

高职高专教材

计算机

专业英语

主 编 赵洪星

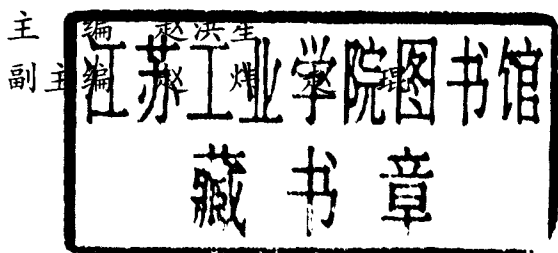
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computer

石油工业出版社

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计算机专业英语



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内 容 提 要

本教材涵盖计算机软硬件基础知识、网络、多媒体、计算机应用等专业知识。每个单元均附有重点词汇、练习及一篇与课文相关的阅读材料,书后附有计算机专业英语翻译与阅读技巧、专业词汇表、常见硬件名和设备名、网络英语词汇和世界知名软件产品简介。

本书适合于计算机专业及相关电子、信息专业高职高专学生使用,也可供广大计算机爱好者学习和参考。

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前 言

本教材可以作为高职高专计算机类专业学生的专业基础课。通过对本课程的学习,学生能掌握较多的专业词汇和基本概念;为阅读计算机专业文献和书籍打下坚实的基础。

教材重视选材的实用性、广泛性和前瞻性,强调与计算机专业课程内容的协调,力图采用最新的计算机专业技术资料,涵盖计算机软硬件基础知识和网络、多媒体、计算机应用等专业知识。全书共分九个单元:第一单元介绍计算机硬件;第二单元介绍计算机软件;第三单元介绍计算机网络;第四单元介绍计算机数据传输介质;第五单元介绍多媒体技术;第六单元介绍数据库技术;第七单元介绍电子商务;第八单元介绍面向对象的程序设计;第九单元介绍计算机科学教育。每个单元均附有重点词汇、练习及一篇与课文相关的阅读材料,书后附有计算机专业英语翻译与阅读技巧、专业词汇表、常见硬件名和设备名、网络英语词汇和世界知名软件产品简介。

本书由天津工程职业技术学院教师编写,其中第一、六单元由赵洪星老师编写;第二、三、四、五单元由赵琨老师编写;第七、八、九、附录由赵炜老师编写;赵洪星老师负责本书的审稿和定稿工作。本书的编写得到了窦连江的大力帮助,在此表示感谢。

由于编者水平有限,不当之处敬请同行批评指正。

编 者

2006 年 6 月

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Unit 1: Computer Hardware



§ Passage

When talking about **computer**, such image (Fig. 1. 1) will appear in our mind: a **display screen** known as the basic **output device**, a **keyboard** usually together with a **mouse** known as the basic **input device**, and a machine box known as a **cabinet**.

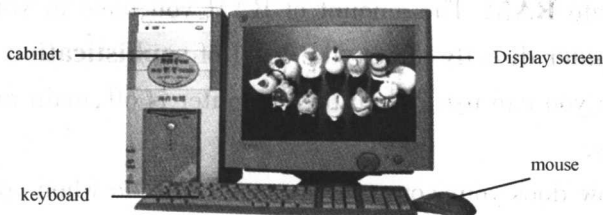


Fig. 1.1 Computer

Computer **hardware** can be divided into four **categories**: **CPU**, **storage devices**, **input devices** and **output devices**.

1. CPU

The central processing unit (CPU) is the brain of the

computer. It has two main parts: the **control unit** and the arithmetic/logic unit (**ALU**). CPU reads and **interprets software instructions** and **coordinates** the processing activities that must take place. The design of the CPU affects the processing power and the speed of the computer, as well as the amount of **main memory** it can use effectively.

2. Storage devices

We usually divide the storage devices into two types: the main memory and the **secondary storage**. A CPU can only **execute** the instructions of a **program** which has already been in the main memory.

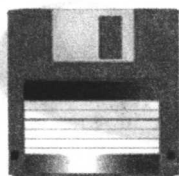
The main memory of most computers is composed of random access memory, or **RAM**. We can store data and programs into **RAM**. The amount of RAM you have in your microcomputer directly affects the level of **sophistication** of the software you can use. When the computer is off, main memory is empty.

