BASIC SOFTWARE LIBRARY

VOLUME VII

PROFESSIONAL PROGRAMS

by R. W. BROWN
THIS BASIC SOFTWARE LIBRARY IS MADE AVAILABLE, FREE OF RESTRICTIONS AND ROYALTIES TO SCHOOLS, COLLEGES, UNIVERSITIES, INDIVIDUALS, HOBBYIST & BUSINESS CONCERNS FOR USE ON THEIR OWN COMPUTERS AND OR COMPUTING SYSTEMS. REPRODUCTION IN ANY PART OR FORM OF THIS ENTIRE LIBRARY IS STRICTLY FORBIDDEN. USE OF ANY PART OR FORM OF THIS ENTIRE LIBRARY FOR COMMERCIAL USE OF ANY KIND IS STRICTLY FORBIDDEN WITHOUT THE EX Pressed WRITTEN PERMISSION OF SCIENTIFIC RESEARCH.

1ST. PRINTING -- SEPTEMBER 1977

COPYRIGHT UNDER UCC 1977 BY:

SCIENTIFIC RESEARCH INST.
P.O. BOX 490099
KEY BISCAYNE, FLA 33149
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.

Due to the numerous copyright infringements incurred on our earlier volumes, until further notice we are offering a $200 REWARD for information leading to the arrest and conviction of anyone reproducing or distributing copies of our software and/or books or tapes without the EXPRESSED written authorization of SCIENTIFIC RESEARCH INSTRUMENTS COMPANY, INC.
TABLE OF CONTENTS

VOLUME ONE

Preface

Part 1 - Business & Personal Bookkeeping Programs

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

Part 2 - Games & Pictures

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

VOLUME ONE (CONT.)

PICTURES

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

TABLE OF CONTENTS

VOLUME TWO

Part 3 - Math & Engineering Programs

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

**VOLUME TWO (CONT.)**

#### Part 4 - Plotting & Statistics Programs

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

#### APPENDIX A - BASIC STATEMENT DEFINITIONS

**VOLUME THREE**

#### Part 5 - Advanced Business Programs

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

VOLUME FOUR

General Purpose Programs

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

VOLUME FIVE

Experimenter's Programs

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

VOLUME FIVE (CONT.)

Experimenter's Programs

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

APPENDIX B - STATEMENT CONVERSION ALGORITHMS

TABLE OF CONTENTS

VOLUME SIX

A Complete Business System

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

TABLE OF CONTENTS

VOLUME SEVEN

Professional Programs

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

## VOLUME SEVEN (CONT.)

### Professional Programs

<table>
<thead>
<tr>
<th>NAME</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>1171</td>
</tr>
<tr>
<td>Licensing Agreement</td>
<td>1188</td>
</tr>
</tbody>
</table>
PREFACE

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 areas such 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 'attempted' 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 then 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
DAVE BEETLE
MORTON BERGER
COPY CAT INC

GET TIMESHARING
BILL JONES
GEORGE LONG
TOM ROSE

ARTWORK COURTESY OF MELISSA

EDITING AND PROGRAMMING SUPPORT PROVIDED BY JOHN SWAIN
PROFESSIONAL PROGRAMS
CHESS:

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.
CHESS VER. 1

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 RECOGNIZE 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 TO"
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$; F=-1
655 IF MID$(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
CHESS VER. 1

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$="BKBQBBBNBRBP WPWRWNWBWQWK"
1105 Z7=ABS(A(I,J)*2+13)
1120 A$=MID$(Z$,Z7,2)
1135 PRINT A$; " ";
1150 NEXT J
1165 PRINT
1180 GOSUB 1210
1195 GOTO 1270
1210 FOR I2=1 TO 41 IT1
1225 PRINT TAB(21);"-";
1240 NEXT I2 	 
1255 RETURN
1270 PRINT ; " ";
1300 PRINT
1315 PRINT TAB(20);;
1330 PRINT " A B C D E F G ";
1345 PRINT
1360 RETURN
1375 REM THIS IS THE INPUT SECTION
1390 GOSUB 5650
1405 IF I0<>2 THEN 5785
1420 IF ZB>0 THEN 1480
1435 PRINT "ENTER YOUR MOVE IN TWO PARTS"
1450 PRINT "A STANDARD WHITE OPENING WOULD BE FROM D2"
1465 PRINT "TOO: D4 ";
1480 PRINT "NOW ENTER THE SQUARE YOU ARE MOVING FROM ";
1495 Z8=1
1510 INPUT I$
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)<9 THEN 1795

1107
1840 I=I+1
1845 IF V(O,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
CHESS VER. 1

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(S1,M1)=X+F+10*(Y+D2)
3060 V(8,M1)=C3
3075 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 IO<>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)
CHESS VER. 1

3580 GOSUB 4090
3595 Z2=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=U(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(B,K)<0 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 COLUMN
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
CHESS
VER. 1

4450 NEXT X1
4455 RETURN
4460 X3=ABS(A(X,Y))
4470 ON X3 GOSUB 2845,5260,2605,5425,2410,2455
4510 GOTO 4435
4520 IF V(1,M1)<0 THEN 4555
4530 GOTO 4585
4535 M1=M1+1
4540 V(1,M1)=0
4550 V(0,M1)=X+Y*10
4600 S1=1
4610 RETURN
4615 IF V(1,M1)<0 THEN 4690
4620 V(0,M1)=D2+D1*10
4630 S1=1
4640 RETURN
4650 M1=M1+1
4660 V(1,M1)=0
4670 GOTO 4645
4710 GOSUB 4525
4720 M3=X
4730 M4=Y
4740 X=X+D2
4750 Y=Y+D1
4810 GOSUB 4930
4820 IF C3=0 THEN 4780
4830 X=M3
4840 Y=M4
4850 IF C3=99 THEN 4900
4880 RETURN
4900 C3=0
4910 RETURN
4930 C3=99
4940 C5=X
4950 GOSUB 4195
4960 C7=C6
4970 C5=Y
5000 GOSUB 4195
5010 C8=C6
5020 C9=C7*C8
5050 IF C9=0 THEN 5245
5065 IF SGN(A(X,Y))=F THEN 5095
5080 GOTO 5125
5090 C3=9
5100 GOTO 5185
5120 C3=A(X,Y)
5130 IF C3=6*F THEN 5170
5140 GOTO 5185
5150 C2=1
5160 V(S1,M1)=10*Y+X
5200 S1=S1+1
5210 V(S1,M1)=0
5230 V(S1,M1)=C3
5240 RETURN
5260 REM THIS SUB CHECKS FOR ROOKS
5270 D2=0
5290 D1=1
5300 GOSUB 4735

1111
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 IO=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 IO=IO+1
5770 GOTO 5710
5785 PRINT
5800 PRINT 'THANK YOU FOR THE GAME. I NEEDED THE PRACTICE... ...'
5815 PRINT
5830 END
THIS PROGRAM PLAYS A CHESS GAME.
BUT IT WILL NOT RECOGNIZE 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... . . .

UCC COPYRIGHT - 1977, BY SCIENTIFIC RESEARCH

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 I I I
5  I I I I I I I I I I I I
4  I I I I I I I I I I I I
3  I I I 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

---

ENTER YOUR MOVE IN TWO PARTS
STANDARD WHITE OPENING WOULD BE FROM D2
YOU: D4
NOW ENTER THE SQUARE YOU ARE MOVING FROM? D2
YOU ARE GOING TO? 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 I I I
5  I I I I I I I I I I I I
4  I I I I WP I I I I I I I
3  I I I 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

1113
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? Q3
NOW ENTER THE MOVE: YOU ARE MOVING FROM ?DE3
ILLEGAL MOVE - TRY AGAIN
YOU ARE GOING TOO! ?D5
ILLEGAL MOVE - TRY AGAIN
NOW ENTER THE SQUARE YOU ARE MOVING FROM ?D3
YOU ARE GOING TOO! ?B5
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 database 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 database 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 xchar.), 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. Conservative 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.
100 CLEAR 400  
110 VS="*********",VS=0  
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 N=NUMBER OF CUSTOMERS  
210 REM D=REVIEW DATE  
220 REM N = ITEM #  
230 REM E$ = ITEM DESCRIPTION (11 CHARACTERS OR LESS PLEASE)  
240 REM A$ = PATIENT ACCOUNT #  
250 REM N$ = CUSTOMER NAME (20 CHARACTERS OR LESS)  
260 REM R$ = CUSTOMER STREET ADDRESS  
270 REM S$ = CUSTOMER CITY & STATE ADDRESS  
280 REM P = 1 (# OF PATIENTS PER RECORD)  
290 REM A$ = DATE OF VISIT  
300 REM 1X+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 U$ = 12/21/75  
360 REM J$ = PATIENTS HISTORY RECORD  
370 REM  
380 REM  
430 REM *********************************************************  
440 REM  
450 $S=0  
460 REM $S IS THE SALES TAX PERCENTAGE  
470 PRINT  
480 PRINT " UCC - COPYRIGHT BY SCIENTIFIC RESEARCH - 1977 "  
490 PRINT  
500 PRINT  
510 PRINT  
520 PRINT  
530 PRINT " THIS IS THE MEDICAL RECORDS AND PATIENT BILLING PROGRAM"  
540 PRINT  
550 PRINT  
560 PRINT  
570 PRINT " TYPE IN TODAY'S DATE, AS: 5/21/76 ";  
580 INPUT D$  
590 OPEN "I",1,"MED"  
600 INPUT I$  
610 FOR I=1 TO I  
620 INPUT I$,A$,N$,R$,S$,U$,U$,B$,J  
630 IF B$ =0 THEN 670  
640 FOR II=1 TO B  
650 INPUT I$,E$,N$,A$,S$,P  
660 NEXT II  
670 IF J$ =0 THEN 710  
680 FOR I2=1 TO J
690 INPUT $1, J$
700 NEXT 12
710 NEXT 1
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/K 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 $1
890 IF $1 > 6 THEN 750
900 IF $1 < 1 THEN 750
910 PRINT
920 IF $1 = 1 THEN 4100
930 IF $1 = 1 THEN 1000
940 IF $1 = 2 THEN 1260
950 IF $1 = 3 THEN 2190
960 IF $1 = 4 THEN 2680
970 IF $1 = 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 = $1
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) "$1
1130 PRINT TAB(Z) "$2
1140 PRINT TAB(Z) "$3
1150 PRINT TAB(Z) "$4
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
1120
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 DATE CHARGE # DESCRIPTION CHARGES
1400 REM
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 > !;"
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 ZZ=65
1630 LET Z=5
1640 INPUT #1, A, N$, R$, S$, U$, V$, W$
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 ZZ=65
1770 PRINT TAB(ZZ); D$
1780 PRINT
1790 FOR I1=1 TO B
1800 INPUT #1, E$, N$, A$, S$, P
1810 ZZ=3
1820 PRINT TAB(ZZ)
1830 PRINT A$;E$;P
1840 B2=B2+B$;P
1850 NEXT I
1860 PRINT
1870 PRINT "TOTAL AMOUNT PAID = $";U
1880 PRINT "DATE OF LAST PAYMENT = ";U$;
1890 B3=B2*B$;
1900 B3=INT(1.5+100*B3)/100
1910 PRINT
1920 B2=B2+B3;U
1930 B2=INT(1.5+100*B2)/100
1940 PRINT "TOTAL AMOUNT DUE = "
1950 PRINT USING "v$;B2$;
1960 PRINT "****************************"
1970 LET Z5=100*B
1980 FOR I6=1 TO 5
1990 PRINT
2000 NEXT I
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 I
2090 NEXT I
2100 Z=12
2110 FOR I7=1 TO Z
2120 PRINT
2130 NEXT I
2140 PRINT "END OF THE BILL PRINTING SEQUENCE."
2150 PRINT
2160 PRINT
2170 CLOSE
2180 GOTO 230
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"
2260 PRINT
2270 PRINT
2280 PRINT "A/R $ ";P
2290 PRINT
2300 OPEN "I",1,*MED"
2310 INPUT $1,N
2320 FOR I=1 TO N
2330 INPUT $1, A, N$, R$, U$, B
2340 INPUT $1, J
2350 IF B =0 THEN 2490
2360 FOR I1=1 TO B

