



VIP DatabaseTM

Data Management System

Operator's Manual



For the TRS-80 Color and TDP System 100 Personal Computer



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Written by Tim Nelson

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Part I CREATING YOUR DATABASE

Section 1 INTRODUCTION

-- 1-A What is VIP Database?

VIP Database is a file management program that allows you to store and retrieve the kinds information you deal with every day. VIP Database works with all kinds of information -- about people, places, objects, ideas and events. This versatility makes the VIP Database useful for a wide variety of applications: business, professional, home and education.

Businesses can use VIP Database to access customer information or as an invoicing and order entry system. Professionals can use VIP Database to send personalized form letters, create boilerplate forms and patient records. At home it can be used to manage tax records, personal belongings for insurance records in case of fire or theft, recipes, family trees, stamp collections and Christmas card mailing lists. At school students can use it to manage reference materials, books, periodicals and bibliographies. Teachers can use VIP Database to handle student records, grades and report cards. The applications for VIP Database are nearly endless.

VIP Database was designed to be easy to use. It adapts to the way you work. VIP Database is a menu driven program. It is so natural and easy to use that you won't even have to use the manual to do most of the things you want to do.

Think of how your information is organized today. It is probably filed as a set of forms in a filing cabinet or card catalog, or as different bits and pieces of paper randomly strewn about on your desk or in the

famous junk drawer. To retrieve something, you must manually thumb through the information. The order that the information is stored determines how fast you can find things — if at all. If you have filed your patient records by birth date it will be hard to find that patient if all you know about her is her last name. Maintaining order is cumbersome and finding things can be time consuming and sometimes so difficult it's not worth the trouble.

With VIP Database, your information is organized and stored efficiently. You have complete and easy access to any and all information you want. Retrieval is fast and reliable, and you're no longer limited by the order that the information is stored. Even if you originally entered patient records by birth date, VIP Database will let you ask for the patient by her name, Zip code, insurance company or by all these criteria. No more manually fumbling around for the information you need.

VIP Database operates on the principle that information is kept in forms. Those forms can be structured, or if you prefer, practically structureless. You decide what the form looks like. Design the form any way you like on the screen using your computer keyboard. When you're done, the form is automatically saved for you.

After you've designed and saved the blank form, your database is ready to use. Your form is automatically loaded whenever you use your new database. Fill in the form any way you like. You can enter information in the order you like and VIP Database will store and care for your information and find it for you when you need it. A single diskette can hold up to 558 one-page files. A four drive system can hold up to 2394.

Once you have a group of files stored in your database you can retrieve the information in a variety of different ways. Use the blank form to indicate the

information you want to find. Fill in the form with your retrieval specification(s). You can ask for all items that exactly match any given criteria: "Find all the phone messages for Bill Reitz." You can request all the items that contain a certain set of characteristics: "Find all recipes that have bean sprouts as an ingredient." You can request all items that are greater or less than a given number: "Find all customers with an account balance greater than 30 dollars." You can even establish complex interrelationships among several items of information by entering retrieval specifications for many or every item on your form. Only those forms meeting all the criteria you specified will be found: "Find all female patients over 25 years old living in Dallas with more than two children."

When the files you requested are found they can be displayed on the screen. You can review the information, change it if you wish or print the entire file or any part of it according to your specifications. This is convenient for creating reports, invoices or mailing labels.

With a few keystrokes you can rearrange your database according to any criteria that you specify. For instance: Sort your database so all your files are arranged by Zip code, numerically from the smallest to the largest number. Then you can print personalized form letters according to your specifications using form letters written with VIP Writer: "Find all children with an A average and send them a letter of congratulations, including their name and address and specific numeric grade point average." All letters will be printed personalized for each student and sorted according to third class postal regulations.

-- 1-B What do I need to use VIP Database?

To use VIP Database you'll need:

A TRS-80 Color Computer, CoCo 2 or the TDP
100 Personal Computer System

- At least 32K of memory (but for optimum performance we recommend 64K)
- A video monitor or television
- A TRS-80 Color, CoCo 2 or TDP 100 Disk system

The VIP Database package

- The VIP Database diskette
- At least one blank data diskette

To take full advantage of VIP Database we recommend the following optional equipment.

- The VIP Writer word processor to take advantage of the personalized form letter (mailmerge) feature
- At least one additional disk drive for larger databases (up to four) and 64K of memory installed
- A printer for a permanent record of your database information
- Additional blank diskettes for multi-drive systems and database backups

-- 1-C Loading VIP Database

VIP Database comes with two program versions saved on the distribution diskette. The first is a 64K version with the name DATABASE.BIN. The second is a 32K version named DB32.BIN. The 32K version is the same program as the 64K version except that there is no Math package, the program lacks some features such as copy, unsort, kill, rename and verify, and the database file capacity is limited. In some cases the menu will have less entries because these features aren't implemented. Other than these differences the programs are the same. Once the additional memory has been installed your database can be fully expanded and you can start using the math package.

Before you load the program we recommend that you backup your VIP Database distribution diskette using the "backup" command from BASIC (see your disk manual). With 64K of memory installed, load VIP Database by inserting your backup of the distribution diskette in drive 0, typing 'LOADM"DATABASE' (type 'LOADM"DB32' if you have 32K) and press 'ENTER'. Almost immediately the VIP Database billboard will appear and the program will continue to load. After the program has loaded it will perform a memory test which will take a few seconds. Then it will automatically execute and the opening menu will appear. Remove the diskette, insert it in its protective jacket and refer to the next section.

— 1-D What do I do first
The Opening Menu

When VIP Database has loaded and executed this opening menu will be displayed.

*** VIP Database ***

C Create database
M Maintain database
Q Quit

Selection: _

The first time you use VIP Database, and every time you want to create a new database, select 'C' to display the Create Database Menu. Once you have created your database or when you wish to maintain one you have already created press selection 'M' to display the Maintain Database Menu. Selection 'M' will be discussed in Part II. You may also select 'Q' to Quit the program and return to BASIC.

-- 1-E All about the different displays
Changing screen defaults

From the Create Database or Maintain Database menus you'll probably want to change the screen defaults to suit your needs. You can select from three displays: 51, 64 or 85 characters per line. With the 64 character display you can also choose between a narrow or a wide character set. Experiment to see which you prefer. The screen default starts with a light background with 51 characters on each line and 24 lines on the screen. The selections you make are saved to the disk each time you quit the database. You don't have to set them again each time you load the database except when formatting for printing, which will be discussed in Section 8, Printing your Information. You can change screen defaults at any time from the Create Database or Maintain Database menus. From either menu select 'D' to display the screen default menu:

*** Screen Default Menu ***

- L Light background
- D Dark background
- G Green screen
- W White screen
- 5 Screen width 51
- 6 Screen width 64 wide
- 7 Screen width 64 narrow
- 8 Screen width 85
- Q Quit

Selection: _

The most dense display, 85 characters per line, may be difficult for some to read well. This display is nearly impossible to read when typing all uppercase characters. The 85 character display is offered

primarily for print formatting rather than entering or reading text. Of course, if your TV or monitor allows you to easily read this display, so much the better.

The possible inability to easily read these displays is due primarily to the inadequacies of the common color TV, the background color you have chosen, and/or the amount of interference you are experiencing. You can adjust the color control on your color TV; you can also try to eliminate sources of interference with your TV or monitor by adjusting the cable position. If none of these suggestions helps, you may consider getting a new TV or monitor. This topic is discussed in the Appendix, "What to do if your TV display is hard to read," which includes a discussion of the limitations of the color TV and references if you find it necessary or desirable to convert your computer for use with a special monitor.

The color options are black characters on a green or white background and green or white characters on a dark background. In the inverted displays, although the background in the display area is dark, the border areas are either green or white (the same color as the characters). This is due to the video display hardware used in the your computer. It should be emphasized that the white background does not work very well on a color TV unless the color is turned down to give you a black and white display. This is because white, unlike green, is not one of the primary colors used by the color TV; instead, it is a composite of all three, red, blue and green. If you select the white display on a color TV you may experience blooming and shadows around the characters which make them very difficult to read. It is best to either use the green display or turn the color down on your color TV. When using a monochrome monitor or black and white TV the white display is brighter than the green.

Section 2 CREATING A FILE FORM

— 2-A The Create Database Menu

From the Create Database Menu you can create a new database, verify your database diskettes, display a diskette directory and rename and kill diskette files (verify, rename and kill are only available in the 64K version). The Create Database Menu is displayed by selecting 'C' from the opening menu.

*** Create Database ***

E Edit form
C Create database
F File directory
V Verify diskette
R Rename form
K Kill form
D Screen Default menu
Q Quit

Selection: _

The Create Database Menu selections are covered in this and the following sections. The selections 'E', 'C' and 'V' will be discussed in later sections, in the order in which they are used. Selection 'D' was discussed previously in Section 1-E, "All about the different displays."

'F' File directory

Select 'F' from the Create Database Menu to display a diskette directory.

You will be prompted with:

Select drive number (0-3): _

Select the appropriate drive number, '0' in most cases, and a directory for that drive will be displayed on the screen in a two column format with the drive number and the number of granules available for that diskette on the top line.

'R' Rename form (64K only)

You can rename files without leaving the program. The same rules apply for filenames, drive numbers and extensions as with BASIC (see your disk operator's manual). Names can't exceed eight letters and can't contain a 'SPACE', '.', '/' or ':'. Extensions must be preceded by a '/' or '.' and can't be more than three characters long. The drive number is indicated by adding it to the end of name, and must be preceded by a ':'. If you don't specify the drive number, drive 0 will be assumed until you specify another drive. When specifying a filename, don't use quotes around the name.

Select 'R' from the Create Database Menu to rename a file on the diskette. You will be prompted with:

Rename which form? _

Type the filename 'myfile.dat:0 'ENTER'. You will be prompted with:

Rename myfile.dat:0 Are you sure? _

Type 'Y' to rename your file. Any other response will display the Create Database menu. When you press "Y" you will be prompted with:

New form name? _

Type the new filename 'newfile.dat:0 'ENTER'. Your file will be renamed and you will be prompted with:

Press 'ENTER' to continue.

Press 'ENTER' to display the Create Database menu. You may abort Rename form at any time by pressing 'BREAK'.

'K' Kill form (64K only)

You can kill files on your diskette from the Create Database menu. The same filename rules apply as with Rename.

Select 'K' to Kill a file and you will be prompted with:

Kill which form? _

Type the filename you wish to kill, in this example 'myfile.dat:0 'ENTER', and you will be prompted with:

Kill myfile.dat:0 Are you sure? _

Type 'Y' to kill the file. Any other response will display the Create Database menu. When you press 'Y' you will be prompted with:

```
myfile.dat:0 Killed  
Press 'ENTER' to continue
```

Press enter to display the Create Database Menu. You may abort Kill form at any time by pressing 'BREAK'.

'Q' Quit

To return to the opening menu from Create Database Menu, select 'Q'. For this and all other times you select Quit, always leave the database diskette installed in the drive. VIP Database saves all the things you do during each session, so removing the diskette during most operations will cause you to loose your work.

