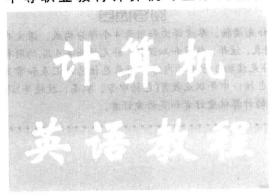# 计算机英语教程

（第二版）

中等职业教育计算机专业系列教材编写组

重庆大学出版社

中等职业教育计算机专业系列教材

计算机英语教程

中等职业教育计算机专业系列教材编写组

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重庆大学出版社

内容提要

　　本书由课文、补充读物、参考译文和附录4个部分构成。课文共33篇,可供两个学期使用。课文后有生词表、注释、练习和知识窗。补充读物共4篇,均附有生词表。参考译文包括课文、知识窗和补充读物3方面的内容。附录包括总词汇表和常见的计算机缩略语。

　　本书的读者对象包括:中等职业教育(包括中专、职高、技校等)计算机专业和其他专业的学生和教师,广大的计算机爱好者和英语爱好者。

序　言

　　随着科学技术与现代社会的发展和信息时代的到来，重视计算机知识和技术的学习非常重要，因为计算机技术已成为当代新技术革命的先锋，广泛应用于国民经济各个领域，对人们的工作、学习和社会生活等各个方面产生了巨大影响。推动计算机技术的应用和发展，是教育与现代科学技术接轨的重要途径，是培养高素质劳动者的重要手段，也是计算机教育工作者的重要使命。

　　中等职业教育的发展，为国家培养和输送了大批计算机应用型技术的专业人才，深受各行各业的欢迎，产生了较好的社会影响。为适应计算机科学和技术的发展和应用的需要，适应计算机技术对操作型人才的新要求，适应中等职业教育对人才培养的专业化及规范化的新要求，在重庆市教育委员会、重庆市教育科学研究所的领导下，重庆市职业高中计算机专业中心教研组组织从教多年并具有丰富教学经验的教师和专家，编写了这套中等职业教育计算机专业系列教材。

　　本套教材是根据社会对中等职业教育人才培养的需要，严格按照计算机专业教学计划和大纲的要求，结合中等职业教育注重能力训练的特点而编写的。本套教材编写的原则是拓宽基础，突出应用，注重发展。既照顾当前教学的实际，又考虑未来发展的需要；既加强了对计算机技术通用知识和技术的学习，又注意针对计算机不同工作岗位的职业能力培养。在教材编写中力求做到"精、用、新"和"浅、简、广"的辩证统一，重视反映本专业的新知识、新技术、新方法和新趋势。为适应中等职业教育不同人才目标的培养，本套教材的内容丰富，实用性强，有利于对计算机人才多层次、多规格及不同专门化方向人才的培养需要，适于中等职业教育以及各类计算机技术培训班使用。

　　本套教材由基础课程和专门化方向课程所构成。基础课程为：计算机基础、操作系统、数据库、C语言、Internet技术、计算机英语、录入技术。专门化方向课程涉及到计算机的软件应用、硬件维修、网络、图形图像等方面的课程。便于各校根据人才培养的工种方向和学校实际进行选择，以突出中等职业教育对计算机

应用技术人才培养的特点,达到人才培养的目标。我们还将根据职业教育发展的要求和教学的需要,加强研究,逐步推出与教材配套的教学目标、教学课件、上机实习手册,以帮助各校完成教学任务,提高教学质量。愿本套教材的推出,为中等职业学校计算机专业教育的发展作出贡献。

中等职业教育计算机
专业系列教材编写组
2001年8月

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本书是一本以中等职业教育计算机专业学生为主要对象的计算机英语教材。它既是一种英语教材,又是一种计算机教材。说它是英语教材,因为同其他英语教材一样,它把帮助学生增加词汇、巩固语法、培养语感、提高英语运用能力,尤其是提高阅读理解能力,作为基本的教学目标。但它并不等同于一般的英语教材,因为它并不把语音、词汇和语法作为教学重点,不把传授英语语言基础知识,全面培养听说读写能力作为其主要的教学目标。它更注重向学生提供阅读英语计算机专业资料的实践机会,培养他们阅读英文计算机专业书籍的能力。说它是计算机教材,因为它包含了计算机专业学生所必需的大量基础知识,为他们勾画出了一幅计算机专业的概貌图。不过,它也并不是一本通常意义上的计算机教材。因为它必须充分考虑中等职业教育的实际,考虑教材使用者在英语语言能力上,尤其是在专业词汇量方面所受到的限制。为此,就不能把保持知识体系的完整性和知识内容的系统性作为惟一标准。

