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INTRODUCTION

BUSINESS FORM SHOP is a form generation program designed to help you computerize your business's paperwork. When it comes to forms you want them to be fast, legible and accurate. The paperwork you may now be typing or even handwriting is transformed into an easy fill-in-the-blanks process. The forms can range in size from having one row and ten columns to having ninety-nine rows and 132 columns on up to one hundred pages.

With BUSINESS FORM SHOP you can choose between using our existing form templates and modifying them to meet your needs, or creating your own forms right on the screen. Anytime you want to use a BUSINESS FORM SHOP form, simply insert the Program Disk and go. The program will prompt you for the fill-in information needed to complete the form. It will perform table look-ups, do all the math, and print your form perfectly every time. You will be amazed at the time you save and the professional look of your forms.

Here's a list of the applications contained in BUSINESS FORM SHOP--

Simple Invoice	Envelope
Shipping Label	Business Card
Disk Label	Purchase Order
Disk Jacket	Expense Report
Invoice	Phone Message

GETTING STARTED

Making a Back-up Copy

It is suggested that you make a Back-up Copy of your program disk. If using a single disk drive, there are copy programs available. For further assistance, contact your local Commodore dealer.

Loading the Program Disk

Commodore 64

1. Insert the disk in the disk drive.
2. Type LOAD "*",8,1 and press RETURN.
3. The program will automatically load and run.

Commodore 128

80 Column Mode

1. Press down 40/80 display button.
2. Insert the program disk.
3. Turn on the computer and monitor.
4. The program will automatically load and run.

40 Column Mode

1. Insert the program disk.
2. Hold down the **CMDR** key while turning on the computer.
3. Type **Load "*" ,8,1** and press RETURN.
4. The program will automatically load and run.

Entering the System Date

After the title screen appears briefly, you will be prompted for the date.

Enter the date in the form MM-DD-YY and press RETURN.

Main Menu Options

To choose a Main Menu item, press the RIGHT /LEFT CURSOR key to highlight it. Press the DOWN ARROW key and then press RETURN to pop-up the submenu. Use the RIGHT/LEFT CURSOR key to highlight the option you want. Press the DOWN ARROW key to pop-up the submenu and press RETURN. To cancel a choice, press STOP.

SET-UP

This option on the Main Menu allows you to custom configure your program to meet your equipment requirements and your preferences. Move the highlight bar to SET-UP on the Main Menu. Press the DOWN ARROW key to pop-up the submenu and select the Set-Up Program option you want. Press RETURN. You will be prompted with a dialog box to supply the necessary information for each option on the submenu.

Printer Set-Up Use the printer set-up screen to enter all the details the program needs in order to interface with your printer. You may need to refer to your printer manual.

Device Number	The IEEE device number for your printer is usually 4.
Command Address	This is the IEEE secondary address.
ASCII	Type Y if your printer is ASCII or N if your printer is not ASCII.
Linefeed	Some printers require a linefeed in addition to a carriage return at the end of a line. If your printer does, type Y.
Control Characters	Enter a sequence of control characters separated by commas to invoke the compressed print or letter quality modes for your printer.

Select Colors : Use the select color option to choose the color combination that appears best on your monitor. Press F1 to make a selection.

Command Color	This is the color at the top of the screen.
Border Color	This is the border color of the rows and columns on the form.
Text Color	This is the color of the characters on the form.
Screen Color	This is the background color of the screen.

Storage Type : This option allows you to set-up your program to use one disk drive, two disk drives or a dual disk drive unit.

Program Files	This is the drive in which you place your original program disk or application disk.
Device	IEEE device for your disk drive is usually "8".
Drive	This is the number of the drive in which you insert your program which is "8" for all single disk drive units.
Data Files	This is the drive where all your files will be stored. Enter the corresponding information as you did for the program drive.

Save Set-Up : This option saves your set-up on the program disk. After saving your set-up, the next time you use the program, it will be automatically loaded. If you want to temporarily change colors or printer controls, change the set-up but do not save it.

Application Disk : This option allows you to create your own ready-to-run custom Application disks.

FILL-IN

Fill in the information on your form template, print it out and store for later use.

CREATE

Design and enter your own form template. A template is a set of instructions that tells the computer where to place the information on the form, where to get the information and exactly how the form should look.

INDEX

Select from an index of on-line help screens. You can view this list and get information on any of the items listed by pressing RETURN after highlighting the desired item. Use the page keys to move about the help information (F3 is page forward, F4 is page back.) Press STOP to bring you back to the Index when you are finished. To return to the Main Menu, press STOP again. To get help as you use specific areas of the program, press F2 at any point.

QUIT

Leave the program and return to the operating system (BASIC).

CORRECTION TO MAIN MENU OPTIONS SELECTION PROCEDURE (PAGE 3)

To choose a Main Menu item, press the RIGHT/LEFT CURSOR key to highlight. Press the DOWN ARROW key and RETURN to pop-up the submenu. Press the DOWN ARROW key again to highlight the desired submenu option and press RETURN. To cancel a choice, press STOP.

I-BFS 1

Moving the Cursor

Commands	Function
RETURN	To move forward one cell (input space).
SHIFT /RETURN	To move back one cell.
CURSOR DOWN	To move down a row. If there is no cell directly below the one you have just completed, you will move forward one cell.
CURSOR UP	To move up a row. If there is no cell directly above the cell you have just completed, you will move back one cell.
F3	To move forward one page.
F4	To move back one page.
F5	To move down 1/2 screen.
F6	To move up 1/2 screen.
F7	To move right 1/2 screen.
F8	To move left 1/2 screen.
CTRL /UP ARROW	Jump the cursor directly to any input position. For example, for page 3, row 12, column 9, enter p3r12c9. The screen will move, placing the cursor in the position you specified.
CLR/HOME	To move to top of the screen.
SHIFT /HOME	To move to top of the form.

Other Commands

RIGHT/LEFT CURSOR	To highlight menu options.
DOWN ARROW	To pop-up option menus.
RETURN	To select the highlighted option.
STOP	To cancel selections.
F2	To access Help information.

USING BUSINESS FORM SHOP: A TUTORIAL

Filling-in a BUSINESS FORM SHOP template

Below is an example of how to use BUSINESS FORM SHOP to fill-in a form template. Additional information is available in the FEATURES section of the manual in "Filling-in a Template".