-- 2-B Preparing to store your information
Format and Verify database diskettes

To create your database you must start with a freshly initialized (formatted) diskette. Your database diskette must be formatted using the BASIC command DSKINI0. To properly format a diskette, turn the computer on, insert a diskette, and from the OK prompt type 'DSKINI0' and press 'ENTER'. (Refer to your Disk Operating manual for more technical assistance.) When your diskette has been properly formatted, its integrity has been verified. Diskettes sometimes develop problems after extended use. These problems, if undetected, could cause you to loose your precious data. For this reason we recommend that you periodically verify your database diskette to be sure that it is in good condition (verify requires 64K). We also recommend that you make frequent backups of your database diskette.

To verify the integrity of your database diskette, load VIP Database, and from the opening menu, select 'C' to display the Create Database menu. Now select 'V' to verify the diskette and you will be prompted with:

Verify diskette in which drive (0-3)?

Select the appropriate drive and your diskette will be automatically verified. When verification is complete you will be prompted with:

This diskette is OK
Press 'ENTER' to continue

Or:

This diskette is flawed
Press 'ENTER' to continue

Press 'ENTER' to display the Create database menu.

-- 2-C Designing your file form

As mentioned earlier, your information is stored in forms. This section deals with designing a form that will suit your needs. An invoice was chosen for the example because an invoice best illustrates the flexibility of VIP Database. An invoice is a very structured form. You are not, however, limited to a highly structured form. You could instead choose a form that consisted entirely of lines and use it just like you would use three by five index cards. That is up to you.

Take some time to think about the information you want to store. Consider the form's function. How do I use the information I plan to store? How should I organize and arrange the information? In what order would I like to fill in the items of my form? How would I like to retrieve the information. You don't have to immediately consider how the form will look when it is printed. (Print forms are discussed in the section on printing.) You can also design separate forms for the reports that you need to print. You can design and use as many of these as you wish.

For our example of a simple invoice all the items of information needed on the form are arranged so that the information can be filled in easily. In other words, if you like to enter the date before the customers name, the item called "date" should appear before the customers name. Remember that the form that you use to enter the information has no bearing on how the form will look when it's printed, or for that matter, what information will be printed on the form.

Your form can also contain items of information that are internal to your filing system or private comments that you don't want printed. These items don't have to be printed if you don't want them to be. For example: You may want to include on your invoice some particular

information about your customer such as age group, product preferences and needs. This information could be extremely helpful later when you are doing mass mailings. You could send letters to all customers over 18 that have a computer but don't have a printer.

Design your form on paper (graph paper works well) first and work with it a little. When you have all the items of information you'll need it's time to take the next step and design your form.

2-D Editing your file form

Forms are designed from the Edit form selection in the Create Database menu. When you press 'E' from the Create Database Menu, you will first be asked for the name of the form you wish to use (the details are discussed below). Then your work pad (forms editor) will be displayed:

-- WORK PAD

Row 1 Column 1 Page 1

'BREAK' to Save and Quit 'CLEAR' more selections

Your work pad consists of a blank area to design your form and a message area at the bottom of the screen.

The message area provides prompts and selections to help you make your form. These selections will be discussed later, once you have learned the basics of using the work pad.

The line at the top of the work pad tells you the cursor position, row and column, as well as the page number. The screen holds one page of your form. You are allowed up to 10 pages in your blank form. Each page has 17 rows for a total of 170 rows. The row counter keeps track of the total number of rows as you add additional pages to your form. If you move the cursor to the second to last row on page two, the row counter will indicate that the cursor is on row 33. The page counter will show page 2. To display the next page of your form, hold the 'SHIFT' and press the 'DOWN' arrow. To display the previous page of your form, hold the 'SHIFT' and press the 'UP' arrow.

A form is made of items that are to be filled in. Items usually have names that are terminated with a ':' followed by a 'SPACE'; however you needn't name the item. Only the ':' and 'SPACE' are required. Item names, on the other hand, can't contain spaces. Items can contain spaces but can't contain a ':'. If you choose to have more than one item on each line, the items should be next to each other. Use only one space to separate an item from the next item name. Any additional spaces will be part of the previous item.

Let's look at a sample invoice form to help visualize what a finished form would look like:

— Sample Invoice

Row 1 Column 1 Page 1
Customer Invoice

Date: 00/00/84 Invoice #: 1001
Sold-to:
Address:
City: State: CA Zip:
Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: .. Total: 00000.00

'BREAK' to Save and Quit 'CLEAR' more selections

This example is a retail invoice for a local computer store. The items on the blank form reflect the needs of that store owner. This example was chosen because it touches on most of the features of VIP Database.

On the top line you will notice that a label was used to name the form. Others were used to head each column. Labels can be used anywhere in your form and don't affect your character limit (see rules below).

Notice the periods and zeros in the sample form. These are "fill" characters used to fill each item area. They will be replaced by you when the form is actually used. We recommend that you use fill (default) characters in your items. This makes your final form much easier to use and faster to fill in. The characters you choose to use in each item are those that will be displayed each time you use your form. For this reason you should use the characters you will use to fill each item in with as fill characters. Good examples of this would be initials in the "salesman" item, '00/00/84' in the "date" item or the state abbreviation in the "state" item. If you can't think of useful default characters, use periods or hyphens rather than spaces. You can use any character as a fill character except a '!'. Use of 'SPACE's, however, makes the job of creating your form very difficult. Periods were used in the example above.

Note that there were no item names used to head the item, description or price columns. If an item name is not used, the item must be preceded with a ':' and a 'SPACE'. If you plan to use more than one item on a line, remember that each item name should be separated from the previous item by one 'SPACE'. More 'SPACE's will be considered part of the previous item (see rules above).

Now that you are familiar with what a finished form might look like, and some of the rules for making a form, let's create your form using the blank form you created on paper. Now we'll get into the nitty gritty of actually using the work pad.

First, insert your blank formatted database diskette in drive 0 and select 'E' from the Create Database menu to edit a form or design a new form. Do not use the VIP

Database master diskette because it will limit the size of your database. You will be prompted with:

```
Current name: dbform.dfm:0
Form name? _
```

Type the name of your new form or the name of the form you would like to edit, or press 'ENTER' to use the current name displayed on the screen. (Refer to Section 2-A for details on how to enter file names.) VIP Database uses the name 'dbform.dfm' as its default. You may however specify any name you wish, using the extension '.dfm'. VIP Database will check the disk to see if the form is already on the diskette. If the file is on the diskette it will be loaded and the form will be displayed on the form editor screen for you to edit. If the form is not on the diskette, VIP Database will prompt you with:

```
New form.
Press 'ENTER' to continue
```

Press 'ENTER' and the editor screen will be displayed with the cursor in the upper left hand corner.

You can reproduce your blank form using the forms editor and arrow keys, left, right, up and down. Just move the cursor to the appropriate position and type your form. The 'SHIFT'-'0' command acts as a caps lock just as in BASIC. If you hold any key down for more than one-half second, the key will repeat until you let it up. For your convenience, keys click when pressed. This helps to reduce typing errors.

As you have seen, actual spaces can't be used as part of your item name. There is a way, however, to create a blank area between parts of the same item name by pressing 'CLEAR' and then the 'SPACE' bar. This will create a blank space in the item without putting in the

space character used to separate items. This blank area is represented as a light block if you have selected a dark background or a dark block if you selected a light background to distinguish it from the space character.

Each line on your blank form has to be terminated with an 'ENTER'. An 'ENTER' looks like a little pointer on the screen. If you move up or down from any row without pressing 'ENTER' one will be placed after the last character position you typed on the row automatically.

Two examples should help to illustrate these points. First we'll show you the right way to do it (as seen in the sample form above):

The Right Way.

Date: 00/00/84 Invoice_#: 1001

Here's what's going on:

The "Date:'SPACE'" is the first item name.

The '00/00/84' is the first item.

The 'SPACE' tells VIP Database that the next character is part of the next item name.

The "Invoice'UNDERLINE'#:'SPACE'" is the next item name. The 'Underline' represents a blank space created using 'CLEAR'-'SPACE'.

The '1001' is the next item.

The 'ENTER' terminates the line.

Now for an example of the wrong way to create a form. What follows is a faltering attempt to create the same item as you see above:

The Wrong Way

Date: 00/00/84 Invoice #: 1001

Here's what you have unintentionally created:

The "Date:'SPACE'" is the first item name.

The '00/00/84' is the first item.

The Extra five 'SPACE's have also been unintentionally made part of the first item and will be included as the first item when you tally your form.

(See 'T'ally below.)

The "Invoice'SPACE'" has also been unintentionally been made part of the first item.

The 'Invoice' and '#' should have been separated with a blank space by pressing 'CLEAR'-'SPACE' rather than with a space character.

Instead, the "':'SPACE'" will be considered the second item name.

The '1001' is the next item.

The 'ENTER' terminates the line.

As you can see, the rules regarding the use of spaces must be carefully followed. These points are also illustrated in the invoice example above.

As with the sample invoice, you can type information on the screen that isn't either an item or an item name. These "labels", if you will, can be typed anywhere on your form but can't contain a ':'.

You should by now be able to move about the screen, entering your various items. However, by now you have probably made several mistakes that you wish could be corrected. Well, you can, using the commands you find in the message area. These selections give you the following options:

'BREAK' to Quit or Save 'CLEAR' more selections

Press 'BREAK' at any time to Quit or Save and you will be prompted with:

Save form (Yes or No)?

Press 'Y' to save your form. Press 'N' if you want to quit without saving. If you pressed 'BREAK' by accident, press 'BREAK' again to resume work on your form where you left off.

Press 'CLEAR' and additional editing selections will be displayed in the message section of the screen.

'D'elete character 'E'nd of line delete
'S'tart of line delete 'SPACE' in item names
'T'ally form

Selection: _

Select 'D' from the additional selections menu to delete any character under the cursor except an 'ENTER'.

Select 'E' from the additional selections menu to delete all characters from the cursor position to the end of the line, except the 'ENTER'.

Select 'S' from the additional selections menu to delete all characters from the start of the line up to the character under the cursor.

Press 'T' from the additional selections menu to tally the number of characters in all the items, the total number of items and the number of characters that are needed to store each file.

It is important to know these numbers so that you do not exceed the limits of your system. (These system capacities and limits are discussed below.) If you exceed these limits it is a simple matter to delete characters and check the total again. When 'T' is selected this message appears:

```
### characters out of ###  
### items out of 255 (127 in 32K)
```

If you exceed a system limit, a message will be displayed explaining the limit. As an example:

```
912 characters out of 767  
82 items out of 255  
Too many characters
```

— System capacities and limits

The number of characters in each item (length) is determined by the screen width you have chosen minus three for a ':', 'SPACE' and the 'ENTER'. In the 51 character screen an item can contain 48 characters. In the 64 character display an item can have 61 characters and in the 85 display, 82.

If your computer has 32K of memory installed, the total number of items in your form can't exceed 127 and the number of characters in all the items added together can't exceed 255. If your computer has 64K of memory installed, the total number of items in your form can't exceed 255 and the number of characters in all the items added together can't exceed 767.

Files are stored in the diskette in groups of 255 characters - one block. If your file has 255 characters or less, it will require one 255 character block to

store the file. If your file has more than 255 but no more than 511 characters, it will take 511 characters or two blocks. If your file exceeds 511 but has no more than 767 characters, it will occupy 767 characters or three blocks.

