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电脑系列丛书

电脑英语快易通

周 虹 任雪松 何文瑞 编

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前　言

有人说，计算机、英语与驾驶证是通向21世纪的敲门砖。而计算机软件又大多用英语编写，许多屏幕提示、使用指南也多用英语写成。当你想购买电脑时，你也许会让那些令人眼花缭乱的广告弄得不知所措；当你在运行软件甚至游戏时，也许会让计算机屏幕上出现的英文提示搞得头昏脑胀；在碰到问题时，又会由于看不懂英文提示而不知如何下手。那么，本书是你最好的朋友。本书为你提供了计算机常用词汇与基本术语，常用缩略语，最新英文原版软件常见屏幕提示及菜单的含义，并指导你阅读计算机类广告、说明书及各种文章，指导你撰写计算机论文。本书可以作为非计算机专业学生的计算机英语教材，也可以作为计算机专业学生英语读物或专业英语的教材，同时又可以作为上机时的参考手册。

全书共选文章近50篇，基本上涉及了计算机技术发展的各个方面。从计算机的热门话题——分布式处理、网络、人工智能、计算机安全到面向对象设计、多媒体技术等最新技术，以及财会软件，电子数据交换，电子邮件等计算机应用。读完本书，可以使读者对计算机以及对计算机技术的最新发展都有所了解，同时又提高了英语阅读能力和翻译能力。

全书分为两大部分，第一部分为基础篇，共13个单元，每个单元有几篇内容相关的文章，每课后有词汇和难点注释，每个单元后还有与之相关的主要词汇。全部文章选自近年出版的外文书报及杂志，书后附有参考译文。第二部分为实用篇，共5个单元，它将指导你阅读英文广告、计算机 说明书、屏幕菜单及提示信息、指导你如何编写计算机论文及论文摘要。书后附录部分精选了计算机常用词汇与缩略语共约一千

二百个。

本书由周虹主编，任雪松、何文瑞参加编写。周虹编写1～3单元，10～18单元，附录A和附录B。任雪松编写4～9单元。何文瑞对所有文章的难点进行了注释。

本书在编写过程中，谭荣华教授曾提出了宝贵的意见，并审看了部分章节。张武化老师曾给出很大帮助，在此特别表示感谢。由于编写仓促及作者水平有限，错误之处难免，敬请读者指正。

编者　1995年7月

于中国人民大学

总　序

微型计算机(又称微电脑)的诞生,使人人用电脑成为现实。“信息高速公路”在全球的迅猛发展,网络对世界的“链接”与“并轨”,将个人、家庭、企业与国家连成一体,使我们的世界变成了小小的地球村。一个全民学电脑、用电脑的深层次的普及已在我国兴起,并已成为提高劳动者素质,实现我国经济发展和科技进步的重要保证。

但是如何使用电脑,用好电脑,使电脑真正成为随心所欲的好帮手,则是广大群众所迫切需要了解和掌握的。

本套丛书就是这一背景下,由电子工业出版社、北京软件行业协会、中国电脑教育报、电脑爱好者杂志社,聘请国内计算机专家、教授、科普工作者精心策划编写的一套面向全民的计算机普及读物。丛书选材软硬件兼顾,硬件环境着重于目前的主流微型计算机;软件尽量采用最新版本。快! 易! 通! 体现了本丛书的最大特点。

快:《丛书》选材安排以“少而精”为原则,使读者在最短的时间内学到最基本也是最精华的知识。

易:《丛书》内容介绍上力求生动活泼、图文并茂、幽默风趣。对于专业术语及技术的论述,强调由浅入深,通俗易懂,尽量用生活化、拟人化的语言进行叙述。

通:《丛书》内容选择突出“实用性”,即一本书介绍一个实际应用技术,学了就能用,内容重点在于使用与操作步骤。

《丛书》从书面编排、版式设计、标题结构、开本大小上也都突出了创意新颖的特点。

本《丛书》的读者对象是:在校的中小学生及家长;为适应形势而需要学习电脑的各类人员;电脑爱好者、使用者、自学者;各种短训班学员

以及各年龄结构、各种职业的人士。

本丛书是打开计算机殿堂的入门钥匙，以其实用、精炼、活泼、耐读、新颖为宗旨，满足人们快节奏生活和学习电脑的愿望，消除人们对电脑的恐惧感、神秘感，使读者尽快地进入电脑这个神奇而又使人仰目的乐园。

