

计算机英语

English for Computing

王彦臣 主编



中国商业出版社

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编写说明

为了适应我国社会主义市场经济体制的建立与发展、高等教育的深化改革和职业技术教育迅速发展的客观需要,迎接新世纪知识经济和网络化时代的挑战,我们邀请部分高校和职业技术学院的教授、讲师和专业工作者,编写了这套电子商务、计算机应用专业教材。第一批已于2000年出版了5种,今年将配套出版8种。内容力求反映学科的最新发展,突出应用性,以适于教学。

本套教材适合商业财经院校和高、中级职业技术学院的企业管理、电子商务及计算机应用专业使用,也可作为成人高校、函授、自考以及在职人员培训用教材。

本套教材在编写和出版过程中得到有关部门、院校的大力支持,在此一并致谢。

为进一步提高本套教材的质量,更好地适应新世纪培养电子商务管理和计算机应用人才的需要,希望广大读者提出宝贵意见,以便进一步修改和完善。

全国高等商科学科建设指导组

2001年1月

前 言

随着计算机技术的迅速发展和广泛应用,掌握一定的计算机英语知识,了解计算机英语的特点,成为计算机专业学生和计算机使用者需要掌握的必备知识。为此我们根据高等职业技术学院、中等专业学校和职业高中计算机专业教学要求和广大计算机爱好者的实际需要编写了这本《计算机英语》教材。

本书以适用性、专业性和可读性为原则,由浅入深地介绍计算机各个相关领域的基础知识与主要词汇和术语。本书由八个单元和一个附录组成,包括了计算机概论、计算机硬件、计算机软件、计算机编程、数据库、计算机网络、计算机的应用和计算机病毒等内容,基本涵盖了计算机领域的主要知识。附录介绍了部分计算机常用术语。每单元以课文为中心,课后备有习题,供学生巩固所学内容。本书的课后练习题力争做到与课文内容紧密相关,使读者能够通过这些习题加深对课文内容的理解。为便于学生自学,提高阅读能力和扩大知识面,每单元后面还备有相关的阅读材料及课文的参考译文。我们希望在已有英语知识的基础上通过本书的学习,使读者能具备独立阅读计算机英语文献、资料和书籍的能力。

本书第1、2、3章由刘英麟编写,第4章由朱庆丽编写,第5、6、7章由王彦臣编写,第8章由吴鹏编写。全书由王彦臣任主编,刘英麟任副主编。本书在选材时,参考了相关书籍和资料,编者在此向他们表示感谢。由于作者经验有限,书中疏漏、错误之处在所难免,敬请广大读者批评指正。

编 者

2000年12月

目 录

编写说明	(1)
前 言	(1)
Unit One Introduction To Computer	(1)
1 What Is a Computer System	(1)
2 The Evolution of Computers	(6)
3 Types of Computer Systems	(11)
Reading Material	(15)
Translation of The Text	(16)
Unit Two Computer Hardware	(19)
1 A Basic Microcomputer Organization	(19)
2 The Central Processing Unit	(24)
3 The Memory Unit	(28)
4 Secondary Storage	(32)
5 The Computer Input/Output System	(37)
Reading Material	(43)
Translation of The Text	(44)
Unit Three Computer Software	(47)
1 Software	(47)
2 Operating System	(52)
3 Disk Operating System	(56)
4 Microsoft Windows	(61)
Reading Material	(66)
Translation of The Text	(67)
Unit Four Program Design	(70)
1 Programming Languages	(70)
2 The Program Development Process	(75)
Reading Material	(80)
Translation of The Text	(81)