How does your computer know what to do when you turn it on? How does it know to check out your hardware **components** to see that they have been connected correctly? Instructions to perform such operations are stored **permanently** on a read-only memory (**ROM**) chip **installed** by the manufacturer inside the computer. ROM can be read, but not be written. When the power is turned off, the instructions stored in ROM are not lost.

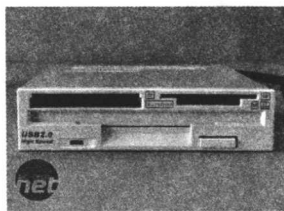
Floppy disk and hard disk are two kinds of the second-



ary storage. A floppy disk is a removable device that magnetically stores data. We usually use floppy disk to transfer data from one computer to another. Floppy disk drive use 3.5 – inch floppy disk. It is a thin circular piece of flexible **polyester** coated with a **magnetic** material. Data are recorded on one or both flat surfaces. In order to avoid damage, it usually has a protective **jacket**. (Fig. 1. 2)



(a) floppy disk



(b) floppy disk drive

Fig. 1. 2

The hard disk is the primary device that a computer uses to store information. Most computers have one **hard disk drive** located inside the computer case, it is called “drive C”. If a computer has additional hard disk drives, they are called “drive D”, “drive E”, “drive F”, and so on. (Fig. 1. 3)

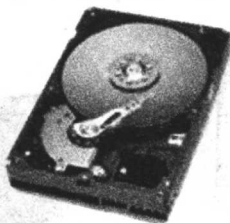


Fig. 1. 3 hard disk drive

3. Input devices

The most common input devices are keyboard and mouse. The keys on a keyboard let you enter information and instructions into a computer. Most keyboards have 101 keys (Fig. 1. 4). A mouse(Fig. 1. 5) is a hand-held **pointing device** that lets you select and move items on your **screen**. It can come in various shapes ,colors and sizes.



Fig. 1. 4 keyboard

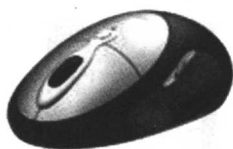


Fig. 1. 5 mouse

4. Output devices

The **monitor** and **video card** (Fig. 1. 6 and Fig. 1. 7) work together to display text and **images** on the screen. A monitor displays text and images generated by the video card. The video card is a **circuit board** that plugs into an **expansion slot** inside the computer. A video card is also called a **video adapter** ,graphics adapter or graphics card.



Fig. 1. 6 monitor

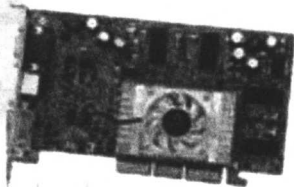


Fig. 1. 7 video card

A **printer** produces a paper copy of the information displayed on the screen. The speed of a printer determines how quickly it can print the pages you select. Speed is measured in characters per second (**CPS**) or pages per minute (ppm). The **resolution** of a printer determines the quality of the images it can produce. A higher resolution results in sharper, more detailed images.

§ New Words

computer [kəm'pjʊ:tə]	<i>n.</i>	计算机
hardware ['ha:dweə]	<i>n.</i>	硬件
software ['sɔftweə]	<i>n.</i>	软件
keyboard ['ki:bɔ:d]	<i>n.</i>	键盘
mouse [maʊs]	<i>n.</i>	鼠标
cabinet ['kæbinit]	<i>n.</i>	机箱
category ['kætigəri]	<i>n.</i>	种类, 类型, 类别
divide [di'vaɪd]	<i>vt.</i>	划分, 分为, 隔开
storage ['stɔɪdʒ]	<i>n.</i>	存储器
interpret [in'tə:prɪt]	<i>vt.</i>	解释, 说明
	<i>vi.</i>	翻译
instruction [in'strʌkʃən]	<i>n.</i>	指令
coordinate [kəu'ɔ:dɪnɪt]	<i>vt.</i>	协调, 调节
execute ['eksɪkjʊt]	<i>vt.</i>	执行, 实行, 实施
program ['prəʊgræm]	<i>n.</i>	程序
sophistication [sə'fɪstɪ'keɪʃən]	<i>n.</i>	复杂程度

component [kəm'pəunənt]	<i>n.</i>	组件, 元件
permanent [ˈpə:mənənt]	<i>adj.</i>	永久的
install [in'stɔ:l]	<i>vt.</i>	安装, 安置
polyester [ˈpɒliestə]	<i>n.</i>	聚酯
magnetic [mæg'netik]	<i>adj.</i>	磁性的, 有吸引力的
jacket [ˈdʒækɪt]	<i>n.</i>	封套
drive [draɪv]	<i>n.</i>	驱动器
image [ˈɪmɪdʒ]	<i>n.</i>	图像
monitor [ˈmɒnɪtə]	<i>n.</i>	显示器, 监督程序
printer [ˈprɪntə]	<i>n.</i>	打印机
resolution [ˌrezəˈljʊ:ʃən]	<i>n.</i>	分辨率

