

NEW COMPUTER
ENGLISH

新
编 计算机
英语

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新编计算机英语

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内 容 提 要

本书为介绍计算机基本知识及其发展动态的英语教材,分硬件、软件和应用三部分,共 21 个单元。每个单元由正文、词汇、注释、屏幕英语、语法、阅读材料组成,内容全面、新颖,具有较强的可读性和实用性,使读者在学习计算机基础知识的同时,又能增加英语语法知识和翻译技巧,适合作为大中专学生学习计算机专业英语知识的教材或自学用书。

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前 言

时代在发展,技术在更新。迈向新世纪,我们面临着新的挑战,更迎来了新的机遇。

计算机科学飞速发展,信息网络时代已向我们走来。作为一种生存技能,精通电脑操作已成为实实在在的问题;作为一种世界范围的交际工具,英语在信息网络时代成为不可或缺的载体。社会呼唤既熟悉电脑又精通英语的专业人才。

计算机英语作为一门边缘学科,近年来迅猛发展,在其特有的语言现象和专有词汇的运用过程中逐步形成了较为全面的科学体系,对计算机英语的规律性认识和研究,也愈加受到专家、学者和广大学习者的重视。为了满足涉及这一领域的各界人士的需要,我们集多年的教学经验,编写了这本《新编计算机英语》,奉献给广大读者。

本书取材广泛,内容新颖,分单元编排,全书分硬件、软件和应用三大部分,共 21 个单元,每个单元由正文、词汇、注释、屏幕英语、语法、阅读材料和练习组成。语法规范,信息量大,难易适中,实用性强,适合做大专院校计算机专业英语教材,可供参加计算机等级考试者参阅,也可作为广大计算机爱好者提高英语的自学教材。

本书由刘爱华、刘英硕负责总纂,在全体编写人员充分酝酿、讨论的基础上,各单元分工如下:第 1、2 单元,各单元练习答案、阅读材料参考译文,由苗素婷编写;第 3 单元,总词汇表由娄俊玲编写;第 4 单元由刘英硕编写;第 5、6 单元由付龙飞编写;第 7 单元由刘爱华编写;第 8、18、21 单元,由刘舟群编写;第 16、17、19 单元,由瞿韦力编写;第 9、12 单元,各单元正文参考译文由孙建华编写;第 10、11、20 单元,由李静编写;第 13、14、15 单元,由谢希荣编

写。最后由刘爱华、刘英硕统稿、定稿。

在本书编写过程中,我们参阅了国内外大量相关资料,同时得到河南金融管理干部学院有关领导的大力支持和河南医科大学计算机中心的鼎力帮助,蒙黄河水利出版社的热心支持,使此书得以面世,在此表示由衷的感谢。

由于水平有限,时间仓促,书中错误和疏漏在所难免,敬请广大读者不吝指正,以便再版时修订。

编 者

1999 年 5 月

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Part I Fundamentals of Computer and its Hardware

Unit One

Development of Computers

Text

A computer is a fast and accurate symbol processing system. It can accept, store, process data and produce output results. Not very long ago, the computer was a mysterious machine. Not many people understood it. Not many people approved of it. Today, much of that is changing. Ever since the first digital computer was born, there were four generations of computers already.

First-Generation of Computers(1946~1959)

The first-generation of computers were characterized by ENI-AC-vacuum tubes^[1], and were large, costly to buy, expensive to power and often unreliable. The vacuum tubes were fairly large, and they generated so much heat that special air-conditioning had to be installed to handle it.

Second-Generation of Computers(1959~1964)

The most notable change of the second-generation of computers was that transistors replaced vacuum tubes. The transistor meant more powerful, more reliable, and less expensive computers that would occupy less space and give off less heat than did vacuum-tube-powered computers^[2].

Third-Generation of Computers(1964~1971)

The third-generation is marked chiefly by the development of

integrated circuits, which replaced transistors with integrated circuits; so hundreds of electrical computers could be included on one silicon chip less than one-eighth-inch square^[3]. Therefore, the computers became even smaller while their memory capacities became larger^[4].

Fourth-Generation of Computers(1964~present)

The first three generations were characterized by significant technological breakthroughs in electronics—the use of vacuum tubes, then transistors, and then integrated circuits.

Chip circuitry has become increasingly miniaturized in fourth-generation computers. Large-scale integration(LSI)circuits, featuring thousands of electronic components on a single silicon chip, became common during the 1970s.