Unit Five Database	(84)
1 Database Technology	(84)
2 The Architecture of a DBMS	(89)
3 Data Independence, Integrity and Security	(94)
Reading Material	(99)
Translation of The Text	(100)
Unit Six Network	(103)
1 Growth of Computer Networking	(103)
2 Computer Networks	(107)
3 Networks Advantages	(113)
4 Using a Modem	(118)
Reading Material	(123)
Translation of The Text	(124)
Unit Seven Applications of Computers	(128)
1 Office Automation	(128)
2 Multimedia	(133)
3 Computers in Science	(138)
Reading Material	(142)
Translation of The Text	(143)
Unit Eight Computer Virus	(146)
1 What Is a Virus?	(146)
2 What Kinds of Viruses Are There?	(150)
3 Protecting Your Computer Data Against Viruses	(153)
Reading Material	(157)
Translation of The Text	(158)
附录 计算机常用术语	(160)
主要参考书目	(175)

Unit One

Introduction To Computer

1 What Is a Computer System

Text

The automatic teller machine; the supermarket price scanner; a voice on the phone that told you to “Please hang up and dial your call again”.

Did you come in contact with one of these special-purpose computer devices today? If not, then you probably encountered something similar because the average person contacts—directly or indirectly—with a computer several times a day. You, then, are already a user of computer system.

The term computer is used to describe a device made up of electronic and electromechanical components. By itself, a computer has no intelligence and is referred to as hardware. A computer doesn't come to life until it is connected to other parts of a system. A computer system has five elements:

- Hardware.
- Software.
- People.
- Procedures.
- Data/Information.

When one computer is set up to communicate with another computer system, connectivity becomes a sixth system element.

Software is the term used to describe the instructions that tell the hardware how to perform a task; without software instructions, the hardware doesn't know what to do. People, however, constitute the most important part of the computer system. People operate the computer

hardware; they create the computer software instructions and respond to the procedures that those instructions present. You will learn more about them later. Right now we want to discuss the importance of data and information.

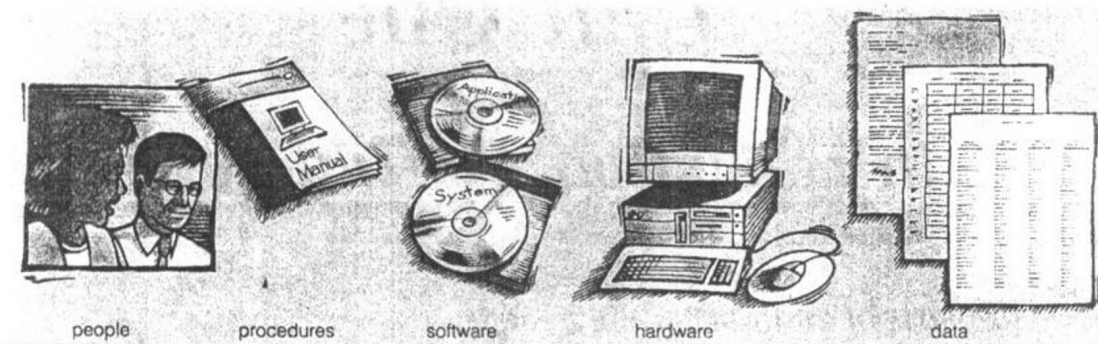


Figure 1.1 The five parts of a computer system.

The purpose of a computer system is to convert data into information. Data are raw, unevaluated facts, observations or figures. This raw material is processed into useful information. In other words, information is the product of data processing. This processing includes refining, summarizing, categorizing, and otherwise manipulating the data into a useful form.

People get data in a variety of ways such as by reading, listening, or seeing. Then they may record the data on a document. For instance, Roger Shu records his name R - o - g - e - r S - h - u, the date 12/6, and the number of overtime hours 5 on an employee timecard. These letters and the numbers are elements of data. By themselves, these data elements are useless; we must process them to make them mean something. When Roger's data are run through a computer-based employee records system the result gives us information, for example, the amount of money for Roger's overtime work.

New Words

automatic /ˌɔ:tə'mætɪk/ adj.

自动的

scanner /ˈskænə/ n.

扫描器, 扫描仪

contact /ˈkɒntækt/ vt.

接触, 联系

encounter /ɪn'kaʊntə/ vt.

遇到, 碰到

intelligence /ɪn'telɪdʒəns/ n.