There are 558 blocks on the first database diskette (567 with 32K). If you have 32K of memory installed you can not add additional diskettes to increase database capacity. Your database is limited to 567 blocks (files). If you have 64K of memory installed you can add three additional disk drives. The capacity for each additional diskette is 612 blocks. Your total system capacity is 2394 blocks. (See table below.)

Database Capacities and Limits

Amount of Memory	Charac- ters in Form	Items in Form	Blocks in each Form	Database Files Number of drives			
				1	2	3	4
32K	255	127	1	567	N/A	N/A	N/A
64K	255	255	1	558	1170	1782	2394
64K	511	255	2	279	585	891	1197
64K	767	255	3	186	390	594	798

-- Note to VIP Writer users:

You may find it easier to create your form using the VIP Writer because of its superior editing capabilities. However, you must remember the rules explained above. When creating a form with the VIP Writer it is easy to exceed the capacities of the VIP Database, so you should load your form file into the database when you're done to be sure that all limits and capacities have been observed.

-- 2-E Example Invoice

Below is reproduced the sample retail invoice for a local computer store given above. The items on the blank form reflect the needs of that store owner. This example was chosen because it touches on most of the remaining features of VIP Database discussed in this manual. Of course, the invoice could be larger and more comprehensive, but it would take you longer to get through the examples and the example would not be useful to 32K users. This example will be the basis for all further discussion in this manual, and thus, you will need your own copy saved to disk. Although we could have provided you with a copy of the sample invoice on disk, we thought it would be more useful for you to learn by creating it yourself. We will now help you create your own version of this sample invoice so you can use it while reading the rest of the manual.

To get started, insert your blank formatted database diskette in drive 0 and select 'E' from the Create Database Menu to edit your form. Do not use the VIP Database master diskette because it will limit the size of your database. You will be prompted with:

```
Current name: dbform.dfm:0
Form Name? _
```

Press 'ENTER' to use the default name and you will be prompted with:

```
New form.
Press 'ENTER' to continue
```

Press 'ENTER' and a blank form will be displayed on the form editor screen with the cursor in the upper left hand corner. Using the arrow keys and the edit commands outlined above, create the invoice below:

EXAMPLE INVOICE

Row 1 Column 1 Page 1
Customer Invoice
Date: 00/00/84 Invoice_#: 1001
Sold-to:
Address:
City: State: CA Zip:
Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00
Product: Age: .. Total: 00000.00

'BREAK' to Save and Quit 'CLEAR' more selections

Note: The ' ' in the 'Invoice_#' item name represents the 'SPACE' inserted by pressing 'CLEAR'-'SPACE'.

The invoice above contains 255 characters. The form will occupy one block on the diskette so the database can hold up to 558 files (567 in 32K, see the table above). You can verify this by pressing 'CLEAR' and then selecting 'T'ally from the "more selections menu."

You will be prompted with

255 characters out of 255

34 items out of 255 (127 with 32K)

When you have created the form, press 'BREAK'
to Quit and Save your form. You will be
prompted with:

Save form (Yes or No)?

Press 'Y' to save the form. The form will be saved
with the default name 'dbform.dfm' and then the Create
Database Menu will be displayed. It is time now to
create your database so refer to Section 3.

Section 3 CREATING A DATABASE

— 3-A Create your Database

Now that you have created the invoice form, it is time to create a database. From the Create Database menu, select 'C' to create a database. (You can press 'BREAK' at any time to return to the Create Database menu.) After selecting 'C' the screen will clear and you will be prompted with:

Select drive for database (0-3): _

Insert your database diskette (the disk you just saved your invoice form to) in drive 0 and select '0'.

Note: VIP Database will allow you to select a drive other than drive 0 as the drive for your first database diskette. Select drive 0 for all standard disk configurations (i.e. Radio Shack disk systems). If you have a special disk configuration such as a double drive system configured as drive 1 and 2, select the appropriate drive number. Remember that if you select drive 1 as your first drive, your system will be limited to a maximum of 3 drives. This will limit your maximum database capacity.

After selecting 0 you will be prompted with:

Beginning file number? _

VIP Database keeps track of your files by number. You can use any number from 1 to 62000 as the starting number of your files. This number is extremely useful for instantaneous retrieval of forms that are stored using a sequential numbering system such the invoice example you are creating. Each time you create an invoicing database (or any database that uses sequential

numbers) you can start with the next sequential number so that all your invoices will be in order. This allows you to manage a huge database even if you only have one disk drive. For the invoice example type '1001' and press 'ENTER'. This is the number that you entered in the 'Invoice #' item as your starting invoice number. (For other applications that don't use sequential numbers type '1' and press 'ENTER'.) You will be prompted with:

```
Current name: dbform.dfm:0
Form name?
```

Press 'ENTER' to use the default name 'dbform.dfm' for the invoice example or type the new name or drive number if you didn't use the default. If the drive number is OK, just enter the new name and press enter. If you only need to change the drive number, type a ':' followed by the drive number such as ':1'. These will become the new system defaults whenever you load your database. Be sure you enter the name and drive number properly. We recommend that you use the defaults for convenience and accuracy. After pressing 'ENTER' you will be prompted with:

```
Current name: database.dat:0
Database name?
```

Press 'ENTER' to use the default name 'database.dat' for the invoice example or type the new name (same as above example). For the invoice example you will be prompted with:

```
255 characters out of 255
34 items out of 255 (127 in 32K)
```

Or:

The appropriate values for any database you may create.

If you exceed a system limit, a message will be displayed explaining the limit, create database will be aborted and the Create Database Menu will be displayed. If this happens, correct the form you edited by making the necessary changes and repeat the previous steps.

After your database has been created, the Create Database Menu will be displayed.

You're done!

Now you can start using your database. But first, read the next section on backing up your storage diskettes.

-- 3-B Backing up your storage diskettes

Make frequent backups of your database diskettes so you'll be protected in case of system failure.

"Be prepared for the worst, it might happen."

Need we say more? Always backup using the "verify" function from Disk BASIC. (For details on the backup function refer to your Disk BASIC operator's manual.) We recommend that you use the Verify diskette selection from the Create Database Menu as an extra precaution.

Part II USING YOUR DATABASE

Section 1 MAINTAINING A DATABASE

— 1-A The Maintain Database Menu

Once you have created your database, you can start using (maintaining) it. The Maintain Database menu is where you will spend most of your time. From the Maintain Database menu you can add (fill in) files to your database, display them, search through them, change them, print them, sort them, and unsort them. You can also display a directory of any diskette, change the screen defaults, print reports and personalized form letters, make daily changes to your database form and add math functions to your database (math functions, unsort and copy file require 64K).

To use your database, load VIP Database and from the opening menu select 'M' to Maintain your database. The display will clear and you will be prompted with:

Select drive for database (0-3): _

Insert your database diskette in drive 0, or in the drive in which your database was created to run, and select the appropriate drive. If you select the wrong drive or if your database is not on the diskette you inserted, you will be prompted with a message explaining the problem. Press 'ENTER' and the opening menu will be displayed for you to start again.

After you have selected the drive for your database the Maintain database menu will be displayed.

*** Maintain Database ***

- A Add file
- E Edit, search or display file
- D Screen Default menu
- U Update form
- F File directory
- P Print menu
- S Sort and Unsort files
- C Copy file
- M Math form edit
- Q Quit

Selection: _

First file: 1001
Next file: 1001

For your convenience, in the lower part of the screen you will see the first and next file messages. The first file is always the number that you entered when you created the database. The next file is the number of the next file to be added. Notice that both numbers are the same in the sample database. That's because no files have been added to the database. As files are added, the next file number gets larger to reflect the additional files. In the invoice example in this manual, that number also indicates the number of the next invoice to be filled in.

Each selection in the Maintain Database menu will be discussed in a section to follow, in the order in which it is used. You are already familiar with selections 'D', 'F' and 'Q' which were discussed in Sections 1 and 2 of Part I. Selection 'P' is discussed in Section 8, Printing your Information.

Section 2 USING THE MATH PACKAGE (Requires 64K)

-- 2-A What the Math Package can do

VIP Database was designed to manipulate numbers any way you like. Since you design the database you can determine how it will work with numbers. Some examples of uses are such things as statements, billing, invoices and order entry, inventory control, scientific applications, even computing student grade point averages.

The math package in VIP Database allows you to perform math operations on any item or group of items in your form. The math package can add, subtract, multiply, and divide and can evaluate formulas inside parenthesis. The math package has two modes: a dollar mode and a 16 digit floating point mode. In the dollar mode a dollar sign is added at the beginning of the value and there are two places after the decimal point. In the floating point mode, amounts are handled just like a pocket calculator.

The maximum number of characters that can be displayed is determined by the number of characters you put in the item on your form in which you want to display the value. When you create your database, you should consider the greatest value you will want to display including space for a decimal point or minus sign for negative numbers. VIP Database will truncate the numbers after the decimal point if you are using floating point just like a calculator. In the dollar mode, the two digits after the decimal point will be displayed. If there is room in the item, a dollar sign, will be displayed. If the number, including the dollar sign, is one digit greater than will fit in the item, the dollar sign won't be displayed so that the number will be. In either the floating point or the dollar mode, if the number is too large to fit in the item, an

overflow error will be displayed. If an overflow occurs, the item will be filled with "greater than" characters.

In the invoice example, the greatest value that can be displayed in the price and amount columns is 9999.99 dollars. The greatest value in the tax item is 999.99 dollars. The greatest value in the total item is 99999.99 dollars. If all the amount items contained 9999.99, and if they were all added together, there would be no possibility of an overflow error in the total item. It would be possible to enter a price large enough that when multiplied by the quantity, an overflow could occur in the amount item. However, this is of no consequence in the example. All of these points should be taken into account when implementing math into your database. You may have to go back and increase the amount of space in your value items and recreate your database. That will not be the case in the invoice example.

-- 2-B Implementing Math
(Math form edit)

The math example in this section will enable the invoicing database you've created to compute amounts based on quantities and prices, compute sales tax and combine all the amounts with the tax for a grand total.

Now it's time to create your math form. From the Maintain Database menu, select 'M' and a blank work pad will be displayed with the cursor in the upper left hand corner.

-- WORK PAD

Row 1 Column 1 Page 1

'BREAK' to Save and Quit 'CLEAR' more selections

You've seen this work pad before so let's get started. Formulas are expressed in the normal fashion except that you are manipulating two classes of things, numbers and items. You can manipulate them in either the floating point or the dollar sign fashion. The following rules must be observed:

- 1 All items must be preceded by an apostrophe.
- 2 All lines should be expressed as follows: Item equal formula
- 3 All dollar values must be preceded by a Dollar sign.
- 4 Items at the beginning of the line should be preceded by either a space or a dollar sign.

Now for some examples:

- 1 '22 = .5 * 33
- 2 '16 = .03 * ('14 - '15)
- 2 \$'10 = 3 * \$21.95
- 4 \$'8 = '11 * '12

Example 1 states that item 22 equals the value of .5 times 33. Item 22 contains a floating point value.

Example 2 states that item 16 equals .03 times the value of item 14 minus item 15. Item 16 contains a floating point value.

