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PROFESSIONAL

PROGRAMS

\$10.00 *****

by **R. W. BROWN**

es progra
ions section
Bytes is given so
er will know how
allow for the appli-
Where possible the
memory space required for
is given for each of the
This program execution
independent of your BASIC
Interpreted. The program are
broken down into specific sub-
sections

48 BASIC
sections

or plottin
Appendix
includes an App
language grammar
BASIC statements u-
the BASIC programs are u-
Each statement is explaine
completely well to enable one unfa-
with this subject of BASIC to mod-
and of e-puter with the com-
Compiler or Interpreter available
their particular computer.
BASIC Computers available
require more than 1
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in 1"

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ograms contained in
ames obviously repre-
ination of a very large
to BASIC Software Library
of use to a large number of
individuals. The programs pre-
in these volumes will repre-
an end user system when com-
a very powerful software library
tempted in the past in such areas as
cookbooks, mathematical tables and ever
computer games. But to date suc-
collection as this has yet to be r-
"average individual. T-
"attempted" was used as
to the average comple-
ever considered complete
regardless of its thorough-
The BASIC programs appear
these three volumes apparen-
chosen for their uniqueness
general usefulness. There should
least several programs in this th-
volume set that will be of use to ever-
type of individual whether he is a
novice or professional programmer.

BASIC

SOFTWARE

LIBRARY

VOLUME VII

PROFESSIONAL

PROGRAMS

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INTRODUCTION

The programs presented here are set out for the individual who has a specific need in mind. Because a detailed discussion of these programs would require a text several times the present size of this Library it has been omitted. Individuals who have a specific requirement will have to be at least knowledgeable in the area the program is written about; ie: Statistical programs require the user to be familiar with the terms mean, median, etc. This is because the programs are written in the vernacular of their subject matter. With this knowledge alone, no programming experience on the part of the user is required in order to use any of these programs in most systems. Once it is determined that a particular program may be useful the user merely types in a copy of the BASIC source code exactly as it appears in the program listing. Then follow the instructions for running the program as presented in the Instruction portion of the write up, immediately preceding the program. Also included in the write ups are statements that appear in the source code which may possibly need to be changed to run in the user's computer system; ie: RND statements may have to be changed to FRAND in order to compile in certain systems.

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TABLE OF CONTENTS

VOLUME ONE

Preface

Part 1 - Business & Personal Bookkeeping Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Bond	Computes price and interest for bond purchases.
Building	Analyzes the cost of building design proposals.
Compound	Computes effective compound interest rates.
Cyclic	Determines seasonal coefficients for two cycles.
Decision 1	Makes a lease/buy decision for you.
Decision 2	Makes a decision on whether to buy a component or make it.
Depreciation	Calculates depreciation by 4 different methods.
Efficient	Cal. the most efficient assignment of resources and/or personnel.
Flow	Predicts your yearly cash flow.
Installment	Performs monthly installment accounting.
Interest	Computes interest accruals, monthly.
Investments	Computes annual rates of return on investments.
Mortgage	Makes a comparison of mortgage terms.
Optimize	Optimizes the layout for a plant, shop, office, etc.
Order	Determines your economic order quantity for inventory items.
Pert Tree	Performs an analysis of a pert network.
Rate	Computes true annual interest rates.
Return 1	Computes lessor's rate of return for uncertain assets.
Return 2	Computes a lessor's rate of return after taxes.
Schedule 1	Schedules N jobs in a shop with M machines.

Part 2 - Games & Pictures

<u>NAME</u>	<u>DESCRIPTION</u>
Animals Four	Teach the computer all about animals.
Astronaut	Land your spaceship on another planet.
Bagel	Advanced number game, numbers may be algebraic, few clues.
Bio Cycle	Calculate your Bio-Life Cycle and plan your days.
Cannons	An advanced war game with big guns.
Checkers	Plays a regulation game of checkers.
Craps	A dice game with hard way odds.
Dogfight	Air fight w/missiles; between a phantom and a mig.
Golf	Plays any number of holes; inc. obstacle course.
Judy	Have a rap session with Judy via your computer.
Line Up	Simple number game, all you have to do is unscramble them.
Pony	Authentic horse race, any number of players.
Roulette	Gamblers delight, plays Las Vegas rules.
Sky Diver	Sky dive on another planet
Tank	A war game between two tanks.
Teach Me	Teach the computer to learn new things.

TABLE OF CONTENTS

VOLUME ONE (CONT.)

PICTURES

<u>NAME</u>	<u>DESCRIPTION</u>
	Introduction
A. Newman	He's absolutely MAD! MAD! MAD!
J.F.K.	Our 35th. president.
Linus	Loveable "Peanuts" character, w/blanket.
Ms. Santa	A modern miss to put a twinkle in your eye.
Nixon	Former "United States" president.
Noel Noel	Christmas or anytime this is a beautiful creation.
Nude	A true work of art for anyone's gallery.
Peace	A message for all seasons.
Policeman	True and blue, he's the law.
Santa's Sleigh	In banner form, perfect for decorating the mantle.
Snoopy	That paragon of Dogdom even plays football.
Virgin	A picture you can read as well as see.

TABLE OF CONTENTS

VOLUME TWO

Part 3 - Math & Engineering Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Beam	Evaluates and selects steel beam sizes.
Conv.	Calculates convolutions.
Filter	Calculates low pass filter components.
Fit	Performs interpolations by spline fits.
Integration 1	Uses Gaussian Quadrature to do integration.
Integration 2	Integrates a function by spline fits.
Intensity	Calc. and plots RF or Acoustic intensities.
Lola	Calc. Long. and Lat. from interstellar fix or distance.
Macro	Simulates a language compiler.
Max. Min.	Calc. the max. & min. values of funct. over a spec. interval.
Navaid	Calc. position from altitude and azimuth of celestial bodies.
Optical	Calculates Blackbody energies, w/filter look-up tables.
Planet	Calculates Sun and Moon positions, hourly.
PSD	Calculates Power Spectral Densities and FFT's.
Rand 1	Generates random numbers between 0 and 1.
Rand 2	Generates random integers between (X) and (Y).
Solve	Solves polynomials by "Bairstows Method".
Sphere Trian	Solves any spherical triangle.
Stars	Locates 50 stars (celestial).
Track	Calc. course and distance and incremental vectors.
Triangle	Solves for all parts of any triangle.
Variable	Finds all variables in Basic programs.
Vector	Calc. final position; given start and motion vectors

TABLE OF CONTENTS

VOLUME TWO (CONT.)

Part 4 - Plotting & Statistics Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Binomial	Calculates binomial probability distributions.
Chi-Sq.	Applies the Chi-Square test to samples.
Coeff	Calc. coefficients of fourier series to aprx. a function.
Confidence 1	Calculates confidence limits on linear regressions.
Confidence 2	Calculates confidence limits for a sample mean.
Correlations	Performs auto and cross correlations with plots.
Curve	Fits 6 different curves by the least squares method.
Differences	Calculates difference of means in non-equal variances.
Dual Plot	Plots two functions on the same sheet.
Exp-Distri	Calculates exponential distributions for a sample.
Least Squares	Performs least squares fit by linear, exp., or power function.
Paired	Compares 2 groups of data using the rank test.
Plot	Plots 6 equations on the same sheet.
Plotpts	Plots data points on standard teletypes.
Polynomial Fit	Performs least squares polynomial fit.
Regression	Performs multiple linear fit with or without transformations.
Stat 1	Finds the mean, variance and standard deviation.
Stat 2	Computes various stat. measures for a variable.
T-Distribution	Calculates normal and T-distributions.
Unpaired	Compares 2 groups of unpaired data.
Variance 1	Performs one way analysis of variances.
Variance 2	Analyzes a variance table of one way random design.
XY	Plots functions of X and Y.

APPENDIX A - BASIC STATEMENT DEFINITIONS

TABLE OF CONTENTS

VOLUME THREE

Part 5 - Advanced Business Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Billing	Performs posting and billing of accounts.
Inventory	Maintains data for inventory records.
Payroll	Computes payrolls with full set of deductions.
Risk	Performs a risk analysis on capital investments.
Schedule 2	Performs the most effi. scheduling of men or resources to loca.
Shipping	Solves the problem of scheduling and assignments.
Stocks	Computes the value of stocks.
Switch	Calculates the effects of a bond switch.

TABLE OF CONTENTS

VOLUME FOUR

General Purpose Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Bingo	An age old favorite. 'B9, C23, D4, E13, F21, BINGO!
Bonds	Computes the yields for a bond for different periods.
Bull	If you ever dreamed of being a Matador, here's your chance.
Enterprise	Take charge of the Enterprise while Capt. Kirk is on leave.
Football	Authentic NFL version of this well known sport.
Funds 1	Calculates long-term predictions of funds.
Funds 2	Plots the results of Funds 1.
Go-Moku	Ancient Chinese game of chance.
Jack	Plays Blackjack, Las Vegas style.
Life	Life is truly a battle for survival, a real challenger!
Loans	Calculates annuities, loans and mortgages.
Mazes	Generates unique maze puzzles for you to solve.
Poker	Five card draw - for up to 5 players.
Popul	Performs population projections for defined areas.
Profits	Determines the profitability of a firms various depts.
Qubic	3-Dimensional Tic-Tac-Toe.
Rates	Calc. the effective annual interest rate for stated interest.
Retire	Calculates your Civil Service Retirement benefits.
Savings	Computes savings plan profiles.
SBA	Calculates repayment schedules for SBA loans.
Tic-Tac-Toe	An all time favorite for young and old alike.

TABLE OF CONTENTS

VOLUME FIVE

Experimenter's Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Andy Cap	Draws this famous cartoon character.
Baseball	Plays a full 9 innings of baseball.
Compare	Compares two groups of data.
Confid 10	Determines the confidence limits for a normal population.
Descrip	Provides a description of uni-variant data.
Differ	Computes the diff. of the means for data of equal variance.
Engine	Calculates the otto cycle of engines.
Fourier	This program evaluates fourier series.
Horse	Draws a picture of a horse.
Integers	Computes integers as the sum of other integers.
Logic	Determines conclusions from logic statements.
Playboy	Draws the playboy symbol.
Primes	Factors numbers into their primes.
Probal	Calc. Chi-Sq. and probabilities from 2X2 data sets.

TABLE OF CONTENTS

VOLUME FIVE (CONT.)

Experimenter's Programs

<u>NAME</u>	<u>DESCRIPTION</u>
Quadrac	Solves quadratic equations
Red Baron	Draws a picture of the infamous Red Baron.
Regression 2	Calculates linear regressions.
Road Runner	"Beep! Beep!" Draws a picture of the Road Runner.
Roulette	Computerized "Wheel of Fortune", plays roulette.
Santa	Old Saint Nick appears as jolly as ever.
Stat 10	Calculates quantities for two groups of paired data.
Stat 11	Computes sample statistics.
Steel	Calculates steel beam capacities.
Top	Computes cost for surfacing a road or driveway, etc.
Vary	Performs an analysis of a vari. table; one-way random design.
Xmas	Generates a "SINGING" Christmas card.

APPENDIX B - STATEMENT CONVERSION ALGORITHMS

TABLE OF CONTENTS

VOLUME SIX

A Complete Business System

<u>NAME</u>	<u>DESCRIPTION</u>
Ledger	Maintains ALL Company accounts and generates ALL financial reports. Includes routines for: Pyrl, Inv, Depr, A/R, A/P, Balance Sheets and Profit & Loss statements, etc.
ACBS rev:80	Users Manual - A Proprietary Package

TABLE OF CONTENTS

VOLUME SEVEN

Professional Programs

<u>NAME</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
Chess	Designed to challenge the average player, fairly comprehensive. Great fun for all, offers a unique opportunity for beginners in need of an opponent.	1105
Medbil	For Doctors and Dentists alike, a complete patient billing system which also permits the maintaining of a patient history record.	1117
Wdproc	Wordprocessing for lawyers, publishers, writers etc. Write, store and change from rough draft to final copy in a variety of formats.	1135

TABLE OF CONTENTS

VOLUME SEVEN (CONT.)	PAGE
Professional Programs	
<u>NAME</u>	
Utility	1171
Licensing Agreement	1188

P R E F A C E

The information contained in these pages represents the culmination of a very large project. That of compiling a versatile and complete Software Library that will be of use to a large number of diverse individuals. The programs presented here when combined in a system will represent a very powerful library bank. Such a work as this has been attempted in the past in such areas as cook books, electronic source books, mathematical tables and even computer games. But to date such a collection as this has yet to be offered to the average individual to use as he chooses. The word "attemped" was used as no work is ever considered complete by everyone regardless of its thoroughness.

The programs presented here were chosen for their uniqueness and general usefulness. There should be at least one program included that will be of use to every type of individual whether they have access to a computer or not. Computers are a wonderful and very useful tool. Through this Library I hope to interest more people into becoming involved with computers. The Library is written so that little or no computer programming experience is required to invoke any of the programs. The programs that are presented here are all written in the computer language called BASIC. Each program has been successfully run on a G.E. 635 computer. The entire source code is presented as well as a short narrative page which defines the program, tells who might be interested in using it, a brief set of instructions or how to get them and then any limitations in the program are noted. In the limitations section the storage length in K Bytes is given so the prospective user will know how much memory to allow for the program. Where possible the amount of memory space required for full execution is given for the programs, this space is independent of the space already occupied by your BASIC compiler.

The programs are broken down into five sections or parts. Each part deals with a specific type of program. Part 1 contains business type programs. These programs will be of interest to individuals who have businesses, play the stock market, balance their own checkbooks, do installment buying, figure taxes, etc. There are a total of 20 programs in this section. Part 2 is the lighter side of the Library as it contains 16 games and 12 picture programs. No computer library is complete without some fun. Among the games presented in this section is one called Checkers. The game is rather long but it is virtually machine independent as it doesn't use overlay techniques or use files. Most of the other games included here are as exciting as this version of Checkers. Each was chosen so as not to mimic others that the reader may have seen. The pictures are as unusual in their own way as are the games. Most of the pictures are spread over several pages, this was done not only so the reader will need to run the program to see the details of a particular picture but also in the hopes of getting as many of these programs into use as possible. As the picture programs are very simple it is an easy place for the novice to start learning about programming.

Part 3 is comprised of Math and Engineering programs. Some of these programs will be of use to high school students, professional people, sailors, engineers, astronomers, airplane pilots, etc. Most of these programs are very

technical but they can perform every day calculations quickly and easily and they are extremely simple to use. There are 23 general usage programs presented in this section.

Part 4 is made up of Plotting and Statistical Analysis programs. These programs can be readily utilized by a number of people in widely different disciplines from fishermen to statisticians. The data gathered may be from a poll, a census, a test sample or even the number of fish caught on various days. The stat programs will be of invaluable aid to anyone who gathers data of any kind. The plotting routines will be of use to most of the people who use the stat programs or programs in Parts 1 and 3. The plotting is done on any standard teletype or terminal and does not require a special plotter or plotting terminal. There are a total of five direct plotting programs and 18 stat programs in this section.

All of the programs presented here may be run by simply typing the source code as listed, exactly as it is, into your computer. Now before the program will run it will have to be converted into machine code. This is done automatically and requires no forethought except to make certain the operating system you are working in is BASIC. In the larger computer systems you are asked what system you want — to this type BASIC; the smaller systems only have BASIC, in these you are O.K.

Immediately following Part 4 is Appendix A. Here, all of the Basic Statements used throughout these pages are defined. Each statement is explained sufficiently well to enable one unfamiliar with this subset to modify any necessary statements so that the program or programs will compile and execute with the Basic compiler or interpreter available with their particular computer. Most of the Basic compilers available today, that require more than 10K Bytes of storage, will execute all of the programs presented in these volumes with the possible exception of a few of the games and the program "Variable". Multiple line statements are not used in most of the programs and only a few programs use string manipulations extensively. A few of the programs may require more on line storage than is available on some of the small micro computer systems; these longer programs will not be executable due to the limited amount of memory. However most of the programs will execute in 10K Bytes of memory or less, thereby making most of the programs in this Library executable in virtually any Basic speaking computer without any required modifications.

Volume III is comprised of ADVANCED BUSINESS programs, part 5. This volume as well as subsequent volumes are intended to make this Library complete and useful to all individuals.

Each of these programs are written in a subset of the Dartmouth language. The specific subset is that which was used by General Electric on their 635 systems. These programs have operated without problem on a variety of small and large machines even several of the new micro computers. The programs that use string manipulations may require slight modifications before fully executing on some systems. These programs are mainly found in Part 2 — Games.

All of the programs in this Library were written or edited by the author. All of the programs edited by him were given for inclusion, "swapped" for traded, or made public. A few of the original authors of the "swaps" are not known, for this I apologize. The others, unless specifically mentioned in the text, are presented here. In addition I would like to thank the following for their cooperation in making this work possible.

ACKNOWLEDGMENTS

MY WIFE MARY AND MY FAMILY

DONALD ALVAREZ

GE TIMESHARING

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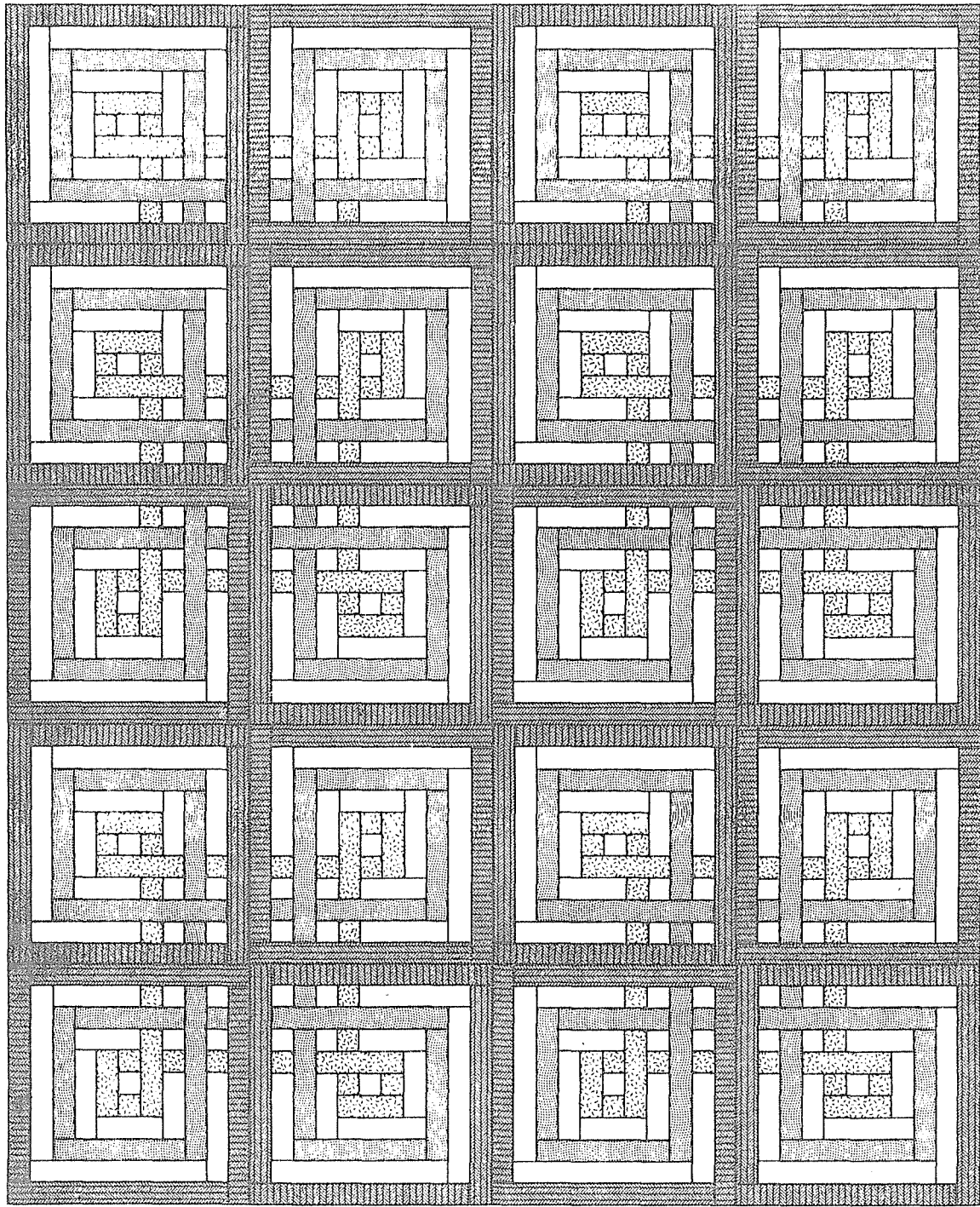
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EDITING AND PROGRAMMING SUPPORT
PROVIDED BY JOHN SWAIN



PROFESSIONAL

PROGRAMS

CHESSE:

This version of chess is written in Basic and should run in most extended Basics with little or no modification in systems with 12K of free memory. The program plays a beginner's game but with some effort on your part, it can be made to do better.