智力, 智能

hardware /ˈhɑ:dweə/ n.

(电脑的) 硬件

software /ˈsɒftweə/ n.

软件

procedure /ˈprəsi:dʒə/ n.

过程, 方法

data /ˈdeɪtə/ n.

数据

information /ˌɪnfə'meɪʃən/ n.

信息

instruction /ɪn'strʌkʃən/ n.	指令
perform /pə'fɔ:m/ vt.	执行, 完成
constitute /kənstitjʊt/ vt.	组成
operate /ɒpə'reɪt/ vt.	操作, 运转
respond /rɪ'spɒnd/ vi.	反应, 回答
process /'prəʊses/ vt.	处理, 加工
convert /kən'veɪt/ vt.	转变, 转换
refine /rɪ'faɪn/ vt.	精炼, 精制
summarize /sʌmərəɪz/ vt.	总结
categorize /kætɪgəraɪz/ vt.	分类
manipulate /mə'nɪpjuleɪt/ vt.	处理, 操作
variety /və'reɪəti/ n.	多样性, 种类

Phrases and Expressions

hang up	挂断电话
come in contact with	与……接触
make up of	组成, 构成
by oneself	独自, 独立
come to life	苏醒, 使活跃
refer to as	指, 参照
communicate with	联络, 通信
respond to	响应, 反应
convert ...into	把……转变成
a variety of	多种的, 各种的
such as	比如……, 像……

Screen language

1. abort, retry, ignore, fail	中止, 重试, 忽略, 失败
2. access denied	拒绝存取
3. all available space in the extended DOS partitions assigned to logical drives	扩充 DOS 分区中的全部有效空间已分配给逻辑驱动器
4. all logical drives deleted in the extended DOS partition	扩充 DOS 分区上的所有逻辑驱动器已被删除
5. bad command or file name	非法命令或文件名
6. bad partition table	分区表无效
7. batch file missing	批处理文件丢失

- | | |
|---------------------------------------|-------------------------|
| 8. cannot find system files | 系统文件未找到 |
| 9. cannot load command, system halted | 不能装入 command 文件, 系统停止工作 |
| 10. change active partition | 改变活动分区 |

Notes

1. ...a voice on the phone that told you to "Please hang up and dial your call again."

在计算机英语中,为了说明某一名词的特征,时常用关系代词 that, which, 或关系副词 when, where 引导的定语从句来说明该名词的特性。本句中关系代词 that 引导的定语从句用来修饰先行词 voice, that 在从句中做主语。这种关系从句属于限定性从句,如果省略了读者就不会清楚句中提到的声音是什么声音。定语从句的使用使句子更紧凑、严密。本文中类似的定语从句还有:

I. Software is the term used to describe the instructions that tell the hardware how to perform a task;

II. ... they create the computer software instructions and respond to the procedures that those instructions present.

2. A computer doesn't come to life until it is connected to other parts of a system.

本句中 not ... until 的意思是“直到……才”, come to life 原意是指“复活,使活跃”,在这里指计算机“具有生命力”。

本句可译为:“计算机只有与系统的其他部分联系起来才具有意义。”

3. The term computer is used to describe a device made up of electronic and electromechanical components.

本句中过去分词短语 made up of electronic and electromechanical components 作定语修饰 device。过去分词短语作定语也是计算机英语中常用到的,过去分词短语有被动的意思或表示已经发生过的状态,过去分词短语常放在被修饰词的后面。

本句可译为:“计算机这个术语常用来描述由电子或机电部件组成的设备。”

Exercises

1. Read the following statements and mark True or False according to the text:

- (1) The term computer by itself is referred to as hardware.
- (2) The computer hardware can still be useful even if it dose not connect with other parts of the computer system.
- (3) Without software a computer dose not know what to do.
- (4) Software is the most important part of the computer system.
- (5) The purpose of a computer system is to process data into information.
- (6) In a computer system data are raw facts, observations or figures, while information is the product of data processing.