1122
2370 INPUT #1, E$  \quad N \quad A \quad S \quad P
2380 12=\$  \quad \star P
2390 T2=T2+(1+\$S)
2400 T2=INT(5100*12)/100
2410 B3=B3+T2
2420 NEXT I1
2430 B3=INT(5100*B3)/100
2440 B1=B1+B3+U
2450 B2=B2+U
2460 PRINT A  \quad U  \quad B3-U  \quad U  \quad U$  \quad "1"  \quad $N$
2470 LET B3=0
2480 GOTO 2500
2490 PRINT A  \quad U  \quad 0.00  \quad 0.00  \quad U$  \quad "1"  \quad $N$
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 "CIAL 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$B1,
2650 PRINT "  "  \quad ['"  \quad ['"  \quad ['"  \quad ['"
2660 CLOSE
2670 GOTO 230
2680 REM PATIENT HISTORY
2690 LET B1=0
2700 LET B2=0
2710 LET B3=0
2720 PRINT
2730 PRINT
2740 PRINT "INPUT THE PATIENT'S ACCOUNT #: ";
2750 INPUT N7
2760 PRINT
2770 LET U$=B$
2780 PRINT
2790 PRINT
2800 PRINT "  PATIENT HISTORY  AS : ";
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  \quad N$  \quad R$  \quad S$  \quad U  \quad U$  \quad B
2890 INPUT #1, J
2900 IF B =0 THEN 2940

1123
2910 FOR I=1 TO B
2920 INPUT $1, E$, N, A$, S, P
2930 NEXT I
2940 IF N7<>A THEN 3000
2950 PRINT A, N$
2960 PRINT PAST HISTORY
2970 PRINT
2980 PRINT "END OF "$N$" HISTORY FILE"
2990 PRINT "WHEN YOU ARE READY TO PROCEED TYPE A 1 ";
3010 INPUT N8
3020 PRINT
3030 PRINT "WOULD YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)";
3040 INPUT Y$
3050 CLOSE
3060 IF Y$="YES" THEN 2680
3070 IF Y$="Y" THEN 2680
3080 PRINT
3090 PRINT
3100 PRINT "CLOSING PROGRAM"
3110 GOTO 730
3120 REM THIS IS THE UPDATING SECTION
3130 FOR I=1 TO S
3140 PRINT
3150 NEXT I
3160 OPEN "I", 1, "MED"
3170 OPEN "O", 2, "SCRN"
3180 INPUT $1, N1
3190 PRINT "TYPE A - 0 - IF YOU ARE ADDING A NEW PATIENT"
3200 PRINT "TYPE A - 1 - IF YOU ARE UPDATING AN OLD PATIENT"
3210 PRINT "TYPE A - 2 - IF YOU ARE FINISHED"
3220 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$, B, J
3450  IF A=A1 THEN 3600
3460  PRINT #2, A1, N$, $R$, S$, U$, B, J
3470  IF B=0 THEN 3520
3480  FOR I2=1 TO B
3490  INPUT #1, S$, R$
3500  PRINT #2, S$, R$
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  010  3260
3600  B=B1
3610  PRINT "HOW MANY LINES ARE YOU GOING TO ADD TO THE HISTORY ";
3620  INPUT L1
3630  PRINT #2, A1, N$, $R$, S$, U$, B, J
3640  FOR IS=1 TO B-1
3650  INPUT #1, S$, R$
3660  PRINT #2, S$, R$
3670  NEXT IS
3680  PRINT "TYPE IN THE - CHG.*, DESC.*, CHARGES, & PAYMENT ";
3690  INPUT N$, A$, S$
3700  PRINT #2, N$, A$, S$
3710  PRINT
3720  PRINT "ENTER THE "$L1" LINES OF HISTORY NOW ";
3730  FOR I?=1 TO L1
3740  INPUT G$
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 HISTORY ";
3820  PRINT J
3830  PRINT #2, A$, N$, $R$, S$, U$, B, J
3840  PRINT "TYPE - CHARGE $, DESC.*, CHARGE AMT.*, PAYMENT ";
3850  INPUT S$, R$
3860  PRINT #2, S$, R$
3870  PRINT "TYPE IN THE "$J" LINES OF HISTORY ";
3880  FOR I9=1 TO J
3890  INPUT K$
3900  PRINT #2, K$
3910  NEXT I9
3920  FOR I8=1 TO N1
3930  INPUT #1, A$, N$, R$, S$, U$, B, J
3940  IF B=0 THEN 3990
3950 FOR I=1 TO B
3960 INPUT #1,E$,N$,A$,S$,P
3970 PRINT #2,E$""N",A",S",P
3980 NEXT I
3990 IF J=0 THEN 4040
4000 IF I=I6=1 TO J
4010 INPUT #1,J$
4020 PRINT #2,J$
4030 NEXT I6
4040 NEXT I8
4050 CLOSE
4060 SET "MED"
4070 NAME "SCF" AS "MED"
4080 PRINT
4090 10 TO 3260
4100 REM THE END
4110 END
THIS IS THE MEDICAL RECORDS AND PATIENT BILLING PROGRAM

TYPE IN TODAY'S 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: ? 7

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

45686
PHIL REMINGTON
1934 SHERWOOD AVE.
BALTIMORE MD, 21134

513/6
MARY JOHNSON
PO BOX 405
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

© 1977 - SCIENTIFIC

37116
SAM WALTERS
8927 W. CHERRY ST.
BALTIMORE MD. 21136
<table>
<thead>
<tr>
<th>Date</th>
<th>Code</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/9/77</td>
<td>12</td>
<td>OFFICE VISIT</td>
<td>$ 15</td>
</tr>
<tr>
<td>3/15/77</td>
<td>12</td>
<td>OFFICE VISIT</td>
<td>$ 15</td>
</tr>
<tr>
<td>3/15/77</td>
<td>9</td>
<td>X-RAYS</td>
<td>$ 35</td>
</tr>
<tr>
<td>3/9/76</td>
<td>12</td>
<td>OFFICE VISIT</td>
<td>$ 15</td>
</tr>
<tr>
<td>1/21/77</td>
<td>17</td>
<td>REMOVED WART</td>
<td>$ 25</td>
</tr>
<tr>
<td>2/16/77</td>
<td>12</td>
<td>OFFICE VISIT</td>
<td>$ 15</td>
</tr>
</tbody>
</table>

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

TOTAL AMOUNT DUE = $20.00

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

TOTAL AMOUNT DUE = $35.00

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

TOTAL AMOUNT DUE = $25.00

---

PHIL REMINGTON
1934 SHERWOOD AVE.
BALTIMORE MD. 21134

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

NANCY L. SMITH
1637 WEDGEWOOD AVE.
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.

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

PATIENT A/R REPORT 7/23/77

ACC#   A/R $  PAYMENTS  LS DATE   CUST NAME

37116  $ 20  $ 40  4/12/77  SAM WALTERS
45686  $ 35  $ 15  4/17/77  PHIL REMINGTON
51376  $ 00.00  $ 00.00  PATID UP  MARY JOHNSON
78192  $ 25  $ 30  3/3/77  JOHN K. MASSEY
93216  $ 10  $ 35  3/15/77  NANCY L. SMITH
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

PATIENT HISTORY AS: 7/23/77

ICC# 37116 PATIENT NAME SAM WALTERS

PAST HISTORY

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
9/77 - NAUSEA, NO FEVER, CHEST PAIN AND DISCOMFORT
PRESCRIBED - COMPazine AND REST
9/77 - DIARRHEA AND MILD DISCOMFORT, FEVER 98.9, BP 90/130
PRESCRIBED - LUMOTIL, EMPIRIN #3 AND REST

