

# **The DOS 5.0 Coursebook**

**Forest Lin**

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Tulsa Junior College

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## **ADDITIONAL TITLES OF INTEREST FROM SCOTT/JONES**

**The DOS Coursebook**

by Forest Lin (covers version 3 and 4)

**The DOS-5 Companion** (to The DOS Coursebook)

by David Moody

**The DOS Primer**

by Dorothy Calvin (covers versions 3 and 5)

**The 1-2-3 Coursebook: Beginning & Advanced Topics**

by Forest Lin

**Modern FORTRAN 77/90**

by Gary Bronson

**Assembly Language for the IBM PC Family**

by William Jones

**C by Discovery** (emphasizing ANSI C)

by L. S. Foster

# Introduction

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## WHY THIS BOOK?

There are currently some 100 million PCs in use. Most of these run on DOS. That makes it by far the most popular computer program in the world. This popularity has generated a great deal of demand for DOS books.

There are two kinds of DOS books. One provides enlightenment and instructions for the general public. In this arena, a great variety is available. Most of these books, aimed at “power users,” provide comprehensive coverage. They are, however, not particularly suitable for persons starting out.

The other category of books is used in the classroom. Here, the variety is limited. Most DOS textbooks are not terribly sophisticated. They rarely provide comprehensive coverage of the subject. Most of them hold your hand step by step, but never let go of it. This may be necessary as you start out, but this approach becomes a waste of time and precious book space after you learn to walk on your own.

This book aims to combine the best of the above two categories. It will hold your hand and walk you step by step when appropriate, particularly at the beginning. But it goes beyond that. Intricate points are explained in considerable detail and numerous examples are provided. Thus you find in this book a combination of structured learning environment and in-depth coverage of most topics.

## WHAT IS IN THIS BOOK

There are 13 chapters in this book.<sup>1</sup> Each chapter covers a function or object, or closely related ones. Related DOS commands are explained and ample examples provided. Where hands-on experience is required, you are given step by step instructions. Where you need to be aware of important points, the text explains them to you. By combining explanations and concrete steps, the book provides the optimal learning environment.

You cannot learn to use a computer program effectively by just reading a textbook; you must roll up your sleeves and literally get your fingers (and your brain) busy. Learning by doing is the best way of learning to master DOS or any other program. To that end, this book is organized to induce you to pause to digest and stop to practice. After one or a few important topics are explained and illustrated, a few Practice exercises and Drill questions will await you. The former gives you an opportunity to practice the steps you have just learned, and the latter lets you reinforce the important points explained in the text.

At the end of each chapter, the salient points are summarized and 15 essay questions are provided. You are to put in writing what you have learned so far. Writing an answer to an essay question requires you to be thoroughly familiar with the material covered in the chapter. This process should further reinforce your learning.

Appendix I provides answers to all the odd-numbered questions in each chapter. For the others, you may need to look up the section(s) preceding the questions to find answers. You can get answers to all the drill questions by running the CAI (computer-aided instruction) program included with the book; see below for details.

## CONVENTIONS USED IN THIS BOOK

If you are familiar with computer books, you should have no trouble understanding the simple language used in this book. If you are not, you may need to be aware of the following words and their meanings:

Press	Use a finger to tap a key and let go.
Type	Press keys corresponding to specified letters.
Enter	Type something and end with pressing the Enter key.

---

1. A shorter version intended for a short course is being planned. Ask the publisher for details.

For example, you may be instructed to do the following step:

1. Enter the DIR command:

```
A>dir
```

Here you are asked to type DIR and press Enter. The A> notation is automatically displayed by DOS, and your commands are to be entered after it.

In the text, a DOS command name or a file name appears in uppercase (capitalized). This is done for easier reading. With some rare exceptions, you can enter a DOS command or file name in either case. Since you are most likely to enter a command in lowercase, the illustrations of actual commands which you are to enter appear in lowercase.

Learning a new subject requires you to be familiar with its special jargon. To facilitate your familiarization with pertinent terms, a list of New Terms and Symbols appears at the beginning of each chapter. These terms are arranged in the order they appear in the text. They are also bolded in the text when they appear for the first time or at crucial places. This arrangement should enable you to find new terms quickly. Appendix A (Glossary) also provides formal definitions for these terms; check it when you find a term you do not understand.