与其他计算机专业英语教材相比,本书在所使用的英语语言和所包含的计算机专业知识方面,均有其独特的地方。书中的大部分课文,均直接选自国外近两年的科普读物。这类读物以非计算机专业的一般读者为对象,与计算机专业书籍中的文章相比,在语言难度上明显偏低,因而更适合既没有阅读英文计算机专业书籍经验,也缺乏阅读这类专业书籍所需的大量专业词汇的中等职业教育这一层次的学生。由于这些文章是以英语为本族语的作者为使用该语言的读者所撰写的,因此语言地道。同时,由于这些资料大部分出自20世纪90年代末期,因此内容新颖,反映了计算机领域近年来的变化。诚然,由于各种原因,本书中也保留了少量包含较早时期计算机知识的课文。然而,学习和了解一些已成为或即将成为历史陈迹的计算机知识,对于计算机专业的学生来说,也是很有必要的。

与其他同类书籍相比,本书还具有图文并茂、可读性较强的特点。由于吕厚聪老师的努力,本书中的所有课文均配上了与课文内容相关的插图。这些插图使抽象的概念变得较为容易理解,使可能显得枯燥的课文变得生动活泼,尤其适合于青少年学生的心理特点。

地道的语言、新颖的内容和活泼的版面,使本书成为一本颇具特色的计算机英语教材。它不但适合于中等职业教育计算机专业的学生,而且也适合于其他各种类型的读者使用。对于具有一定英语基础、希望通过扩大阅读面来继续提高自己英语水平的广大读者;对于渴望了解计算机的基本知识、获得使用计算机的基本技能的普通读者;对于已有较多计算机知识,希望通过直接阅读英文专业书籍而使自己在专业上更上一层楼的读者;对于希望

学好英语和计算机、熟练掌握新世纪人才所必需的两件基本工具的任何读者，这本书都是一个好的选择。

本书由4个部分构成：课文、补充读物、参考译文和附录。课文共33篇，可供两个学期使用。课文后有生词表、注释、练习和知识窗。补充读物共4篇，均附有生词表。参考译文包括课文、知识窗和补充读物3方面的内容。附录包括总词汇表和常见的计算机缩略语。参考译文的主要目的是帮助学生看懂英文原文，在一般情况下，尽量采取较为忠实于原文结构的直译法，并不刻意追求文采。总词汇表按字母顺序排列，且注明了各单词第一次出现的地方，以利于复习和查阅。为了反映国内外英语语音教学和研究的新情况，也为了培养学生使用新型词典工具书的能力，对列入词汇表的单词采用了国际音标宽式注音法。常见的计算机缩略语共120条，包含了一些其他书上很难查到、但又十分有用的新语汇。

本书由重庆市教育委员会和重庆市教育科学研究所组织编写。本书的基本编写原则和选材范围，是由重庆市教科所成职教室和重庆市职业高中计算机专业中心教研组有关领导和专家亲自参与确定的。本书的最后审定，也由重庆市教科所成职教室和重庆市职业高中计算机专业中心教研组负责。

本书由四川外语学院李振中担任主编，重庆教育学院外语系吕厚聪、重庆北碚职教中心李尧庆和重庆五里店职业中学刘毅参加编写。李振中负责策划全书、拟定编写原则、确定选材范围、选定课文材料、编写部分注释和翻译部分课文，并负责全书的统稿和定稿。吕厚聪、李尧庆和刘毅分别负责部分课文的翻译。李尧庆和刘毅负责课文后的配套练习和部分课文的注释。王铮博士审读了全书，对涉及计算机专业的内容提出了一些意见和建议。英籍教师Miki Jablkowska审阅了书中的全部英文内容，对英语语言的使用提出了一些建议。这些宝贵的意见和建议，对于保证本书内容的正确性和英文语言质量的可靠性都是必不可少的。在此特表示衷心的感谢。
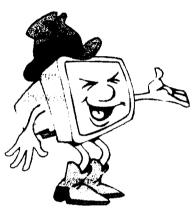
本书由吕厚聪和李振中用Adobe Pagemaker进行排版。吕厚聪除了与李振中共同进行排版之外，还负责了全书的插图和装帧设计。

