卓越系列

实用 IT 英语

主 编 王 翔

实用 IT 英语

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内 容 简 介

本书依照高等职业教育国家示范校建设的要求,以提高学生在工作中使用 IT 英语的技能水平为目的,根据高职高专学生特点,较为宽泛地讲述 IT 英语知识和技能,适当降低语言难度,强调实用性、基础性及 IT 英语学习的可持续性。

全书共有 8 章,每章 3 至 4 个单元。每单元除专业课文及难度不大的配套练习外,还大量引用了知名企业当今主流产品的英文介绍和使用说明书,为学生提供与未来实际工作接轨的仿真环境。全书内容涵盖计算机软硬件基础知识、多媒体技术、网络技术、电子商务及嵌入式技术等专业英语知识;本书所配光盘中附有专业课文的参考译文、练习参考答案及 IT 术语和 IT 英语缩写的中文解释。

本书可作为高职高专学生的 IT 英语或计算机英语教材,也可供从事 IT 相关专业的工作人员或关心、爱好 IT 业的朋友们学习参考。

总序

　　"卓越系列·国家示范性高等职业院校重点建设专业教材(计算机类)"(以下简称"卓越系列教材")是为适应我国当前的高等职业教育发展形势,配合国家示范性高等职业院校建设计划,以国家首批示范性高等职业院校建设单位之一———天津职业大学为载体而开发的一批与专业人才培养方案捆绑、体现工学结合思想的教材。

　　为更好地做好"卓越系列教材"的策划、编写等工作,由天津职业大学电子信息工程学院院长丁桂芝教授牵头,专门成立了由高职高专院校的教师和企业、研究院所、行业协会、培训机构的专家共同组成的教材编审委员会。教材编审委员会的核心组成员为丁桂芝、邱钦伦、杨欢、徐孝凯、安志远、高文胜、李韵琴。核心组成员经过反复学习、深刻领会教育部《关于全面提高高等职业教育教学质量的若干意见》(教高[2006]16号)及教育部、财政部《关于实施国家示范性高等职业院校建设计划、加快高等职业教育改革与发展的意见》(教高[2006]14号),就"卓越系列教材"的编写目的、编写思想、编写风格、体系构建方式等方面达成了如下共识。

　　1.核心组成员发挥各自优势,物色、推荐"卓越系列教材"编审委员会成员和教材主编,组成工学结合作者团队。作者团队首先要学习、领会教高[2006]16号文件和教高[2006]14号文件精神,转变教育观念,树立高等职业教育必须走工学结合之路的思想。校企合作,共同开发适合国家示范性高等职业院校建设计划的教学资源。

　　2."卓越系列教材"与国家示范校专业建设方案捆绑,力争成为专业教学标准体系和课程标准体系的载体。

　　3.教材风格按照课程性质分为理论＋实验课程教材、职业训练课程教材、顶岗实习课程教材、有技术标准课程教材和课证融合课程教材等类型,不同类型教材反映了对学生不同的培养要求。

　　4.教材内容融入成熟的技术标准,既兼顾学生取得相应的职业资格认证,又体现对学生职业素质的培养。

追求卓越是本系列教材的奋斗目标,为我国高等职业教育发展勇于实践、大胆创新是"卓越系列教材"编审委员会努力的方向。在国家教育方针、政策引导下,在各位编审委员会成员和作者团队的协同工作下,在天津大学出版社的大力支持下,向社会奉献一套"示范性"的高质量教材,不仅是我们的美好愿望,也必须变成我们的实际行动。通过此举,衷心希望能够为我国职业教育的发展贡献自己的微薄力量。

　　借"卓越系列教材"出版之际,向长期以来给予"卓越系列教材"编审委员会全体成员帮助、鼓励、支持的前辈、专家、学者、业界朋友以及幕后支持的家人们表示衷心感谢!

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"卓越系列教材"编审委员会
2008 年 1 月于天津

</div>

前言

对于计算机专业的学生和工作者来说，IT 英语的重要性是不言而喻的。伴随着我国外向型经济发展步伐的不断加快，我国在面向全球的计算机软硬件外包领域取得了长足的进展，IT 业对于专业英语过硬的应届毕业生的需求也因此而不断加大。编者曾经走访过多家 IT 业知名企业，在与企业的管理、技术人员交流中感到，熟练使用 IT 英语已经成为企业是否录用应聘者的重要条件。