END OF SAM WALTERS HISTORY FILE

WHEN YOU ARE READY TO PROCEED TYPE A 1?
WILL YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)? YES

INPUT THE PATIENT'S ACCOUNT #? 78192

PATIENT HISTORY AS: 7/23/77

ACC#  PATIENT NAME
78192  JOHN K. MASSEY

PAST HISTORY

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

WOULDN'T YOU LIKE TO REVIEW ANOTHER PATIENT'S HISTORY (YES OR NO)? NO

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 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 $1, A$;"","";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
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$(26);"WORD PROCESSING TEXT EDITOR REV. 1.1"
110 PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH":PRINT:PRINT
120 REM WORD PROCESSING TEXT EDITOR
130 REM WRITTEN BY JOHN W. SWAIN
140 REM COPYRIGHT BY SCIENTIFIC RESEARCH 1977
150 REM THE FOLLOWING VARIABLES CONTROL CONSOLE PORT ASSIGNMENTS
160 REM C1=CRT PORT ASSIGNMENT
170 REM P1=SWITCH SETTING FOR CRT PORT
180 REM C2=PRINTER PORT ASSIGNMENT
190 REM P2=SWITCH SETTING FOR PRINTER PORT
200 REM SET UP GLOBAL CONSTANTS AND EQUATES
210 DEFINT A-Z:CLEAR 3000:DEFFNZSY>=CHRS<ASCCY$)AND 95)
220 LINEINPUT"ENTER TODAY'S DATE <MM/DD/YY OR SEPT. 26, 1977>? ";Z9$
230 PRINTCHR$(26)
240 ON ERROR GOTO 3420 'SET UP ERROR TRAPS
250 C1=18:P1=1
260 C2=16:P2=0
270 CLOSE:PRINT "WORD PROCESSING TEXT EDITOR REV. 1.1"
280 PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH":PRINT:PRINT
290 PRINT "THE FOLLOWING FUNCTIONS AVAILABLE ARE:";PRINT
300 PRINT" 1 - BUILD THE TEXT OR LETTER"
310 PRINT" 2 - CREATE THE NAME AND ADDRESS FILE"
320 PRINT" 3 - EDIT THE NAME AND ADDRESS FILE"
330 PRINT" 4 - EDIT THE TEXT FILE (NOTE: PROGRAM EXITS AND YOU USE"
340 PRINT" THE EDITOR IN BASIC)"
350 PRINT" 5 - PRINT A COPY OF THE TEXT"
360 PRINT" 6 - PRINT A COPY OF THE LETTER WITHOUT THE NAME"
370 PRINT" AND ADDRESS FILE. SALUTATION ENTERED FOR EACH LETTER"
380 PRINT" 7 - PRINT LETTERS FROM NAME AND ADDRESS FILE"
390 PRINT" 8 - GLOBAL SEARCH AND REPLACE"
400 PRINT" 9 - PRINT MAILING LABELS"
410 PRINT" 10 - END"
420 PRINT"WHICH WOULD YOU LIKE TO DO";F9:IF F9<1 OR F9>10 THEN 270
430 PRINTCHR$(26):ONF9GOTO 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",Y1,FZ$";DRI
520 GOSUB 3180 'SET UP HEADER OF FILE
530 PRINT:PRINT:PRINT"FILE HEADER LABEL = ";";MID$(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$=AS$:A$=STR$(LN)+"";A$=PRINT$1,A$ILN=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,F1: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"I",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 A$, I$1
710 IF LEFT$(I$1, 1) = "Y" THEN PRINTA$ ELSE PRINT MIDD$(A$, INSTR(A$, ":") + 1)
720 GOTO 690
730 PRINT "Number of Records Written = " $(LN - 1000) / 10
740 GOTO 270
750 REM Create Name and Address File
760 LN = 1000: PRINT "Creation routine for name and address file"
770 GOSUB 3390: IF Z = 0 THEN 770
780 PRINT "Output ;": GOSUB 3360: IF Z = 0 THEN 780
790 GOSUB 3220 'Check for existing file
800 OPEN "oa, 1, FZ$, DR
810 GOSUB 3180 'Set up header of file
820 PRINT: PRINT "FILE HEADER LABEL = ": MID$(A$, INSTR(A$, ":") + 1)
830 GOSUB 840 GOTO 1010
840 PRINT "===== BEGIN TEXT ENTRY ====="
850 PRINT: PRINT
860 LINEINPUT A$1: IF A$ <> "END" THEN GOSUB 870: GOTO 860 ELSE RETURN
870 IF LEFT$(A$1, 1) = "Y" THEN 900
880 IF F > 8 THEN GOSUB 1030: F = 0: RETURN
890 A$1 = A$: IF F + 1 > AT$(F) = A$: RETURN
900 IF A$ = "?" THEN PRINTA$: RETURN
910 A$ = MID$(A$, 2): GOSUB 920: GOTO 960
920 IF LEN(A$) < 1 OR LEN(A$) > 26 THEN 990
930 FOR I = 1 TO LEN(A$): MID$(A$, I, 1) = FNZ$(MID$(A$, I, 1)): I$ = MID$(A$, I, 1)
940 IF I$ = "A" AND I$ < "Z" THEN NEXT ELSE 990
950 RETURN
960 T$ = A$: LINE INPUT "Salutation? ": A$: F = F + 1: AT$(F) = "?" + T$: " + A$
970 FOR I = 1 TO LN: PRINT I", MID$(STR$(LN), 2)": " + AT$(I) = LN = LN + 10: NEXT
980 F = 0: PRINT: PRINT "===== NEXT ENTRY =====": RETURN
990 PRINT "Group codes must consist of 1 to 26 Upper Case Letters Only"
1000 LINEINPUT "Please enter the correct group code(s) > ": A$: GOTO 920
1010 GOSUB 50: CONSOLE C1, P1: CLOSE: PRINT "Exiting creation routine"
1020 GOTO 730
1030 PRINT CHR$(26): "The last 10 lines entered: ": PRINT
1040 FOR J = 1 TO F: PRINT AT$(J): NEXT
1050 PRINT: PRINT "Don't contain an end of Entry Marker (?)"
1060 PRINT: 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$: IF Z = 0 THEN 1110
1120 PRINT "Input ": GOSUB 3360: LN = 1000: IF Z = 0 THEN 1120
1130 OPEN "\r", 2, FZ$: DR
1140 OPEN "\r": I$1 = "xyz", "", DR
1150 GOSUB 3190: LINE INPUT Z1$: 'Write Updated Header to File
1160 PRINT CHR$(26): IF F = 0 THEN GOTO 1510
1170 PRINT "This Section offers 6 Modes of Operation. ": PRINT
1180 PRINT "1 - Add a Line After Line Specified"
1190 PRINT "2 - Delete Line Specified"
1200 PRINT "3 - Replace Line Specified"
1210 PRINT "4 - Delete This Entry"
1220 PRINT "5 - Get Next Entry"
1230 PRINT "6 - End"
1240 PRINT: PRINT: PRINTTAB(12): "Line No. Contents": PRINT
1250 PRINTTAB(16): "1 " + AT$(1): SPC(4): "(Group Codes)"
1137
1260 FOR J=2 TO F: PRINTTAB(15); J; SPC(5); AT$(J); NEXT: PRINT: PRINT
1270 INPUT "WHICH FUNCTION?": F9: IF F9<10 OR F9>6 THEN 1170
1280 IF F9<8 THEN INPUT "LINE NUMBER": F8 ELSE 1300
1290 IF F8<1 OR (F8+1)>10 AND F9=1) OR F8=F THEN 1280
1300 ON F9 GOTO 1380, 1360, 1340, 1160, 1330
1310 GOSUB 1440
1320 F=1: GOSUB 1460: IF F<8 THEN GOTO 1380 ELSE GOSUB 1440: GOTO 1320
1330 PRINT "REPLACEMENT LINE FOR; " AT$(F8);
1340 IF F8<>1 THEN 1170 ELSE AT$(F8)=AT$(F8-1): GOTO 1320
1350 IF F8<2 THEN F=F-1: GOSUB 1460: IF F=1 THEN GOTO 1510 ELSE GOSUB 1440: GOTO 1320
1360 IF AT$(F)<" " THEN LINEINPUT ATS$(F8); A$: AT$(F)=AT$(F8): NEXT: GOTO 1320
1370 INPUT "ARE THE CHANGES CORRECT?"; Z1$: IF LEFT$(Z1$, 1)="N" THEN GOTO 1490
1380 IF LEFT$(Z1$, 1)="N" THEN PRINT "ABORTING JOB, NO FILES CHANGED";
1390 IF LEFT$(Z1$, 1)="N" THEN GOTO 270
1400 IF EOF<NC> THEN GOTO 1740
1410 IF F>F+1 THEN GOTO 1460
1420 IF F>F THEN GOTO 1460
1430 NAME DS XYZ.. A$: F=1: GOSUB 50: GOTO 270
1440 AT$(F)=" " + AT$(F+1): FOR I=F8 TO F
1450 PRINT #1, MID$(STR$(I), 2); " " + AT$(F): FOR I=2 TO F
1460 IF EOF<NC> THEN GOTO 1740
1470 IF LEFT$(A$, 1)="N" THEN GOTO 1720 ELSE 1500
1480 AT$(F)=AT$(F-1): GOTO 1460
1490 RETURN
1500 F=F+1: AT$(F)=A$: GOTO 1460
1510 INPUT "ARE THE CHANGES CORRECT?"; Z1$: IF LEFT$(Z1$, 1)="N" THEN PRINT "ABORTING JOB, NO FILES CHANGED";
1520 IF LEFT$(Z1$, 1)="N" THEN GOTO 1490
1530 IF LEFT$(Z1$, 1)="N" THEN GOTO 270
1540 GOTO 1400
1550 REM SET-UP FOR EDITING USING BASIC
1560 PRINT "EDITOR ROUTINE FOR TEXT FILES"
1570 PRINT "THIS SECTION WILL SET UP THE FILE FOR EDITING USING THE "
1580 PRINT "EDITOR WHICH IS BUILT INTO BASIC."
1590 PRINT "FILE NAME TO EDIT": FZ$: GOSUB 3370: IF Z=0 THEN GOTO 1590
1600 Z=1: PRINT "NAME" XYZ.. A$: F=1: GOSUB 50: CONSOLE#1: CLOSE 2: GOTO 270
1610 INPUT "DRIVE NUMBER"; DR: GOSUB 340: IF Z=0 THEN GOTO 1610
1620 INPUT "HIT <CR> WHEN READY": ZZ$: CONSOLE#2, P2
1630 INPUT "LINE UP PAPER AND HIT <CR> WHEN READY": ZZ$: CONSOLE C2, P2
1640 IF EOF<1> THEN GOTO 1670
1650 LINEINPUT#1, A$: PRINT A$: GOTO 1640
1660 GOTO 1640
1670 CONSOLE C1, P1: LOAD FZ$, DR
1680 REM PRINT COPY OF TEXT
1690 PRINT "THIS SECTION PRINTS A COPY OF THE TEXT"
1700 GOSUB 3390: GOSUB 1880: GOSUB 1850: INPUT "NUMBER OF COPIES": NC
