCH VERBS

Tutor on French Verbs.

Requirements: None

GEOGRAPHY

Geographical guessing game. The computer thinks of a location, and you must name a location whos first letter is the same as the last letter in the computers word.

Requirements: None

=====

GRADES

Keep records for up to 35 students. Enter new data through DATA statements. List out by highest grade or in alphabetical order

Requirements: None

HS LAYOUT

Quiz on lay out of a High School yearbook.

Requirements: None

INTEGER TTT

Play Tic Tac Toe while you learn addition and subtraction. You must answer the question correctly to get the box.

Requirements: None

LATIN TUTOR

Drill on Latin words. The computer gives you the English word, and you give it the correct Latin word.

Requirements: None

MATH DRILL

The C-64 will drill you on addition, subtraction, multiplication, or division problems. There are 144 problems in each set.

Requirements: None

METRIC QUIZ

Quiz on the Metric System.

Requirements: None

=====

C-64 COLLECTION #4**BATTLESHIP**

Play the classic game of Battleship with the C-64. Enter your moves from the keyboard via instructions in program. Watch out because the C-64 is good!

Requirements: None

BOMARDIER

The computer is your pilot and navigator, and you are the bombardier. Try to blow up the strategic points such as the weapons factory, etc.

Requirements: None

CROPS

Control factors & environment surrounding several plant types. Use of water, insects and chemicals are factors to success.

Requirements: None

GENERAL

You are the commanding officer of 20000 troops. You must seek out and destroy your enemy. To find your enemy, you use a little logic and a lot of luck!

Requirements: None

KEY MOVE

Try to move your ball into the proper box. Roll the dice and move up, down, right, or left. For 2 players.

Requirements: None

LETTER SQUARE

Move the 15 letters into ascending or descending order by "sliding" the letters through the matrix. Can you solve the puzzle?

Requirements: None

MONEY MAD

2 player stock market game. Watch each report and decide what to invest in. You start with \$10000 cash. Watch that you don't overspend!

Requirements: None

ONE CHECKER

Solitaire checker puzzle. Try to get rid of as many checkers as possible. When you are out of moves, enter "0" to the prompt.

Requirements: None

=====

OSERO

Try to take all of your opponents peices by surrounding him with yours. Similar to Othello

Requirements: None

SPADES INST.

Instructions for next program. Load & run.

Requirements: None

SPADES PROG.

Computer version of the card game of the same name. Load "SPADES INST." to get complete play instructions.

Requirements: None

STONYVILLE MANOR

Adventure game. Two word verb/noun commands. Find Mr. Stone's fortune.

Requirements: None

APARTMENTS

This program computes a profit or loss on an apartment building. Enter the appropriate data and see your results on the screen.

Requirements: None

BANNER

Print full page banners on your printer. One or two lines, upper / lower case.

Requirements: Printer

BIG LETTERS

Make messages on the screen with big letters.

Requirements: None

CAR COST

Calculate the cost of operating a car. Enter data and your results appear on the screen

Requirements: None

CASH FLOW

Price/volume, cash flow & ROI analyzes.

Requirements: None

DATA R/W

Put machine language programs into DATA statements for ease of loading. Enter starting and ending addresses of your code, and watch this usfull utility go to work.

Requirements: None

=====

DIRECTORY

Tape file utility. Simple phone directory stored as data files on cassette.

Requirements: Tape

FAST SORT

Basic sort subroutine. Incorporate this routine into your own programs for quick sorting of information.

Requirements: None

GLOBAL

Compute distance between any 2 points on the Earth's surface. Enter the proper coordinates and the program gives you the distance in miles and kilometers.

Requirements: None

GRADES

Calculates grades for upto 35 students and 10 tests of variable weights. Information is stored in data statements within the program, program should must be re-saved on another tape/disk.

Requirements: None

INTEREST RATE

Calculator for interest rates on any amount of a loan for any period of time. Results are listed in a convenient table form.

Requirements: None

PRINT FORMAT

Use this subroutine to help you format numbers on the screen. Complete list of variables used are on the screen when you run the program. Works like Print Using.

Requirements: None

PRINTER HELPER

Subroutain aid for non-Commodore printers. Will print "clear screen" instead of graphics.

Requirements: Printer

SERVINGS

This program takes a recipe and calculates how much more ingredients you must add to increase or decrease number of servings.

Requirements: None

SUNRISE SUNSET

Calculate the sunrise and sunset times for anywhere in the world. You must enter correct latitude and longitude.

Requirements: None

=====

WEATHERMAN

Convert temperature, humidity, wind chill & relative humidity dew point.

Requirements: None

DENSITY

Compute the density of a mass by entering mass and volume.

Requirements: None

FRACTIONS

Drill on fractions. Try your luck and see how good you are.

Requirements: None

GRAMMAR

Test yourself on grammar skills. Nouns, verbs, and other parts of speech are drilled.

Requirements: None

INTEGER MATH

Test on adding, subtracting, and multiplying intergers.

Requirements: None

LONG DIVISION

Test on long division. See how well you can do in the shortest amount of time.

Requirements: None

MECHANICS

Algebraic test on velocity mechanics.

Requirements: None

POWERS & ROOTS

Test yourself on exponents. Don't cheat by using a calculator!

Requirements: None

STRAIGHT LINE

Geometry quiz on lines and angles.

Requirements: None

WHOLE NUMBERS

Quiz on whole number mathematics.

Requirements: None

WORD MART

Try to spell the word correctly. If you do, you get the money value for that word.

Requirements: None

=====

C-64 COLLECTION #5

ALEIN CAPTURE

Get the alien flying around your sector. Be careful, you must not destroy him. Take shots at him and surround him. The Empire wants him alive. Good luck, commander!

Requirements: None

AUTO RALLY

Try to drive your sports car 5 miles without running out of gas or crashing.

Requirements: None

DOMINOES

Play dominoes with your C-64. 3 levels of play from easy to hard.

Requirements: None

EXPLORE

Adventure game. Explore the caves. Press "RETURN" to see all of the commands.

Requirements: None

LOST GOLD ADV.

Adventure game. Join the search for the lost Dutchman's gold. Use simple noun/verb commands.

Requirements: None

NICHE

Try to keep your species alive through 5 rounds. Try to select the correct environment and prosper.

Requirements: None

OWARI

Get more beans in your home pit than your opponent.

Requirements: None

SUPERMAN

Superman, you must dispose of 10 criminals who intend to blow up the Earth. You have limited energy, so conserve all you can.

Requirements: None

=====

ZONE X

Use letter/number coridance to find the complete grid.

Requirements: None

ACCOUNTING TEST

Test and see how much you know about accounting. There are 10 questions.

Requirements: None

ANNUITY

Calculate the intrst on a savings account for any amount of money and interest rate. Enter proper data and results will be displayed on the screen.

Requirements: None

AVERAGE GROWTH

Calculator to determine the average growth over any number of years.

Requirements: None

BUILDING COSTS

Estimate the construction costs of a building. Six different catagories are covered.

Requirements: None

BUY/SELL

Buy and sell options calculator for stocks. List the program and you will find instructions in the first REM lines.

Requirements: None

CHANGE DISK NAME

Change the name on the directory of your disks. Run the program and follow the simple prompts. CAUTION! The disk you wish to change must not have a WRITE PROTECT on it.

Requirements: Disk

DATA SEARCH

Very simple data base. Enter what you wish to file in DATA statements in the program. List lines 340 to 370 for instructions on how to enter data properly.

Requirements: None

ELEC. USE

Calculate how much electricity you use in your home. Answer all questions and at the end, you will get an estimate of your monthly bill

Requirements: None

=====

FINANCE

Financial calculator that will let you find an "unknown value" when you enter known values.

Requirements: None

GROWTH

This program calculates the compound annual growth. Enter the appropriate data and the results are displayed on the screen.

Requirements: None

IRR. CASH FLOW

Calculate irregular cash flow with this program.

Requirements: None

LOAN CALC.

Calculate all aspects of loans. Intrest, monthly payments, etc.

Requirements: None

REAL ESTATE COST

Finial adjusted income, fair market value & gross valve.

Requirements: None

RENT OR BUY

Decide wether it is cheaper to rent or to own. Enter data and read results on screen.

Requirements: None

A OR AN

Test your grammar skills on a & an. Use the proper word in the blank in each sentence.

Requirements: None

ARROW FRACTS

Try to guess what fraction the ball on the number line represents. Enter the fraction and press return.

Requirements: None

BIG MATH

Test yourself on adding, subtracting, multiplying, and dividing. Extremely large easy to see letters are used in this program.

Requirements: None

ELEMENT CHART

Enter the correct chemical symbol for each name displayed.

Requirements: None

=====

ELIZA

Give this computer psychiatrist your thoughts, and maybe it will give you answer?

Requirements: None

EUROPE

Quiz on the captiols of Europe.

Requirements: None

HANG MATH

Play and learn math skills at the same time. Try to guess number and put them in the right colums.

Requirements: None

LINEAR PROG.

Objective function coefficients.

Requirements: None

LOOPS

Repetive problem solving using the 4-2-1 loop method.

Requirements: None

MARBELSTAT

This is a simulation of a probability machine. See if you can detect a pattern in the way the marble drops.

Requirements: None

MATH FACTS

Basic math quiz. Try to get all of the answers.

Requirements: None

NUMBER MATCH

Letter and number match for the youngsters.

Requirements: None

WORLD QUIZ

Learn the capitols of the world. Good luck!

Requirements: None

=====

C-64 COLLECTION #6

M49152-D52300

C64 DOS WEDGE program combined with SUPERMON. Loads at address 49152 (C000 hex). LOAD "MON-DOS INST.",8 and run for complete instructions including how to save the program.

Requirements: Disk

MON-DOS INST.

Instructions for above program. Load & run.

Requirements: Disk

ACTION HOCKEY

2 player hockey game. Keyboard or joystick control. See how many goals you can score! F5 changes screen colors.

Requirements: None

BACKGAMMON

Type "M" to start or "A" to let the computer play itself. Standard rules.

Requirements: None

CIVIL WAR

Simulate battles of the Civil War on the C64. Try to win as many battles as possible.

Requirements: None

DIXIE 64

Music program. Load & run.

Requirements: None

HAVE A NICE DAY!

Blast that little smiley face off the map with this game! Use "A" and "S" to move your gun and use "=" to fire.

Requirements: None

MISSION TO MARS

Graphic demo. Load & run.

Requirements: None

=====

OCTOPUS 1

Try to get to the magic box without the octopus getting you. Move left with "H" and right with "K". You must make 5 passes across the screen to get the magic box.

Requirements: None

RACE

Drive your race car through 5 laps. Don't hit the sides or you lose points.

Requirements: None

SAUCER INVASION

Graphic and sound demo. Load & run.

Requirements: None

64 LABEL

Simple mailing label printer. Enter up to 6 lines per label.

Requirements: Printer

ALPHA INDEX

Very simple data base. Save data entered on disk. You can also get a printout of your data.

Requirements: Disk / Printer

DATES

Calculate the days between two dates. Enter the base date and the second date. The computer will calculate the number of days elapsed.

Requirements: None

DECISION MAKER

Use your 64 to make decisions. By interpreting your inputs, the computer makes the logical decision for you.

Requirements: None

DISASSEMBLER

BASIC disassembler program. Disassembles machine code with "labels" that point to zero page locations. Makes ML easier to read.

Requirements: None

EVENT CALENDER

Let the computer keep track of your calender of events.

Requirements: None

FIND NOM. INT.

Calculator for nominal interest on an investment.

Requirements: None

INCOME TAX ADV.

Aid in preparing your 1040 tax averaging form.

Requirements: None

=====

INVESTMENT F.V.

Calculate the future value of an investment. Enter amount, interest rate, and time period. Results are displayed on the screen.

Requirements: None

MUSIC DRIVER IN

Instructions for MUSIC DRIVER P 1-4 and "VOICE 3 MUSIC. Load and run for complete instructions on how to create interrupt driven music.

Requirements: None

PARETO

Significant few, Trivial many theory of cause and effect. With bar graph results.

Requirements: None

ROMAN NUMERALS

Convert any number between 1 and 3999 to it's Roman numeral equivalent.

Requirements: None

SEQ. APPEND

Append sequential disk files. Very useful utility.

Requirements: Disk

TERM64

A BASIC terminal program for the 64. Complete with modifiable messages in DATA statements for your own use.

Requirements: Modem

A FABLE

Generate verses with your C64

Requirements: None

CURVE FIT

Plotting, integral of a function, evaluating the EST function.

Requirements: None

FINANCE CALC.

Financial calculator. Useful for many different aspects of financial analysis

Requirements: None

FOIL INST

Instructions for the following program, "FOIL PRACT". Load & run.

Requirements: None

FOIL PRACT

Practice on multiplying binomial equations.

Requirements: None

=====

HEAT SOLVER

Calculator for specific heat and heat of fusion used in chemistry.

Requirements: None

INTERGRATION

Numerical intergration by Simpson's rule.

Requirements: None

PERCENT DRILL

Drill on percent problems. Covers all aspects of percents.

Requirements: None

PROJECTILE

Calculator for projectile motion. Program allows you to plot the projectile motion, find extreme values, or find instantaneous position.

Requirements: None

TITRATOR 64!

Chemical game. See if you can create a decent solution and learn about titration at the same time.

Requirements: None

WEIGH

Determine which cube weighs the most. Try different combinations on your balance until you find the right one.

Requirements: None

=====

C-64 COLLECTION #7

M49152-D52300

C64 DOS WEDGE program combined with SUPERMON. Loads at address 49152 (C000 hex). LOAD "MON-DOS INST.",8 and run for complete instructions including how to save the program.

Requirements: Disk

MON-DOS INST.

Instructions for above program. Load & run.

Requirements: Disk

ALPHA BASE 64!

Protect the Alph Base against all odds. Zap the UFO's with deadly poison gas, but watch the missile fire.

Requirements: None

BLACKJACK/21

Just like Vegas! Play a few rounds of Blackjack with your 64. Very well done. One player.

Requirements: None

DIFFUSER

Diffuse the bomb without making a mistake. Any mistake you make may cost you your life!

Requirements: None

DOCTOR

Let the doctor help you solve your problems. Eliza type game.

Requirements: None

LAS VEGAS SLOTS

Slot machine game. Place your bets and watch the windows. Excellent graphics.

Requirements: None

PET BOMBER

Pass your exam to enter the Air Force. Hit the target and try to qualify.

Requirements: None

PICTURES

See what the 64's keyboard graphics can do. Load and run. Hit any key to see a different picture.

Requirements: None

=====

RANDOMIZER

Which bin will the ball fall into? After you load, hit any key to get the grid to print on the screen. To start the ball rolling, press the SHIFT key.

Requirements: None

SPEED RACER

Try to win the race, but don't hit the potholes.

Requirements: None

ASTRO-BIOPRINTER

Calculate your biorythms. Print them out on your printer or on the screen.

Requirements: Printer optional

C/S RETIREMENT

Retirement calculator for Civil Service employees. Enter the proper data and your results will appear on the screen.

Requirements: None

DAYS BETWEEN DAT

Calculate the number of days between two different dates.

Requirements: None

DISK EASE

Menu driven disk utility program. Sends all DOS commands, merge, change header & ID, sort and many other disk functions.

Requirements: Disk

DISK UTILITY

Disk helper. Ease some of the pains of working with the disk drive.

Requirements: Disk

ELECT. FORMULAS

Take the work out of computing many common electrical formulas. R network, P-P to RMS, AC circuits, single layer coils & wire tables. Menu driven for ease of use.

Requirements: None

HOME AC'G INPUT

Enter accounting data into this program. Several categories exist for you to enter your expenses. Use the following summary program to analyze your data.

Requirements: Disk / Printer

HOME AC'G SUM'R

Use this program to interpret your accounting data entered with the above. Be sure that the disk with your file is present in the disk drive.

Requirements: Disk / Printer

=====

LISTER.V64

Printer aid. Allows your non-Commodore printer list programs with abbreviations instead of reversed graphic symbols. Replaces the reversed "Q" with "DOWN" etc. Very usfull.

Requirements: Disk / Printer

LOAD ADDRESS

Calculates the load address of any program on disk.

Requirements: Disk

MORTGAGE

Home mortgage calculator. Enter the amount of the loan, interest, and number of years. A yearly breakdown of the interest and amount owed will be printed. Printer option is available.

Requirements: None

OHMS LAW

AC and DC volts, current, impedance, and power calculator.

Requirements: None

QUADRATIC EQU.

Solve quadratic equations by the quadratic formula. Supports real and imaginary roots.

Requirements: None

SOUND MASTER

Play with the 64's extraordinary sound capabilities. Enter different numbers at the prompts. For detailed information on the ADSR, see the "COMMODORE 64 PROGRAMMERS REFERENCE GUIDE" for information.

Requirements: None

A1 ARROWS

Try to calculate the correct distance to the target. Try several different combinations. Don't miss!

Requirements: None

CAPITALS

Test your skill at guessing the state capitals. Good luck!

Requirements: None

FACTOR RACE

Factor algebraic equations faster than your opponent and win the race. 2, 3 or 4 players.

Requirements: None

FLASH WORDS

Remember the words as they flash on the screen. Try to retype the word into the computer before time runs out.

Requirements: None

=====

HISTOGRAMS

Plot algebraic functions on the screen. Enter the coefficients and watch for your graph.

Requirements: None

MATRIX EQUATION

Matrix method to solve linear equations.

Requirements: None

PHONEME WORDS

This program generates closed 3 phoneme words. The program will print to the screen or printer.

Requirements: None

POPULATION

World population model. 3 different graphs illustrate how the population of the world is broken up.

Requirements: None

READING COMP.

Excellent reading comprehension program. Read the passage and answer the questions.

Requirements: None

STATES QUIZ

Quiz on the states and capitals.

Requirements: None

STATISTICS

Take the mean and standard deviation of up to 100 numbers.

Requirements: None

TRIANGLE SOLVE

Solve triangle with the C64. This program will solve right and non-right triangles.

Requirements: None

=====

C-64 COLLECTION #8

M49152-D52300

C64 DOS WEDGE program combined with SUPERMON. Loads at address 49152 (C000 hex). LOAD "MON-DOS INST.",8 and run for complete instructions including how to save the program.

Requirements: Disk

MON-DOS INST.

Instructions for above program. Load & run.

Requirements: Disk

CARD GUESS

Watch the 64 do a card trick. Pick a card and the 64 will guess it.

Requirements: None

CHAIN REACTION

Graphics demo. Load & run.

Requirements: None

DOORS

Adventure game. Guide your way through the maze of doors. Beware of what you encounter.

Requirements: None

FOOTBALL

Here's your chance to be a real armchair quarterback! Pass, run, and kicking plays simulate the real thing. Enter your plays through the keyboard. Replay your favorite Super Bowl!

Requirements: None

OBSTACLE COURSE

Guide your man through the obstacle course. Jump over the low obstacles and duck under the high ones.

Requirements: None

PYRAMID

Graphics demo. Load & run.

Requirements: None

=====

ROULETTE

Play Roulette on your 64. Place your bets and hope your number comes up.

Requirements: None

STARWAR

Graphics demo. Load & run.

Requirements: None

TILES

Place the letters in thier proper order inside the tile. Use the keyboard to control movement. The keys to use are described in the program.

Requirements: None

ASTRO BIORYTHM

Print out your biorhythms on the 64's screen. Enter dates and see your chart printed.

Requirements: None

CROSS REF64

Great little programmers aid. Run this program, enter the program you want to analyze, and watch. You will see a breakdown of variables and what line they appear in.

Requirements: Disk

ENERGY SAVER

Try to save energy by figuring out your usage, waste, and final cost. For accurate results, you can get your local "KWH" (kilowatt/hour) charge from your electric bill.

Requirements: None

INVESTMENT CALC

Calculator for many different investment needs. Interest, future value, etc.

Requirements: None

MARKS-DISK

Teachers exam grade helper. Enter grade data and store it on disk. Handles 255 students.

Requirements: Disk

MERGER

Merge 2 programs together. Enter the program names at the prompts and press RETURN.

Requirements: Disk

=====

METRIC CONVERS64

Menu driven program to make Metric to English and English to Metric conversions.

Requirements: None

SORT DEMO

Demonstration of 4 different sort routines. The program tells you what lines each routine occupies so you can extract the to use in your own applications.

Requirements: None

TINY FORTH 64

Simple version of FORTH for the 64. For detailed instructions, see "TINY FORTH INST"

Requirements: None

TINY FORTH INST

Instructions for the program "TINY FORTH 64". Load & run.

Requirements: None

TYPWRITER DISK

Simple word processor. Type E (return) to return to menu.

Requirements: Disk / Printer

TYPEWRITER TAPE

Simple word processor. Type E (return) to return to menu.

Requirements: Tape / Printer

UTILITY MENU

This helpful aid shows you how to do such seemingly impossible things like automatically loading & running a program. Other helpful programming tricks are included here.

Requirements: None

AFRICAN CAPS

Test yourself on African capitols.

Requirements: None

ASIAN CAPS

Drill on the capitol cities of Asia.

Requirements: None

CHEMIST

Dilute the acid with the proper amount of water, or it's curtains for you. You must calculate the proper ratio of water to acid to stabilize the solution.

Requirements: None

=====

FACTORS

Test yourself on factoring algebraic expressions. 6 difficulty levels.

Requirements: None

FN MACHINE

Enter a number and try to guess what will come out of the function machine. Progress to harder levels each time you guess the function.

Requirements: None

FUNCTION PLOTTER

Plot any user defined function on the screen. Enter your function in line 1000 and then RUN 30.

Requirements: None

HISTORY QUIZ

Quiz on computer history.

Requirements: None

MULTILOT

Plotting program. Plot up to 3 user defined functions on one graph.

Requirements: None

PIZZA

Math game. You are working in a pizza parlor. You must direct the driver where to go and answer some questions.

Requirements: None

PRIME NUMBERS

This program will find all prime numbers between 0 and the number you enter.

Requirements: None

SIGNED NUMBERS

Add and subtract positive and negative numbers. Simplify the expressions and enter your answers.

Requirements: None

TAX COLLECTOR

Factoring game. Try to get more factors than the "tax collector". The one with the most at the end wins.

Requirements: None

VECTOR SOLVE

Solve vectors with magnitude and direction, or in X,Y co-ordinates. Very useful program for physics and algebra students.

Requirements: None

=====

C-64 COLLECTION #9**MENU LOADER**

This is a menu for all of the adventures on this collection. Type LOAD "MENU LOADER",8 and press RETURN. You can select the program you wish to run by selecting 0-9

Requirements: Disk

CITY MANAGER

You have been appointed the new city manager of a large city in trouble. The highway construction is screwed up, the mass transit system is out of order, and the citizens want something done about it. You must try to correct these problems by rebuilding roads, the bus system, and keeping taxes low so the citizens don't revolt.

Requirements: None

GLADIATOR

You are the gladiator who must retrieve the holy grail from the evil Black Knight. To get to the Black Knight's cave, you must first cross the dangerous Cregin forest. The following keys activate your weapons. F1 is your sword, F3 is your dagger, F5 is your cross bow, and F7 is your grappling hook. Your trusty shield is always there to defend you.

Requirements: None

HS OF 7 GABLES

Explore the House of the Seven Gables. You begin outside the house, and to explore it, you must go inside. Hint: exploring is easier if you can find a compass. Once inside, type N, S, E, or W to walk north, south, east or west respectively.

Requirements: None

KING TUT

Beware as you explore the insides of King Tut's tomb. There are dangers ahead of you. Use N, S, E, W for your direction of travel. Watch for mummies who run crazed through the twisted corridors.

Requirements: None

=====

SORCERERS CASTLE

Explore the dark forest, confront the court jester and search the castle. Look for the spells you will need to defeat the evil wizard.

Requirements: None

THE VALLEY

Explore the valley in search of treasures and other objects of value. Choose the type of character you want to be, and begin your travels. Use a joystick in port 2 to roam the countryside.

Requirements: Joystick

TRIP TO ATLANTIS

You are searching for treasures on the lost continent of Atlantis. Collect as many treasures as possible for a larger score. Use simple noun/verb commands to tell the computer where to take you next in this underwater wonderland.

Requirements: None

WIZARD'S CASTLE

Quest for treasure and gold. Explore carefully, many dangers lurk in the castle from poisons gas to trolls, all can be found in the castle.

Bug Correction: Change the GOTO in line 580 to GOSUB 3340

Requirements: None

WESTWARD HO!

You are back in the gold rush days. Its time to head west in search of fortune in gold. Purchase all of the supplies you will need before you leave. You will need a team of oxen, food, ammunition, and other supplies. You must Travel 2000 miles without running out of supplies. Beware of wild animal attacks, and other dangers to you or your supplies.

Requirements: None

Note: SWORD OF ZEDEK has been removed. Program is copyrighted by Krell Software, 1320 Stony Brook Rd., Stony Brook, NY 11790, (516) 751-5139

=====

C-64 COLLECTION #10

64 YAHTZEE

This game plays YAHTZEE by standard yahtzee regulations.

Requirements: None

ADDRESS LIST

Disk based address file program. The initial screen menu allows you to create, add to, change, read, or delete a file or record.

Requirements: Disk

AFRICA SAFARI

You are on a safari in deepest Africa. Pick the type of car you wish to drive and see how far you can get. Press RETURN to start the safari, and press RETURN to get back to the menu. There are hostile natives, and animals in your path. Keep an eye on your supplies and when you come to a town, you will know how much to buy.

Requirements: None

ANIMAL MATH 1

Math program for very young children. Each time the child gets a correct answer, a part of an animal is shown. After the child gets 5 answers, the animal is revealed. The next 3 programs are harder versions of this program.

Requirements: None

ANIMAL MATH 2

Slightly harder version of the above program. You will answer subtraction problems in this program.

Requirements: None

ANIMAL MATH 3

More difficult version. Drill on multiplication problems.

Requirements: None

ANIMAL MATH 4

Try to answer the division questions. This is the last program in the animal math series.

Requirements: None

BLOCKMOD4

Disk utility program. Edit blocks, display blocks, display a load address, or change any byte on the disk. A handy utility when you get careless with the scratch command. This program can damage a disk. Use with caution.