Loading the Shipping Label Template

1. BUSINESS FORM SHOP templates are on the program disk. Load this disk into the computer following the instructions on p. 2.
2. Select the Fill-in option by using the RIGHT/LEFT CURSOR key to highlight. Press the DOWN ARROW key and then RETURN to display the Fill-in menu selections which will appear across the top of the screen in place of the Main Menu options.
3. Highlight the "Storage" option and press the DOWN ARROW key to pop-up the Storage submenu. Use the DOWN ARROW key to highlight "Directory" and press RETURN. The directory will pop-up on the screen. Highlight "Shiplabel" and press RETURN. The shipping label template will appear on the screen in the colors you have previously selected from the "Set-Up Menu."

Filling-in the Template: Input Mode

4. Enter the Input Mode to perform data entry. Move the RIGHT/LEFT CURSOR key to "input", press the DOWN ARROW key and then RETURN. The template is now ready for you to fill in.

5. The screen will display an image of the shipping label template with the white cursor flashing at the top of the screen. The second line of the screen is the data entry box. This is where your input will appear as you type it.
6. For most inputs you simply type what you want to enter and press RETURN. The cursor automatically moves to the next input space. If you wish to backup to correct an input, press SHIFT and RETURN and the cursor will move back one input. There are many ways to move the cursor around the template form. For further instructions see the section "Moving the Cursor".
7. Press STOP when you have filled in all your information. This will return you to the Fill-in Menu.

Saving the Data

8. Select "Storage", pop-up the submenu and highlight "Write Data".
9. You will be prompted to insert your Data disk. If you do not have a formatted Data disk available, format one now. Insert a blank or reusable disk and highlight the "Format Disk" option on the "Storage" submenu.
10. When your disk is formatted return to "Write Data" and press RETURN. You will be prompted to type in your filename and press RETURN. Your data will be saved onto the Data disk and can be printed out at any time.

Printing the Form with the Data

11. If you wish to print the label which appears on the screen, move to the "print" option and press the DOWN ARROW key. Highlight "to printer" and press RETURN. Respond to the prompts concerning the number of copies, start page, etc., and press F1 to print.

- To move on to the next label or another template, move to the "clear" option and press the DOWN ARROW key. Type Y in response to the prompt and your data will be cleared from the screen but remain saved on your data disk.

Reloading data

- Move to the "Storage" option and press the DOWN ARROW key. Highlight "Read Data " and press RETURN. You will be prompted for a filename. Press RETURN and, after a brief wait your file should appear on the screen.

Exit

- Move to the "Exit" option and press the DOWN ARROW key. You will be returned to the Main Menu.

Creating a BUSINESS FORM SHOP template

Below is an example of how to create your own form or modify a BUSINESS FORM SHOP template. Additional information is available in the FEATURES section of the manual in "Creating and Modifying Form Templates".

Sample Invoice Template

Spinnaker Software Inc. INVOICE NO. 1
 One Kendall Square
 Cambridge, MA 02139

SHIP TO:	Bill Jones	BILL TO:	Frank's Grill
	1541 Disk Drive		112 Ritter Rd.
	Appleville, MA. 12345		Essex, Ma. 12346

DATE ORDERED	DATE SHIPPED	SHIPPING METHOD	SALESPERSON NAME
SEP 17, 1986	NOV 1, 1986	FED EX	Tammy Turbo

QUANTITY	PRODUCT ID.	DESCRIPTION	UNIT PRICE	EXT. PRICE
4	12121	Large Balloons	\$1.20	\$4.80
5	12211	Small Balloons	\$0.75	\$3.75
20	12345	Square Balloons	\$1.50	\$30.00

 SUBTOTAL \$38.55

SALES TAX \$2.31

SHIPPING \$2.55

 TOTAL DUE \$43.41

Getting Ready to Make a Form Template

1. Highlight "Create" from the Main Menu by moving the RIGHT/LEFT CURSOR key. Press the DOWN ARROW key and then RETURN to display the "Create" menu selections which will appear in place of the Main Menu options. On top of your screen a ruler line will appear indicating Column placement, and on the left side of the screen, the numbers indicate Row placement.

2. Highlight the "Enter" option, press the DOWN ARROW key and RETURN. Enter mode is the editor for creating and modifying your form template. In this example, the form will be a simple Invoice.

3. Press F1 and a menu of the various cell types appears. Each instruction in the template is called a "cell". A cell is defined by its starting location in the form. Cell locations are expressed as coordinates in a grid. For example:

p2r4c3 TEXT "hello" This text cell is located on page 2, row 4, column 3.

There are 14 different cell types depending on where the information in the cell will come from. (A full explanation of cell types with examples can be found in the Features section of this manual.) Move the DOWN ARROW key over the cell type you wish to enter at the location of your cursor and press RETURN. Then type in the rest of the cell definition.

Making an Invoice Template

4. When you enter information in cells you are actually programming in a simple computer language. All languages have rules (syntax) that you must follow if you are to be understood. Let's look at some of the rules and definitions that created the sample Invoice. Not every item on the invoice will be covered individually. However, the instructions given will allow you to enter all of the items on the sample.

5. How do you write the instructions prompting the user of this form to supply the Company Address, Ship To and Bill To information?

Spinnaker Software Inc.
One Kendall Square
Cambridge, Ma. 02139

SHIP TO:	Bill Jones	BILL TO:	Frank's Grill
	1541 Disk Drive		112 Ritter Road
	Appleville, Ma 12345		Essex, Ma. 12346

Text Cell

To make your company name and address a part of your template so that the user will not have to type in the information on each invoice, enter the information in a Text cell. The company name and address will automatically appear on the invoices.

- Place the cursor where you want to begin typing the name and address.
- Press F1 to pop-up the Cell selection from the "Enter" mode and highlight "Text". Press RETURN. The row and column location with the word "TEXT" will appear at the top of the screen.
- Type in the name and press RETURN. Continue with the same steps for the remaining two lines of the address.

Likewise, the headings "SHIP TO" and "BILL TO" are entered into Text cells because they are constants on every invoice. Follow the same steps as for entering your company name and address except that the cursor placement will change.

Input Text Cell

The Input Text cell is where you enter the prompt you wish the user to see on the template when filling in the form, and where you indicate how much space to allow on the template for the input. You will be able to make changes in the template using the editor, so if your spacing isn't quite to your liking the first time, that's all right.