There appears to be a quirk in the subroutine in line 4330, for the program doesn't always know when it's in "check" so it doesn't defend against the danger. The flag indicating check is C1 located in line 3355 and it is set from the value C1 in line 5170, which doesn't always get set through the conditioned test in line 5140 and so on.

Unlike the brute force approach as used in our Checker game; Volume I, this Chess game takes full advantage of using subroutines to keep track of the entire board thus using a minimum amount of memory. This approach however has two drawbacks: First - it is very difficult to locate bugs within the program and Second - the running time becomes excessive. While our Checker game takes a lot of memory in order to be executed, it can make its moves in about a minute or less under most conditions, whereas the Chess game requires 3 minutes for the first move and progressively more time per move as the game progresses.

I would like to have feedback in the way of letters, as to your suggestions for a better version of Chess. Any patches you find that cure the "check" problem as well as any other problems you may find would be appreciated. You should include in your letter your name, complete address and phone numbers at which you can be reached. If there is sufficient interest, we will compile a newer version of Chess and mail out a copy of the source code to those whose letters we have on file. If you have a version of your own that you would like to share and we find it meets the requirements expressed in the poll better than our versions, we will include it in our mailing. Be sure to include information about the program variables and/or program operation is it isn't clearly defined within the program.

Following the program listing are the first three moves of a game to illustrate proper program operation. For those not familiar with Basic, there are appendices at the end of Volume II and V that define most of the statements used throughout the program.

```
100 REM CHESS PROGRAM WRITTEN IN BASIC
115 PRINT
130 PRINT
145 PRINT
160 PRINT "THIS PROGRAM PLAYS A CHESS GAME."
175 PRINT "BUT IT WILL NOT RECONIZE CAPTURES 'EN PASSE' AND"
190 PRINT "IT WILL NOT ACCEPT CASTLING. IT DRAWS THE UPDATED"
205 PRINT "BOARD AFTER EACH PLAY. IT WILL TAKE ABOUT 3 TO 4 MINUTES T
220 PRINT "MAKE A MOVE, SO BE PATIENT. THE LEVEL OF DIFFICULTY"
235 PRINT "IS A BEGINNER. GOOD LUCK... . ."
250 PRINT
265 PRINT "UCC COPYRIGHT - 1977 , BY SCIENTIFIC RESEARCH "
280 PRINT
295 PRINT
310 DIM A(9,9),V(9,150),W(9,9)
325 FOR I=1 TO 8
340 Z8=-1
355 READ J
370 A(8,I)=-J
385 A(7,I)=-1
400 A(2,I)=1
415 A(1,I)=J
430 NEXT I
445 FOR I=1 TO 6
460 READ U(I)
475 NEXT I
490 FOR I=1 TO 4
505 FOR J=1 TO 8
520 W(I,J)=W(I,J)+I
535 W(9-I,J)=W(9-I,J)+I
550 W(J,I)=W(J,I)+I
565 W(J,9-I)=W(J,9-I)+I
580 NEXT J
595 NEXT I
610 PRINT "WHAT COLOR DO YOU WANT TO BE (WHITE OR BLACK) ";
625 INPUT Z$
640 F=-1
655 IF MID$(Z$,1,1)="W" THEN 700
670 IF MID$(Z$,1,1)="B" THEN 805
685 GOTO 610
700 F=-F
715 REM F IS MINUS IF COMPUTER IS BLACK
730 M1=0
745 GOSUB 970
760 GOSUB 4330
775 GOSUB 1375
790 GOSUB 1975
805 M1=0
820 Z8=Z8+1
835 GOSUB 970
850 GOSUB 4330
865 C1=C2
880 F=-F
895 M2=M1
910 GOSUB 4330
925 GOSUB 3310
940 GOSUB 1975
955 GOTO 700
```

```

970 REM THIS SUB GENERATES THE BOARD
985 PRINT
1000 PRINT
1015 GOSUB 1210
1030 PRINT
1045 FOR I=8 TO 1 STEP -1
1060 PRINT TAB(15);I;"  I ";
1075 FOR J=1 TO 8
1090 Z$="BKQBQBBBNBRBF  WFWRWNBWBQWK"
1105 Z7=ABS(A(I,J)*2+13)
1120 A$=MID$(Z$,Z7,2)
1135 PRINT A$;" I ";
1150 NEXT J
1165 PRINT
1180 GOSUB 1210
1195 GOTO 1270
1210 FOR I2=1 TO 41
1225 PRINT TAB(21);"-";
1240 NEXT I2
1255 RETURN
1270 PRINT
1285 NEXT I
1300 PRINT
1315 PRINT TAB(20);
1330 PRINT "  A      B      C      D      E      F      G
1345 PRINT
1360 RETURN
1375 REM THIS IS THE INPUT SECTION
1390 GOSUB 5650
1405 IF IO<>2 THEN 5785
1420 IF Z8>0 THEN 1480
1435 PRINT "ENTER YOUR MOVE IN TWO PARTS"
1450 PRINT "A STANDARD WHITE OPENING WOULD BE FROM D2"
1465 PRINT "TOO: D4 "
1480 PRINT "NOW ENTER THE SQUARE YOU ARE MOVING FROM ";
1495 Z8=1
1510 INPUT I$
1525 GOSUB 1900
1540 F1=T1
1555 IF F1>99 THEN 1660
1570 PRINT "YOU ARE GOING TOO: ";
1585 INPUT I$
1600 GOSUB 1900
1615 IF A(2,4)=0 THEN 1645
1630 GOTO 1660
1645 V(8,10)=0
1660 FOR I=1 TO M1
1675 IF F1=V(0,I) THEN 1735
1690 NEXT I
1705 GOSUB 1945
1720 GOTO 1375
1735 IF V(8,I)<>9 THEN 1765
1750 GOTO 1690
1765 J=1
1780 IF F1>99 THEN RETURN
1795 IF T1=V(J,I) AND V(8,I)<>9 THEN 1930
1810 J=J+1
1825 IF J<9 AND V(J,I)<>0 THEN 1795

```

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```
1840 I=I+1
1855 IF V(0,I)=F1 THEN 1765
1870 GOSUB 1945
1885 GOTO 1480
1900 IF LEN(I$)<>2 THEN 1945
1915 T1=10*ASC(I$)+VAL(RIGHT$(I$,1))-640
1930 RETURN
1945 PRINT "ILLEGAL MOVE - TRY AGAIN "
1960 RETURN
1975 REM THIS SUB SETS UP THE NEW BOARD AFTER EACH MOVE
1990 IF F1>99 THEN 2230
2005 Z2=F1
2020 GOSUB 4090
2035 I=Z3
2050 Z4=F1
2065 GOSUB 4150
2080 J=Z5
2095 Z2=T1
2110 GOSUB 4090
2125 I3=Z3
2140 Z4=T1
2155 GOSUB 4150
2170 I5=Z5
2185 A(I3,I5)=A(I,J)
2200 A(I,J)=0
2215 RETURN
2230 IF F1=100 THEN 2320
2245 GOSUB 4285
2260 A(I,1)=0
2275 A(I,2)=6
2290 A(I,3)=2
2305 RETURN
2320 GOSUB 4285
2335 A(I,8)=0
2350 A(I,7)=6
2365 A(I,6)=2
2380 RETURN
2395 IF X<>(4.5-2.5*F) THEN 2935
2410 REM THIS SUB CHECKS FOR THE QUEEN
2425 GOSUB 5260
2440 GOTO 5425
2455 REM THIS SUB CHECKS FOR THE KING
2470 D2=X
2485 D1=Y
2500 FOR X=D2-1 TO D2+1
2515 FOR Y=D1-1 TO D1+1
2530 GOSUB 4630
2545 GOSUB 4930
2560 NEXT Y
2575 NEXT X
2590 RETURN
2605 REM THIS SUB CHECKS FOR THE KNIGHT
2620 D2=X
2635 D1=Y
2650 FOR X=D2-2 TO D2+2 STEP 4
2665 FOR Y=D1-1 TO D1+1 STEP 2
2680 GOSUB 4630
2695 GOSUB 4930
```

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```
2710 NEXT Y
2725 NEXT X
2740 FOR X=D2-1 TO D2+1 STEP 2
2755 FOR Y=D1-2 TO D1+2 STEP 4
2770 GOSUB 4630
2785 GOSUB 4930
2800 NEXT Y
2815 NEXT X
2830 RETURN
2845 REM THIS SUB CHECKS FOR PAWNS
2860 GOSUB 4525
2875 IF A(X+F,Y)=0 THEN 3130
2890 IF X<>(4.5-2.5*F) THEN 2935
2905 GOSUB 4525
2920 IF A(X+F*2,Y)=0 THEN 3190
2935 FOR D2=-1 TO 1 STEP 2
2950 C5=Y+D2
2965 GOSUB 4195
2980 IF C6=0 THEN 3100
2995 GOSUB 4525
3010 C3=9
3025 C7=A(X+F,Y+D2)
3040 IF SGN(C7)<>F THEN 3250
3055 V(1,M1)=X+F+10*(Y+D2)
3070 V(8,M1)=C3
3085 GOSUB 4525
3100 NEXT D2
3115 RETURN
3130 V(1,M1)=X+F+Y*10
3145 V(2,M1)=0
3160 V(8,M1)=8
3175 GOTO 2890
3190 V(1,M1)=X+F*2+Y*10
3205 V(8,M1)=8
3220 V(2,M1)=0
3235 GOTO 2935
3250 IF C7<>0 THEN 3280
3265 GOTO 3055
3280 C3=C7
3295 GOTO 3055
3310 REM THIS SUB IS WHERE THE COMPUTER MAKES ITS MOVE
3325 GOSUB 5650
3340 IF I0<>2 THEN 5785
3355 IF C1=1 THEN 3385
3370 GOTO 3445
3385 PRINT
3400 PRINT " IN CHECK "
3415 PRINT
3430 REM
3445 FOR I=M2+1 TO M1
3460 FOR J=1 TO 7
3475 Z2=V(J,I)
3490 GOSUB 4090
3505 X1=Z3
3520 Z4=Z2
3535 GOSUB 4150
3550 Y1=Z5
3565 Z2=V(0,I)
```

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```
3580 GOSUB 4090
3595 S2=Z3
3610 Z4=Z2
3625 GOSUB 4150
3640 S3=Z5
3655 IF X1=0 THEN 4015
3670 IF V(8,I)=9 THEN 4015
3685 L=W(X1,Y1)+U(ABS(A(X1,Y1)))*3
3700 REM W( ) GIVES THE SQUARE PRIORITY
3715 REM U( ) GIVES THE PIECE VALUE
3730 FOR K=1 TO M2
3745 FOR G=1 TO 7
3760 IF V(G,K)=V(J,I) THEN 3850
3775 IF V(G,K)<>0 THEN 3805
3790 GOTO 3820
3805 NEXT G
3820 NEXT K
3835 GOTO 3910
3850 IF V(8,K)<>8 THEN 3880
3865 GOTO 3775
3880 L=L-2*U(ABS(A(S2,S3)))
3895 GOTO 3775
3910 L=L+1000
3925 IF L>M5 THEN 3955
3940 GOTO 4000
3955 M5=L
3970 M6=I
3985 M7=J
4000 NEXT J
4015 NEXT I
4030 M5=0
4045 F1=V(0,M6)
4060 T1=V(M7,M6)
4075 RETURN
4090 REM THIS SUB DEFINES THE ROW
4105 Z6=INT(Z2/10)
4120 Z3=Z2-10*Z6
4135 RETURN
4150 REM THIS SUB DEFINES THE COLUME
4165 Z5=INT(Z4/10)
4180 RETURN
4195 IF C5>8 THEN 4255
4210 IF C5<1 THEN 4255
4225 C6=1
4240 RETURN
4255 C6=0
4270 RETURN
4285 I=4.5+3.5*F
4300 A(I,5)=0
4315 RETURN
4330 REM THIS SUB CHECKS FOR MEN ON THE BOARD
4345 C2=0
4360 FOR X1=1 TO 8
4375 FOR Y1=1 TO 8
4390 X=X1
4405 Y=Y1
4420 IF SGN(A(X,Y))=F THEN 4480
4435 NEXT Y1
```

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```
4450 NEXT X1
4465 RETURN
4480 X3=ABS(A(X,Y))
4495 ON X3 GOSUB 2845,5260,2605,5425,2410,2455
4510 GOTO 4435
4525 IF V(1,M1)<>0 THEN 4555
4540 GOTO 4585
4555 M1=M1+1
4570 V(1,M1)=0
4585 V(0,M1)=X+Y*10
4600 S1=1
4615 RETURN
4630 IF V(1,M1)<>0 THEN 4690
4645 V(0,M1)=D2+D1*10
4660 S1=1
4675 RETURN
4690 M1=M1+1
4705 V(1,M1)=0
4720 GOTO 4645
4735 GOSUB 4525
4750 M3=X
4765 M4=Y
4780 X=X+D2
4795 Y=Y+D1
4810 GOSUB 4930
4825 IF C3=0 THEN 4780
4840 X=M3
4855 Y=M4
4870 IF C3=99 THEN 4900
4885 RETURN
4900 C3=0
4915 RETURN
4930 C3=99
4945 C5=X
4960 GOSUB 4195
4975 C7=C6
4990 C5=Y
5005 GOSUB 4195
5020 C8=C6
5035 C9=C7*C8
5050 IF C9=0 THEN 5245
5065 IF SGN(A(X,Y))=F THEN 5095
5080 GOTO 5125
5095 C3=9
5110 GOTO 5185
5125 C3=A(X,Y)
5140 IF C3=6*F THEN 5170
5155 GOTO 5185
5170 C2=1
5185 V(S1,M1)=10*Y+X
5200 S1=S1+1
5215 V(S1,M1)=0
5230 V(8,M1)=C3
5245 RETURN
5260 REM THIS SUB CHECKS FOR ROOKS
5275 D2=0
5290 D1=1
5305 GOSUB 4735
```

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```
5320 D1=-1
5335 GOSUB 4735
5350 D2=1
5365 D1=0
5380 GOSUB 4735
5395 D2=-1
5410 GOTO 4735
5425 REM THIS SUB CHECKS FOR BISHOPS
5440 D2=1
5455 D1=1
5470 GOSUB 4525
5485 GOSUB 4735
5500 D2=-1
5515 GOSUB 4525
5530 GOSUB 4735
5545 D1=-1
5560 GOSUB 4525
5575 GOSUB 4735
5590 D2=1
5605 GOSUB 4525
5620 GOTO 4735
5635 DATA 2,3,4,5,6,4,3,2,10,50,30,33,9,1000
5650 I0=0
5665 FOR I9=1 TO 8
5680 FOR I8=1 TO 8
5695 IF ABS(A(I9,I8))=6 THEN 5755
5710 NEXT I8
5725 NEXT I9
5740 RETURN
5755 I0=I0+1
5770 GOTO 5710
5785 PRINT
5800 PRINT "THANK YOU FOR THE GAME. I NEEDED THE PRACTICE... .."
5815 PRINT
5830 END
```

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THIS PROGRAM PLAYS A CHESS GAME.
 BUT IT WILL NOT RECONIZE CAPTURES 'EN PASSE' AND
 IT WILL NOT ACCEPT CASTLING. IT DRAWS THE UPDATED
 BOARD AFTER EACH PLAY. IT WILL TAKE ABOUT 3 TO 4 MINUTES TO
 MAKE A MOVE, SO BE PATIENT. THE LEVEL OF DIFFICULTY
 IS A BEGINNER. GOOD LUCK... * **

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WHAT COLOR DO YOU WANT TO BE (WHITE OR BLACK) ? WHITE

8	I	BR	I	BN	I	BB	I	BQ	I	BK	I	BB	I	BN	I	BR	I
7	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I
6	I		I		I		I		I		I		I		I		I
5	I		I		I		I		I		I		I		I		I
4	I		I		I		I		I		I		I		I		I
3	I		I		I		I		I		I		I		I		I
2	I	WP	I	WP	I	WP	I	WP	I	WP	I	WP	I	WP	I	WP	I
1	I	WR	I	WN	I	WB	I	WQ	I	WK	I	WB	I	WN	I	WR	I
		A		B		C		D		E		F		G		H	

ENTER YOUR MOVE IN TWO PARTS
 A STANDARD WHITE OPENING WOULD BE FROM D2
 TO: D4
 NOW ENTER THE SQUARE YOU ARE MOVING FROM ? D2
 YOU ARE GOING TOO: ? D4

8	I	BR	I	BN	I	BB	I	BQ	I	BK	I	BB	I	BN	I	BR	I
7	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I	BP	I
6	I		I		I		I		I		I		I		I		I
5	I		I		I		I		I		I		I		I		I
4	I		I		I		I		WP	I		I		I		I	I
3	I		I		I		I		I		I		I		I		I
2	I	WP	I	WP	I	WP	I		I	WP	I	WP	I	WP	I	WP	I
1	I	WR	I	WN	I	WB	I	WQ	I	WK	I	WB	I	WN	I	WR	I
		A		B		C		D		E		F		G		H	

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```

8 I BR I BN I BB I BQ I BK I BB I BN I BR I
.....
7 I BP I BP I BP I   I BP I BP I BP I BP I
.....
6 I   I   I   I   I   I   I   I   I
.....
5 I   I   I   I BP I   I   I   I   I
.....
4 I   I   I   I WP I   I   I   I   I
.....
3 I   I   I   I   I   I   I   I   I
.....
2 I WP I WP I WP I   I WP I WP I WP I WP I
.....
1 I WR I WN I WB I WQ I WK I WB I WN I WR I
.....
      A   B   C   D   E   F   G   H

```

NOW ENTER THE SQUARE YOU ARE MOVING FROM ? F1
 YOU ARE GOING TOO: ? B5
 ILLEGAL MOVE - TRY AGAIN
 NOW ENTER THE SQUARE YOU ARE MOVING FROM ? D1
 YOU ARE GOING TOO: ? D3

```

8 I BR I BN I BB I BQ I BK I BB I BN I BR I
.....
7 I BP I BP I BP I   I BP I BP I BP I BP I
.....
6 I   I   I   I   I   I   I   I   I
.....
5 I   I   I   I BP I   I   I   I   I
.....
4 I   I   I   I WP I   I   I   I   I
.....
3 I   I   I   I WQ I   I   I   I   I
.....
2 I WP I WP I WP I   I WP I WP I WP I WP I
.....
1 I WR I WN I WB I   I WK I WB I WN I WR I
.....
      A   B   C   D   E   F   G   H

```

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```

.....
8  I BR I BN I BB I BQ I BK I BB I BN I BR I
.....
7  I BP I BP I BP I   I   I BP I BP I BP I
.....
6  I   I   I   I   I BP I   I   I   I
.....
5  I   I   I   I BP I   I   I   I   I
.....
4  I   I   I   I WP I   I   I   I   I
.....
3  I   I   I   I WQ I   I   I   I   I
.....
2  I WP I WP I WP I   I WP I WP I WP I WP I
.....
1  I WR I WN I WB I   I WK I WB I WN I WR I
.....
      A   B   C   D   E   F   G   H

```

NOW ENTER THE SQUARE YOU ARE MOVING FROM ? DE3
 ILLEGAL MOVE - TRY AGAIN
 YOU ARE GOING TOO? ? D45 *error*
 ILLEGAL MOVE - TRY AGAIN *RUB: removes the D*
 NOW ENTER THE SQUARE YOU ARE MOVING FROM ? D3
 YOU ARE GOING TOO? ? B5

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```

.....
8  I BR I BN I BB I BQ I BK I BB I BN I BR I
.....
7  I BP I BP I BP I   I   I BP I BP I BP I
.....
6  I   I   I   I   I BP I   I   I   I
.....
5  I   I WQ I   I BP I   I   I   I   I
.....
4  I   I   I   I WP I   I   I   I   I
.....
3  I   I   I   I   I   I   I   I   I
.....
2  I WP I WP I WP I   I WP I WP I WP I WP I
.....
1  I WR I WN I WB I   I WK I WB I WN I WR I
.....
      A   B   C   D   E   F   G   H

```


MEDBIL:

This program is designed to alleviate some of the costly and troublesome chores that seem to abound when keeping track of numerous patient records. The program version presented here will allow a doctor to review the history file of any patient, previously stored in the data base, as well as permitting a quick check to be made of the payment history for each of these patients, plus several other features. This version does not include a routine for preparing insurance forms nor does it allow immediate invoicing of patients. Those persons interested in a more comprehensive version; MBP rev: 25, should complete a copy of our software licensing agreement included at the end of this volume and return it with an order or contact us directly to obtain more information. This program can be easily adapted for use by either or both doctors and dentists.