Example 3 states that item 10 equals 3 times \$21.95. Item 10 contains a dollar value.

Example 4 states that item 8 equals the value of item 11 times item 12. Item 8 contains a dollar value.

If you would like a list of the items on your form, along with their respective item numbers, before you create the math example on the next page, refer to Selection 'L' in Section 8, Printing your information.

— MATH EXAMPLE

Row 1 Column 1 Page 1

\$'14='11*'13

\$'18='15*'17

\$'22='19*'21

\$'26='23*'25

\$'30='27*'29

\$'31=.06*('14+'18+'22+'26+'30)

\$'34='14+'18+'22+'26+'30+'31

'BREAK' to Save and Quit 'CLEAR' more selections

Move the cursor using the arrow keys and type in your formulas. The same editing commands that you used to create your database form are available.

When you have completed the example above, press 'BREAK' to save your math form and you will be prompted with:

Save form (Yes or No)?

Press 'Y' to save the form and display the Maintain Database menu. Any other response will abort the save and display the maintain database menu.

Before continuing to the next section, one additional thing should be mentioned although it does not apply to this example. If you are editing a math form and run out of room on the line that you are on, press enter and continue on the next line by entering "item number equals the item number plus" and continue.

An example will help here:

```
'25='1+'2+'3+'4+'5+'6+'7+'8+'9+'10+'11+'12  
'25='25+'13+'14+'15+'16+'17+'18+'19
```

This example may be very useful for many different applications.

Section 3 ADDING A FILE
 Storing information

-- 3-A Filling in your form

Once you've created your database, and math form, if you plan to use math, you can store your information with the Add file selection. Fill in the blank form with the information you want to keep and save that filled in form as part of your database. To Add a file select 'A' from the Maintain Database menu. VIP Database will go to the next file displayed at the bottom of the screen, in this case file 1001, and your blank form will be displayed for you to fill in.

Row 1 Column 1 Page 1 File 1001 Item 1
 Customer Invoice

Date: 00/00/84 Invoice #: 1001
 Sold-to:
 Address:
 City: State: CA Zip:
 Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: .. Total: 00000.00

'SHIFT'-'@' to restore all items
 'BREAK' to Save and Quit
 'SHIFT'-'CLEAR' restore item
 'CLEAR' to calculate

At the top of the screen is a status line that gives you the row and column position of your cursor, the page of your form, the file number being added and the number of the item currently being filled in.

The 'LEFT' and 'RIGHT' arrow keys move the cursor 'LEFT' and 'RIGHT' within an item. The 'UP' and 'DOWN' arrows move the cursor to the previous and next items. You can't move the cursor into an item name. They have been protected so that you can't accidentally write over and destroy them. When an arrow key is held down, it repeats until it is released. This allows you to move through multi-paged forms. The 'ENTER' key erases the characters in the item from the cursor position to the end of the item. Holding the 'ENTER' key down erases items until it is released. The 'SHIFT'-'0' acts as a caps lock just as in BASIC.

The message area at the bottom of the screen displays the additional selections available to you when adding a file.

— 'SHIFT'-'@'

Press 'SHIFT'-'@' to restore all the items in your form (same as erase form).

— 'BREAK'

Press 'BREAK' to save and quit when you are done filling in your form or just to quit if you decide that you don't want to add a file to your database. You will be prompted with:

Save form (Yes or No)?

Press 'Y' to save your filled in form. Your file will be added to the database. If you have implemented math in your database, an

automatic calculation will be performed and the results displayed before your file is saved. Any other response will abort the save and the Maintain database menu will be displayed. If you pressed 'Y' you will be prompted with:

Add another (Yes or No)?

Press 'Y' to add another form. Any other response will display the Maintain Database menu.

-- 'SHIFT'-'CLEAR'

Press 'SHIFT'-'CLEAR' to restore any item to its default (same as erase item).

-- 'CLEAR'

Press 'CLEAR' to manually calculate the items on your form at any time.

Now you know the basics of adding a file to your database so refer to the next section to get some hands-on experience adding files.

— 3-B Add File Examples

The next six sample invoices will be the basis of later examples in this manual so carefully add these sample invoices to your database. If you have 64K of memory installed, it is not necessary to fill in the amount, tax or total items. VIP Database will automatically calculate the values and fill the items in for you when the file is saved. For 32K users it is necessary to enter the data in these items so that later examples can use the data.

After the first invoice has been filled in, check your work for accuracy. Press 'BREAK' to save the file and answer the 'Save file (Yes or No)?' with a 'Y' to save the file. Type 'Y' at the 'Add another file (Yes or No)?' prompt to continue to the next invoice. When you have added all six, type 'N' at the 'Add another' prompt to display the Maintain Database menu.

— EXAMPLE 1

Customer Invoice

Date: 11/01/84 Invoice #: 1001
Sold-to: Barkley, Jim E.
Address: 13245 Vista Way
City: Orange State: CA Zip: 92003
Phone: 456-7894 Salesman: JF Terms: Check

Item	Description	Price	Amount
: 1	: DMP printer	: 379.95	: \$379.95
: 1	: Box of paper	: 24.95	: \$24.95
: 5	: 5 1/4" disks	: 3.90	: \$19.50
: 1	: Serial cable	: 14.95	: \$14.95
: :	: :	: :	: :

Tax: \$26.36
Product: CoCo Age: 20 Total: \$465.71

- EXAMPLE 2

Customer Invoice

Date: 11/01/84 Invoice #: 1002
Sold-to: Everly, Dan B.
Address: 5110 Point Loma Blvd,
City: San Diego State: CA Zip: 92107
Phone: 378-4443 Salesman: JF Terms: Check

Item	Description	Price	Amount
: 1	: Space game	: 19.95	: \$19.95
: 1	: Donkey game	: 19.95	: \$19.95
: 1	: Joy stick	: 8.95	: \$8.95
: :	:	:	:
: :	:	:	:

Product: C64 Age: 18 Total: \$51.78
Tax: \$2.93

-- EXAMPLE 3

Customer Invoice

Date: 11/01/84 Invoice #: 1003
Sold-to: Walker, Dave L.
Address: 3410 77th Street West
City: Los Angeles State: CA Zip: 92037
Phone: 788-8657 Salesman: JF Terms: Cash

Item	Description	Price	Amount
: 1	: Amber Monitor	: 129.95	: \$129.95
: 1	: Monitor cable	: NC	: NC
: 2	: 5 1/4" disks	: 3.90	: \$7.80
: 8	: 64K ram chips	: 9.00	: \$72.00
: :	:	:	:

Product: CoCo Age: 26 Total: \$222.34
Tax: \$12.59

— EXAMPLE 4

Customer Invoice

Date: 11/02/84 Invoice #: 1004
Sold-to: Jacobs, Larry G.
Address: 8821 Ocean Vista
City: La Jolla State: CA Zip: 92156
Phone: 435-6747 Salesman: JF Terms: Visa

Item	Description	Price	Amount
: 1	: 3 1/2" drive	: 499.00	: \$499.00
: 5	: 3 1/2" disks	: 6.95	: \$34.75
: 1	: Drive cable	: NC	: NC
: :	: :	: :	: :
: :	: :	: :	: :

Tax: \$32.02

Product: CoCo Age: 24 Total: \$565.77

— EXAMPLE 5

Customer Invoice

Date: 11/02/84 Invoice #: 1005
Sold-to: Smith, Pete R.
Address: 8450 Del Monte Blvd
City: Del Mar State: CA Zip: 92065
Phone: 333-8700 Salesman: JF Terms: Check

Item	Description	Price	Amount
: 1	: Joy stick	: 8.95	: \$8.95
: 1	: Track ball	: 19.95	: \$19.95
: 1	: Maze game	: 19.95	: \$19.95
: :	: :	: :	: :
: :	: :	: :	: :

Tax: \$2.93

Product: C64 Age: 19 Total: \$51.78

— Example 6

Customer Invoice

Date: 11/02/84 Invoice #: 1006
Sold-to: Turner, Mary A.
Address: 333 San Pedro
City: Vista Estates State: CA Zip: 92059
Phone: Salesman: JF Terms: Cash

Item	Description	Price	Amount
: 1	: Calc	: 59.95	: \$59.95
: 1	: Database	: 59.95	: \$59.95
: 1	: Terminal	: 49.95	: \$49.95
: 1	: Writer	: 59.95	: \$59.95
: 8	: 5 1/4" disks	: 3.90	: \$31.20

Tax: \$15.66

Product: CoCo Age: 33 Total: \$276.66

Section 4 DISPLAYING OR EDITING A FILE

— 4-A Displaying a file Go to a file

Now that you have 6 files in your database you can display your files. From the Maintain Database menu select 'E' to display a file. The last file added will automatically be displayed.

File 1006

Customer Invoice

Date: 11/02/84 Invoice #: 1006
Sold-to: Turner, Mary A.
Address: 333 San Pedro
City: Vista Estates State: CA Zip: 92059
Phone: Salesman: JF Terms: Cash

Item	Description	Price	Amount
: 1	: Calc	: 59.95	: \$59.95
: 1	: Database	: 59.95	: \$59.95
: 1	: Terminal	: 49.95	: \$49.95
: 1	: Writer	: 59.95	: \$59.95
: 8	: 5 1/4" disks	: 3.90	: \$31.20

Tax: \$15.66

Product: CoCo Age: 33 Total: \$276.66

'E'dit 'H'ard copy 'S'earch 'N'ext 'P'reviouis
forward back 'F'irst 'L'ast 'D'elete
'I'gnore case 'R'ecognize case 'G'oto 'Q'uit

Selection: _

The file number is displayed at the top of the screen. The message area at the bottom of the screen displays the options available to you.

Press 'UP' to display the previous file.

Press 'DOWN' to display the next file.

Press 'F' to display the first file in your database.

Press 'L' to display the last file in your Database.

Press 'G' to goto any file in your database. You will be prompted with:

Goto which file? _

Enter the number '1002' and press 'ENTER'. File 1002 will be displayed. Press 'L' to return to the last file - number 1006.

Press 'Q' to quit and display the Maintain Database menu.

The functions 'E'dit and 'H'ard copy are discussed in the next two sections. 'D'elete will be covered in Section 5, Removing a File. The remaining functions, 'I'gnore case, 'R'ecognize case, 'N'ext, 'P'previous and 'S'earch will be discussed in Section 6, Retrieving Information.

— 4-B Editing (changing) a file

Changing the information in your files is simple. Select 'E' to edit the file currently displayed on the screen. The cursor movements, as well as all the functions, work just like those in 'Add file', except that 'SHIFT'-'@' (restore all items) is not available. Move the cursor to item 5 and change "Vista Estates" to "Pasadena". Press 'BREAK' to save your changes, answer the 'Save file (Yes or No)?' prompt with a 'Y' to confirm the save and the Maintain Database menu will be displayed.

Row 1 Column 1 Page 1 File 1006 Item 1
Customer Invoice

Date: 11/02/84 Invoice #: 1006

Sold-to: Turner, Mary A.