There are dozens of DOS commands. If you want to master DOS, you need to know how to use most of them. The commands to be covered in a chapter are also listed at the beginning of the chapter in the order they are to appear in the text. Some commands are covered in several chapters; they may thus be listed in several chapters.

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## **HARDWARE/SOFTWARE ASSUMPTIONS**

In the previous edition of this book, people were assumed to be using different DOS versions and a variety of hardware configurations. Times have changed since then. As version 5 becomes widely accepted and hard disks are commonly used, this book has to flow with the tide and change the assumptions. Here are the new assumptions:

- You are using DOS version 5.0. Major features newly available in version 5 will be pointed out. If you use an earlier version in another computer, these features are not available.
- You are using a computer that has a hard disk and two floppy drives. If you have a single floppy drive, the book will tell you how to handle a particular situation.

- DOS is booted from the hard disk, which is presumed to be drive C.
- DOS files and external commands are stored in the C:\DOS directory.
- A path command like PATH=C:\DOS is included in the AUTOEXEC.BAT file. If this is not the case, you can enter the command on the command line. This arrangement allows you to run an external DOS command from any drive or directory.
- You have at least three floppy disks for use in various activities throughout the course.
- You can write files only to your own floppy disks in drive A or B.

When you are instructed in the text to do something, the above assumptions will be followed. The book will explain how to manage a hard disk, but you will not be told to write to it or alter the existing arrangement. Ignore these assumptions if you are using your own system.

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## **SUGGESTED WAYS OF LEARNING FROM THIS BOOK**

You may be learning DOS in a short course (a single evening, perhaps), a long course (one semester, three hours per week), or any sort of arrangement in between. Here are some suggestions on how to make the most of this book.

For a short course, try the second half of Chapter 1. Start with Using the Keyboard if you are not already familiar with it. Then work from Starting and Restarting a PC to the end of the chapter. Then complete Chapter 2. These portions should give you basic knowledge from which you can expand on your own.

The book has enough material for a more comprehensive course. You can follow the chapter sequence and do all the exercises. Or you can jump from Chapter 4 to Chapter 11, and then back to Chapter 5 and the remaining chapters. This will introduce to you the line editor (EDLIN) at an earlier stage and enable you to use it to write batch files sooner. Using EDLIN to write batch files is much more convenient than using COPY CON (discussed in Chapter 4). If you do not intend to write many batch files, however, you are not likely to have much use for this editor.

If you want to take advantage of the Shell, newly available in version 5, complete the first four chapters and then move on to Chapter 10. This chapter covers both the Shell and the Editor (EDIT). The former lets you use a graphical user interface to manage files, programs, and drives/directories. The latter can

be used in lieu of EDLIN to create batch files. After completing Chapter 10, return to Chapter 5 and continue with the rest. Getting familiar with the Shell at an early stage lets you learn to use DOS from both the command line as well as from the graphical environment. If you use EDIT to create batch files, you can skip Chapter 11.

If you are using this book for an advanced DOS course, concentrate on Chapter 12. This chapter has been vastly expanded from the previous edition. Every batch command is now more thoroughly discussed and many more examples have been added.



## USING THIS BOOK AS A DOS REFERENCE

There are numerous DOS commands, and the number has been increasing with each new version. After you learn some new commands, you are likely to forget some of the old commands you learned earlier. You may then need to look up earlier information.

This book is designed with easy reference in mind. You can use a number of features to quickly locate any significant information in the text. Some of these are placed at the end of the book, including:

- Index
- Glossary
- DOS Commands

You can quickly find information by looking up relevant terms in the index, which is quite comprehensive.

As mentioned earlier, the beginning of each chapter lists terms and DOS commands to be discussed in the chapter. Furthermore, major points and command examples are listed under the title of Quick Start. These items may not mean much to you as you start out. But in the future, when you want to come back to find something you have forgotten, you can use them to quickly locate more related information in the chapter.

Tables and Tips & Tricks are scattered throughout the book. These are indexed in the Table of Contents. Some tables listing commands or options are most useful as quick reminders.

The quickest way to remind you how to use a command or what switches are available with it is Appendix E (DOS Commands). It provides the most vital information and examples for most DOS commands. If you want an even quicker access to the information in it, try DOS.EXE, explained below.