(7) We get the data what we need through computer processing.

(8) The letters and the numbers that Roger Shu record on the employee timecard are useful by themselves.

2. Complete the following statements with the appropriate words. Make sure you use the correct form.

automatic

encounter

intelligence

operate

process

a variety of

make up of

hang up

(1) The young scientists _____ many difficulties during their research.

(2) A computer can _____ raw facts into useful information.

(3) Tom _____ the telephone before I said all I want to say.

(4) This machine must be _____ by two people.

(5) Use your _____, and you are sure to achieve something.

(6) A computer _____ five main components.

(7) _____ flowers was shown in the garden.

(8) The heating system in the farm has a _____ temperature control system.

3. Translate the following sentences into Chinese.

(1) Computers are powerful; they can solve problems for people by carrying out instructions given to them.

(2) A computer is a machine whose function is to accept data and process them into information.

(3) A computer can do nothing unless a person tells it what to do and give it the appropriate data.

(4) A computer can replace people in dull, routine tasks, but it has no intelligence of its own.

(5) A person can do everything that a computer can do, but in many cases that person would be dead before the job was finished.

4. Cloze:

A computer is a machine that processes data (1) information in some way. The data may be numbers, letters, pictures, or (2) sound. The computer can (3) arithmetical operations, for example, addition, subtraction, multiplication, and division. All higher mathematical problems are reduced to these simple operations before (4). The computer can compare statements. After a computer tests two statements, it can (5) a decision about which statement is true. This (6) ability has made it (7) for many of the successful applications of computers today. The computers are programmable. Programs are written (8) instructions to the computer. Some of programs used to operate the computer are stored inside the computer. People who operate the computer never see the (9) programming. Other programs are written by professional programmers. Most

of the computers used today are digital computers, from small home computer systems (10) the large systems that the government uses to handle data about the entire nation.

- | | | | | |
|------|-----------------|-----------------|------------|------------|
| (1) | A. in | B. to | C. into | D. by |
| (2) | A. also | B. only | C. never | D. even |
| (3) | A. perform | B. take | C. make | D. get |
| (4) | A. to be solved | B. being solved | C. solved | D. solving |
| (5) | A. take | B. put | C. make | D. get |
| (6) | A. basis | B. base | C. basic | D. basical |
| (7) | A. possible | B. possibly | C. easy | D. easily |
| (8) | A. gave | B. to giving | C. to give | D. giving |
| (9) | A. actually | B. actual | C. act | D. action |
| (10) | A. with | B. and | C. between | D. to |

2 The Evolution of Computers

Text

The term generation is used to describe the major technological developments in computer hardware and software. Since the first electronic computer called ENIAC was made in 1946 in America, computers have gone through four distinct generations. The major characteristics of each generation are outlined below:

FIRST GENERATION (1944 - 1958) These are the earliest general-purpose computers. The computers had no moving parts and contained approximately 18 000 electric vacuum tubes to control the flow of electric current. These computers were slow, large and produced a large amount of heat. They could run only one program at a time.

SECOND GENERATION (1959 - 1963) By the early 1960s, transistors were being used for much of the computer circuit. Transistors were much smaller than vacuum tubes, and lowered the price of computers about 85%. The computers could perform work ten times faster than the first generation ones. And they tended to be smaller, more reliable, and much faster.

THIRD GENERATION (1964 - 1970) During this period, the integrated circuit (a complete electronic circuit on a silicon chip) replaced transistor circuit. The computers were about one hundred times faster than the second generation ones. The use of magnetic disks became widespread, and computers began to support such capabilities as multiprogramming (run several programs simultaneously) and timesharing (people using the same computer simultaneously). The production of operating systems and applications software packages increased rapidly. The size and

the price of computers continued to decrease.