本书的编写，自始至终得到重庆大学出版社李长惠和王勇两位编辑的大力支持和积极帮助，没有她们的通力合作，要在如此短的时间之内将本书编定并付印，是很难想象的。

尽管本书的编写者作出了很大的努力，但书中仍难免存在不足之处。希望广大读者不吝指正，以便将来加以修改和完善。

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编者

2001年8月

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Text
课文

A Course in Computer English

Unit 1

The Computer (1)

The computer is a device that processes information with astonishing speed and accuracy. Computers process information by helping to create it and by displaying it, storing it, reorganizing it, calculating with it, and communicating it to other computers. Computers can process numbers, words, still pictures, moving pictures, and sounds. The most powerful computers can perform tens of billions of calculations per second.

The computer has changed the way we work, learn, communicate, and play. Virtually every kind of organization throughout the world conducts business with computers. Students, teachers, and research scientists use the computer as a learning tool. Millions of individuals and organizations communicate with one another over a network of computers called the Internet. Computer games entertain people of all ages.

Almost all computers are electronic digital computers. They are electronic in their use of electric current (a flow of electric charge) to carry information. They are digital in that they process information as units of electric charge representing numbers. The word digital means having to do with numbers.

To enable a computer to process information that is not numerical—such as words, pictures, or sounds—the computer or some other device must first digitize that information. A device digitizes information by translating it into charges that represent numbers. After the computer processes the digitized information by working with the charges, the computer or a device connected to the computer translates its results back into their original form.

Thus, an artist might use a machine called a scanner to digitize a photograph. The artist

would next process the resulting electric charges in a computer to change the photograph—
perhaps to add a border. The artist would then use a printer connected to the computer to
produce a copy of the altered photo.