With the number of Basics in use today it almost impossible to write a program that can be immediately executed in every system without making any changes to the program. It may be necessary to change the file call statements used in this program to those that will be accepted by your Basic. Listed below are the five (5) file statements used throughout this program:

- NAME "file name" AS "new name"
- OPEN "I/O", X, "file name"
- CLOSE #X
- INPUT #X, Variable List
- PRINT #X, Variable List

Other than the file call conversions, any other conversions that might be required should be of a very minor nature for most Basics. Should you wish to convert this program and are unfamiliar with the statements used, there are appendices in the back of Volume II and Volume V that define the statements and give specific system conversions. Medbil should execute in most systems having disk extended Basic with at least 12K Bytes of free user memory.

Immediately following the source code listing for the program are sample printouts of the various reports that can be generated. At the end of these report printouts is the source code listing for the "Med" file. This is the creation file for your data base which must be built before you can run MEDBIL. This data file should contain all the patient information that you would like the computer to keep track of for your office.

Before you start entering data there are a few things you should keep in mind, in order to conserve disk storage space. First - you are building a data base which is dynamic, this then excludes the use of any kind of tape storage system. Second - you will need disk storage space twice that required for your data base so that you will be able to update the file with new patient data. Third - be brief in the patient history description as this uses up memory very rapidly.

To make all this a little clearer, let's look at a typical case. To set up the file with the name and address of your patient, takes about fifty (50) characters. To describe each visit will require about thirty (30) characters; see the billing report, and approximately fifty (50) characters would be used per line of patient history. Now suppose a patient has been in five times and you have logged three lines of patient history per visit, plus an initial line describing the patient's allergies. To recap all this we have 50 characters for the name and address, 150 characters for the visits (5 visits x 30 char.), and 800 characters for the patient's history (5 visits x 3 lines per visit x 50 char. per line) which is only about a quarter of a page when printed out. Conservatively estimated the above example totals out to one thousand bytes of information or 1K per patient.

In addition to the patient information stored on the disk your Basic and the source code for MEDBIL must also be kept on the same disk which gives you an overhead of around 30K. If you have a disk which can hold 250K Bytes of information then you will be able to store information for about 110 patients. If you only have 80K on a disk you will only be able to store information for around 25 patients, so be brief. A number of doctors have gotten around this by assigning or reserving blocks of patient numbers to each disk. Then, when a patient arrives for his visit the diskette containing his or her patient number is placed in the computer. This procedure would be required each time a patient whose number was not on the diskette in the computer was seen by the doctor. While this method may not sound very attractive its really very easy to slip a diskette in and out of the computer and the number of times this would have to be done could be minimized by the care with which patients are assigned to each diskette.

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```

100 CLEAR 300
110 V$="#####.#"
120 DEFDBL B
130 WIDTH 80
140 REM THIS IS THE MEDICAL PATIENT A/R PROGRAM
150 REM FOR FULL MODIFICATIONS LIST THE PROGRAM
160 REM THIS PROGRAM IS WRITTEN IN BASIC
170 REM COPYRIGHT - BY SCIENTIFIC RESEARCH
180 REM WRITTEN BY ROGER BROWN
190 REM THE FOLLOWING VARIABLES ARE USED IN THIS PROGRAM
200 REM N1=NUMBER OF CUSTOMERS
210 REM D$=REPOR( DATE
220 REM N   =ITEM #
230 REM E$  =ITEM DESCRIPTION (11 CHARACTERS OR LESS PLEASE)
240 REM A   = PATIENT ACCOUNT #
250 REM N$1 =CUSTOMER NAME (20 CHARACTERS OR LESS)
260 REM R$  =CUSTOMER STREET ADDRESS
270 REM S$  =CUSTOMER CITY & STATE ADDRESS
280 REM S   = 1 (# OF PATIENTS PER RECORD)
290 REM A$  = DATE OF VISIT
300 REM     EX: 12/17/75
310 REM B   = # OF CHARGES FOR EACH PATIENT
320 REM P   = VISIT CHARGES
330 REM U   = CUMULATIVE AMOUNT PAID
340 REM U$  =DATE OF LAST PAYMENT
350 REM     EX: 12/21/75
360 REM J$  = PATIENTS HISTORY RECORD
370 REM
380 REM

```

```

430 REM *****
440 REM
450 SS=0
460 REM SS IS THE SALES TAX PERCENTAGE
470 PRINT
480 PRINT "      UCC - COPYRIGHT BY , SCIENTIFIC RESEARCH - 1977 "
490 PRINT
500 PRINT
510 PRINT
520 PRINT
530 PRINT "      THIS IS THE MEDICAL RECORDS AND PATIENT BILLING PROGRAM"
540 PRINT
550 PRINT
560 PRINT
570 PRINT "TYPE IN TODAYS DATE, AS: 5/21/76 "
580 INPUT D$
590 OPEN "I",1,"MED"
600 INPUT #1,N1
610 FOR I=1 TO N1
620 INPUT #1,A   ,N$   ,R$   ,S$   ,U   ,U$   ,B   ,J
630 IF B   =0 THEN 670
640 FOR I1=1 TO B
650 INPUT #1,E$   ,N   ,A$   ,S   ,P
660 NEXT I1
670 IF J   =0 THEN 710
680 FOR I2=1 TO J

```

```

690 INPUT #1,J#
700 NEXT I2
710 NEXT I
720 CLOSE
730 PRINT
740 PRINT
750 PRINT
760 PRINT
770 PRINT "THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM"
780 PRINT "WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED."
790 PRINT
800 PRINT " 1 - PRINT MAILING LABELS"
810 PRINT " 2 - PRINT PATIENT BILLS"
820 PRINT " 3 - PATIENT A/Z REPORT"
830 PRINT " 4 - PATIENT HISTORY"
840 PRINT " 5 - UPDATE PATIENT RECORDS"
850 PRINT " 6 - STOP PROGRAM"
860 PRINT
870 PRINT "WHICH REPORT WOULD YOU LIKE TO RUN: ";
880 INPUT R
890 IF R>6 THEN 750
900 IF R<1 THEN 750
910 PRINT
920 IF R=6 THEN 4100
930 IF R=1 THEN 1000
940 IF R=2 THEN 1260
950 IF R=3 THEN 2190
960 IF R=4 THEN 2680
970 IF R=5 THEN 3220
980 PRINT "ONLY A SINGLE NUMBER PLEASE BETWEEN 1 AND 6 : "
990 GOTO 800
1000 REM THIS SUB GENERATES THE MAILING LIST
1010 PRINT
1020 PRINT " THIS IS THE MAILING LIST ROUTINE "
1030 PRINT
1040 PRINT "WHEN YOU HAVE THE LABELS IN PLACE TYPE A 7: ";
1050 INPUT Z2
1060 Z1=5
1070 FOR I=1 TO Z1
1080 PRINT
1090 NEXT I
1100 LET Z=3
1110 FOR I=1 TO N1
1120 PRINT TAB(Z);A
1130 PRINT TAB(Z);N#
1140 PRINT TAB(Z);R#
1150 PRINT TAB(Z);S#
1160 PRINT
1170 PRINT
1180 PRINT
1190 NEXT I
1200 PRINT
1210 PRINT
1220 PRINT
1230 PRINT "END OF THE MAILING LIST *****"
1240 PRINT
1250 GOTO 730
1260 REM THIS SUB GENERATES THE BILLING LIST #2

```



```

1270 B1=0
1280 B2=0
1290 B3=0
1300 REM THE FORMAT OF THE BILL PRINTING IS AS FOLLOWS?
1310 REM PAGE ONE PRINTS THE MAILING ADDRESS
1320 REM                               DATE
1330 REM     ACCOUNT#
1340 REM     CUSTOMER NAME
1350 REM     STREET ADDRESS
1360 REM     CITY STATE
1370 REM
1380 REM
1390 REM
1400 REM     DATE     CHARGE $     DESCRIPTION     CHARGES
1410 REM     * * * * *
1420 REM     * * * * *
1430 REM
1440 REM
1450 REM TOTAL AMOUNT PAID = $ XXX.XX
1460 REM DATE OF THE LAST PAYMENT 12/21/75
1470 REM TOTAL AMOUNT DUE = ***** $ XXX.XX *****
1480 REM
1490 PRINT
1500 PRINT
1510 PRINT "THIS GENERATES THE PRINTING OF THE BILLS"
1520 PRINT "WHEN THEY ARE IN PLACE TYPE A 7 ;"
1530 INPUT Z
1540 LET Z=7
1550 FOR I=1 TO Z
1560 PRINT
1570 NEXT I
1580 LET Z=18
1590 OPEN "I",1,"MED"
1600 INPUT #1,N1
1610 FOR I=1 TO N1
1620 LET Z2=65
1630 LET Z=5
1640 INPUT #1, A ,N$ ,R$ ,S$ ,U ,U$ ,B
1650 INPUT #1, J
1660 IF B =0 THEN 2050
1670 PRINT TAB(Z);A
1680 PRINT TAB(Z);N$
1690 PRINT TAB(Z);R$
1700 PRINT TAB(Z);S$
1710 LET Z1=4
1720 FOR I3=1 TO Z1
1730 PRINT
1740 NEXT I3
1750 REM THIS IS TO SKIP DOWN TO THE STATEMENT SECTION OF THE BILL.
1760 Z7=65
1770 PRINT TAB(Z7);D$
1780 PRINT
1790 FOR I1=1 TO B
1800 INPUT #1, E$ ,N ,A$ ,S ,P
1810 Z2=3
1820 PRINT TAB(Z2);

```

```

1830 PRINT A$ " ,N " ,E$ " , " , " $ " $F
1840 B2=B2+S *F
1850 NEXT I1
1860 PRINT
1870 PRINT "TOTAL AMOUNT PAID = $" $U
1880 PRINT "DATE OF LAST PAYMENT = " $U$
1890 B3=B2*S$
1900 B3=INT(.5+100*B3)/100
1910 PRINT
1920 B2=B2+B3-U
1930 B2=INT(.5+100*B2)/100
1940 PRINT "TOTAL AMOUNT DUE = ***** " $
1950 PRINT USING "V$;B2$
1960 PRINT " *****"
1970 LET Z5=10-B
1980 FOR J6=1 TO Z5
1990 PRINT
2000 NEXT J6
-----
2010 REM THIS IS TO SKIP TO THE NEXT BILL HEAD.
2020 B1=0
2030 B2=0
2040 B3=0
2050 IF J =0 THEN 2090
2060 FOR I7=1 TO J
2070 INPUT #1, J$
2080 NEXT I7
2090 NEXT I
2100 Z=12
2110 FOR I7=1 TO Z
2120 PRINT
2130 NEXT I7
2140 PRINT "END OF THE BILL PRINTING SEQUENCE."
2150 PRINT
2160 PRINT
2170 CLOSE
2180 GOTO 730
-----
2190 REM THIS SUB GENERATES THE CUST. A/R REPORT #3
2200 LET B1=0
2210 LET B2=0
2220 LET B3=0
2230 PRINT
2240 PRINT
2250 PRINT "----- PATIENT A/R REPORT -----" $D$
2260 PRINT
2270 PRINT
2280 PRINT " ACC# " , " A/R $ " , " PAYMENTS" , " LS DATE" , " CUST NAME "
2290 PRINT
2300 OPEN "I",1,"MED"
2310 INPUT #1,N1
2320 FOR I=1 TO N1
2330 INPUT #1, A $ ,R$ ,S$ ,U $ ,U$ ,B
2340 INPUT #1, J
2350 IF B =0 THEN 2490
2360 FOR I1=1 TO B

```

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```

2370 INPUT #1, E$, N$, A$, S$, P$
2380 T2=S *F
2390 T2=T2*(1+S)
2400 T2=INT(.5+100*T2)/100
2410 B3=B3+T2
2420 NEXT I1
2430 B3=INT(.5+100*B3)/100
2440 B1=B1+B3-U
2450 B2=B2+U
2460 PRINT A$, " $" ; B3-U$, " $" ; U$, "U$" ; " $" ; "N$"
2470 LET B3=0
2480 GOTO 2500
2490 PRINT A$, " $" ; 00.00$, " $" ; 00.00$, "U$" ; " $" ; "N$"
2500 IF J =0 THEN 2540
2510 FOR I7=1 TO J
2520 INPUT #1, J$
2530 NEXT I7
2540 NEXT I
2550 PRINT
2560 PRINT
2570 PRINT
2580 PRINT "TOTAL PAYMENTS = $"
2590 PRINT USING V$;B2
2600 PRINT "TOTAL ACCOUNTS/REC. = $"
2610 PRINT USING V$;B1+B2
2620 PRINT
2630 PRINT "ACCOUNTS/REC. DUE = $"
2640 PRINT USING V$;B1,
2650 PRINT " *****"
2660 CLOSE
2670 GOTO 730
2680 REM PATIENT HISTORY
2690 LET B1=0
2700 LET B2=0
2710 LET B3=0
2720 PRINT
2730 PRINT
2740 PRINT "INPUT THE PATIENT'S ACCOUNT # "
2750 INPUT N7
2760 PRINT
2770 LET Q$=D$
2780 PRINT
2790 PRINT
2800 PRINT " P A T I E N T H I S T O R Y A S : " ; Q$
2810 PRINT
2820 PRINT
2830 PRINT "ACC#", "PATIENT NAME"
2840 PRINT
2850 OPEN "I", #1, "MED"
2860 INPUT #1, N1
2870 FOR I=1 TO N1
2880 INPUT #1, A$, N$, R$, S$, U$, U$, B
2890 INPUT #1, J
2900 IF B =0 THEN 2940

```

```

2910 FOR I1=1 TO B
2920 INPUT #1, E$, N$, A$, S$, F$
2930 NEXT I1
2940 IF N7<>A THEN 3000
2950 PRINT A$, N$
2960 PRINT
2970 PRINT
2980 PRINT "          P A S T          H I S T O R Y"
2990 PRINT
3000 IF J =0 THEN 3070
3010 FOR I7=1 TO J
3020 INPUT #1, J$
3030 IF N7<>A THEN 3050
3040 PRINT J$
3050 NEXT I7
3060 IF N7=A THEN 3080
3070 NEXT I
3080 PRINT
3090 PRINT "END OF "N$ " HISTORY FILE"
3100 PRINT "WHEN YOU ARE READY TO PROCEED TYPE A 1 "
3110 INPUT N8
3120 PRINT
3130 PRINT "WOULD YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)"
3140 INPUT Y$
3150 CLOSE
3160 IF Y$="YES" THEN 2680
3170 IF Y$="Y" THEN 2680
3180 PRINT
3190 PRINT
3200 PRINT
3210 GOTO 730
3220 REM THIS IS THE UPDATING SECTION
3230 FOR I=1 TO 8
3240 PRINT
3250 NEXT I
3260 OPEN "1",1,"MED"
3270 OPEN "0",2,"SURM"
3280 INPUT #1,N1
3290 PRINT "TYPE A - 0 - IF YOU ARE ADDING A NEW PATIENT"
3300 PRINT "TYPE A - 1 - IF YOU ARE UPDATING AN OLD PATIENT"
3310 PRINT "TYPE A - 2 - IF YOU ARE FINISHED"
3320 INPUT D
-----
3330 IF D<0 THEN 3290
3340 IF D>2 THEN 3290
3350 IF D=1 THEN 3390
3360 IF D=0 THEN 3780
3370 CLOSE
3380 GOTO 730
3390 PRINT
3400 PRINT "TYPE IN THE PATIENT ACCOUNT NUMBER "
3410 INPUT A
3420 PRINT #2,N1
3430 FOR I=1 TO N1

```

```

3440 INPUT #1,A1,N$,R$,S$,U,U$,B,J
3450 IF A=A1 THEN 3600
3460 PRINT #2,A1,N$," ",R$," ",S$," ",U,U$," ",B,J
3470 IF B=0 THEN 3520
3480 FOR I2=1 TO B
3490 INPUT #1,E$,N,A$,S,P
3500 PRINT #2,E$," ",N,A$," ",S,P
3510 NEXT I2
3520 IF J=0 THEN 3570
3530 FOR I3=1 TO J
3540 INPUT #1,J$
3550 PRINT #2,J$
3560 NEXT I3
3570 NEXT I: CLOSE
3580 KILL "MED": NAME "SCRM" AS "MED"
3590 GOTO 3260
3600 B=B+1
3610 PRINT "HOW MANY LINES ARE YOU GOING TO ADD TO THE HISTORY "
3620 INPUT L1
3630 PRINT #2,A1,N$," ",R$," ",S$," ",U,U$," ",B,J+L1
3640 FOR I5=1 TO B-1
3650 INPUT #1,E$,N,A$,S,P
3660 PRINT #2,E$," ",N,A$," ",S,P
3670 NEXT I5
3680 PRINT "TYPE IN THE - CHG.#, DESC., CHARGES, & PAYMENT"
3690 INPUT N,A$,S,P
3700 PRINT #2,D$," ",N,A$," ",S,P
3710 PRINT
3720 PRINT "ENTER THE "L1" LINES OF HISTORY NOW "
3730 FOR I7=1 TO L1
3740 INPUT G$
3750 PRINT #2,G$
3760 NEXT I7
3770 GOTO 3570
3780 PRINT
3790 PRINT "TYPE IN THE PATIENT #, NAME, ADDRESS, CITY/STATE/ZIP"
3800 INPUT A,N$,R$,S$
3810 PRINT #2,N1+1: PRINT "HOW MANY LINES ARE YOU ENTERING IN THE HISTOR
Y ":INPUT J
3820 PRINT #2,A,N$," ",R$," ",S$," ",O,D$," ",I,J
3830 PRINT "TYPE - CHARGE #, DESC., CHARGE AMT., PAYMENT "
3840 INPUT N,A$,S,P
3850 PRINT #2,D$," ",N,A$," ",S,P
3860 PRINT "TYPE IN THE "J" LINES OF HISTORY "
3870 FOR I9=1 TO J
3880 INPUT K$
3890 PRINT #2,K$
3900 NEXT I9
3910 FOR I8=1 TO N1
3920 INPUT #1,A,N$,R$,S$,U,U$,B,J
3930 PRINT #2,A,N$," ",R$," ",S$," ",U,U$," ",B,J
3940 IF B=0 THEN 3990

```

```
3950 FOR I7=1 TO B
3960 INPUT #1,E#1,N,A#1,S,P
3970 PRINT #2,E#1",",N,A#1",",S,P
3980 NEXT I7
3990 IF J=0 THEN 4040
4000 FOR I6=1 TO J
4010 INPUT #1,I#1
4020 PRINT #2,I#1
4030 NEXT I6
4040 NEXT I8
4050 CLOSE
4060 KILL "MED"
4070 NAME "SCRM" AS "MED"
4080 PRINT
4090 GOTO 3260
4100 REM THE END
4110 END
```

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THIS IS THE MEDICAL RECORDS AND PATIENT BILLING PROGRAM

TYPE IN TODAYS DATE, AS: 5/21/76 ? 7/23/77

THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM
WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED.