1710 INPUT "LINE UP PAPER AND HIT <CR> WHEN READY": ZZ$: CONSOLE C2, P2
1720 NT=LN: IF NC<NT=1: GOTO 1740
1730 CONSOLE C1, P1: PRINT "EXITING COPY PRINT-OUT"; GOTO 270
1740 IF LEFT$(ZZ$, 1)="N" THEN IF NT<NC AND NT>0 THEN PRINT "NT=NT-1: GOTO 1750"
1750 IF NT<0 THEN NC=NT-1 AND GOTO 1750
1760 NC=NC+1: CONSOLE C1, P1: PRINT "PRINT YOUR DOCUMENT IS TOO LONG FOR THE FORM SIZE SELECTED."
1770 INPUT "DO YOU WANT TO CONTINUE PRINTING?": ZZ$
1780 IF LEFT$(ZZ$, 1)="Y" THEN GOSUB 1860: GOTO 1710
1790 IF LEFT$(ZZ$, 1)="Y" THEN GOSUB 1860: GOTO 1710
1800 INPUT "DO YOU WANT TO RESTART?": ZZ$
1810 IF LEFT$(ZZ$, 1)="N" THEN GOTO 1740
1820 OPEN#1, I, FZ$, DR: GOSUB 1920
1830 IF EOF<1> THEN GOTO 1
1840 LINEINPUT$1,A$;PRINTMID$(A$;INSTR$(A$;"";)+2);INT=NT-1;GOTO 1830
1850 INPUT"CONTINUOUS FORMS";Z2$;IF LEFT$(Z2$;1)="N" THEN RETURN
1860 INPUT"NUMBER OF LINES PER PAGE";LN
1870 RETURN
1880 PRINT"INPUT TEXT";GOSUB 3360;IF Z=0 THEN 1880
1890 OPEN"I";1,FZ$;DR;GOSUB 1920;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"LETTHERS WITHOUT NAME AND ADDRESS FILE.";PRINT;PRINT
1950 GOSUB 3390;GOSUB 1880
1960 GOSUB 2110;GOSUB 2250
1970 INPUT"LINE UP PAPER AND HIT (CR) WHEN READY";Z2$;CONSOLE C2,P2
1980 PRINTTAB(T1);Z8$;PRINT;PRINT;PRINT;PRINT;PRINT;PRINT
1990 GOSUB 1820;CONSOLE C1,P1
2000 INPUT"DO YOU WANT TO PRINT AN ENVELOPE";Z2$!
2010 IF LEFT$(Z2$;1)="Y" THEN GOSUB 2060
2020 INPUT"ANOTHER LETTER";Z2$;IF LEFT$(Z2$;1)="N" THEN 2100
2030 INPUT"SAME DOCUMENT";Z2$;IF LEFT$(Z2$;1)="N" THEN GOSUB 1880
2040 INPUT"SAME NAME AND ADDRESS";Z2$;IF LEFT$(Z2$;1)="N" THEN 1960
2050 GOTO 1970
2060 PRINT"PLACE ENVELOPE IN PRINTER AND HIT (CR) WHEN READY";Z2$!
2070 CONSOLE C2,P2;PRINT;PRINT;PRINT;PRINT;PRINT;PRINT
2080 PRINTMID$(TE$;I,1);IF ASC$(MID$(TE$;I))=10 THEN PRINTTAB(35);$>
2090 NEXT=I+1 TO 5;PRINT;NEXT;CONSOLE C1,P1;RETURN
2100 PRINT"EXITING LETTER PRINTING ROUTINE";GOTO 270
2110 PRINT
2120 PRINT"ENTER EACH LINE OF THE NAME AND ADDRESS AS IT WILL APPEAR ON"
2130 PRINT"THE LETTER. AFTER THE LAST LINE HAS BEEN ENTERED, TYPE A" "
2140 PRINT"? AND HIT (CR).";TE$=""$
2150 LINEINPUT$1,A$;IF LEFT$(A$;1)="?" THEN 2180
2160 IF LEN$(TE$;A$)>250 THEN PRINT"NAME/ADDRESS TOO LONG";GOTO 2110
2170 TE$=$$E$;A$;CHR$(13);CHR$(10);GOTO 2150
2180 IF LEN$(TE$)<3 THEN PRINT"NAME AND ADDRESS TOO SHORT";GOTO 2110
2190 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$)
2230 IF T1<0 OR T1>132 THEN 2210
2240 RETURN
2250 INPUT"SALUTATION? ";Z5$;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 BC$="";NC=0;LINEINPUT"GROUP CODES TO PRINT? ";A$;GOSUB 2610
2340 IF LEFT$(Z2$;1)="N" THEN 2330
2350 INPUT"LINE UP PAPER AND HIT (CR) WHEN READY";Z2$;CONSOLE C2,P2
2360 OPEN"I";2,FY$;DR;GOSUB 2730
2370 IF=1;NT=LN;GOSUB 2530;IF II<1 THEN 2480 ELSE PRINTTAB(T1);Z8$
2380 PRINT;FORII=2 TO II-1;PRINTTE$(I);NEXT;PRINT;PRINTTE$(II)
2390 PRINT;PRINT;NT=NT-(II+6)
2400 GOSUB 1820;NC=NC+1;IF LEFT$(Z2$;1)="N" THEN CONSOLE C1,P1;GOTO 2350
2410 IF NT=0 THEN 2370 ELSE IF NT>0 THEN PRINT;NT=NT-1;GOTO 2410
2420 NC=NC-1: CONSOLE C1,P1: PRINT: PRINT
2430 PRINT"YOUR DOCUMENT IS LONGER THAN THE FORM SIZE SELECTED."
2440 INPUT"DO YOU WANT TO CONTINUE PRINTING=YES"; ZZ$
2450 IF LEFT$(ZZ$;1)="Y" THEN GOSUB 1860: GOTO 2350
2460 INPUT"DO YOU WANT TO RESTART=YES"; ZZ$
2470 IF LEFT$(ZZ$;1)="Y" THEN CLOSE: GOTO 2290
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=YES"; 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 NEXT I: II=II+1: GOTO 2530
2600 IF LEN(A$)<1 THEN ZZ$="N": RETURN
2610 IF A$="ALL" THEN PRINT "YOU HAVE SELECTED ALL OF THE FILE" ELSE
2620 GC$="ALL": GOTO 2680
2630 PRINT"YOU HAVE SELECTED THE FOLLOWING GROUP CODES:";
2640 PRINT"WHEN CHOOSING SEARCH STRING BE SURE TO PICK ONE WHICH
2650 PRINT"IS UNIQUE TO THE ITEM YOU WANT CHANGED OR YOU MAY CHANGE
2660 PRINT"AN ITEM THAT YOU DIDN'T MEAN TO CHANGE."
2670 PRINT"THIS SECTION WILL PRINT OUT THE CHANGED REPORT AS IT MAKES
2680 PRINT"THE CHANGES"
2690 PRINT"NAME/ADDRESS": GOSUB 3360: IF Z=0 THEN 2690
2700 FY$=FZ$; OPEN"I"; Y2V; FY$: DR: GOSUB 2730: CLOSE 2
2710 PRINT MID$(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"NUMBER OF RECORDS FOUND AND REPLACED = "; NR
2830 PRINT"ARE THE CHANGES CORRECT?": Z1$
2840 IF EOF(2) THEN CLOSE: GOTO 2960
2850 OPEN"I"; 2; FY$: DR
2860 OPEN"O"; 1; "XYZ", "DR
2870 LINEINPUT"SEARCH STRING? "; Z2$
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: GOTO 2960
2920 LINEINPUT#2; A$: FOR I=1 TO LEN(A$): IF MID$(A$; I; LEN(Z2$))<Z2$ THEN 2940
2930 B$=LEFT$(A$; I-1): C$=MID$(A$; I+1; LEN(Z2$)): A$=B$+Z3$+C$: NR=NR+1
2940 NEXT I
2950 PRINTSouth, A$: PRINTA$: GOTO 2910
2960 CONSOLE C1, P1: PRINT"NUMBER OF RECORDS FOUND AND REPLACED = "; NR
2970 PRINT"ARE THE CHANGES CORRECT?": Z1$
2980 IF LEFT$(Z1$;1)="N" THEN PRINT"ABORTING JOB, NO FILES CHANGED": GOTO 270
2990 IF FP$=FZ$ THEN KILL FZ$; DR
3000 NAME" .xyz. "AS FP$DR:GOTO 270
3010 REM PRINT MAILING LABELS
3020 PRINT "PRINT MAILING LABELS"
3030 GOSUB 2690 'GET NAME AND ADDRESSES FILE NAME
3050 GC$="LINE INPUT"GROUP CODES TO PRINT? "A$:GOSUB 2610
3060 IF LEFT$(ZZ$,1)="N" THEN 3050
3070 INPUT "LINE UP LABELS AND HIT (CR) WHEN READY";ZZ$;CONSOLE C2,P2
3080 NC=0:PRINT
3090 FOR I=1 TO 20:PRINT "X":NEXT J:PRINT:NEXT I:CONSOLE C1,P1
3100 INPUT " IS THE LINE UP CORRECT";ZZ$:IF LEFT$ZZZ$,1)="N" THEN 3070
3110 CONSOLE C2,P2:OPEN "I";Z$;FY$:DR:GOSUB 2730
3120 II=1:GOSUB 2530:IF II<1 THEN 3160
3130 PRINT:FOR I=2 TO II-1:PRINT NEXT
3140 FOR I=II-1 TO 0: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$+ CREATION DATE:"+Z9$:GOTO 3210
3190 A$=STR$(LN)+" FILE NAME +=FP$+: REVISION OF:"+FZ$
3200 A$=A$++ DATE REVISED:"+Z9$:GOTO 3210
3210 PRINT$A$;LN=LN+10:RETURN
3220 OPEN "I";Z$;DR:CLOSE:PRINT "FILE ALREADY EXISTS USING THAT NAME"
3230 GOSUB 3340
3240 INPUT "DO YOU WISH TO RENAME OR REPLACE THE EXISTING FILE";Z1$
3250 IF LEFT$(Z1$,1)="N" THEN PRINT "NEW OUTPUT ":GOSUB 3360:IF Z=0 THEN 3250
3260 IF LEFT$(Z1$,1)="N" THEN RETURN
3270 INPUT " WHICH (RENAME OR REPLACE)";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 "Z$:TO ";INPUT FPS
3310 Z=1:GOSUB 3370:IF Z<>0 THEN 3290
3320 NAME Z$ AS FPS,DR
3330 RETURN
3340 PRINT " THE FILES AVAILABLE ON THIS DISC ARE:":PRINTFILES DR:PRINT
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 THEN PRINT "ILLEGAL DRIVE NUMBER";Z=0
3410 RETURN
3420 IF ERR=56 THEN CLOSE:PRINT "MOUNTING DRIVE ";DR$:MOUNT DR:RESUME
3430 IF ERR<>53 THEN 3540
3440 IF F9=1 THEN RESUME 510
3450 IFF9=4 THEN GOSUB 3340:RESUME 1590
3460 IF F9=8 THEN GOSUB 3340:CLOSE:RESUME 2830
3470 IF F9=3 THEN GOSUB 3340:CLOSE:RESUME 1120
3480 IF F9=2 THEN RESUME 800
3490 IF F9=5 THEN GOSUB 3340:CLOSE 1:RESUME 1700
3500 IF F9=6 THEN GOSUB 3340:CLOSE 1:RESUME 1950
3510 IF F9=7 AND ERL=1890 THEN GOSUB 3340:CLOSE 1:RESUME 2290
3520 IF F9=7 AND ERL=2700 THEN GOSUB 3340:CLOSE 2:RESUME 2300
3530 IF F9=10 AND ERL=2700 THEN GOSUB 3340:CLOSE 2:RESUME 3040
3540 IF ERR=58 THEN PRINT "OUTPUT FILE ALREADY EXISTS":GOSUB 3560:RESUME
3550 ON ERROR GOTO 0
3560 GOSUB 3340:INPUT "DO YOU WISH TO REPLACE THE FILE";Z2$
3570 IF LEFT$(Z2$,1)="Y" THEN KILL FPS,DR:RETURN
3580 LINEINPUT 'NEW OUTPUT FILE NAME?  ";FP$'
3590 IF LEN(FP$) < 10 OR LEN(FP$) > 8 THEN PRINT 'ILLEGAL FILE NAME': GOTO 3580
3600 RETURN
ENTER TODAY'S DATE (MM/DD/YY OR SEPT. 26, 1977)? AUG. 12, 1977