Requirements: Disk

=====

BOWLING

Keep track of a bowling team. This simple data base will calculate, list and store the bowling scores for one team with up to 8 bowlers. The program stores its data on cassette tape files for use each week.

Requirements: Tape

C64 COLOR TEST

Display the color capabilities of the 64. Run the program and press a key to see the screen and borders change colors.

Requirements: None

C64 CONTEST LOG

Log all of your QSO's and weed out all duplicates. You can sort by call, band, or time recieved. You can produce a hardcopy if you have a printer. Files are stored on tape for use at a later date.

Requirements: Tape

CASTLEMAZE ADV'R

Enter Noun / Verb commands as you explore the forest and castle in this adventure.

Requirements: None

COMPUTER SCETCH

Draw pictures on screen with your joystick. Draw in any color using any graphic symbol on the keyboard. Plug a joystick into port 2.

Requirements: Joystick

CONVERGE

Use for static convergenace of TV.

Requirements: None

CRAPS

Run the program and watch. All you have to do is answer "Y" or "N". The 64 does the rest of the work for you.

Requirements: None

DANCING IDIOT

Graphical demonstration program. Load and run.

Requirements: None

DIAL 3.2

1650 auto dial modem program

Requirements: Auto dial modem

DISK OF FORTUNE

Computer version of the popular game show. Try your luck and spin the wheel. Guess a letter or buy a vowel. Determine the phrase and try to win the most money.

Requirements: None

=====

DISK UTIL.

Handy disk utility to help you keep your disks in order. Now you can easily rename or scratch files without trying to remember the Commodore command syntax. You can also format a disk with this program.

Requirements: Disk

DIXIE

Music demo program. Load and run.

Requirements: None

DOCTOR DEMENTIA

Use port 2. Shoot the spikes before they get you.

Requirements: Joystick

DPT 3.8

Terminal program to upload / download software between two C64 computers. Transfer a program from 1 64 to another via the modem. Hit F3 for menu options. Save buffer, upload, directory, terminal mode, or clear buffer.

Requirements: Disk / Modem

END SUBROUTINE

Subroutine for the end of your programs.

Requirements: None

FLASH CARDS

Timed flash card test. You have 2 seconds to type the answer to the flash card and press RETURN. If you answer in time, hit a key to continue the test.

Requirements: None

HANGPERSON

Guess the word before you are hung. You get 12 incorrect guesses before you are hung.

Requirements: None

HEX 5.0

For use with TBBS bulletin board systems. Save, upload, terminal, disk directory & clear buffer. Full upload / download capabilities.

Requirements: Disk Modem

INVESTMENT FILE

Keep track of your investments. REM statements tell you which variables are to be changed for your own use, list lines 1 - 7. The program calculates YTD taxable interest, and tax exempt interest

Requirements: None

=====

MOD INDEX

Computes a value of modulation index which causes a specified amount of carrier suppression.

Requirements: None

ONE LINERS

This is a program to show you the correct command formats for proper disk use. This corrects many errors in the 1541 Users Manual.

Requirements: None

QUIZ-JESUS AND LAW

Quiz on the law and Jesus

Requirements: None

QUIZ-JESUS SAID

Quiz on what Jesus said.

Requirements: None

RECIPES

File your recipes on disk instead of cards. Enter your recipes, list all of them, or search for a specific one.

Requirements: None

RUSSIAN ROULETTE

Spin the chamber, pull the trigger. Press "S" to spin the chamber. Type "G" to give up.

Requirements: None

SCRAMBLE

DEFENDER type game. Shoot the enemies without getting shot yourself. Use the "F1" key to fly up, and use "SHIFT" to fire your laser.

Requirements: None

WORDSCRAMBLE

Unscramble the word that the computer gives you, or play a two player game where you try to unscramble your opponents word. Each player enters a word from 4 to 16 letters.

Requirements: None

=====

C-64 COLLECTION #11

A SEQUENCE

Fibonacci numbers.

Requirements: None

ALPHIE

Enter as many words as you want and the program will alphabetize them and save them to tape if you wish.

Requirements: None

BRIDGE

Practice your declarer's play.

Requirements: None

C&C OF AFR.64

Test your knowledge of the countries and capitols of Africa. You can guess countries, capitols, or both.

Requirements: None

CAMEL II

You and your camel must cross 200 miles of desert. You must avoid all kinds of dangers that prevail in the desert. Press the RETURN key for a list of the commands to use.

Requirements: None

CHRISTMAS CARD

This program prints out a Christmas card on your printer.

Requirements: Printer

COLOR COMBOS 64

See what color combo looks good with your system. Enter the number corresponding to the color you want.

Requirements: None

DUNGON MASTER

Generate characters for a Dungons and Dragons game.

Requirements: None

=====

FLIGHT SIMULATOR

You are flying a small lightweight aircraft. The following keys are used to control other functions.

F1 Raises throttle by 4%

F3 Raises throttle by 1%

F5 Lowers throttle by 1%

F7 lowers throttle by 4%

+ Increases attack angle

- Decreases attack angle

2 Increases flap

1 Decreases flap

Requirements: None

GAUDISH EYE

Graphic demo. Load & run.

Requirements: None

GRAPH BUILDER

Set up bar graphs with this program. Completely menu driven for ease of use. Your graph data is stored in sequential files on tape or disk. GRAPH I and GRAPH II are sample graphs.

Requirements: None

HAMURABBI

Run an ancient city. You must feed the people, plant crops, and buy land to make the city grow.

Requirements: None

KIDDIE CODE

Generate a secret code for fun. It will use a set of letters, numbers, or both. If you have a printer, you can get a hardcopy.

Requirements: Printer

LEMONADE STAND

Control a lemonade stand. Determine each day how much lemonade to make, how much advertising to get, and how much your lemonade will cost. You must make a profit to be successful.

Requirements: None

LINE PROG LINKER

Subroutine to merge programs.

Requirements:

MARQUEE

2 different demo modes. The first one comes up when you run the program. To see the next one, press STOP and type RUN 750.

Requirements: None

=====

ML LOADER

Basic load routine for areas other than basic.

Requirements: Disk

ML SAVER

Basic save routine for areas other than basic.

Requirements: None

MULT'N TABLES

Load this program to see the multiplaction tables print on the screen. The program will print the tables from 1 tyto 12.

Requirements: None

MUSIC LESSON

This program will teach you the musical notes and the music staff. Type in your answer and press return to enter it.

Requirements: None

PACKADOT

Early version of Pac-Man. Gobble the dots before you get gobbled. Use joystick in port 2.

Requirements: None

RECEIPT MASTER

Small data base for receipt keeping. Menu driven commands allow you to add, modify, print, total and save your data. on disk.

Requirements: Disk

ROTATE

Logic game of letters. Arrange them in the proper order to win.

Requirements: None

ROTATE 90

Banner printer. This program will take a message you type in, rotate it 90 degrees, and print a banner on your printer. There is a large and a small mode of print.

Requirements: Printer

THIRSTY NELLAN

This is an adventure game. Find your way through the enchanted house. Use 2 word noun/verb commands. If you have a problem, type HELP.

Requirements: None

WHEEL OF GOLD

Simple version of Donkey Kong. Jump the girders and the barrels. Use a joystick in port 2 for control. Press the fire button to jump.

Requirements: Joystick

WORD ORDER

Place up to 20 words in alphabetical order. Enter your own words, or the computer will generate words for you.

Requirements: None

=====

C-64 COLLECTION #12

ADD.LOAD

Loader for ADDRESS BOOK. Load & run.

Requirements: None

ADDRESS BOOK

Keep a file of your addresses with this program. Enter addresses and phone numbers and the program will save the data in a file on disk or tape. Add, Change, Erase, Show, Copy and Find.

Requirements: None

ARROW

Move your snake around the screen without running into the border, or yourself. Eat the boxes for points. Some boxes will extend your snake to make moving a little harder. You can use a joystick in either port, or use the keyboard. Keys are CRSR UP/DOWN for left, CRSR LEFT/RIGHT for right, F5 for up, and F7 for down.

Requirements: None

AULD LANG SYNE

Music program. Load and run.

Requirements: None

COLORMON LOADER

Loader and instructions for COLORMON. Load and run.

Requirements: None

COLORMON

Use the joystick to change the color of the little critters on the screen. For complete instructions see, "COLORMON LOADER".

Requirements: Joystick

COMPUTER SONG

Music program. Load and run.

Requirements: None

CREATION

Random patterns on the screen. These patterns are displayed by examining memory locations, and printing their value on the screen. This makes for some very interesting patterns.

Requirements: None

DAILY COMPOUND'G

Calculate interest compounded daily. For example, enter an amount of 2000 for the original investment, enter .0525 for the 5 1/4% interest paid on a savings account, and enter 365 for number of days.

Requirements: None

=====

DECISION

Let the 64 decide those perplexing Yes and No questions. Type in your question and press return. The 64 will come back with an answer for you.

Requirements: None

DIR.PRINT

Use this program to view disk directories, and print them out. You can also send any disk command easily, and read the error channel.

Requirements: Disk

DOS 5.1 COMMANDS

This is a complete listing of all of the commands used in the 64 DOS WEDGE program. Load & run.

Requirements: None

DOS 5.1 SUB

This is the DOS 5.1 program placed inside data statements in a BASIC program for ease of use. You can now save DOS on all of your disks by just saving this program. When you run this, the BASIC loader transfers the program from data statements to memory and executes DOS 5.1

Requirements: Disk

DOS CONTROL

Use this program to send any disk command in a shorter form. You can get a directory, send any DOS command, or save this program to your disk.

Requirements: Disk

DOWN THE CHIMNEY

You must maneuver Santa down the chimney. Use the joystick in port 2 to move him left or right. Don't let him hit the side of the chimney, or the game ends.

Requirements: Joystick

DRIP SIMULATOR

Dividend re-investment program simulator will display the results of stock dividends that have been reinvested in new stock at a discount. It will also provide for additional cash payments for stock at full price.

Requirements: None

HANG-MATH

Guess the digits in the multiplication problem to keep your friend alive. You must guess the digits that belong where the "*" are. Type a digit and press the return key. Then type a column (1-5) and press return.

Requirements: None

=====

JSTICK DOODLE

Draw in high resolution with a joystick. Plug a stick into port 2 and after the screen sets up, draw away. Press and hold the fire button and draw to move the pixel without creating a line. Press F1 to clear the screen, F3 to change border color, F5 to change the screen color, and F7 to change the drawing color.

Requirements: Joystick

KEPLER.ELEMENTS

List lines 100 - 330 for variables used. Computes factors of semimajor axis (KM) / eccentricity of Keplerian Elipse.

Requirements: None

LONREP

See exactly where your money goes. Enter the amount of your loan and the interest rate. Then enter the numbers of years the loan is for. This program will calculate how much was paid for interest, and how much went for principal.

Requirements: None

MATH MENU

Convert your 64 into a four function calculator. You can add, subtract, multiply, and divide. Pick a selection from the menu, and enter the problem.

Requirements: None

MENU

This program reads the disk directory, and puts the programs into a menu for ease of loading. Now a person not familiar with computers can load a program by just touching one key.

Requirements: Disk

METRIC

This is a simple English to Metric conversion program. You can convert miles to kilometers, feet to meters, quarts to liters, or pounds to kilograms.

Requirements: None

MORTGAGE PRINTER

Computes mortgage results from four variables, Principal, Intrest, Amortize and Payment.

Requirements: Printer

MR. DIG

Move Mr. Dig across the screen in search of prizes. He must "dig" his way to the prizes. Watch out for the monster. He will follow you untill you shoot him or he eats you. Use port 2.

Requirements: Joystick

=====

OCTOPUS MAZE

Move the octopus through the maze without touching the walls. Use the joystick in port 2 to maneuver around. Be careful because the movement is very touchy.

Requirements: Joystick

OTHELLO

Play the old standered board game with the C-64. Full instruction are included. One player.

Requirements: None

PAYCHECK VERIFY

Use this to approximate what you take home pay is. The program takes your gross pay, subtracts Social Security if nessessary, and approximates your net pay for you.

Requirements: None

PEEK 197

This program demonstrates how to use memory lovcation 197 in your own programs to check for certain keys to be pressed.

Requirements: None

PIO SKIER

Guide the skier through the trees to the finish line. There are 4 levelks of play, each containing more trees. If you run into a tree, you do not die, you sust slow down and loose points.

Requirements: Joystick

PRIME NUMBERS

Display all of the prime numbers between 0 and the upper limit that you enter.

Requirements: None

PRINT USING SUB

Basic subroutine. Define Row & Colum within your program. Pre-sets screen position.

Requirements: None

SNOOPY

Number line game. Shoot the red baron by entering the distance between you and him on the number line. If you are correct, your shot will hit him. Hit him 5 times and knock him out of the sky.

Requirements: None

SNOOPY CALENDAR

Print out a Snoopy calender on your printer. This program will make a calendar for any year.

Requirements: Printer

=====

SOLITARE

Play a Vegas style game of Solitare. The C64 will keep track of the cards and your money. Very well done.

Requirements: None

STD DEVIATION

Use this program to calculate the average and standard deviation. There is a maximum of 5337 numbers you can enter and average.

Requirements: None

SUPER STAR TREK

Take control of a star ship commandere. Your mission is to find and destroy the invading Klingon warships before they destroy the Federation.

Requirements: None

SWERVE

Move your piece through the maze gobbleing up the + signs. Don't collide with the computer, or its curtains. You are the solid ball and the 64 is the hollow ball. Watch the computer. He will play nasty tricks and come after you if your are not careful.

Requirements: None

T.V. SATELLITES

Calculates the position of a satellite in geostationary orbit expressed as true compass headings based on your latitude & longitude.

Requirements: None

TICTACARITH

Play Tic Tac Toe while checking your math skills. Player 1 chooses a box, then he must answer the problem in the box. If he gets it right an X goes there for him. If not, the other player gets a chance at it.

Requirements: None

TYPING TEST

Improve your typing speed. Type the letter that the computer generates on the screen. try to go as fast as you can without making mistakes. To exit the program, press F7

Requirements: None

VIDEO VANDAL

Load & Run. Use a joystick in port 2 to shoot letters on the screen. Be sure to "LIST" the program before you run it.

Requirements: Joystick

=====

VIC-20 COLLECTION #1

2PET TO VIC-20

This program configures the memory of the "PET" computer to conform to the VIC. It allows the "PET" to load and modify VIC programs.

Requirements: None

3 OF A KIND

Get 3 words that have a common letter before the VIC does.

Requirements: None

ADDITION GAME

Answer all of the addition problems before time runs out.

Requirements: None

ALIEN 2

Capture the Aliens in your bubble. Pump up your bubble, when the alien walks in, deflate the bubble and the Alien is captured.

Requirements: None

ALPHA KEY

This program helps you learn the keyboard. Type the letter as soon as it appears on the screen.

Requirements: None

ALPHABETIZER

Routine to alphabetize names. Enter any number of names, and watch the VIC put them in order.

Requirements: None

BIG LETTER AUTO

See all of the VIC's character set in an expanded form. Load & run.

Requirements: None

BIG LETTERS

Program displays big letters selectively. Enter the character number and watch.

Requirements: None

BREAKOUT (P) 1

Knock down the wall. Be sure all memory expansion is removed.

Requirements: Paddles

BREAKOUT (P) 2

Knock down another wall. Any extra memory must be removed.

Requirements: Paddles

=====

BREAKOUT 3

Finally, a BREAKOUT for those who don't have paddles! You use the function keys, but paddles can be used. Remove all expansion memory.

Requirements: None

BUSINESS DEMO

Program to figure interest, deprectation rate, and other business data. This demonstrates the uses of a VIC in the business world.

Requirements: None

CHUCK-A-LUCK

Dice game. Pick a number and the computer will roll three dice. The more matches you make, the bigger the payoff

Requirements: None

CLOCK

Enter the time, and watch.

Requirements: None

COLOUR BARS

Test patterns for TV. Load & run

Requirements: None

COMMANDER

Tank battle game. Use the following keys to move. SPACE BAR for down, A for fire, I for up, J for left, and L for right. Remove all memory expansion.

Requirements: None

DAY OF WEEK

Calculates the day of the week for the calendar date you enter.

Requirements: None

DECISION MAKER

Let the VIC answer those intriguing questions. Ask a question and hit a key for the answer.

Requirements: None

DEFLECTION

Try to deflect the diamond across the screen. Use the "M" and "N" keys to deflect it.

Requirements: None

DEMO 1

Demonstration program. Load & run. The next programs are set up to automatically load from tape. If you have disk, you will have to "STOP" the program at the "PRESS PLAY ON TAPE" prompt and load the next program manually.

Requirements: Tape

DEMO 2

Demonstration program. Load & run.

Requirements: Tape

=====

DEND 3

Demonstration program. Load & run.

Requirements: Tape

DEND 4

Demonstration program. Load & run. Remove all extra memory.

Requirements: Tape

DEND 5

Demonstration program. Load & run.

Requirements: None

DEND 6

Demonstration program. Load & run.

Requirements: None

DEND 7

Demonstration program. Load & run.

Requirements: None

DOG RACE INST

Instructions for "DOG RACE PROG". Load & run.

Requirements: None

DOG RACE PROG

Visit the track without leaving your home. Complete instructions are contained in the above program.

Requirements: 8K

DUNGEON-GAME

Adventure game. For complete instructions, load & run "DUNGEON-INST."

Requirements: None

DUNGEON-INST.

Instructions for "DUNGEON-GAME". Load & run.

Requirements: None

ETCH-A-SKETCH

Use a joystick to draw on the screen. Select border, screen, and character colors in the program.

Requirements: Joystick

HAPPY BIRTHDAY

Music program. Load & run.

Requirements: None

HEX<>DEC

Decimal to hex and hex to decimal conversion program.

Requirements: None

=====

HOME BUDGET

Set up a budget for your home. The program has preset values, but you can change them easily. The program will also calculate the percentage of income distribution.

Requirements: None

HOUSEHOLD INVENT

Keep track of your valuables. Enter your data and the computer stores it on cassette tape. To start, enter "write new file", and begin entering data.

Requirements: None

JOYSTICK TEST

Run this program and plug in a joystick. Move the stick and depress the fire button to change the numbers on the screen.

Requirements: Joystick

KALIEDOSCOPE

Graphics demo. Load & run

Requirements: None

KILLER COMET

Destroy the comet before it lands. Press any key to fire a shot at the comet. You may have only one shot on the screen at any time, so watch how you shoot.

Requirements: None

KINGDOM-GAME

Rule a medieval town. Load the next program, "KINGDOM-INST.", for complete instructions.

Requirements: None

KINGDOM-INST.

Instructions for "KINGDOM-GAME". Load & run.

Requirements: None

LUNAR LANDER

Land the spaceship on the moon without any engine control. Use the "<" and ">" keys to turn the engine off and on.

Requirements: None

LUNAR LANDER 2

Land the ship on the dot. Use "J", "K", and "L" to maneuver.

Requirements: None

MATH 3

Test your math skills. Enter your name & what you want to drill on.

Requirements: None bug

=====

MAZE VENTURE

Move the happy face (you) through the maze and get all of the Nazi flags. You start in the upper left of the maze. Watch the bombs, and the "sad" faces.

Requirements: None

MERRY X-MAS

Demonstration program. Load & run.

Requirements: None

MONEY CHANGER

Money changing tutor. Determine the breakup of quaters, dimes, nickels, and pennies in the amount the computer gives you.

Requirements: None

MUKADE

Move around the screen and run over all of the "Q"s. Be careful that you don't hit the blocks or the sides.

Requirements: None

OLD ENGLISH

Old English character set. See the programmable character ability of your unexpanded VIC.

Requirements: None

PACK MAN

Use the keyboard to control PACMAN.

Requirements: None

PHONE DIRECTORY

Computerize your phone directory. Complete instructions are included in the program.

Requirements: None

PIE CHART (SE)

Generate pie charts on the VIC screen. Plug in your SUPEREXPANDER, load and run. Instructions are included in the program.

Requirements: Superexpander

PONG PADELS

Play PONG with your VIC or another player. Several levels of play. You need paddles to play.

Requirements: Paddles

PREMUTATIONS

Enter a string of letters & all possible combinations will be returned.

Requirements: None

=====

RIVER CROSSING

Try to get everything across the river. The boat can only hold 2 items at one time.

Requirements: None

ROAD RACE

Maneuver your car down the track. Don't crash because you will lose valuable points

Requirements: None

ROBOT CHASE

You are being chased by robots. Maneuver yourself (the black ball) around the screen. If the robots (+) capture you, then you're dead. If you run into the blocks, you are zapped. Good luck!

Requirements: None

ROCKET COMMAND

Shoot the alien as he flies across the screen. Hit any key to shoot your rockets.

Requirements: None

ROCKET COMMAND 2

Similar to the above program, except the character set is more defined.

Requirements: None

ROW BOAT SONG

Music program. Load & run.

Requirements: None

RUGBY (J)

Use the joystick to score a goal. Beware, it is not easy.

Requirements: Joystick

SCREEN DUMP

Dump the contents of the screen on your Commodore printer. Append this subroutine to the end of your program. When you wish to dump the screen, insert a line 60SUB 60000. This will begin dumping the screen.

Requirements: Printer

SILENT NIGHT

Music program. Load & run.

Requirements: None

SLOT MACHINE

Pull the lever and see what comes up. Try your luck with the VIC.

Requirements: None

=====

SNAKE

Avoid hitting the walls or the other snake. Complete instructions are in the program.

Requirements: 3K

SNOWFLAKE MELT

Try to melt more snowflakes than your opponent. Instructions can be found in the program.

Requirements: None

SQUIGGLE

Graphics demo. Load & run.

Requirements: None

STARWARS

Take command of your X-wing fighter and blow up the Imperial fighters. Get as many as you can in as little time as possible.

Requirements: None

TANK VS UFO

Destory the UFO before it destroys your tank. Use "Z", "C", and "B" for control.

Requirements: None

TAPE FINDER-VIC

Help manage your tapes better. List the program and insert your own program names for your own use.

Requirements: Tape

THE ENTERTAINER

Music program. Load & run.

Requirements: None

TINY TIM INST.

Instructions for "TINY TIM MONITOR". Load & run.

Requirements: None

TINY TIM MONITOR

Machine code monitor. For instructions, load "TINY TIM INST." and run.

Requirements: None

WORD SCRM. INST

Instructions for "WORD SCRM. PROG". Load & run.

Requirements: None

WORD SCRM. PROG

Two player word scramble game. For instructions, load "WORD SCRM. INST" and run.

Requirements: None

=====

VIC-20 COLLECTION #2

23 MATCHES

There are 23 matches. You can take from 1 to 3 of them. However, don't take the last one or you lose.

Requirements: None

ACCOUNTS

Keep track of your savings account. When you run the program, a sample set of data appears and instructions on entering your own data.

Requirements: None

ARTILLERY

Two player game. Try to blow up your enemies cannon. Increase the angle that your cannon fires by using "F1" and "F3". The "powder" is the force that your shots come out of the cannon. Use "F5" and "F7" to control the powder. A precise hit is a must.

Requirements: None

BASIC LOADER

Use this program to put machine code into DATA statements for ease of loading. Make sure that your machine code is in memory. Load & list this program. In line 3, change the FOR loop to point to the starting and ending addresses. After you modify this line, then RUN 62000, and press RETURN. When the program stops running your machine code program will be in DATA statements.

Requirements: None

BIRDS DEMO

Demo program. Load & run.

Requirements: None

BLACKJACK

House limit is \$25000, so place your bets! Don't bust.

Requirements: None

BUSH TRAIL

Maneuver your snowmobile to your cabin. Watch out for the ditches and deep ruts.

Requirements: None

CALCULART

Excellent demo program. Load & run.

Requirements: Superexpander

=====

CAMEL

Ride your camel 200 miles across the desert. Watch out for the pygmies. They have a special taste for people and camels.

Requirements: 8K

CARDS

This program is used as a subroutine in a card game. It simulates a new deck of 52 cards, and shuffles them into a random order.

Requirements: None

CHECKBOOK

This program will help you to balance your checkbook with your bank statement.

Requirements: None

CHECKERS

Play checkers with your VIC. The board is set up using a grid. Enter the appropriate row and column to move your checkers.

Requirements: None

CIRKLEDEMO

Demonstration. Load & run.

Requirements: Superexpander

COLOUR WHEEL

Generates a new picture every 90 seconds.

Requirements: None

CRAPS

Place your bets! Throw the dice, but don't crap out. Use the keyboard to roll the dice.

Requirements: None

CURS. LETTER

Custom character set. Load and run and watch the characters change into script letters. Write your next program in script text.

Requirements: None

DAM BUSTERS

Destroy the dam from your aircraft. Shoot your gun by hitting the space bar. Watch out for the anti-aircraft gun on the dam.

Requirements: None

DATA SEARCH

Simple data base program. List the program and enter your data starting at line 1000. Some examples are already provided. Enter names or any other data. When you wish to search the data, enter the name or a portion of it and the VIC will display what it finds.

Requirements: None

=====

DATA SHEET

Prints a chart to convert hex to decimal and decimal to hex. It also prints useful memory locations. Screen or printer output.

Requirements: Printer optional

DISSASSEMBLER

Look at machine code programs inside your VIC. Debug your own ML programs or disassemble the VIC's ROM.

Requirements: None

DRAGON

Demo program. Load & run.

Requirements: None

DUPE

Logging program. Log all of your contacts and save them to tape. The program also weed out duplicate contacts for contests

Requirements: Tape

FISH INVENTORY

Simple graph demo program.

Requirements: None

FISHING FORECAST

Give weather conditions and receive rating between 1 & 100.

GUESS T NUMBER

Try to guess the three digit number that the computer randomly picks. After each guess, the computer will tell you how many numbers that you chose were correct, and how many were in the correct position.

Requirements: None

HANDIC

Screen demo program. Load & run.

Requirements: None

HISTOGRAM

Gives a bar graph type display of number amounts.

Requirements: None

I FEEL FINE

Music program. Load & run.