- 1 - PRINT MAILING LABELS
- 2 - PRINT PATIENT BILLS
- 3 - PATIENT A/R REPORT
- 4 - PATIENT HISTORY
- 5 - UPDATE PATIENT RECORDS
- 6 - STOP PROGRAM

WHICH REPORT WOULD YOU LIKE TO RUN: ? 1

THIS IS THE MAILING LIST ROUTINE

WHEN YOU HAVE THE LABELS IN PLACE TYPE A ? 7

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37116
SAM WALTERS
8927 W. CHERRY ST.
BALTIMORE MD. 21136

45686
PHIL REMINGTON
1934 SHERWOOD AVE.
BALTIMORE MD. 21134

51376
MARY JOHNSON
PO BOX 405

78192

JOHN K. MASSEY
3421 HOWARD ST.
BALTIMORE MD. 21130

93216

NANCY L. SMITH
1637 WEDGEWOOD AVE.
BALTIMORE MD. 21135

END OF THE MAILING LIST *****

THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM
WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED.

- 1 - PRINT MAILING LABELS
- 2 - PRINT PATIENT BILLS
- 3 - PATIENT A/R REPORT
- 4 - PATIENT HISTORY
- 5 - UPDATE PATIENT RECORDS
- 6 - STOP PROGRAM

WHICH REPORT WOULD YOU LIKE TO RUN: ? 2

THIS GENERATES THE PRINTING OF THE BILLS
WHEN THEY ARE IN PLACE TYPE A ? 7

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37116
SAM WALTERS
8927 W. CHERRY ST.
BALTIMORE MD. 21136

7/23/77

3/2/76	12	OFFICE VISIT	\$ 15
9/2/76	12	OFFICE VISIT	\$ 15
4/3/77	12	OFFICE VISIT	\$ 15

4/9/77

12

OFFICE VISIT

\$ 15

TOTAL AMOUNT PAID = \$ 40
DATE OF LAST PAYMENT = 4/12/77

TOTAL AMOUNT DUE = ***** \$20.00 *****

45686
PHIL REMINGTON
1934 SHERWOOD AVE.
BALTIMORE MD. 21134

7/23/77

3/15/77 12 OFFICE VISIT \$ 15
3/15/77 9 X-RAYS \$ 35

TOTAL AMOUNT PAID = \$ 15
DATE OF LAST PAYMENT = 4/1/77

TOTAL AMOUNT DUE = ***** \$35.00 *****

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1977
UCC COPYRIGHT

78192
JOHN K. MASSEY
3421 HOWARD ST.
BALTIMORE MD. 21130

7/23/77

3/9/76 12 OFFICE VISIT \$ 15
1/21/77 17 REMOVED WART \$ 25
2/16/77 12 OFFICE VISIT \$ 15

TOTAL AMOUNT PAID = \$ 30
DATE OF LAST PAYMENT = 3/3/77

TOTAL AMOUNT DUE = ***** \$25.00 *****

93216
NANCY L. SMITH
1637 WEDGEWOOD AVE.

7/23/77

6/12/76	12	OFFICE VISIT	\$ 15
11/25/76	12	OFFICE VISIT	\$ 15
2/2/77	12	OFFICE VISIT	\$ 15

TOTAL AMOUNT PAID = \$ 35
 DATE OF LAST PAYMENT = 3/15/77

TOTAL AMOUNT DUE = ***** \$10.00 *****

END OF THE BILL PRINTING SEQUENCE.

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THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED.

- 1 - PRINT MAILING LABELS
- 2 - PRINT PATIENT BILLS
- 3 - PATIENT A/R REPORT
- 4 - PATIENT HISTORY
- 5 - UPDATE PATIENT RECORDS
- 6 - STOP PROGRAM

WHICH REPORT WOULD YOU LIKE TO RUN? 3

P A T I E N T A / R R E P O R T 7/23/77

ACC#	A/R \$	PAYMENTS	LS DATE	CUST NAME
37116	\$ 20	\$ 40	4/12/77	SAM WALTERS
45686	\$ 35	\$ 15	4/1/77	PHIL REMINGTON
51376	\$ 00.00	\$ 00.00	PAID UP	MARY JOHNSON
78192	\$ 25	\$ 30	3/3/77	JOHN R. MASSEY
93216	\$ 10	\$ 35	3/15/77	NANCY L. SMITH

TOTAL PAYMENTS = \$120.00
TOTAL ACCOUNTS/REC. = \$210.00
ACCOUNTS/REC. DUE = \$90.00 *****

THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM
WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED.

- 1 - PRINT MAILING LABELS
- 2 - PRINT PATIENT BILLS
- 3 - PATIENT A/R REPORT
- 4 - PATIENT HISTORY
- 5 - UPDATE PATIENT RECORDS
- 6 - STOP PROGRAM

WHICH REPORT WOULD YOU LIKE TO RUN: ? 4

INPUT THE PATIENT'S ACCOUNT # ? 37116

P A T I E N T H I S T O R Y A S : 7/23/77

ACC#	PATIENT NAME
37116	SAM WALTERS

P A S T H I S T O R Y

ALLERGIES = SULFA & PENICILLIN * AGE 37 * HT 5-10 * WT 173
FIRST VISIT 3/76 - FEVER 99.7 BD. PR. 85/115 HEADACHE
PRESCRIBED = TETRACYCLINE 500 MG REST & LIQUIDS
SECOND VISIT 9/76 - EYES WATERING. NO FEVER. BP 80/125
PRESCRIBED - EMPIRIN #3 AND REST
7/77 - NAUSEA . NO FEVER. CHEST PAIN AND DISCOMFORT
PRESCRIBED - COMPAZINE AND REST
9/77 - DIARRHEA AND MILD DISCOMFORT. FEVER 98.9. BP 90/130
PRESCRIBED - LOMOTIL. EMPIRIN #3 AND REST

END OF SAM WALTERS HISTORY FILE
WHEN YOU ARE READY TO PROCEED TYPE A 1 ? 1

SCIENTIFIC RESEARCH INC.
UCC COPYRIGHT 1977

WOULD YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)? YES

INPUT THE PATIENT'S ACCOUNT # ? 78192

P A T I E N T H I S T O R Y A S : 7/23/77

ACC# PATIENT NAME
78192 JOHN K. MASSEY

P A S T H I S T O R Y

ALLERGIES - SULFA * AGE 22 * BP 90/135 * HT 5-9 * WT 158
3/76 - FIRST VISIT FEVER 101.8 . BP 85/130. FEELS POOR
PRESCRIBED - TETRACYCLINE 250 MG
REMOVED WART ON BACK OF LEFT INDEX FINGER.
USED A LOCAL AND A HOT WIRE TO REMOVE WART.
2/77 - FEVER 101.2 . BP 85/130. FEELS ILL AND HAS HEADACHE
HAS CHILLS. PRESCRIBED - TETRACYCLINE AND EMPIRIN #3.

END OF JOHN K. MASSEY HISTORY FILE
WHEN YOU ARE READY TO PROCEED TYPE A 1 ? 1

WOULD YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)? NO

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THE FOLLOWING IS A LIST OF REPORTS THAT THIS PROGRAM
WILL GENERATE. TO CHOOSE ONE TYPE IT'S NUMBER WHEN ASKED.

- 1 - PRINT MAILING LABELS
- 2 - PRINT PATIENT BILLS
- 3 - PATIENT A/R REPORT
- 4 - PATIENT HISTORY
- 5 - UPDATE PATIENT RECORDS
- 6 - STOP PROGRAM

WHICH REPORT WOULD YOU LIKE TO RUN? ? 6

```

10 REM MED FILE
20 PRINT
30 PRINT
40 PRINT " THIS PROGRAM WILL BUILD YOUR DATA BASE FOR YOU"
50 PRINT
60 OPEN "0",1,"MED"
70 PRINT "HOW MANY PATIENTS DO YOU WANT TO PUT IN YOUR DATA BASE ";
80 INPUT N1
90 PRINT #1,N1
100 PRINT
110 PRINT "TYPE IN THE FOLLOWING INFORMATION FOR EACH PATIENT"
120 PRINT
130 PRINT "PATIENT #, NAME, ADDRESS, CITY/STATE/ZIP, # OF VISITS BEING E
ENTERED "
140 PRINT "PLUS THE NUMBER OF HISTORY LINES YOU ARE GOING TO ENTER "
150 PRINT
160 FOR I=1 TO N1
170 INPUT A, N$, R$, S$, B, J
180 PRINT #1, A,N$," ", "R$"," ", "S$"," ", "B,J
190 PRINT
200 IF B=0 THEN 290
210 PRINT "TYPE IN THE VISIT INFORMATION AS FOLLOWS: "
220 PRINT
230 PRINT "DATE, CHARGE #, DESC., $ CHARGES, $ PAYMENT "
240 PRINT
250 FOR I2=1 TO B
260 INPUT E$, N, A$, S, P
270 PRINT #1, E$," ", "N,A$"," ", "S,P
280 NEXT I2
290 IF J=0 THEN 380
300 PRINT
310 PRINT "INPUT THE PATIENT HISTORY HERE. BE SURE TO ENTER"
320 PRINT "THE NUMBER OF LINES YOU SPECIFIED ABOVE ... .. "
330 PRINT
340 FOR I3=1 TO J
350 INPUT J$
360 PRINT #1,J$
370 NEXT I3
380 PRINT
390 NEXT I
400 PRINT
410 PRINT
420 PRINT
430 PRINT "ALL FINISHED "
440 PRINT
450 END
OK

```

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WRDPRO:

This program is designed to allow owners of micro-computers the capability of rearranging text material and then printing it out in a variety of formats. While this version is not quite as comprehensive as our WWP rev:30 program, it should easily run on most systems with disk extended Basic and 15K Bytes of free user memory for execution.

There are a few statements appearing in this program that may not be in the version of Basic you are using. The first is the Console statement, if your Basic doesn't have this command then just remove it everywhere it appears in the program, no other conversion is necessary. Line Input and Instr are two more statements that may not be in the version of Basic you are using. The Instr statement may be replaced by a conversion subroutine using the MID\$ statement, if necessary. A typical conversion for the Instr statement would be similar to the subroutine used on line 4075 on page 243 of Volume I. Here F1 is set equal to one (1) and the SST statement would be replaced by the MID\$ statement; see appendix B, page 925: Volume V.

This program offers nine major modes of operation with a number of submode operations. Individuals requiring a considerably more comprehensive version, should complete a copy of our software licensing agreement included at the end of this volume and return it with an order or contact us directly to obtain more details.

Following the source code listing for WRDPRO are a series of sample runs which illustrate the usefulness and versatility of the routines contained within this program. It should be noted that this version of WRDPRO rev:1 can only utilize text files that fit entirely into the working memory of the system being used. Therefore, if your Basic requires 20K and you only have 50K Bytes of total memory, then the largest text file you could build and use would only be 15K Bytes long; this would be equivalent to approximately four standard size, single spaced, typed pages of text. While this program does limit the size of your text files to the size of your working memory, it does not limit the number of files you may have, making it quite easy for you to have several files representing separate portions of the total text material.

```

100 PRINT CHR$(26);"WORD PROCESSING TEXT EDITOR  REV. 1.1"
110 PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH":PRINT:PRINT
120 REM WORD PROCESSING TEXT EDITOR
130 REM WRITTEN BY JOHN W. SWAIN
140 REM COPYRIGHT BY SCIENTIFIC RESEARCH 1977
150 REM THE FOLLOWING VARIABLES CONTROL CONSOLE PORT ASSIGNMENTS
160 REM C1=CRT PORT ASSIGNMENT
170 REM P1=SWITCH SETTING FOR CRT PORT
180 REM C2=PRINTER PORT ASSIGNMENT
190 REM F2=SWITCH SETTING FOR PRINTER PORT
200 REM SET UP GLOBAL CONSTANTS AND EQUATES
210 DEFINT A-Z:CLEAR 3000:DEFFNZ$(Y$)=CHR$(ASC(Y$)AND 95)
220 LINEINPUT"ENTER TODAY'S DATE (MM/DD/YY OR SEPT. 26, 1977)? ";Z9$
230 PRINTCHR$(26)
240 ON ERROR GOTO 3420 'SET UP ERROR TRAPS
250 C1=18:P1=1
260 C2=16:P2=0
270 CLOSE:PRINT "WORD PROCESSING TEXT EDITOR  REV. 1.1"
280 PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH":PRINT:PRINT
290 PRINT "THE FOLLOWING FUNCTIONS AVAILABLE ARE:";PRINT
300 PRINT," 1 - BUILD THE TEXT OR LETTER"
310 PRINT," 2 - CREATE THE NAME AND ADDRESS FILE"
320 PRINT," 3 - EDIT THE NAME AND ADDRESS FILE"
330 PRINT," 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE"
340 PRINT," THE EDITOR IN BASIC)"
350 PRINT," 5 - PRINT A COPY OF THE TEXT"
360 PRINT," 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME "
370 PRINT," AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER"
380 PRINT," 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE"
390 PRINT," 8 - GLOBAL SEARCH AND REPLACE"
400 PRINT," 9 - PRINT MAILING LABELS"
410 PRINT,"10 - END"
420 PRINT:INPUT"WHICH WOULD YOU LIKE TO DO";F9:IF F9<1 OR F9>10 THEN 270
430 PRINTCHR$(26):ON F9GOTO 470,760,1090,1560,1690,1940,2270,2750,3020
440 REM END ROUTINE
450 CLOSE:PRINT"EXITING TEXT EDITOR":CLEAR 200:END
460 REM TEXT CREATION ROUTINE
470 LN=1000:PRINT"TEXT CREATION ROUTINE FOR LETTERS AND COPY"
480 GOSUB3390:IF Z=0 THEN 480
490 PRINT"OUTPUT ";:GOSUB3360:IF Z=0 THEN 490
500 GOSUB3220 'CHECK FOR EXISTING FILE
510 OPEN"0",1,FZ$,IR
520 GOSUB 3180 'SET UP HEADER OF FILE
530 PRINT:PRINT:PRINT"FILE HEADER LABEL = ";MID$(A$,INSTR(A$,"'"))
540 PRINT"==== BEGIN TEXT ENTRY ====="
550 PRINT:PRINT
560 LINEINPUT A$:IF A$="END" THEN 630
570 IF LEFT$(A$,1)="?" THEN 590
580 A1$=A$:A$=STR$(LN)+"' "+A$:PRINT#1,A$:LN=LN+10:GOTO 560
590 IF A$="?" THEN PRINT:PRINTA1$:GOTO 560
600 T=VAL(MID$(A$,2)):IFT<10RT>132THENPRINT"TAB INCORRECT":GOTO 560
610 T$="":FOR I=1 TO T:T$=T$+" ";NEXT
620 PRINTT$;:LINEINPUTA$:A$=T$+A$:GOTO580
630 GOSUB650:CONSOLE C1,P1:CLOSE:PRINT"EXITING CREATION ROUTINE"
640 GOTO 730
650 CLOSE:INPUT"DO YOU WANT A LISTING OF THE FILE";Z1$
660 IF LEFT$(Z1$,1)="N" THEN RETURN
670 OPEN"1",1,FZ$,DR:INPUT"DO YOU WANT LINE NUMBERS LISTED";Z1$

```



```

680 INPUT"HIT (CR) WHEN READY";ZZ$:CONSOLE C2, P2:PRINT
690 IF EOF(1) THEN RETURN
700 LINEINPUT#1,A$
710 IF LEFT$(Z1$,1)="Y" THEN PRINTA$ELSEPRINTMID$(A$,INSTR(A$,"'")+1)
720 GOTO 690
730 PRINT"NUMBER OF RECORDS WRITTEN = ";(LN-1000)/10
740 GOTO 270
750 REM CREATE NAME AND ADDRESS FILE
760 LN=1000:PRINT"CREATION ROUTINE FOR NAME AND ADDRESS FILE"
770 GOSUB3390:IF Z=0 THEN 770
780 PRINT"OUTPUT ";:GOSUB3360:IF Z=0 THEN 780
790 GOSUB3220 'CHECK FOR EXISTING FILE
800 OPEN"O",1,FZ$,DR
810 GOSUB 3180 'SET UP HEADER OF FILE
820 PRINT:PRINT:PRINT"FILE HEADER LABEL = ";MID$(A$,INSTR(A$,"'"))
830 GOSUB 840:GOTO 1010
840 PRINT"===== BEGIN TEXT ENTRY ====="
850 PRINT:PRINT
860 LINEINPUT A$:IF A$<>"END" THEN GOSUB 870:GOTO 860 ELSE RETURN
870 IF LEFT$(A$,1)="?" THEN 900
880 IF F>8 THEN GOSUB 1030:F=0:RETURN
890 A1$=A$:F=F+1:AT$(F)=A$:RETURN
900 IF A$="?" THENPRINT:PRINTA1$:RETURN
910 A$=MID$(A$,2):GOSUB 920:GOTO960
920 IF LEN(A$)<1 OR LEN(A$)>26 THEN 990
930 FORI=1TOLEN(A$):MID$(A$,I,1)=FNZ$(MID$(A$,I,1)):T$=MID$(A$,I,1)
940 IF T$=>"A" AND T$<="Z" THEN NEXT ELSE 990
950 RETURN
960 T$=A$:LINEINPUT"SALUTATION? ";A$:F=F+1:AT$(F)="?"+T$+"-"+A$
970 FOR I=1 TO F:PRINT#1,MID$(STR$(LN),2)+"' "+AT$(I):LN=LN+10:NEXT
980 F=0:PRINT:PRINT"===== NEXT ENTRY =====":RETURN
990 PRINT"GROUP CODES MUST CONSIST OF 1 TO 26 UPPER CASE LETTERS ONLY"
1000 LINEINPUT"PLEASE ENTER THE CORRECT GROUP CODE(S)? ";A$:GOTO920
1010 GOSUB650:CONSOLE C1,P1:CLOSE:PRINT"EXITING CREATION ROUTINE"
1020 GOTO730
1030 PRINTCHR$(26):"THE LAST 10 LINES ENTERED:";PRINT
1040 FOR J=1 TO F:PRINTAT$(J):NEXT
1050 PRINT:PRINT"DON'T CONTAIN AN END OF ENTRY MARKER (?).";
1060 PRINT"START THIS ENTRY OVER AT THE FIRST LINE"
1070 RETURN
1080 REM NAME AND ADDRESS FILE EDITOR ROUTINE
1090 PRINT"EDITOR FOR NAME AND ADDRESS FILE":PRINT:PRINT
1100 GOSUB 3390:IF Z=0 THEN 1090
1110 PRINT"OUTPUT ";:GOSUB 3360:FP$=FZ$:IFZ=0THEN1110
1120 PRINT"INPUT ";:GOSUB3360:LN=1000:IF Z=0 THEN 1120
1130 OPEN"I",2,FZ$,DR
1140 OPEN"O",1,"..XYZ..",DR
1150 GOSUB3190:LINEINPUT#2,Z1$ 'WRITE UPDATED HEADER TO FILE
1160 PRINTCHR$(26):F=1:GOSUB1460:IF F=0 THEN GOTO 1510
1170 PRINT"THIS SECTION OFFERS 6 MODES OF OPERATION.":PRINT
1180 PRINT,"1 - ADD A LINE AFTER LINE SPECIFIED"
1190 PRINT,"2 - DELETE LINE SPECIFIED"
1200 PRINT,"3 - REPLACE LINE SPECIFIED"
1210 PRINT,"4 - DELETE THIS ENTRY"
1220 PRINT,"5 - GET NEXT ENTRY"
1230 PRINT,"6 - END"
1240 PRINT:PRINT:PRINTTAB(12);"LINE NO. CONTENTS":PRINT
1250 PRINTTAB(16);#1 "AT$(1);SPC(4);"(GROUP CODES)"