Address: 333 San Pedro

City: Pasadena State: CA Zip: 92059

Phone: Salesman: JF Terms: Cash

Item	Description	Price	Amount
: 1	: Calc	: 59.95	: \$59.95
: 1	: Database	: 59.95	: \$59.95
: 1	: Terminal	: 49.95	: \$49.95
: 1	: Writer	: 59.95	: \$59.95
: 8	: 5 1/4" disks	: 3.90	: \$31.20

Tax: \$15.66

Product: CoCo Age: 33 Total: \$276.66

'BREAK' to Save and Quit
'SHIFT'-'CLEAR' restore item
'CLEAR' to calculate

— 4-C Hard copy a file to Printer or Disk

Getting a hard copy of the information in a file is simple. Select 'H' to send hard copy of the file, currently displayed on the screen, to a printer or diskette. You will be prompted with:

Send hard copy to 'P'rinter or 'D'isk?

Press 'P' for the printer and you will be prompted with:

Press 'ENTER' when printer is ready. _

Press 'ENTER' to print your file.

Press 'D' from the 'Send hard copy to 'P'rinter or 'D'isk?', and you will be Prompted with:

Current name: print.vip:0
Hard copy file name? _

Enter the appropriate file name or press 'ENTER' to use the current default name.

After the hard copy of your file has been sent to the printer or diskette, the options available to you will be displayed in the message area at the bottom of the screen.

Section 5 COPYING OR REMOVING A FILE

— 5-A Update your form

VIP Database allows you make changes to the default fill characters that you used when you originally created your form using the Update form selection. You may be adding a series of files, all of which use the same entry such as date, computer type or salesman, but don't want to enter the same entry each time. You need only update your form so that the current fill characters are those that you wish to use.

Using the invoicing database you created, let's try updating your form. From the Maintain Database menu select 'U' to display your form. Move the cursor to the 'date' item and change the date to '11/03/83'.

Now press 'BREAK' to save your change. You will be prompted with:

Save file (Yes or No)?

Press 'Y' to save your change when you exit the Maintain Database menu. Any other response is the same as pressing 'N'. If you selected 'Y' you will be prompted with:

Hardcopy (Yes or No)?

Select 'N' to save your change without a hardcopy. Select 'Y' if you would like a hardcopy of the changes made and you will be prompted with:

Send hard copy to 'P'rinter or 'D'isk?

Press 'D' to send hard copy to the disk and you will be prompted with:

Current name: print.vip:0
Hard copy file name? _

Press 'ENTER' to use the default name or type the name that you wish to use, following the same rules as BASIC and press 'ENTER'. Your file will be sent to the disk and then the Maintain Database menu will be displayed.

From the "Send hard copy to the 'P'rinter or 'D'isk?" prompt, press 'P' to send hard copy the printer and you will be prompted with:

Press 'ENTER' when the printer is ready.

When the paper is properly installed and the printer is ready, press 'ENTER'. Your form with the changes will be sent to the printer and then the Maintain Database Menu will be displayed.

Note: You can press 'BREAK' at any time during the Update form procedure to abort and display the Maintain Database Menu.

— 5-B Copying a file

VIP Database allows you to copy the contents of one file to another. You may find the copy feature to be useful to duplicate the contents of one file to one or more other files. If you want to copy the contents of one file to a new file, you must first add a blank file to your database to copy to.

Using the invoicing database you created, let's try copying a form. First you must add a blank file to your database so select 'A' to Add a file. When the blank form is displayed, press 'BREAK' to save a blank form and then answer the "Save file" prompt with a 'Y'. Now, from the Maintain Database menu, select 'C' to Copy a file and you will be prompted with:

Copy which file? _

Type '1001' and press 'ENTER' to copy file 1001 and you will be prompted with:

To which file? _

Type '1007' and press 'ENTER'. The contents of file 1001 will be copied to file 1007. Then the Maintain Database menu will be displayed.

For many duplicates of a file, this procedure can be repeated as many times as needed.

-- 5-C Deleting a file

VIP Database allows you to erase the contents of files that are no longer of use. This function is the same as restoring all items in the Add file function. In other words, when you delete a file, that file will be replaced with your blank form. When your database becomes full you can re-use these deleted files (see Section 5-D).

The procedure for deleting a file is simple. From the Maintain Database menu select 'E' to display a file. Use the 'G'oto or 'S'earch function to display the file that you wish to delete (search is covered in Section 6, Retrieving your Information). When the file is displayed, select 'D', to delete the file and you will be prompted with:

Delete current file (Yes or No)? _

Press 'Y' to erase the contents of your file.

Press 'N' to abort the delete procedure.

— 5-D Re-using deleted files

After your database is full, you may wish to re-use the files you have deleted. There are two different methods for re-using deleted files. Both methods make use of the search and sort functions discussed in Sections 6 and 7 so you should be familiar with these procedures before starting. The two methods are outlined below.

Method One

Search for the deleted forms using any of the blank (default) items as search criteria. When a blank file is found, use the edit function to fill in the form with your new information, using the same invoice number.

Method Two

Sort your database by any item such that your deleted files are all in one area of your database. Then use the edit function to fill in the form with your new information. At first, this method may seem to be more work than it's worth. But upon closer inspection its merits become obvious. An example will illustrate.

In the invoicing example, all files are stored by invoice number. To re-use deleted forms using this method, first determine the last invoice number used.

Next, find all deleted invoices in your database, one at a time, using the search function. When the first deleted invoice is found, edit the file and assign the next available invoice number to it. Repeat this procedure until all the deleted forms have been assigned new invoice numbers.

Now sort your database in ascending order, by invoice number. All of your new blank invoices will be at the end of your database, ready to be filled in.

Section 6 RETRIEVING YOUR INFORMATION

-- 6-A Searching for Information

After you have stored your information in files, you can use VIP Database to search through your files for information that is of interest to you. You can search through your files for any of the information stored there. On your blank form, you fill in items with retrieval specifications that describe the kind of information that you are looking for. VIP Database starts searching from the first file in your database, looking for files containing information that matches these retrieval specifications.

When a file that matches your retrieval specifications is found, VIP Database will display it. You can review the file, edit it or send a hard copy to the printer or disk. When you are done, you can continue to the next file that matches, until all of the files have been found or you decide to stop searching.

You can search for information in a number of different ways. You can look for information that exactly matches your specifications; for information that partly matches your retrieval specifications; or for information that has a particular relation to your retrieval specifications such as greater than 18 years old or less than \$200.00.

You can also use VIP Database to search through your files for information based on complex interrelationships established among different items in your files (multi-criteria search). For instance: Search for CoCo owners living in a specific Zip code range that do not own printers. Each of these three search procedures is covered in an example in the next four sections.

-- 6-B Search for an Exact Match

A search for an exact match is the easiest and fastest of all the searches. The example below shows you how to search for the customer or customers in your database having the Zip code 92037. This search will ignore all other invoice files. To get started, select 'E' from the Maintain Database menu to display a file. Select 'S' to search and your blank form will be displayed with the cursor in the first item of your form.

Row 5 Column 38 Page 1 File None Item 7

Customer Invoice

Date: 00/00/84 Invoice #: 1001

Sold-to:

Address:

City: State: CA Zip: 92037

Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: .. Total: 00000.00

Enter phrase into item you wish to search.

'SHIFT'-'@' wild card character

'BREAK' to quit

'ENTER' spaces to end of item and quit

Move the cursor to item 7, Zip code, and type '92037'. Then press 'BREAK' and you will be prompted with:

'V'alue or 'L'abel?

Type 'L' for label because the phrase you are looking for, though it has numbers in it, has no numeric value. A label can be any group of characters, alphanumeric or numeric, such as an address which contains both, and has no numeric value. A numeric value search is covered in a later example. After typing 'L' you will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

Press 'ENTER' for the relation, Equal. In other words: You are looking for a phrase in the Zip item that equals "92037". Other relations are covered later. After pressing 'ENTER' You'll be prompted with:

'A'nd, 'O'r, or 'E'nd?

Press 'E'nd to indicate that you are done. VIP Database will search through your files looking for a file that contains the Zip code 92037. After a moment, file 1003 will be displayed because it contains the Zip code 92037. You can review your file, edit it or send hard copy to the printer or disk. Press 'N' for the next occurrence. After a moment, you will be prompted with:

1 found.

Press 'ENTER' to continue.

Press 'ENTER' to resume the display file mode.

-- 6-C Search for a Partial Match

If an item contains a number of different pieces of information, you can isolate the portions that are of interest to you. There are two different methods to isolate the information you need. Each has its advantages. The first method, search with wild card, is the fastest search but requires that you know where, in your item, the phrase is. The second method, search throughout an item, though it is slower, is more versatile.

Search with Wild Card

Assume you want to search for all invoices written to Larry Jacobs but you don't know how the name was entered each time. Was it entered as Jacobs, L. G., or Jacobs, Larry. As long as the last name was entered first, the procedure is simple. Select 'E' from the Maintain Database menu to display a file. Since you don't know whether or not the name was entered in upper case letters, select 'I' to ignore case. VIP Database will not differentiate between upper case and lower case letters when ignore case is selected. Now press 'S' to search and your blank form will be displayed.

Customer Invoice

Date: 00/00/84 Invoice #: 1001

Sold-to: jacob????????????????????

Address:

City: State: CA Zip:

Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: .. Total: 00000.00

Enter phrase into item you wish to search.

'SHIFT'-'@' wild card character

'BREAK' to quit

'ENTER' spaces to end of item and quit

Move the cursor to item 3, Sold-to, and type 'jacob'. You don't have to complete the name as you can fill the rest to the item with wild card characters. Since you didn't complete the name you will find Jacobs even if the "s" was inadvertently left off. Press and hold 'SHIFT'-'@' to fill the rest of the item with inverse question marks (wild cards). Now press 'BREAK' and you will be prompted with:

'Value or 'L'abel?

Type 'L' for label since the phrase you are looking for has no numeric value. You will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

Press 'ENTER' for the relation, equal and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?

Press 'E'nd to indicate that you are done. VIP Database will search through your files looking for a file that contains the phrase "jacob-anything-" in the Sold-to item whether it was entered in upper or lower case. File 1004 will be displayed because it meets your retrieval specification. You can review your file, edit it or send hard copy to the printer or disk. Press 'N' to find the next occurrence. After a moment, you will be prompted with:

1 found.

Press 'ENTER' to continue.

Press 'ENTER' to resume the display file mode.

Search Throughout an Item

Assume that you want to search through your invoices for a customer that lives on Del Monte Blvd., but you don't remember the street number or if you abbreviated boulevard. A search of this type is simple. Select 'E' from the Maintain Database menu to display a file. Since you don't know whether or not the address was entered in upper case letters, select 'I' to ignore case. VIP Database will not differentiate between upper case and lower case letters when ignore case is selected. Now press 'S' to search, and your blank form will be displayed.

Row 4 Column 10 Page 1 File None Item 4

Customer Invoice

Date: 00/00/84 Invoice #: 1001

Sold-to:

Address: del mon

City: State: CA Zip:

Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: .. Total: 00000.00

Enter phrase into item you wish to search.

'SHIFT'-'@' wild card character

'BREAK' to quit

'ENTER' spaces to end of item and quit

Move the cursor to item 4, Address, type 'del mon' and press 'ENTER'. Notice that when you pressed 'ENTER', spaces were entered from the cursor position to the end of the item. Don't enter a complete phrase unless you think that the phrase is similar to other different phrases. This practice will increase your chances of finding the phrase you're looking for even if it was spelled wrong. Using an incomplete phrase will even find Del Monte if it was Avenue rather than Boulevard. And of course, the street number will be ignored. After pressing 'ENTER' you will be prompted with:

'Value or 'Label?