Requirements: None

INSTALLMENTS

Calculate your monthly loan payments, and your total interest paid on your loan. Also calculates your total payment.

Requirements: None

=====

INVESTMENT CALC.

This program will help you calculate interest rate and future value of your investments. Select from the main menu, and input your data from the prompts displayed.

Requirements: None

INVINTRO

Instructions for inventory program (INVPROG). This program will automatically load the next program.

Requirements: Tape

INVPROG

This program allows you to save your program names onto a tape file. Program names can be a maximum of 18 characters. Instructions for use are contained in the program INVINTRO

Requirements: Tape

JUMBLE

Unscramble the word before time runs out. Four levels of difficulty.

Requirements: None

KINETIC ART

Graphic demo program. Load & run.

Requirements: Super Expander

LIGHT SHOW

Demo program. Load & run.

Requirements: None

LOAN CALCULATOR

This program will calculate your monthly loan payment, and your interest. Select from the menu and enter your data after the prompts.

Requirements: None

MAIL LIST

This program will load and print a mail label file created in the MAIL LIST ENTRY.

Requirements: Tape & Printer optional

MAIL LIST ENTRY

This program will create a mail label file which can be printed using the MAIL LIST program above.

Requirements: Tape

MASTERMIND

Try to guess the number in 7 tries or less. Type "6" to give up, "N" to change the code, and a "0" for a blank.

Requirements: None

=====

MATH DRILL

This program will drill you in addition, subtraction, and multiplication. You have 9 different choices of play.

Requirements: 8k

MATH QUIZ

Quiz yourself on addition, subtraction, multiplication, and division. Many levels of difficulty.

Requirements: None

MATH TUTOR

The computer will ask you 20 math problems, and will score your answers. Multiple skill levels.

Requirements: None

MENU DRIVER

Menu select programs from this beginning subroutine program.

Requirements: None

MONKEY

Music demo. Load & run.

Requirements: None

MOONLANDER

Land your spaceship on the moon. Instructions are contained in the program.

Requirements: None

MORSE

This program will help you learn morse code.

Requirements: None

NOTHING CAN GO W

Demo program. Load and Run.

Requirements: None

ORGAN KEYBOARD

This program will convert your VIC into an organ.

Requirements: None

OTHELLO

Try to fill the grid with your pieces while taking pieces away from the computer.

Requirements: None

PACMAN

Loader program for PACMAN PT2.

Requirements: None

PACMAN PT2

Use the keyboard or joystick to move your pacman around the screen, but avoid the monsters.

Requirements: Joystick, optional

=====

PATTERNS

HI-RES screen demo. Load & run.

Requirements: None

PIANO

Converts your VIC into a piano. Press a key to strike a tone, and press "0" to stop.

Requirements: None

PINBALL

Play pinball on your VIC. Use the "=" to serve, and the left "SHIFT" to move the paddle.

Requirements: None

PRINT MY PROGRAM

Screen dump subroutine.

Requirements: Printer

PROGRAMBLE CHAR

This program will help you create your own programmable characters. You can also save and reload previously saved characters.

Requirements: None

RACE

Move the ball around the race track as fast as you can without hitting the walls. To move, use "J" to go right, "N" to move down, "H" is left, and "U" to go up.

Requirements: None

RENUMBER 1.0

This program is useful when you need to renumber all or part of your program. To begin, run line # 63888 by typing "RUN 63888".

Requirements: 6k Only

SAMU

Try to get the highest score by adding smaller scores together. Instructions are contained in the program.

Requirements: None

SHEET MUSIC FILE

This program will allow you to keep track of your sheet music. Your music titles are kept in data statements at the end of the program.

Requirements: None

SIR DUKE

Music demo. Load & run.

Requirements: None

SOUND DEMO

Music demo. Load & run. Select from the menu the piece you wish to hear.

Requirements: None

=====

SPIES

Try to guess where the hidden spies are located. Use two numbers, separated by commas, to point the location of the spy. Instructions are included in the program.

Requirements: None

SUPER VICMON

Machine language monitor. See "Machine Language for Beginners" for full instructions.

Requirements: None

TAPE COUNTER

This program will print a chart that can be used with TAPE FINDER.

Requirements: None

THE MUPPET SHOW

Music demo. Load & run.

Requirements: None

TRAFFIC SIGNAL

This program will help teach pre-schoolers how a traffic light is supposed to work.

Requirements: None

UNIT CONVERTER

This program will convert measures. You can convert Fahrenheit to celsius, or inches to meters.

Requirements: None

UNSCRAMBLE

Try to unscramble the word in as few tries as possible

Requirements: None

VICBREAK/PADL

Machine language breakout.

Requirements: Paddles

WALL DESTROY

Try and destroy the wall in as few moves as possible. Move your gun using "CURSOR UP" and "CURSOR DOWN", and fire by pressing "SPACE".

Requirements: None

WARFISH

You are the captain of a US Submarine. Search for enemy ships and destroy them. Instructions are contained in the program.

Requirements: None

WORD PROCESER

This program can be used to turn your VIC into a typewriter.

Requirements: Printer

=====

VIC-20 COLLECTION #3

37159 DEMO

This demo program will show how to speed up and slow down the cursor by poking location 37159.

Requirements: None

ACEY DUCEY INST

These instructions are used with the ACEY DUCEY PROG program.

Requirements: None

ACEY DUCEY PROG

Bet on the next card being dealt between two cards already displayed. You begin with \$500.

Requirements: None

ADDRESS BOOK

This program will allow you to keep track of names and address. You can view an address, add one, delete one, or copy an address. Select option "8" on the menu and the program will resave itself. All data is saved in data statements within the program.

Requirements: Tape

AIR INDUCTOR

Designs air core inductors for RF circuitry.

Requirements: None

ALPHA KEY

This program will help you to type. As the screen fills with a letter, press that letter on the keyboard.

Requirements: None

ASTRO-TRON

Shoot the stars as you move around the sky. Controls are: "6" to rotate counterclockwise, "J" to rotate clockwise, and "H" to shoot.

Requirements: None

BARRICADE

Try to trap 5 balls on the screen in the least amount of time. Press any key to trap the ball.

Requirements: None

BIO PRINTER

Print your bio-rhythm to your printer. The program will ask you how many days you want the report for, the starting data, and your birthday. You also need to input your name.

Requirements: Printer

=====

BRAIN TEASER

This game is similar to the Rubik's Cube. Try to make each block one solid color in as few moves as possible. To do that, move a row or column of squares from one block to another. Rows are horizontal, or left to right, and columns are up and down. The computer keeps track of how many turns you have taken.

Requirements: None

COLOR FALLS

Colorful screen graphic demo. Load & run.

Requirements: None

COLOR SQUARES

Screen graphic demo. Load & run.

Requirements: None

COLOR TRICK

Graphic demo. Load & run.

Requirements: Super expander

COLOR TRICK2

Graphic demo. Load & run.

Requirements: None

COMBAT

This game allows you to distribute your 72000 men between the Army, Navy, and Air Force. You choose how many men you want to attack with. After each battle, the computer will indicate the results.

Requirements: None

CONTRACTIONS

This program will help teach you how to put two words together to form a smaller word. The computer will display a word, and a list of possible answers. The computer will tell you if it is right or wrong. After 10 problems, your score will be displayed.

Requirements: None

COUNTDOWN

The self-destructer within the school has been started, and you must guess the stop number. The computer will pick the number, and you must try to find it before the school blows up.

Requirements: None

CW KEYBOARD

Set speed for random or pre-set code groups you type in.

Requirements: None

DAYS BET. DATES

Calculates the time between two dates. The computer will display the time between the two dates in years, months, weeks and days.

Requirements: None

=====

DECIBEL CALC.

Calculates the decibel of a device.

Requirements: None

DECISION MAKER

Ask a question and press a key. The computer will display the answer to your question.

Requirements: None

DOG RACE INST

Complete instructions for "DOG RACE PROG".

Requirements: None

DOG RACE PROG

Visit the track without leaving your home. Complete instructions are in the program "DOG RACE INST".

Requirements: None

DOMINOES 6K+

Play dominoes with your computer. 3 levels of play to choose from. Enter your moves like "63" for "6/3". Enter "D" to draw.

Requirements: 6K+

DYNASQUIRAL

Graphics demonstration program. Load and run.

Requirements: Superexpander

EXEC

Disk utility program. 4 options. The "directory" function allows you to view the directory of a disk one "screen" at a time. When the screen fills up with program names, a prompt appears at the top of the screen. If you wish to LOAD a program from the listing, then type in the name and press RETURN. If you want to skip the screen and go to the next one, then just press RETURN at the prompt

The "disk commands" function allows you to send any disk command like SCRATCH or RENAME without typing all of those crazy OPEN and CLOSE statements. The "disk status" reads and prints the ERROR channel.

Requirements: Disk

EYE PULLER

Graphic demo. Load & run

Requirements: Superexpander

FANTASYLAND

Run through this adventure game and search for the 5 treasures. The game accepts many different commands. Some of these commands include help, get, go, look, drop, etc. You can also save a game and reload it from cassette tape.

Requirements: 8K

=====

FLASH & SPELL

This is a spelling tutor. A word will flash briefly on the screen. Then a prompt will ask you to spell the word. If you spell it incorrectly, then you can choose to try again, or go on to the next word.

Requirements: None

FLASH CARDS

Test your knowledge of the multiplication tables with this program. You can practice from 2's to 12's. The computer will either mix them up for you, or send them in order.

Requirements: None

FLASH PROMPT

This is a very useful subroutine you can use in your own programs. Anytime you want the program to wait for the user to press the RETURN key. This would be useful when the screen fills with instructions. Just place this routine in your programs and GOSUB it when necessary.

Requirements: None

FLIGHT

You are a pilot of a small aircraft. You must take off, make a 360 degree turn, and then land the plane again. You control your throttle, elevators, and ailerons. When you have made your turn and think you are ready to land, then type L for land.

Requirements: None

FLYER

You must maneuver your way through the course without hitting the sides or obstacles. You can travel at a speed ranging from 10 to 90 kilometers/hour. Use the "+" key to move left and the "-" key to move right.

Requirements: None

HAM FORMULAS

Let the computer figure out those complex electrical formulas. You can calculate Parallel resistance, series capacitance, capacitive and inductive reactances, impedance, and θ of a circuit.

Requirements: None

HIJACKER

You are a hijacker. There are 200 passengers on this flight. You must kill only as many passengers as necessary to get to your destination. Try to accumulate as much money as possible. Watch that you don't get caught too much and get too far in debt. If you get in too deep, the Mafia may knock you off as a bad risk.

Requirements: None

=====

JINGLE BELLS

Music program. Load & run.

Requirements: None

LABEL MAKER

Use this program as a mailing label file and printer. You can store your own data in the program, or you can enter a label directly and it will print out. 5 lines per label.

Requirements: Printer

LEMONADE STAND

Set up and operate your own lemonade stand. See how much of a profit you can make. Factors such as weather, traffic conditions, and the cost of making the lemonade determine what you set your prices at.

Requirements: None

LO PASS FILTER

Calculate the values of the required parts for a low pass constant-K T filter. You must enter the cutoff frequency and the terminating resistance values.

Requirements: None

LOOK

Examine memory contents. You enter the low memory location and the high memory location you wish to view. The white codes are CHR\$(X) codes and the green codes are ASCII codes.

Requirements: None

MARKET INST

Instructions for the game "MARKET PROG". Load & run.

Requirements: 8K

MARKET PROG

The object is to make the most money in this stock market game. Buy and sell stock, and try to improve your net worth.

Requirements: 8K

MATH DRILL

Work on your addition, subtraction, multiplication, or division skills. You will be given 10 problems, and a grade at the end. There are 3 difficulty levels so you can work at your own pace.

Requirements: None

MAZE

Try to get through the hidden maze in the shortest possible time. Use your joystick to maneuver around. You set the time limit. The flashing "M" on the screen is you. Move into the "open" spaces.

Requirements: Joystick

MAZEMAN

Munch up all of the dots without getting munched yourself. When you eat all of the dots, go to the exit and continue to your next maze. You are the little "ball" moving around the screen. Use "a" to move left, "D" to move right, "W" to move up, and "X" to move down, or use joystick.
Requirements: Joystick optional

MEMORY

Play Concentration with the Vic. Enter your selections via the keyboard in the format "A1" and press RETURN to select the first block. Try to match as many as possible.
Requirements: None

PHONE DIRECTORY

Computerize your phone directory.
Requirements: None

PLOW BY NUMBERS

Counting program. Count the number of tractors on the screen. You will get 9 chances to count and at the end, your totals will appear on the screen.
Requirements: None

POKER

Play 5 card draw with the Vic. Enter the amount of money you have, and enter your bet. You can bet from 1 to 9. When your hand is dealt, and you wish to hold cards, if you want to hold the first card, then type 1. If you wish to keep the last card, then enter 5. Use 2, 3, or 4 for the others. After you have marked the crads you wish to keep, press the RETURN key. Your new cards will be dealt to you.
Requirements: None

PRINT USING

Basic subroutine aid to format columns of numbers.
Requirements: None

QUAD ANTENNA

Desing a 2 element cubical quad antenna based on the frequency input.
Requirements: None

RAM TEST

Test memory for errors in storage. Be sure if you run this program, do not test memory where this program resides, or you will over write the program.
Requirements: None

RESON.FREQ.FORMU

Find frequency, inductance & capacitance.
Requirements: None

RIVER CROSSING

Try to get everything across the river. The boat can only hold 2 items at one time.
Requirements: None

=====

SCREEN FABLE

Load and read this for some valuable programming information.

Requirements: None

SCROLL

Helpful routine to scroll information from right to left on the VIC screen. Run this program and read the scrolling information. After this is completed, the actual routine will be listed to the screen.

Requirements: None

SEQUENCE

Simon type game for the Vic. The computer will generate a color and sound pattern in a specific pattern. You must repeat the sequence in the correct order or lose.

Requirements: None

SLOT

Play the slots. Type the "Z" key up to 12 times to bet. Hit "S" and the lever pulls. Use 1, 2, and 3 to stop each cylinder.

Requirements: None

SNOWFLAKE MELT

Try to melt more snowflakes than your opponent.

Requirements: None

SOC ST REV

This is a multiple choice social studies quiz. Select the correct answer by typing in the appropriate number and pressing RETURN.

Requirements: 8k

SPELLING CHALLENGE

Spelling tutor program. 3 options. You can change data in the program, find the missing letter in a word, or guess the correct synonym for a word and spell it correctly.

Requirements: None

SUPER BOGGLE

Use the computer to do the hard work in the game of SUPER BOGGLE. The Vic acts as a board and timekeeper for the game. You must come up with as many words as you can that have connecting letters. They can run in any direction as long as the end letters connect with the next word. At the end, compare lists and all duplicate words are crossed out. Each word is worth a certain value of points depending on size. The player with the most points wins.

Requirements: None

SUPER DEMO

Graphics demo program. Load & run.

Requirements: Superexpander

=====

SYNONYMS-ANTONYM

Synonym and antonym test. Determine which word in the solution list is an antonym or a synonym of the main word. Try to pick the correct word.

Requirements: None

TITRATION

Become a computer chemist. Find the right amount of base to mix with the acid.

Requirements: None

VECTOR TABLE

Very useful program for algebra and physics students. Determines the x component and y component and gives you the resultant vector.

Requirements: None

VIC MAIL

Mailing list program. Enter names and addresses and store them in data files on cassette tape. Read your files back into the computer to print out your mailing labels. Complete editing feature is included so if you make a typo in entering a new record, you can make corrections before your file is written.

Requirements: Tape Printer

VOLTAGE DIV.

Calculate the resistors required to construct a simple voltage divider. Enter the input voltage and current, and the desired output voltage. The Vic computes the resistance values, and the power consumed.

Requirements: None

WORD SCRM. INST

Instructions for "WORD SCRM. PROG".

Requirements: None

WORD SCRM. PROG

Word scramble game. Player one enters a word, and player must try to unscramble it. When you are unscrambling, enter each letter and the computer will tell you if you are right or wrong. 1 to 4 players.

Requirements: None

YAGI

Design a 10 element yagi for the desired frequency.

Requirements: None

YAHTZEE

From 1 to 5 players can play this version of Yahtzee. When the Vic asks you which dice to roll, respond with 1 for the first one, 2 for the next one and so on. Try to get the most points as possible to win.

Requirements: None

=====

VIC-20 COLLECTION #4

16 FUNCTION DEMO

Demo program to give you 16 function keys using the SHIFT, COMMODORE, and CONTROL keys.

Requirements: None

ACCOUNTANT

Handle your books with this program. Accounts received, due, and paid. Data can be stored on cassette tape.

Requirements: 8K / Tape

ADD COLUMN

Add up a column of numbers the easy way. Enter the numbers you wish to add and press RETURN. Enter a zero when all number are input, and your answer appears.

Requirements: None

ADD FAST

Timed addition game. Add the problems and type them in before the clock runs out. 10 levels from very slow to incredibly fast.

Requirements: None

BAR GRAPH

Create bar graphs with this program. Graphs can be vertical or horizontal in design. The graph will support up to 9 bars. Enter the number of bars you want to display, horizontal or vertical display, and enter the data for each bar.

Requirements: None

BASEBALL 6K

Enter your team and your opponents team, and the number of innings you wish to play. The controls will appear on the screen. You MUST have a 3K expansion cartridge, or a Superexpander cartridge to play this game

Requirements: 6K

CHAR-GEN 4D6

Generate characters for a Dungeons and Dragons game. When your character has been selected, you can print it out on your printer for a permanent copy.

Requirements: Printer optional

CHARGER INST.

Instructions for the below program. Load and run.

Requirements: None

CHARGER PROG.

Try to bomb as many subs as you can in 2 minutes.

Requirements: None

=====

CHEMICAL QUIZ

How well do you know the Periodic Table? This program will give you an element, or a symbol and you must determine what it is. You also have to know the valence number for each element.

Requirements: None

CHIEF

See how fast the Vic can calculate numbers. Think of a number, and add it to the numbers on the screen. Then watch the Vic do the same in a fraction of the time you did.

Requirements: None

CORRECT CHANGE

Teach young children how to make change. The computer will give you an amount of change and you must enter how many quarters, dimes, nickels and pennies it takes. The program will also give you the correct number of coins, and you must determine the amount.

Requirements: None

DEFUSE

You are in a building with a million rooms, and there is a bomb in one of them. You have 20 turns to find and diffuse the bomb. The building is 0 to 99 rooms tall, wide, and long. You enter the number of the room you think the bomb is in. There is a signal beacon to help you out.

Requirements: None

DETERMINATES

Solve second or third order determinates with this program. Enter the numbers into their corresponding positions on the determinate matrix.

Requirements: 8K

DISK DOCTOR

Handy disk utility. Send most commonly used disk commands, read a SEQ file into the computer and view it, or get a directory of the disk complete with the load address of each file on the disk.

Requirements: Disk

DISK L/R

Load and automatically run a program from disk with this program. Type the name of the program you want to load and press return. The disk will spin and your program will load and run.

Requirements: Disk

E-BRG

Give bearings and distance between two known points. Simply enter latitude & longitude of both locations.

Requirements: Printer optional

=====

ELECTRONICS 1

Easily do X(l), X(c), frequency, capacitance or inductance when frequency is known. Choose 1-6 for the formula you want to use.

Requirements: None

ENERGY SAVER

Program aid to evaluate the energy usage in your home. The data in the program is set up for Arkansas climate, but can be modified for your area.

Requirements: 8K

FRACTIONS

Try your luck at this fractions test. You will have addition and subtraction problems first and then some multiplication and division problems. Enter the answers and press the RETURN key.

Requirements: 8K

FRENCH SENTENCE

French drill on verbs etre, aller & avoir.

Requirements: None

FURNACE CALC

Calculator for BTU per hour loss and base board radiator needed for a wood frame house.

Requirements: None

GROSS PAY

Calculator for gross pay. Do the problem the computer generates on scratch paper, and enter your answer in the computer. The Vic will tell you if you are correct.

Requirements: None

GUESS-IT

11 number gussing game. Part of the challenge is to find the pattern within the game and guess the "down" number.

Requirements: None

HANGMAN

Classic word guessing game. Pick letters and try to guess the word before your friend gets hung.

Requirements: None

HI-RES CLOCK

This is a clock dwawn in the high resolution graphics of the superexpander cartridge.

Requirements: Superexpander

INT'L FINANCE

Invest your money into foreign currency. See if you can make a profit.

Requirements: None

=====

INVESTMENT F.V.

Calculate the future value of an investment. Enter the principal invested, interest rate, number of the periods per year, and the dates you wish to calculate between.

Requirements: None

INVESTMENT FILE

Keep a file of your IRA and savings accounts. Enter the type of account, the date, and transactions. The program keeps a file on tape or disk so you will always know the status of your accounts.

Requirements: Tape or Disk

J/20 RECV/TRNS

Morse code send & receive program. For more details see "Collection HS" listing.

Requirements: Home made TU

LASER CONTROL

You have 3 laser cannons. Shoot the aliens before they hit your cannons. Use "A", "S", and "D" to shoot your lasers and "W" for your heat seeking missiles.

Requirements: None

LOG & LOGO

Superexpander demonstration program. Load & run.

Requirements: Superexpander

MARQUEE

Scroll messages across the screen with this program. The examples that are in the program can easily be changed to your own messages. List line 40 to change the scrolling speed.

Requirements: None

MATH FLASH

Math game consisting of problems in addition, subtraction, multiplication, and division. Answer all 10 questions to get a perfect score.

Requirements: None

MATRIX SOLVER

Solve 2X, 3X, 4X & 5X matrix in addition, subtraction, multiplication & determinants.

Requirements: None

MEMORY MONITOR

Peek at any memory location in the Vic. The program displays the decimal location, as well as all of the bits, and tells you which ones are on and off.

Requirements: 8K

=====

MISSILE MATH

Try to answer as many problems as possible before the missile destroys your base. Answer the questions before the missile moves completely across the screen. If it gets to the other side, you are done for.

Requirements: None

MOON LANDER

Land the ship on the surface of the moon safely. Use the number keys to release fuel. 1 is the least amount, and 9 is the most. Keep your speed just right to avoid crashing.

Requirements: None

MYTHOLOGY

Quiz on Greek mythology. Type the answer to the question into the computer, and press RETURN.

Requirements: None

NOUN & VERB DRIL

Enter a noun and a verb. If the sentence that results is good, you get a point.

Requirements: None

NPV & IRR-2

Net present value calculator with internal rate of return.

Requirements: None

PAC-MAN

Good version of the popular arcade game. Try to beat the high score.

Requirements: Joystick

PERSON TEST

See what kind of personality you have. The computer will generate verses, and you must give your interpretations of each one. The computer determines your personality by the answers you choose.

Requirements: None

POKER!

Play draw poker with the Vic. Place your bet, and look at your cards. If you wish to get rid of card 1, 3 and 5, then type 135 at the discard prompt to get new cards.

Requirements: None

PRESCHOOL

Preschool learning program. This program generates all of the letters of the alphabet, all of the numbers, and simple words for youngsters to learn. Press the F1 key at any time to get back to the initial menu.

Requirements: None

=====

QUAD-EQ-SOLV

Solve a quadratic equation in the standard form. The program handles only real roots. It tells you if you get non-real roots, but does not solve them.

Requirements: None

RAILROAD

Music program. Load & run.

Requirements: None

ROTATE 8K

Rotate the puzzle to get the letters in the right order. To get the letters in order, you must rotate 4 of them at a time.

Requirements: 8K

ROUNDING

This is a subroutine to round numbers to 2 decimal places, and line up the decimal points. Add this subroutine to a BASIC program like a cash calculator for a nice "dollars and cents" display

Requirements: None

RS232

Download software into the Vic from another system via the RS232 interface. This subroutine takes the information and enters it into memory so you can save it out to tape or disk.

Requirements: RS232 interface

RSR DISABLE

Nifty little subroutine to disable the RUN/STOP RESTORE function. This is a good protection scheme to keep your BASIC programs from being seen.

Requirements: None

SCHUIFSPEL

Move the numbers in the puzzle around and place them in order. Use the number keys 2, 4, 6, and 8 to slide the numbers around.

Requirements: None

SCI-FI PLOT GENE

Generate a plot for a sci-fi story. Load & run.

Requirements: None

SIMPLE SCROLL

This is a subroutine to smoothly scroll information from the bottom to the top of the screen.

Requirements: None

SORTER

Fast sort utility. Enter string data in DATA statements, and the program will sort them alphabetically. After sorting, the data will list to the screen and printer for you. To begin sort, type RUN 100
Requirements: Printer optional

SPEED READING

Improve the speed of your reading. You must set a speed that you feel comfortable with, and go. You must read the sentence, and type it back in exactly as it was printed. Watch out for punctuation.
Requirements: None

SPELLING

Test your spelling skills. Select a skill level, and start spelling. After the word flashes on the screen, type in the spelling and press RETURN.
Requirements: BK

STATE CAPITALS

Test your knowledge of the states and capitols. The program generates multiple choice questions, and you can choose to have the questions ask for a state, or a capitol.
Requirements: None

STD. DEV.

This program calculates the mean, variance, and the standard deviation of a series of data points. This is a usfell program for teachers when grades need to be averaged, or when you have a series of numbers to be averaged together.
Requirements: None

TANK COMBAT

Maneuver your tank within firing range, and destroy the enemy. Watch because the enemy is out for the same goal. The controls are as follows:

PLAYER 1	PLAYER 2
Q=Up/Left	O=Up/Left
W=Up	P=Up
E=Up/Right	@=Up/Right
A=Left	L=Left
S=Fire	: =Fire
D=Right	; =Right
Z=Down/Left	, =Down/Left
X=Down	. =Down
C=down/Right	/ =Down/Right

Requirements: None

TANKS & LASERS I

Instructions for the next program. Load & run.
Requirements: None

=====

TANKS & LASERS P

Drive your tank and destroy your enemy. For complete instructions, load "TANKS & LASERS I" and run.

Requirements: None

TRACKMASTER

Manuever through the course without crashing into the sides. Use the W key to move up, and the X key to move down.