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
INDENT 5 SPACES

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 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.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING
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 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.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

EXITING CREATION ROUTINE
NUMBER OF RECORDS WRITTEN = 29
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? 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 COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 11388
?JLMN
SALUTATION? GENTLEMEN:

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

SCIENTIFIC RESEARCH INST.
1712 FARMINGTON CT.
CROFTON, MD. 21114
?CLQ
SALUTATION? GENTLEMEN:

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

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
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 BE 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
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 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 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

SALUTATION? DEAR SIR:

===== NEXT ENTRY =====
END
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

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

1151
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 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.

SINCERELY YOURS,

LEONARD ROGERS
MANAGER OF PURCHASING

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.

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

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? FFF

READY PRINTER AND HIT (CR) TO CONTINUE? ___
A Moment Please

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

Number of records found and replaced = 1
Are the changes correct? y

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? 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.
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
RUN*WRD PROC
WORD PROCESSING TEXT EDITOR REV. 1.1
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. 1.1
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? 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? 
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
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.

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

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
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?

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?
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.

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
AUG. 12, 1977

THE COMPUTRAN CORPORATION
15 S. MAIN ST.
FRANKLIN, NEW YORK 1388

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
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.

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 = 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

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

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? 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

INPUT DATE <CR> USES DATE ENTERED? AUG. 25, 1977
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?____
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? NAME
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

IS THIS CORRECT? Y
LINE UP LABELS AND HIT (CR) WHEN READY?
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
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 inputed 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.
REM WRITTEN BY JOHN W. SWAIN
PRINTCHR$(26);"DISC UTILITY PROGRAM REV. 5.1"
INPUT"DO YOU WANT INSTRUCTIONS";Q$
IF LEFT$(Q$+1)="Y" THEN GOSUB 2720
CLEAR 0:X=FRE$(0)-1500:IF X<0 THEN CLEAR 600:GOTO 170
IF X>24000 THEN CLEAR X ELSE CLEAR 200:END
ZI$=CHR$(255)+CHR$(255)+CHR$(255)+CHR$(255)+CHR$(255)
DIM$(255)
DIMT2(15)+GOSUB 3490
CLOSE=PRINT"UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH"
ON ERROR GOTO 3450:PRINT"COMMAND?";:LINEINPUTB$
IFB$="*THEN CLEAR 200:END
IF LEN(B$)>3 THEN C$=RIGHT$(B$,LEN(B$)-3) ELSE C$=B$
B$=LEFT$(B$,3)
IFB$="DAT"THEN1630
250 IFB$="COP"THEN ZO$=76:GOTO 2220
260 IFB$="FLS"THEN XZ=6:ZY=76:GOTO 2220
270 IFB$="BAF"THEN XZ=0:ZY=5:GOTO 2220
280 IFB$="ENF"THEN CLEAR 200:END
290 IFB$="LIS"THEN F=0;FB=0:GOTO1750
300 IFB$="PAE"THEN1850
310 IFB$="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$="UNL"THEN 2680
370 IF B$="INS" THEN F=-1:GOTO 1750
380 IF B$="LLI" THEN F=0:FB=-1:GOTO 1750
390 IF B$="LPA" THEN 3530
400 IFB$="CF"THENPRINT* COMMAND ERROR:GOT0190
410 PRINT" THIS SECTION COPIES ONLY ASCII SEQUENTIAL FILES OR RANDOM FILES."
420 PRINT" IT WILL NOT COPY COMPRESSED BINARY PROGRAM FILES."
430 INPUT"INPUT FILE NAME";IS
440 INPUT"INPUT DRIVE NUMBER";I1
450 INPUT"OUTPUT FILE NAME";O$
460 INPUT"OUTPUT DRIVE NUMBER";I2
470 IF LEN(IS)<8 THEN FOR I=LEN(IS)+I 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$,I1
690 OPEN "O",2,0$,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$,I1
770 OPEN "O",2,0$,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 0$,I2
880 GOTO 190
890 CLOSE
900 PRINT "DONE"
910 PRINT "NUMBER OF RECORDS COPIED = " NR
920 GOTO 190
930 NT=0
940 PRINT "COPYING RANDOM FILE " I$
950 NR=1
960 OPEN "R",1,I$,I1
970 OPEN "R",2,0$,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=1 TO LOF(1)
1100 GET$I, I
1110 GET$I2, 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$;PRINT;PRINT
1230 PRINT "NAME";"";"TYPE";" TRK SCT",
1240 PRINT "NAME";"";"TYPE";" TRK SCT";PRINT;I=0
1250 FORS=OT031
1260 A$=DSKS<F17+5AND31>
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$)
1360 IFASC(N$)=0THENT1420
1370 IFASC(N$)=255THEN1440
1380 R$="S"; IFZ<>1 THENR$="R"
1390 IF F THENPRINT"S": "R"": X": "Y; 
1400 A$(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 ="; DSK(A); GOTO 190
1450 IF I=1 THEN 1510
1460 SW=O
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 =";DSK(A); GOTO190
1550 IFT2(A)<=1 THEN 1590
1560 IF(INP(0)AND64)=0THEN T2(A)=0: GOTO 1590
1570 WAIT0;22;2; OUT9;2
1580 GOTO 1590
1590 IFT2(A)=T THEN RETURN
1600 D=1: IFT2(A)<>T THEN D=2
1610 WAIT0;22;2; OUT9; D: T2(A)=T2(A)-2*(D-1.5)
1620 GOTO 1590
1630 INPUT"TRACK"; T: IF T<0 THEN 190 ELSE INPUT"SECTOR"; S
1640 GO TO 1710: GOSUB 1550
1650 A$=DSK(S); FORI=0 TOLEN(A$)-1
1660 TI$=OCT$(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$)
1720 IF A<0 OR A>10 THENPRINT"ERROR"; GOTO 190
1730 OUT8;128; OUT8; A
1740 RETURN
1750 GOSUB 1710: GOSUB 3490
1760 C$=RIGHT$(C$, LEN(C$)-1+(A>9))
1770 IFASC(C$)<&054 THEN PRINT"ERROR"; GOTO 190
1780 C$=RIGHT$(C$, LEN(C$)-1)
1790 OPEN"I", 1, C$, A
1800 IFEOF(1) THEN CLOSE1: GOTO 190
1810 LINEINPUT$1; A$
UTILITY

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
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$)<&054 THEN PRINT "ERROR";GOTO190
1900 C$=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 LINE INPUT 1,A$
1960 IF A$="" THEN 1940
1970 IF T1=65 THEN GOSUB 2140
1980 IF Z$="F" AND LEN(A$)<PF THEN 2120
1990 IF Z$="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
2010 IF T1=65 THEN GOSUB 2140:PRINT"
2020 NEXT I: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$)>5 THEN 2060
2050 FOR I=1 TO 6:IF MID$(B$;I;1)<>" " THEN NEXT I
2060 PRINTB$:IF LEN(A$)+LEN(B$)<PP THEN 2120
2070 FOR I=1 TO LEN(A$):PRINTMID$(A$;I;1);CC=CC+1
2080 IF CC=PP THEN PRINT;PRINT; ""
2090 IF T1=65 THEN GOSUB 2140:PRINT"
2100 NEXT I:PRINT;T1=T1+1:IF T1=65 THEN GOSUB 2140
2110 GOTO 1940
2120 PRINT A$;T1=T1+1
2130 GOTO 1940
2140 IF EOF(1) THEN 2200
2150 PRINT;PRINT;PRINT
2160 PRINT;"---":PRINT
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 REWITE AND REREAD ERRORS";Q$
2240 Q$=LEFT$(Q$;1)
2250 C$=RIGHT$(C$;LEN(C$)-1+(A<9))
2260 IFASC(C$)<&054 THEN PRINT "ERROR";GOTO190
2270 C$=RIGHT$(C$;LEN(C$)-1):GOSUB1710:C=A
2280 PRINT;"FROM ";B$;" TO ";C$
2290 INPUTA$;IFASC(A$)<ASC("Y") THEN 190
2300 FOR T=ZX TO ZY
2310 OUT 8;128;OUT8;C
2320 A=C:GOSUB1550;OUT8;128;OUT8;B:OUT8;B=A:GOSUB1550
2330 FORS=0 TO31
2340 OUT 8;128;OUT8;B:OUT8;B=DSKI$(S)
2350 FS=DSKI$(S);IFFS="B" THEN 2370 ELSE IFQ$="N" THEN 2340
2360 PRINT "RE-READ DISC Subject: TRACK Sector:$$$$S";GOTO 2340
2370 OUT 8;128;OUT 8;C

1175
DSKO$B$YS:CS=DSKIS<S>:IFCS=BSTHEN2400 ELSE IFQS=N THEN2330
PRINT"REWRITE DISC ";C;" TRACK ";T;" SECTOR ";S:GOTO 2330
NEXTS
GOSUB 2450
NEXTT
PRINT"DONE"
GOTO190
PRINT"RETURN"
INPUT"TRACK";T:IF T<0 THEN 190 ELSE INPUT"SECTOR";S$
Z$="0"
FOR J=1 TO LEN(S$)
IF MID$(S$,J,1)="-" GOTO 2510
NEXT: S1=VAL(S$): S2=S1: GOTO 2520
S1=VAL(LEFT$(S$,J-1)): S2=VAL(MID$(S$,J+1))
PRINT " 0 1 2 3 4 5 6 7 8 9 A B C D E F"
FOR S=S1 TO S2
GOSUB1550
A$=DSKIS<S>: TS="": K=0
FOR I=0 TO 135
C%=ASC(MID$(A$,I+1,1)): IF C%<=15 THEN Z1$=ZS+HEX$(C%) ELSE Z1$=HEX$(C%)
IF I MOD 16)=0 THEN PRINT: PRINT K;: K=K+1
NEXT
PRINT USING"\\";Z1$;:PRINT" ";
NEXT
PRINT" ";
GOTO 190
GOSUB1710
GOSUB 3490
MOUNT A
GOTO190
GOSUB 1710
GOSUB 3490
UNLOAD A
GOTO 190
PRINT"THE LIST OF POSSIBLE COMMANDS ARE AS FOLLOWS:"
PRINT"DAT" DATA OFF OF DISC IN OCTAL"
PRINT"COP" COPIES WHOLE DISC"
PRINT"FLS" COPIES ONLY THE FILES (TRACKS 6-76)"
PRINT"BAS" COPIES ONLY BASIC (TRACKS 0-5)"
PRINT"END" ENDS PROGRAM"
PRINT"LIS" LISTS ASCII SAVED FILES (NO PAGING)"
PRINT"PAG" LISTS ASCII SAVED FILE WITH PAGING"
PRINT"DIR" LISTS THE DIRECTORY WITH HEADINGS"
PRINT"SRT" PRINTS SORTED DIRECTORy WITH HEADINGS"
PRINT"HEX" PRINTS DATA OFF OF DISC IN HEX"
PRINT"CPF" COPIES DATA FILES"
PRINT"MEM" RUNS MEMORY TEST BETWEEN TWO LIMITS SET"
PRINT"ANT" MOUNTS DISC NUMBER SPECIFIED"
PRINT"UNL" UNLOADS DISC NUMBER SPECIFIED"
PRINT"IMS" USED TO PUNCH TAPE IN IMSAI BASIC FORMAT"
PRINT"LI" SAME AS 'LIS' EXCEPT USES LINE PRINTER"
PRINT"LPA" SAME AS 'PAG' EXCEPT USES LINE PRINTER"
PRINT"THE COMMAND STRUCTURE IS AS FOLLOWS FOR THE FOLLOWING "
PRINT"COMMANDS:"
PRINT"DAT"
PRINT"DIR"
UTILITY REV 5.1

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,"COP"
3010 PRINT,"FLS"
3020 PRINT,"BAS"
3030 PRINT"XXXY,Z WHERE 'XXX' IS THE COMMAND, 'Y' IS THE FROM DRIVE NUMBER, AND 'Z' IS THE DESTINATION".
3040 PRINT"FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS AS FOLLOWS:

3050 PRINT"HEX 0 MNTu
3060 PRINT, 0 MNTu
3070 PRINT
3080 PRINT"UNL c=
3090 PRINT",PRINT"XXXY WHERE 'XXX' IS THE COMMAND AND 'Y' IS THE

3100 PRINT"FOR THE FOLLOWING COMMANDS, THE COMMAND STRUCTURE IS AS FOLLOWS:

3110 PRINT"LIS 
3120 PRINT"PAG 
3130 PRINT"IMS 
3140 PRINT"LLI 
3150 PRINT"LPA 
3160 PRINT"XXXY,ZZZZZ WHERE 'XXX' IS THE COMMAND, 'Y' IS THE DRIVE NUMBER, AND 'ZZZZZ' IS THE FILE NAME TO BE PRINTED.