Type 'L' for label since the phrase you are looking for has no numeric value. You will be prompted with:

Search throughout item (Yes or No)?

Type 'Y' to find the phrase, regardless of its position within the item. If you type 'N', the phrase will only be found in the position that it was entered. After typing 'Y' you will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

Press 'ENTER' for the relation, equal and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?_

Press 'E'nd to indicate that you are done. VIP Database will search through your files looking for a file that contains the phrase "del mon" anywhere within item 4, Address, whether it was entered in upper or lower case. File 1005 will be displayed because

it meets your retrieval specification. You can review your file, edit it or send hard copy to the printer or disk. Press 'N' to find the next occurrence. After a moment, you will be prompted with:

1 found.

Press 'ENTER' to continue.

Press 'ENTER' to resume the display file mode.

-- 6-D Search using Relations

Assume that you want to search through your invoices for all customers less than 25 years old. This is called a relational search. You can instruct VIP Database to compare values that you specify to values stored in your files based on relational operators that you specify. You can look for items that are "equal to", "not equal to", "greater than", "greater than or equal to", "less than", or "less than or equal to" any value you specify. Select 'E' from the Maintain Database menu to display a file. Now press 'S' to search, and your blank form will be displayed.

Row 17 Column 22 Page 1 File None Item 33

Customer Invoice

Date: 00/00/84 Invoice #: 1001
Sold-to:
Address:
City: State: CA Zip:
Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: Age: 25 Total: 00000.00

Enter phrase into item you wish to search.
'SHIFT'-'@' wild card character
'BREAK' to quit
'ENTER' spaces to end of item and quit

Move the cursor to item 33, Age, and type '25'. Now press 'BREAK' and you will be prompted with:

'V'alue or 'L'abel?

Type 'V' because the item you are looking for has a numeric value and you will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

You can use any of these six operators in your search:

'EQ' for values "equal to"
'NE' for values "not equal to"
'GT' for values "greater than"
'GE' for values "greater than or equal to"
'LT' for values "less than"
'LE' for values "less than or equal to"

Type 'LT' for the relation less than to find items with a value of less than 25 and 'ENTER'. You will be prompted with:

'A'nd, 'O'r, or 'E'nd? _

Press 'E'nd to indicate that you are done. VIP Database will search through your files looking for a file that contains a value less than 25 in item 33, Age. File 1001 will be displayed because it meets your retrieval specification. You can review your file, edit it or send hard copy to the printer or disk. Press 'N' to find the next occurrence, file 1002. Continue pres-

sing 'N' until you have found all four occurrences. After the last file has been found, you will be prompted with:

4 found.

Press 'ENTER' to continue.

Press 'ENTER' to resume the display file mode or press 'P' to redisplay the last occurrence, file 1004. Press 'N' to continue again. You can press 'BREAK' at any time, to stop searching.

You can also use VIP Database to further isolate information of particular interest by specifying multiple relations on a single item. For example: You can look for customers within a specified age range, say between 19 to 24.

To perform this multi-relational search, follow the instructions outlined previously and instead of typing 'E' to end at the 'A'nd, 'O'r, or 'E'nd prompt, type 'A' for "and". The operator "and" was chosen to give your retrieval specification the following logical force:

"Look for all customers less than 25
AND greater than 18 years of age."

This statement isolates all customers from 19 to 24 years old. The next statement has the same logical force:

"Look for all customers less than or equal to 24
AND greater than or equal to 19 years of age."

You can use either form. However, for this example, use the former.

After typing 'A' to "and" the first retrieval specification to the one you are about to type, the cursor will be redisplayed in item 33. Type "18" and press 'BREAK". You will be prompted with:

Use previous search key (Yes or No)?

Type 'N' because you have entered a new specification. If you type 'Y' you can re-use the previous specification. This feature can save time if you have to enter the same specification in many items. The multi-criteria search in the next section covers this feature. After typing 'N' you will be prompted with:

'V'alue or 'L'abel?

Type 'V' because the item you are looking for has a numeric value and you will be prompted with:

Press 'ENTER' for 'EQ'

Select relation (EQ, NE, GT, GE, LT, or LE)

Type 'GT' for greater than, to find items with a value greater than 18 and press 'ENTER'. You will be prompted with:

'A'nd, 'O'r, or 'E'nd?_

Press 'E'nd to indicate that you are done.

VIP Database will search through your files looking for a file that contains a value less than 25 and greater than 18 in item 33, Age. File 1001 will be displayed because it meets your retrieval specifications. Press 'N' to find the next occur-

rence, file 1004. Continue pressing 'N'
until you have found all three occurrences.
After the last file has been found, you
will be prompted with:

3 found.
Press 'ENTER' to continue.

-- 6-E Multi-criteria search

The multi-criteria search is the search you will probably use the most. This type of search allows you to isolate information of interest to you, based upon interrelationships you establish among the items in your file. The multi-criteria search below combines the things that you have learned into one example. Assume that you would like to find all customers that live in the 920XX Zip code area, own a CoCo, and don't have a printer. Select 'E' from the Maintain Database menu to display a file. Now select 'I' to ignore case, press 'S' to search and your blank form will be displayed.

Row 17 Column 10 Page 1 File None Item 33

Customer Invoice

Date: 00/00/84 Invoice #: 1001

Sold-to:

Address:

City: State: CA Zip: 920??

Phone: ...-.... Salesman: JF Terms:

Item	Description	Price	Amount
: . :	printer	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00
: . :	: 0000.00	: 0000.00

Tax: 000.00

Product: CoCo Age: .. Total: 00000.00

Enter phrase into item you wish to search.
'SHIFT'-'@' wild card character
'BREAK' to quit
'ENTER' spaces to end of item and quit

Move the cursor to item 7, Zip, and type '920' and two wild card characters. Press 'BREAK' and you will be prompted with:

'V'alue or 'L'abel?

Press 'L' for label and you will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

Press 'ENTER' and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?

Press 'A' and your cursor will be redisplayed in item 7.

Now move the cursor to item 12, type 'printer' and press 'ENTER'. You will be prompted with:

Use previous search key (Yes or No)?

Press 'N' and you will be prompted with:

'V'alue or 'L'abel?

Press 'L' and you will be prompted with:

Search throughout item (Yes or No)?

Press 'Y' and you will be prompted with:

Press 'ENTER' for 'EQ'
Select relation (EQ, NE, GT, GE, LT, or LE)

Type 'NE' for "not equal" and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?

Press 'A' and your cursor will be redisplayed item 12. Now move the cursor to item 16 and press 'BREAK'. You will be prompted with:

Use previous search key (Yes or No)?

Press 'Y' to use the phrase (search key) that you entered in item 12 ("printer") and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?

Press 'A' and your cursor will be redisplayed in item 16. repeat the same procedure for items 20, 24, and 28.

After you have finished the retrieval specification for item 28, and your cursor is redisplayed, move the cursor to item 32. Type 'coco' and press 'ENTER'. You will be prompted with:

Use previous search key (Yes or No)?

Press 'N' and you will be prompted with:

'V'alue or 'L'abel?

Type 'L' and you will be prompted with:

Search throughout item (Yes or No)?

Type 'Y' and you will be prompted with:

Press 'ENTER' for 'EQ'

Select relation (EQ, NE, GT, GE, LT, or LE)

Press 'ENTER' and you will be prompted with:

'A'nd, 'O'r, or 'E'nd?_

Press 'E'nd to indicate that you are done.

VIP Database will search through your files looking for all customers in the 920XX Zip code area that own a CoCo and don't have a printer. File 1003 will be displayed because it meets your retrieval specifications. Press 'N' to find the next occurrence and file 1006 will be displayed. Press 'N' again and you will be prompted with:

2 found.

Press 'ENTER' to continue.

Press 'ENTER' to resume the display file mode.

Now press 'Q' to display the Maintain Database menu.

Section 7 SORTING OR UNSORTING YOUR FILES

— 7-A Sorting your Database

You can use VIP Database to sort your files by any field that you wish. For instance, you need to enter your invoices by number but wish to rearrange by Zip code or alphabetically, to print mailing labels (discussed in Section 8).

You can sort your database in ascending or descending order. Ascending order means arranging characters from the lowest to the highest number and from A to Z. Descending order is the opposite. Numbers are considered in character form so an item containing the number "10" is less than an item containing the number "9". However, if the item contained a "09", "10" would be greater. If you want to maintain numeric order, be sure that all numbers are entered using the same number of character positions, flushed to the right of the item as in the invoice examples in Section 3.

To sort your database by item 7, Zip code, select 'S' from the Maintain Database menu and you will be prompted at the bottom of the display with:

'Sort or 'U'nsort?

Select 'S' to sort and you will be prompted with:

Enter sort criteria (item #, direction):

Type a '7', a comma and an 'a' and press 'ENTER'. Your database will be sorted and the Maintain Database menu will be redisplayed. Sorting of large databases takes a longer period time than sorting small ones.

-- 7-B Unsorting your Database
(Requires 64K)

For some applications it is necessary to restore the database to its original order after sorting. For invoicing this is mandatory because orders are entered by number, not by Zip code.

To restore your database to its original order, select 'S' to unsort your database. You will be prompted at the bottom of the display with:

'Sort or 'U'nsort?

Select 'U' to unsort your database. Your database will be unsorted and the Maintain Database menu will be redisplayed.

Section 8 PRINTING YOUR INFORMATION

— 8-A The Print Options Menu

You can use VIP Database to print forms, reports, mailing labels, invoices, personalized form letters, and the like. You can print all your database files, or selected portions. You can print using your retrieval specifications just like search. You can even tell VIP Database to print multiple copies of each file or report.

To print, select 'P' from the Maintain Database menu to display the Printing Options Menu:

*** Printing Menu ***

P Print form
M Mailmerge
L List item attributes to printer
E Edit print form
F File directory
R Rename print form
K Kill print form
D Printer Default menu
Q Quit

Selection: _

Each selection in the Printing Options menu will be discussed in a section to follow, in the order in which it is used. You are already familiar with selections 'F', 'R', 'K' and 'Q', which were discussed in Section 2 of Part I. Selections 'P', 'L', 'E' and 'D' are covered in Section 8. Selection 'M', Mailmerge, is discussed in Section 9.

-- 8-B Setting Printer Defaults

The Printer Defaults menu allows you to set two different types of defaults: those that pertain to your printer, and those that pertain to your printed product. To display or change either of these types of printer defaults, select 'D' from the Print Menu and the Printer Default Menu will be displayed:

*** Printer Default Menu ***

- 1 110 Baud
- 2 300 Baud
- 3 600 Baud
- 4 1200 Baud
- 5 2400 Baud
- 6 4800 Baud
- 7 9600 Baud

- C Print Copy default
- A CR And linefeed
- W Word length
- L Page length
- P Page pause
- D Line delay

- Q Quit

Selection: _

Baud 600 Linefeed No Word length 8 Copies 1
Page pause No Page length 66 Line delay 0

VIP Database comes preset to work with most serial line printers and can be changed to conform to all others. The defaults are displayed above. If you change any of the values, they will saved when you Quit for a session so you won't have to set them each time you use your database.