Generationless Computers

We may have defined our last generation of computers and begun the era of generationless computers. Even though computer sellers talk of “fifth-” and “sixth-” generation computers, this talk is more a marketing play than a reflection of reality^[5]. Advocates of the concept of generationless computers say that even though technological innovations are coming in rapid succession, no single innovation is, or will be, significant enough to characterize another generation of computers.

Glossary

symbol [ˈsɪmbəl] n.
glossary [ˈɡləsəri] n.
process [prəʊˈses] v.

符号,记号,信号,象征
词汇表,术语汇编
处理,加工

['prəsəs] n.	处理过程, 工艺
mysterious [mis'tiəriəs] a.	神秘的, 不可思议的
data ['deɪtə] n.	数据
approve [ə'pru:v] of	赞成, 称许
digital ['dɪdʒɪtəl] a.	数字的
generation [dʒenə'reɪʃən] n.	代, 发展阶段; 产生, 生成
characterize ['kæriktəraɪz] v.	表示…的特性; 成为…特性; 标志
be characterized by	以…为特征, 以…为标志
vacuum tube ['vækjuəm'tju:b]	真空管, 电子管
costly ['kɒstli] a.	昂贵的, 价高的
power [paʊə] v.	供电, 给…以动力
unreliable [ˈʌnrɪ'laɪəbl] a.	不可靠的, 靠不住的
generate ['dʒenəreɪt] v.	产生; 散发; 生成
air-conditioning [æ-kən'diʃənɪŋ] n.	空调设备
install [ɪn'stɔ:l] v.	安装
notable ['nəʊtəbl] a.	显著的; 值得注意的; 重要的
transistor [træn'sɪstə] n.	晶体管; 半导体(管)
replace [ri'pleɪs] v.	取代, 替代, 代替
reliable [ri'laɪəbl] a.	可靠的, 可依赖的
occupy ['ɒkjupaɪ] v.	占据, 占有, 占领
give off	发出(蒸汽, 光, 热等), 散发
chiefly ['tʃi:fli] ad.	主要地
integrated ['ɪntɪgreɪtɪd] a.	集成的, 综合的, 组合的
circuit ['sə:kɪt] n.	电路, 线路, 网路; 流程
electrical [ɪ'lektrɪkəl] a.	电子的, 电的, 电动的, 电力的, 电气的

silicon chip [ˈsɪlɪkən tʃɪp]	硅片(Si)
significant [sɪɡˈnɪfɪkənt] a.	重大的,重要的
technological [ˌteknəˈlɒdʒɪkl] a.	工艺的,技术上的
breakthrough [ˈbreɪkθruː] n.	(科学技术方面的)重大突破
electronics [ɪlekˈtrɒnɪks] n.	电子学
circuitry [ˈsɜːkjʊtri] n.	电路图,电路系统;电路学,电路技术
increasingly [ɪnˈkriːsɪŋli] ad.	越来越,愈加,不断地增加地,日益地
miniaturize [ˈmɪnjətʃəraɪz] v.	使小型化,使成小型
large-scale [ˈlaːdʒ-ˈskeɪl] a.	大规模的,大批的
integration [ɪntɪˈɡreɪʃən] n.	集成;结合;一体化,整体化,综合(性);积分
feature [ˈfiːtʃə] v.	以…为特征
n.	特征,特色,功能部件,特点,特性,可选硬(软)件
component [kəmˈpəʊnənt] n.	元件,组成部件
electronic [ɪlekˈtrɒnɪk] a.	电子学的,电子的
common [ˈkɒmən] a.	普通,普遍,公共,共同
generationless [dʒenəˈreɪʃənɪs] a.	无代的,不分时代的
era [ˈɪərə] n.	世代,纪元,时代
reflection [rɪˈflekʃən] n.	反映,反应,映射
advocate [ˈædvəkeɪt] n.	提倡者,拥护者
innovation [ɪnnəʊˈveɪʃən] n.	革新;新方法;新事物
succession [səkˈseʃən] n.	连续;继任
come in rapid	接踵而至,连续赶到

Notes

- [1] ENIAC (Electronic Numerical Integrator and Calculator) 系美国宾夕法尼亚大学的 J. W. Mauchly 和 J. P. Eckert 于 1946 年制成的计算机。它是历史上第一台电子计算机, 使用了 18 800 支电子管, 加法速度为每秒 5 000 次, 乘法速度为每秒 56 次, 比继电器计算机快一千倍, 比人快二十万倍。

characterize 又写作 characterise, 同义词还有: be marked by 和 feature。

- [2] that 引导的定语从句中含有比较的句子, 即 than 后的内容, 系省略倒装的情况, 完整句子是:

...that would occupy less space and give off less heat than vacuum tube-powered computers occupy space and give off heat.