3170 PRINT:PRINT"FOR THE FOLLOWING COMMANDS, THE STRUCTURE IS AS FOLLOWS:

3180 PRINT"END 
3190 PRINT"MEM 
3200 PRINT"CPF WHERE 'XXX' IS THE COMMAND,
3210 PRINT:PRINT" (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', 'BAS', 'HEX', OR 'CNV' OR YOU WILL GET A DISC I/O ERROR, "

3220 PRINT" (2) THEN COMMANDS 'LIS', 'IMS', AND 'PAG' WORK ONLY ON ASCII SEQUENTIAL FILES."
3230 PRINT"ONLY ON ASCII SEQUENTIAL FILES."
3240 PRINT"RETURN"
3250 PRINT"MEMORY TEST ROUTINE"
3260 INPUT "UPPER LIMIT TO TEST";UP
3270 INPUT "LOWER LIMIT TO START";LO
3280 J=0
3290 FOR I=LO TO UP
3300 POKE I,J
3310 NEXT I
3320 FOR I=LO TO UP
3330 K=PEEK(I)
3340 IF J<K THEN PRINT" MEMORY LOCATION ";I;" IS BAD"ELSE 3410
3350 PRINT";K;"WAS WRITTEN, AND ";K;"WAS READ"
3360 NEXT I
3370 IF J=0 THEN J=J+1 ELSE J=J*2
3380 IF J>129 THEN PRINT"DONE";GOTO 190

1177
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
3560 INPUT"IS THIS A LISTING OF A PROGRAM OR FILE (P OR F)"
3570 C$=RIGHT$(C$,LEN(C$)-1)IF ASC(C$)<&054THEN PRINT"ERROR":GOTO190
3580 C$=RIGHT$(C$,LEN(C$)-1)
3590 T1=0:P1=1
3600 OPEN "I",1,C$,A
3610 GOSUB 3850
3620 CC=6:IF EOF(1) THEN 3890
3630 LINEINPUT1,A$
3640 IF A$="" THEN 3860
3650 IF T1=65 THEN GOSUB 3830
3660 IF Z$="F" AND LEN(A$)<P THEN 3810
3670 IF Z$="F" AND LEN(A$)>P THEN FOR I=1 TO LEN(A$) ELSE 3720
3680 LPRINTMIDS(A$,1,1);CC=CC+1IF CC=P THEN LPRINT:T1=T1+1CC=6ELSE
3690 IF T1=65 THEN GOSUB 3830:LPRINT";";
3700 NEXT I:LPRINT:T1=T1+1:IF T1=65 THEN GOSUB 3830
3710 GOTO 3620
3720 FOR I=1 TO 6:IF MID$(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$)+LEN(B$)<P THEN 3810
3760 FOR I=1 TO LEN(A$):LPRINTMID$(A$,I,1);CC=CC+1
3770 IF CC=P THEN LPRINT*LPRINT*;T1=T1+1CC=6ELSE 3790
3780 IF T1=65 THEN GOSUB 3830:LPRINT*;
3790 NEXT I:LPRINT:T1=T1+1:IF T1=65 THEN GOSUB 3830
3800 GOTO 3620
3810 LPRINT A$: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=71:P1=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
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 FORMA
'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,ZZZZZZ WHERE 'XXX' IS THE COMMAND, 'Y' IS THE DRIVE NUMBER
AND 'ZZZZZZ' 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.

UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH COMMAND?

```plaintext
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

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
**DIRECTORY DISK 0**

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

**AMOUNT OF FREE SPACE = 7**
### UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH

**COMMAND?DIRO**

**DIRECTORY DISK 0**

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

**AMOUNT OF FREE SPACE = 7**

**COMMAND?PAGO,UTILITY**

**COMMENTS (<15 CHARACTERS)? REV 5.1**

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

**IS THIS A LISTING OF A PROGRAM OR FILE (P OR F)? P**
COMMAND?BAS0;1
DO YOU WISH A LIST OF REWRITE AND REREAD ERRORS? Y
FROM 0 TO 1 ? Y
0 1 2 3 4 5 DONE
COMMAND? 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 0 4 0 0

COMMAND? COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
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 0 4 0 0

UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
COMMAND?CPF
THIS SECTION COPIES ONLY ASCII SEQUENTIAL FILES OR RANDOM FILES.
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
UCC - COPYRIGHT 1977 BY SCIENTIFIC RESEARCH
COMMAND? END
NON-PROFIT
SOFTWARE LICENSING AGREEMENT
THIS AGREEMENT is entered into by and between SCIENTIFIC RESEARCH, located at 1712 Farmington Court, Crofton, Maryland 21114 and

Licensee (Dealer, Distributor or Contractee) hereinafter referred to as "LICENSEE".

Name __________________________________________

Address _________________________________________

City________________________ State __________ Zip __

County _________________________

under the following terms and conditions:

1. LICENSE

Scientific Research agrees to grant and licensee agrees to accept a nonexclusive license to use and to sublicense to customers, limited to the provisions of Exhibit "B", others to use the programs listed on Exhibit "A", both attached hereto and incorporated herein by reference, subject to terms and conditions contained herein. Licensee shall pay Scientific Research within five (5) days of the date of receipt of the licensed software the sum of Fifteen Thousand Dollars ($15,000.00) as a partial consideration for said license and the limited right to sublicense in addition to other payments provided herein.

2. TERM

This agreement and the license and right to grant sublicenses hereunder shall be effective for a period of one (1) year from the date on which it is accepted by Scientific Research, and will automatically be renewed for additional one (1) year periods thereafter, pursuant to the terms of SCHEDULE "A", unless terminated according to Paragraph 8 hereof or upon written notice from either party to the other given no less than ninety (90) days prior to the expiration of any such one (1) year period. Any sublicenses granted during the term hereof shall continue indefinitely irrespective of the termination of this agreement, unless a sublicensee is in violation of the obligations contained in Paragraph 5.3 of this agreement of Schedule "A" or Exhibit "B", in which case said sublicense shall immediately terminate and licensee shall notify said sublicensee of such termination.

3. MATERIALS

Scientific Research shall furnish one (1) each of the following items per Data Processing System purchased by licensee under contract:

3.1 Machine readable programs of the licensed software identified in Exhibit "A".

3.2 Reference manual for the licensed software, if available as of the date hereof.

3.3 Updated versions of Items 3.1 and 3.2 when released by Scientific Research, for a period of one (1) year from the initial date of this agreement.

4. TITLE

4.1 Title and full ownership rights to the software licensed hereunder shall remain with Scientific Research, or its licensor, where applicable.

4.2 Licensee shall not assign or otherwise transfer its rights in the licensed software except by sublicense provided herein, and any such attempted transfer is void and has no effect.
5. USAGE CONDITIONS

5.1 Licensee shall not disclose or distribute in printed or machine readable form any source programs which are part of the licensed software without prior written approval of Scientific Research.

5.2 Licensee has the right to sublicense the object code or a portion of same during the term hereof for use by the sublicensee in conjunction with the sale or use of a Scientific Research Data Processing System in accordance with the provisions of Exhibit B attached hereto.

5.3 The software distributed under this agreement is the sole property of Scientific Research and is not to be reproduced in any manner (except as required by the licensee in granting sublicenses hereunder), and this fact will be indicated on any copies thereof distributed.

5.4 Sublicensees shall agree to the sublicense agreement attached hereto as Exhibit B, and licensee will use reasonable efforts to ensure that sublicenses do not reproduce all or any portion of the licensed software in any manner whatsoever. Licensor may, in its future sublicense agreements, require more restrictive copying rights than those specified in Exhibit B. However, licensee may not remove any of the requirements or restrictions set forth in Exhibit B without the prior express written consent of Scientific Research. In the event that licensee discovers any violation of Exhibit B by any sublicensee, licensee must report such violation to Scientific Research within twenty-four (24) hours and use licensee's best efforts to cause the sublicensee to cease his violations. If the violation continues, licensee must terminate the sublicense for default.

5.5 Licensee may modify any Licensed Program in machine readable form and/or merge it into other program material to form an updated work for its own use, provided that the modified program be submitted to Scientific Research for use as they see fit without restrictions and that, upon discontinuance of the license for such Licensed Program, the Licensed Program will be completely removed from the updated work and treated as if permission to modify and/or merge had never been granted.

5.6 The licensee will not ask for or expect assistance from Scientific Research in installing or in modifying the licensed software. The licensee is solely responsible for the installation and maintenance of the licensed software at his or his customer's site.

5.7 In the event that this license is terminated in accordance with the terms contained herein when there are valid sublicenses in effect, each and every such sublicense shall automatically be assigned to Scientific Research and licensee shall notify each sublicensee of said assignment. In the event that Scientific Research's rights have been obtained by license from a third party and its license is terminated by the third party, this license shall continue as to such licensed and sublicensed programs owned by the third party and Scientific Research's rights hereunder as to such programs shall inure to the benefit of said third party. This license agreement for any other programs shall continue unaffected.

6. LIMITATIONS OF LIABILITY

6.1 Licensee agrees that Scientific Research's liability hereunder for damages, regardless of the nature of the action, shall not exceed the charges paid by the Licensee for the particular Licensed Program(s). Licensee further agrees that Scientific Research will not be liable
for any lost profits, or for any claim or demand against Licensee by the sublicensee/customer or any other party. IN NO EVENT WILL EITHER PARTY BE LIABLE FOR CONSEQUENTIAL DAMAGES EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

6.2 Licensee shall indemnify and hold Scientific Research harmless for any and all claims arising from licensee's or its sublicensee's use of licensed software.

7. WARRANTY
7.1 Scientific Research warrants to the Licensee that each Licensed Program will conform to program specifications when shipped to the Licensee. Scientific Research agrees, at no charge to the Licensee, to use its best efforts to correct any Program error found in the Licensed Program for a period of ninety (90) days from the date of initial delivery of the programs listed in Exhibit A. Scientific Research does not guarantee, represent or warrant that errors will be corrected.

7.1 THIS EXPRESSED WARRANTY IS IN LIEU OF ALL OTHER CONDITIONS AND WARRANTIES EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED CONDITIONS OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) AND OF ALL OTHER OBLIGATIONS OR LIABILITIES FOR BREACH OF THIS WARRANTY ON SCIENTIFIC RESEARCH'S PART. IT NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR SCIENTIFIC RESEARCH ANY LIABILITIES IN CONNECTION WITH THE USE OF SAID LICENSED SOFTWARE.

8. TERMINATION
In the event that licensee shall at any time neglect, fail or refuse to comply with the terms of this agreement, Scientific Research may terminate this agreement by serving upon licensee a notice of termination for default unless licensee shall cure the condition of default within ten (10) days after receipt of said notice.

9. TAXES
Licensee shall promptly pay any taxes arising out of or under this agreement except for those taxes levied upon the net income or personal property of Scientific Research or its licensors.

10. ASSIGNMENT
This license is personal to the signed Licensee and the Licensee shall not assign this license or any interest therein or any rights hereunder except as provided herein, without the prior written consent of Scientific Research.

11. MERGER
This agreement constitutes the entire agreement between the parties concerning the subject matter hereof and merges all prior agreements and negotiations, both written and oral, of the parties.

12. CONTROLLING LAW
This agreement shall be governed by, subject to and construed according to the laws of the State of Maryland and may not be modified except by a writing signed by each party.

13. ADDITIONAL TERMS
Additional terms and conditions appearing on Schedule A are herewith included and incorporated in this agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year written below.

ACCEPTED: SCIENTIFIC RESEARCH

AGREED:

LICENSEE (Dealer, Distributor or Contractee)

By ___________________________ By ___________________________

Title __________________________ Title __________________________

Date ___________________________ Date ___________________________

SCHEDULE “A”

ADDITIONAL TERMS:

14. YEARLY RENEWAL

In addition to the term of the license as set out in Paragraph 2, the licensee will in addition tender a nominal yearly fee of $150.00, or a one time charge of $15,000.00 as set out in EXHIBIT “A”, to be paid on or before January 15 of each year to Scientific Research. This renewal fee is required annually to keep the license agreement in effect. Failure to timely remit the renewal fee by the stipulated date will automatically terminate this license as set out in Paragraph 8 and 5.7 and any other applicable sections included in this agreement. Renewal of a terminated license, from above reasons, shall cost $1,000.00 and is conditional to reacceptance by Scientific Research.

EXHIBIT “A”

The products listed below are hereby licensed under the terms of the attached Agreement.

PRODUCTS INCLUDED IN THIS AGREEMENT:

Name: Basic Software Library
Volumes: VII only
Programs covered: MEDBILL, and WRDPRO

FEES for Non-Profit licensing and sublicensing.
$15,000.00 one time fee per computer, the software is used on, or $150.00 per year due by January 15 of every year. Each customer or user of the software licensed by this agreement must notify Scientific Research in writing, as to the number of copies that the customer or user has and the whereabouts of each copy. Failure to notify Scientific Research of this information immediately subjects the customer or user to the $15,000.00 price for each copy of the software set out in EXHIBIT “A” they have.
EXHIBIT "B"
Software Sublicense Agreement for NON-PROFIT Usage
Licensee/Dealer/Sublicensor shall be referred to as "sublicensor".

IMPORTANT: These software programs listed in EXHIBIT "A" are copyright by Scientific Research and/or by a licensor of Scientific Research. Scientific Research has licensed

(Sublicensor)
to grant limited licenses under such copyrights for personal and non-profit use. All programs are licensed only on the condition that the customer agrees to the following license. READ THIS LICENSE CAREFULLY. If you do not agree to the terms contained in this License, contact sublicensor immediately. If you do agree, execute the agreement in the space below and return one executed copy to the sublicensor, and one executed copy to 1712 Farmington Court, Crofton, Maryland 21114.

Sublicensor agrees to grant and the Customer agrees to accept on the following terms and conditions a nontransferable and non-exclusive license, for non-profit usage, to use and copy the software program(s) (Licensed Programs) herein delivered with this Agreement.

LICENSE

Each license granted under this Agreement authorizes the Customer to use the Licensed Program in any machine readable form on any single Scientific Research Data Processing System (referred to as System). A separate license is required for each system on which the Licensed Program will be used. All use by individuals or firms as service bureau software or for inclusion on any time sharing system where the software may be used by or for other than the licensee is strictly forbidden. Such use requires the execution of the "FOR-PROFIT" Licensing Agreement.

This Agreement and any of the licenses, program or materials to which it applies may not be assigned, sublicensed or otherwise transferred. No right to print or copy, in whole or in part, the Licensed Programs is granted except as hereinafter expressly provided.

PERMISSION TO COPY OR MODIFY LICENSED PROGRAMS

The Customer shall not copy, in whole or in part, any Licensed Programs which are provided by Sublicensor in printed form under this agreement.

Any Licensed Programs which are provided by Sublicensor in machine readable form may be copied, in whole or in part, in machine readable form in sufficient number for use by the Customer with the designated System, for back-up purposes, or for archive purposes, provided, however, than no more than two (2) copies will be in existence under any license at any one time without the prior written consent from Sublicensor. The Customer(s) agrees to maintain appropriate records of the number and location of all such copies of Licensed Programs. The original, and any copy of the Licensed Programs, in whole or in part including any modifications made, which are made by the Customer shall be the property of Scientific Research or its licensors.

The Customer agrees not to remove and where applicable to reproduce and include Scientific Research's and its licensor's copyright notices on all copies reproduced, in whole or in part, in any form, including partial copies and modifications of Licensed Program made hereunder.

PROTECTION AND SECURITY

The Customer agrees not to provide or otherwise make available any Licensed Program including, but not limited to program listings, object code and source code, in any form, to any person other than Customer's or Sublicensor's employees. Customer's failure to protect the property rights of Scientific Research will subject the customer or the holder of the software or both to an agreed upon amount, a liquidated damage fee of $75,000.00 for each copy of the software, set out in EXHIBIT "A", the customer/user/holder has or has had or made.
DISCONTINUANCE

If Customer is in violation of any of the terms of this Agreement, Sublicensor will terminate this license upon thirty (30) days written notice unless Customer has corrected such deficiency within the said thirty (30) day period.

In the event Sublicensor's license from Scientific Research shall terminate at any time during the duration of this sublicense, this sublicense shall continue in full force and effect and Sublicensor hereby assigns said Sublicense to Scientific Research, who shall succeed to all the rights and obligations of this sublicense agreement in place of Sublicensor.

Within one (1) month after the date of discontinuance of this license, the Customer will furnish Sublicensor a certificate certifying that through his best effort, and to the best of his knowledge, the original and all copies, in whole or in part, in any form, of the Licensed Programs received from Sublicensor or made in connection with such license have been destroyed, except that, upon prior written authorization from Sublicensor.

DISCLAIMER OR WARRANTY

SCIENTIFIC RESEARCH AND SUBLICENSOR MAKE NO WARRANTIES WITH RESPECT TO THE LICENSED PROGRAMS, AND SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL SCIENTIFIC RESEARCH OR SUBLICENSOR BE LIABLE FOR CONSEQUENTIAL DAMAGES EVEN IF SCIENTIFIC RESEARCH OR SUBLICENSOR HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

GENERAL

If any of the provisions of this Agreement are finally declared invalid under any applicable statute or rule of law, this agreement shall be terminated unless Scientific Research consents in writing to the continuation of this agreement with the invalid provisions deleted.

This is the complete exclusive statement of the agreement between the parties, which supersedes all proposals, oral or written, and all other communications between the parties relating to the subject matter of this Agreement and the provisions of SCHEDULE "A".