```

```

1260 FORJ=2 TO F:PRINTTAB(15);J;SPC(5);AT$(J):NEXT:PRINT:PRINT
1270 INPUT"WHICH FUNCTION";F9:IF F9<1OR F9>6 THEN 1170
1280 IFF9<4THENINPUT"LINE NUMBER";F8 ELSE 1300
1290 IF F8<1 OR (F8+1>10 AND F9=1) OR F8>F THEN 1280
1300 ON F9 GOTO 1380,1360,1340,1160,1330
1310 GOSUB 1440
1320 F=1:GOSUB1460:IFF<1THENGOTO1510ELSEGOSUB1440:GOTO1320
1330 GOSUB 1440:GOTO1160
1340 PRINT"REPLACEMENT LINE FOR;"F8;"?";:LINEINPUTAT$(F8)
1350 IF F8<>1THEN 1170 ELSE A$=AT$(1):GOSUB 920:AT$(1)=A$:GOTO1170
1360 IF F8=>2THEN F=F-1:FORI=F8 TO F:AT$(I)=AT$(I+1):NEXT
1370 GOTO 1170
1380 IFF8<FTHENLINEINPUT"NEW LINE? ";A$:F=F+1:FORI=FTOF8+1STEP-1ELSE1170
1390 AT$(I)=AT$(I-1):NEXT:AT$(F8+1)=A$:GOTO 1170
1400 INPUT"DO YOU WISH TO ADD ANY ADDITIONAL ENTRIES";Z1$
1410 IF LEFT$(Z1$,1)="Y" THEN GOSUB 840
1420 CLOSE:IF FP$=FZ$ THEN KILLFZ$,DR
1430 NAME"..XYZ..";ASFP$,DR:FZ$=FP$:GOSUB650:CONSOLEC1,P1:CLOSE:GOTO 270
1440 AT$(F)="?" + AT$(1) + "-" + AT$(F):FOR I=2 TO F
1450 PRINT#1,MID$(STR$(LN),2)+"' " + AT$(I):LN=LN+10:NEXT:RETURN
1460 IFEOF(2)THENF=0:RETURNELSELINEINPUT#2,A$:A$=MID$(A$,INSTR(A$,"'")+
1470 IF LEFT$(A$,1)="?" THEN F1=INSTR(A$,"-") ELSE 1500
1480 AT$(1)=MID$(A$,2,F1-2):F=F+1:AT$(F)=MID$(A$,F1+1)
1490 RETURN
1500 F=F+1:AT$(F)=A$:GOTO 1460
1510 INPUT"ARE THE CHANGES CORRECT";Z1$
1520 IFLEFT$(Z1$,1)="N"THENPRINT"ABORTING JOB, NO FILES CHANGED"
1530 IFLEFT$(Z1$,1)="N"THENCLOSE:GOTO270
1540 GOTO 1400
1550 REM SET-UP FOR EDITING USING BASIC
1560 PRINT"EDITOR ROUTINE FOR TEXT FILES"
1570 PRINT"THIS SECTION WILL SET UP THE FILE FOR EDITING USING THE "
1580 PRINT"EDITOR WHICH IS BUILT INTO BASIC.":PRINT:PRINT
1590 Z=1:INPUT"FILE NAME TO EDIT";FZ$:GOSUB3370:IFZ=0THEN1590
1600 Z=1:INPUT"DRIVE NUMBER";DR:GOSUB3400:IFZ=0 THEN 1600
1610 INPUT"DO YOU WISH A LIST OF THE FILE BEFORE EDITING";Z1$
1620 IF LEFT$(Z1$,1)="Y" THEN OPEN "I",1,FZ$,DRELS 1670
1630 INPUT"HIT (CR) WHEN READY";ZZ$:CONSOLE C2,P2
1640 IF EOF(1)THEN 1670
1650 LINEINPUT#1,A$:PRINTA$
1660 GOTO 1640
1670 CONSOLE C1,P1:LOAD FZ$,DR
1680 REM PRINT COPY OF TEXT
1690 PRINT"THIS SECTION PRINTS A COPY OF THE TEXT"
1700 GOSUB3390:GOSUB 1880:GOSUB1850:INPUT"NUMBER OF COPIES";NC
1710 INPUT"LINE UP PAPER AND HIT (CR) WHEN READY";ZZ$:CONSOLE C2,P2
1720 NT=LN:IFNC>0THENGOSUB1820:NC=NC-1:GOTO 1740
1730 CONSOLEC1,P1:PRINT"EXITING COPY PRINT-OUT":GOTO270
1740 IFLEFT$(ZZ$,1)="N"THEN IF NC<1THEN 1720 ELSECONSOLE C1,P1:GOTO1710
1750 IF NT=0THEN 1720 ELSE IF NT>0 THEN PRINT:NT=NT-1:GOTO 1750
1760 NC=NC+1:CONSOLE C1,P1:PRINT:PRINT
1770 PRINT"YOUR DOCUMENT IS TOO LONG FOR THE FORM SIZE SELECTED."
1780 INPUT" DO YOU WANT TO CONTINUE PRINTING";ZZ$
1790 IF LEFT$(ZZ$,1)="Y" THEN GOSUB 1860:GOTO 1710
1800 INPUT"DO YOU WANT TO RESTART";ZZ$
1810 IF LEFT$(ZZ$,1)="Y" THEN 1700 ELSE 1730
1820 OPEN"I",1,FZ$,DR:GOSUB 1920
1830 IF EOF(1) THEN CLOSE 1:RETURN

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1840 LINEINPUT#1,A$;PRINTMID$(A$,INSTR(A$,"")+2);NT=NT-1;GOTO 1830
1850 INPUT"CONTINUOUS FORMS";Z2$;IF LEFT$(Z2$,1)="N" THEN RETURN
1860 INPUT"NUMBER OF LINES PER PAGE";LN
1870 RETURN
1880 PRINT"INPUT TEXT ";GOSUB3360;IF Z=0 THEN 1880
1890 OPEN"I",1,FZ$,DR;GOSUB1920;CLOSE 1
1900 PRINTMID$(A$,INSTR(A$,"")+1);INPUT"IS THIS THE CORRECT FILE";Z1$
1910 IF LEFT$(Z1$,1)="N" THEN 1880 ELSE RETURN
1920 LINEINPUT#1,A$;IF LEN(A$)>0 THEN RETURN ELSE 1920
1930 REM PRINT LETTERS WITH SALUTATION ENTER FROM KEYBOARD + ENV.
1940 PRINT"PRINT LETTERS WITHOUT NAME AND ADDRESS FILE.":PRINT;PRINT
1950 GOSUB3390;GOSUB 1880
1960 GOSUB 2110;GOSUB2250
1970 INPUT"LINE UP PAPER AND HIT (CR) WHEN READY";ZZ$;CONSOLE C2,P2
1980 PRINTTAB(T1);Z8$;PRINT;PRINTTE$;PRINTZ5$;PRINT;PRINT
1990 GOSUB 1820;CONSOLE C1,P1
2000 INPUT"DO YOU WANT TO PRINT AN ENVELOPE";ZZ$
2010 IF LEFT$(ZZ$,1)="Y" THEN GOSUB 2060
2020 INPUT"ANOTHER LETTER";ZZ$;IF LEFT$(ZZ$,1)="N" THEN 2100
2030 INPUT"SAME DOCUMENT";ZZ$;IF LEFT$(ZZ$,1)="N" THEN GOSUB 1880
2040 INPUT"SAME NAME AND ADDRESS";ZZ$;IF LEFT$(ZZ$,1)="N" THEN 1960
2050 GOTO 1970
2060 PRINT;INPUT"PLACE ENVELOPE IN PRINTER AND HIT (CR) WHEN READY";Z$
2070 CONSOLE C2,P2;PRINTTAB(35);FORI=1TO LEN(TE$)-2
2080 PRINTMID$(TE$,I,1);IF ASC(MID$(TE$,I))=10 THEN PRINTTAB(35);
2090 NEXT;FORI=1 TO 5;PRINT;NEXT;CONSOLE C1,P1;RETURN
2100 PRINT"EXITING LETTER PRINTING ROUTINE";GOTO 270
2110 PRINT;PRINT
2120 PRINT"ENTER EACH LINE OF THE NAME AND ADDRESS AS IT WILL APPEAR ON"
2130 PRINT"THE LETTER. AFTER THE LAST LINE HAS BEEN ENTERED, TYPE A "
2140 PRINT"? AND HIT (CR).";TE$=""
2150 LINEINPUTA$;IF LEFT$(A$,1)="?" THEN 2180
2160 IF LEN(TE$+A$)>250 THEN PRINT"NAME/ADDRESS TOO LONG";GOTO 2110
2170 TE$=TE$+A$+CHR$(13)+CHR$(10);GOTO 2150
2180 IF LEN(TE$)<3 THENPRINT"NAME AND ADDRESS TOO SHORT";GOTO 2110
2190 PRINT;PRINT;LINEINPUT"INPUT DATE (CR) USES DATE ENTERED? ";Z8$
2200 IF Z8$="" THEN Z8$=Z9$
2210 INPUT"NUMBER OF SPACES TO INDENT DATE (CR) USES LAST ENTRY";Z7$
2220 IF Z7$="" THEN Z7$=Z6$ ELSE Z6$=Z7$;T1=VAL(Z7$)
2230 IF T1<0 OR T1>132 THEN 2210
2240 RETURN
2250 LINEINPUT"SALUTATION? ";Z5$;RETURN
2260 REM PRINT LETTERS FROM NAME AND ADDRESS FILE
2270 PRINT"PRINT LETTERS FROM NAME AND ADDRESS FILE"
2280 GOSUB 3390 'GET DRIVE NUMBER
2290 GOSUB 1880;FX$=FZ$ 'GET TEXT NAME AND SAVE TEMP
2300 GOSUB 2690;FZ$=FX$ 'GET NAME AND ADDRESS AND RESTORE TEMP
2310 GOSUB 1850 'GET CONTINUOUS FORMS ANSWERS
2320 GOSUB 2190 'GET DATE QUESTIONS
2330 GC$="";NC=0;LINEINPUT"GROUP CODES TO PRINT? ";A$;GOSUB 2610
2340 IF LEFT$(ZZ$,1)="N" THEN 2330
2350 INPUT"LINE UP PAPER AND HIT (CR) WHEN READY";ZZ$;CONSOLE C2,P2
2360 OPEN"I",2,FY$,DR;GOSUB2730
2370 II=1;NT=LN;GOSUB 2530;IF II<1 THEN 2480 ELSE PRINTTAB(T1);Z8$
2380 PRINT;FORI=2 TO II-1;PRINTTE$(I);NEXT;PRINT;PRINTTE$(II)
2390 PRINT;PRINT;NT=NT-(II+6)
2400 GOSUB 1820;NC=NC+1;IFLEFT$(Z2$,1)="N" THEN CONSOLEC1,P1;GOTO2350
2410 IF NT=0 THEN 2370 ELSE IF NT>0 THEN PRINT;NT=NT-1;GOTO 2410

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2420 NC=NC-1:CONSOLE C1,P1:PRINT:PRINT
2430 PRINT"YOUR DOCUMENT IS LONGER THAN THE FORM SIZE SELECTED."
2440 INPUT"DO YOUU WANT TO CONTINUE PRINTING";ZZ$
2450 IF LEFT$(ZZ$,1)="Y" THEN GOSUB 1860:GOTO2350
2460 INPUT"DO YOU WANT TO RESTART";ZZ$
2470 IF LEFT$(ZZ$,1)="Y" THEN CLOSE:GOTO2290
2480 CONSOLE C1,P1:CLOSE:PRINT"ENDING LETTER PRINT OUT ROUTINE"
2490 PRINT"NUMBER OF LETTERS PRINTED = ";NC
2500 INPUT"DO YOU WISH TO PRINT MAILING LABELS";ZZ$
2510 IF LEFT$(ZZ$,1)="N" THEN 270
2520 CLOSE:GOTO 3070
2530 IF EOF(2) THEN II=0:RETURN ELSE LINEINPUT#2,A$
2540 A$=MID$(A$,INSTR(A$,"'")+2)
2550 IF LEFT$(A$,1)="?" THEN J=INSTR(A$,"-") ELSE 2600
2560 TE$(1)=MID$(A$,2,J-2):II=II+1:TE$(II)=MID$(A$,J+1)
2570 IF GC$="ALL" THEN RETURN
2580 FOR I=1 TO LEN(GC$):IF INSTR(TE$(1),MID$(GC$,I,1))>0 THEN RETURN
2590 NEXTI:II=1:GOTO 2530
2600 II=II+1:TE$(II)=A$:GOTO 2530
2610 IF LEN(A$)<1 THEN ZZ$="N":RETURN
2620 IFA$="ALL" THEN PRINT"YOU HAVE SELECTED ALL OF THE FILE"ELSE 2640
2630 GC$="ALL":GOTO 2680
2640 PRINT:PRINT"YOU HAVE SELECTED THE FOLLOWING GROUP CODES:"
2650 PRINT:PRINTTAB(10):FORI=1TO LEN(A$):T$=MID$(A$,I,1)
2660 IF T$<"A" OR T$>"Z" THEN 2670 ELSE PRINT " ";T$;:GC$=GC$+T$
2670 NEXT
2680 PRINT:PRINT:INPUT"IS THIS CORRECT";ZZ$:RETURN
2690 PRINT"NAME/ADDRESS ";:GOSUB3360:IF Z=0 THEN 2690
2700 FY$=FZ$:OPEN"I",2,FY$,DR:GOSUB2730:CLOSE 2
2710 PRINTMID$(A$,INSTR(A$,"')+1):INPUT"IS THIS THE CORRECT FILE";Z1$
2720 IF LEFT$(Z1$,1)="N" THEN 2690 ELSE RETURN
2730 LINEINPUT#2,A$:IF LEN(A$)>0 THEN RETURN ELSE 2730
2740 REM GLOBAL SEARCH AND REPLACEMENT ROUTINE FOR WORD PROCESSOR
2750 PRINT"GLOBAL SEARCH AND REPLACE ROUTINE":PRINT
2760 PRINT"WHEN CHOOSING SEARCH STRING, BE SURE TO PICK ONE WHICH"
2770 PRINT"IS UNIQUE TO THE ITEM YOU WANT CHANGED OR YOU MAY CHANGE"
2780 PRINT"AN ITEM THAT YOU DIDN'T MEAN TO CHANGE."
2790 PRINT"THIS SECTION WILL PRINT OUT THE CHANGED REPORT AS IT MAKES"
2800 PRINT"THE CHANGES"
2810 GOSUB 3390:IF Z=0 THEN 2810
2820 PRINT"OUTPUT ";:GOSUB 3360:FP$=FZ$:IFZ=0 THEN 2820
2830 PRINT"INPUT ";:GOSUB3360:LN=1000:IF Z=0 THEN 2830
2840 OPEN"I",2,FZ$,DR
2850 OPEN"O",1,"..XYZ..",DR
2860 GOSUB3190:LINEINPUT#2,Z1$ 'WRITE UPDATED HEADER TO FILE
2870 LINEINPUT"SEARCH STRING? ";Z2$
2880 LINEINPUT"REPLACEMENT STRING? ";Z3$:PRINT:PRINT
2890 INPUT"READY PRINTER AND HIT (CR) TO CONTINUE";Z1$
2900 PRINT"A MOMENT PLEASE":NR=0:CONSOLE C2,P2
2910 IF EOF(2) THEN CLOSE:GOTO2960
2920 LINEINPUT#2,A$:FORI=1TOLEN(A$):IFMID$(A$,I,LEN(Z2$))<>Z2$ THEN 2940
2930 B$=LEFT$(A$,I-1):C$=MID$(A$,I+LEN(Z2$)):A$=B$+Z3$+C$:NR=NR+1
2940 NEXTI
2950 PRINT#1,A$:PRINTA$:GOTO2910
2960 CONSOLE C1,P1:PRINT"NUMBER OF RECORDS FOUND AND REPLACED = ";NR
2970 INPUT"ARE THE CHANGES CORRECT";Z1$
2980 IFLEFT$(Z1$,1)="N" THEN PRINT"ABORTING JOB, NO FILES CHANGED":GOTO270
2990 IF FP$=FZ$ THEN KILLFZ$,DR

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3000 NAME".,XYZ., "AS FP$,DR:GOTO 270
3010 REM PRINT MAILING LABELS
3020 PRINT"PRINT MAILING LABELS"
3030 GOSUB3390 'DRIVE NUMBER
3040 GOSUB 2690 'GET NAME AND ADDRESSSS FILE NAME
3050 GC$="":LINEINPUT"GROUP CODES TO PRINT? ";A$:GOSUB 2610
3060 IF LEFT$(ZZ$,1)="N" THEN 3050
3070 INPUT"LINE UP LABELS AND HIT (CR) WHEN READY";ZZ$:CONSOLE C2,P2
3080 NC=0:PRINT
3090 FORI=1TO8:FORJ=1TO20:PRINT"X";:NEXTJ:PRINT:NEXTI:CONSOLE C1,P1
3100 INPUT" IS THE LINE UP CORRECT";ZZ$:IF LEFT$(ZZ$,1)="N" THEN 3070
3110 CONSOLE C2,P2:OPEN"I",2,FY$,DR:GOSUB2730
3120 II=1:GOSUB 2530:IF II<1 THEN 3160
3130 PRINT:FORI=2 TO II-1:PRINTTE$(I):NEXT
3140 FORI=II-1 TO 8:PRINT:NEXT
3150 NC=NC+1:GOTO 3120
3160 CONSOLE C1,P1:PRINT"END OF MAILING LABEL ROUTINE"
3170 PRINT"NUMBER OF LABELS PRINTED = ";NC:GOTO 270
3180 A$=STR$(LN)+"' "+"FILE NAME "+FZ$+" CREATION DATE: "+Z9$:GOTO321
3190 A$=STR$(LN)+"' "+"FILE NAME "+FP$+" REVISION OF: "+FZ$
3200 A$=A$+" DATE REVISED: "+Z9$:GOTO3210
3210 PRINT#1,A$:LN=LN+10:RETURN
3220 OPEN"I",1,FZ$,DR:CLOSE:PRINT"FILE ALREADY EXISTS USING THAT NAME"
3230 GOSUB3340
3240 INPUT"DO YOU WISH TO RENAME OR REPLACE THE EXISTING FILE";Z1$
3250 IFLEFT$(Z1$,1)="N"THENPRINT"NEW OUTPUT ";:GOSUB3360:IFZ=0THEN325
3260 IF LEFT$(Z1$,1)="N" THEN RETURN
3270 INPUT"WHICH (REN OR REP)";Z1$
3280 IF LEFT$(Z1$,3)<>"REN" THEN IF LEFT$(Z1$,3)<>"REP" THEN 3270
3290 IF LEFT$(Z1$,3)="REP" THEN RETURN
3300 PRINT"CHANGE NAME FROM ";FZ$;" TO";:INPUTFP$
3310 Z=1:GOSUB3370:IF Z=0 THEN 3300
3320 NAME FZ$ AS FP$,DR
3330 RETURN
3340 PRINT"THE FILES AVAILABLE ON THIS DISC ARE:":PRINT:FILES DR:PRIN
3350 RETURN
3360 INPUT"FILE NAME";FZ$:Z=1
3370 IF LEN(FZ$)<1 OR LEN(FZ$)>8 THEN PRINT"ILLEGAL FILE NAME":Z=0
3380 RETURN
3390 INPUT"DRIVE NUMBER";DR:Z=1
3400 IF DR<0 OR DR>15 THENPRINT"ILLEGAL DRIVE NUMBER":Z=0
3410 RETURN
3420 IF ERR=56 THEN CLOSE:PRINT"MOUNTING DRIVE ";DR:MOUNT DR:RESUME
3430 IF ERR<>53 THEN 3540
3440 IF F9=1 THEN RESUME 510
3450 IFF9=4 THEN GOSUB 3340:RESUME 1590
3460 IF F9=8 THEN GOSUB 3340:CLOSE:RESUME 2830
3470 IF F9=3 THEN GOSUB 3340:CLOSE:RESUME 1120
3480 IF F9=2 THEN RESUME 800
3490 IF F9=5 THEN GOSUB 3340:CLOSE 1:RESUME 1700
3500 IF F9=6 THEN GOSUB 3340:CLOSE 1:RESUME 1950
3510 IF F9=7 AND ERL=1890 THEN GOSUB3340:CLOSE 1:RESUME 2290
3520 IF F9=7 AND ERL=2700 THEN GOSUB 3340:CLOSE 2:RESUME 2300
3530 IF F9=10 AND ERL=2700 THEN GOSUB 3340:CLOSE 2:RESUME 3040
3540 IF ERR=58 THENPRINT"OUTPUT FILE ALREADY EXISTS":GOSUB3560:RESUME
3550 ON ERROR GOTO 0
3560 GOSUB 3340:INPUT"DO YOU WISH TO REPLACE THE FILE";Z2$
3570 IF LEFT$(Z2$,1)="Y" THEN KILLFP$,DR:RETURN
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3580 LINEINPUT "NEW OUTPUT FILE NAME? ";FP$
3590 IFLEN(FP$)<10ORLEN(FP$)>8THENPRINT "ILLEGAL FILE NAME":GOTO3580
3600 RETURN
```