- A. To create the input space for the name and address under the heading "SHIP TO", position the cursor where you want the "Ship to Name" to appear.
- B. Press F1 to pop-up the Cell selection and highlight "Input Text". Press RETURN. The row and column coordinates and INPUT TEXT will appear at the top of the screen on the entry line.
- C. Type "Ship to Name"../25/ after INPUT TEXT in the data entry box at the top of the screen. Press RETURN. The input space will appear where you have located it on your form. Repeat these instructions for "Ship to Street" and "Ship to City-State-Zip". Each line of the two line address requires separate Input Text cell instructions.
- D. Follow these same instructions for adding "Bill To" information to your template.

Command Cell

Command cells are used to control the order of input for the person filling in the form. By making a Command Table cell, you can create an input table so that the order of inputs will first go through the table vertically before continuing across the rows.

For the "SHIP TO" and "BILL TO" addresses the Command cell is written in the following manner:

- A. Place the cursor for the Command cell one character to the left of the input box on the template.

- B. Press F1 to pop-up the Cell selection and highlight "Command". Press RETURN. The row and column location with the word "COMMAND" will appear at the top of the screen.
- C. Type in **table 3.1**. Press RETURN. A space has been created for 3 lines in 1 cell. A check will appear inside the cursor indicating that a Command cell has been created.

Text Cell

6. The horizontal lines under the column heads are created by using the "Text" cell.

- A. Position the cursor where you want the line to begin and pop-up the Cell menu to select TEXT.
- B. Press RETURN and the coordinates with TEXT will appear at the top of the screen. Type in "-"/f75/ to indicate that you want a horizontal line of 75 characters in length.

Input Date

7. A. Pop-up the Cell menu from the Enter mode and highlight "Input Date". Press RETURN.
- B. Type "Date Ordered",,"MMM DD, YYYY". In the Fill-in mode, the user will get the "Date Ordered" prompt with an input space for the date to be typed in the specified format.

Formula

8. The "Date Shipped" in this sample Invoice is the same as the date (system date) you entered on the opening screen.

- A. To allow this date to appear automatically without the user having to type it in on each invoice highlight the "Formula" cell from the menu and press RETURN.
- B. On the input line at the top of the screen, type in following FORMULA =SYSDATE,"MMM DD, YYYY".

Input Choice

9. Using the cell "Input Choice" for "Shipping Method" will allow the user of the Invoice to select from a pop-up menu with the five standard methods displayed. The user simply highlights the desired method and presses RETURN making it unnecessary to type in the method name on every invoice.

Example SHIPPING METHOD

```
-----  
UPS  
UPS BLUE  
FEDERAL EXPRESS  
DELIVER  
PICKUP
```

To type cell instructions after positioning the cursor, highlight "Input Choice" on the Cell menu and press RETURN. Type in "Shipping Method", "UPS-UPSBLUE-FED EX-DELIVER-PICKUP".

Text, Input Value, Input Text

10. Now we are going to enter what is known as the "detail line".

- A. The headings "Quantity", "Product Id.", "Description", "Unit Price", "Ext. Price" are placed in the template using the "Text" cell.
- B. In order to create a prompt and an entry data space for the heading QUANTITY, select "Input Value" from the Cell menu.
- C. On the entry line, type in "Quantity", qu=1,#####. The "#" sign is a place holder indicating that the number entered can be as large as 5 digits.
- D. Prompts and entry data space are also created for UNIT PRICE using an "Input Value" cell. Type in "Unit Price", up,"\$#,###.##".

E. For "Product Id." and "Description", an "Input Text" cell is used: "Product Id.",./10/ and "Description",./25/.

Formula

11. To calculate the "Extended Price" on the Invoice, a Formula cell is used.

- A. Position the cursor in the "Extended Price" column and select "Formula" from the cell menu.
- B. After FORMULA on the entry line, type =qu*up,"\$#,###.##". "extended price = quantity multiplied by unit price."

Block Operations

12. Block operations can be used to repeat the prompts and entry data spaces for the "Detail Line".

- A. Place the cursor to the left of "Quantity" and press the [,] key.
- B. Highlight the "Detail Line" by moving the cursor to the end of the line.
- C. Press the [/] key to pop-up the Block Options menu. Select "Copy to Memory" and press RETURN.
- D. Move the cursor to the new location of the "Detail Line" and press [/] key. Choose "Paste from Memory" from the Block Options menu and press RETURN.

Saving the Template

13. Select "Storage" from the Create main menu.
 - A. Pop-up the submenu and highlight "Save Form".
 - B. You will be prompted to insert your Data disk. If you do not have a formatted disk available, format one now. Insert a blank or reusable disk and highlight the "Format Disk" option on the "Storage" submenu.
 - C. When your disk is formatted, return to the "Save Form" option and press RETURN.
 - D. You will be prompted to type in a filename for the template and to press F1.

Printing the Template

14. Select "Print" from the Create main menu.
 - A. Turn on your printer.
 - B. Choose "Form" from the submenu. Choosing "Template"

will give you a print out of the template instructions.
C. Answer the questions on the Printer Control screen and press F1 to print.

Exit

15. Move to the "Exit" option and press the DOWN ARROW key. You will be returned to the Main Menu.

Sample Invoice Instructions

```
r2c2 COMMAND TABLE 3,1
r2c3 INPUT TEXT "Your Company Name",,/25/
r2c3 TEXT "INVOICE NO."
r2c77 INPUT VALUE "Invoice No. ?",=1,####
r3c3 INPUT TEXT "Street",,/25/
r4c3 INPUT TEXT "City-State-Zip",,/25/
r7c3 TEXT "SHIP TO:"
r7c11 COMMAND TABLE 3,1
r7c12 INPUT TEXT "Ship To Name",,/25/
r7c45 TEXT "BILL TO:"
r7c53 COMMAND TABLE 3,1
r7c54 INPUT TEXT "Bill to Name",,/25/
r8c12 INPUT TEXT "Ship to Address",,/25/
r8c54 INPUT TEXT "Bill to Address",,/25/
r9c12 INPUT TEXT "Ship to City-State-Zip",,/25/
r9c54 INPUT TEXT "Bill to City-State-Zip",,/25/
r12c3 TEXT "DATE      DATE      SHIPPING  SALESPERSON"
r13c3 TEXT "ORDERED SHIPPED METHOD      NAME"
r14c3 TEXT "-"/,/75/
r15c3 INPUT DATE "Date Ordered",,MMM DD,YYYY"
r15c17 FORMULA =SYSDATE, "MMM DD, YYYY"
r15c36 INPUT CHOICE "Shipping Method", "UPS-UPS BLUE-
U.S.POST-FED EX-PURULATOR-DELIVER-PICKUP",/16/
```