Most printers use the default parameters set when VIP Database is loaded. Check your printer for specific information about your printer. If your printer doesn't use these defaults you can set them for your printer. If you have problems with the terms used and their applications, refer to your printer manual.

BAUD

Selections 1 through 7 set the default baud rate for printers that don't use the default, 600 Baud.

CR And Linefeed

A few printers require a linefeed after each carriage return. If your printer needs them, select 'A', and at the prompt, type 'Y'.

Word Length

Most printer use a word length of 8; some use 7. Select 'W' to change the word length. At the prompt, select either '7' or '8'.

Line Delay

Line delay (same as nulls), is required by a few printers. If your printer needs a delay, select 'D', and at the prompt, select a number from 0 to 255.

Print Copy Default

The Print Copy Default determines the number of copies of each form to be printed. In the invoice example, you will set the number of copies to three because you will need a customer's copy, a salesman's copy and a file copy. Select 'C' to change the default of 1, and at the prompt, select a number from 1 to 255.

Page Length

Normally forms are printed one to a page on standard 8 1/2 by 11 inch paper. The default, with 6 lines per inch on 8 1/2 by 11 inch paper, is 66 lines per page. If you plan to use smaller or larger forms, select 'L', and from the prompt, select the length you require, from 1 to 255 for the number of lines on each page.

Page Pause

If you use a friction feed printer with single sheet forms you will require that VIP Database stop after each form is printed. The default is no pause. If you require a pause, select 'P', and from the prompt type 'Y' for yes.

— 8-C Listing Item Attributes to the Printer

To create print and math forms, you may find it convenient to have a listing of the attributes of each item in your files. Such a listing includes the number of items in each file, the number of characters in each item, and the actual default fill characters used in each item. To list the item attributes of your files, select 'L' and you will be prompted with:

Press 'ENTER' when printer is ready.

Be sure that your printer has paper in it and that the paper is properly alligned. Press 'ENTER' to list the item attributes.

When your listing is completed, the Print Menu will be displayed. Press 'BREAK' at any time to stop the listing.

-- 8-D Creating Print Forms

Use VIP Database to print all or any portion of each file on a form of your own design or pre-printed forms. Design different print forms for each of the reports or forms you need; one to print mailing labels: one for customer reports; one for sales reports; and one for invoices. Design as many as you like and save all but the first form on a separate diskette. If you are using pre-printed forms, use graph paper, divided into tenths of an inch, to figure out where to position each item. An example of an invoice form and another of mailing labels are given in this section. Select 'E' from the Print Menu to Edit a print form. Press 'ENTER' to use the default name and a blank form will be displayed.

Row 1 Column 1 Page 1

Item #:

'BREAK' to Save and Quit 'CLEAR' more selections

This is the same editor that you used to create file forms and math forms except that an insert item function is used to insert the items that you want displayed and printed on your form. Each time you want to insert an item in your form, press 'CLEAR' then press 'I'. You will be prompted with:

Which item do you want here?

Type the number of the item you want printed at the cursor position, press 'ENTER' and you will be prompted with:

Print spaces at end of item (Yes or No)?

In the invoice form example, we want to print spaces at the end of every item that is printed so that the invoice form is uniform. In the mailing list example we don't want to print spaces at the end of each item so that the city state and zip code line will be properly formatted. Two examples will explain this well.

This example shows a mailing label in which spaces were not printed after each item:

Jacobs, Larry G.
8821 Ocean Vista
La Jolla CA 92156

This example shows the same mailing label but with the spaces printed after each item:

Jacobs, Larry G.
8821 Ocean Vista
La Jolla CA 92156

Notice the spaces printed between the city, La Jolla and the state, CA. If you use separate items for the last and first names, the effects will be even worse.

After answering the "Print spaces at end of item" prompt, your item will be displayed on your screen. If you move the cursor over the first character in an item inserted in your form, the item number will be displayed in the message area at the bottom of your screen and a backslash will be displayed as the first character of the item. If you try to move the cursor into an item, the cursor will be moved beyond the item because items you insert are protected from accidental erasure. If you make a mistake and insert an item in the wrong position on your form, move the cursor to the first character of the item and delete it.

Invoice Form Example

Your form can contain other information, labels and enhancements along with your items. You can customize your forms to look like a pre-printed form if you like. These enhancements will appear on each form that you print. You can include any of the characters available from your computer keyboard. If you own VIP Writer you can further customize your form using all of its tricks. You can use elongated text, emphasizing, underlining or anything else your printer can do. VIP Database and VIP Writer use the same printing program so VIP Database understands anything VIP Writer can create: p codes, format lines, programmed keys; the works.

In the invoice on the next page, the name of the computer store was added at the top of the form. Hyphens were used to break the form up into sections. You can use labels on your print form that differ from the item names you used on your file form because items are printed without their item names. Now create the example you see below:

— Invoice Form

Row 1 Column 1 Page 1

The Computer Managerie 9587 Bristol Plaza Los Angeles, CA. 92088 * 729-5000	Invoice No 1001
--	--------------------

Sold To	Date 00/00/84
Address	Sales clerk ..
City State CA	Terms
Zip Code Phone ...-....	Product

Quantity	Description	Price	Amount
(11).	(12).....	(13,14)0000.00	0000.00
(15).	(16).....	(17,18)0000.00	0000.00
(19).	(20).....	(21,22)0000.00	0000.00

Item #:
'BREAK' to Save and Quit 'CLEAR' more selections

When inserting items in this form, answer the "Print spaces at end of item" with a 'Y'. You will have to make reference to your item attributes listing to create the invoice form below. The quantity, description, price and amount items do not have item names so you'll have to determine where each item goes by comparing the numbers and fill characters to those on the item attributes listing. Items that may be ambiguous are numbered in parentheses on the form. Remember that if you insert the wrong item you can simply delete the item using the delete commands. Now, move to the next page of your invoice form, using the 'DOWN' or 'SHIFT' and 'DOWN' arrow keys and create the invoice form below:

-- Page Two

Row	18	Column	1	Page	2		
(23).		(24).....		(25,26)	0000.00	0000.00	
(27).		(28).....		(29,30)	0000.00	0000.00	

Tax 000.00

Total 00000.00

THANK YOU!

Item #:

'BREAK' to Save and Quit 'CLEAR' more selections

You can create forms with line lengths equal to the width of the display chosen minus one character for an 'ENTER'. Remember that on an 80 column printer, you can't have more than 78 characters on a line plus an 'ENTER'. If you put an 'ENTER' on the eightieth column, most printers will give you one blank line for your 'ENTER' and will add one of its own. This will cause your form to be double spaced. When you have completed both pages of the invoice form, press 'BREAK to save your form. Press 'Y' at the "Save file" prompt. Your form will be saved with the default name 'print.pfm', and the Print Menu will be displayed.

NOTE TO 32K USERS

Use the invoice form below rather than the invoice form on the previous pages because your 32K system can't hold large forms in the mailmerge section. If the form you are creating is too large to fit in a 32K system, you will be prompted with a full message at the bottom of the screen. Delete characters until your form fits or install 64K to get extra form space.

— 32K Invoice Form

Row 1 Column 1 Page 1

The Computer Managerie
9587 Bristol Plaza
Los Angeles, CA.
92088 * 729-5000

Invoice No: 1001

Sold To Date 00/00/84
Address Sales clerk ..
City State CA Terms
Zip Code Phone ...-..... Product

Quantity	Description	Price	Amount
(11).	(12).....	(13,14)0000.00	0000.00
(15).	(16).....	(17,18)0000.00	0000.00
(19).	(20).....	(21,22)0000.00	0000.00

Item #:
'BREAK' to Save and Quit 'CLEAR' more selections

-- Page Two

Row	18	Column	1	Page	2		
(23).		(24).....		(25,26)	0000.00	0000.00	
(27).		(28).....		(29,30)	0000.00	0000.00	

Tax 000.00

Total 00000.00

Item #:
'BREAK' to Save and Quit 'CLEAR' more selections

Before you print invoices, go to the Printer Default Menu and change the Page length to '33' and the Print Copy default to '2'. Then, every time you print an invoice, two identical invoices will be printed on one sheet of 8 1/2 by 11 inch paper.

Mailing List Example

The second example is a print form for mailing lists. Follow the rules outlined above and remember to type 'N' at the "Print spaces at end of item (Yes or No)?" prompt so that your mailing list will be properly formatted. The item numbers are noted in parentheses. When you create your own form, consult your item attributes listing to determine which item numbers to use. For this example, use the name 'mail.pfm' rather than the default form name. You can save the form on your database diskette for the example, but for the real thing, save all but your main print form to a separate diskette to preserve database storage space.

After you have completed the mailing list form, press 'BREAK' to save your form. Answer the "Save form" prompt with a 'Y' to save your form with the name 'mail.pfm'.

Before you print a mailing list, go to the Printer Default menu and change the page length to '6' because there are five lines on a label plus one line between labels. Set the Print Copy default to '1' unless you want multiple copies of your mailing list.

-- Mailing List

Row 1 Column 1 Page 1
.....(3)
.....(4)
..(5)..... CA(6,7)

Item #:
'BREAK' to Save and Quit 'CLEAR' more selections

-- 8-E Printing all Information

Now that you have created your print forms, you are ready to print. You can print your files on paper or to the disk, one at a time or all at once. You can print a specified range of your files automatically. You can also print multiple copies of each file.

To print the invoices you added previously, select 'P' from the Maintain Database menu to display the Print Menu. Now select 'P' to print your form and you will be prompted with:

Send hard copy to 'P'rinter or 'D'isk?

If you select 'D' you will be prompted with:

Current name: print.vip:0
Hard copy file name? _

Enter the name you want to use when your file is saved or press 'ENTER' to use the default name 'print.vip', and you will be prompted with:

Current name: print.pfm:0
Form name? _

If you had selected 'P' to send hard copy to the printer, this would have been your first prompt. In either case, continue by pressing 'ENTER' to print invoices using the invoice form you just created since this form was saved with the default name. To use other forms, type the form name that you used when you saved your form. After pressing 'ENTER' you will be prompted with:

Press 'ENTER' for current file.
First file? _

If you press 'ENTER', the current (last file added) file number would be entered for you. Type the number of the file that you want to start printing from. Since you are going to print all the files in your database, type '1001', the first file and press 'ENTER'. You will be prompted with:

Last file? _

If you press 'ENTER', the current (last file added) file '1006', will be entered for you. If you want to print a limited range of files instead, type the last file you want to print and press 'ENTER'. Since you want to print all the files, press 'ENTER' and you will be prompted with:

How many copies?

Press 'ENTER' to use the print copy default stored in the Printer Default Menu or enter the number of copies of each file that you want to print. Press 'ENTER' to use the default, one copy, and your file will be sent to the disk. If you want the hard copy sent to the printer you will be prompted with:

Press 'ENTER' when printer is ready.

Make sure that your printer is ready and press 'ENTER'. After your files have been sent to the disk or the printer, the Print Menu will be displayed.