Requirements: None

TRIANGLE SOLVER

Solve any triangle with any number of sides or angles. Select the appropriate type of problem from the menu, and type in the required information.

Requirements: None

TUNNEL

Test your reactions with this program. Hit a key when a character appears in the tunnel except a "#". See how many points you can score and how good your reflexs are.

Requirements: None

TV TEST PATTERNS

Generate 6 different test patterns for correct adjustment of TV sets. Select a pattern and press return. To get back to the menu, press any key.

Requirements: None

VIC CHECKBOOK

Let the Vic handle your checkbook. Store your deposit and check information in data statements in the program. The instructions in the program explain the format for data entry in detail.

Requirements: None

WEATHERMAN

Predict the weather. This program performs temperature conversion, temperature/humidity index, wind chill factor, and relative humidity and dew point.

Requirements: None

WIPEOUT

Maneuver through the screen avoiding the circles. Move through the diamonds, and move over the pound (#) signs. Keyboard or joystick control

Requirements: Joystick optional

WORD SCRAMBLER

Enter a word into the word scrambler and see how many words can be formed. Try some small words, and then some large ones for fun.

Requirements: None

=====

VIC-20 COLLECTION #5

ARKSNUFFEL

Run the program and wait for the box to appear. Use the letters around the "S" key to move and score.

Requirements: None

ARROWS (&BOWS)

Enter the number of arrows you have. Then enter the angle & velocity to hit the target.

Requirements: None

AUTODELETE LINES

Use this subroutine to automatically delete a range of lines in a program.

Requirements: None

BIG LETTERS 2

This program shows enlarged screen letters. Run this program and type a key to see the big letters.

Requirements: None

BIORHYTHM

Chart your biorhythm with your Vic. Enter your birthday, and the day you want the chart to start. What kind of day will you have?

Requirements: None

CALENDER

Create a calendar for any year since 1 AD. Enter the month, and year of the calendar you want to see.

Requirements: None

CAPITALS-INTRO

Series of five programs. The first four consists of multiple choice question asking for the capitol of the state. The fifth program requires that you name the capitol of the state shown. Set-up to auto load from tape. Disk people will need to load each program as needed. The five programs are: CAPITALS-P1, CAPITALS-P2, CAPITALS-P3, CAPITALS-P4 & CAPITALS-QUIZ.

Requirements: None

CASH FLOW

Use this program to help calculate the cash flow from rental properties. Determine if the are losing or making money. If you have a printer, you can get a hardcopy for your permanent records.

Requirements: BK

=====

CATALOG MAKER

This program will make a catalog of the programs on your cassettes. This is useful when you are looking for a specific program. It eliminates loading every tape to find 1 program.

Requirements: None

CAVE CRAWLERS I

Instructions for the next program. Load & run.

Requirements: None

CAVE CRAWLERS P

Zap the cave crawlers before they land on you. Shoot them by using the fire button. Move left or right by using the joystick. For complete instructions, see "CAVE CRAWLERS I"

Requirements: Joystick.

CHANGE DISK NAME

This handy utility will let you change the name on the header of a disk without losing any data from the disk. Just follow the simple prompts.

Requirements: Disk

CLASSICS QUIZ

Answer questions about classic authors. answer the questions with the author's last name. There are 25 questions for you to try your hand at.

Requirements: None

CONCENTRATION

Match up the symbols under the cards. Collect as many symbols as possible to win. Choose a card by entering a row, column. 2 to 9 players can play this game.

Requirements: None

DECISIONS

Use this program to help you make logical decisions. Enter all of the alternatives available, and the Vic with it's "pure" logic will make the choice for you.

Requirements: None

DICE ROLLER

Good counting game for very young children. Roll the dice, and count the dots. Type in the answer and press return.

Requirements: None

=====

DISK DISSAM.

Disassemble disk files. Output resembles source code.

Requirements: Disk / Printer optional / 8K

EATER

Very rudimentary Pac-Man type of game. Eat all of the dots without getting eaten. You are the diamond and you control yourself by using the joystick.

Requirements: Joystick

ENGLISH/METRIC

Excellent conversion program. You can convert any English unit to its Metric equivalent. The program is menu driven, so a minimum number of keystrokes is required.

Requirements: 8K

FALLOUT

Shoot the fallout particles before they fall to the ground and surround you. If the particles surround you, you are helpless and die.

Requirements: None

FIND TRIANGLE

Solve parts of a triangle. Input ASA, SAS, AAS, SSA or SSS. A = Angle / S = Side

Requirements: None

FOUR IN A ROW

Try to connect 4 dots in a row before the Vic does. Type the number of the row you want a dot in and press return. The Vic will make up its slow mind, and make a play itself.

Requirements: None

GAS MILEAGE

Use this program to calculate the gas mileage of your car. At the prompts, enter the current odometer reading, gallons of gas used. The program will give you your mileage at each prompt.

Requirements: None

HALT!

Move your player across the screen using the keyboard. One or two players. Force the computer to move itself into a corner, or backtrack on itself and die. Also, if you run into the walls, or the computer, or the path you have already been on, you die.

Requirements: None

=====

HAM CONTEST LOG

Field day log book. Dup search, log contact, print log & list log.
Also see "Collection MS".

Requirements: Bare Vic or 6K only

HEXAGON

One or two players. Part of the fun of this game of logic is learning how to play it.

Requirements: None

HOGAN'S HEROES

Music program. Load & run.

Requirements: None

HOW MANY BOXES

Count the boxes on the screen, type in the answer and press return. The Vic tells you if you are right by drawing a happy face or a sad face.

Requirements: None

KEYBEEP

This program will cause the Vic to emit a beep when you press a key. This is helpfull when you are not sure that you pressed a key all the way down or not.

Requirements: None

KILLER ROBOTS

There are several killer robots on your tail. You can only destroy them by pushing the bunkers (boxes) inside the ship. Move your man against a bunker and push the direction you want to push the bunker. Watch your rear because there may be one sneaking up on you.

Requirements: Joystick

LIFE EXPECTANCY

Answer these multiple choice questions, and see how long you will live. The Vic determines this based on your habits, and other information.

Requirements: None

LONG DIVISION

Test your long division skills. Enter parts of the answer and the program does the subtracting steps for you. When ypu are finished, type E for your final grade.

Requitments: None

=====

LOOPS

Test any whole number greater than four 2-4-1 loop pattern.

Requirements: None

MATHOFF

Timed math quiz for two players. 1-9 levels.

Requirements: None

MAZEMAN 2

Eat the dots before the monsters eat you. Use keyboard or joystick control. Avoid the monster to survive.

Requirements: None

METRIC/ENGLISH

Conversion program to convert metric units to english units. All sections are menu driven for ease of use. Choose the selection you want from the menu, and enter what you want to convert.

Requirements: BK

MIAUW

Music and graphics program. Load & run.

Requirements: None

MISSING NUMBER

Find the missing number in the set of 10. Type in the number and press return.

Requirements: None

NEW DISK

Handy utility to help you format a blank disk. Enter the disk name and the ID number you want to use and press return. Your disk will now be formatted and ready to use.

Requirements: Disk

NOTONE

Roll the dice. You can roll as many times as you want. However if you roll the same number as you did the first time, you lose all of the points you won before. There are 10 rounds. Try to rack up more points than Vic.

Requirements: None

OLIMPIC THEME

Music program. Load and run.

requirements: None

=====

PARTS OF SPEECH

Test your knowledge of the parts of speech. Enter a word and press return. Then choose the part of speech that best describes the type of word it is. You select noun, verb, etc for the type of word.

Requirements: None

PINBALL

Use the F1 key to use your flippers, and the S key for the special flippers. Shoot the ball and score as many points as possible. Hit as many + and \$ as you can for points.

Requirements: None

PLAYS

Test your knowledge of famous authors. The computer will give you a book or author's name, and you must enter the other item not given.

Requirements: None

POLY ROOTS

Determine the real and imaginary roots of a polynomial to any degree. Select the degree of the equation, and then enter the coefficients of the problem. The program does all of the calculations and prints them on the screen for you.

Requirements: None

POLYFIT

Polynomial fit of X,Y data points. Upto 20 points may be entered. Other functions included.

Requirements: None

PRIME # FINDER

Use this program to find the highest prime number less than the number you enter. For example, enter 100. The program finds the highest prime number less than 100 which is 97.

Requirements: None

PRINTER TEST

Test and see if the Vic recognizes your printer. Run this program, if the screen says THANK YOU, everything is functioning normally. If not, see if your printer is on, and try again.

Requirements: None

=====

ROAD RALLY

Drive your car 5 miles on a half a gallon of gas. Try to do this as quickly as possible. Watch out for curves, and other drivers. Accelerate from -10 to 10. Don't hold the accelerator to the floor too long, or your engine will blow and the race is over for you. ↑

Requirements: None

ROBOTS

Graphics demo. Load & run.

Requirements: None

SCREEN DUMP

Basic subroutine. Add to your programs and run to print the screen.

Requirements: Printer 8K

SPACE TRADER

Fly your transport ship from one planet to another and drop your goods. Get the ship within 1000KM of the planet, and you will be guided in from there.

Requirements: None

SPADES

Also known as Hearts or Euchure. Inputs are Number & spade, heart, diamond or club symbol. See Hoyle for more details.

Requirements: 8K

SPANISH

Practice up on Spanish verbs.

Requirements: 8K

STOCK TICKER

Buy and sell stocks. 6 stocks to choose from. Make your investments in one or more stocks and watch the bar graph. The chart tells you what is up and down. You always have the option to Buy, Sell, or Continue. Watch for trends in certain stocks activities.

Requirements: None

STUDENTS GRADES

Keep track of your students grades. The program will handle 35 students and up to 10 test grades of variable weights. Enter your students names and grades in data statements within the program. Don't forget to save the program whenever you make changes to the data.

Requirements: 8K

=====

SUB HUNT

Fire depth charges and destroy the subs. Use keys 1-4 to fire charges at different levels. 1 is the shallowest and 4 is the deepest.

Requirements: None

TANK

Blast your enemy's tank. The Blue tank is controlled by the joystick. The Green tank is controlled by the keyboard. Shoot the enemy before he shoots you. Two player.

Requirements: Joystick

TEMP. CONVERT

Use this program to convert temperature scales. Convert Farenheit, Celcius and Kelvin scales.

Requirements: None

TYPING DRILL

Test your typing skill. Type the letter that the Vic generates. Try to do this with as few errors as possible.

Requirements: None

UTILITY USAGE

Use this program to keep track of your utility usage. Keep records on tape or disk for up to 10 years. Keep electricity, gas and water records.

Requirements: BK

VERTICAL MSG

Use this program to scroll messages vertically on the screen. Enter the message and press RETURN.

Requirements: None

VIC COMMUNICATOR

Use this program to send messages to other Vics via the modem or tape. Enter whether you want to use tape or the modem, and enter your message.

Requirements: Tape / Modem optional

VIC LISSAJOUS

Graphics demo. Load & run.

Requirements: Superexpander

WALL ZAP

Use the Cursor keys to move the paddle. Press any key to get another ball. Try to break down the wall of bricks.

Requirements: None

=====

VIC-20 COLLECTION #6

A OR AN QUIZ

Fill in the blanks with A or AN. The sentence will only make sense if you add A or AN in the blank. You receive a grade after each sentence.

Requirements: BK

ALARM CLOCK

Use the Vic as an alarm clock. Enter the correct time and the alarm time if you want to set an alarm. The Vic prints the clock digits in large letters on the screen.

Requirements: None

ALPHA SORT

Sort any data alphabetically, or numericly. You can sort from keyboard input, or from data saved out on tape. The program provides output to tape when the sort is finished. This technique allows you to save your data, and reload later and add items to it.

Requirements: None

AMORTIZE

Morgage or loan payment break down. Shows principal, interest paid & interest due.

Requirements: None

BANNER

Print out large block letter banners on your printer. Banners can be of variable sizes and upper or lower case. You can print 1 or 2 lines per page.

Requirements: BK / Printer

BIG SIX

Place your bet and pick a number. The Vic rolls 3 dice for you. If you match 1 number, the payoff is even. If you match 2, the payoff is 2-1, and 3 is 3-1.

Requirements: None

BIO PRINTER

Print out a listing of your biorhythm cycles. Use the screen (device 3) if you do not have a printer for output. Print charts out in advance to predict how your days will shape up.

Requirements: BK / Printer

=====

BREAKOUT (J)

Play the classic game of breakout. Use a joystick to control the paddle. The Vic does the serving automatically.

Requirements: Joystick

BUDGET-MGR

Keep a running budget with this program. Keep track of your checks, and credit cards, utility costs, and other household items.

Requirements: BK

BUMBLEBEE

Music program. Load & run.

Requirements: None

BUZZWORD

Generate strange and bizzare phrases for use in speeches, or just for fun.

Requirements: None

CASCADES

Graphics demo. Load & run.

Requirements: None

CBUFF PEEK

Examine the contents of the cassette buffer with this handy utility. Look at the contents after a tape load. You will find such usefull information as the starting & ending address of the program.

Requirements: None

CBUFF SAVE

Run this program, and save the contents of the cassette buffer for later use.

Requirements: Tape

COLOUR PINBALL

Play pinball. Use F1 for the bottom flippers, and S for the special flipper. Hit as many + and \$ as possible for points.

Requirements: None

COMPUTER FIX

Demo program. Load and run.

Requirements: None

COVERAGE PREDICT

Reception predictions for FM & TV signals based on antenna height, terrain, ERP in KW & field strength. Answer is given in radius in miles.

Requirements: None

=====

CRAPS

Throw a 7 or 11 and win. Try your luck with the dice. Bet your money and roll. If you roll a 7 or 11, you win. Throw any other number and you must make your point to win.

Requirements: None

CRYPTOGRAM

Enter upto a ten line cryptogram and let the Vic help you solve it. The frequency of letters used will be displayed.

Requirements: None

DEEPSPACE

You have 3 star systems to patrol. Choose the one you want to patrol. Then choose the ship you would like to fly. Fly through the galaxy blasting enemies out of your path.

Requirements: None

DENSITY

Compute the density of any liquid compound. Enter the mass of the compound and the volume. The Vic tells you the density of the liquid.

Requirements: None

EASTER DATES

Find the date of Easter for any year between 1900 and 2099. Enter the starting year and ending year, and the Vic prints out the dates on the screen.

Requirements: None

ELECTRIC COST

Calculate the monthly cost of electricity in your home. Enter the cost per kilowatt hour, and press RETURN. Then enter the device, wattage, and hours of use. When you are done, enter all zeros. Your cost is printed out on the screen.

Requirements: None

F.I.C.A. TAX

Calculator for federal income tax. Be sure to change line 230 to the proper percentage.

Requirements: None

FAST SORT

Use this subroutine to quickly sort several items. The sort works in one or two fields. Merge this routine into any program where you need a quick sort routine.

Requirements: None

=====

FFT CALC.

Fast Fourier Transformations. User defined functions may be entered in line 7000.

Requirements: 8K

FIRING TANK

Fly your ship around the screen and shoot the stars. To turn and move your ship, use the 4 key, and use 5 to fire your cannon. Shoot all of the stars in as little time as possible.

Requirements: None

FREQ COORD

Frequency coordination provides functions of propagation, intermod & distance.

Requirements: None

GEOG. SPELL GAME

In this game, you type in a word and the Vic gives you a word that the first letter is the same as the last letter of your word. Then you must do the same, correctly spelling the word you choose.

Requirements: 8K

GUARDIAN

Guard the base from the invaders with your robot. Use A for left, D for right, and S to stop. Fire by pressing the space bar. If enemy fire hits you, or you fall in a "hole" that enemy fire creates, you die.

Requirements: None

HI-RES

Draw in high resolution on your screen. Use a joystick and move around. Use the space bar to clear the screen, and CLR/HOME to move to the upper left corner of the hi-res screen. Press FIRE to erase.

Requirements: Joystick

JOB JAR

Enter and keep track of odd jobs that need to be done, but always forgotten about. Keep the job jar list on tape or disk for future use.

Requirements: Tape or Disk

L PAD DESIGN

Computes the value of two resistances required to construct an L-Pad of minimum loss.

Requirements: None

LABRINTH

Explore the maze & tunnels in search of gold and safe exit.

Requirements: None

=====

LETTER RECD.

Learn the letters of the alphabet. Type the letter that appears on the screen. See how fast you can be, without errors, to help you learn the keyboard as well as the alphabet.

Requirements: None

MARSTON CITY RVD

Shoot the objects to score points. The object moves toward the bottom of the screen trying to hit you. You must shoot it using a joystick or keyboard for control.

Requirements: None

MATCH THE NUMBER

Match the proper letter with the appropriate number of objects next to it. Type which letter you think to be the correct answer and watch for the happy or sad face telling you the answer.

Requirements: None

MATH DICE

Enter the number of times you want to roll the dice and press return. Then when the dice roll, enter the number the dice add up to. If you miss it, you will get a helping hint and another chance to try.

Requirements: None

MATH FACT DRILL

Try some practice in addition, subtraction, multiplication, and division. You get 3 chances to answer the question if you miss it the first time. Type score instead of an answer to get your grade.

Requirements: None

MATH TEST

Advanced math test. Add, subtract, multiply & divide.

Requirements: None

MATH TIME

Mathematics quiz on the 4 basic math operations. There are 3 levels of problems, and 10 problems for each level. Answer all 10, and move to the next level.

Requirements: None

MAZE MAKER

Use this subroutine to generate random maze for games and other uses. After the maze is constructed, press return to see another maze generated.

Requirements: None

=====

MERRY CHRISTMAS

Christmas music demo program. Load & run.

Requirements: None

MILLIONAIRE

The Vic will generate your life story for you. Will you come out a millionaire, or a poor person. Enter your name and see what comes up.

Requirements: None

MOSAIC

Graphic demo program. Load and run.

Requirements: None

MULTIPLY TABLES

Learn your multiplication tables. Type any number at the prompt and the program generates a multiplication table from 1 to 12 with the number you entered.

Requirements: None

NATIONAL PARKS

Quiz on America's national parks. The Vic asks you a landmark in a park and you answer with the correct state.

Requirements: None

NICOMA

Number quiz game. Think of a number between 1 and 100, and answer 3 questions about your number. The computer will determine your number from the answer to those questions.

Requirements: None

PCB PRINTER

Use this utility to print out design boxes for programmable characters. Run the program and the character boxes will be printed.

Requirements: Printer

PI NETWORK DESIGN

Computes the components of a PI network to match two impedances.

Requirements: None

QUARTIC

Solve a quartic equation of the form:

$$S \times X^4 + T \times X^3 + U \times X^2 + V \times X + W = \text{Zero.}$$

Requirements: 8K

QUIZ

Small trivia type game. Answer all types of questions about all types of things. Type your answers in and press return. Remember that spelling counts, so watch those letters.

Requirements: None

R-S-P

Play rock, scissors & paper with the Vic. Use the function keys to pick your answer.

Requirements: None

REBOUND HOCKEY

Hit the ice and play some hockey. Use the keyboard controls (found in the program) to move around the screen. Watch your goal, and score on your opponents mistakes.

Requirements: None

REVENGE INST.

Instructions for the next program. Load & run.

Requirements: None

REVENGE PROG.

Rearrange all of the color squares into 1 solid color. For complete instruction, load "REVENGE INST." and run.

Requirements: None

RND GRAPHICS

Random graphics demo program. Load & run.

Requirements: Superexpander

ROLLING STICKS

Graphics demo. Load & run.

Requirements: None

ROM AID

Simple disassembler & memory lister. Enter starting address locations in decimal.

Requirements: None

SHOPPING LIST

Calculate your grocery bill before you go shopping. Enter the items you will be buying, and at the end of the run, the approximate bill will be printed out for you.

Requirements: None

SIMON

Classic game of memory. Repeat the sequence of sound and color to win. You must repeat it exactly or you lose. Use the keys that correspond to the boxes on the screen.

Requirements: None

SLIDE VOICE

Sound demo. Load & run.

Requirements: None

=====

SNOOPY HIRES

High resolution picture of that famous dog. Load & run.

Requirements: None

SPELLING AID

The program contains 20 words for you to spell. The program generates a word spelled incorrectly, and you must type its correct spelling into the computer. You get 2 chances per word before the correct spelling is printed for you. Change the data statements in line 980 on for your own words.

Requirements: None

STOPWATCH

Use this program as a stopwatch to time crucial events. Type B to begin, and S to stop.

Requirements: None

SUNRISE/SUNSET

Use this program to calculate the sunrise and sunset times for your location. The information will be furnished in 12 or 24 hour time formats in UTC or local time.

Requirements: 8K

SYM T ATTEN

Designs balanced symmetrical T attenuator pads.

Requirements: None

TENNIS 3

Hit a few volleys with an opponent. Use A for left, D for right and S to stop for player 1. Player 2 uses J for left, L for right, and K to stop. Hit the ball back and forth. A player scores when the opponent misses the ball.

Requirements: None

TOO HIGH-TOO LOW

Guess the number the Vic is thinking of in as few tries as possible. The computer will give you clues as to whether you are too high or too low in your guesses.

Requirements: None

TYPING TEST

Type a line of text and see how fast you can type. Type without any errors and your speed in words per minute is printed on the screen.

Requirements: None

=====

VECTORS

Algebraic vectors drill on: Dot, cross & triple products, addition & subtraction, scalar multiplication, distance between two points, angle between two vectors & area of a triangle.

Requirements: 8K

VEHICLE COST

Determine the cost of operating a vehicle for an 8 year period. Enter the requested data and the program calculates the cost per year and per mile of operation.

Requirements: None

VIC ORBIT

Destroy the Romulan ship that has gotten into your planets orbit. The ship has a cloaking device, and you have 7 shots to nail it. Enter the angle you want to shoot at, and the distance. The Vic will tell you how close you came to hitting the invaders.

Requirements: None

VIC SYMPHONY

Random music program. Load & run.

Requirements: None

WUMPUS INST

Instructions for the next program/. Load & run.

Requirements: None

WUMPUS PROG

Search the cave and destroy the wumpus. For complete instructions, load "WUMPUS INST" and run.

Requirements: None

ZERO FORMULA

Calculates the zero of a formula by Newtons method.

Requirements: None

=====

VIC-20 COLLECTION #7

ADDITION

Test your addition skills. Add the numbers and enter the answer into the computer and press return.

Requirements: None

ALIEN CAPTURE

Track your enemy, and trap him inside the grid. However, don't kill him. You must bring him back alive to succeed.

Requirements: 3K or more

ALPHA

This program will teach you to place lists into alphabetical order. Type the numbers of the words you wish to switch.

Requirements: None

ALPHA BOMBER

Save the Earth by not letting the letters bomb the Earth. To shoot the letters by typing the same letter on the keyboard.

Requirements: None

ALAPH MATCH 2

Match the letters under the squares. Get all of the matches to win.

Requirements: None

BANK PROGRAM

Calculator for balancing your checkbook. Enter your previous balance, and all of your deposits. Enter all checks and service charges. Don't forget your outstanding checks, and see if your balances match.

Requirements: None

BAZAAR SALES LOG

Log the sales at your bazaar using the Vic. Keep track of each vendors sales and list final totals out to the screen or printer.

Requirements: 8K

BINARY

Use this program to convert from decimal to binary numbers. Enter a decimal number and press return. The binary equivalent will appear on the screen.

Requirements: None

BLOODCOUNT

Count the number of filled in spaces on the Vic screen. You must guess if more spaces are filled or empty.

Requirements: None

=====

C/S RETIREMENT

Calculator for civil service personnel retirement.

Requirements: None

CALL SEARCH

Information is entered into data statements starting at line 999. You can search or print data. Has printer output.

Requirements: 8K / Printer optional

CAT & MOUSE

Chase the mouse around the room. You are a cat, and you must catch the mouse. Use the keyboard for control of your cat. See if you can get him in as few moves as possible.

Requirements: None

COMPARE DISK

Load a program into memory then enter the program name on disk you want to compare it to. Change N\$="" to N\$(<)" to correct a bug in logic.

Requirements: Disk

DESTROYER

Sink the enemy's vessel before it sinks you. You have to move in on the enemy, and blow him out of the water, but keep your guard up.

Requirements: 8K

DIGITAL CLOCK

Large digital clock display. You can have 12 or 24 hour display. Enter the correct time in hours, minutes, and seconds to start.

Requirements: None

DO LIST

Keep a list of things you need to do with this program. Enter the EDIT mode to enter information. When you complete the program, you can save a file of your list on cassette tape for future use.

Requirements: 8K / Tape

ENVELOPE ADDRESS

This program prints the address on an envelope on a COM-STAR or GEMINI printer. Enter the name and address, and the information will print out for you.

Requirements: Printer

FOOTBALL 8K

Play a game of football against the computer. Input the team names and take off. All commands will display on the screen so you can remember them.

Requirements: 8K

=====

GENERAL

You are a general in the army. You must battle enemy troops. Your command consists of 20000 soldiers. The computer will place the enemy at random locations. You must use logic to determine the locations.

Requirements: 8K

GOLLIVISION

Play slots with the Vic. Press space to pull the lever and see how well you do. When you are through losing your cash, press Q to quit.

Requirements: None

GRAPHIC ART (SE)

Graphics demo. Load & run.

Requirements: Superexpander

INVESTMENTS

Savings, IRAs, deposit, interest & withdrawal calculator. View, add, delete & save files to tape.

Requirements: None

JOYSTICK DRAW

Draw on the screen with a joystick. Draw by moving the stick and change colors by pressing the fire button. At any time you are drawing, for the command screen, press"H".

Requirements: Joystick

KENTUCKY DERBY

Its post time and you are there. Enter the number of the horse you want to bet on (1-7) and press return. Enter your bet and they are off. Try not to lose your shirt.

Requirements: None

LONE RANGER STOR

Load, run and read!

Requirements: None

LOTTO NUM GEN

Generate numbers for a 6 digit lotto game with numbers from 1 to 40. Generate up to 10 sets at a time for a \$5.00 ticket.

Requirements: None

MENU AUTO PROG

Load and run "MENU INST" for instructions. Automatically loads & runs programs listed in the data statements within the program. You must enter the data.