r15c54 INPUT TEXT "Salesman's Name",./15/
 r16c3 TEXT "-"/f75/
 r18c3 TEXT "QUANTITY"
 r18c13 TEXT "PRODUCT ID."
 r18c26 TEXT "DESCRIPTION"
 r18c56 TEXT "UNIT PRICE"
 r18c68 TEXT "EXT. PRICE"
 r20c3 INPUT VALUE "Quantity",qu=1,####
 r20c13 INPUT TEXT "Product Id.",./10/
 r20c26 INPUT TEXT "Description",./25/
 r20c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r20c68 FORMULA=qu*up,"\$,###.##"
 r22c3 INPUT VALUE "Quantity",qu=1,####
 r22c13 INPUT TEXT "Product Id.",./10/
 r22c26 INPUT TEXT "Description",./25/
 r22c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r22c68 FORMULA=qu*up,"\$,###.##"
 r24c3 INPUT VALUE "Quantity",qu=1,####
 r24c13 INPUT TEXT "Product Id.",./10/
 r24c26 INPUT TEXT "Description",./25/
 r24c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r24c68 FORMULA=qu*up,"\$,###.##"
 r26c3 INPUT VALUE "Quantity",qu=1,####
 r26c13 INPUT TEXT "Product Id.",./10/
 r26c26 INPUT TEXT "Description",./25/
 r26c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r26c68 FORMULA=qu*up,"\$,###.##"
 r28c3 INPUT VALUE "Quantity",qu=1,####
 r28c13 INPUT TEXT "Product Id.",./10/
 r28c26 INPUT TEXT "Description",./25/
 r28c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r28c68 FORMULA=qu*up,"\$,###.##"
 r30c3 INPUT VALUE "Quantity",qu=1,####
 r30c13 INPUT TEXT "Product Id.",./10/
 r30c26 INPUT TEXT "Description",./25/
 r30c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r30c68 FORMULA=qu*up,"\$,###.##"
 r32c3 INPUT VALUE "Quantity",qu=1,####
 r32c13 INPUT TEXT "Product Id.",./10/
 r32c26 INPUT TEXT "Description",./25/
 r32c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r32c68 FORMULA=qu*up,"\$,###.##"

r34c3 INPUT VALUE "Quantity",qu=1,####
 r34c13 INPUT TEXT "Product Id.",./10/
 r34c26 INPUT TEXT "Description",./25/
 r34c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r34c68 FORMULA=qu*up,"\$,###.##"
 r36c3 INPUT VALUE "Quantity",qu=1,####
 r36c13 INPUT TEXT "Product Id.",./10/
 r36c26 INPUT TEXT "Description",./25/
 r36c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r36c68 FORMULA=qu*up,"\$,###.##"
 r38c3 INPUT VALUE "Quantity",qu=1,####
 r38c13 INPUT TEXT "Product Id.",./10/
 r38c26 INPUT TEXT "Description",./25/
 r38c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r38c68 FORMULA=qu*up,"\$,###.##"
 r40c3 INPUT VALUE "Quantity",qu=1,####
 r40c13 INPUT TEXT "Product Id.",./10/
 r40c26 INPUT TEXT "Description",./25/
 r40c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r40c68 FORMULA=qu*up,"\$,###.##"
 r42c3 INPUT VALUE "Quantity",qu=1,####
 r42c13 INPUT TEXT "Product Id.",./10/
 r42c26 INPUT TEXT "Description",./25/
 r42c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r42c68 FORMULA=qu*up,"\$,###.##"
 r44c3 INPUT VALUE "Quantity",qu=1,####
 r44c13 INPUT TEXT "Product Id.",./10/
 r44c26 INPUT TEXT "Description",./25/
 r44c56 INPUT VALUE "Unit Price",up,"\$,###.##"
 r44c68 FORMULA=qu*up,"\$,###.##"
 r46c1 TEXT "-"/f75/
 r48c56 TEXT "SUBTOTAL"
 r48c67 FORMULA sub=SUM(r20c68:r44c68),"\$,###.##"
 r50c56 TEXT "SALES TAX"
 r50c67 FORMULA tax=sub*0.06,"\$,###.##"
 r52c56 TEXT "SHIPPING"
 r52c67 INPUT VALUE "Shipping Charges",ship=10,"\$,###.##"
 r54c56 TEXT "=",/f23/
 r56c56 TEXT "TOTAL DUE"
 r56c67 FORMULA =sub+tax+ship,"\$,###.##"
 r58c56 TEXT "=",/f23/

FEATURES

This section explains BUSINESS FORM SHOP features which were either not mentioned in the Tutorial section or warrant further explanation.

Filling-in a Template

Input Mode

Screen Display:

In the Input mode, the screen displays an image of your form. On forms larger than the screen, only a portion of your form is shown in a "window". Use the Cursor Movement keys to access the other portions of your form. Inside the window the input area is highlighted. At the top of the screen, you are prompted for input to enter at the cursor. The second line of the screen is the data entry box which is where your input will appear as you type it.

Entering Data:

For most inputs you simply type out what you want to enter and press RETURN. The cursor automatically moves to the next input. If you wish to backup to correct an input, you press SHIFT/RETURN and the cursor moves back one input. There are many ways to move the cursor around the form. See the section, Moving the Cursor, for additional instructions.

Input Choices:

For certain inputs, the template may have built-in menus of predefined choices. This allows selection from a list using the cursor instead of typing out the entry. While you are entering data, when the cursor moves onto a choice input, the message "Press F1 to select from menu" appears at the bottom of the data entry box. Press F1 to pop-up a menu of choices. Highlight the desired input and press RETURN to enter it.

Defaults:

For certain inputs, the template may have been created with default entries. A default is the most common response to an input. You can enter a default with one keystroke by pressing RETURN at the prompt.

Example: Shipping Cost? \$10.00

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View Mode:

View Mode allows you to preview your form before printing it. Normally in Input Mode you can only move the cursor to the data entry areas. In View Mode, you can move the cursor everywhere allowing you to scroll around the form. However, you cannot change any entry in this mode.

To enter View Mode, press CMDR and @. Use the Cursor Movement functions to view the parts of the form in which you are interested. To return to Input Mode, press CMDR and @ again, or press STOP to return to the Fill-in menu.

Clear

Clear will let you clear all data entries in the form. If the entries have been previously saved (Write Data) onto the disk then they can be reloaded at any time. Clearing allow you to make new data entries after clearing the form.

Exit

Exit return you to the Main Menu from the Fill-in menu.

Storage

Storage is a menu of commands that accesses the disk storage device. There are some options which are specific to the Fill-in mode and some which only pertain to the Create mode. The first group of Storage menu options will be applicable to both modes.

