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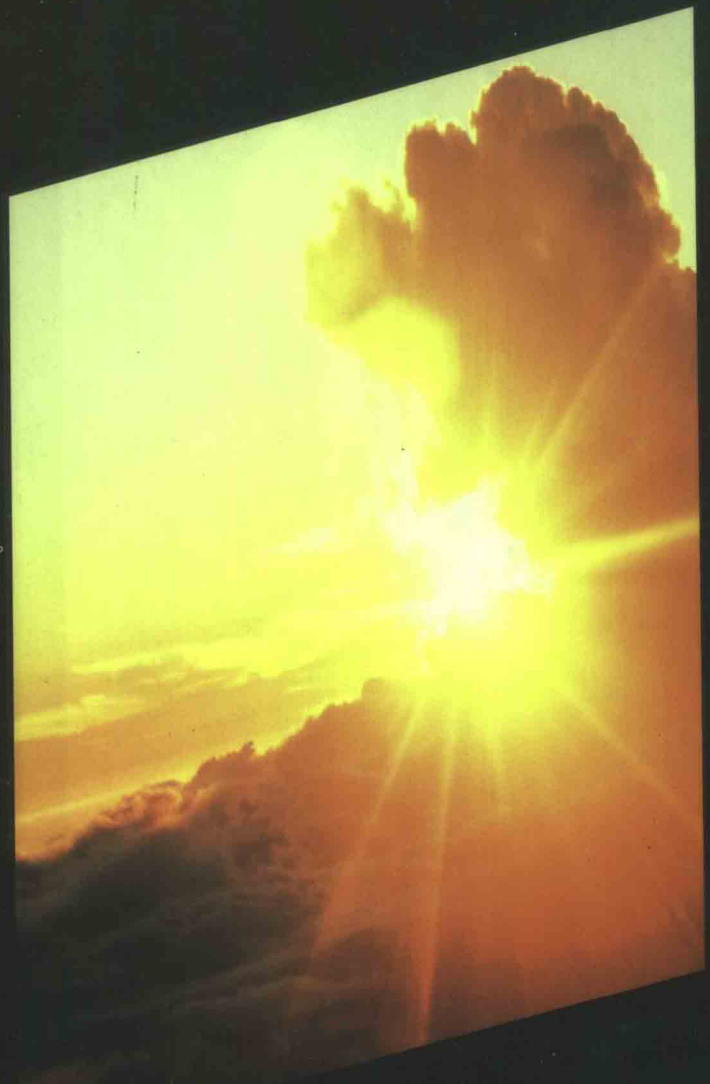

FIRST LOOK AT . . .

dBASE IV
VERSION 1.5/2.0 FOR DOS

First Look at . . . dBASE IV Version 1.5/2.0 for DOS

Wilson Price

Mitchell McGRAW-HILL

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To some special people in my life:

Emmi, Janice, and Linda.

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First Look at dBASE IV Version 1.5/2.0 for DOS

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Preface to the Instructor

First Look at dBASE IV Version 1.5/2.0 for DOS is a self-paced, hands-on tutorial which covers the essential and most commonly used features of dBASE IV. This book can be used:

- in a short course on dBASE IV Version 1.5 or 2.0
- as a supplement in a microcomputer applications course
- as a supplement in a variety of business courses
- as a self-paced guide to dBASE IV

Written in plain, simple English using step-by-step instructions, this book and other books in the First Look Series quickly get the reader "up to speed" with today's popular software packages in a minimum number of pages. Complete with a Command Summary, a helpful Troubleshooting Guide, and a thorough Index, *First Look at dBASE IV Version 1.5/2.0 for DOS* makes reference quick and easy.