CUSTOMER/SIGNER          SUBLICENSOR/DEALER

By ______________________  By ______________________

Title ______________________  Title ______________________

Company ______________________  Company ______________________

Designated System: ______________________  Date: ______________________

Location: ______________________

______________________________
______________________________

1193
SCIENTIFIC RESEARCH
NONPROFIT USE LICENSE AGREEMENT
FOR SOFTWARE PRODUCTS

THIS AGREEMENT is entered into by and between SCIENTIFIC RESEARCH, located at 1712 Farmington Court, Crofton, Maryland 21114 and Licensee (Dealer, Distributor or Contractee) hereinafter referred to as "LICENSEE".

Name__________________________________________________________
Address _______________________________________________________  
City____________________ State___________ Zip__________
County________________________________________________________

under the following terms and conditions:

1. LICENSE
   Scientific Research agrees to grant and licensee agrees to accept a nonexclusive license to use and to sublicense to customers, limited to the provisions of Exhibit "B", others to use the programs listed on Exhibit "A", both attached hereto and incorporated herein by reference, subject to terms and conditions contained herein. Licensee shall pay Scientific Research within five (5) days of the date of receipt of the licensed software the sum of Fifteen Thousand Dollars ($15,000.00) as a partial consideration for said license and the limited right to sublicense in addition to other payments provided herein.

2. TERM
   This agreement and the license and right to grant sublicenses hereunder shall be effective for a period of one (1) year from the date on which it is accepted by Scientific Research, and will automatically be renewed for additional one (1) year periods thereafter, pursuant to the terms of SCHEDULE "A", unless terminated according to Paragraph 8 hereof or upon written notice from either party to the other given no less than ninety (90) days prior to the expiration of any such one (1) year period. Any sublicenses granted during the term hereof shall continue indefinitely irrespective of the termination of this agreement, unless a sublicensee is in violation of the obligations contained in Paragraph 5.3 of this agreement of Schedule "A" or Exhibit "B", in which case said sublicense shall immediately terminate and licensee shall notify said sublicensee of such termination.

3. MATERIALS
   Scientific Research shall furnish one (1) each of the following items per Data Processing System purchased by licensee under contract:
   3.1 Machine readable programs of the licensed software identified in Exhibit "A".
   3.2 Reference manual for the licensed software, if available as of the date hereof.
   3.3 Updated versions of Items 3.1 and 3.2 when released by Scientific Research, for a period of one (1) year from the initial date of this agreement.

4. TITLE
   4.1 Title and full ownership rights to the software licensed hereunder shall remain with Scientific Research, or its licensor, where applicable.
   4.2 Licensee shall not assign or otherwise transfer its rights in the licensed software except by sublicense provided herein, and any such attempted transfer is void and has no effect.
6. USAGE CONDITIONS

5.1 Licensee shall not disclose or distribute in printed or machine readable form any source programs which are part of the licensed software without prior written approval of Scientific Research.

5.2 Licensee has a license and the right to sublicense the object code or a portion of same during the term hereof for use by the sublicensee in conjunction with the sale or use of a Scientific Research Data Processing System in accordance with the provisions of Exhibit B attached hereto.

5.3 The software distributed under this agreement is the sole property of Scientific Research and is not to be reproduced in any manner (except as required by the licensee in granting sublicenses hereunder), and this fact will be indicated on any copies thereof distributed.

5.4 Sublicensees shall agree to the sublicense agreement attached hereto as Exhibit B, and licensee will use reasonable efforts to ensure that sublicensees do not reproduce all or any portion of the licensed software in any manner whatsoever. Licensor may, in its future sublicense agreements, require more restrictive copying rights than those specified in Exhibit B. However, licensee may not remove any of the requirements or restrictions set forth in Exhibit B without the prior express written consent of Scientific Research. In the event that licensee discovers any violation of Exhibit B by any sublicensee, licensee must report such violation to Scientific Research within twenty-four (24) hours and use licensee’s best efforts to cause the sublicensee to cease his violations. If the violation continues, licensee must terminate the sublicense for default.

5.5 Licensee may modify any Licensed Program in machine readable form and/or merge it into other program material to form an updated work for its own use, provided that the modified program be submitted to Scientific Research for use as they see fit without restrictions and that, upon discontinuance of the license for such Licensed Program, the Licensed Program will be completely removed from the updated work and treated as if permission to modify and/or merge had never been granted.

5.6 The licensee will not ask for or expect assistance from Scientific Research in installing or in modifying the licensed software. The licensee is solely responsible for the installation and maintenance of the licensed software at his or his customer’s site.

5.7 In the event that this license is terminated in accordance with the terms contained herein when there are valid sublicenses in effect, each and every such sublicense shall automatically be assigned to Scientific Research and licensee shall notify each sublicensee of said assignment. In the event that Scientific Research’s rights have been obtained by license from a third party and its license is terminated by the third party, this license shall continue as to such licensed and sublicense programs owned by the third party and Scientific Research’s rights hereunder as to such programs shall inure to the benefit of said third party. This license agreement for any other programs shall continue unaffected.

6. LIMITATIONS OF LIABILITY

6.1 Licensee agrees that Scientific Research’s liability hereunder for damages, regardless of the nature of the action, shall not exceed the charges paid by the Licensee for the particular Licensed Program(s). Licensee further agrees that Scientific Research will not be liable
for any lost profits, or for any claim or demand against Licensee by the sublicensee/customer or any other party. IN NO EVENT WILL EITHER PARTY BE LIABLE FOR CONSEQUENTIAL DAMAGES EVEN IF THE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

6.2 Licensee shall indemnify and hold Scientific Research harmless for any and all claims arising from licensee’s or its sublicensee’s use of licensed software.

7. WARRANTY

7.1 Scientific Research warrants to the Licensee that each Licensed Program will conform to program specifications when shipped to the Licensee. Scientific Research agrees, at no charge to the Licensee, to use its best efforts to correct any Program error found in the Licensed Program for a period of ninety (90) days from the date of initial delivery of the programs listed in Exhibit A. Scientific Research does not guarantee, represent or warrant that errors will be corrected.

7.1 THIS EXPRESSED WARRANTY IS IN LIEU OF ALL OTHER CONDITIONS AND WARRANTIES EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED CONDITIONS OR WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) AND OF ALL OTHER OBLIGATIONS OR LIABILITIES FOR BREACH OF THIS WARRANTY ON SCIENTIFIC RESEARCH’S PART. IT NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR SCIENTIFIC RESEARCH ANY LIABILITIES IN CONNECTION WITH THE USE OF SAID LICENSED SOFTWARE.

8. TERMINATION

In the event that licensee shall at any time neglect, fail or refuse to comply with the terms of this agreement, Scientific Research may terminate this agreement by serving upon licensee a notice of termination for default unless licensee shall cure the condition of default within ten (10) days after receipt of said notice.

9. TAXES

Licensee shall promptly pay any taxes arising out of or under this agreement except for those taxes levied upon the net income or personal property of Scientific Research or its licensors.

10. ASSIGNMENT

This license is personal to the signed Licensee and the Licensee shall not assign this license or any interest therein or any rights hereunder except as provided herein, without the prior written consent of Scientific Research.

11. MERGER

This agreement constitutes the entire agreement between the parties concerning the subject matter hereof and merges all prior agreements and negotiations, both written and oral, of the parties.

12. CONTROLLING LAW

This agreement shall be governed by, subject to and construed according to the laws of the State of Maryland and may not be modified except by a writing signed by each party.

13. ADDITIONAL TERMS

Additional terms and conditions appearing on Schedule A are herewith included and incorporated in this agreement.
IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year written below.

ACCEPTED: AGREED:
SCIENTIFIC RESEARCH LICENSEE (Dealer, Distributor or Contractee)

By ___________________________ By ___________________________
Title __________________________ Title __________________________
Date __________________________ Date __________________________

SCHEDULE “A”

ADDITIONAL TERMS:

14. YEARLY RENEWAL
In addition to the term of the license as set out in Paragraph 2, the licensee will in addition tender a nominal yearly fee of $150.00, or a one time charge of $15,000.00 as set out in EXHIBIT “A”, to be paid on or before January 15 of each year to Scientific Research. This renewal fee is required annually to keep the license agreement in effect. Failure to timely remit the renewal fee by the stipulated date will automatically terminate this license as set out in Paragraph 8 and 5.7 and any other applicable sections included in this agreement. Renewal of a terminated license, from above reasons, shall cost $1,000.00 and is conditional to reacceptance by Scientific Research.

EXHIBIT “A”

The products listed below are hereby licensed under the terms of the attached Agreement.

PRODUCTS INCLUDED IN THIS AGREEMENT:
Name: Basic Software Library
Volumes: VII only
Programs covered: MEDBILL, and WRDPRO

FEES for Non-Profit licensing and sublicensing.
$15,000.00 one time fee per computer, the software is used on, or $150.00 per year due by January 15 of every year. Each customer or user of the software licensed by this agreement must notify Scientific Research in writing, as to the number of copies that the customer or user has and the whereabouts of each copy. Failure to notify Scientific Research of this information immediately subjects the customer or user to the $15,000.00 price for each copy of the software set out in EXHIBIT “A” they have.
EXHIBIT "B"

Software Sublicense Agreement for NON-PROFIT Usage

Licensee/Dealer/Sublicensor shall be referred to as "sublicensor".

IMPORTANT: These software programs listed in EXHIBIT "A" are copyrighted by Scientific Research and/or by a licensor of Scientific Research. Scientific Research has licensed ____________________ (Sublicensor) to grant limited licenses under such copyrights for personal and non-profit use. All programs are licensed only on the condition that the customer agrees to the following license. READ THIS LICENSE CAREFULLY. If you do not agree to the terms contained in this License, contact Sublicensor immediately. If you do agree, execute the agreement in the space below and return one executed copy to the sublicensor, and one executed copy to 1712 Farmington Court, Crofton, Maryland 21114.

Sublicensor agrees to grant and the Customer agrees to accept on the following terms and conditions a nontransferable and non-exclusive license, for non-profit usage, to use and copy the software program(s) (Licensed Programs) herein delivered with this Agreement.

LICENSE

Each license granted under this Agreement authorizes the Customer to use the Licensed Program in any machine readable form on any single Scientific Research Data Processing System (referred to as System). A separate license is required for each system on which the Licensed Program will be used. All use by individuals or firms as service bureau software or for inclusion on any time sharing system where the software may be used by or for other than the licensee is strictly forbidden. Such use requires the execution of the "FOR-PROFIT" Licensing Agreement.

This Agreement and any of the licenses, program or materials to which it applies may not be assigned, sublicensed or otherwise transferred. No right to print or copy, in whole or in part, the Licensed Programs is granted except as hereinafter expressly provided.

PERMISSION TO COPY OR MODIFY LICENSED PROGRAMS

The Customer shall not copy, in whole or in part, any Licensed Programs which are provided by Sublicensor in printed form under this agreement.

Any Licensed Programs which are provided by Sublicensor in machine readable form may be copied, in whole or in part, in machine readable form in sufficient number for use by the Customer with the designated System, for back-up purposes, or for archive purposes, provided, however, than no more that two (2) copies will be in existence under any license at any one time without the prior written consent from Sublicensor. The Customer(s) agrees to maintain appropriate records of the number and location of all such copies of Licensed Programs. The original, and any copy of the Licensed Programs, in whole or in part including any modifications made, which are made by the Customer shall be the property of Scientific Research or its licensors.

The Customer agrees not to remove and where applicable to reproduce and include Scientific Research's and its licensor's copyright notices on all copies reproduced, in whole or in part, in any form, including partial copies and modifications of Licensed Program made hereunder.

PROTECTION AND SECURITY

The Customer agrees not to provide or otherwise make available any Licensed Program including, but not limited to program listings, object code and source code, in any form, to any person other than Customer's or Sublicensor's employees. Customer's failure to protect the property rights of Scientific Research will subject the customer or the holder of the software or both to an agreed upon amount, a liquidated damage fee of $75,000.00 for each copy of the software, set out in EXHIBIT “A”, the customer/user/holder has or has had or made.
DISCONTINUANCE

If Customer is in violation of any of the terms of this Agreement, Sublicensor will terminate this license upon thirty (30) days written notice unless Customer has corrected such deficiency within the said thirty (30) day period.

In the event Sublicensor's license from Scientific Research shall terminate at any time during the duration of this sublicense, this sublicense shall continue in full force and effect and Sublicensor hereby assigns said Sublicense to Scientific Research, who shall succeed to all the rights and obligations of this sublicense agreement in place of Sublicensor.

Within one (1) month after the date of discontinuance of this license, the Customer will furnish Sublicensor a certificate certifying that through his best effort, and to the best of his knowledge, the original and all copies, in whole or in part, in any form, of the Licensed Programs received from Sublicensor or made in connection with such license have been destroyed, except that, upon prior written authorization from Sublicensor.

DISCLAIMER OR WARRANTY

SCIENTIFIC RESEARCH AND SUBLICENSOR MAKE NO WARRANTIES WITH RESPECT TO THE LICENSED PROGRAMS, AND SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL SCIENTIFIC RESEARCH OR SUBLICENSOR BE LIABLE FOR CONSEQUENTIAL DAMAGES EVEN IF SCIENTIFIC RESEARCH OR SUBLICENSOR HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

GENERAL

If any of the provisions of this Agreement are finally declared invalid under any applicable statute or rule of law, this agreement shall be terminated unless Scientific Research consents in writing to the continuation of this agreement with the invalid provisions deleted.

This is the complete exclusive statement of the agreement between the parties, which supersedes all proposals, oral or written, and all other communications between the parties relating to the subject matter of this Agreement and the provisions of SCHEDULE “A”.

CUSTOMER/SIGNER        SUBLICENSOR/DEALER

By ____________________________ By ____________________________

Title __________________________ Title ____________________________

Company ______________________ Company ______________________

Designated System: ____________ Date: ______________

Location: ___________________________________________________________________

____________________________________________________________________________

____________________________________________________________________________
RELIABLE COMPUTER SOFTWARE

FOR YOUR DOWN TO EARTH TASKS

SCIENTIFIC RESEARCH INST. 
Key Biscayne, Florida

BASIC SOFTWARE LIBRARY