General Storage Menu Options

Load Form:

Load Form prompts you for a filename of the form template you want to load into memory. The form is loaded along with any pieces of data that were entered before the template was saved. Refer to the Directory for a list of filenames.

Save Form:

Save Form saves the form template and the printer controls under the desired filename. When a template is saved, the file descriptor ".tpl" is added to the name in the directory for distinguishing it from other types of files.

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Directory:

Directory lists BUSINESS FORM SHOP filenames on the disk in a pop-up window which you can scroll through using the DOWN ARROW key. For longer directories, the page keys F3 and F4 can be used to make scrolling faster and easier.

To automatically load a template or read a data file, move the cursor to the filename you want and press RETURN. If you wish to exit the directory without loading, press the STOP key.

If a complete list of all help files is desired, press CTRL and RETURN after highlighting directory.

Erase File:

Erase File prompts you for a filename and removes the file from the disk.

Format:

Format initializes disks for use by the program. When you are prompted for a diskname, insert a blank or reusable disk and press RETURN.

Fill-in Mode Storage Options**Read Data:**

Read Data retrieves the data you've previously entered and stored onto a template for editing or printing.

Write Data:

Write Data stores the form. The data you have entered will be stored under a specified filename with ".dif" identifying it as a data file in the directory.

Create Mode Storage Options**New Form:**

New Form clears the template from memory so that you can begin creating another template if you desire.

Save Keyfile:

Sort and save current template as a keyfile. Your file must be in the proper table format to be saved as a Keyfile which is designated by (.key) in the directory. For an explanation of Keyfiles see the USING KEYFILES section of the manual.

Printing

Print options are different from one another in the Fill-in and Create modes. For all print operations, the program allows you to select printer controls.

Printer Control Screen

Copies:	Number of copies you want to print.
Start Page:	Number of page where you want printing to begin.
End Page:	Number of last page to be printed.
Left Margin:	Number of spaces to indent form.
Continuous Feed:	Respond N if you are using single sheets.
Page Feed:	Respond N if you wish to disable the automatic page feed function of your printer.

Printing in Fill-in Mode

PRINT, in the Fill-in mode, is a menu of print options used to output your completed forms. Highlight "Print" and press the DOWN ARROW key and RETURN to pop-up the Print menu.

To Printer:

Prints the form currently on the screen directly to the printer.

To Spooler:

Puts your completed form in a temporary file on disk so you can later print multiple forms from the spooler to the printer.

VALUE [label]=number constant, [numeric format]

Examples p2r1c2 VALUE=100
p2r1c2 VALUE taxrate=0.06,###%

For a Value, enter = then the Value followed by a comma and an optional numeric format.

	Format Options	Sample Options	Numeric formats
Numeric formats	a. INTEGER	124	###
	b. FIXED DECIMAL	123.55	###.##
	c. PERCENTS	123.6%	###.##%
	d. TRAILING MINUS	123.55-	###.##-
	e. PARENTHESIS	(123.55)	(#####.##)
	f. FLOATING PARENTHESIS	(123.55)	>(#####.##)
	g. COMMAS	1,123.55	"###,###.##"
	h. DOLLAR SIGN and COMMAS	(\$ 1,123.55)	">#\$###.###.##"
	i. FLOATING, PARENTHESIS, DOLLAR SIGN, and COMMAS	(\$1,123.55)	">(\$###,###.##)"

Numeric formats let you control how the numbers will appear on the form. Formats are variable in length.

Date:

These cells are used for dates that remain constant like your fiscal year end.

DATE [label] =date constant,[date format]

Example r2c20 DATE=010187,"mmm dd, yyyy"

Date is entered in the same way as Value with the date and date format instead of the value and value format.

Date Formats	Sample Output	Date Format
	121084	MMDDYY
	1210	MMDD
	12-10-84	MM-DD-YY
	12-10	MM-DD
	12/10/84	MM/DD/YY
	12/10	MM/DD
	12 10 84	MM DD YY
	12 10	MM DD
	DEC 10, 1984	"MMM DD, YYYY"
	DEC 10	MMM DD

Date formats let you control how dates will look on your form.

Key:

These cells are similar to Text, but are used as the means to sort a table and create keyed data files accessible by your form. An example is a price list file. The key is the part number. It could reference the description and price for that part number.

KEY key,[text format]

Examples r1c1 KEY 124ABC
r2c1 KEY 1000-2

A key is entered with the key followed by a comma if you are using the optional text format. You only need to use the text format if you wish to center or right justify your key. In most cases, you will not need it as the size will be set by the field markers. This cell type is used only to set up your Keyfiles which are discussed in the manual in the section "Using Keyfiles".

FORMULA CELLS

A formula is a mathematical expression to operate on numbers or

dates. Formulas can be the sum of the cells in a column to get a subtotal, a unit price multiplied by quantity for extended price or the difference between two dates to arrive at the number of days. Formulas can contain constant numbers or references to cells that contain values, dates or other formulas. You reference a cell by its location. For example, Row 6 column 4 multiplied by 8 would be entered as r6c4*8. This on page two would be p2r6c4*8.

FORMULA [label]=math expression,[numeric or date format]

Examples

1. p2r2 FORMULA =r1c1+10
2. p2r2 FORMULA =sum(r1c1:r25c1+int(abs(p2r3c2)/10+.5)
3. r1c12 FORMULA wages=hours*rate,\$#####.##
4. r4c4 FORMULA tomorrow =SYSDATE+1,MMDDYY

A Formula may begin with a label so that you can refer to it other than by its cell location. Labels must exist before you use them in your formulas or the program will not accept the formula. When you use labels inside your formulas, they will always refer to the last occurrence of the label in the template before the formula. A formula must have an equal sign followed by the math expression. If you are using date math, you must specify a format, otherwise it is optional.