ORGANIZATION

First Look at dBASE IV Version 1.5/2.0 for DOS begins with basic start-up information, then progresses to more advanced features of dBASE IV. These features aid learning in each lesson:

- **Objectives** provide an overview
- **Step-by-step, hands-on tutorials** guide the reader through specific functions and commands
- **Screen displays** monitor the reader's progress
- **Summary of Commands** makes reference quick and easy
- **Review Questions** reinforce key concepts
- **Hands-on Exercises** require readers to apply the skills and concepts just learned

As readers work through *First Look at dBASE IV Version 1.5/2.0 for DOS*, they create files that are used in later lessons. These files should be saved on a data disk so they can be easily located and retrieved. It is assumed that readers have access to the full-powered software package and all its features.

Use the First Look Series for brief and affordable coverage of today's most popular software applications packages.

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LESSON ONE

Getting Started

OBJECTIVES

In this lesson you will learn how to:

- Bring dBASE IV up on the computer.
- Negotiate around the dBASE menu system.
- Obtain help in the form of on-screen descriptions of various dBASE actions.
- Terminate a dBASE session.

TRYING DBASE

Keyboard Nomenclature

Directions for you to follow in this book frequently refer to keys of the keyboard. For instance, the Shift key is designated by [Shift], and the Escape key by [Esc]. The Enter key [Enter] is identified on some computers as the Return key; in on-screen dBASE menus this key is indicated by a bent arrow [↵].

In many cases you use combinations of keys. This should be familiar to you from holding down [Shift] while typing a letter key to get uppercase. Whenever you are to use such a key combination, this book will show both keys separated by a hyphen. For instance, [Alt]-[F3] means *Hold down* [Alt] *and press* [F3], *then release* [Alt]. Note that *press* means to tap the key lightly (as though you were typing); do not hold it down because keys on the computer keyboard automatically repeat (except for [Shift], [Ctrl], [Alt], and a few others).

Controlling dBASE from the Control Center

You control the actions of dBASE IV with special dBASE **commands**. Each command directs the computer to do something. There are two ways you can control dBASE IV interactively, that is, execute the commands from the keyboard. The first way is from the dot prompt. Under control of the dot prompt, dBASE displays a dot (period) on the screen and positions the cursor immediately following it.

Many people find the dot prompt difficult to use, because it is easy to forget or confuse commands if you use dBASE infrequently. To get around this problem, dBASE IV includes a special feature called the **Control Center**, shown in Figure 1-1, which allows you to perform all the dBASE commands from a menu system.

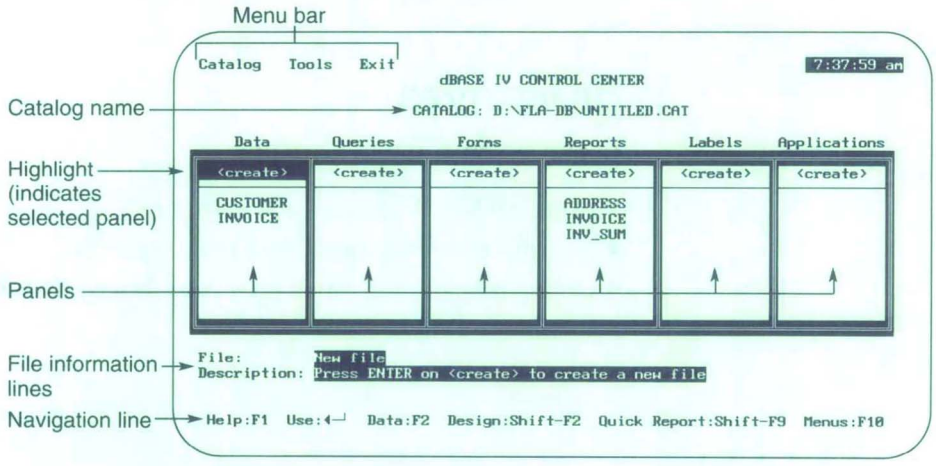

Figure 1-1
The Control Center screen

As labeled, the Control Center consists of five basic elements. The **menu bar** provides useful tools for managing files and changing the dBASE setup. You will experiment with the menu bar later in this lesson.

The **catalog line** designates the disk drive and subdirectory you are working in as well as the current dBASE catalog. A **catalog** is a collection of files that are handled as a group. You will learn about catalogs in Lesson 2.