FOURTH GENERATION (1971 – Now) In 1971, computers with Large Scale Integration circuit (thousands of integrated circuits on a chip) came into use. The microprocessor, invented in 1971, combined all of the circuit for the Central Processing Unit (CPU) on a single chip no larger than your fingernail. LSI and the microprocessor enabled the development of supercomputer. The fourth generation computers are 50 times as fast as the third generation ones and can perform approximately 1 000 000 instructions per second.

The technology of computers is currently developing into a new era!

New Words

generation /ˌdʒenə'reɪʃən/ n.	代, 一代,
distinct /dɪ'stɪŋkt/ adj.	明显的, 清楚的
outline /aʊtˈleɪn/ vt.	叙述要点, 画轮廓
contain /kən'teɪn/ vt.	包含, 容纳
vacuum /ˈvækjuəm/ n.	真空
tube /tju:b/ n.	管, 电子管
transistor /træn'zɪstə/ n.	晶体管
lower /ləʊə/ vt.	降低, 减低
circuit /sə'kɪt/ n.	电路
reliable /rɪ'laɪəbl/ adj.	可靠的, 可信赖的
integrated /'ɪntɪgreɪtɪd/ adj.	完整的, 综合的
silicon /sɪlɪkən/ n.	硅, 硅元素
chip /tʃɪp/ n.	芯片
magnetic /mæɡ'nɛtɪk/ adj.	磁性的
disk /dɪsk/ n.	(= disc) 磁盘, 圆盘
widespread /'waɪdspred/ adj.	普遍的, 分布广的
multiprogramming /mʌltɪ'prəʊɡræmɪŋ/ n.	多道程序
timesharing /taɪmʃeərɪŋ/ n.	分时(操作)
simultaneously /ˌsɪməl'teɪnjəsli/ adv.	同时地
microprocessor /ˌmaɪkrəʊ'prəʊsesə/ n.	微处理器
fingernail /'fɪŋɡəneɪl/ n.	指甲
enable /ɪ'neɪbl/ vt.	使能够

Phrases and Expressions

a large amount of	大量的
vacuum tube	真空管

at a time	每次
tend to	趋向
integrated circuit	集成电路
come into use	开始使用

Screen language

1. change diskette and press <ENTER>	更换软盘并按回车键
2. compare another diskette (y/n) ?	比较另一张磁盘吗?
3. convert lost chains to files (y/n) ?	要转换损坏的文件链吗?
4. copy another diskette (y/n) ?	还要复制另外的磁盘吗?
5. copy complete	复制已完成
6. create extended/primary DOS partition	创建扩充/基本 DOS 分区
7. create logical DOS drives in the extended DOS partition	在扩充 DOS 分区上创建 DOS 逻辑驱动器
8. current drive is no longer valid	当前驱动器无效
9. delete current volume label (y/n) ?	删除当前的卷标吗?
10. delete extend/primary DOS partition	删除扩充/基本 DOS 分区

Notes

1. Since the first electronic computer called ENIAC was made in 1946 in America, computers have gone through four distinct generations.

ENIAC 是 Electronic Numerical Integrator And Computer 的缩写,意思是:“电子数字积分计算机”。过去分词短语 called ENIAC 作 computer 的定语。

本句可译为:“自从 1946 年被称作 ENIAC 的第一台计算机问世以来,计算机已经经历了四个主要发展阶段。”

2. Transistors were much smaller than vacuum tubes, and lowered the price of computers about 85%.

在比较级 smaller 前面加 much 表示程度,比较级前还可加的表程度的副词有 a little, great, even 等。

本句可译为:“晶体管比真空管小得多,它们的使用使计算机的价格降低了大约 85%。”

3. The computers could perform work ten times faster than the first generation ones.
times 表示倍数,在英语中表示比较的倍数时可以用以下句型:

- a. A + be + ... times + 形容词比较级 + than + B A 比 B 大几倍
- b. A + be + ... times + as + 形容词原级 + as + B A 是 B 几倍
- c. A + be + ... times + the size + of + B A 是 B 几倍

课文中相关的用法还有:

I. The computers were about one hundred times faster than the second ones.

II. The fourth generation computers are 50 times as fast as the third generation ones...

4. ... and computers began to support such capabilities as multiprogramming (run several programs simultaneously) and timesharing (people using the same computer simultaneously).