Math Functions	()	parenthesis
	+	addition
	-	subtraction
	*	multiplication
	/	division
	^	raise to a power
	exp	used to signify a mathematical expression, formula or amount
	loc1:loc2	used to signify a coordinate range such as r1c1 to r50c1

int(exp)	returns the integer value of the expression
abs (exp)	returns the absolute value of the expression
pct (exp)	returns the percent value of the expression
sgn (exp)	returns the value 1 if exp is positive, 0 if exp is zero, and -1 if exp is negative
sum (loc1:loc2)	adds the values in locations 1 through 2
avg (loc1:loc2)	=returns the average of locations 1 through 2
min (loc1:loc2)	compares locations 1 through 2 and returns the minimum value
max (loc1:loc2)	compares locations 1 through 2 and returns the maximum value
cnt (loc1:loc2)	result is the number of entries in the coordinate range of locations 1 through 2

Using Point Mode to Enter Cell References:

To make the entry of cell locations in formulas easier one can use the pointing feature. To use this you must first begin entering a formula cell in your template. While in the cell entry mode, press the CMDR and @ keys together. This will enter Pointing mode. The cursor may now be moved to the position of the cell to be used in the formula. To enter the cell into the formula, press the CTRL and @ keys together. Press RETURN to enter the formula into the template. To exit Point mode press the CMDR and @ keys again.

INPUT CELLS

Inputs are pieces of information which come from the user when the form is being filled-in. The Input Cells contain prompts that you wish the user to see when inputting data. The default is optional but is nice if you have a most common response that you wish the user to be able to enter with one keystroke.

Input Text:

These cells are used when you will be asking the user to fill-in the text at a location.

INPUTTEXT prompt, [default], text format

Examples r1c12 INPUTTEXT "Customer Name?","./25/
r14c16 INPUTTEXT "Payment Method?","cash,/c10/

Input Value:

These cells are used when you will be asking the user to fill-in numeric information at a location. You may also specify a label to refer to a Value cell other than by cell location.

Examples

INPUT VALUE prompt,[label][=default value],[numeric format]

r5c1 INPUT VALUE "Shipping Charge?", shipping
=10.00,###.##

r1c1 INPUT VALUE "Invoice No.?",#####

Input Date:

These cells are used when you wish to accept a date from the user. You may also specify a label to refer to a Date cell other than by cell location.

INPUT DATE prompt,[label][=default value],[date format]

Examples r2c10 INPUT DATE "Order Date?","mm-dd

r2c20 INPUT DATE "Date shipped?",shipdate,
mm/dd/y

Input Choice:

These cells are used when you want the user to select from a pop-up menu of choices for standard responses like shipping methods.

INPUT CHOICE [prompt],item1-item2-...itemn

Examples r2c1 INPUT CHOICE "Shipping Method?","ups-
ups blue-fed ex"

r2c3 INPUT CHOICE "Male or Female?","male-
female

Input Choice has a prompt followed by the various items to be displayed in the pop-up menu for the user. Each item is separated by a dash, and the width of the cell will be equal to the largest item in the list.

Input Key:

These cells are used to accept a key from the operator and search the Keyfile for the rest of the file information in the record. The Input Key cell lets you interactively pull information from files outside your template. The Input Key cell is used in conjunction with the File Cells. See Using Keyfiles for more details.

INPUT KEY prompt, keyfile name, text format

Examples r2c5 INPUT KEY "Product No.?", pricelist,/6/
r3c7 INPUT KEY "Customer Id.?", customers,/5/

The prompt is the message you wish the user to see when inputting data into this entry. The Keyfile name is the name of the database Keyfile that you have created in a separate step. The name cannot be more than 12 characters.

FILE CELLS

File cells are used to interactively read database information from keyfiles. File Text, File Value and File Date reference the last keyfile record accessed, and are used to pull information from a database. When the user enters the Input Key, the other information in the file associated with that key is brought into the form.

File Text:

FILE TEXT field #,text format

Examples r10c20 FILE TEXT 2,/c20/
r12c10 FILE TEXT 5,/10/

File Value:

FILE VALUE field #,[label],[numeric format]

Examples r12c10 FILE VALUE 3,price,#####.##
 r14c20 FILE VALUE 5

File Date:

FILE DATE field #,[label],[date format]

 r12c10 FILE DATE 3,purcdate,mm-dd-yy
 r14c20 FILE DATE 5

File cells refer to the last Input Key cell. The field number is a value from 1 to 20. File Value and File Date have an optional label to refer to the cell other than by its cell location.

COMMAND CELLS

Command cells control the order of inputs in the fill-in mode. Normally a form accepts inputs from left to right across the page and then down the rows.

Example	Bill To:	Name	Ship To:	Name
		Street		Street
		City		City

Without a Command Table cell, the program would prompt you for "Bill To Name", "Ship To Name", "Bill To Address", "Ship To Address", etc. By telling the program you want a table 3 rows long by 1 cell, you change the order of prompting to arrive at a more logical sequence like "Bill To Name", "Bill To Street", "Bill To City", "Ship To Name", "Ship to Street", "Ship To City", etc.

COMMAND table rows,cells

Examples

r1c2	COMMAND TABLE 5,2	table 5 rows, 2 cells wide
r2c6	COMMAND TABLE 3,1	table 3 rows, 1 cell wide

Command begins with the function table followed by its various parameters.

Entering Cells**Selecting Cell Types:**

From the Input mode, position your cursor on the template grid at the location where you want the cell to begin. Press F1 and a menu of the 14 cell types will appear. Move the cursor over the cell type you wish to enter and press RETURN. The cell type name will appear at the top of the screen in the beginning of the entry box preceded by the coordinates for the cell location.

Automatic Entry:

You can enter text, numbers or formulas automatically. To enter text type in the first letter of your text. The program recognizes this as text. If you enter an address which begins with numbers, type a double quote before your text and the program will recognize this as text. If you use an equal sign, a comma or spaces in your text, then you must use quotes to surround it.

To enter a number, simply type the number, a minus sign or a decimal point.

To enter a formula, type the = sign first and then your formula.

Quick Keys:

Quick Keys are one key stroke that allows you to enter various cell types not accessible by automatic entry.

Key	Cell Type
Ctrl K	KEY
Ctrl D	DATE
C= T	INPUT TEXT
C= V	INPUT VALUE
C= D	INPUT DATE
C= C	INPUT CHOICE
C= K	INPUT KEY
Ctrl C= T	FILE TEXT
Ctrl C= D	FILE DATE
Ctrl C= V	FILE VALUE

C= Commodore Key

Modifying Form Templates

Editing Cells:

To EDIT a cell, type Ctrl E. This allows you to modify the cell description and contents.

To COPY a cell to another location, type Ctrl E. Change the row and column numbers to specify the new location for the copy.

To MOVE a cell to another location, type Ctrl M. Change the row and column numbers of the new location.

To ERASE a cell, move the cursor to the beginning of that cell and press the LEFT ARROW key.

Inserting and Deleting Columns:

To INSERT A COLUMN, press the INSERT key. This moves the next cell to the right.

To DELETE A COLUMN, press the DELETE key. This will delete the column in front of the next cell moving it left along with the cursor.