“电脑插上就能用”这一口号已成现实；

“信息垂手即可得”这一目标已在眼前；

“丛书开卷便有益”这一愿望已经出现。

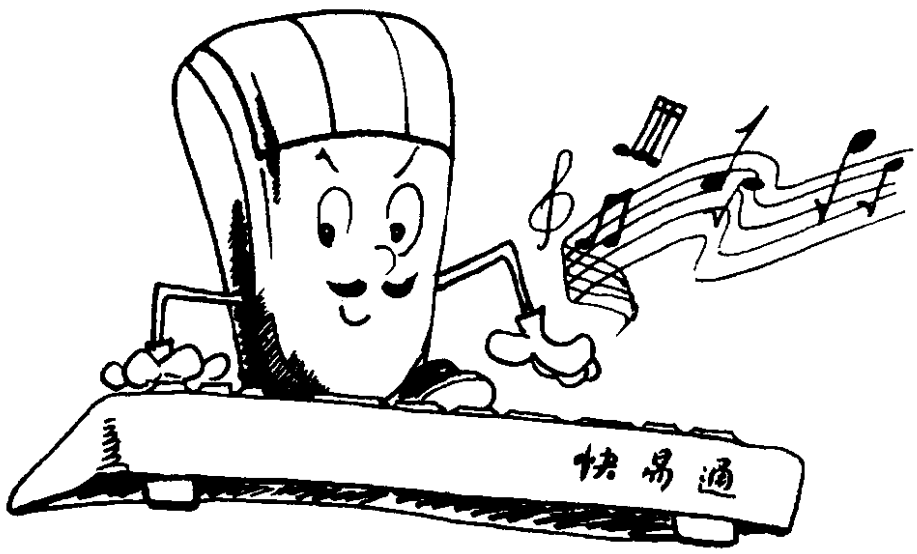
愿本丛书能成为你进入电脑世界最好的伙伴！

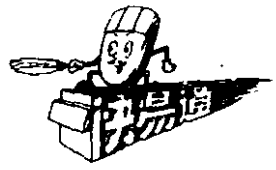
本套丛书的编写得到了各方面人士的大力协作，特别是北京市“三金”领导小组办公室（筹）华平澜主任的支持。在丛书的征名中，得到近千人的推荐，最后我们选中了江超和武俊车二位同志举荐的《快、易、通电脑系列丛书》为名，在此一并致谢！

主编　朱继生

1995.9.9

UNIT 1
The Introduction of the computer





1.1 The structure of the PC

Here we want to introduce the PC Features, see Table 1.1

原 文

FEATURE	BRIEF DESCRIPTION	TYPICAL EXAMPLES
CPU	The CPU determines how much memory the system can address, what kind of software it can run, and how fast it can go.[1]	8088, 80286, 80386, 80486
Bus	The bus determines what kind of expansion circuit boards will work in the machine. All of the common buses here are compatible in varying degrees with each other except Micro Channel, which is not compatible.[2] ISA(Industry Standard Architecture) is the new name given to the old bus most machines use. Micro Channel was introduced in 1987 by IBM for their PS/2 machines. EISA (Extended Industry Standard Architecture) is the non-IBM manufacturer's answer to Micro Channel.	PC bus (8-bit ISA), AT bus(16-bit ISA), Proprietary 32-bit, 16-bit micro channel, 32-bit Micro channel. EISA, local bus, or "VESA" bus
BIOS	BIOS(Basic Input/Output System) is the low-level system software that determines your machine's compatibility.	IBM, Compaq, Phoenix, Award