Requirements: Disk

MENU INST

Instructions for "MENU AUTO PROG" and "MENU PROG". Load and run.

Requirements: Disk

=====

MENU PROG

Load and run "MENU INST" for instructions. Menu select the program to load & run listed in the data statements within the program. You must enter the data.

Requirements: Disk

ML MEMORY DUMP

Dump memory out to your printer in hex format. Enter the starting and ending addresses and your machine code will dump out to your printer

Requirements: Printer

NEWTONS ROOT

Program will find a root of a polynomial entered by the user in the form $A_0X^0 + A_1X^1 + A_2X^2 + \dots + A_NX^N + K = \text{Zero}$

Requirements: None

NON-VER LEXICON

Initial lexicon for the nonverbal handicapped. Choices are Yes & No or TV, Book, Eat & Drink. Joystick is used as input device.

Requirements: Joystick

NUMBERSPAN

See how many numbers you can remember. You will start with 1 number and increase each time you enter the sequence again. Try and see how many numbers you can remember before your memory goes.

Requirements: None

OLE INJUN TRAIL

Ride the ole injun trail. Use a joystick to maneuver your horse down the rough trail. Be careful of the rough spots as they can trip you up and cause you to lose.

Requirements: Joystick

OP ART FOR SE

Superexpander demo program. Load and run.

Requirements: Superexpander

PITCHER STORY

Load, run and read!

Requirements: None

PRINT RIGHT

This subroutine adjusts words so that half of a word does not wrap around the small Vic screen. It will work on other computers as well. You no longer have to space out everything properly with this little subroutine in your program.

Requirements: None

=====

QSD DIRECTORY

Enter call, name, date, mode, band & QSL in data statements. Search by call.

Requirements: 16K+

REPTILES

Think of a reptile, answer the questions, and Vic will tell you what animal you are thinking of. There are many members of the reptile family that the Vic understands.

Requirements: None

RHINO

Use your joystick to get home without getting eaten by a rhino. You are the "." and the rhino's are the "pi" characters. Move to your home (H). You win if you get there safely.

Requirements: Joystick / 8K

ROUNDING

Test on rounding numbers. Round the money total given to the nearest dollar. Enter your answers into the computer, and press RETURN.

Requirements: None

RTTY

Receive & transmit Baudot & ASCII, station ID, CQ & QTH. See "Collection HS" for more instructions.

Requirements: RTTY TU / 16K

SHOOT DOWN

Shoot all of the alien out of the sky. Maneuver and fire by using the "G", "H", and "J" keys.

Requirements: None

SIM-L-Q/MAT-INV1

Simultaneous linear equations / matrix inversion program.

Requirements: None

SONG PROGRAM

This is a program driver for a song that you create. Calculate the DATA statements for the music, and this program does the rest. It turns on the volume, and reads your data.

Requirements: None

STAR WARS

Song program. Load & run.

Requirements: None

=====

SUPER STAR TRAK

Excellent version of Star Trek for the Vic. Commands are displayed any time by pressing the RETURN key. Seek out and destroy all of the Klingon ships to complete your mission.

Requirements: 16K

TRAP 1

Enter 2 numbers into the Vic, and try to trap the Vic's number between your two. You have 6 guesses to trap and find the Vic's number.

Requirements: None

U.S. TAX FORM

Aid to help you figure out your taxes using form 1040.

Requirements: None

UTILITY CHARTS

Calculate you utility usage for up to a ten year period of time. The program has sections for electricity, gas, and water usage. Each month after you enter your results, you can save the file on cassette tape for future use, and you can print out your charts for comparasions.

Requirements: Printer / Tape

VIC LIFE

Aid for playing the game of LIFE. Use the computer to spin the wheel, and control the bank from the computer. No more fights over who has to be Banker.

Requirements: None

VIC MAILING LIST

Read, save, create, edit, sort, print, merge, scratch & directory of mailing files. Disk or tape based files. Well done.

Requirements: Printer / 16K

VICKIE

See if the Vic can help solve your problems. Enter your problem into the Vic and press return. Vickie will try to help you. Like Eliza.

Requirements: 8K

XMAS SELECTOR

Solve the problem of drawing numbers out of a hat with this program. The computer will randomly select who buys a gift for who. This is useful in a large family where a lot of gifts are to be bought. A printer will give you a hardcopy.

Requirements: Printer optional

=====

VIC-20 COLLECTION #8

40 COL (SE)

See a 40 column display on your Vic screen. The program is designed to be used as a subroutine to your regular programs so you can have a 40 colour display.

Requirements: Superexpander

ART TWO-3K

Demonstration program. Load & run.

Requirements: Superexpander

BASE TO BASE

Convert any number, in any base, up to base 20, to a number in any other base. This is useful for converting hex to decimal for machine language programmers.

Requirements: None

BATTLESHIP-INST

Instructions for the below game. Load and run.

Requirements: None

BATTLESHIP-PROG

Classic board game. Sink the Vic's fleet before it sinks yours. For complete instructions, load "BATTLESHIP-INST" and run.

Requirements: None

BIRDY

Take your trusty bird dog and go hunting. You must shoot the birds out of the sky. Press any key to change the direction of your gun, and hit space bar to fire.

Requirements: None

BIRTHDAY CARD

Happy birthday demo. Load & run.

Requirements: None

BOMB DROP

Save the Earth from the deadly bombs. Press the joystick button to start. Move the crosshairs on the bomb and fire to destroy it.

Requirements: Joystick

BOMBARDIER

You are the bombardier on an important mission. You must be within 49 miles of your target before you can drop the bombs. You must decide the right time to drop the bombs by taking wind speed and distance into consideration.

Requirements: 8K

=====

BOWLING

Bowl at home. Use the J and K keys to set your bowler and press return to bowl.

Requirements: None

BOXING!

3 round Olympic boxing game. Type in your man's best punch and worse punch and take off. Enter which one of the 4 punches you want to throw and press return. Then the Vic will show what his man has done. Win 2 of the 3 rounds to win the match.

Requirements: None

BUDGET INST

Instructions for the program "BUDGET PROG". Load & run.

Requirements: None

BUDGET PROG

Enter and keep a complete budget on your Vic. The program stores files on tape for recalling later. For complete instructions, load "BUDGET INST" and run. Spred sheet type program.

Requirements: 8K

BUSINESS CLIENTS

Keep a file of your business clients. You can add names, delete names, place them in alphabetical order, and save them to tape.

Requirements: 8K

CASH FLOW

Keep your home cash flow in order. 13 catagories for you to enter your monthly expenses. At the end of each month, a file is written to cassette storing your information for future use.

Requirements: None

CODE PRACTICE

Brush up on your code with this program. Enter the speed you want to practice. Sends five letter code groupes.

Requirements: None

COLOR MAZE

Move the little arrow through the maze and turn the blue maze to green. Use joystick for movement. Try to do this in as little time as possible for a good score.

Requirements: Joystick

CROPS

Keep your garden under control. Try to increase the numbers of plants and bushes you have by spraying for bugs and opening up irrigation ditches. Try to win an award in agriculture.

Requirements: 8K

=====

DECISION MAKER

Let Vic make decisions for you. Ask a question out loud and then press return for the answer.

Requirements: None

DENTIST STORY

Just for fun. Load, run, and read.

Requirements: None

DISK SORT&PRINT

Catalog your disks and print out a listing of your files. Now you will know whats on every disk without loading every directory. After you catalog some disks, press S to sort the information. Then the program will dump the list out to the printer.

Requirements: 8K / Printer

ERASER

This little subroutine will automatically delete program lines after they are run.

Requirements: None

EXEC 2

Disk utility allows you see a disk directory, send any disk command, and check the error channel easily.

Requirements: Disk

F/S ANALYSIS

Financial statment analysis. Enter sales, cost of goods sold, depreciation, etc...

Requirements: None

GRUNGY TOWERS

A murder has been committed at the towers. Your job is to find the guilty party. Search the scene for clues to the case. You may accuse anyone, but be sure you have your facts straight.

Requirements: 8K

GUESS & CHEAT

Guess the letter sequence that the Vic generates. The better you get at guessing letters, the better the Vic gets at cheating. Try to guess the sequence in as few tries as possible.

Requirements: None

GUNNERS

You are firing at your enemy over a hill, so you can't see where you are shooting. In this 2 player game, the Vic acts as a spotter. You fire by picking points on a grid, and the Vic tells you if you hit or miss.

Requirements: None

=====

HI SCORE

Append this subroutine to the end of a game, and whenever you get a high score, the program enters it into DATA statements. Then you must re-save the game to store your high score.

Requirements: None

IRA

Calculate how much your IRA will be worth when you retire. Enter the data requested at the prompts and your information will be displayed for you on the screen.

Requirements: 8K

JUST-CHUCK LUCK

2 dice games in 1. In chuck a luck, you bet and pick a number between 1 and 6. If your number comes up, you win. In just luck, place a bet, and pick a number. Choose how many times you want to roll, and go. The print list prompts you with the results of each roll on the screen.

Requirements: 3K

LEAPFROG

You must re-arrange the letters by jumping other letters. The letter S is a space character. The G's must end up where the B's are.

Requirements: None

LETTER PUZZLE

Re-arrange the puzzle into the proper order for the letters. Move the letters around by typing the corresponding location on the letter / number grid.

Requirements: None

LIFE 2.5

Enter a pattern of "*" for upto 20 lines. Enter "DONE" when the pattern is complete then hit RETURN. LIFE is a growth culture demo.

Requirements: None

MEMORY QUIZ

Try to find a match for the each symbol under each space. Enter the coordinates of your choice and press RETURN. For each match you find, you will receive a point.

Requirements: None

MOOSE STORY

Load and run this fun story.

Requirements: None

MULTIPLICATION

Test your knowledge of multiplication. Enter your answers and press return for results.

Requirements: None

=====

MUSIC PRODUCER

The program helps you create music by setting up your data. You can place up to 10 notes in memory at once. You can modify these notes as you wish, play them back, and print them out on the screen or printer in DATA form.

Requirements: 16K / Printer optional

NAME

Let the computer have fun rearranging the letters of your name.

Requirements: None

PAY CALC.

Makes basic payroll calculations. Earned pay, on a biweekly basis.

Requirements: 8K

PAYROLL CALC

Complete weekly payroll calculator based on Federal & Ohio tax charts for 1983. To enter employee's names and tax information goto the UP-DATE FILE mode.

To figure an employee's paycheck goto the DO CALC mode. Enter name as you originally entered it, and input this weeks earnings. Program keeps a running total of the employee's earnings.

To get a print-out of year to date earnings goto the READ NAME FILE, input name, goto SCAN NAME LIST, outputs to screen or printer.

Requirements: Disk / Printer / 8K+

QSO VIC

Brush up on that code for your license. Practice code at any speed you choose. Many options. See "Collection HS" for more information.

Requirements: 16K

QUADRATIC EQUAT

Program to solve algebraic problems in the quadratic form. The program finds all roots, real or imaginary. Enter each coefficient, and press RETURN for results.

Requirements: None

ROMAN NUMERALS

Use this program to convert a decimal number from 1 to 3999 to a Roman numeral.

Requirements: None

SAFE CRACKER

Try to crack the combination to the safe. Start with numbers greater than 10 and try hard. If you choose a number too high, you will set off the alarm, so be carefull.

Requirements: None

=====

SPACE-WAR

You are in command of the ship with the only remaining 150 humans on board. You must find a suitable planet for them to survive on. The evil enemies, though, are still looking for you and they want to destroy you.

Requirements: 8K

STRANGE DICE

This is a multi faced dice roller. The computer will roll a dice with 6 faces (a standard dice) or any face. Enter the number of faces and press RETURN for your roll.

Requirements: None

THE BOMB

Watch the bomb fall and explode on the screen.

Requirements: None

THE ENTERTAINER

Music program. Load and run.

Requirements: 8K

UFO OFFENSE

Keep the aliens from destroying our galaxy. You have shells, lasers, and missiles to use to destroy the enemy.

Requirements: None

UTILITY ANALYSIS

Keep track of the heating and cooling costs of an all electric home. Compare monthly or yearly energy data, or determine annual heating / cooling costs.

Requirements: 8K / Printer optional

VERBOTEN

Each player chooses a letter. Each letter is worth 1 point, except 1 letter will double your score, and another letter will wipe out your score. The winner is the one with the most points at the end.

Requirements: None

VIC LABEL

Mailing label printer for the Vic. You can enter up to 6 lines per label. To start over, hit the 8 key, and to print, press 7. Press 1-6 to edit each line individually.

Requirements: Printer

=====

VIC-20 COLLECTION #9

ADDRESS & PHONES

Keep a list of 30 phone numbers and addresses in your Vic. Enter your data according to the instructions on the opening screen. Don't forget that if you update your list, you must re-SAVE the program each time.

Requirements: 3K+

ALPHA ATTACK

The letters are attacking the Earth! You must save it. As the letters fall toward the ground, type that letter to blow it away.

Requirements: None

BACKGAMMON

Play by standard rules. You are the "O", the Vic is the ".". Enter your moves by typing a number from 1 to 24. The upper left corner is 1, bottom left is 24. Enter from BAR with a "O", exit home court with a "25". Two players.

Requirements: None

BANNER SCREEN

Scroll messages across the Vic screen. Use this program alone, or as a subroutine in your own BASIC programs. X\$ is the variable that holds the message to be scrolled. Change this for your own use.

Requirements: None

BARGRAPH

Design bar graphs on your computer. Enter the number of bars you wish to display, their values, and a very good looking graph results.

Requirements: None

BOB'S BEAM

Enter latitude & longitude of your location. Screen output will give degrees to prefix, cities or countries. Printer output will give degrees to US, foreign or all world cities. See "Collection HS" for more information.

Requirements: 24K / Printer optional

BS GRINDER

Pseudocognitive organic fertilizer grinder, or how to create 50 cent phrases for speeches, reports and other uses.

Requirements: Printer optional

=====

CHUCK A LUCK PT1

Instructions for the next program. Load & run.

Requirements: None

CHUCK A LUCK PT2

Bet the dice. If the roll equals what you bet, you win some cash. For complete instructions, load "CHUCK A LUCK PT1" and run.

Requirements: None

CODEBREAKER-INST

Instructions for the following program. Load and run.

Requirements: None

CODEBREAKER-PROG

Try to break the number code generated by the computer. There are 4 different skill levels. For complete instructions, load "CODEBREAKER-INST"

Requirements: None

DEATH RACE

Use your joystick to move your man across the screen. You must eat as many hearts as you can in 3 minutes.

Requirements: Joystick

DEPRECIATION

Calculator for S/L, D/B & S/D in whole dollars or cents. Includes salvage value over a number of years.

Requirements: None

EXPRESS YES/NO

This program was designed to be used with the verbally handicapped for responding to yes/no questions. When the answer you want comes up, press the space bar. To reset the program, press F1

Requirements: None

FORECASTING

Enter the current weather conditions, and the Vic will generate a forecast to cover the next 8 hours.

Requirements: BK

FOUR IN A ROW-2

Try to get four in a row either horizontally, vertically or diagonally while blocking your opponent from doing the same.

Requirements: None

=====

FRUSTRATION

Enter a number from 1 to 6. Try to get the most number of points.
One player.

Requirements: None

GAMBLING BOXES 2

There are 3 boxes to choose from. Each one is worth a certain amount. You will pick one of the 3, and depending on the the value of the box, you pay taxes. The tax rate is from 25 to 75%.

Requirements: None

HI-B

Logic game. You must jump a peg on each move. Try to jump the most number of pegs before no jumps are left. Enter two numbers based on the pattern shown.

Requirements: None

HOTSHOT

Search the grid for your target. Take shots by entering a row, column. The Vic will tell you if you miss, come close, or nail the target.

Requirements: None

INDIAN STORY

Just for fun. Load & run.

Requirements: None

INVADER

Blast the invader with your cannon. Use the M and B keys to move, and N to fire. You have 100 shots to get the highest score you can.

Requirements: None

J/20 HEX P.

Up-load / Down-load SEQ files via Amateur radio or Modem. Allows program exchange under limited ASCII character set. Note: Change "TEXT" in line 26 to "J/20 HEX T." in the OPEN statement to load the SEQ file from disk. See "Collection HS" for more information.

Requirements: Disk only / 8K

J/20 HEX T.

Text file for "J/20 HEX P." program above.

Requirements: Disk only / 8K

KEND

Play a Vegas style game of Keno. Bet on any number from 1 to 80. Pay-off is based on the winning numbers.

Requirements: None

=====

KILLER KOMETT

Killer the insects. Use the K key to swat the insect as he goes by. Try to kill as many as you can.

Requirements: None

MATH TEACHER

Take your chances and see how well you know your math. You are tested on addition, subtraction, multiplication, and division.

Requirements: None

MEMORY

See how many numbers that you can remember. The Vic will generate a series of numbers, and you must type the in exactly. When you enter a series sucessfully, the program adds another number for you to remember.

Requirements: None

MIDNIGHT CLEAR

Music program. Load & run.

Requirements: None

MONEY MAD 8K

Play the market. You can choose between 6 different stocks to invest in, or make an independent venture. After each player completes his transactions, the stock report is updated. Choose the right stock, and you can get very rich, or loose your shirt.

Requirements: 8K

MOUSE HUNT

Search for an obnoxious mouse who is just a pain to catch! You must be within a certain distance to nail the mouse. You "jump" by typing a number from 0 and 360 representing the angle of your jump. If you are close enough, then splat.

Requirements: None

MULT CHOICE QUIZ

Create your own multiple choice quiz using this program. Run the program and answer the sample questions. Then you can modify the questions to suit your application.

Requirements: None

NAME GAME MUSIC

Music program. Load & run.

Requirements: None

=====

ONE SHOT

One shot label program. Make labels on single labels, on envelopes, or on standard fan fold mailing labels. This program prints each label as you enter it.

Requirements: Printer

PREC. DIVISION

Now you can divide 2 numbers without the computer rounding the answer. This precision division will divide until you stop it. To see this effect work, try entering 335 for the numerator, and 113 for the denominator.

Requirements: None

RTTY 16K INST

Instructions for "RTTY 16K PROG". Load & run.

Requirements: 16K

RTTY 16K PROG

Use the Vic to transmit and receive RTTY & Baudot for you. For complete instructions, load and run "RTTY 16K INST" See "Collection HS" for more information.

Requirements: 16K / TU

RUSSIAN ROULETTE

Are you game enough to play? Spin the chamber, and press RETURN to fire. You have 10 chances to fire. If you are lucky, you will survive.

Requirements: None

S.E. RND(6PH)

Random patterns using the superexpander. Load & run.

Requirements: Superexpander

SINNERS/SAINTS

There are 25 spaces on the screen. The Vic controls the "sinners" and you control the "saints". You must move around the board without getting captured by a sinner. To win, you move all of your saints so no sinners can capture them. Use U for up, D for down, L for left, and R for right.

Requirements: None

SPACE PODS

Destroy as many of the escaping droid pods in 60 seconds as you can. Use the A and D keys to move, and F1 to fire.

Requirements: None

=====

SPACE TREKER

Avoid flying your starship into stars. Move around with the joystick and find a starbase to dock with. Press the fire button to hyperwarp. You can only hyperwarp 3 times between docks.

Requirements: Joystick

STAR TREK

Music program. Load & run.

Requirements: None

SUPER SLOTS

Pull the lever, and see what happens. Use a joystick to control the Vic slot machine. Press fire to deposit a coin, pull down for odds, and push up to quit.

Requirements: Joystick

THE HANGMAN

Guess the word before they hang you. Enter letters you think are in the hidden word, and the Vic will tell you if they are or aren't. Guess the word before it's too late.

Requirements: None

TYPE A LETTER

Very simple word processor. This program prints out text a line at a time on your printer. When the first screen comes up, enter the mode you want to be in and press return. The program then has instructions on request.

Requirements: Printer

VIC AMARI

Logic game. Try to get more "stones" in your pit than the Vic. Part of the fun is trying to figure the logic of the game.

Requirements: None

WORD SEARCH PT1

Instructions for "WORD SEARCH PT2". Load and run.

Requirements: None

WORD SEARCH PT2

Word search program. Find 20 words in the grid of random letters. For complete instructions, load "WORD SEARCH PT1" and run.

Requirements: None

XMAS STORY

Fun time. Load & run.

Requirements: None

=====

VIC-20 COLLECTION #10

3D CIRCLES SE

The Vic will generate 3 dimensional circles using the Superexpander, and this program. Try 25, 55, and 300 as sample inputs to the prompts.

Requirements: Superexpander

3D TIC-TAC-TOE

Play tic-tac-toe on a 4x4x4 cube. Enter your moves with a 3 digit number. Example, enter 432 means level 4, row 3, and column 2. Try to get 4 in a row in any way possible to win.

Requirements: BK

BACH 1 - SE

Superexpander music program. Load & run.

Requirements: Superexpander

BANK SAVINGS

Keep yourself informed of your banking status with this program. This program will calculate interest earned, savings return, initial investment, retirement plans, average interest, and regular withdrawals.

Requirements: None

BANNER HEADINGS

Use your printer to make large banners for you. Enter your text in the program under the variable P\$. Use the variable P for magnification factor. P can equal 0 to 10.

Requirements: Printer

BAR GRAPH

Create bar graphs on the Vic. You can enter data for up to 10 bars per graph. Enter a letter or symbol for the bar, and enter the data for that bar. After all of your data isds entered, your graph will print on the screen.

Requirements: None

BINARY-DECIMAL

This program converts binary number to decimal and decimal to binary. Enter the number you want to be converted and press RETURN. The number will be converted, and displayed on the screen.

Requirements: None

CARS

Animated demonstration program. Load & run.

Requirements: None

=====

CDN.FUEL MILEAGE

Calculate your fuel mileage in mpg, or liters per 100 kilometers. For a description on how to enter data, press F7 when program runs.

Requirements: None

CHARGE

Music. Load & run.

Requirements: None

COLOR MASTER

Random color generator demo. Load & run.

Requirements: None

CRAZY VIC 8K

Vic card game for 1 player. Try to get rid of all of your cards before the Vic does. You must follow suit when playing your cards, but an 8 will change the suit.

Requirements: 8K

CRIBBAGE 8-K

Play according to Hoyle rules. One player with Vic.

Requirements: 8K

DEPTH OF FIELD

Shows hyperfocal distance as used in photography. Chart shows near & far values for focal length value, F-stop or distance.

Requirements: None

DIET HELPER

Keep track of your diet progress. This program stores your diet information on tape files for you to recall later. You can store a file of the types of food you are allowed to eat, the exercises you should do, and a calendar of your progress.

Requirements: Tape

DUNGEON ADV.

Try to get as much gold as you can in this simple adventure game. To win, you must move up through different levels of difficulty, and collect gold. There are obstacles in your way such as wolves, dragons, and giants for you to kill.

Requirements: None

ELIZA

Tell Vic all about your problems. Maybe the Vic can help you solve them with its wisdom. Enter text into the computer and press RETURN.

Requirements: 8K

=====

HAM CLOCK/CALEND

Use this program to keep track of time in the shack. The clock provides local time, and Universal time, and a countdown timer for station identification.

Requirements: None

HARMONICA

Let Vic help you learn to play the harmonica. The screen diagram tells you when to blow out and draw in, and which hole to use.

Requirements: None

INTEREST

Calculate the interest on your money with this program. The program calculates the simple interest or the compounded interest for any period. Enter the desired data and your answer will print on the screen.

Requirements: None

M/H REG CARDS

Keep track of the registration cards of a motel/hotel. Enter the state abbreviation, the number of guests, and the date they stayed. The program will total up all guests, and print them on the screen at the end.

Requirements: BK

MAGIC SQUARE

This program sets up a number matrix from 3x3 to 15x15 where any row, column, or diagonal line add up to the same number. Any matrix over 5x5 must be printed out on a printer.

Requirements: Printer optional

MAIL LIST 16K

Keep your mailing list in the computer. There is a maximum of 150 records with this program. You can print up to 6 lines per label, and you can save your files to tape for recall later. Functions are Instant label, Load, Print, Edit, Save & Write a list.

Requirements: Printer / Tape / 16K

MESSAGE DISPLAY

Generate messages using double height characters. Enter a message containing only letters and the Vic creates a set of double height characters and prints your message on the screen.

Requirements: None

MINE FIELD

You must move to the top left corner of the screen without hitting any mines. If you hit a mine, you die, but if you make it, a commendation is in order. Use @ to go up, / to go down, : to go left, and = to go right.

Requirements: None

=====

MTNS OF VENUS I

Instructions for the next program. Load & run.

Requirements: None

MTNS OF VENUS P

Land the venus lander on the surface of the planet. Use the joystick to maneuver the lander into position. Load & run "MTNS OF VENUS I" for complete instructions.

Requirements: Superexpander / Joystick

MUSIC SUBROUTINE

This program incorporates many musical and sound effects the Vic is capable of in one program. Run this program for a list and demonstration of these effects.

Requirements: 8K

NUMBERNAME

Number game for very young children. The program will print several of the same number on the screen, and at the prompt, you must type in the correct spelling of that number.

Requirements: None

OHM'S LAW

Ohm's law calculation program. Use this to compute volts, ohms, amps, and watts. This program is a great work saver.

Requirements: None

PATIENCE-1

This is a solitaire type of game for a Vic with 8K or more. This program is a loader for the next 2 programs. Load & run.

Requirements: 8K

PATIENCE-2

This is the instruction file for "PATIENCE-3". This program automatically loads the game when you are done reading the instructions.

Requirements: 8K

PATIENCE-3

This is the actual game of Solitaire. Get rid of all of your cards

Requirements: 8K

PHONE BILL SUM

Keep record of you phone use. Record date, city / location, state area code, phone number & total costs.

Requirements: None

PROG TEXT

View a program as it sits inside your Vic memory. Enter the starting address (usually the start of BASIC) and see what a program really looks like.

Requirements: None

=====

RTTY

Trans/Recv. RTTY & Baudot on the Vic. Split screen R/T. Select speed using the Commodore key and the function keys. Write WA9BVS for detailed information.