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WORD PROCESSING TEXT EDITOR REV. 1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

ENTER TODAY'S DATE (MM/DD/YY OR SEPT. 26, 1977)? AUG. 12, 1977
WORD PROCESSING TEXT EDITOR REV. 1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

RUB:
removes

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 1

TEXT CREATION ROUTINE FOR LETTERS AND COPY
DRIVE NUMBER? 1
OUTPUT FILE NAME? LETTER1

FILE HEADER LABEL = ' FILE NAME LETTER1 CREATION DATE: AUG. 12, 1977
===== BEGIN TEXT ENTRY =====

?5 *Indent 5 spaces* WE HAVE REVIEWED YOUR PROPOSED PLANS ~~OF~~ FOR THE INSTALLATION OF YOUR
MODEL 3309 COMUFACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR
OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS. *error RUB: removes O*

?14 SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES
TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS
IN EXCESS OF NORMAL REQUIREMENTS.

?14 SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF
APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL
EXTEND THE COMPLETION TERM BY A LENGTH OF TIME
DESIGNATED BY THE CONTRACTOR.

?5 WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN
ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO
RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1 , OR WE
WILL CONSIDER YOUR OFFFER WITHDRAWN.

?45 SINCERELY YOURS,

?45 LEONARD ROGERS
error RUB: removes N N. MANAGER OF PURCHASING
END

DO YOU WANT A LISTING OF THE FILE? Y
 DO YOU WANT LINE NUMBERS LISTED? N
 HIT (CR) WHEN READY?

FILE NAME LETTER1 CREATION DATE: AUG. 12, 1977

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL EXTEND THE COMPLETION TERM BY A LENGTH OF TIME DESIGNATED BY THE CONTRACTOR.

WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE WILL CONSIDER YOUR OFFER WITHDRAWN.

SINCERELY YOURS,

LEONARD ROGERS
 MANAGER OF PURCHASING

EXITING CREATION ROUTINE
 NUMBER OF RECORDS WRITTEN = 29
 WORD PROCESSING TEXT EDITOR REV. 1.1
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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 2

CREATION ROUTINE FOR NAME AND ADDRESS FILE
 DRIVE NUMBER? 1
 OUTPUT FILE NAME? NAME

FILE HEADER LABEL = ' FILE NAME NAME CREATION DATE: AUG. 12, 1977
 ===== BEGIN TEXT ENTRY =====

JOHN W. SWAIN
1923 TOPANGO PLACE
CROFTON, MD. 21114
?ACGK
 SALUTATION? DEAR JOHN,

===== NEXT ENTRY =====
THE COMPT_UTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388
?JLMN
 SALUTATION? GENTLEMEN:

===== NEXT ENTRY =====
SCIENTIFIC RESEARCH INST.
1717_2 FARMINGTON CT.
CROFTON, MD. 21114
?CLQ
 SALUTATION? GENTLEMEN:

===== NEXT ENTRY =====
END
 DO YOU WANT A LISTING OF THE FILE? Y
 DO YOU WANT LINE NUMBERS LISTED? Y
 HIT (CR) WHEN READY? ___

1000' FILE NAME NAME CREATION DATE: AUG. 12, 1977
 1010' JOHN W. SWAIN
 1020' 1923 TOPANGO PLACE
 1030' CROFTON, MD. 21114
 1040' ?ACGK-DEAR JOHN,
 1050' THE COMPUTRAN CORPORATION
 1060' 15 S. MAIN ST.
 1070' FRANKLIN, NEW YORK 11388
 1080' ?JLMN-GENTLEMEN:
 1090' SCIENTIFIC RESEARCH INST.
 1100' 1712 FARMINGTON CT.
 1110' CROFTON, MD. 21114
 1120' ?CLQ-GENTLEMEN:
 EXITING CREATION ROUTINE
 NUMBER OF RECORDS WRITTEN = 13
 WORD PROCESSING TEXT EDITOR REV. 1.1
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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 3

EDITOR FOR NAME AND ADDRESS FILE

DRIVE NUMBER? 1
 OUTPUT FILE NAME? NAME
 INPUT FILE NAME? NAME

THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	ACGK (GROUP CODES)
2	JOHN W. SWAIN
3	1923 TOPANGO PLACE
4	CROFTON, MD. 21114
5	DEAR JOHN,

WHICH FUNCTION? 1

LINE NUMBER? 2
 NEW LINE? PRESIDENT OF SWAIN ELECTRONICS
 THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	ACGK (GROUP CODES)
2	JOHN W. SWAIN
3	PRESIDENT OF SWAIN ELECTRONICS
4	1923 TOPANGO PLACE
5	CROFTON, MD. 21114
6	DEAR JOHN,

WHICH FUNCTION? 3
 LINE NUMBER? 4
 REPLACEMENT LINE FOR: 4 ?1923 TOPANGO PL.
 THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	ACGK (GROUP CODES)
2	JOHN W. SWAIN
3	PRESIDENT OF SWAIN ELECTRONICS
4	1923 TOPANGO PL.
5	CROFTON, MD. 21114
6	DEAR JOHN,

WHICH FUNCTION? 2

LINE NUMBER? 2

THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	ACGK (GROUP CODES)
2	PRESIDENT OF SWAIN ELECTRONICS
3	1923 TOPANGO PL.
4	CROFTON, MD. 21114
5	DEAR JOHN,

WHICH FUNCTION? 3

LINE NUMBER? 2

REPLACEMENT LINE FOR: 2 ?SWAIN ELECTRONIN_CS

THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	ACGK (GROUP CODES)
2	SWAIN ELECTRONICS
3	1923 TOPANGO PL.
4	CROFTON, MD. 21114
5	DEAR JOHN,

WHICH FUNCTION? 5

THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	JLMN (GROUP CODES)
2	THE COMPUTRAN CORPORATION
3	15 S. MAIN ST.
4	FRANKLIN, NEW YORK 11388
5	GENTLEMEN:

WHICH FUNCTION? 5

THIS SECTION OFFERS 6 MODES OF OPERATION.

- 1 - ADD A LINE AFTER LINE SPECIFIED
- 2 - DELETE LINE SPECIFIED
- 3 - REPLACE LINE SPECIFIED
- 4 - DELETE THIS ENTRY
- 5 - GET NEXT ENTRY
- 6 - END

LINE NO.	CONTENTS
1	CLQ (GROUP CODES)
2	SCIENTIFIC RESEARCH INST.
3	1712 FARMINGTON CT.
4	CROFTON, MD. 21114
5	GENTLEMEN:

WHICH FUNCTION? 6

ARE THE CHANGES CORRECT? Y

DO YOU WISH TO ADD ANY ADDITIONAL ENTRIES? Y

===== BEGIN TEXT ENTRY =====

SIMPLEX TIME RECORDER CO.

25 S. LINCOLN ST.

GARDNER ... MA. 01440

?Z

SALUTATION? DEAR SIR:

===== NEXT ENTRY =====

END

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DO YOU WANT A LISTING OF THE FILE? Y
DO YOU WANT LINE NUMBERS LISTED? N
HIT (CR) WHEN READY?

FILE NAME NAME REVISION OF: NAME DATE REVISED: AUG. 12, 1977
SWAIN ELECTRONICS
1923 TOPANGO PL.
CROFTON, MD. 21114
?ACGK-DEAR JOHN,
THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388
?JLMN-GENTLEMEN:
SCIENTIFIC RESEARCH INST.
1712 FARMINGTON CT.
CROFTON, MD. 21114
?CLQ-GENTLEMEN:
SIMPLEX TIME RECORDER CO.
25 S. LINCOLN ST.
GARDNER, MA. 01440
?Z-DEAR SIR:
WORD PROCESSING TEXT EDITOR REV. 1.1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 5

THIS SECTION PRINTS A COPY OF THE TEXT
DRIVE NUMBER? 1
INPUT TEXT FILE NAME? LETTER1
FILE NAME LETTER1 CREATION DATE: AUG. 12, 1977
IS THIS THE CORRECT FILE? Y
CONTINUOUS FORMS? N
NUMBER OF COPIES? 2
LINE UP PAPER AND HIT (CR) WHEN READY?

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL EXTEND THE COMPLETION TERM BY A LENGTH OF TIME DESIGNATED BY THE CONTRACTOR.

WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE WILL CONSIDER YOUR OFFER WITHDRAWN.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

LINE UP PAPER AND HIT (CR) WHEN READY? _____

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

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SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL EXTEND THE COMPLETION TERM BY A LENGTH OF TIME DESIGNATED BY THE CONTRACTOR.

Sp.

WE FELL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE WILL CONSIDER YOUR OFFER WITHDRAWN.

Sp.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 8

GLOBAL SEARCH AND REPLACE ROUTINE

WHEN CHOOSING SEARCH STRING, BE SURE TO PICK ONE WHICH IS UNIQUE TO THE ITEM YOU WANT CHANGED OR YOU MAY CHANGE AN ITEM THAT YOU DIDN'T MEAN TO CHANGE.
THIS SECTION WILL PRINT OUT THE CHANGED REPORT AS IT MAKES THE CHANGES

DRIVE NUMBER? 1
OUTPUT FILE NAME? LETTER1
INPUT FILE NAME? LETTER1
SEARCH STRING? FFF
REPLACEMENT STRING? FF

READY PRINTER AND HIT (CR) TO CONTINUE?

A MOMENT PLEASE

1010' WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF Y
OUR

1020' MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR
1030' OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

1040'
1050' SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES
1060' TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS
1070' IN EXCESS OF NORMAL REQUIREMENTS.

1080'
1090' SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF
1100' APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL
1110' EXTEND THE COMPLETION TERM BY A LENGTH OF TIME
1120' DESIGNATED BY THE CONTRACTOR.

1130'
1140' WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN
1150' ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO
1160' RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE
1170' WILL CONSIDER YOUR OFFER WITHDRAWN.

1180'
1190' SINCERELY YOURS,

1200'
1210'
1220'
1230'
1240' LEONARD ROGERS
1250' MANAGER OF PURCHASING

NUMBER OF RECORDS FOUND AND REPLACED = 1

ARE THE CHANGES CORRECT? Y

WORD PROCESSING TEXT EDITOR REV. 1.1

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UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE
THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME
AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 4

EDITOR ROUTINE FOR TEXT FILES

THIS SECTION WILL SET UP THE FILE FOR EDITING USING THE
EDITOR WHICH IS BUILT INTO BASIC.

FILE NAME TO EDIT? LETTER1

DRIVE NUMBER? 1

DO YOU WISH A LIST OF THE FILE BEFORE EDITING? Y

HIT (CR) WHEN READY?

1000' FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977
1010' WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR
1020' MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR
1030' OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.
1040'
1050' SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES
1060' TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS
1070' IN EXCESS OF NORMAL REQUIREMENTS.
1080'
1090' SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF
1100' APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL
1110' EXTEND THE COMPLETION TERM BY A LENGTH OF TIME
1120' DESIGNATED BY THE CONTRACTOR.
1130'
1140' WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN
1150' ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO
1160' RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE
1170' WILL CONSIDER YOUR OFFER WITHDRAWN.
1180'
1190' SINCERELY YOURS,
1200'
1210'
1220'
1230'
1240' LEONARD ROGERS
1250' MANAGER OF PURCHASING

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OK
EDIT1140

1140' WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN
LIST

1000' FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977
1010' WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR
1020' MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR
1030' OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.
1040'
1050' SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES
1060' TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS
1070' IN EXCESS OF NORMAL REQUIREMENTS.
1080'
1090' SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF
1100' APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL
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1130'
1140' WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN
1150' ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO
1160' RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE
1170' WILL CONSIDER YOUR OFFER WITHDRAWN.
1180'
1190' SINCERELY YOURS,
1200'
1210'
1220'
1230'
1240' LEONARD ROGERS
1250' MANAGER OF PURCHASING

OK
SAVE "LETTER1", 1, A

RUN*WRD PROC

WORD PROCESSING TEXT EDITOR REV. 1.1
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ENTER TODAY'S DATE (MM/DD/YY OR SEPT. 26, 1977)? AUG.12, 1977

*error RUB:
removes 1*

WORD PROCESSING TEXT EDITOR REV. 1.1
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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 5

THIS SECTION PRINTS A COPY OF THE TEXT

DRIVE NUMBER? 1

INPUT TEXT FILE NAME? LETTER1

FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977

IS THIS THE CORRECT FILE? Y

CONTINUOUS FORMS? Y

NUMBER OF LINES PER PAGE? 66

NUMBER OF COPIES? 1

LINE UP PAPER AND HIT (CR) WHEN READY?

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WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

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SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

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WORD PROCESSING TEXT EDITOR REV. 1.1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

UCC COPYRIGHT 1977 SCIENTIFIC RESEARCH INC.

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 6

PRINT LETTERS WITHOUT NAME AND ADDRESS FILE.

DRIVE NUMBER? 1
INPUT TEXT FILE NAME? LETTER
FILE NAME LETTER CREATION DATE: 10/9/1977
IS THIS THE CORRECT FILE? N
INPUT TEXT FILE NAME? LETTER1
FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977
IS THIS THE CORRECT FILE? Y

ENTER EACH LINE OF THE NAME AND ADDRESS AS IT WILL APPEAR ON THE LETTER. AFTER THE LAST LINE HAS BEEN ENTERED, TYPE A '?' AND HIT (CR).

COMPUTER RESEARCH
8256 ESSEX ST.
BOSTON, MA. 01256
?

INPUT DATE (CR) USES DATE ENTERED?
NUMBER OF SPACES TO INDENT DATE (CR) USES LAST ENTRY? 24
SALUTATION? DEAR SIR:
LINE UP PAPER AND HIT (CR) WHEN READY?

AUG. 12, 1977

COMPUTER RESEARCH
8256 ESSEX ST.
BOSTON, MA. 01256

DEAR SIR:

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL EXTEND THE COMPLETION TERM BY A LENGTH OF TIME DESIGNATED BY THE CONTRACTOR.

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SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

DO YOU WANT TO PRINT AN ENVELOPE? Y

PLACE ENVELOPE IN PRINTER AND HIT (CR) WHEN READY?

COMPUTER RESEARCH
8256 ESSEX ST.
BOSTON, MA. 01256

ANOTHER LETTER? N
EXITING LETTER PRINTING ROUTINE

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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

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- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU SEE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 7

PRINT LETTERS FROM NAME AND ADDRESS FILE

DRIVE NUMBER? 1

INPUT TEXT FILE NAME? LETTER1

FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977

IS THIS THE CORRECT FILE? Y

NAME/ADDRESS FILE NAME? NAME1 *BAD FILE NAME error*

THE FILES AVAILABLE ON THIS DISC ARE:

MWPMENU	MWP1	MWP2	MWP5	MWP8	MWP4	MWP6
MWP7	MWP9	WPTE	NAME	LETTER1	ADDRESS	ADDRESS1
TEMP	LETTER					

NAME/ADDRESS FILE NAME? NAME

FILE NAME NAME REVISION OF: NAME DATE REVISED: AUG. 12, 1977

IS THIS THE CORRECT FILE? Y

CONTINUOUS FORMS? Y

NUMBER OF LINES PER PAGE? 66

INPUT DATE (CR) USES DATE ENTERED?

NUMBER OF SPACES TO INDENT DATE (CR) USES LAST ENTRY? 24

GROUP CODES TO PRINT? GL

YOU HAVE SELECTED THE FOLLOWING GROUP CODES:

G L

IS THIS CORRECT? Y

LINE UP PAPER AND HIT (CR) WHEN READY?

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AUG. 12, 1977

SWAIN ELECTRONICS
1923 TOPANGO PL.
CROFTON, MD. 21114

DEAR JOHN,

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

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WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE WILL CONSIDER YOUR OFFER WITHDRAWN.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

AUG. 12, 1977

THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388

GENTLEMEN:

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

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SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INST.

AUG. 12, 1977

SCIENTIFIC RESEARCH INST.
1712 FARMINGTON CT.
CROFTON, MD. 21114

GENTLEMEN:

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

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SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

ENDING LETTER PRINT OUT ROUTINE
NUMBER OF LETTERS PRINTED = 3
DO YOU WISH TO PRINT MAILING LABELS? Y
LINE UP LABELS AND HIT (CR) WHEN READY?

XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX

IS THE LINE UP CORRECT? Y

SWAIN ELECTRONICS
1923 TOPANGO PL.
CROFTON, MD. 21114

THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388

SCIENTIFIC RESEARCH INST.
1712 FARMINGTON CT.
CROFTON, MD. 21114

END OF MAILING LABEL ROUTINE
NUMBER OF LABELS PRINTED = 3
WORD PROCESSING TEXT EDITOR REV. 1.1
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THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 7

PRINT LETTERS FROM NAME AND ADDRESS FILE

DRIVE NUMBER? 1

INPUT TEXT FILE NAME? LETTER1

FILE NAME LETTER1 REVISION OF: LETTER1 DATE REVISED: AUG. 12, 1977

IS THIS THE CORRECT FILE? Y

NAME/ADDRESS FILE NAME? NAME

FILE NAME NAME REVISION OF: NAME DATE REVISED: AUG. 12, 1977

IS THIS THE CORRECT FILE? Y

CONTINUOUS FORMS? Y

NUMBER OF LINES PER PAGE? 66

error RUB:
removes 8

INPUT DATE (CR) USES DATE ENTERED? AUG. 25, 1978

NUMBER OF SPACES TO INDENT DATE (CR) USES LAST ENTRY? 24

GROUP CODES TO PRINT? M

YOU HAVE SELECTED THE FOLLOWING GROUP CODES:

M

IS THIS CORRECT? Y

LINE UP PAPER AND HIT (CR) WHEN READY? _____

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AUG. 25, 1977

THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388

GENTLEMEN:

WE HAVE REVIEWED YOUR PROPOSED PLANS FOR THE INSTALLATION OF YOUR MODEL 3309 COMUPACK AND WHILE WE ARE IN GENERAL AGREEMENT WITH YOUR OFFER, WE SPECIFICALLY QUESTION THE FOLLOWING TERMS AND CONDITIONS.