The center portion of the screen consists of six **panels** that display the defined elements of your database system that are available to you. For instance, the Control Center in Figure 1-1 shows, in the **Data** panel, that two data files (CUSTOMER and INVOICE) have been set up and are available. Similarly, three different reports have been defined (ADDRESS, INVOICE, and INV_SUM) as listed in the **Reports** panel.

The two **file information lines** list the name and description of the file highlighted in the panel section. Because the highlight is on *<create>* the display is *New file*.

The **navigation line** shows which keys accomplish appropriate dBASE functions from the Control Center. The display on this line depends upon where you are in the Control Center menu system.

In addition, you will sometimes see below the navigation line a message line, giving you more information about particular options.

Experimenting with the Control Panel

In order to use the Control Panel, you first have to start dBASE IV. The steps to take depend upon your particular installation. For instance, in a school

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environment where many computers are linked together on a network, the startup sequence may be unlike anything you would find with an independent personal computer. In most cases, however, you begin dBASE by simply typing the command **DBASE** and pressing Enter in response to the operating system prompt. After a few moments, the dBASE Control Center screen (Figure 1-1) should be displayed. If instead of this screen a dot prompt with a flashing cursor next to it is displayed, type the command **ASSIST** and press Enter.

Unless your instructor has set up a special data disk for you (or you are working with the dBASE IV example files) your Control Panel display will not list any names in the panels. However, in Lesson 2 you will create your own entries. For now, experiment from the Control Center.

1. Press → four times.

   Notice that each time you press the key, the highlight moves to the next panel; in this case, it ends up on *<create>* in the Labels panel. If you were preparing to print address labels, you would work from this panel.

2. Press → two more times.

   Notice that after reaching the Applications panel, the highlight jumps back to the beginning (the Data panel). Needless to say, you could have returned to the Data panel by pressing ← repeatedly.

3. Look at the navigation line (bottom of the screen). The first entry is *Help:F1*. This tells you that to obtain help, you press F1 (a function key). Make sure that the highlight is in the Data panel and press F1.

   This produces the Help screen shown in Figure 1-2, which tells you all about creating database files.

4. Press F4 one or more times to move down successive screens through the continuous text description; press F3 to move backward in the text.

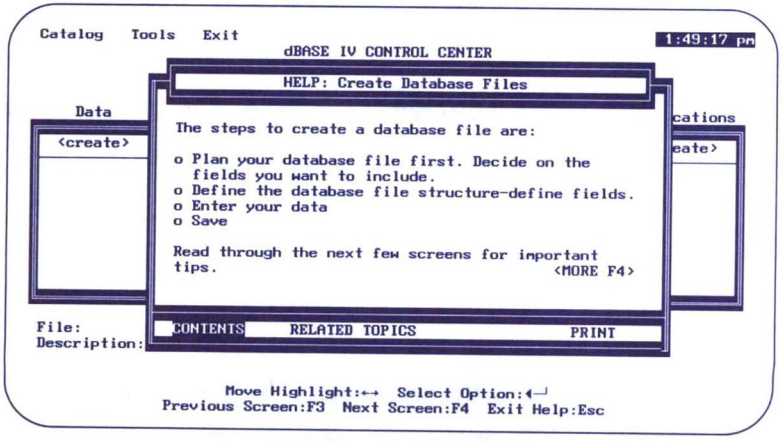

Figure 1-2
A Help screen

5. If you want to explore other topics related to creating database files, move the highlight to the *RELATED TOPICS* option. Then press Enter (as indicated by *Select Option:*↵ on the navigation line) and your screen will display help information on another topic.

6. Feel free to explore the Help feature. When finished, press Esc to exit Help and return to the Control Center.

In this exercise, you called for Help when the highlight was in the Data panel. Had the highlight been in the Queries panel, for instance, the help descriptions would have told you about creating queries.

Menus from the Control Panel

The top line in Figure 1-1 is the **menu bar**, which is simply a list of options displayed side by side. The F10 function key gives you access to menus in dBASE, as the navigation line indicates with the message *Menus:F10*. Experiment with these features.