You cannot insert or delete over existing cells. To move multiple cells use the cut and paste options.

Inserting and Deleting Rows:

To INSERT A ROW, press Ctrl +.

To DELETE A ROW, press Ctrl -.

To INSERT OR DELETE MULTIPLE ROWS, first block them and then execute the Ctrl + or Ctrl -. See the section below on Blocking for details.

Block Operations:

Blocking allows you to easily copy, delete or move one or more cells (called a "block"). To begin blocking, select "Enter" from the Create menu. The area to be copied, deleted or moved must first be "blocked". Place the cursor at the beginning of the area and type [,]. Then move the cursor down and to the right, highlighting the entire block of cells for editing. Type the slash [/], and the Blocking options menu will pop-up.

CUT TO MEMORY puts the block into a temporary holding area and deletes the original block. Cut may be done directly by using [:] key.

COPY TO MEMORY performs the same function but does not delete the original cells.

PASTE FROM MEMORY pastes the cells that have been Cut or Copied to a new location. Paste may be done directly by using [:] key.

CUT TO FILE, COPY TO FILE AND PASTE FROM FILE operate the same way as the commands above but the information is stored on your data disk. When using these commands, the program will ask you for a filename. Files of this type have the description (.edt) when viewed in the directory. The advantage of using the File commands over Memory commands is that there is no limit to the size of the block that you can cut and paste.

BLANK will erase all the cells in the block.

REFORMAT allows you to change the numeric format, date format and text format of all the cells in the block. If any of these cell types has been left blank, the cell types corresponding to that type will remain blank. If a cell does not fit into the template with its new format, the cell will remain unchanged.

Change:

The Change option allows you to change the template set-up. Select Change from the Create menu and pop-up the option list. After you have highlighted the desired option press RETURN.

CHANGE DIMENSIONS lets you select the dimensions of your form. Type in the number of pages, page length (number of rows) and page width (number of columns per line). Press F1. The maximum number of pages is 100. The maximum page length is 99. The maximum page width is 132.

IF YOU CHANGE THE DIMENSIONS AFTER YOU'VE ENTERED CELLS INTO YOUR FORM, CELLS OUTSIDE THE NEW DIMENSIONS WILL BE ERASED. Make sure you move the cells within the layout before changing the form dimensions if you wish to keep these cells.

DEFAULTS defines the default number and date format of your form. When a cell is entered without specifying a format, the cell will default to the formats entered in this option.

USING KEYFILES

Keyfiles are used to hold database information that can be accessed for a template in Fill-in mode. A Keyfile is set up in a table format. The key cells are the unique identifiers used to access each row in the table. An example is an inventory file with the part number as the Key, and description and price as the information associated with that key. Each piece of information on a row is referred to as a "field".

Example

```

          1           2           3           4
-----
^2345678901^34567890123456789012345^7890123456^
-----
1  10020ADF          COVER GLASS          12.50
2  12220ABB          DISTILLING TUBE       17.88
   |                |                    |
   Part No.         Description           Price
   |                |                    |
   Key Cell         Text Cell             Value Cell
```

Setting Column Markers

Before you begin entering your table, it is necessary to mark the first position of each field with a tab marker. Move your cursor to the position you want each field marker and press the UPWARD ARROW [^]. This will place a field marker in the ruler at the top of the screen. You need to also place a ruler marker at the position you want the last cell to end in order for that cell to be defined. The width of the cells now defined will be constant from one column to the column above or below it. You may have up to 20 column markers on a row.

To remove a marker, move the cursor to the position of the marker and press the UPWARD ARROW key [^] again. You may only change the markers before you begin entering cells.

Entering Cells into a Key Template

To create a Keyfile you must first create a Key template entered in the same way as a form template with a few special rules.

1. Each row must have the same number of cells on it.
2. The first column of each row must be the cell type Key. You may choose the cell type of the other fields, but each column on each row must be the same cell type as the corresponding column of the other rows.
3. Once the column of the first row has been defined, the user enters the data and the cell types and formats will be set automatically.
4. When you set up the template, use the Input Key cell to access the fields in the Keyfile. If you want the user to use the Select option (selecting a Key from a pop-up menu on screen), set up the second field as a description of the record. The user will then see the Key and a description, making it easier to choose.

Saving the Table as a Keyfile

Use the "Save Keyfile" option in "Storage" to save your Keyfile. The table will be sorted by the Key and saved. When you use the "Save Keyfile" option, the program saves two versions of your Key template. One version is in the template that you can look at and edit. The second version is a Keyfile that is stored in a more compact format than the Key template so that it can be accessed quickly. You cannot load or edit the Keyfile itself, only its template image. Keyfiles are distinguished from other files in the Directory by the description (.key).

Using the Input Key Cell and File Cell Types

In your template, you use Input Key cells to call up a Keyfile. When the user enters the Key into the template, the record that matches the Key is read into memory. To pull the other fields into your template, you use File cells. Each File cell refers to a corresponding field in the Keyfile. You use File Text, File Value and File Date in your template to refer to date, text and value fields in your Keyfile.

Example:

INPUT KEY "part no.",inventory,/8/ (Calls up "Inventory Record")

FILE TEXT 2,/15/ (Pulls in the "Description")

FILE VALUE 3,####.## (Pulls in the "Price")

USING AN APPLICATION DISK

Making an Application disk gives the added convenience of having a disk on which there is a single template that is all set for someone to load and use.

When running the program from an Application disk, the program automatically loads the desired template and places you in the Fill-in mode. **HERE YOU CAN ONLY ENTER DATA AND PRINT FORMS. YOU CANNOT ALTER THE TEMPLATE ITSELF.**

To create an Application disk, you must have an active template in memory. Insert a blank or reusable disk in the drive. The program will format the disk and create your ready-to-run Application disk with a template that you can fill in and print.

APPENDIX A: ERROR MESSAGES

DATA ERROR IN FILE

When reading a data file (.dif) a mismatch occurred between the template and the file. This could occur if the template was modified after the data file has been written. This is unrecoverable.

ERROR: "=" MISSING

When entering a FORMULA, DATE, or VALUE, the equal sign was left off. Move the cursor to the proper location and insert an equal sign.

ERROR: ARGUMENT OR OPERATOR MISSING

When entering a FORMULA, the mathematical expression was found to contain an error. Usually a missing operator like +, -, *, or /. The cursor should indicate where the mistake is. Correct it and press RETURN.