Requirements: 8K / TU

SEE FILE

Examine files on tape or disk. Enter the device number, the type of file, and if you want data to go to screen or printer.

Requirements: 8K / Printer optional

SPECTRUM COLORS

Answer quiz questions on the color spectrum. There are 3 answers for each question, and you must choose the correct one. You will receive a grade at the end of the quiz for your efforts.

Requirements: None

STAR CHART

Instructions for the STAR CHART/3 program. Load & run.

Requirements: 8K

STAR CHART/2

Initialization program for STAR CHART/3. Load and run.

Requirements: 8K

STAR CHART /3

Star patterns for the months of June, July and August. For complete instructions, Load STAR CHART and follow the directions carefully.

Requirements: 8K

T/R STATISTICS

Pearson or a student statistics. Results include values for N, T, XM, SDX, YM & SDY.

Requirements: None

TAPE DIRECTORY

This is a program to help you get the most from your tape drive. Use this program to load a specific program on a tape. Enter the program names in line 400 of the program. There is an example there for you to go by. Then save this program at the beginning of a tape. Load this program and select the actual program you want. The program will load the selected file.

Requirements: Tape

TAPE FINDER

Another tape aid similar to the above program. Enter your data of program names starting at line 200. WARNING! You must set N in line 100 equal to the same number as there are data statements.

Requirements: Tape

=====

THEATRE MANAGEME

Keep a running total of the box office receipts and consession sales. The program will generate from the data you input a manager listing, a per capita report, a box office report, a cashier YTD, and a managers report on YTD totals.

Requirements: 8K

VEGAS JACKPOT

Play the Vic slots. Enter your level, and the amount of money you want to play with. Hit any key to pull the lever.

Requirements: None

VIC CONTEST LOG

Field day QSO file. Files QSO's and checks for duplication of contacts. Load, Save, Print & Sort files.

Requirements: Tape / 8K

VIC SCREEN PRINT

Merge this routine at the end of a BASIC program. Gosub 60000 to it when you want a low resolution screen copy. Change variable 61=4074 if you have 8K or more memory in your Vic. If you have no memory expansion or 3 K expansion, make 61=7568. 61 is in line 60015

Requirements: Printer

WORD

Full featured, disk based word processor. You must have at least 3K of extra memory but you can not use a Superexpander cartridge.

Features include: Variable Margins, Centering, Word Wrap, Right & Left Margin Justifaction and Global Search & Replace. Complete instructions are given in WORD. Simple to learn and use. Very well done.

The WORD3 module can be set-up for many different printers, from normal Commodore printers to Dasiy Wheel RS232c type printers. The program is set to work with a normal serial Commodore printer such as an MSP 801 (device 4) or a Gemini 10X with a Cardco +6 interface. To effect printer changes, see the REM's in WORD (list lines 264 on).

There are two "HELP" screens. Use F1 to enter the help mode.

WORD is the loader/driver program.

WORD2 is the main program.

WORD3 is the printer driver.

WORD4 saves & loads the text.

WORD5 performs the global search & replace functions.

WORD DEMO is a sample file for the WORD processor.

Requirements: Printer / Disk only / Extra Memory except Superexpander

=====

VIC-20 COLLECTION #11

1040EZ

Aid for filling out the new 1040ez form. This program does all of the calculations for you. You must enter the information on the proper lines.

Requirements: None

ADDRESS LABELS

Print address labels out on your printer. The program will let you enter files and save them to tape or disk, or directly to the printer one at a time.

Requirements: Printer

ALPHA-NUM-COMPUT

Assign each letter of the alphabet a number, then type any 5 letter word. T Vic will return a value for the word.

Requirements: None

BACH II - BK+SE

Music program. Load & run.

Requirements: BK AND Superexpander

BANK ROBBERS

Shoot the bank robbers with your gun. Control the shot with the "<" and ">" keys. You must nail 10 robbers to move to the next level. Each level requires your aim to improve.

Requirements: None

BASEBALL-BK

Replay the world series. Use Q for fastball, W for change-up, E and R for curve, T for knuckle ball, and Y for slider. To bat, press the fire button.

Requirements: BK / Joystick

BILL TRACKER

Keep track of all your bills. This program will do this and store the information on data files on tape. To make selections from the menu, use the function keys 1-5.

Requirements: None

=====

BIN PROGRAM INST

Instructions for the next program. Load & run.

Requirements: None

BIN PROGRAM LIST

Binary program lister. Organize your program library by sorting the needed information in alpha order on to a tape or disk file.

Requirements: 8K+ / Printer

BINGO CALLER

Use the Vic to call out the bingo numbers. Press the fire button on your joystick to call a number, and pull the stick to the left to end the game.

Requirements: Joystick

CALCULATOR 8K

Turn your Vic into a calculator. Enter calculations just like you would in a regular calculator. You have 9 memories which you can use to do many types of special calculations.

Requirements: 8K

CHART DEMO - SE

Graphics demonstration. Load & run.

Requirements: Superexpander

CHASE

Move your box around the screen and eat the star. Use A to move left, D for right, W for up, and X for down. Press S to end the game.

Requirements: None

CHECKBOOK I

Use this program to keep your checkbook in order. Update your balance and print it out for comparison with your monthly statement. The program saves your data on tape files for permanent record.

Requirements: Printer optional

COLORNAME

Quiz for the youngsters. Try to guess the color on the screen and type it in the computer. If you are right, the computer tells you so.

Requirements: None

CRAPS

Shoot some craps with Vic. Throw the dice. Make your point and win!

Don't crap out.

Requirements: None

CREDIT CARD 24K

Simple data base for your credit cards. Load, review, print, enter & save.

Requirements: 24K / Tape

=====

FOR 451111

Have fun with secret messages. Type in a message and press record and play on tape. Your message will be encoded on the tape. Only a person with a copy of this program can load and read your messages.

Requirements: None

HAM ANT CALC

Designers aid for Dipole, Bazooka & Long Wire antennas. Enter frequency desired. Diagram will be displayed with the proper lengths in feet.

Requirements: None

HAM LOG SUPREME

Log book for QSL's. Tape based files include Call, Name, QTH, Frequency, RST & QSL.

Requirements: Tape

HOLD OUT HARRY I

Instructions for the next program. Load & run.

Requirements: None

HOLD OUT HARRY P

Go after Harry inside your warehouse. Beware of the bombs. Grab all of the cash you can and nab Harry. For complete instructions, load "HOLD OUT HARRY I".

Requirements: Joystick

HOUSE ON HILL/SE

Graphics and sound demo. Load & run.

Requirements: Superexpander

KRABONN FIRE!

Demonstration program. Load & run.

Requirements: None

LATI/LONG

Create tape data files for latitudes & longitude of cities you enter. To be used with "STATE SCAN 1" & "STATE SCAN 2".

Requirements: Printer

LATI/LONG DATA P

Printer driver for files made with "LATI/LONG".

Requirements: Printer

LIFE CHANGED

Answer all of these questions with a yes or no answer. The program will tell you if you have had any major changes in your life in the last 2 years. Your answers will determine if you are healthy or not.

Requirements: None

=====

LIGHT MY LIFE

Music program. Load & run.

Requirements: None

LOTTERY

Will generate numbers for Daily, Big Four & Lucky Lotto.

LOWCASE

Test your knowledge and speed of typing. Type the correct lower case character and the Vic will tell you if you are right or wrong.

Requirements: None

MAIL RECORD 16K

Keep a running record of what you mail and to whom. Enter new data by making selection 4 from the menu and follow directions. Store your mailing records on cassette files, and produce a hardcopy on your printer.

Requirements: 16K / Printer

MATH HELPER

Use you Vic as a simple 4 function calculator. Select the function you want from the menu and enter the numbers. The Vic comes up with the correct answer every time.

Requirements: None

MENU PART-1

Loader for MENU PART-2. Load & run.

Requirements: Disk

MENU PART-2

Disk menu program. Load any program file on a disk with just a couple of keystrokes. To use this menu, you must load "MENU PART-1" FIRST!

Requirements: Disk

MICROMON INST

Instructions for MICROMON, an advanced machine code monitor. Load & run.

Requirements: Disk

MICROMON LOADER

Loader for MICROMON PROG. Load and run.

Requirements: Disk

MICROMON PROG

Advanced machine code monitor. The complete command summary can be found by loading and running "MICROMON INST"

Requirements: Disk

NEW YORK

Music program. Load & run.

Requirements: None

=====

NUMBA GAME 3K

Guess the number the Vic is thinking of in as few tries as possible. Type in the number and follow the clues the Vic gives you.

Requirements: None

POPSHOT

Fire shots and try to shoot through the holes. Press the 1 key to shoot your gun. If you miss the holes, your score drops dramatically.

Requirements: None

PRINT.SET

If you have a Gemini 10X printer you must use a series of tedious escape codes to make use of the special functions. With this menu driven program, you can select several different modes with just a touch of a key.

Requirements: None

PRINTABLE MATH

Printable math problems for use in class or practice. Enter the number of digits you want in each problem, then type of problem you want.

Requirements: Printer

READ TEXT

View memory inside the Vic. Look at a BASIC program as it actually sets in Vic's memory.

Requirements: None

REAL TIME TIMER

Use your Vic to time events. You can set up a delay of seconds, minutes, or hours. At the end of the timing delay, the Vic emits an alarm to warn you the time has ended.

Requirements: None

ROULETTE

Are you game? There is one bullet in the chamber. You get 10 chances to fire the weapon. Try this only if you are very bold!

Requirements: None

SCREEN AJUSTER

Use this program if the screen is not centered on the TV or monitor. Move the screen where you want it using the CRSR keys, and press 0 to quit. Press SPACE to reset the screen to the default positions.

Requirements: None

SIMON

Repeat the color sequence that SIMON generates by pressing the appropriate function key. You must duplicate the same sequence that Simon generated.

Requirements: None

=====

SKY RUNNERS I

Instructions for the next program. Load and run.

Requirements: Joystick

SKY RUNNERS P

Fly your aircraft through the sky. You must get the enemy planes by running directly into them. You cannot run into theirs or your own trail, or the sides.

Requirements: Joystick

SOLITAIRE BK

3 versions of "Solitaire" are included in this one program. As you step through the instructions inside the program, the 3 versions are described in detail as well as all commands.

Requirements: BK

SOUND MIXER

This sound program lets you play with the Vic's music channels by turning them on and off at your command. You can set each one to a certain value and change the others for unique sounds.

Requirements: None

STATE SCAN #1

Gives bearings and distance between two points with printer output.

Requirements: Printer optional

STATE SCAN #2

Prints bearings based on the data file made by "LATI/LONG".

Requirements: Printer

STOCK MARKET

Stock market forecasting uses short selling statistics for five weeks, accumulated on a tape data file. List 10 - 55 for more information.

Requirements: None

STOCK-CALC

Analyze your stock holdings and see if your stocks are profitable. Enter the values for your stock now and when you bought it and see if profit or loss has occurred.

Requirements: None

SUPER BIBLE QUIZ

There are 10 questions on Bible facts in this quiz. The answers are 1 word and must be correctly spelled.

Requirements: BK

SUPERDEMONSTATIO

Watch Vic show off. Load & Run.

Requirements: None

=====

T SHOOT

Blast the stars out of the sky. Press any key to shoot your missiles.

Requirements: None

TAPE FILE

This program will keep track of your albums and cassettes for you. You must enter the data for in DATA statements. When you enter your own data, follow the same format as the examples already in the program.

Requirements: None

TERM MARK

This program is designed to help keep an average of your students grades. You can have unlimited categories and limited number of grades per category. Enter the numbers at the appropriate times and the average will be displayed on the screen.

Requirements: None

VIC FILEMAKER

Simple data base for tape users. Enter such things as addresses and phones, recipes, etc and store them on tape for later recall and processing.

Requirements: Tape

VIDEO TYPE WRIT

This program creates a "dead" keyboard. With this program, you can type messages directly on the screen without getting annoying error messages. This is useful for a video message board, or other applications.

Requirements: None

XMAS CARD I

Demo program. Load & run.

Requirements: None

XMAS CARD P

Demo program. Load & run.

Requirements: None

XMAS TREE

Demo program. Load & run.

Requirements: None

=====

VIC-20 COLLECTION #12

1ST ADDITION

Quiz your math skills with this program. Answer the questions by typing in the answer and pressing RETURN. If you need help, type H and return. If you answer the question after asking for help, you only get half credit.

Requirements: None

A.P.R. DIRECT RA

Calculate the annual percentage rate on a loan. At the first prompt, enter the number of payment periods per year. Next you enter the finance charge in dollars, the amount financed and the number of payments. After all of this is entered, the program comes back with the annual percentage rate for the loan.

Requirements: None

ACCOUNTS

Instructions for "ACCOUNTS-BUSINESS", "ACCOUNT-AGENCY" & "ACCOUNT-RETAIL". Each program includes: Yearly or Monthly Reports, Income, Taxes paid, Auto, Education & many others.

Load and run this program for more details.

Requirements: 8K+

ANIMATION DEMO'S

4 demonstrations in this program. Load & run.

Requirements: None

ARITHMETIC

Test skills in simple addition, subtraction, multiplication, and division. When you finish a series of problems, your grade appears on the screen.

Requirements: None

BINARY-DECIMAL

Convert from binary to decimal. Enter an 8 digit binary number by typing each digit and pressing the return key. After all of the binary number is entered, then the decimal equivalent will be calculated and displayed.

Requirements: None

BIRTH RECORD

Keep a computerized working file of your family's birth records. Use the F1-F5 keys to select items from the menu screen. Save your files out on tape for a permanent record of births.

Requirements: Tape

=====

BIT FINDER

Use this utility to examine and see which bits are on in a memory location. No more guessing using the AND / OR functions.

Requirements: None

BUSINESS FILES

Database. Store four lines of information per record per data statements. List line 990 on for more information.

Requirements: 16K / Printer

CHECKBOOK BAL

Use this program to make balancing your checkbook a breeze. Enter all checks and deposits and compare the balance.

Requirements: None

CHECKERS

Play a little checkers with Vic. Enter your moves via a coordinate system set up by the numbers along the side of the board. Type ROW,COLUMN and press RETURN. This version no longer cheats!

Requirements: None

CODE SUBROUTINE

Place this subroutine in your programs to avoid unauthorized access. You must enter the set of numbers properly to gain access.

Requirements: None

CRAPS

Whip out the dice. Place a bet, and throw the dice. Make your point, and don't crap out. Make your bet and the computer takes over and rolls from there.

Requirements: None

CRAPS - 2

Another version of the classic dice game. Place your bet and throw the dice. Make your point and win some cash.

Requirements: None

DAILY JOURNAL

Enter the Pass word "SECRET CODE" then press F1. You can Read, Write, Display & Save your data file to tape.

Requirements: Tape

DENIEL'S DOOR

Demo program. Load & run.

Requirements: Superexpander

DIGI-DESTRUCTION

Press "Z" to increment your number, press "B" to destroy the advancing number.

Requirements: None

=====

EGG CATCH

Catch all of the falling eggs in your egg basket. Move left by using the J key, and move right by using the K key.

Requirements: None

EQT CLASSIFIC

Program is used to read pairs of equations and determine their orientation.

Requirements: Printer optional

EQUITY YEILDS

This program calculates the before and after taxes yield of stocks and bonds. Enter the required information and your results before and after taxes are printer on the screen.

Requirements: None

GALACTIC CODE

Create coded messages with this program. You can code and decode other coded messages with this program. To start the program, you must type the secret words "SPY CODE".

Requirements: None

GRADE REPORT

Keep track of your students. Average 10 grades for upto 50 students. Each grade can count a certain weight towards a final grade in the course.

Requirements: None

HANGMAN

Try to guess the word before your friend hangs. Type the letter of your choice. No need to press the return key.

Requirements: None

HEX 5.0

Modem terminal program for uploading / downloading. The functions supported by this program are, save, upload, terminal, directory and clear buffer.

Requirements: None

HISTROGRAM PLOT

Demonstration program. Load & run.

Requirements: None

HOMETERM

Modem downloader. Pick from Save to Disk, Printer or both.

Requirements: Modem / BK / Disk

HOMETERMTAPE

Same as "HOMETERM" but tape based.

Requirements: Modem / BK / Tape

INSURANCE FILES

Know everything about your insurance whenever you need to know. This file program keeps track of your insurance policies and agents, and other pertinent information concerning insurance. To enter your own data, list 990-1000 to see the format for data entry.

Requirements: 16K

INVADERS

Shoot the invader down before he shoots you. Use a joystick to control your gun across the screen.

Requirements: Joystick

LASER GUNNER.VIC

You are on the left of the screen. You must shoot the enemy before he shoots through the wall and nails you. Move your man by using a joystick.

Requirements: Joystick

LIBERTY BELL-SE

Graphics and music demo program. Load & run.

Requirements: Superexpander

M/L SCR PRINT

This is a machine code screen dump program. To use the program, delete lines 1-20, and merge the remaining to your program. When you want a screen dump, insert a GOSUB 5000.

Requirements: Printer

MATH-ED1

Test on simple adding and subtracting. There is also a story problem included in this drill. Type your answers to the questions and press return.

Requirements: None

MATH-ED2

Very similar to the above program, but with different problems.

Requirements: None

MURDER 1

A rich millionaire has been murdered. You are instructed to find the killer. You are given 3 clues and 3 chances to accuse the right person. Enter your guesses in and press the RETURN key.

Requirements: None

MUSIC CALCULATOR

This is a chart of the values of musical notes on a TI 99/4, Atari, Vic and C-64. To get the same note on each of these machines, you would have to POKE their machines with the number in their column.

Requirements: None

NAMES

Animation, demonstration program. Load & run.

Requirements: None

NUKE BOMB

Guess the special code number and disarm the Russian nuclear attack. The Vic generates a number and you try to guess it. The program lets you know if you are high or low.

Requirements: None

OTHELLO/PRINTER

Enter a letter / number, no return. Try to get as many "coins" filped to your side to win. Program will ask if you want a print out of the finished game.

Requirements: BK / Printer optional

PAYCHECK VERIFY

Use this program to calculate your take home pay from your gross pay. Enter your gross pay, and if you pay Social Security, and allowing for reasonable error, you net pay is calculated.

Requirements: BK

PHONE DIR

Store all of your telephone numbers in this program. Information is stored in DATA statements inside the program. Remember if you update the data, you must re-SAVE the program.

Requirements: None

ROAD RALLY

Drive your car and see how far you can get. Use the CRSR up/down to go left, and the CRSR left/right to go right. Try to stay on the road as accidenet are hazzardous to your health.

Requirements: None

RULE OF 78THS

Calculate unearned finance charges upon repayment of a loan.

Requirements: None

RUNIC CHAR.

Tolkin character set. use this program to read text from the Hobbit Triology and convert them to english.

Requirements: None

SCRATCHING

Use this utility to help scratch disk files easier. This replaces the fun of trying to remember all of the bizzare DOS commands.

Requirements: Disk

SCTST-VS-ALNS -I

Instructions for the next program. Load & run.

Requirements: None

SCTST-VS-ALNS -P

Get all of the scientists across the river safely. You must use logic to figure out this brain teaser. The complete instructions can be found in the above program.

Requirements: None

=====

SOCIAL SECURITY

This program calculates the Social Security benefits you are eligible for at age 65 depending on what earnings you have contributed.

Requirements: None

STARWARS XMAS

Graphics demo program. Load & run.

Requirements: None

TAG

2 player tag game. One player uses a joystick and the other one uses the keyboard for control. You chase your opponent and make him "it". When you get somebody "it", you score.

Requirements: Joystick

VIC BUSINESS

Enter Regular deposits, Term of loan, Principal on loan, Depreciation rate & amount & Salvage value.

Requirements:

VIC LINE EDITOR

Very simple word processor. Enter a line of text at a time. Run the program and press F7 for a list of commands.

Requirements: Printer

VIC MAIL REVISED

Simple cassette based mailing list program. Enter and save your files for Misc, First name, Last name, House number, Road, City, St. & Zip.

Requirements: Tape / Printer

VICKY INST

Instructions for the next program. Load & run.

Requirements: None

VICKY PROG

Let Vicky answer your complex questions. Enter your problem into Vicky, and she will try to give you an honest answer.

Requirements: None

WHO-WHOM QUIZ

Check your grammar knowledge. This program will give you sentences and you must use "who" or "whom" in the proper places.

Requirements: None

WISDOM

Sparks of wisdom from an unknown author. Load & run.

Requirements: None

=====

Adventure GA

Adventure for Vic-20, C-64 & Pet

Note: Adventure GA is available on disk only.

The GA adventure disk will run with a Commodore 64, Vic-20 (with 16K of memory) or the PET series computers.

Simply load "BOOT",8 and run.

The boot program will ask which system you are using, answer 1, 2 or 3, "BOOT" will load the proper version in and start your adventure.

You will start at the well house by the road, explore the underground caverns finding gold, birds, magic rods and many other items needed to stay alive and complete your quest.

Returning to the well house and dropping the valuable items found will add to your score, typing "SCORE" will tell you how well you are doing.

Other "HINTS" are to be found when you read the help screens at the start, read them carefully before you start.

Adventure is one of the earliest interactive game written so the user could "talk" and "guide" their "clone" using two word commands.

There have been many games of this type written since, but few can top the original. Full instructions are in the program it self. Enjoy

The two adventures below were written for the PET series computers, but will run on the Commodore 64 without change.

Vic-20 users will need to make many changes and reduce memory usage in order for the programs to work.

Requirements: Pet / C-64 / Vic-20 with 16K memory

CASTLE ADV-32K

Explore the castle with care, many monsters lurk within.

Requirements: Pet / C-64

LOST GOLD ADV-16

Find the forgotten gold in the old mine. Use noun / verb commands.

Requirements: Pet / C-64

=====

HAMFEST SPECIAL

C-64 Programs on "HS"

AIR INDUCTOR 64

Design air-core inductors for RF circuitry. Enter wire & form diameter and the desired inductance in microhenries.

Requirements: None

DB CALC.64

Calculates the decibel gain of a value. Enter Observed voltage & Reference voltage.

Requirements: None

DUPE 64

Field day contest log. Enter Call. Load or Save from tape. Written by Dino / KR9V.

Requirements: Tape

E. BRS 64

Bearings and distance calculator. Enter Latitude & longitude. Result gives distance in miles & kilometers, bearings in degrees.

Requirements: Printer optional

ELECT. FORMULAS

Functions include: Solution of an R network, P-P to RMS, RMS to P & P-P, AC circuits, Single layer coil, Capacitance of parallel plates & Wire chart tables.

Requirements: None

HAM FORMULAS 64

Formulas include: Resistance in parall, Capacitors in series, Inductance of a coil, Transformer voltage ratio, Transformer current ratio, Transformer efficiency, Inductive & Capacitive reactance, Impedance in series & parallel, Impedance matching, Q of a component (capacitor or inductor) & Q of a series or parallel circuit.

Requirements: None

INTERMOD

Calculates Intermodulation Distortion for upto 150 frequencies against IM product. You must also enter how close the harmonic must be. Results may be saved to tape or disk.

Requirements: None

=====

J20 MORSE R/T

Transmit & Receive CW with use of a home built TU. Schematic for TU is at the end of this "HS" listing.

Transmission speeds are good from 5 to 50 WPM. "Canned" messages are included in the program, or change them to your liking. DO NOT make changes other than within the message area or CW timing will suffer.

See "J/20 schematic" for detailed operating instructions.

Requirements: Home Built TU

L PASS FILTER 64

Design a low pass, constant K filter. Enter cutoff freq. in hertz & terminating resistance.

Requirements: None

OHMS LAW

Formulas to find AC & DC Ohm's law. Four possible unknowns are E, W, Z & I.

Requirements: None

PI NETWORK DESIG

Computes the components of a PI-network to match two impedances. Enter 1st & 2nd impedance, system Q & frequency.

Requirements: None

QUAD ANTENNA 64

Custom design your own high gain quad antenna. Enter center frequency in megahertz. Designs a two element cubical quad.

Requirements: None

REG'D SUPPLY

Design aid for many common types of power supplies including: Basic transformer & bridge, Regulated or a combination of both. Enter output voltage, current & ripple voltage. Results give simple schematic of required parts & valves. There are many variations within each section. Well done.

Requirements: None

RES. FREQ 64

Find resonate frequency of LC network or inductance or capacitance based on frequency.

Requirements: None

=====

RTTY-C64 INST

Load & run. Full instructions for "RTTY-C64 PROG".

Requirements: None

RTTY-C64 PROG

Transmit & receive ASCII (110 or 300) or Baudot (60 or 100).

Function keys:

F1 Toggle REC/TRAN operation modes

F2 Restart program

F3 List & print these functions

F4 Printer on/off

F5 Send one of the 10 pre-programmed messages

F6 Load a message (0-9) with text - hit F1 when done

F7 Send a pre-recorded SEQUENTIAL disk file

F8 Clear screen during receive

CONTROL E will return you to receive after message is transmitted

CONTROL (ARROW-LEFT) Terminates the transmission in progress and return you to receive

See RTTY Hookup for connection instructions.

Also read "HELPING HINTS #10" for added information.

Requirements: TU

T.V. SATELLITES

Calculates the position (Expressed as true compass bearing and altitude) of any satellite which is in geostationary orbit. Enter your Latitude & Longitude in line 260 to your present location.

Requirements:

VOLTAGE DIV. 64

Design a simple resistance voltage divider. Enter reference voltage, current & center voltage. Results give wattage & resistances.

Requirements: None

YAGI 64

Design a 10 element Yagi antenna. Enter freq. in MHz. Results give element length in inches. Elements 1 & 6 are given in meters. Possible bug...

Requirements: None

=====

HAMFEST SPECIAL

Vic-20 Programs on "HS"

AIR INDUCTOR

Design air-core inductors for RF circuitry. Enter wire & form diameter and the desired inductance in microheneries.

Requirements: None

BOB'S BEAMS

Program is designed to give you a print-out of Beam Headings from your QTH to: US, FORIEGN or ALL WORLD CITIES. It will also tell you the beam heading to PREFIX, CITIES or COUNTRY if you tell it what you want.