原 文

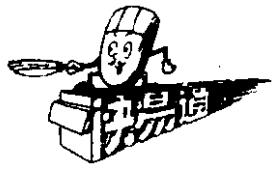
CPU speed	Megahertz(MHz) roughly measures system speed. If all other things were equal, a 10-MHz machine would be faster than a 5-MHz machine.(All other things usually are not equal.)	4.77 MHz(PC speed) up to 33 MHz(some 386s attain this)
Video board	The video board affects what kind of software you can run and how quickly data gets onto the screen. You can easily change it, and the oldest PC can use anything from a monochrome board up to a VGA or 8514. Video boards get better by offering more colors, by being able to show more dots on the screen, and by being faster.	Monochrome Adapter (MDA), Color/Graphics Adapter (CGA), Enhanced Graphics Adapter (EGA), Professional Graphics Controller (PGC), Video Graphics Array (VGA) 8514 High Resolution Adapter
Parallel port	The parallel(printer) port can serve as a high-speed bi-directional interface on some computers. Some manufacturers tout this feature, but it is not very important.	Unidirectional, Bi-directional, EPP (Enhanced Parallel Port)

原 文

Serial port UART	The Universal Asynchronous Receiver/Transmitter is the main chip around which a serial port or internal modem is built. You need a 16450 to run OS/2. The PS/2 models 50Z and 70 have a chip slightly different from either the 8250 or the 16450, a difference which will keep some communications software from running. UART can be changed on many systems.	8250, 16450, PS/2 model 50Z,70
Memory	There are several kinds of memory: conventional, extended, and expanded. They all solve different problems. Some software will not run without a particular amount and/or kind of memory.	640K, and so forth
System Clock/Calendar	Again, not terribly important. Machines with built-in clocks usually have DOS support to read or modify the time and date directly. Some must run a separate program.	Built-in on motherboard, added on expansion board
Hard disk interface	The method that the hard disk controller(a circuit card in the system) uses to talk to the hard disk. Affects speed. Can be easily changed in most systems.	ST506/412, ESDI. SCSI
Hard disken-coding scheme	Method used to squeeze more data onto a track (an area on a hard disk). Can easily be changed.	MFM, RLL, ARLL

原 文

Keyboard	IBM originally put a keyboard control chip in the keyboard for the PC and XT. They moved it to the motherboard for the AT, so you must know which kind of keyboard interfaces you have. Most clone keyboards have a switch allowing them to swing both ways.	XT type, AT type
Floppies supported	The kind of floppies your machine supports. Can be changed fairly easily.	51/4 " 360K, 51/4" 1. 2M, 51/4" 72K (unusual), 31/2" 720K.31/2"1.44M
Expansion slots		3 to 10
Configuration method	Computers will not work until you tell them about themselves, or configure them. It' s done either with physical switches or with software.	Switches, configuration (CMOS) memory
Interrupts (IRQ level) supported	Affects the number and type of expansion board in a system.	8 or 16
DMA (Direct Memory Access) channels supported	Affects the number and type of expansion boards in a system.	4 or 8
Printer control language	Tells your printer how to underline words, put pictures on the page, and change typefaces.	Epson codes, HPPCL (LaserJet commands), PostScript, others



说 明

WORDS

PC(Personal Computer)	个人计算机
CPU(Central Processing Unit)	中央控制单元
memory	主存储器
software	软件
bus	总线
expansion circuit boards	扩充电路板
compatible	可移植性
Micro Channel	微通道
ISA (Industry Standard Architecture)	工业标准体系结构
EISA (Extended Industry Standard)	扩展工业标准体系结构
BIOS (Basic Input/Output System)	基本的输入/输出系统
Megahertz (MHz)	兆赫兹
video board	视频板
MDA (Monochrome Adapter)	单色适配器
CGA (Color Graphics Adapter)	彩色图形适配器
EGA (Enhanced Graphics Adapter)	增强型图形适配器
PGC (Professional Graphics Controller)	专用图形控制器
VGA (Video Graphics Array)	视频图形数组
parallel port	并行口
serial port	串行口
UART (Universal Asynchronous Receiver/ Transmitter)	通用异步接收发送器
chip	芯片
communication	通信
extend	扩展
expand	扩充
motherboard	母板
system clock/calendar	系统时钟/日历
disk controller	磁盘控制器
squeeze	压缩