New Words

astonishing /əs'tɔnɪʃɪŋ/ *adj.* 惊人的

speed /spiːd/ *n.* 迅速, 速度, 速率 *v.* 加快

process /'prəuses; (US) 'prɔses/ *n.* 过程, 作用, 程序 *vt.* 加工, 处理

create /kriː'eɪt/ *vt.* 创造, 建造, 引起, 造成

display /dɪs'pleɪ/. *vt.* 陈列, 展览, 显示 *n.* 陈列, 展览, 显示, 显示器

store /stɔː/ *vt.* 贮藏, 储备, 存储

reorganize /riː'ɔːgənaɪz/ *vt.* 重组, 重新组织

calculate /'kælkjuleɪt/ *v.* 计算

communicate /kə'mjuːnɪkeɪt/ *v.* 沟通, 通信, 传达

powerful /'pauəful/ *adj.* 强大的, 有力的

perform /pə'fɔːm/ *vt.* 履行, 执行, 演出, 完成任务

virtually /'vɜːtjuəli/ *adv.* 实质上, 实际上, 事实上

organization /ˌɔːgənaɪ'zeɪʃ(ə)n/ *n.* 组织, 机构, 团体

throughout /θruː'aut/ *prep.* 遍及, 贯穿, 在各处

conduct /kən'dʌkt/ *v.* 指导, 引导

research /rɪ'sɜːtʃ/ *n.* 研究, 调查 *vi.* 研究, 调查

individual /ˌɪndɪ'vɪdjuəl/ *n.* 个人, 个体 *adj.* 个别的, 单独的, 个人的

entertain /ˌentə'teɪn/ *vt.* 娱乐, 招待, 接受, 怀抱 *vi.* 款待

digital /'dɪdʒɪt(ə)l/ *adj.* 数字的, 数位的, 手指的 *n.* 数字, 数字式

current /'kʌrənt/ *adj.* 当前的, 现行的 *n.* 电流, 水流, 气流

flow /fləu/ *n. & vi.* 流动, 涌流,

represent /ˌriːprɪ'zent/ *vt.* 代表, 象征, 表现, 描绘, 再上演 *vi.* 提出异议

mean /miːn/ *vt.* 意谓, 想要 *vi.* 用意, 有意义

numerical /njuː'merɪk(ə)l; (US) nuː-/ *adj.* 数字的, 用数表示的

digitize /'dɪdʒɪtaɪz/ *v.* [计]将资料数字化

original /ə'rɪdʒɪn(ə)l/ *adj.* 最初的, 原始的, 独创的, 新颖的 *n.* 原物, 原作

scanner /'skænə/ *n.* 扫描器, 扫描仪

photograph /'fəutəgrɑːf; (US) -græf/ *n.* 照片

border /'bɔːdə/ *n.* 边界, 边, 边沿

printer /'prɪntə/ *n.* 打印机

altered /'ɔːltəd/ *adj.* 改变的

3

Notes

1. The computer is a device that processes information with astonishing speed and accuracy. 计算机是一种能以惊人的速度和精确度处理信息的设备。

此句中 "... that processes information with astonishing speed and accuracy." 是定语从句, 修饰先行词 "device"。

2. Computers process information by helping to create it and by displaying it, storing it, reorganizing it, calculating with it, and communicating it to other computers. 计算机以各种方式处理信息: 帮助创建并显示信息、存储信息、重组信息、计算信息以及与其他计算机交流信息。句中 "by 短语" 作并列状语, 意思是 "以……方式"。

3. The computer has changed the way we work, learn, communicate, and play. 计算机改变了我们工作、学习、通讯和玩耍的方式。

... the way we work...=...the way (that) we work...

4. They are digital in that they process information as units of electric charge representing numbers. 它们是数字型的是因为它们将信息作为表示数字的电荷来处理。

in that 在于, 因为

5. The word digital means having to do with numbers. Digital 这个词的意思就是 "与数字有关"。

to have something to do with... 与……有关

6. ...the computer or a device connected to the computer translates its results back into their original form. ……计算机或一种连接到计算机上的设备再将结果译回其原有形式。

...connected to the computer... 过去分词短语作后置定语, 科技英语中常常出现。

to translate ... into ... 将……译成……

Exercises

I. Answer the following questions according to the text

1. What is a computer?

2. What has the computer changed?

3. Who do computer games entertain?

4. How many individuals and organizations communicate with one another over the Internet?

5. What does the word "digital" mean?

6. When does the computer or a device connected to the computer translate its results back into their original form?

II. Choose the best answer to each question according to the text and put the correct letter into the blank

1. The most powerful computers can perform tens of billions of calculations _____.

A. per hour

B. per minute

C. per day

D. per second

2. Virtually every kind of organization throughout the world conducts business with
_____.

A. computers

B. workers

C. peasants

D. students

3. The artist would then use a _____ connected to the computer to produce a copy
of the altered photo.

A. printer

B. keyboard

C. mouse

D. disk

4. An artist might use a machine called a _____ to digitize a photograph.

A. printer

B. keyboard

C. mouse

D. scanner

5. The artist would next process the resulting electric _____ in a computer to change
the photograph.

A. computer

B. charges

C. wire

D. cable

Knowledge Window

5

System BIOS

All microcomputer systems use a Basic Input Output System (i.e. BIOS). This is software that has been permanently recorded in a ROM (Read Only Memory) chip and functions as the basic point of communication between the system board and the rest of the computer.

The BIOS provides an operational interface to the system and relieves the programmer from worrying characteristics of hardware devices. Thus, hardware modifications and enhancements become transparent to user's programs. Access to BIOS is through the program interrupts of the microprocessor. Each BIOS entry point is available through its own interrupt.

Unit 2

The Computer (2)

Digital computers are one of two general kinds of computers. The other kind are calculating devices called analog computers. An analog computer represents amounts with physical quantities, such as distances along a scale, rather than with numbers.

The technology of computer hardware (the physical parts of computer systems) has advanced tremendously since 1946, when the first electronic digital computer was built. That machine filled a huge room. Today, a single microprocessor, a device the size of a fingernail, can do the same work as that pioneering machine.

The technology of software (programs, or sets of computer instructions and information) is also advancing rapidly. Early users of computers wrote their own software. Today, most users buy programs created by companies that specialize in writing software. Hundreds of thousands of different programs are available for businesses and individuals.