If your QTH is not in the program, you will be asked for your Latitude & Longitude.

Requirements: 24K / Printer optional

CALL SEARCH

Search, Update & Print Data. Search by call. Information is entered into DATA statements within the program as Call#, 1010#, Date, Name, City & State. The program must be Re-Saved after changes are made.

Requirements: Printer optional

CODE PRACTICE

CW word in five letter groups. Select AUTO mode or enter your own practice speed. Letters are shown on screen as sent.

Requirements: None

COVERAGE PREDICT

For FM & TV channels 2 - 6. Input Antenna height, Terrain correction, ERP in KW & Field Strength in DBU/M. Result is given in Radius per Miles.

Requirements: None

CW KEYBOARD

Enter the WPM rate, then type the message to be sent. Pressing F1 will return you to the menu, F8 will send random code.

Requirements: None

DECIBEL CALC.

Calculates the decibel gain of a value. Enter Observed voltage & Reference voltage.

Requirements: None

=====

DUPE

Field day contest log. Enter Call. Load or Save from tape. Written by Dino / KR9V.

Requirements: Tape

E-BR6

Bearings and distance calculator. Enter Latitude & longitude. Result gives distance in miles & kilometers, bearings in degrees.

Requirements: Printer optional

ELECTRONICS 1

Calculates X_L , X_C , F_r , Z , C for F_r & L for F_r .

Requirements: None

FREQ COORD VER2

Frequency coordination provides functions of: Propagation (in ERP or Distance), Intermod & Distance.

Requirements: None

HAM CONTEST LOG

Dup search, Log contact & Print or list Log. Search by Call.

Requirements: Bare Vic or 3K only!

HAM FORMULAS

Formulas include: Resistance in parallel, Capacitors in series, Inductance of a coil, Transformer voltage ratio, Transformer current ratio, Transformer efficiency, Inductive & Capacitive reactance, Impedance in series & parallel, Impedance matching, Q of a component (capacitor or inductor) & Q of a series or parallel circuit.

Requirements: None

J/20 HEX P.

Read, Save, Encode & Decode in Hex. Allows transmission of programs via Ham Radio or Modem. Change "TEXT" in the OPEN statement in line 26 to "J/20 HEX T." to correctly load file.

Requirements: BK+ / Disk

J/20 HEX T.

Instruction sample file for "J/20 HEX P." Be sure to make correction above to read this file.

Requirements: Disk

=====

J/20 REC/TRNS

Transmit & Receive CW with use of a home built TU. Schematic for TU is at the end of this "HS" listing.

Transmission speeds are good from 5 to 50 WPM. "Canned" messages are included in the program, or change them to your liking. DO NOT make changes other than within the message area or CW timing will suffer.

See "J/20 schematic" for detailed operating instructions.

Requirements: Home Built TU / Bare Vic Only!

LD PASS FILTER

Design a low pass, constant K filter. Enter cutoff freq. in hertz & terminating resistance.

Requirements: None

QSO DIRECTORY

Enter Call, Name, Date, Mode, Band, QSL & Edit data. Place information in DATA statements starting at line 990.

Requirements: 16K

QSO VIC

13 WPM code practice program. Fetures include: Change WPM, Random QSO text, Write text, Save & load text from tape.

Requirements: 16K

QUAD ANTENNA

Custom design your own high gain quad antenna. Enter center Frequency in megahertz. Designs a two element cubical quad.

Requirements: None

RESON.FREQ.FORMU

Find resonate frequency of LC network or inductance or capacitance based on frequency.

Requirements: None

RTTY - VIC 20

Transmit & receive ASCII or Baudot. Station ID, CQ, QTH in "canned" messages. Function keys toggle operation modes. See RTTY Hookup for conection instructions.

Requirements: 8K / TU

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RTTY 16K-INST

Instructions and loader for "RTTY-16K-PROG" below. See RTTY Hookup for connection instructions.

Requirements: 16K / TU

RTTY-16K-PROG

Transmit & Receive ASCII or Baudot. Change baud rate. Memory control. Send the transmit or receive buffer. "RYRY" test. Station ID, CQ, QTH in "canned" messages. Many more message buffers changeable within the program.

Function keys toggle operation modes. Save & Load memory files to Tape. Many other "Bells & Whistles" See RTTY Hookup for connection instructions.

Also read "HELPING HINTS #10" for added information.

Requirements: 16K / TU

SUNRISE/SUNSET

Enter latitude & longitude of your location, month & date and sun altitude. Results in Sun up & down in GMT. 12 or 24 hour modes.

Requirements: Extra memory

VOLTAGE DIV.

Design a simple resistance voltage divider. Enter reference voltage, current & center voltage. Results give wattage & resistances.

Requirements: None

YAGI

Design a 10 element Yagi antenna. Enter freq. in MHz. Results give element length in inches. Elements 1 & 6 are given in meters. Possible bug...

Requirements: None

=====

RTTY HOOK-UP

USER PORT CONNECTIONS FOR T/U HOOK-UP						
PROGRAM	REC	IN	XMIT	OUT	GROUND	T/R TOGGLE
RTTY-C64-PROG	B	& C	M		A	D
RTTY - VIC 20	B	& C	M		A	7
RTTY-16K-PROG	B	& C	M		A	7

A T/U either commercial or home-made is required.

Commercial units from KANTRONICS or AEA have been used with good results.

Also read "HELPING HINTS #10" for added information.

=====

J/20 SCHEMATIC AND OPERATIONS INFORMATION

The following prosigns are implemented with J/20 Morse on both VIC-20 & C64 versions:

AR =)	KN = +	SK = -
AS = @	BK = ‡	BT = =

Function Keys 1 - 8 operate as follows:

F1 = CQ Message	F2 = His call / name
F3 = His call DE your call	F4 = QTH
F5 = SO HOW CPY, etc.	F6 = RIG message
F7 = DE your call	F8 = Compose/Send toggle

Trans/Recve Toggle = CTRL/ARROW-LEFT or Shifted Return.

J/20 HOOK-UP TO USER PORT PIN OUT

REC IN - pins B & C
 GROUND - pin A
 XMIT OUT - pin M

=====

Helping Hints #1 : Reset

Ever load a program and get a ?LOAD ERROR or ?OUT OF MEMORY error only to find later the NEW & CLR commands didn't reset the memory pointers or a section of memory was protected for use with a special character set?

Most people will use the power switch to "reset" the machine to its proper starting locations, UGH!!! Your power supply will one day go out with a bang or wisp of smoke. Scrap one computer!

This untimely death can be avoided and the memory problem cured in two ways. One is to type SYS(64802) "RETURN". This is the operating systems power on reset vector. It also hard to remember. The other way is to make or purchase a reset switch.

The hardware reset lines are available on three I/O ports on the Vic-20. One on the memory expansion port pins X & Z, on the user I/O port pins 1 & 3 and the serial I/O port pins 2 & 6. Pulling these pins low, (grounding them), will cause a hardware reset of the system. Construction of a reset button is easiest on the serial port.

Parts required are a 6 pin din plug, a normally open push button and some knowledge of soldering. **WARNING:** Improper connections may cause damage to the computer. If your not sure, get help first!

Connect one leg of the push button to pin #2 of the din plug, the other leg to pin #6. Reassemble the din plug. Testing is easy. Turn on the Vic and wait till you get the normal power up message. Plug your handy work into the serial port being careful to note the plugs proper direction of insertion. Tap the push button quickly while watching the screen. If all is well, the screen will flash and return with the normal power up message. All memory has been reset to normal starting locations.

Now all you have to do is tap a button to be sure your memory is clear. This will also restart a cartridge game and erase any basic program from memory, almost.

The Vic has a strange way of seeing how much memory it has for use. First it looks at its start of memory location, takes what it finds there, stores it, places its own test number in its place, checks to see if that number is there and if the number is correct, makes note of that fact and then proceeds to replace the number it removed in the first place, then does the same thing with the next locations until the test fails. Simple right? What all this means is the only locations that are changed are the memory pointers and the first three bytes of basic. I said it was strange.

You Commodore 64 owners will find this information, including the reset button, will work the same way for you.

NOTICE

If you don't want to make the reset switch or can't find the parts, we now have them ready to use. Order: DINSET (\$5.00) from Public Domain, Inc. 5025 S. Rangeline Rd., West Milton, OH 45383 or call (513) 698-5638 / (513) 339-1725

DINSET

\$5.00

Reset your Vic-20, Commodore 64, 1540 or 1541 Disk Drive without destroying your power supply. Simply install DINSET into serial port of your computer or disk drive. Press button momentarily to reset computer and/or disk drive. Use DINSET with cartridge games to reset high score or restart game. When used with Basic, memory may be reset to starting locations. Why? Many programs protect sections of memory. A RUN/STOP RESTORE may not reset top of memory pointers causing further programs to load improperly or fail. This warranty is limited to product only. Public Domain, Inc. will not be responsible for damage to hardware or loss of software caused by use or misuse of this product.



Serial Port

Reset Button

from
PUBLIC DOMAIN, INC.

=====

Helping Hints #2 : Clean Screen

Tired of looking at wavy lines on your TV screen? There are a few simple things you can do to help, if not cure, the problem.

One is to get a toroid (ferrite loop) about 1 1/2 to 2 in diameter. Loop the cable that connects to you TV switch box though the toroid three or four times. Leave about 6" of cable to plug back into the switch box. What you will have done is to 'trap' the computers trash signal that rides on the sheild of the output cable. It really helps, try it!

Another clean up trick is to replace the switch box with a 75ohm to 300ohm balun. You can get them at most any antenna parts store. The main thing here is to correct any mismatch between the computer and TV. Your cable from the computer and the balun input are different connectors. You will need to make an adaptor to connect them. Radio Shack has the parts or there is one already made up that can be found at your local video tape recorder stores. ←

The last correction, if all else fails, it to open the computer (and void your warrenty.). Under the little square box with all the holes in it are two, very small pots. Connect the computer as normal, then with a small, PLASTIC screwdriver adjust the pots for best picture. Be sure to have sound of some kind going at the same time. The best picture may not produce the best sound. You'll have to 'play' with the pots to get the best of both worlds. Do not try this if you are unsure of what you are trying to do. A computer without a picture is very hard to program! This works with the Commodore 64 also. You people with a monitor can improve your picture with this trick as well.

To cure a bad case of the jitters on the Vic, POKE36864,133 .

P.S. Did you know there are four different Vic-20s? The forth generation does NOT have an internal 5vdc regulator, ie no heat problem. You will know if you own one by the power transformer connector. Its a DIN plug with four pins in it. A note of warning. The plug can be plugged in 90, 180 and 270 out of phase with the connector. Doing so will smoke your Vic or C64.

Hope these ideas are of help. WIM '83

=====

Helping Hints #3 : The Bouncing EEE's

Pressing the 'E', 'S', 'A' or other keys more than once and sometimes getting 'eeee ee' or ' e '? Then its time to clean your keyboard. Its very simple to do, all you need is a new PENCIL eraser, some cotton balls and some completely denatured alcohol (NOT rubbing alcohol!).

Remove the three screws under the front of the keyboard, remove the cover, disconnect the keyboard connector and the LED plug. Flip the cover over on a soft cloth. Unsolder the shift lock switch and remove all those little screws.

Lightly wet a cotton ball with the alcohol and carefully swab the rubber caps on the bottom of the key board. Set this aside to dry. Using the same cotton ball, clean any dust from the PC board you removed from the keyboard.

When the PC board is dry lay it flat on a table. Using the PENCIL eraser, clean each set of PC fingers. They look like fingers between fingers and are shiny, but not shiny enough yet. Erase each one lightly until each is nice and bright. Don't over do it. They can break! Be gentle. After you have cleaned them all, wet a clean ball of cotton and remove all the eraser dust. Never touch the contacts with your fingers or you can do it all over again!

When the PC board is dry, place it back on the keyboard and replace the screws, don't over-tighten the screws. Just snug them up. Reconnect the shift lock switch, plug in the LED and keyboard. Screw down the lid and enjoy bounce free typing. WIM '83

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Helping Hints #4 : Audible Cassette

Have you ever waited for a program to LOAD only to get a ?LOAD ERROR or not be able to find the start of a program between other programs?

Then there are times a program may LOAD fine one time and not another. If you could only HEAR the program load many problems could be corrected before you waste time waiting.

A simple solution is to add a small speaker inside your VIC-20 or C64. Actually what will be used is a small crystal mike, Radio Shack part number 270-088 for \$1.69.

The mike/speaker will let you hear all LOADs and SAVEs to your cassette unit. Experience will tell you if the program LOADING is of the proper tone and pitch. You'll be able to hear the difference between a normal program or data file.

Installation is simple. Disconnect all cables, remove the three screws under the front of the keyboard and lay the keyboard back on its top CAREFULLY!

The cassette port is located in the second slot on your left at the rear of the computer. Look all you like but touch nothing else.

If you are not familiar with soldering or working around ICs, get help, this is no place to practice!

Looking at the cassette port you will see six PC fingers . These "fingers" are what the cassette plug slides onto. Starting from the left you see four fingers, a slot in the board then two more fingers. The two fingers we need to find are the third finger from the left and the first finger on the right. In your manual these will be pin D-4 / cassette read and pin A-1 / ground. See Fig. 1. Remember, the manual shows the fingers as if you were looking at them from the back of the computer.

In some of the early PC boards, there are small holes at the end of the fingers that the leads from the crystal mike may be soldered in. When soldering the leads in place be sure no solder gets on the fingers or you will not be able to plug the cassette onto the connector. If you like, mount the mike to the bottom half of the case. Use the T shaped area of plastic between the Cassette port and the User I/O port.

=====

Helping Hints #5 : Spike Protection

What dollar value would you place on your computer system? Is it more than five dollars? Computers are cheap, but not that cheap yet.

Lets just say you're hard at work, typing or playing and a lighting storm comes up. You're busy and don't notice. BANG! Down goes the power. After the storm is over you power up the system again... nothing. You were hit by a line spike. If you're lucky, only a fuse popped.

Protection can be bought in the form of a device called a MOV (Metal Oxide transient Voltage absorber). You'll need three (3) MOVs at \$1.59 each, Radio Shack part number 276-570. Connection requires a soldering iron and time. Remember, you will be working with the 110v line voltage. Be sure ALL power is disconnected from the line strip you will install the MOVs in. Check your work carefully before connecting power.

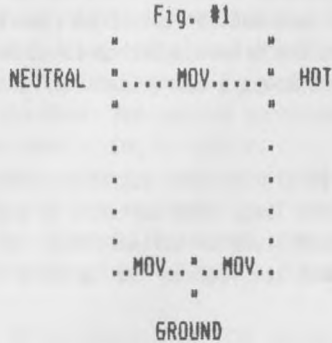
Install the MOVs in an outlet extender such as Radio Shacks unit numbers 61-2620, 61-2619 or 61-2622. These are multi AC outlet units. Inside them is the room you will need to make the connections for the MOVs. Use only three prong outlet strips and be sure the outlet you use is properly connected.

Open the unit you want the MOVs in. There are three lugs that plug into the wall. Two are flat, one is round. Connect one MOV across the two flat lugs (hot and neutral). Connect one MOV between one flat lug and the round lug (hot and ground). The last MOV connect between the other flat lug and the round lug (neutral and ground). This must all be done inside the outlet strip. Make sure the MOV leads do not touch each other or the case when closed. See Fig. #1. I know it looks like you have shorted the line strip with MOVs. This is how your protection is supplied.

An MOV is a device that presents an electrical "short" to the line when ever a spike above 130vac is present on the line. A spike may only last 150-200 nanoseconds! the MOV stops the spike BEFORE it can get to and damage whatever is plugged into it. A fuse will only blow after the voltage has built up beyond its rating, far to late to stop the damage. Now you will have the time to shutoff your system before damage, after the first warning.

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Operating any piece of electronic equipment during a storm is just asking for trouble. MOVs are good, but they won't protect you or your equipment from a direct hit. Enjoy. WIM '83



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SERIAL CABLES

Have you ever wished the serial cable that came with your 1540/1541 disk drive or printer was just a little bit longer? Then there's the problem of not being able to place your printer at that perfect place, away from your work space.

We now have a solution to the problem of the "to short cable". A serial cable with male DIN connectors on each end in two lengths:

10 FOOT SERIAL CABLE - \$10.00

15 FOOT SERIAL CABLE - \$15.00

Both cables are completely assembled.

=====

Helping Hints #6 : Tape/Disk Storage

Disaster strikes! You spilled coffee, or pop on your new piece of disk software you just bought, or your three year old is having fun pulling the tape from all your cassettes. All is not lost! You simply go to the linen closet and make another copy from your master tape or disk, right? WHAT? You say you don't have a backup copy! Maybe you should take up jogging. Most everyone keeps a spare set of shoe laces around the house, why not software.

The idea is a little off the wall but when ever you can, never use the original tape or disk. True, some software is protected to keep you from making a copy. A good piece of software will let you make a backup for your own use, but what can you do to protect the ones you can't backup?

Treat each tape or disk as a 'master'. Make a working tape or disk for everyday use and store the 'master' in a safe place away from your normal storage, a linen closet is good. If something should happen to your working copy, you can always make another from your 'master'.

Place the cassette, or disk for that matter, as far from the TV or monitor as possible! Many load error problems are caused by placement of the cassette. Also get and use a tape head demagnetizer. Clean the tape heads regularly. Some tape load problems can be solved by gently bending the little felt spring pad out, not much or the spring will pop out and ruin the tape. The extra pressure created will help. When you do get a good load make a copy, quick! It may not work again. Buy and use some kind of tape, or disk storage box. Dust, fingerprints, pop, hair and small children can help to destroy your programs. Protect them!

Also avoid power transformers, fluorescent lamps, speakers, TV sets, screwdrivers or anything that even looks magnetic! Tapes and disks suffering from amnesia are useless.

=====

Helping Hints #7 : @ Replace (Disk)

A problem waiting to happen in the 1540/1541 disk drives is associated in use of the REPLACE command when up-dating a program or SEQ. file. I am sure many of you have used this command in your programs and many commercial programs make use of it also.

The problem is most likely to happen on a disk that has less than 100 blocks of free space left. What happens is a portion of an unrelated file will be "lost" from the disk. The loss is unrecoverable! Problem is its not even the file you were trying to update.

The main idea is to replace a file you are writing with a newer version while keeping the file under the same name.

When writing a new program, its a good idea to save it every so many lines just in case something should happen, ie power failure, you goof, etc...

Commodores disk drive manual lists the format for the command as:

SAVE"RO:NAME",8

or with DOS 5.1

@RO:NAME

DON'T DO IT!

The safe way is to SCRATCH the old file THEN SAVE the updated file. This can get quite old after a few times. A better way is to make the following lines the first lines of every program you enter. The lines are:

1 GOTO 3

2 OPEN1,8,15,"S:name":CLOSE1:SAVE"name",8:VERIFY"name",8:END

3 REM START OF YOUR PROGRAM

Now all you have to do to update the disk file is type RUN2 (return)

Remember to make "name" the name you are calling your program. This will never fail and you'll never risk losing a file on your disk.

One added note. When Commodore recalled the 1541s they made a hardware and software change. The REPLACE function has "been fixed" in the newest grey case 1541s. If in doubt, type the three lines and use them just to be on the safe side. WIM '84

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Helping Hints #8 : Files & SYS

Your writing a program that is reading and writing SEQ. files to tape or disk, the program bombs and the error created reads ?FILE OPEN ERROR. A simple SYS number to add to all programs using files is: SYS 65511 :Close all files. This will close all open files in the computer.

A non-destructive way to close an open file on disk is to WAIT for the disk to stop spinning, then remove the disk. This will not bother any file on the disk except the one that was being written, that file will be stared (\$SEQ) and must VALADATE the disk before you continue.

Another "trick" will also correct the most common error of DRIVE NOT READY and DEVICE NOT PRESENT. In direct mode type: OPEN 15,8,15: This will reopen the disk drive to the computer. Another idea is to remove the disk, then reinsert it. This will sometimes correct the two above errors also.

If you have had problems reading SEQ files then change your open statements from OPEN?,?,?,"FILE NAME,S,W" to OPEN?,?,?,"FILE NAME,P,W" Now all your files will be saved as PRG files. The benefit is as follows. When a disk saves a SEQ. file it uses ANY available disk space. It will "break up" the file to fit in un-used spots on the disk. The PRG file will save as one continuous file.

Programs that write files to tape or disk and don't include an option for both can be converted following these rules. Find the 'OPEN' statments that perform the 'READ' & 'WRITE'. Then make the following changes:

Change: OPEN1,1,1,"FILE NAME" to OPEN1,8,7,"FILE NAME,S,W" for proper disk 'WRITE' operation and OPEN1,1,0,"FILE NAME" to OPEN1,8,7,"FILE NAME,S,R" for proper disk 'READ' operation. Tape people just reverse this when converting disk files to cassette. The number after the 'OPEN' MUST remain unchanged.

=====

Joystick & Cold Start Vector

When writing a program that uses the joystick as input, include this SYS at the start of your program: SYS65017 : This will cure a problem that keeps the computer from reading the joystick port correctly after LOADING the program from disk or tape. The problem that shows up is that the joystick will only move right and down, making the game very hard to play!

The keyboard cold reset system numbers are: SYS64802 of the VIC-20 and SYS64738 for the C64. Enjoy WIM '84

**“We’re just catching up
with yesterday, by
tomorrow we should be
ready for today.”**

=====
 Helping Hints #9 : PEEK(186)

Many people writing programs of the Vic-20 & Commodore 64 often have one program "LOAD" another program. There are many ways to do this, but the easiest way is to base a load around PEEK(186) as in the example below:

```
10 REM FIRST PROGRAMS END
20 ZZ=PEEK(186):REM CURRENT DEVICE NUMBER
30 LOAD"SECOND PROGRAMS NAME",ZZ
```

Line 20 checks to see what device was last used, 1 = Cassette / 8 = Disk. Line 30 will load the second program based on the last used device number. This trick saves the writer and user from having to select tape or disk and also saves space.

The use of PEEK(186) in programs that are to write or read files also saves the writer from having to request the user as to the device the user is using.

One word of warning, if your program is using a printer for output of hardcopy, the writer must PEEK(186) BEFORE the OPEN statement for the printer is run and restore the current device number after printer operations have ended by POKE 186,Old device number. Failure to do so will result in a DEVICE NOT PRESENT error. Also note, if you try to load a program that is larger than the program in memory, you will have to clear or reset memory pointers before the new program will work properly.

Another way to load another program from a current program with out having to worry about memory pointers is shown below.

```
10 ZZ=PEEK(186):Z$="PROGRAM NAME"
20 PRINT"cls dn dn dn dn dn LOAD";CHR$(34);Z$;CHR$(34)",";ZZ
30 PRINT"dn dn dn dn dn dn RUN ch"
40 FORI=631TO634:POKEI,13:NEXTI:POKE198,4:NEW
```

```
cls = Clear Screen
dn  = Cursor Down
ch  = Cursor Home
```

This is known as a DYNAMIC LOADER. The information is placed on the screen by the program and run much like it would be had you typed in the information and pressed the return key. A dynamic loader can also be used to do many other types of operations. WIM '84

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Helping Hints #10 : Dynamic Loaders

In the old "PET 2001" days, many things were not as easy to do in programs as you Vic & C-64 people have it now days. Often, the only way to "get around" a problem was to use a Dynamic Loader.

A Dynamic Loader can replace typing the same old thing time and again by letting the computer type and run the item for you.

The example below is just one of many ideas that make a Dynamic Loader useful. The problem solved here deals with a SEQ. File that contains a basic program trying to become a basic program again.

Most Modem & Ham RTTY programs save a basic program in SEQ. format. You have a choice of "LISTING" the file to a printer and then "TYPING" the file back into the computer, very tiresome & error prone.

To "Create" a SEQ. file on disk of a basic program for demonstration of "SEQ. Uploader", start by loading a basic program, then in direct mode type: OPEN7,8,7,"name,S,W":CMD7:LIST (RETURN) when the cursor returns type: PRINT#7:CLOSE7 (RETURN) You will now have a SEQ. file on disk that contains the same information as the basic program in memory.

Now for the magic! Type NEW (RETURN) and enter the following lines. Be sure to SAVE"SEQ. UPLOADER",8 (RETURN) when finished, I am certain you will want to use it many times in the future.

```
63000 SEQ FILE UPLOADER BY WIM '84
63010 INPUT(CLR) ENTER SEQ FILE NAME";N$:OPEN7,8,7,N$+",S,R"
63020 GET#7,A$:IFA$=CHR$(13)THEN63050
63030 B$=B$+A$:IFST<>66THEN GOTD63020
63040 CLOSE7:CLR:GOTD63070
63050 PRINT(CLR) (C/DN) (C/DN) (C/DN)"B$:PRINT(C/DN) (C/DN) (C/DN)
(C/DN) (C/DN) POKE185,7:POKE186,8:POKE152,1:POKE601,7:GOTD63020 (HOME)"
63060 B$="":A$="":FOR I=631 TO 640:POKE I,13:NEXT:POKE 198,9:END
63070 PRINT(CLR) (C/DN) (C/DN)":FOR L=63000 TO 63080 STEP10:PRINT
L:NEXT:PRINT(HOME)"
63080 FOR I=631 TO 640:POKE I,13:NEXT:POKE 198,9:END
```

NOTE: (HOME) = Cursor Home (CLR) = Clear Screen (C/DN) = Cursor Down
Do NOT put extra spaces between the cursor commands within quotes. Also, commands within quote marks may be shortened by using their shifted equivalents. ie POKE = P/Shifted L, GOTD = G/Shifted O

=====

Now, SAVE"SEQ UPLOADER",8 then Run. Enter the "name" you used for the SEQ file you made earlier, then sit back and watch the fun.

When the drive stops, and the screen quits flashing, type LIST (RETURN).

I bet the program look and runs just like the one used to make your sample file. This is just one of many uses for a Dynamic Loader. Actually, the short program above contains two separate Dynamic routines. One to load the SEQ file and re-enter it in basic, and the other erases the SEQ Uploader when the job is complete.