SECTION C-2 THE CLIENT SHALL SUPPLY ADDITIONAL POWER LINES TO SUPPORT TEMPORARY ELECTRICAL LOAD CONDITIONS IN EXCESS OF NORMAL REQUIREMENTS.

SECTION R-5 CHANGES IN WORK PERFORMANCE REQUIRED BY LACK OF APPROVALS OR OTHER DELAYS CAUSED BY THE CLIENT WILL EXTEND THE COMPLETION TERM BY A LENGTH OF TIME DESIGNATED BY THE CONTRACTOR.

WE FEEL THAT THESE SPECIFICATIONS AND TERMS ARE NOT IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICES. IF YOU WISH TO RECONSIDER THESE TERMS, PLEASE REPLY BY SEPTEMBER 1, OR WE WILL CONSIDER YOUR OFFER WITHDRAWN.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

ENDING LETTER PRINT OUT ROUTINE
NUMBER OF LETTERS PRINTED = 1
DO YOU WISH TO PRINT MAILING LABELS? N
WORD PROCESSING TEXT EDITOR REV. 1.1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 9

PRINT MAILING LABELS
 DRIVE NUMBER? 1
 NAME/ADDRESS FILE NAME? NAM3
 FILE NAME NAME REVISION OF: NAME DATE REVISED: AUG. 12, 1977
 IS THIS THE CORRECT FILE? Y
 GROUP CODES TO PRINT? ALL
 YOU HAVE SELECTED ALL OF THE FILE

error RUB: removes 3

IS THIS CORRECT? Y
LINE UP LABELS AND HIT (CR) WHEN READY?

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXX

IS THE LINE UP CORRECT? Y

SWAIN ELECTRONICS
1923 TOPANGO PL.
CROFTON, MD. 21114

THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388

SCIENTIFIC RESEARCH INST.
1712 FARMINGTON CT.
CROFTON, MD. 21114

SIMPLEX TIME RECORDER CO.
25 S. LINCOLN ST.
GARDNER, MA. 01440

END OF MAILING LABEL ROUTINE
NUMBER OF LABELS PRINTED = 4

WORD PROCESSING TEXT EDITOR REV. 1.1
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

THE FOLLOWING FUNCTIONS AVAILABLE ARE:

- 1 - BUILD THE TEXT OR LETTER
- 2 - CREATE THE NAME AND ADDRESS FILE
- 3 - EDIT THE NAME AND ADDRESS FILE
- 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE THE EDITOR IN BASIC)
- 5 - PRINT A COPY OF THE TEXT
- 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER
- 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE
- 8 - GLOBAL SEARCH AND REPLACE
- 9 - PRINT MAILING LABELS
- 10 - END

WHICH WOULD YOU LIKE TO DO? 10

EXITING TEXT EDITOR
OK

UTILITY:

This utility program is designed to enable the user to manipulate disk files. The program responds to seventeen (17) different commands and is fully instructional. For a detailed listing of all the available instructions, just list the program. Utility will require 10K Bytes of free user RAM for storing the source code and should execute within 14K Bytes in most systems with disk extended Basic.

While most Basics are very similar there usually are a few minor differences, so you may find it necessary to convert the file calls used in this program to those recognized and accepted by your Basic. As an example: the Sine Input statement used in this program, if not recognized by your version of Basic, may be replaced with the Input statement, however this means you can not use commas or colons in the inputted statements. When making conversions it is always wise to check the effect, as simple statement substitutions does not always mean that data will be handled in the exact same way.

```
100 REM WRITTEN BY JOHN W. SWAIN
110 PRINTCHR$(26);"DISC UTILITY PROGRAM REV. 5.1"
120 INPUT"DO YOU WANT INSTRUCTIONS";Q$
130 IF LEFT$(Q$,1)="Y" THEN GOSUB 2720
140 CLEAR 0;X=FRE(0)-1500;IF X<0 THEN CLEAR 600;GOTO 170
150 IF X>24000 THEN CLEAR X ELSE CLEAR 200;END
160 Z1$=CHR$(255)+CHR$(255)+CHR$(255)+CHR$(255)
170 DIMA$(255)
180 DIMT2(15);GOSUB 3490
190 CLOSE;PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
200 ON ERROR GOTO 3450;PRINT"COMMAND?";;LINEINPUTB$
210 IFB$="" THENCLEAR 200;END
220 IF LEN(B$)>3 THEN C$=RIGHT$(B$,LEN(B$)-3) ELSE C$=B$
230 B$=LEFT$(B$,3)
240 IFB$="DAT" THEN1630
250 IFB$="COP" THENZX=0;ZY=76;GOTO 2220
260 IFB$="FLS" THEN ZX=6;ZY=76;GOTO 2220
270 IFB$="BAS" THEN ZX=0;ZY=5;GOTO 2220
280 IFB$="END" THEN CLEAR 200;END
290 IFB$="LIS" THEN F=0;FB=0;GOTO1750
300 IFB$="PAG" THEN1850
310 IFB$="DIR" THENF=-1;GOTO 1200
320 IFB$="SRT" THEN F=0;GOTO 1200
330 IFB$="HEX" THEN2460
340 IF B$="MEM" THEN 3300
350 IFB$="MNT" THEN 2640
360 IF B$="UNL" THEN 2680
370 IF B$="IMS" THEN F=-1;GOTO 1750
380 IF B$="LLI" THEN F=0;FB=-1;GOTO 1750
390 IF B$="LPA" THEN 3530
400 IFB$<>"CPF" THENPRINT" COMMAND ERROR";GOTO190
410 PRINT"THIS SECTION COPIES ONLY ASCII SEQUENTIAL FILES OR RANDOM F
ILES."
420 PRINT"IT WILL NOT COPY COMPRESSED BINARY PROGRAM FILES."
430 INPUT"INPUT FILE NAME";I$
440 INPUT"INPUT DRIVE NUMBER";I1
450 INPUT"OUTPUT FILE NAME";O$
460 INPUT"OUTPUT DRIVE NUMBER";I2
470 IF LEN(I$)<8 THEN FOR I=LEN(I$)+1 TO 8 ELSE 490
480 I$=I$+" ";NEXT I
490 C$=STR$(I1)
500 GOSUB 3920
510 FOR S=0 TO 31
520 A$=DSKI$(17*S AND 31)
530 A$=LEFT$(A$,135)
540 A$=RIGHT$(A$,128)
550 FOR TT=0 TO 7
560 B$=LEFT$(A$, (TT+1)*16)
570 B$=RIGHT$(B$,16)
580 N$=LEFT$(B$,8)
590 IF N$=I$ THEN Z=ASC(RIGHT$(B$,6));GOTO 650
600 IF ASC(N$)=255 THEN 630
610 NEXT TT
620 NEXT S
630 PRINT"FILE NAME ";I$;" NOT FOUND, CHECK FILE NAME"
640 GOTO 190
650 IF Z<>2 THEN 930
660 NT=0;PRINT"COPYING ASCII SEQUENTIAL FILE ";I$
```

```

670 NR=1
680 OPEN "I",1,I$,I1
690 OPEN "O",2,O$,I2
700 IF EOF(1) THEN GOTO 750
710 LINEINPUT #1, A$
720 PRINT#2, A$
730 NR=NR+1
740 GOTO 700
750 CLOSE
760 OPEN "I",1,I$,I1
770 OPEN "I",2,O$,I2
780 IF EOF(1) THEN 890
790 LINEINPUT #1,A$
800 LINEINPUT #2, B$
810 IF A$=B$ THEN 780
820 NT=NT+1
830 PRINT"RECORDS DO NOT MATCH"
840 IF NT<5 THEN CLOSE:GOTO 670
850 PRINT"COPY FAILED 5 TRIES. ABORTING COPY"
860 CLOSE
870 KILL O$,I2
880 GOTO 190
890 CLOSE
900 PRINT"DONE"
910 PRINT"NUMBER OF RECORDS COPIED = "NR
920 GOTO 190
930 NT=0
940 PRINT"COPYING RANDOM FILE "I$
950 NR=1
960 OPEN "R",1,I$,I1
970 OPEN "R",2,O$,I2
980 FIELD #1,128 AS A$
990 FIELD #2, 128 AS B$
1000 NR=1
1010 FOR I=1 TO LOF(1)
1020 GET #1,I
1030 LSET B$=A$
1040 PUT #2,I
1050 NR=NR+1
1060 NEXT I
1070 FIELD #1,128 AS C$
1080 FIELD #2, 128 AS D$
1090 FORI=1TO LOF(1)
1100 GET#1,I
1110 GET#2,I
1120 IF C$<>D$ THEN 1150
1130 NEXT I
1140 GOTO 900
1150 PRINT"RECORDS DO NOT MATCH"
1160 NT=NT+1
1170 IF NT<5 THEN 980
1180 CLOSE
1190 GOTO 850
1200 GOSUB 3920
1210 PRINT:GOSUB 3490
1220 PRINT"DIRECTORY DISK" A$:PRINT:PRINT
1230 PRINT"NAME"; " " ; "TYPE"; " TRK SCT",
1240 PRINT"NAME"; " " ; "TYPE"; " TRK SCT":PRINT:I=0

```

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```

1250 FORS=0T031
1260 A$=DSKI$(17*SAND31)
1270 A$=LEFT$(A$,135)
1280 A$=RIGHT$(A$,128)
1290 FOR TT=0 TO 7
1300 B$=LEFT$(A$, (TT+1)*16)
1310 B$=RIGHT$(B$,16)
1320 N$=LEFT$(B$,8)
1330 B$=RIGHT$(B$,8)
1340 X=ASC(B$):B$=RIGHT$(B$,7):Y=ASC(B$)
1350 B$=RIGHT$(B$,6):Z=ASC(B$)
1360 IFASC(N$)=0THEN1420
1370 IFASC(N$)=255THEN1440
1380 R$="S":IFZ<>2THENR$="R"
1390 IF F THENPRINTN$;" "R$;" "X;" "Y,GOTO 1410
1400 A$(I)=N$+" "+R$+" "+STR$(X)+" "+STR$(Y):I=I+1
1410 IF POS(0)>45 THEN PRINT
1420 NEXT TT
1430 NEXTS
1440 IF F OR I=0THENPRINT:PRINT"AMOUNT OF FREE SPACE ="DSKF(A)GOTO 1
90
1450 IF I=1 THEN 1510
1460 SW=0
1470 FOR J=0 TO I-2
1480 IF A$(J)>A$(J+1) THEN SWAP A$(J),A$(J+1):SW=-1
1490 NEXT J
1500 IF SW THEN 1460
1510 FOR J=0 TO I-1 STEP 2
1520 PRINT A$(J),A$(J+1)
1530 NEXT J
1540 PRINT:PRINT"AMOUNT OF FREE SPACE ="DSKF(A):GOTO190
1550 IFT2(A)<>-1THEN1590
1560 IF(INP(8)AND64)=0THENT2(A)=0:GOTO1590
1570 WAIT8,2,2:OUT9,2
1580 GOTO1560
1590 IFT2(A)=TTHENRETURN
1600 D=1:IFT2(A)>TTHEND=2
1610 WAIT8,2,2:OUT9,D:T2(A)=T2(A)-2*(D-1.5)
1620 GOTO1590
1630 INPUT"TRACK":T:IF T<0 THEN 190 ELSE INPUT"SECTOR":S
1640 GOSUB1710:GOSUB1550
1650 A$=DSKI$(S):FORI=0TOLEN(A$)-1
1660 T1$=OCT$(ASC(RIGHT$(A$,LEN(A$)-I)))
1670 T2$=LEFT$(" 000",5-LEN(T1$))+T1$:PRINTT2$;" "
1680 IF I MOD 8=7 THEN PRINT
1690 NEXT I: PRINT
1700 GOTO 1630
1710 A=VAL(C$)
1720 IFA<0ORA>15THENPRINT"ERROR":GOTO190
1730 OUT8,128:OUT8,A
1740 RETURN
1750 GOSUB1710:GOSUB 3490
1760 C$=RIGHT$(C$,LEN(C$)-1+(A>9))
1770 IFASC(C$)<>&054THENPRINT"ERROR":GOTO190
1780 C$=RIGHT$(C$,LEN(C$)-1)
1790 OPEN"I",1,C$,A
1800 IFEOF(1)THENCLOSE1:GOTO190
1810 LINEINPUT#1,A$

```

```

1820 IF A$="" THEN 1800
1830 IF F THEN PRINTZ1$;A$ ELSE IF FB THEN LPRINTA$ ELSE PRINTA$
1840 GOTO 1800
1850 GOSUB 1710;GOSUB 3490
1860 Q$="";INPUT"COMMENTS (<15 CHARACTERS)";Q$
1870 INPUT"NUMBER OF PRINT POSITIONS - SHOULD BE BETWEEN 72 AND 132";P
P
1880 INPUT"IS THIS A LISTING OF A PROGRAM OR FILE (P OR F)";Z$
1890 C$=RIGHT$(C$,LEN(C$)-1);IF ASC(C$)<>&054THEN PRINT"ERROR";GOTO190
1900 C$=RIGHT$(C$,LEN(C$)-1)
1910 T1=0;P1=1
1920 OPEN "I",1,C$,A
1930 GOSUB 2160
1940 CC=6;IF EOF(1) THEN 2200
1950 LINEINPUT#1,A$
1960 IF A$="" THEN 1940
1970 IF T1=65 THEN GOSUB 2140
1980 IF Z$="F" AND LEN(A$)<=PP THEN 2120
1990 IF Z$="F" AND LEN(A$)>PP THEN FOR I=1 TO LEN(A$) ELSE 2030
2000 PRINTMID$(A$,I,1);CC=CC+1;IF CC=PP THEN PRINT:T1=T1+1;CC=6;ELSE
2020
2010 IF T1=65 THEN GOSUB 2140;PRINT" "
2020 NEXTI;PRINT:T1=T1+1;IF T1=65 THEN GOSUB 2140;GOTO 1940 ELSE 1940
2030 FOR I=1 TO 6;IF MID$(A$,I,1)<>" " THEN NEXT I
2040 B$=LEFT$(A$,I);A$=MID$(A$,I);IF LEN(B$)>5 THEN 2060
2050 FOR I=LEN(B$) TO 5;B$=" "+B$;NEXT I
2060 PRINTB$;IF LEN(A$)+LEN(B$)<=PP THEN 2120
2070 FOR I=1 TO LEN(A$);PRINTMID$(A$,I,1);CC=CC+1
2080 IF CC=PP THEN PRINT;PRINT" ";T1=T1+1;CC=6;ELSE 2100
2090 IF T1=65 THEN GOSUB 2140;PRINT" "
2100 NEXT I;PRINT:T1=T1+1;IF T1=65 THEN GOSUB 2140
2110 GOTO 1940
2120 PRINT A$;T1=T1+1
2130 GOTO 1940
2140 IF EOF(1) THEN 2200
2150 PRINT;PRINT;PRINT
2160 PRINT;"----";PRINT;PRINT
2170 PRINTC$;" " ;Q$;TAB(35);"-" ;P1;"-"
2180 PRINT
2190 T1=7;P1=P1+1;RETURN
2200 FOR J=T1 TO 67;PRINT;NEXT J;PRINT"----";PRINT;PRINT
2210 GOTO 190
2220 GOSUB1710;B=A
2230 INPUT"DO YOU WISH A LIST OF REWRITE AND REREAD ERRORS";Q$
2240 Q$=LEFT$(Q$,1)
2250 C$=RIGHT$(C$,LEN(C$)-1+(A>9))
2260 IFASC(C$)<>&054THENPRINT"ERROR";GOTO190
2270 C$=RIGHT$(C$,LEN(C$)-1);GOSUB1710;C=A
2280 PRINT"FROM ";B;" TO ";C;
2290 INPUTA$;IFASC(A$)<>ASC("Y")THEN190
2300 FOR T=ZX TO ZY
2310 OUT8,128;OUT8,C
2320 A=C;GOSUB1550;OUT8,128;OUT8,B:A=B;GOSUB1550
2330 FORS=0TO31
2340 OUT8,128;OUT8,B;B$=DSKI$(S)
2350 F$=DSKI$(S);IFF$=B$THEN2370 ELSEIFQ$="N" THEN 2340
2360 PRINT"RE-READ DISC #";B;" TRACK #";T;" SECTOR #";S;GOTO 2340
2370 OUT 8,128;OUT 8,C

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```

2380 DSKD$B$,S:C$=DSKI$(S):IFC$=B$THEN2400 ELSE IFQ$="N" THEN2330
2390 PRINT"REWRITE DISC #";C;" TRACK #";T;" SECTOR #";S;GOTO 2330
2400 NEXTS
2410 GOSUB 2450
2420 NEXTT
2430 PRINT"DONE"
2440 GOTO190
2450 PRINTT;:RETURN
2460 INPUT"TRACK";T:IF T<0 THEN 190 ELSE INPUT"SECTOR";S$
2470 Z$="0"
2480 FOR J=1 TO LEN(S$)
2490 IF MID$(S$,J,1)="-" GOTO 2510
2500 NEXT: S1=VAL(S$): S2=S1: GOTO 2520
2510 S1=VAL(LEFT$(S$,J-1)): S2=VAL(MID$(S$,J+1))
2520 PRINT "    0 1 2 3 4 5 6 7 8 9 A B C D E F"
2530 FOR S=S1 TO S2
2540 GOSUB1550
2550 A$=DSKI$(S): T$="": K=0
2560 FOR I=0 TO 135
2570 C%=ASC(MID$(A$,I+1,1)):IFC%<=15THENZ1$=Z$+HEX$(C%)ELSEZ1$=HEX$(C%
)
2580 IF(IMOD16)=0 THENPRINT:PRINT K;:K=K+1
2590 PRINTUSING"\\";Z1$;:PRINT " ";
2600 NEXT
2610 NEXT
2620 PRINT:PRINT
2630 GOTO 190
2640 GOSUB 1710
2650 GOSUB 3490
2660 MOUNT A
2670 GOTO190
2680 GOSUB 1710
2690 GOSUB 3490
2700 UNLOAD A
2710 GOTO 190
2720 PRINT"THE LIST OF POSSIBLE COMMANDS ARE AS FOLLOWS:"
2730 PRINT"'DAT' DATA OFF OF DISC IN OCTAL"
2740 PRINT"'COP' COPIES WHOLE DISC"
2750 PRINT"'FLS' COPIES ONLY THE FILES (TRACKS 6-76)"
2760 PRINT"'BAS' COPIES ONLY BASIC (TRACKS 0-5)"
2770 PRINT"'END' ENDS PROGRAM"
2780 PRINT"'LIS' LISTS ASCII SAVED FILES (NO PAGING)"
2790 PRINT"'PAG' LISTS ASCII SAVED FILE WITH PAGING"
2800 PRINT"'DIR' LISTS THE DIRECTORY WITH HEADINGS"
2810 PRINT"'SRT' PRINTS SORTED DIRECTORY WITH HEADINGS"
2820 PRINT"'HEX' PRINTS DATA OFF OF DISC IN HEX"
2830 PRINT"'CPF' COPIES DATA FILES"
2840 PRINT"'MEM' RUNS MEMORY TEST BETWEEN TWO LIMITS SET."
2850 PRINT"'MNT' MOUNTS DISC NUMBER SPECIFIED"
2860 PRINT"'UNL' UNLOADS DISC NUMBER SPECIFIED"
2870 PRINT"'IMS' USED TO PUNCH TAPE IN IMSAI BASIC FORMAT"
2880 PRINT"'LLI' SAME AS 'LIS' EXCEPT USES LINE PRINTER"
2890 PRINT"'LPA' SAME AS 'PAG' EXCEPT USES LINE PRINTER"
2900 PRINT:PRINT"THE COMMAND STRUCTURE IS AS FOLLOWS FOR THE FOLLOWING
"
2910 PRINT"COMMANDS:
2920 PRINT,"DAT"
2930 PRINT,"DIR"