1. Press F10

   The *Catalog* option of the menu bar is highlighted. A portion of the Control Center is overlaid with another menu, as shown in Figure 1-3. A menu of this type is called a **pull-down menu** because it is "pulled down" from the selected entry of the menu bar. Notice that the first entry of the pull-down menu, *Use a different catalog*, is highlighted.

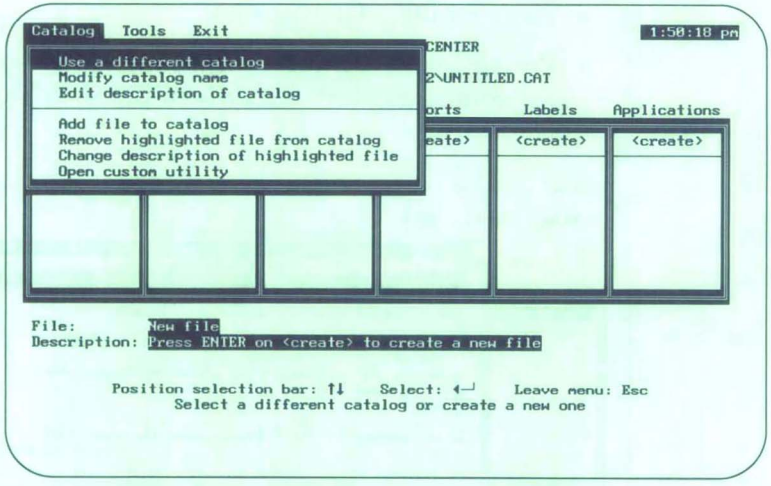

Figure 1-3
The *Catalog* menu

2. Suppose you wanted to select the *Add file to catalog* option. Press ↓ to move the highlight to the selected option and press Enter.

Another list of options is displayed to the right of the *Catalog* menu. This type of list is called a **pop-up menu** because it seemingly pops up out of nowhere.

3. Since you do not want to pursue this action, press Esc to get rid of the pop-up menu.
4. Press Esc again to get rid of the *Catalog* menu and return to the Control Center.
5. Now try the Design option on the navigation line. Press Shift-F2 (remember: hold down Shift, press F2, then release Shift).

   This brings up an entirely different screen, one that allows you to define a database file, which you will do in the next lesson.
6. Press Esc to abort this action.

   When you do, dBASE displays a message box that says

   Are you sure you want to abandon operation?

   and provides you *Yes* and *No* options.
7. Notice that *No* is highlighted; it is the **default**. That is, by pressing Enter, you do not confirm that you want to terminate the operation, so you remain in the file design screen. Try it by pressing Enter
8. Press Esc again and respond with Y (for "Yes, I want to abandon the operation").

   You are returned to the Control Center.

Terminating a dBASE Session

When you have completed a dBASE session, you should exit dBASE before turning off the computer. You do this from the Command Center through the menu bar.

1. Press F10
2. Press → twice to move the menu bar highlight to *Exit*.

   The pull-down menu shown in Figure 1-4 is displayed with *Exit to dot prompt* highlighted.

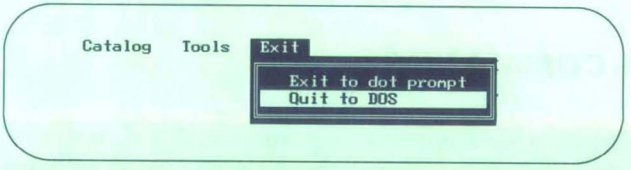

Figure 1-4
The *Exit* menu

3. Move the highlight to the *Quit to DOS* option and press [Enter]

If you end up at the dot prompt, simply type **QUIT** and press [Enter]

In lessons that follow, you will encounter instructions telling you to select dBASE menu options. For instance, to terminate dBASE you will be told "from the Command Center select *Exit/Quit to DOS*" or simply "select *Exit/Quit to DOS*". Note that this implies that you must access the menu with [F10], select *Exit*, then select *Quit to DOS* (as described in the preceding steps). Alternately, you may use either of the methods described in the next section.