data	数据
track	磁道
hard disk	硬盘
keyboard	键盘
switch	开关
floppy	软盘
expansion slot	扩展槽
configuration	配置,设置
interrupt	中断
IRQ	中断请求
DMA (Direct Memory Access)	直接存储存取
channel	通道
printer	打印机
printer control language	打印控制语言
bi-direction	双向
address	地址
bit	比特
VESA(Video Electronics Standard Association)	视频电路标准结构
local bus	局部总线
screen	显示器
high resolution adapter	高分辨率适配器
unidirection	单向
EPP (Enhanced Parallel Port)	增强型并行口
modem	调制解调器
CMOS (Complementary metal Oxide Semiconductor)	互补金属氧化物半导体
code	代码,编码
command	命令

NOTES

[1] 该句结构为主 - 谓 - 宾,即"The CPU 后面跟三个并列

宾语从句(1)how much...(2)what kind of...(3)and how.... [2] 该句中"... except Micro Channel"是介词短语,修饰buses,表示"除.....之外,"which is not compatible"是非限定性定义从句,修饰说明"MIcro Channel".

1.2 Computer architectures

原 文

Mainframes and most minicomputers are based on CISC (Complex Instruction Set Computer) architectures, whereas most workstations are based on RISC (Reduced Instruction Set Computer). [1] The latest entry seems to be MISC (Minimum Instruction Set Computer). Some new workstations will be using the RISC technology in the future.

CISC, RISC, MISC.

Eventually, RISC is going to take more market share from CISC. It will be a triumph of Reduced Instruction Set Computing over Complex Instruction Set Computing. You might ask, why didn't we have RISC to begin with? Why do we have to go through the complexity first to come down to the reduced instruction set's simplicity? [2] In order to implememt RISC, it's necessary to have substantial real memory. When real memory was expensive, CISC was implemented. So it's not like someone intentionally went through CISC and then arrived at RISC. The main question now is, which RISC? Sun Microsystems, Motorola, IBM Corporation and MIPS are some of the contenders that manufacture RISC processors, just to mention a few. Another development is MISC (Minimum Instruction Set Computing). Another question is, would the workstations, whatever their architecture, be standalone

or networked? It's estimated that in the near future fifty percent of the workstations or microcomputers will still be standalone and the other fifty percent will be networked.

说 明

WORDS

mainframe	主机
minicomputer	小型机
CISC (Complex Instruction Set Computer)	复杂指令集计算机
architecture	体系结构
workstation	工作站
RISC (Reduced Instruction Set Computer)	精简指令集计算机
MISC (Minimum Instruction Set Computer)	最小指令集计算机
substantial real memory	基本内存
network	网络

NOTES

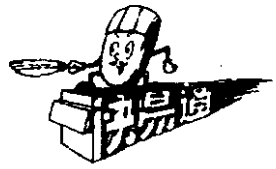
[1] 该句由两个并列句组成,由 whereas 连接两个分句,其中"be based on"意思为"基于...,以...为根据"。

[2] 该句中"...to come down to ...simplicity?"为目的状语,该句句意为"为什么为了达到... 我们先必须...","go through"意思为"履行,做","come down"意思为"降下,降到"。

原 文

1.3 Types of the computer

Modern computers are used for a wide variety of purposes, and this variety of use is reflected in the variations in computer design and the importance attached to specific operating system functions.



Large-scale central computers

原 文

Large-scale central computers in computer centers serving large numbers of users are either supercomputers which specialize in the processing of highly complex computation programs or they are mainframe computers which provide a central data storage facility for an organization for which the operationg system must primarily offer database and transaction support.[1]

Departmental computer

A departmental computer offers a slightly lower processing capacity and can store data for a smaller number of users. As with mainframes, program development on a large scale is often involved here. Departmental computers are also used as servers for performing specialized tasks such as file storage or communication, for supporting workstation computers or PCs. The demands placed on the operating systems for such servers are correspondingly varied.

Workstation computers

Operating systems on high processing capacity workstation computers for individual users must provide above all an easy-to-use user interface (with graphic display for example).

Personal computers

The level of processing capability and the volume of accessible data demanded of inexpensive PCs for individual users are comparatively low.[2] Here, even more so than in the case of workstation computers, the operating system is expected to provide ease