## USING THE INCLUDED SOFTWARE

This book comes with a floppy disk, which is labeled DOS-TA (for DOS Teaching Assistant) and contains the following items:

- DOS.EXE—online help program for DOS commands
- DRILL.EXE—CAI program
- DOSLESnn—question/answer files (e.g., DOSLES3 for Chapter 3) to be used by the CAI program
- MENU.EXE & MENUB.BAT/KEY.COM—menus for the CAI program and the question/answer files
- SAMPLE.TXT—a practice text file used in the book

To get a screenful of online help for a DOS command, follow these steps:

1. Insert DOS-TA in drive A.
2. Enter a command like this:

```
A>dos copy
```

This command will display a screenful of information related to the COPY command. If you enter the program's name alone, like this:

```
A>dos
```

the screen will display all the available options. If you enter a command that is not available, a similar screen will also appear.

Each screen usually displays information related to a DOS command. All the available switches are listed and plenty of examples are provided.<sup>2</sup> You can thus quickly find out how to use a command or an available switch. If you need more details, you can look up the chapter(s) pointed out in each screen.

A few screens show information not specifically related to individual DOS commands. These include KEYS (special keys used by DOS), SYMBOLS (special symbols recognized by DOS), BATCH (general information related to batch files), EDLIN (a summary of EDLIN commands), and ANSI (a brief explanation of ANSI.SYS).

The DOS.EXE program resembles what you see in Appendix E. You can use either as a quick reference.

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2. You can also show a command's switches if you use the online help newly available in version 5. However, you won't get examples or information related to batch or SYS files.

The DRILL.EXE program provides CAI interactive mechanism for the drill questions appearing in each chapter of the book. To run a lesson, enter a command like this:

**A>drill dosles1**

This will start the drill questions for Chapter 1. If you enter the program's name alone, like this:

**A>drill**

you will be asked to enter a lesson after the program is started.

If you start a drill lesson with either method above, you can store the program and the lesson files in different drives. If the program is in drive A and a lesson file in B, you can enter a command like this:

**A>drill b:dosles3**

Once a drill lesson begins, you are given a question and prompted to supply an answer, which could be a letter, number, word, or phrase. The program will try to match your answers to those stored in the lesson file. You can give an answer in uppercase or lowercase.

A running scoreboard is displayed at the bottom of the screen. It keeps track of how many right and wrong answers you have given. If you give a right answer, some acclamation is indicated. If you supply a wrong answer, a brief explanation is displayed and you are prompted to press a key to go to the next question.

Each lesson contains 30 questions. After you finish all of them, the final score will be displayed. If you want to run the same lesson or another one, just repeat the above steps. If you want to abort a lesson, press Ctrl-C (or Ctrl-Break) at any time.

If you are a beginner, you may want to take advantage of two menu programs to simplify your access to a drill lesson. MENU.EXE is a program through which you can access any of the drill lessons. To run the program, just enter this:

**A>menu**

When the menu screen appears, you can just press a key to select any of the available options displayed on the screen.

MENUB.BAT is a batch file comparable to the menu program explained above; KEY.COM provides interactive mechanism for the batch file. It runs rather slowly, as all complex batch files do. However, you can customize it and use it as an example for creating a similar menu batch file.

If you use MENU.EXE or MENUB.BAT to start a drill lesson, you can put it and DRILL.EXE in the same directory and the DOSLESnn files in a subdirectory named LESSON. When the user selects a file from either menu, control is

transferred to DRILL.EXE, which will try to open a corresponding lesson file in the current directory; if the file is not found, it will next try the LESSON subdirectory. If it cannot find the file in either place, an error message will appear and the program will end.

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## ABOUT THE AUTHOR

Dr. Forest Lin is a veteran author, professor, and programmer. He has taught in various colleges for over 20 years. He has published four other computer books—two college texts and two advanced trade books.

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## ACKNOWLEDGMENTS

It was gratifying to see *The DOS Coursebook*, published in 1991, adopted at over 50 colleges. This book builds on, and incorporates feedback from the many students and professors who used *The DOS Coursebook*. The author would like to thank those professors who took the time to offer suggestions for improvement in the presentation:

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