句中的 such + n...as 的意思是“像……这样的,诸如……这类的”。

本句可译为:“计算机开始支持像多程序(同时运行多个程序)和分时操作(不同的人使用同一台计算机)这样的能力。”

5. The microprocessor, invented in 1971, combined all of the circuit for the Central Processing Unit (CPU) on a single chip no larger than your fingernail.

本句中 The microprocessor 是主语,过去分词短语 invented in 1971 修饰 microprocessor。combined 是谓语,从 all 一直到句尾都是 combined 的宾语,其中 for the Central Processing Unit (CPU) 修饰 all of the circuit, no larger than your fingernail 修饰 chip,用以说明 chip 的大小。这是一个较长的句子,可把它分解成几个小句子来翻译。

本句可译为:“微处理器是 1971 年发明的,它把 CPU 的所有电路都集合在一个硅片上,而这个硅片还不及人的手指甲大。”

Exercises

1. Read the following statements and mark True or False according to the text:

(1) The first electronic computer ENIAC was made in 1944 in America.

(2) The first generation computers were the lowest ones, so they are the cheapest of the computers.

(3) The flow of electric current in the first generation computers was controlled by vacuum tubes.

(4) Because using transistors in computers, the price of a computer was increased.

(5) Transistors replaced vacuum tubes in the second generation computers.

(6) During 1964 - 1970, the integrated circuit was used in computers.

(7) The second generation computers can run more than one programs at a time.

(8) Magnetic disks began to be used in the fourth generation computers.

(9) Large Scale Integration circuit is a chip contained thousands of integrated circuits.

(10) The fourth generation computers are much faster than the former three.

2. Complete the following statements with the appropriate words. Make sure you use the correct form.

distinct

contain

simultaneously

enable

reliable

lower

widespread

tend to

(1) A bird's wings _____ it to fly.

(2) With the development of technology, computers _____ be faster and more

reliable.

- (3) You can trust him, because he is a _____ man.
 (4) The use of computer has become _____ now and almost every family has one.
 (5) There is a _____ improvement in your study.
 (6) This book _____ some interesting ideas.
 (7) He _____ his voice when he saw that the baby was sleeping.
 (8) Now a computer can run more than one programs _____.

3. Translate the following sentences into Chinese.

- (1) The first calculating "device" used was the ten fingers of a man's hands.
 (2) The ENIAC weighed 30 tons and occupied about 1 500 square feet of floor space.
 (3) The first generation computers could perform thousands of calculations per second.
 (4) The third generation computers were about one thousand times cheaper to run than the second generation ones.
 (5) The third generation computers were one-tenth the size of the second generation computers.

4. Cloze:

A computer professional (专业人员) is a person (1) the field of computers who has had formal education in the technical aspects of (2) computers. A programmer or computer operator (3) is concerned only (4) supporting the computer's physical functions in producing information for the user.

The user is a person perhaps (5) yourself—someone without (6) technical knowledge of computers. But the user (7) decisions based on reports and other results that computers produce. The user is not necessarily a computer expert and may (8) need to become one. Most companies train new employees in the specific computer uses applicable to their (9), and these applications may never require the user (10) much technical knowledge.

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|------|----------------|----------|-----------|------------|
| (1) | A. in | B. at | C. within | D. to |
| (2) | A. uses | B. using | C. use | D. to use |
| (3) | A. whose | B. what | C. which | D. who |
| (4) | A. for | B. in | C. with | D. of |
| (5) | A. such as | B. as | C. by | D. like |
| (6) | A. a number of | B. much | C. many | D. several |
| (7) | A. takes | B. gets | C. put | D. makes |
| (8) | A. since | B. ever | C. never | D. forever |
| (9) | A. business | B. busy | C. boss | D. buss |
| (10) | A. having | B. have | C. had | D. to have |