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2940 PRINT,"SRT"
2950 PRINT,"HEX"
2960 PRINT,"MNT"
2970 PRINT,"UNL"
2980 PRINT:PRINT"XXXY          WHERE 'XXX' IS THE COMMAND AND 'Y' IS THE
      DRIVE NUMBER"
2990 PRINT:PRINT"FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS
      AS FOLLOWS:"
3000 PRINT,"COF"
3010 PRINT,"FLS"
3020 PRINT,"BAS"
3030 PRINT
3040 PRINT"XXXY,Z          WHERE 'XXX' IS THE COMMAND, 'Y' IS THE FROM"
3050 PRINT"                DRIVE NUMBER, AND 'Z' IS THE DESTINATION"
3060 PRINT"                DRIVE NUMBER"
3070 PRINT
3080 PRINT"FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS AS FOL
      LOWS"
3090 PRINT,"LIS"
3100 PRINT,"PAG"
3110 PRINT,"IMS"
3120 PRINT,"LLI"
3130 PRINT,"LPA"
3140 PRINT:PRINT"XXXY,ZZZZZZ      WHERE 'XXX' IS THE COMMAND, 'Y' IS TH
      E DRIVE NUMBER"
3150 PRINT"                AND 'ZZZZZZ' IS THE FILE NAME TO BE P
      RINTED."
3160 PRINT:PRINT"FOR THE FOLLOWING COMMANDS THE STRUCTURE IS AS FOLLO
      W:"
3170 PRINT:PRINT,"END"
3180 PRINT,"MEM"
3190 PRINT,"CPF"
3200 PRINT"                WHERE 'XXX' IS THE COMMAND"
3210 PRINT:PRINT"                (1) IF THE FOLLOWING COMMANDS: 'DAT', 'COF', 'FL
      S',
3220 PRINT"                'BAS', 'HEX', OR 'CNV' ARE USED, YOU MUST FIRST"
3230 PRINT"                UNLOAD (UNL) AND THEN MOUNT (MNT) THE DRIVE YOU"
3240 PRINT"                WANT USE THE FOLLOWING COMMANDS ON 'LIS', 'PAG', "
3250 PRINT"                'DIR', OR 'SRT' OR YOU WILL GET A DISC I/O ERROR.
      "
3260 PRINT"                (2) THEN COMMANDS 'LIS', 'IMS', AND 'PAG' WORK "
3270 PRINT"                ONLY ON ASCII SEQUENTIAL FILES."
3280 PRINT
3290 RETURN
3300 PRINT"MEMORY TEST ROUTINE"
3310 INPUT "UPPER LIMIT TO TEST";UP
3320 INPUT"LOWER LIMIT TO START";LO
3330 J=0
3340 FOR I=LO TO UP
3350 POKE I,J
3360 NEXT I
3370 FOR I=LO TO UP
3380 K=PEEK(I)
3390 IF J<>K THEN PRINT" MEMORY LOCATION ";I;" IS BAD"ELSE 3410
3400 PRINTJ;" WAS WRITTEN, AND ";K;" WAS READ"
3410 NEXT I
3420 IF J=0 THEN J=J+1 ELSE J=J*2
3430 IF J>129 THEN PRINT"DONE";GOTO 190

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3440 GOTO 3340
3450 IF ERR=53 THEN PRINT"FILE NOT FOUND":RESUME 190
3460 IF ERR=56 THEN PRINT"DISC #";A;" NOT MOUNTED":RESUME 190
3470 IF ERR=60 THEN PRINT"DISC #";A;" ALREADY MOUNTED":RESUME 190
3480 ON ERROR GOTO 0
3490 FOR Y=0 TO 15
3500 T2(Y)=-1
3510 NEXT Y
3520 RETURN
3530 GOSUB 1710:GOSUB 3490
3540 Q$="":INPUT"COMMENTS (<15 CHARACTERS)";Q$
3550 INPUT"NUMBER OF PRINT POSITIONS - SHOULD BE BETWEEN 72 AND 132";P
F
3560 INPUT"IS THIS A LISTING OF A PROGRAM OR FILE (P OR F)";Z$
3570 C$=RIGHT$(C$,LEN(C$)-1):IF ASC(C$)<>&054THEN PRINT"ERROR":GOTO190
3580 C$=RIGHT$(C$,LEN(C$)-1)
3590 T1=0:F1=1
3600 OPEN "I",1,C$,A
3610 GOSUB 3850
3620 CC=6:IF EOF(1) THEN 3890
3630 LINEINPUT#1,A$
3640 IF A$="" THEN 3620
3650 IF T1=65 THEN GOSUB 3830
3660 IF Z$="F" AND LEN(A$)<=PP THEN 3810
3670 IF Z$="F" AND LEN(A$)>PP THEN FOR I=1 TO LEN(A$) ELSE 3720
3680 LPRINTMID$(A$,I,1):CC=CC+1:IF CC=PP THEN LPRINT:T1=T1+1:CC=6:ELS
E 3700
3690 IF T1=65 THEN GOSUB 3830:LPRINT " ";
3700 NEXTI:LPRINT:T1=T1+1:IF T1=65 THEN GOSUB 3830
3710 GOTO 3620
3720 FOR I=1 TO 6:IF MID$(A$,I,1)<>" " THEN NEXT I
3730 B$=LEFT$(A$,I):A$=MID$(A$,I):IF LEN(B$)>5 THEN 3750
3740 FOR I=LEN(B$) TO 5:B$=" "+B$:NEXT I
3750 LPRINTB$;:IF LEN(A$)+LEN(B$)<=PP THEN 3810
3760 FOR I=1 TO LEN(A$):LPRINTMID$(A$,I,1):CC=CC+1
3770 IF CC=PP THEN LPRINT:LPRINT " ";:T1=T1+1:CC=6:ELSE 3790
3780 IF T1=65 THEN GOSUB 3830:LPRINT " ";
3790 NEXT I:LPRINT:T1=T1+1:IF T1=65 THEN GOSUB 3830
3800 GOTO 3620
3810 LPRINT A$:T1=T1+1
3820 GOTO 3620
3830 IF EOF(1) THEN 3890
3840 LPRINT:LPRINT:LPRINT
3850 LPRINT;"----":LPRINT:LPRINT
3860 LPRINTC$;" ";Q$:TAB(35);"-" :P1;"-"
3870 LPRINT
3880 T1=7:F1=P1+1:RETURN
3890 FOR J=T1 TO 67:LPRINT:NEXT J:LPRINT"----":LPRINT:LPRINT
3900 FOR J=1 TO 25:LPRINT:NEXT J
3910 GOTO 190
3920 GOSUB1710:OPEN"O",1,".....RR",A
3930 PRINT#1,1:CLOSE1:KILL".....RR",A:RETURN

```

RUN"UTILITY"

DISC UTILITY PROGRAM REV. 5.1

DO YOU WANT INSTRUCTIONS? Y

THE LIST OF POSSIBLE COMMANDS ARE AS FOLLOWS:

- 'DAT' DATA OFF OF DISC IN OCTAL
- 'COP' COPIES WHOLE DISC
- 'FLS' COPIES ONLY THE FILES (TRACKS 6-76)
- 'BAS' COPIES ONLY BASIC (TRACKS 0-5)
- 'END' ENDS PROGRAM
- 'LIS' LISTS ASCII SAVED FILES (NO PAGING)
- 'PAG' LISTS ASCII SAVED FILE WITH PAGING
- 'DIR' LISTS THE DIRECTORY WITH HEADINGS
- 'SRT' PRINTS SORTED DIRECTORY WITH HEADINGS
- 'HEX' PRINTS DATA OFF OF DISC IN HEX
- 'CPF' COPIES DATA FILES
- 'MEM' RUNS MEMORY TEST BETWEEN TWO LIMITS SET
- 'MNT' MOUNTS DISC NUMBER SPECIFIED
- 'UNL' UNLOADS DISC NUMBER SPECIFIED
- 'IMS' USED TO PUNCH TAPE IN IMSAI BASIC FORMAT
- 'LLI' SAME AS 'LIS' EXCEPT USES LINE PRINTER
- 'LPA' SAME AS 'PAG' EXCEPT USES LINE PRINTER

THE COMMAND STRUCTURE IS AS FOLLOWS FOR THE FOLLOWING COMMANDS:

- DAT
- DIR
- SRT
- HEX
- MNT
- UNL

XXXY WHERE 'XXX' IS THE COMMAND AND 'Y' IS THE DRIVE NUMBER

FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS AS FOLLOWS:

- COP
- FLS
- BAS

XXXY,Z WHERE 'XXX' IS THE COMMAND, 'Y' IS THE FROM DRIVE NUMBER, AND 'Z' IS THE DESTINATION DRIVE NUMBER

FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS AS FOLLOWS

- LIS
- PAG
- IMS
- LLI
- LPA

XXXY,ZZZZZ WHERE 'XXX' IS THE COMMAND, 'Y' IS THE DRIVE NUMBER AND 'ZZZZZ' IS THE FILE NAME TO BE PRINTED.

FOR THE FOLLOWING COMMANDS THE STRUCTURE IS AS FOLLOWS:

END
MEM
CPF

WHERE 'XXX' IS THE COMMAND

- (1) IF THE FOLLOWING COMMANDS: 'DAT', 'COP', 'FLS', 'BAS', 'HEX', OR 'CNV' ARE USED, YOU MUST FIRST UNLOAD (UNL) AND THEN MOUNT (MNT) THE DRIVE YOU WANT USE THE FOLLOWING COMMANDS ON 'LIS', 'PAG', 'DIR', OR 'SRT' OR YOU WILL GET A DISC I/O ERROR.
- (2) THEN COMMANDS 'LIS', 'IMS', AND 'PAG' WORK ONLY ON ASCII SEQUENTIAL FILES.

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COMMAND?

UCC COPYRIGHT 1977 - SCIENTIFIC RESEARCH INC.

DATO
TRACK? 0
SECTOR? 5

200	000	134	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	000	000	000	000	000
000	000	000	377	000	000	000	000
000							

TRACK? 1
SECTOR? 31

201	000	134	120	302	212	035	173
245	157	174	242	311	376	074	302
225	035	173	255	157	174	252	311
376	062	302	242	035	173	255	057
157	174	252	057	311	175	057	243
057	157	174	057	242	057	311	053
327	310	317	054	001	254	035	305
366	257	062	214	012	106	315	322
024	332	303	013	257	117	327	332
315	035	315	322	024	332	330	035
117	327	332	316	035	315	322	024
322	316	035	021	377	035	325	026
002	376	045	310	024	376	044	310
024	376	041	310	026	010	376	043
310	170	326	101	346	177	137	026
000	345	041	354	012	031	126	341
053	311	172	377	052	000	000	000
000							

TRACK? -1

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 COMMAND?HEX0
 TRACK? 0
 SECTOR? 5

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	80	00	5C	00	00	00	00	00	00	00	00	00	00	00	00	00
1	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
2	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
3	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
4	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
5	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
6	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
7	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
8	00	00	00	FF	00	00	00	00								

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 COMMAND?HEX0
 TRACK? 1
 SECTOR? 24

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	81	00	5C	28	41	E3	EB	E5	2A	E6	0A	E7	C2	DF	14	D1
1	E1	E3	D5	CD	04	40	E1	11	06	0B	CD	04	40	E1	C9	06
2	FF	D7	78	FE	AF	32	C9	0A	3E	01	32	C7	0A	C3	B6	1D
3	32	C7	0A	44	4D	0B	0B	0B	0B	0B	3A	C9	0A	B7	C2	5A
4	14	19	EB	2A	E8	0A	E7	1A	02	13	03	C2	43	14	0B	60
5	69	22	E8	0A	E1	7E	FE	2C	C0	D7	C3	21	14	F5	EB	19
6	EB	4E	06	00	09	09	23	06	D2	FA	73	14	78	CD	38	27
7	CD	38	27	C3	80	14	0E	04	CD	2E	27	B8	C2	73	14	0D
8	C2	75	14	FF	74	00	00	00								

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 COMMAND?MNT1
 DISC # 1 ALREADY MOUNTED
 UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
 COMMAND?UNL1
 UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
 COMMAND?MNT1
 UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
 COMMAND?SRTO

DIRECTORY DISK 0

NAME	TYPE	TRK	SCT	NAME	TYPE	TRK	SCT
A/P	S	36	8	A/P PROG	S	76	24
A/P1	S	37	8	A/R	S	36	16
A/R PROG	S	42	24	A/R1	S	37	16
ACBD	S	67	0	ACBS	S	48	24
ACBS1	S	73	16	CHES	S	30	24
CHES	S	28	8	CHK	S	37	0
CHK NUM	S	33	16	CHK PROG	S	58	16
CHK1	S	35	0	COEFF	S	57	24
CURVE	S	54	24	DATACOPY	S	57	16
DTEMP	S	34	8	EIN PROG	S	47	8
EINV	S	35	16	EINV1	S	38	16
EP1	S	46	0	FILSTRUC	S	68	16
FIN PROG	S	52	0	HELP	S	50	16
LEASTSQU	S	72	24	MBF	S	32	8
MED	S	27	24	MEDFILE	S	26	0
MENU	S	57	0	MER PROG	S	55	8
MINLEDGR	S	46	24	MINV	S	38	24
MINV1	S	38	8	MISC	S	33	0
MISC1	S	36	0	MWF1	S	25	8
MWF2	S	22	8	MWF4	S	21	8
MWF5	S	23	0	MWF6	S	20	16
MWF7	S	19	8	MWF8	S	24	0
MWF9	S	18	8	MWFMENU	S	26	8
PAY	S	34	16	PAY PROG	S	60	0
PAY2	S	39	24	PIP3	S	71	0
TEMP11	S	30	16	TEXTEDIT	S	9	24
UTILITY	S	17	8	WPTE	S	53	24

AMOUNT OF FREE SPACE = 7

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COMMAND?DIRO

DIRECTORY DISK 0

NAME	TYPE	TRK	SCT	NAME	TYPE	TRK	SCT
PIP3	S	71	0	LEASTSQU	S	72	24
ACBS1	S	73	16	A/P PROG	S	76	24
FILSTRUC	S	68	16	ACBD	S	67	0
PAY PROG	S	60	0	CHK PROG	S	58	16
MENU	S	57	0	DATACOPY	S	57	16
COEFF	S	57	24	MER PROG	S	55	8
CURVE	S	54	24	FIN PROG	S	52	0
HELP	S	50	16	ACBS	S	48	24
EIN PROG	S	47	8	EP1	S	46	0
MINLEDGR	S	46	24	A/R PROG	S	42	24
PAY2	S	39	24	TEMP11	S	30	16
MINV1	S	38	8	EINV1	S	38	16
MINV	S	38	24	PAY	S	34	16
A/P1	S	37	8	A/R1	S	37	16
MISC1	S	36	0	A/P	S	36	8
A/R	S	36	16	CHK1	S	35	0
EINV	S	35	16	CHK	S	37	0
DTEMP	S	34	8	CHK NUM	S	33	16
MISC	S	33	0	WPTE	S	53	24
MBP	S	32	8	CHES	S	30	24
CHES	S	28	8	MED	S	27	24
MEDFILE	S	26	0	MWPMENU	S	26	8
MWP1	S	25	8	MWP8	S	24	0
MWP5	S	23	0	MWP2	S	22	8
TEXTEDIT	S	9	24	MWP4	S	21	8
UTILITY	S	17	8	MWP6	S	20	16
MWP7	S	19	8	MWP9	S	18	8

AMOUNT OF FREE SPACE = 7

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COMMAND?PAGO,UTILITY

COMMENTS (<15 CHARACTERS)? REV 5.1

NUMBER OF PRINT POSITIONS - SHOULD BE BETWEEN 72 AND 132? 72

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COMMAND?BASO,1
DO YOU WISH A LIST OF REWRITE AND REREAD ERRORS? Y
FROM 0 TO 1 ? Y
0 1 2 3 4 5 DONE
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
COMMAND?LISO,A/P

11
SUBURBAN TRUST,165, 25 23618.71 1 295.72 0
LAFAYETTE ELEC.,190, 18 2383.12 4 87.63 0
ALLIED ELECTRONICS,185, 5 11871.16 4 347.25 0
FORD CREDIT,110, 2 3119.81 2 187.5 0
CHEMICAL BANK,115, 30 912.67 2 67.21 0
CASH EXPENDITURE,10, 0 117.25 4 117.25 0
AGING - 30 DAYS,30, 0 5 4 0 0
AGING - 45 DAYS,45, 0 0 4 0 0
AGING - 60 DAYS,60, 0 0 4 0 0
AGING - 90 DAYS,90, 0 0 4 0 0
AGING - OVER 90,99, 0 7.5 4 0 0

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COMMAND?PAGO,A/P
COMMENTS (<15 CHARACTERS)? AS OF 7/21/1977
NUMBER OF PRINT POSITIONS - SHOULD BE BETWEEN 72 AND 132? 72
IS THIS A LISTING OF A PROGRAM OR FILE (P OR F)? F

A/P AS OF 7/21/1977 - 1 -

11
SUBURBAN TRUST,165, 25 23618.71 1 295.72 0
LAFAYETTE ELEC.,190, 18 2383.12 4 87.63 0
ALLIED ELECTRONICS,185, 5 11871.16 4 347.25 0
FORD CREDIT,110, 2 3119.81 2 187.5 0
CHEMICAL BANK,115, 30 912.67 2 67.21 0
CASH EXPENDITURE,10, 0 117.25 4 117.25 0
AGING - 30 DAYS,30, 0 5 4 0 0
AGING - 45 DAYS,45, 0 0 4 0 0
AGING - 60 DAYS,60, 0 0 4 0 0
AGING - 90 DAYS,90, 0 0 4 0 0
AGING - OVER 90,99, 0 7.5 4 0 0

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IT WILL NOT COPY COMPRESSED BINARY PROGRAM FILES.
INPUT FILE NAME? A/P
INPUT DRIVE NUMBER? 0
OUTPUT FILE NAME? A/P11
OUTPUT DRIVE NUMBER? 0
COPYING ASCII SEQUENTIAL FILE A/P
DONE
NUMBER OF RECORDS COPIED = 13
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COMMAND?END

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20

1. The first part of the document is a list of the names of the members of the committee who were present at the meeting on the 15th of the month. The names are listed in alphabetical order of their surnames.

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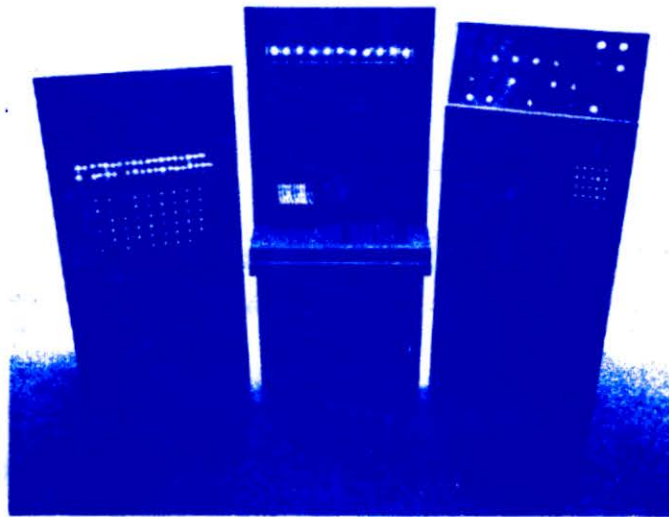
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