— 8-F Printing Information by your
Retrieval Specifications

You can use VIP Database to print only the files of specific interest to you by combining the retrieval and printing functions into one operation. This is one of the abilities of the Mailmerge function. Its other abilities will be covered in Section 9, Mailmerge. For this particular operation you don't need VIP Writer. You need VIP Writer for the personalized form letters option.

The example below shows you how to use the mailmerge to search through your files for all customers in the 920XX Zip code area and print their addresses on mailing labels. To get started, select 'M' from the Print Menu to display your blank search form. Now move the cursor to the Zip item and type '920' and two wild card characters. Press 'BREAK' to begin the search, you know how it's done. After pressing 'E' to end your retrieval specifications, you will be prompted with:

Send hard copy to 'P'rinter or 'D'isk?

Press 'P' and you will be prompted with:

Current name: print.pfm:0
Form name? _

Type the name of your mailing label form, 'mail.pfm', press 'ENTER' and you will be prompted with:

Press 'ENTER' for current file.
First file? _

Press 'ENTER' if you want to start the search with the first file of your database, or type the starting number of the search if you want to start elsewhere, and press 'ENTER'. For the example, press 'ENTER' and you will be prompted with:

Last file? _

Press 'ENTER' if you want the search to continue to the last file of your database or type the number of the last file to be searched and press 'ENTER'. For this example, press 'ENTER' and you will be prompted with:

How many copies?

Enter the number of copies of each label you want to print or press 'ENTER' for the default number. For this example, press 'ENTER' and you will be prompted with:

Press 'ENTER' when printer is ready.

Make sure that your printer is ready and press 'ENTER'. After your mailing labels have printed, the Print Menu will be displayed.

Section 9 MAILMERGE AND
PERSONALIZED FORM LETTERS
(Requires VIP Writer and 64K)

-- 9-A Personalized Form Letters

If you own VIP Writer you can send personalized form letters, combining information from your database with letters written in your word processor. Just load the letter you want sent into VIP Database, specify your retrieval specifications, and your letters will be printed, each personalized with the information you specified.

As mentioned in Section 8, VIP Writer and VIP Database use the same printing program so the procedure is simple. Just type the letter you would like to send, substituting item numbers for the information that you would ordinarily type. Each item should be preceded and followed by a back slash. The back slash character is generated in VIP Writer by holding the 'SHIFT' key and pressing the 'CLEAR' key.

If you want the item to be printed without the trailing spaces, the item number should be preceded by an upper case 'S' to suppress spaces after the item. This feature was discussed in Section 8. The example to follow illustrates how to create a personalized form letter using VIP Writer.

Type the example letter just as you see it using VIP Writer. The underlined '' represents a center marker. The underlined 'k' represents a format marker. Be sure to type the spaces between each item; otherwise, the items will not be separated.

Mailmerge Example:

k@,lm12,rm68,tm3,jun'ENTER'
uThe Computer Managerie'ENTER'
u 9587 Bristol Plaza'ENTER'
u Los Angeles, CA.'ENTER'
u 92088 * 729-5000'ENTER'
'ENTER'

November 10, 1984'ENTER'

'ENTER'

\S3\'ENTER'

\S4\'ENTER'

\S5, \S6. \S7\'ENTER'

'ENTER'

Dear \S32\ Owner:'ENTER'

'ENTER'

You are cordially invited to our Third Annual \S5\
area Pre-Christmas SALE. It starts on Friday, November
25th, and runs through Sunday, the 27th. The sale
includes all kinds of \S32\ software, peripherals and
accessories at Unbeatable Prices.'ENTER'

There will be a drawing held on Sunday afternoon for
a high resolution color monitor. All Sale Customers are
eligible for this drawing. Your registration is
automatic with the purchase of any \S32\ related
product.'ENTER'

This SALE promises to be the best yet so Don't Miss
It. The Sale hours are from 9 AM to 9 PM all three
days. See you at the SALE!'ENTER'

'ENTER'

Very truly yours'ENTER'

'ENTER'

'ENTER'

'ENTER'

Sales Manager'ENTER'

VIP Database sets the left margin to zero, the right margin to 240 and the top margin to zero. The bottom margin and page length are each set by the value in page length as set in the Printer Default Menu. Baud rate is defaulted to 600, linefeeds are set to NO and word length is set to eight. If you require special printer parameters, they should be programmed in a format line. The format line, in your mailmerge file, overrides all values set in the Printer Default Menu so you can set values that differ from those set in VIP Database.

The '@' in the format line resets all format values to the default print values set by VIP Writer as explained in your Writer Tutorial. Now that all values have been reset in a format line, you can change all values that differ from the defaults in VIP Database.

When you are done typing the letter, save it with the filename 'letter.vip' on your database diskette and exit the Writer. Load VIP Database and display the Print Menu. Now select 'M' and your blank search form will be displayed.

For the example, assume that you are going to send this letter to all customers living in the 920XX Zip code area. Move the cursor to the Zip item and type '920' and two wild card characters. Press 'BREAK' to begin the search — you know how it's done. After pressing 'E' to end your retrieval specifications, you will be prompted with:

Send hard copy to 'P'rinter or 'D'isk?

Press 'P' and you will be prompted with:

Current name: print.pfm:0
Form name? _

Type the name of your personalized letter, 'letter.vip', press 'ENTER' and you will be prompted with:

Press 'ENTER' for current file.
First file? _

Press 'ENTER' to start the search with the first file, number 1001, and you will be prompted with:

Last file? _

Press 'ENTER' to continue the search to the last file, number 1006, and you will be prompted with:

How many copies?

Enter the number of copies of the letter that you want to print or press 'ENTER' for the default number. For this example, press 'ENTER' and you will be prompted with:

Press 'ENTER' when printer is ready.

Make sure that your printer is ready and press 'ENTER'. After your letters have been printed, the Print Menu will be displayed.

To finish the job, print mailing labels using the same retrieval specifications as above and start licking envelopes. You're done!

APPENDIX A: STORAGE CAPACITIES

The maximum number of characters in each item of your database (length), is determined by the screen width you have chosen minus three for a ':', 'SPACE' and an 'ENTER'. In the 51 character screen an item can contain 48 characters; in the 64 character display an item can have 61 characters and in the 85 display, 82.

If your computer has 32K of memory installed, the total number of items in your form can't exceed 127 and the number of characters in all the items added together can't exceed 255. If your computer has 64K of memory installed, the total number of items in your form can't exceed 255 and the number of characters in all the items added together can't exceed 767.

Files are stored in the diskette in groups of 255 characters - one block. If your file has 255 characters or less, it will require one 255 character block to store the file. If your file has more than 255 but no more than 511 characters, it will take 511 characters or two blocks. If your file exceeds 511 but has no more than 767 characters, it will occupy 767 characters or three blocks.

There are 558 blocks on the first database diskette (567 with 32K). If you have 32K of memory installed you can not add additional diskettes to increase database capacity. Your database is limited to 567 blocks (files). If you have 64K of memory installed you can add three additional disk drives. The capacity for each additional diskette is 612 blocks. Your total system capacity is 2394 blocks. (See table below.)

Database Capacities and Limits

Amount of Memory	Charac- ters in Form	Items in Form	Blocks in each Form	Database Files Number of drives			
				1	2	3	4
32K	255	127	1	567	N/A	N/A	N/A
64K	255	255	1	558	1170	1782	2394
64K	511	255	2	279	585	891	1197
64K	767	255	3	186	390	594	798

APPENDIX B: USING A MULTI-DRIVE DATABASE

VIP Database allows you to continue your database to additional drives if you have a 64K multi-drive computer system. The procedure is simple. When you try to Add a file to a full database, you will be prompted with this menu:

No more room on diskette!

'N'ext database diskette

'Q'uit...back to Maintain

Selection: _

Select 'Q' to return to the Maintain Database Menu if you only have one disk drive, and then create a new database.

Or:

Select 'N' if you want to continue to the next drive and you will be prompted with:

Current name: database.dat:0 (default name)

Database name? _

Insert a new formatted diskette in the drive you want to continue your database to and type a ':' followed by the drive number of the next drive, usually '1', and press 'ENTER'. You can specify a different name by typing the new name, extension and drive number. You can press 'BREAK' at any time to abort this procedure and display the Maintain Database Menu.

If you run out of space on the last diskette in the last drive (4 maximum), you will be prompted with:

No more room on diskette!
This is the last diskette!
Press 'ENTER' to continue.

Press 'ENTER' to display the Maintain Database Menu quit out of VIP Database, and create a new database.

APPENDIX C: WHAT TO DO IF YOUR TV DISPLAY IS HARD TO READ

After loading your VIP Library program and using it for a while with your television you may be dissatisfied with the screen display when you are using the 51, 64, or 85 displays. You may notice that when you are using color you have a rainbow of colors on the screen instead of the background color of green or white that you wanted, making it nearly impossible to read your text. This inability to have a sharp, clear, crisp display is NOT a problem with your program, it is a problem of the your computer and your particular TV.

Unfortunately, most computers lack adequate hardware to give a good TV picture. Color pictures are made up of over a million separate dots, each a composite of blue, green and red. Although they may be easily controlled by the electronic techniques used to generate TV shows, most computers do not have the hardware to control that many dots. Instead computers divide the screen up into many fewer dots. For example, your computer divides it into a little over 6000 dots. This does not allow a high degree of resolution. Thus, when the background color is not a pure color, red, green or blue, the color cannot be controlled to be pure. Shadows and blooms of other colors mix in. This causes the black letters sometimes to be blotched or to have shadows so that they are difficult to read. The smaller the letters the greater the problem. Thus, the 85 display is sometimes very hard to read.

Of course the 85 display, and to some extent the 64 display, were not designed for entering and editing text unless you use a monitor. They were designed for formatting purposes. If you can use them to input text, so much the better.

There are some things that can be done to help make your TV displays more readable. First, you can use the green background to avoid the problems associated with color mixing. You could also get a color monitor for better control of your display colors. Alternatively, you can use a black and white TV instead of a color TV. The final option is to buy a monitor, a special kind of video machine, for displaying your text.

APPENDIX D: USING OTHER VIP LIBRARY PROGRAMS

Each of the programs in the VIP Library, with the exception of VIP Speller and VIP Disk-ZAP, were specifically designed to create files compatible with other programs in the Library. With the Library you can perform the essential home and business tasks and combine the results for many purposes.

VIP Writer is one of the central programs in the Library. It contains the most sophisticated editing and printing features, and it is to be used to create all reports combining files created on other applicable Library programs. A companion to the Writer is VIP Speller. The Speller can be used to correct typos and misspellings in VIP Writer and other Library files.

VIP Calc is used to create financial or mathematical reports. It contains sophisticated print functions for independent printing of such reports. You may create files usable by VIP Writer such as reports to be combined with other text.

VIP Terminal is a communications program capable of transmitting and receiving any ASCII file, including VIP Library files. ASCII files can be transferred to VIP Writer for further editing. The Terminal program also allows you to transfer files to work, clubs or friends. You can also print files received from others.

VIP Database, like VIP Calc, has its own sophisticated print functions for independent printing of database files. You can also create files for use with VIP Writer to create combined text and database files.

VIP Disk-ZAP is a disk repair utility designed to repair any kind of file created using the standard disk operating system. Of course, it therefore will also work on other Library files.

NOTES