Because of advances in hardware and software, the price of computing has dropped sharply. As a result, the number of computers in operation has risen rapidly ever since the first commercial digital computers were manufactured in the 1950s. More than 10 000 computers were in operation worldwide by 1961. Ten years later, the number exceeded 100 000. By 1990, about 100 million computers were running. By the mid-1990s, the number had reached about 200 million.

New Words

amount /ə'maʊnt/ *n.* 数量, 总量
analog /'ænəlɒg; (US) 'ænəlɔːg/ *n.* 模拟
exceed /ɪk'siːd/ *vt.* 超过, 胜过
fingernail /'fɪŋgəneɪl/ *n.* 手指甲
hardware /'hɑːdweə/ *n.* 硬件；机器五金器具, (电子仪器的) 部件
manufacture /,mænju:'fæktʃə/ *n.* 产品, 制造 *vt.* 制造, 加工

pioneering /ˌpaɪə'nɪərɪŋ/ *adj.* 先驱的，先锋的

software /'sɒftweə/ *n.* 软件

rapidly /'ræpɪdlɪ/ *adv.* 迅速地

scale /skeɪl/ *n.* 比例尺，天平

sharply /'ʃɑːplɪ/ *adv.* 锐利地，急剧地

operation /ˌɒpə'reɪʃ(ə)n/ *n.* 操作，动作，作用，运算

specialize /'speʃəlaɪz/ *vi.* 使专用于

tremendously /trɪ'mendəslɪ/ *adv.* 可怕地，非常地

rather than... 与其……不如……，而不是

as a result 结果

Notes

1. An analog computer represents amounts with physical quantities, such as distances along a scale, rather than with numbers. 模拟计算机表现量的差别时采用的是物理量，比如刻度表上的距离，而不是数字。

rather than... 与其……不如……，而不是

2. Today, most users buy programs created by companies that specialize in writing software. 今天，大多数用户购买由专门编写软件的公司所创建的程序。

to specialize in doing... 专门从事于……

...programs created by companies that specialize in writing software. "programs" 这个先行词由过去分词短语 created by... 限定，而 "companies" 则由定语从句 that specialize in writing software 限定。

3. As a result, the number of computers in operation has risen rapidly ever since the first commercial digital computers were manufactured in the 1950s. 其结果是，自 20 世纪 50 年代第一台商用数字计算机问世以来，投入使用的计算机数量迅速上升。

1) As a result 结果，结果是

2) in operation 在运行中的，使用中的

Exercises

I. Answer the following questions according to the text

1. What does an analog computer represent?

2. When was the first electronic digital computer built?

3. How many different programs are available for businesses and individuals?

4. What did early users of computers do?

5. And what do most users of computers do today?

II. Choose the best answer to each question according to the text and put the correct letter into the blank

1. Digital computers are one of _____ general kinds of computers.
   A. four   B. two
   C. three   D. five

2. The other kind are calculating devices called _____.
   A. logic computers   B. analog computers
   C. digital computers   D. portable (手提式) computers

3. Today, a single microprocessor, a device _____, can do the same work as that pioneering machine.
   A. the size of a fingernail   B. the size of a lap (膝盖)
   C. the size of a palm (手掌)   D. the size of a notebook

4. The _____ of software (programs, or sets of computer instructions and information) is also advancing rapidly.
   A. price   B. level
   C. technology   D. version (版本)

5. Because of advances in hardware and software, the price of computing has _____ sharply.
   A. risen   B. stopped
   C. dropped   D. gained

6. More than 10 000 computers were in operation worldwide _____.
   A. by 2002   B. by 1983
   C. by 1995   D. by 1961

7. By 1990, about _____ computers were running.
   A. 100 million   B. 10 million
   C. 100 billion   D. 100 thousand

Knowledge Window

Self-test

To ensure that the computer hardware is functional, the system BIOS will carry out a self-test upon reset. The test is very intensive and covers all parts of the hardware. It takes a while before some messages are shown on the screen. It does not mean that the system is not working when the screen is blank. So wait for a while after turning on the power and listen carefully to the speaker. Some errors are reported by a number of beep sounds. After completing the self-test, the BIOS will display some messages on the screen.