§ Phrases

display screen	显示屏
output device	输出设备
input device	输入设备
control unit	控制单元
main memory	主存
secondary storage	辅助存储器
floppy disk	软盘
hard disk	硬盘
pointing device	定位设备
circuit board	电路板

expansion slot
video card
video adapter

扩展槽
视频卡
视频适配器

§ Abbreviations

CPU	Central Processing Unit	中央处理器
ALU	Arithmetic/Logic Unit	算术/逻辑单元
RAM	Random Access Memory	随机存储器
ROM	Read-only Memory	只读存储器
CPS	Characters Per Second	每秒钟字符数

§ Notes

1. The design of the CPU affects the processing power and the speed of the computer, as well as the amount of main memory it can use effectively.

译文:CPU 的设计会影响计算机的处理能力和速度,同时影响计算机能有效使用的内存容量。

as well as 同时、以及,并列连词

...the amount of main memory it can use effectively. it 指代计算机, it can use effectively 为省略 that 的定语从句,先行词为 the amount of main memory。

2. How does your computer know what to do when you turn it on?

译文:当你开机时计算机怎么会知道要做什么?

what to do 作宾语补足语。

when you turn it on 作时间状语。

3. Instructions to perform such operations are stored permanently on a read-only memory (ROM) chip installed by the manufacturer inside the computer.

译文:执行这些操作的命令被永久的存储在一个只读的存储器芯片中(ROM),这个芯片被生产商安装在计算机内。

to perform such operations 是不定式做定语,修饰 instructions。

installed by the manufacturer inside the computer 是省略 that 的定语从句,先行词是 a read-only memory chip。

4. It is a thin circular piece of flexible polyester coated with a magnetic material.

译文:它是一个薄薄的聚酯圆片,表面覆盖一层磁化材料。

it 指代软盘。

coated with a magnetic material 是过去分词做定语修饰 polyester。

§ Exercises

[Ex 1] *Decide whether the following statement are true (T) or false (F) in relation to the information in the passage.*

1. The computer keyboard has exactly the same layout as the typewriter keyboard.

2. When the power is turned off, the information stored in RAM is lost.
3. Instructions which stored in ROM chip are installed by the manufacturer, they not only can be read, but also can be written.
4. CPU is composed of the control unit and the ALU.
5. The design of the CPU determines whether you can run simple or sophisticated software.
6. The more sophisticated software program, the more instructions it contains.
7. If you have a large memory in your computer, you' ll be able to work with it and process great amounts of data and information at one time.
8. The output hardware is the means for the user to see information produced by the computer.
9. The brain of the computer is the main memory.
10. The capacity of floppy disk is bigger than hard disk.

[Ex 2] *Complete the following sentences according to the passage.*

1. The four categories of computer hardware are _____, _____, _____, _____.
2. A well-designed CPU makes the computer have strong processing _____, and high processing _____ and uses the amount of main _____ effectively.
3. A display screen known as the basic _____, a keyboard

usually together with a mouse as the basic _____, and floppy disk known as the _____.

4. CPU _____ and _____ software instructions and _____ the processing activities that must take place.
5. The _____ and _____ work together to display text and images on the screen.

[Ex 3] Match each of the following terms to the phrase or definition that is most closely related.

- | | |
|----------------|---|
| A. keyboard | 1. some one who does not necessarily have much technical knowledge about computers but who makes decisions based on information processed by the computer |
| B. information | 2. equipment made up of a combination of electronic and electromechanical components that uses software to process data |
| C. computer | 3. raw, unorganized and not processed facts |
| D. monitor | 4. meaningful and useful facts that have been processed from data by a computer |
| E. program | 5. most common type of input device used with computers |
| F. data | 6. output device that can display text and graphics in a variety of colors |
| G. memory | 7. primary storage of the computer, which can be thought of as an electronic desktop |
| H. user | 8. a combination of instructions |