The next time you want to do a job, but don't want to do the typing, remember and use a Dynamic Loader. After all, let the computer do the boring work. Your job is to enjoy a job well done. Enjoy! WIM '84

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NOTES

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Helping Hints #11 : Ratchet Stopper

I know you'll say its a little late, but read this "Hint" to stop trouble before it happens.

Many of us have "special" program disks, like EasyScript 64 or other commercial programs, that have a bad habit of initializing the drive. Many others read an error on the disk, to be certain that the disk has not been copied, as part of their protection scheme.

The only trouble is, every time you hear the drive ratchet, damage can result to head alignment. This is the reason so many 1540/1541 drives have gone bad.

Note: The problem has been cured in the new drives.

The following line of code will, in most cases, prevent the drive from ratcheting and let the program load normally. It will remain in the disk drive buffer until you reset or power off the disk drive. It works with most commercial disks and also saves your drive from damage. Simply enter:

```
OPEN 1,8,15 : PRINT#1,"M-W" CHR$(106) CHR$(0) CHR$(1) CHR$(133) : CLOSE 1
```

This is not a cure all. There are many ways to damage your drive though improper use, commands & neglect. Remember, you are using a very delicate piece of equipment.

While we are on the subject of extending the life of the disk drive, the other most common problem is HEAT! Operate the drive on a solid surface ONLY. Never do anything to block the vent slots in the bottom or top of the drive. Its OK to set a disk case on top of the drive, but don't block the vents!

If you want to improve the circulation of air in and around the drive, then install new feet on the bottom. These feet should be about 1" to 1 1/2" tall. They are available in any good hardware store. Its surprising how much of a difference it makes. WIM '84

=====

Helping Hints #12 : Special Disk "Tricks"

Load a short basic program and type the following as shown:

```
SAVE"name,S",8 (RETURN)
```

```
SAVE"name,U",8 (RETURN)
```

Now load the disk directory and list it. The two programs you SAVED will have been saved with a SEQ &USR file type after their names. They can not be loaded by with a normal LOAD"name",8 (RETURN) command!

So what you say? Well, if you type NEW (RETURN) I'll show you how to load them back into memory just as simple as any basic PRG file. Simply type:

```
LOAD"name,S",8 (RETURN) : LIST (RETURN) Your first program is as good as new! Now type NEW (RETURN) then type:
```

```
LOAD"name,U",8 (RETURN) : LIST (RETURN) The second one is fine as well.
```

Most will say, "Big deal, what good will that do for me?" To answer that question, I need to ask you if you have ever wanted to stop someone from loading a special program you have written? If the answer is yes, you now have a simple way of doing it. Enjoy! WIM '84

Other Tricks

Instead of using: 10 GETA\$:IF A\$="" THEN 10 try 10 POKE198,0:WAIT198,1:GETA\$ they both do the same thing!

Or try PRINT CHR\$(14) to switch to upper case letters & graphics and PRINT CHR\$(142) for upper & lower case letters.

On the Commodore 64 type: POKE54286,255:POKE54290,129 (RETURN) then PEEK(54299). The PEEK will return a random number from 0 - 255 for use in games, etc...

C-64 MAGIC

POKE 53265,11 - Turns screen off.

POKE 53265,27 - Turns screen on, or press RUN STOP/RESTORE.

POKE 808,225 : POKE 818,32 - Disable RUN STOP/RESTORE.

POKE 808,237 : POKE 818,237 - Enables RUN STOP/RESTORE.

SYS 64738 - Power on reset.

CORRECT FREE BYTES - ?FRE(0)-(56N(FRE(0))<0)#65535+3

=====

VIC MAGIC

POKE 36864,133 - Stops the screen jitters on Zenith and other TVs.

POKE 36864,X - Sets screen horizontal adjustment, normally X = 5

POKE 36865,X - Sets screen vertical adjustment, normally X = 25

POKE 36866,X - Sets width adjustment, normally X = 150

POKE 37879,X - Sets cursor blink rate, normally X = 72

SYS 64802 - Power on reset.

PRINTER MAGIC

Proper setting of the DIP switches when using a Gemini 10X/15X printer and Cardco +6 interface are:

Printer	Cardco +6
1234	12345678
----	+----++
- = Off	+ = On

LOC-LITE

You're in the process of writing a new BASIC program that uses many PEEKs, POKEs & SYS commands or a MACHINE CODE program and, after a period of time, decide the program had bombed or suddenly find that the keyboard would no longer acknowledge your existence. How long did you have to wait? If you only had some way of knowing that the program had died. If you have a LOC-LITE, you'll know the instant a lock out condition occurs.

LOC-LITE replaces the power on LED in a VIC-20 or Commodore 64. Three simple connections are then made to the computer PC board using micro clips, no soldering. Everything is inside the computer. Nothing outside to interfere with any of the I/O ports. It lights up like a normal power indicator, under normal conditions, until a lock-up occurs, then LOC-LITE flashes! LOC-LITE functions similar to the error light on the 1540/1541 disk drives, letting you know something is wrong.

LOC-LITE also aids you by indicating an erratic flash during disk or tape LOADs & SAVEs and when information is sent to the printer. An erratic flash lets you know data is being transferred and a steady flash indicates the computer is locked up. Very simple, but now you know what's happening!

LOC-LITE, as listed on the order blank, is available as:

1. A bare board with parts list, assembly and connection instructions for \$7.50 You supply parts. Assembly required. NOT A BEGINNERS PROJECT!
2. In kit form with board, all parts & micro clips and assembly & connection instructions for \$15.00 Soldering & assembly required. Defective kits returned due to parts failure or improper assembly MUST include \$5.00 to cover repair or replacement. Limited 30 day warranty. NOT A BEGINNERS PROJECT!
3. Assembled and tested with complete connection instructions for \$20.00 Limited 30 day Warranty.

All instructions include pictures of each revision on the VIC-20s and Commodore 64 for easy connection of the micro clips & LED mounting.

If you write your own programs, the LOC-LITE is a "must add" item to your system. WIM '84

***** PLEASE NOTE *****

Installation of the LOC-LITE will void your Commodore warranty. You must open your computer to install LOC-LITE.

Public Domain, Inc. assumes no liability for damage caused from improper installation or use. All warranties, expressed or implied are the responsibility of the end user. No other warranties apply.

=====

Computer Widow

You know your a Computer Widow when:

Bytes become storage, not food.

All the TV are in the "computer room" and not a one receives normal channels.

You're threatened with your live if anything is unplugged.

He talks in a foreign language: Peek, Poke, Sys, Eprom, etc...

He has magazines, that talk the same foreign language, stacked to the ceiling.

You can talk to the children easier than talking with your husband.

The door to the "computer room" is kept pad locked.

Strict orders include "Never clean the computer room".

You wait for the State fire Marshall to condemn the house because of all the cords plugged in.

A new item on the budget becomes "Computer necessities".

More money is spent on the computer than the house.

You buy a calendar just to keep track of all the "Users Group" meetings.

Drive now means "disk drive", not take a drive in the car.

Dreaming of a vacation, now unfortunately, includes making space for the "portable computer".

You know its time to get the kids off to school when your husband turns the computer off and comes to bed.

Your husband asks how the kids like High school and they have already graduated.

You make a list of important questions just in case a lighting storm comes up.

You start to look forward to power outages.

And to make things worse! You start to understand what he is talking about...

by Carol Ewing

=====

JUST FOR FUN

YOU KNOW YOUR COMPUTER IS USING YOU WHEN:

- a five minute program takes five hours to complete...
- your alarm goes off and you haven't been to bed yet...
- you work on a program for three weeks that only needs 16K of memory, then a friend shows you one that does the same thing in 15 lines...
- your gosub never returns...
- you come home to find the kids using your floppy disks as frisbees...
- you spend the weekend getting a peanut butter & jelly sandwich out of the keyboard...
- the local 'radar weather' station asks you to power down during their broadcast so the blank spot won't show up on their scope...
- you just finished your greatest program and the power goes out...
- the wife starts watching football...
- you check the calendar to see what season it is...
- you throw a fancy dinner party and everyone crowds around the computer to take their turn playing Startrek.
- numbers are given to the family members so they know what night to use the computer...
- your joystick needs replacing every other week...
- the TV never gets used for watching TV...
- the cat wants to sleep on the computer, the warmest place in the house...
- all your meals are cold by the time you break away to eat, if ever...
- you buy your months supply of magazines and read them three months latter...
- the local computer store knows you on a first name basis...
- a concerned neighbor stops by to see if your ok...
- your phone bill looks like the national debit since you got the modem...
- you finally win after only 357 hours of play...
- all your friends buy a computer so they can understand you...
- a tornado blows the roof off the house and all you notice is the lighting is better...
- if the calculations in your program are correct, the earth was destroyed three years ago...
- you have just one more line to type in and you get an out of memory error...

=====

you almost kill yourself tripping over all the cables...
your friends come over to play some games and stay three weeks...
the neighbors are up in arms wanting to know where their children are...
you can hardly read the manual for all the tape holding it together...
the kids make you nervous when they start playing with a magnet...
you unplug the phone and lock the door so you won't be bothered...
no one gets near you while the computer is on because you turn into a monster...
you buy \$1200.00 in computer equipment and software to keep from having to put a quarter in the local arcade machine...
you start attending CUA (computer users anonymous)...
you have to press the A,E or S key fifteen times before they work...
your computer Christmas light show attracts three UFOs...

=====

I 'M TIRED

Yes, I'm tired. For several years I've been blaming it on middle-age, iron poor blood, lack of vitamins, air pollution, water pollution, saccharin, obesity, dieting, under-arm odor, yellow wax build-up and a dozen other maladies that make you wonder if life is really worth living.

But now I find out, tain't that.

The population of this country is 200 million. Eighty-four million are retired. That leaves 116 million to do the work. There are 75 million in school, which leaves 41 million to do the work. Of this total, there are 22 million employed by the government.

That leaves 19 million to do the work.

Four million are in the Armed Forces, which leaves 15 million to do the work. Take from that total the 14,800,000 people who work for State and City Government and that leaves 200,000 to do the work. There are 188,000 in hospitals, so that leaves 12,000 to do the work.

Now, there are 11,998 people in prisons. That leaves just two people to do the work. You and me. And you're sitting there reading this. No wonder I'm tired...

-Anonymous-

=====

JUST FOR FUN 2

HAVE YOU EVER WONDERED WHY:

a lighting storm comes along just about the time your about to win at a 7 hour long game of adventure?

the keyboard locks up as you enter the last line of a long program?

just as you get the hang of your computer the company stops making them?

147 other people enter the same magazine program and yours is the only one that didn't run?

the joystick jams as you are about to break the Pacman record score?

the sun is rising and you haven't been to bed yet?

you just finished neatly wiring all your cables behind your system and now nothing works?

you spend \$800.00 on a system and catch yourself adding a column of numbers with pencil and paper?

you have one line to add only to find you'll have to re-write the program to fit it in?

THE ANSWER IS SIMPLE, YOUR'E A COMPUTER OWNER...

=====

Computer Lingo

6502 - The year you will pay off your computer.

BASIC - A computer language used to generating errors.

CPU - CP30's mother.

CRASH - Normal termination of a program.

CASSETTE DRIVE - Used as a paper weight after buying disk drive.

EPROM - Acronym for "Exit Program, Read Owners Manual".

DIM ARRAY - Stupid storage.

GOSUB - Very fast U-Boat.

GIGO - "Garbage In, Garbage Out". Normal result of most computer programs.

INPUT - Statement that refuses all entries.

KEYBOARD - Random arrangement of letters.

LED - Long expected defect.

MAGAZINE PROGRAM - Type setters error trap.

NULL STRING - Normal termination of a four hour sort.

PROGRAMMER - Knows the location of the on/off switch.

RESET - Another way to end a four hour sort.

RS232 - R2D2's father.

SUBROUTINE - A section of a program that cannot be accessed.

TERMINAL - Mental state of most programmers.

WAIT - What else do you want?

=====

THE NEW PET ROCK
by WIM

Even the creator of Buck Rogers, with all his dreams of laser beams, spaceships and viewer screens would never have guessed that in the future every man, woman and child could own a "Computer". Though many of his ideas have come into being, the computer was beyond him and most men before.

To think we now have such an item in our own homes is still a little hard to believe. Yes, the computer is no longer an idea or fad, but fast becoming a house hold item. Remember when they laughed at the four wheel buggy?

The Pet Rock was the rage shortly before the computer became known to all but the very few unafraid that would explore the "strange new world" of silicon, wire and plastic. The "rock" had been trained to perform many new and wonderful tricks.

Its first trick was bouncing a small white ball off a thin white line controlled by variable resistor in a box and scoring missed shots. What great fun that was. Then we had another "computer" that could play many new "games" by simply inserting a cartridge into the magic plastic box. Now we could catch the little white ball or aim it at a wall of blocks for added fun.

Soon after that, one of the magic plastic box makers showed us how to do something called "programming" using a cartridge that was said to contain a "language" called "basic". The language was very simple to learn, or so the booklet that came with the cartridge said, but after several hours of reading, we could see our name printed on our very own TV sets. And the fun continued.....

=====

From there on it was all up-hill. The price war that brought hand held calculators from \$149.95 to \$19.95 and less found that a computer could now be produced for less than \$1000.00. The race was on again. Everyone knew they needed one, but didn't know why.

After seven years the price of a "true" computer dropped, in some cases, to under \$39.95. Now anyone could own the marvel of the eighties. However, somewhere along the line the people buying the computers and the people making them lost track of each other. The computer could now do more, with less effort, than the normal user could understand. The Rock had gotten smarter than the people. No longer was the computer just fun.

A simple comparison would be giving Orville Wright a 747 Jumbo Jet and say, "Have fun!" This might be an extreme example, but I think you get the point. People were happy just having fun, now they were required to think as well, or heaven forbid, read a book and learn. The fun side of computers ended for most people.

The first simple calculators showed people they could save many hours of pencil pushing. The first computer games showed them how to spend the time they saved. As computers became more powerful, the time spent programming used more time than had been saved. Reading & learning, something to be avoided by most, was now required if the user was to benefit from their computer. To this very day, I still hear people ask simple questions that could be answered in seconds if they had only read the manual packed with their computer.

The normal user spends a great deal of time returning hardware, software and other related items because they "did not work". If they had read that neatly printed manual that came with the item, all or most of their questions would have been answered.

Believe it or not, I had one fellow ask me why, after loading fifteen programs in from his cassette, he could only save one program onto another tape. I swear it happened! He was dead serious too. Or how about the person that tried to save a program to disk and thought that every disk was ready for use right out of the box. I sometimes wonder how they ever connect the cables by themselves.

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What they bought could still play games and be fun, but that wasn't quite good enough. The computer was supposed to be programmable and that, from all the commercials on TV, was supposed to be fun. Sure, the manual was there, but if I paid for this thing, someone was going to tell me in five or ten minutes how to operate it. After all, that's all the longer it took to learn to drive a car, right?

So back to the store they go, only to find that the only thing the store people knew was the stock number and price.

Reading the manual has out of the question, that's no fun! Oh well, maybe I'll just skip though and hit the high points. Let's see, it says "type this as shown", sounds simple enough, but how do I type this funny looking heart. Maybe if I just type "heart" it will work. Now it says type RUN and hit the RETURN key... SYNTAX ERROR? what the heck is that? This stupid machine doesn't work!. I'll take it back to the store. Stupid machines.....

This is the normal reaction from most new owners. Maybe a little over acted, but the point remains, READ, then ask. All computers have their good and bad points and some of the manuals may not be the best, you may have to dig a little for the information you need or even read another book, but the information is there. The computer can't "think" for itself, you have to tell it what to do and that can only be done if you learn how to talk in its language.

Now if you'll excuse me, I have to get back to teaching my Pet Rock to swim and watch that little white ball bounce around.....

NOTES

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ORDERING INFORMATION

Please READ this "HOW TO ORDER" section BEFORE you place an order for collections or products. Hopefully, this will clear up any confusion or questions you may have in ordering.

HOW ORDERS ARE HANDLED

Orders received Monday thru Saturday by mail and Monday thru Friday by phone are shipped via First Class Mail the FOLLOWING week on a Tuesday or Wednesday. We do not ship UPS or via other services.

Please be patient, the delays involved in receiving your order, processing the order and shipping your order though the mail can amount to as much as three to four weeks.

We process each order as stated above. However, if you mail your order late in the week, the chances of us receiving it in time to make the next weeks mailing is very slim. Allow extra time before calling to check on your order. Also please note, we can not check to see if your order was received or shipped until about 10 working days after the order has been processed and posted in our files.

If you have any questions, please mail them separate from your order and include full return address. This will prevent delays in shipping your order.

PAYMENT

We will only accept Master Card, VISA, Money Orders, Check or Cash.

We will REFUSE all PURCHASE ORDERS and COD's.

Checks with foreign orders MUST be in U.S. FUNDS ONLY. Orders that do not comply will be returned.

EXTRA SHIPPING

All foreign orders must include \$3.00 in U.S. funds for shipping outside the United States, this includes Canada. Foreign orders are sent First Class PACKET rate.

If you would like your order shipped in some other way, ie Air Mail, then you must include the extra amount to pay for said shipping.

All U.S. orders are shipped First Class Mail within the U.S.

SOFTWARE SELECTION

When ordering, PLEASE specify TAPE (CASSETTE) or DISK (1540, 1541, 2031 or 4040 disk drives only) format and the type of computer (Vic-20, Commodore 64 or Pet 2001 series), otherwise the order will be returned causing added delay.

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RELEASE DATES

Some of the collection or products will have a delayed release date listed with the collection or product. Do not order before the date stated. Advance orders will require the ENTIRE order to be returned.

Orders received less than one week before the release date will be held until the release date.

We understand you're anxious to receive the new items, but keeping track of advance orders would simply result in someone being missed.

BAD CHECKS

As of July 1, 1984 all bad checks will be turned over for collection and a \$10.00 service fee will be charged.

ORDER FORM INFORMATION

1. Make a copy of the order form in the back of the catalog. We can not send extra forms.

2. Please print or type your Name, Street Address, City, State, Zip Code or Postal Code and Area Code and Phone Number.

3. Note the example at the top of the order form. Print or type the Collection or Product wanted, ie Vic Collection #1, Commodore 64 Collection #5, Dinset, 10' or 15' Serial Cable etc...

4. Indicate TAPE or DISK format. See SOFTWARE SELECTION.

5. Indicate number wanted of each item.

6. Subtotal the amount in the right hand column. Software Collections are \$10.00 each, Dinsets are \$5.00 each, a 10' Serial Cable is \$10.00, a 15' Serial Cable is \$15.00, Loc-Lite are \$7.50 for a bare board, \$15.00 for a kit and \$20.00 for an assembled & tested unit.

7. Use one line for each item. Subtotal all items, add the \$3.00 extra postage on foreign orders, if needed, and fill in the total cost.

8. When using Master Card or VISA, Print or Type your Account Number, Interbank Number, Expiration Date and be sure to sign your name as it appears on the card.

9. If you have a question, write it on a SEPARATE piece of paper with you name, address & phone number so that it will not delay your order.

=====

PUBLIC DOMAIN, INC.
5025 S. Rangeline Rd.
West Milton, Ohio 45383
Bill Munch George Ewing
513-698-5638 513-339-1725
10AM - 5PM EST
Monday thru Friday

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-LIMITED WARRANTY-

Our disks, tapes, Serial cables, Dinset & LOC-LITE all carry a limited 30-day warranty from the date of purchase against all defects in material and workmanship. Should a disk or tape program or file fail to load during this period, the disk or tape will be replaced with the same disk or tape AFTER the defective disk or tape has been returned to "Public Domain, Inc.". Under no condition will a credit or refund be issued. If the disk, tape, Serial cable, Dinset or LOC-LITE are found to have been abused or altered by the user no replacement will be made.

LOADING PROBLEMS

Many loading problems with tapes or disks can be caused from contact with a magnetic field in shipping.

This will result in partial or total re-arrangement of the information on the tape or disk. The problem will show itself as a load error, out of memory error or simple garbage when you try loading a program.

Also, a disk that has been crushed or bent in shipment should not even be placed in your disk drive, damage may result.

Loading problems can be caused from bad spots on the tape or disk. Finger prints and dust are common problems with magnetic tape or disk media.

Other loading errors can be caused from tape or disk head mis-alignment. You may not know the alignment problem exists. Your cassette or disk drive may load and save your programs without any problem but fails to operate with a tape or disk from another source. Many users have thanked us for exposing a possible problem in their equipment before the warranty expired.

When a tape or disk is returned as defective, we check them for errors. Many returned disks and tapes check 100% ie no load errors.

Of the tapes and disks returned, less than 20% fail this check. Most failures are found to have been damaged in shipment or altered by the customers.

PROBLEMS TO CHECK: TAPE

1. Reset the system, power off, then try to load again.
2. When possible, try the tape on another COMMODORE CN2 DATA CASSETTE.
3. Clean and de-magnetize the cassette heads.
4. Use of a third party cassette interface or recorder may, at best, be marginal.
5. If in doubt, have your local Commodore dealer check your Commodore CN2 Cassette.

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PROBLEMS TO CHECK: DISK

1. Reset the system, power off, and try again.
2. When possible, try the disk on another Disk Drive.
3. Re-insert the disk in the drive and try again.
4. If the light flashes when loading, this may indicate the heads are mis-aligned.
5. If you frequently use your drive to make "back-up" copies, the track one alignment may have changed.
6. If in doubt, have your Commodore dealer check your drive.

FAILURES

If you have run the above checks and are certain the tape or disk is bad, then return ONLY the bad tape or disk for exchange. Retain the listing sheet enclosed with the tapes or disk. Enclose a printed or typed letter with your Name, Address, Area code & Phone number, a description of the problem and list the returned item.

RETURNS

As per our warranty, found on the back of each order blank, we will replace any products sold by Public Domain, Inc. for a period of thirty days from the date of sale, after the item has been returned, post paid, for replacement.

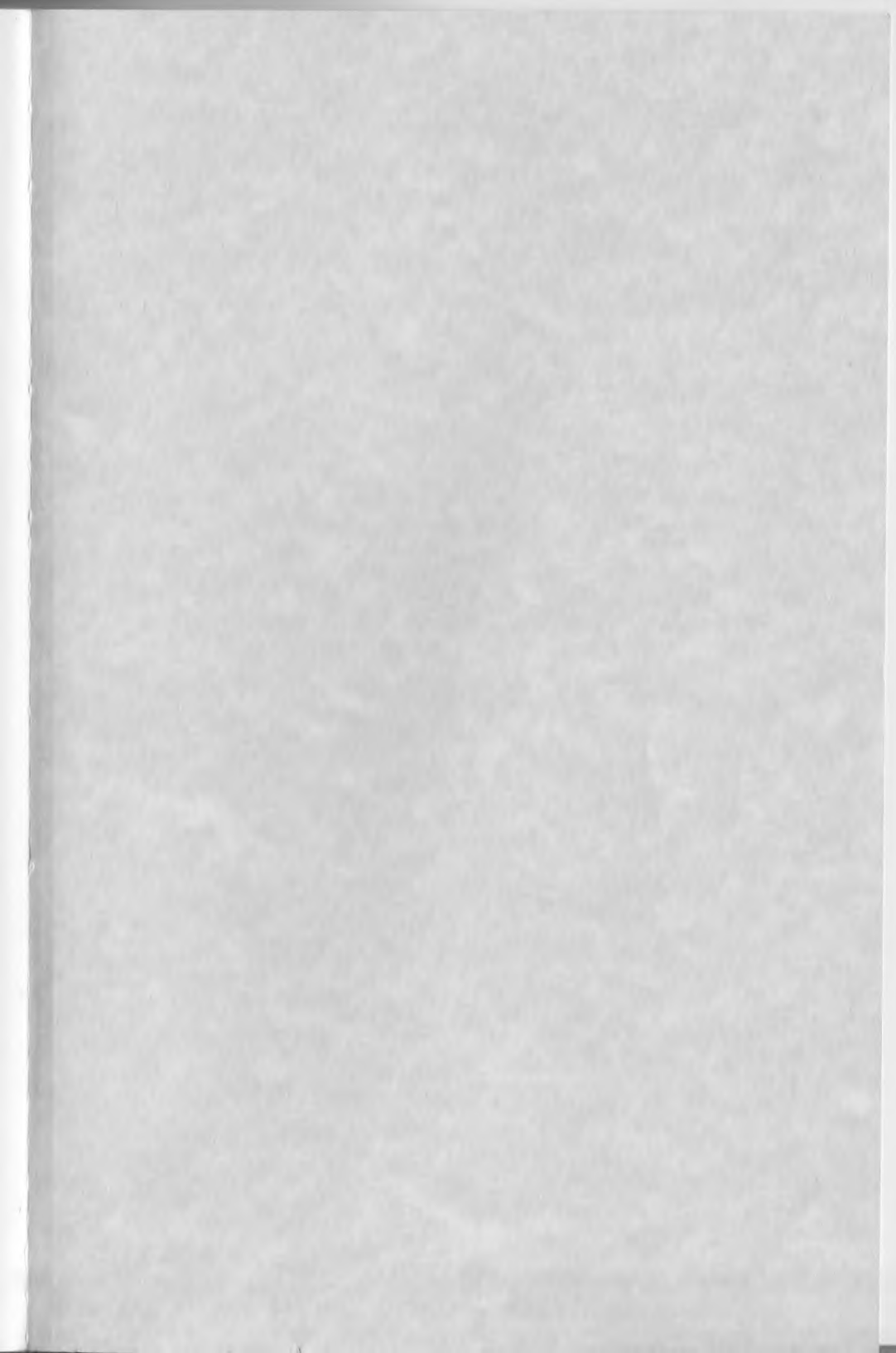
We guarantee all programs on each collection will LOAD error free or replacement will be made.

If you receive an incorrect software collection DO NOT OPEN THE PACKAGE! Once opened, we will not exchange one collection for another. Return the "unopened" collection with the label from the shipping package along with a letter of explanation.

We will check your original order and re-ship the correct collection.

Please note, if your original order was in error, and the collection has been opened, we will not exchange the collection.

Public Domain, Inc.



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