ERROR: CELL DOES NOT CONFORM

When entering Key templates with field markers, each cell must be of the same type as that above it in the table. Field One must always be a Key cell. This problem can occur if you override the automatic entry mode when using Key templates. This can also occur if you use formulas in your Key template that are of variable length. Correct the mistake and reenter the cell.

ERROR: CELL OVERLAP

You have entered a cell which is overlapping with other cells, the form boundaries, or a field marker. Cells cannot overlap, so you must place the cell at another location.

ERROR: FILE NAME IS INVALID

You have entered a filename that exceeds the 12 character limit.

ERROR: ILLEGAL FUNCTION

Your FORMULA contains illegally constructed functions. An example would be a constant inside a range function. SUM(123).

ERROR: ILLEGAL LABEL

- (1) The label you referenced in the FORMULA was not found anywhere in the template. Remember to enter the cells with the labels before attempting to use them in formulas.
- (2) The label you have used to identify a cell is illegal. The label must contain only letters and must not be longer than 8 characters. You may not use the label "sysdate" as it is reserved for the system date.

ERROR: ILLEGAL SYNTAX

A character was found in the FORMULA that could not be recognized. Correct it and reenter the FORMULA.

ERROR: INCOMPLETE DESCRIPTION

The cell description entered was incomplete. Check the syntax and make sure you are entering all the required parameters.

ERROR: INCOMPLETE DESCRIPTION

The parameter found is invalid in the cell description. Check the cell syntax.

ERROR: OUT OF MEMORY

- (1) There is not enough memory remaining to store the cell you are trying to enter.
- (2) There is not enough room in the cut memory to CUT the entire block. Try cutting and pasting in smaller sections.

ERROR: UNBALANCED PARENTHESES

The formula entered does not contain the same number of left and right parentheses.

ERROR IN CELL LOCATION

The cell location entered is outside the dimensions of the form.

ERROR IN CELL TYPE

The cell type entered is not a valid cell type. See Cell Types.

ERROR IN COMMAND

The parameters entered in the Command Cell are not valid. See the section on Command Cells.

ERROR IN DATE

The date constant entered is invalid. Enter dates in the form mmddyy, mm-dd-yy, mm/dd/yy.

ERROR IN DATE FORMAT

The date format entered was not recognized. See Features section for valid date formats.

ERROR IN FIELD NUMBER

The field number entered was not valid. Field numbers must be in the range of 1 to 20.

ERROR IN LIST OF CHOICES

A list of choices must contain at least two items separated by dashes. Check your entry.

ERROR IN NUMBER

The number constant entered could not be recognized. Check for non numeric characters in your number.

ERROR IN NUMERIC FORMAT

The numeric format entered contained illegal characters or exceeded the legal size.

ERROR IN NUMERIC/DATE FORMAT

The format entered for a FORMULA cell could not be recognized as a numeric or date format.

ERROR IN TEXT FORMAT

The text format entered contained illegal characters.

FILE FIELD ERROR AT (LOCATION)

When attempting to read a FILE CELL from a KEYFILE the field was either not present or of the wrong cell type.

FILE NAME IS INVALID

The filename entered is invalid. This will occur if you enter a filename with all spaces or an illegal character like one of the following

Illegal Characters *, @ "

FILE NOT FOUND

The file you requested from disk was not found. It may be of the wrong type. See Appendix B: File Types.

KEY NOT FOUND

When entering a Key in the Fill-in Mode, the Key was not found in the file referenced. Check your entry to see that it is valid.

KEY FILE CANNOT BE CREATED

The template in memory is not able to be made into a Keyfile. See the rules for setting up a Keyfile for more details.

NO ACTIVE TEMPLATE IN MEMORY

An operation was attempted that requires an active template in memory. An active template is one which contains INPUT CELLS.

NO TEMPLATE IN MEMORY

An operation was attempted with no template in memory. Load the desired template before continuing.

PRINTER CONNECTION FAILED

A printer operation was attempted but no printer was found to be connected. Check your cables and power switch and try again.

TABS MUST BE SET BEFORE CELL ENTRY

An attempt was made to alter the field markers after cells have been entered. You must have an empty template to change the tabs.

TEMPLATE MUST BE SAVED BEFORE DATA

An attempt was made to write a data file before ever saving a modified template. You must first save the template before writing data files.

YOU HAVE ENTERED A DATE INCORRECTLY

The date constant entered is invalid. Enter dates in the form mmddyy, mm-dd-yy, mm/dd/yy.

YOU HAVE ENTERED A NUMBER INCORRECTLY

The number constant entered could not be recognized. Check for non numeric characters in your number.

APPENDIX B: FILE TYPES READING FILES FROM BASIC

FILE TYPES	ACCESSIBLE FROM	DESCRIPTOR	FORMAT
TEMPLATE FILES	PROGRAM ONLY	.tpl	INTERNAL
LISTING FILES	WORD PROCESSORS BASIC PROGRAMS	.lis	ASCII/PETSCII
EDIT FILES	WORD PROCESSORS BASIC PROGRAMS	.edt	ASCII
DATA FILES	SPREADSHEETS BASIC PROGRAMS	.dif	DATA INTERCHANGE FORMAT
KEY FILES	PROGRAM ONLY	.key	RANDOM-ACCESS INTERNAL
HELP FILES	PROGRAM ONLY	.hlp	INTERNAL
PROGRAM FILES	PROGRAM ONLY	.exe	MACHINE CODE
SET-UP FILE	PROGRAM ONLY	.cfg	INTERNAL

Sample Programs for Accessing Files from BASIC

```
(1) PROGRAM NAME "SHOWLIS"

30 open 1,8,3 f1$
40 get#1,1$: print 1$;:if st=0 then 40
50 close 1
60 end
```

```
(1) PROGRAM NAME "SHOWDIF"

10 input "file name";f$
20 f1$=left$(f$+" ",12)+".dif"
30 open 1,8,3,f1$
40 for i=1 to 4: gosub 100
50 if i=1 then t1$=c$:print "title = "t1$
60 next
70 gosub 110: if st=0 then 70
80 close 1
90 end
100 input#1,t$,a,b,c$:return
110 input#1,a,b,c$
120 if a=0 then gosub 150
130 if a=1 and c$<>" " then gosub 160
140 return
150 x=len(c$):print "value cell at "left$(c$,x-1)" = "b:return
160 i=1
170 if mid$(c$,i,1) <> "@" then i=i+1:goto 170
180 print "text cell at "left$(c$,i-1)" = "chr$(34)mid$(c$,i+1)
chr$(34):return
```

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