- [3] one-eighth-inch square 八分之一平方英寸 (1 平方英寸 = 6.451 平方厘米)

- [4] even 修饰形容词的比较级, 作状语, 表示更小了。memory capacity (又称 storage capacity), 存储器容量, 指可以存储在计算机存储器中的数据总量。

- [5] 此处 more...than, 指“与其说……, 倒不如说……”再如:

His words is more a delay than a help for you.

他的话与其说是帮你, 倒不如说在拖延你的时间。

Screen English

1. Disk not ready

磁盘没有准备好

2. Disk write protect

磁盘写保护

3. Duplicate definition

重复定义

4. Out of memory

超内存

5. An internal failure has occurred

内部发生故障(需要重新启动系统)。

Grammar: 形容词和副词的比较结构

英语的形容词和副词分为三级:原级、比较级和最高级。原级用形容词和副词的原形;比较级在规则的形容词或副词原形后加-er 或在原级前加 more;最高级是在规则形容词或副词之后加-est 或在原级前加 the most。

I. 形容词和副词的同级比较

1. 形容词和副词的同级比较通常表示两者在某一方面程度相当。结构如下:

as +

形容词
副词

 (原级) + as + 比较状语从句

This generator is as effective as that one.

(这台发电机和那台效率一样。)

注意: a) 同级比较结构中的比较状语从句, 因比较内容的程度与主句相同, 其谓语及表语均可省略。只有在进行不同性质、不同事物的比较时, 比较从句才以完整的句子形式出现。如:

Tom is as brave as he is quick-witted.

(汤姆有勇有谋。)

She sings as well as she dances.

(她能歌善舞。)

b) 同级比较的结构还常用状语 just, almost, twice, exactly, not half, quite 等修饰。如:

This is just as important an experiment as that.

(这个实验和那个实验正好同样重要。)

The speed of sound in water is about four times as great as in air.

(声音在水中的速度比在空气中大四倍左右。)

2. 表示一方不如另一方时,用下列结构:

not so(as) +

形容词	(原级)
副词	

 + as + 比较状语从句

Line AB is not as long as Line CD.

(AB线不如CD线(那样)长。)

Wheel A does not revolve so fast as wheel B.

(A轮没有B轮旋转那样快。)

3. 当同级比较的形容词为 same 时,前面通常不用 as,而用 the。如:

In fact, Helen's score was the same as mine.

(实际上,海伦的分数和我的分数一样。)

4. 当同级比较的形容词与单数可数名词连用时,应注意不定冠词的位置,通常为:as + 形容词 + a(an) + 单数可数名词 + as 结构。如:

Exercise is as good a way as any to lose unwanted weight.

(运动是跟其他减肥方法一样好的方法。)

II. 程度不同的比较

1. 表示某人或物在某一方面超过别人或物时,要用比较结构,其结构形式为:

形容词	(比较级)
副词	

 + than(连词) + 比较状语从句(比较对象)

Steel is stronger than iron.

(钢比铁坚固。)

The new computer works better than that old one.

(这台新计算机比那台旧的运转得好。)

注意:a)than 在这里是连词,后面也是一个省略式的比较状语从句。要注意代词的格和词序。例如:

We have done the work better than he has.

b)形容词和副词的比较级前也可用 much, far, a lot, no, a little, still, even, three times 等副词修饰。如:

He is far more intelligent than his friend.

(他比她的朋友聪明得多。)

It is even faster than the fastest plane,

(这甚至比最快的飞机还要快。)

2. 某些形容词本身已是比较级的形式,在用作比较时后面跟 to, 而不是 than. 此类形容词常见的有:

anterior(前面的) inferior(下等的)

junior(年少的) senior(年长的)

superior(较高的) posterior(以后的)

prior(顺序在先的)

In computer programming, this model is obviously superior to any of the others we have in the department.

(在计算机的程序编制中,这种模式显然比本部门中我们所有的其他任何模式都要优越。)

That product that you bought at the lower price is inferior to the one that we sell at a slightly higher price.

(你按较低价格买进的那种产品,要比我们以略高一点价格出售的同样的产品质量差。)

3. the + 比较级..., the + 比较级结构,通常前者为表示程度的状语从句,后者为主句,表示越……,越……句中常出现倒装。例如:

The closer the spaceship comes to the earth, the denser the air it meets.

(宇宙飞船越接近地球,它所遇到的空气就越稠密。)