Other Ways to Select Menu Options

Pressing [F10] is one way to access a menu bar option from dBASE. Another way is with [Alt] plus the first letter of a command. For instance, to access the *Exit* menu use [Alt]-[E]; to access the *Catalog* menu use [Alt]-[C]. If you have a mouse connected to your computer, simply position the mouse pointer on the desired menu selection and click. In lessons that follow, when you are directed to access a menu entry, use whichever of these methods you prefer.

From the pull-down menu in Figure 1-4 you selected the *Quit to DOS* option by highlighting it and pressing [Enter]. Once in a pull-down or pop-up menu, there is another way: You can type the first letter of the option. For instance, you could simply press [Q]. (In some pop-up menus, several options may have the same first letter, in which case this method would not be practical.) If you have a mouse, position the mouse pointer on the desired menu option and click. Again, use whichever method you find most convenient.

About Intimidation

Beginning students commonly fear that pressing the wrong key will lead to disaster and destroy everything: all their work, perhaps themselves, the computer, and even the entire computer center. Be assured that this won't happen! (Perhaps I should say "shouldn't happen.") A keystroke that will have dire consequences is almost always accompanied by a warning. If you find yourself off on a tangent in some menu that you don't want, pressing [Esc] one or more times will usually get you out. It is interesting to note that children learn to use computers very quickly. Part of the reason is because they approach it with no built-in fears about what will happen if they do something wrong. So don't be intimidated!

■ *SUMMARY OF COMMANDS*

Most of the command sequences in this chapter are in the "try this" category. You will learn about their specific uses in later lessons. Commands to remember from this lesson are the following:

Topic or Feature	*Command Sequence or Key*	*Page*
Access a menu bar	F10	4
Abort an operation	Esc	6
Help	F1	3
Terminate a dBASE session	*Exit/Quit to DOS*	5

■ REVIEW QUESTIONS

1. What does the representation Shift-F2 mean?
2. You can carry out dBASE commands from the keyboard either from the _____ or the _____.
3. What are the five basic elements of the Control Center?
4. How can you get descriptive on-screen information that tells you about dBASE actions?
5. What key gives you access to dBASE menus?
6. If you have accidentally gone astray in the menu system and want to get back to the Control Center, which key would you press?
7. What single keystroke can destroy everything you have done?

LESSON TWO

Creating and Using Data Files

OBJECTIVES

In this lesson you will learn how to:

- Distinguish between numeric, character, date, and logical data.
- Create a data file.
- Enter data into a file.
- Edit existing data in a file.
- Obtain printed output for both a data file structure and records stored in the file.

COMPUTER DATA AND DATA TYPES

Organization of Data

One of the data files you will be working with is a collection of records on the customers of a business organization. When working with data files, you deal with three important entities: fields, records, and files. These basic units are illustrated in Figure 2-1. The following summarizes these terms.

Field	A basic unit of data (such as company name or address)
Record	A group of related facts or fields treated as a unit
File	The organized collection of all records of a given type

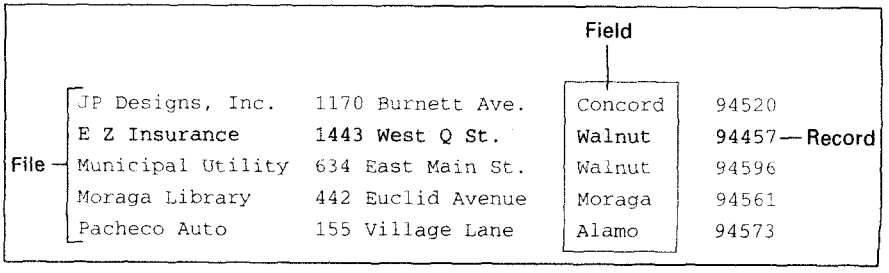

Figure 2-1
Field, record, and file

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