本书在教学要求上，强调 IT 领域的专业术语及相关技术的英语表述和阅读方法，不将语法、习惯用语等知识作为教学内容，从而避免与《大学英语》、《实用英语》等教材的重叠。本书在编写内容上，强调广泛地讲述和介绍 IT 英语知识与技能，将语言难度适当降低，将学习内容拓宽，力求使读者能较为全面地掌握使用 IT 英语的思想和方法，并对以后继续深入学习 IT 英语奠定基础，不对某一知识或某一技术细节着太多笔墨，从而避免与 IT 类其他中文专业教材的重叠。

培养高素质、技能型人才已经成为高职高专类院校的人才培养目标。因此，学习企业和行业工作者需要的 IT 英语知识和技能，避免今天所学内容与明天工作需求不相吻合的情况，是本书编写的出发点。本书大量引用国内外知名 IT 企业当今主流产品的介绍和使用说明书，力求为读者提供一个仿真的工作环境，全面提升使用 IT 英语的技能水平，培养使用 IT 英语的职业素养。

本书在编写过程中，参考了大量的文献资料，其中部分内容来自互联网，特别是 IT 领域一些知名厂商和机构官方网站，在此向这些文献资料的作者深表谢意。华北航天工业学院安志远教授在百忙当中审阅了全部书稿，天津职业大学电子信息工程学院院长丁桂芝教授及行业和企业界的技术和管理人员对本书的编写提出了宝贵建议，编者在此一并表示感谢。

本书由王翔任主编，孟祥双、孙惠芹、贾海瀛、王炯任副主编。本书第 1～3、5 章由王翔编写，第 4 章由耿坤编写，第 6 章由孟祥双编写，第 7 章由孙惠芹编写，第 8 章由王彦编写。贾海瀛、李莉、李勤、郝玲、高雅群、陈洁、王炯、张林中、徐亮、薛继霜、傅春参与了本书的译文、专业词汇整理等部分的编写工作。
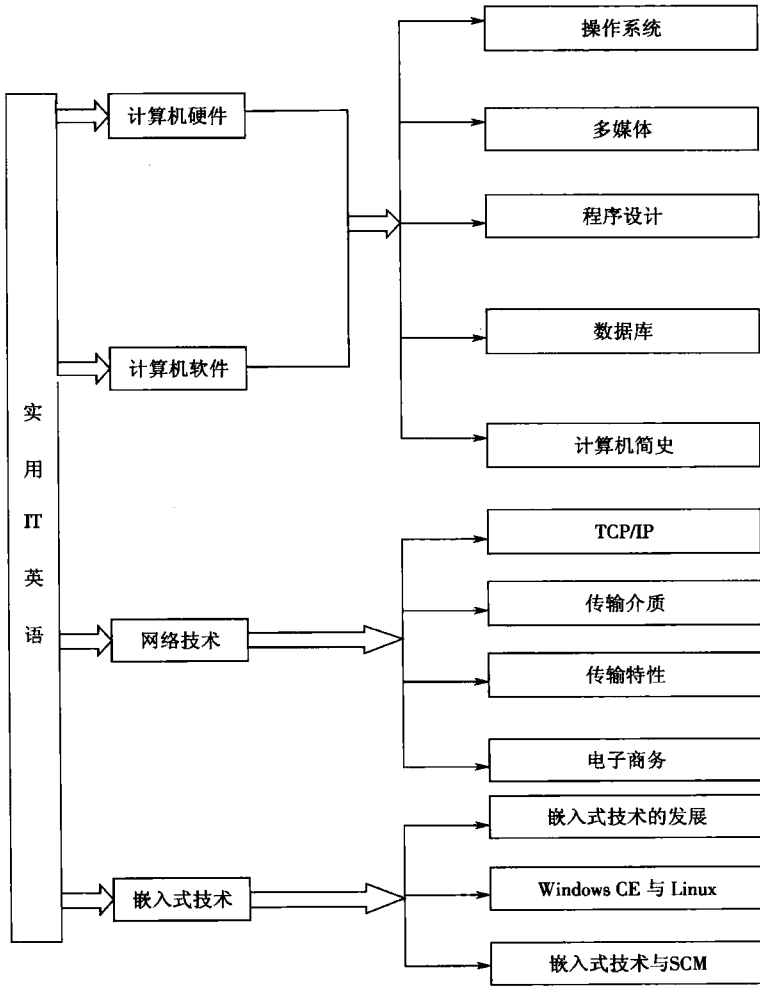
我们愿意为使用本书的教师、学生、IT 业工作人员及计算机爱好者提供该领域的帮助，请通过电子邮箱 pingfan6699@ yahoo. com. cn 与我们联系。为更好地服务于教学，编者已将本书正文部分的译文、专业词汇缩写及习题参考答案放入随书配套光

盘中。(索取教师专用版光盘的联系电话:022 - 85977234,电子邮箱:zhaohong-zhi1958@126.com)

尽管我们在 IT 英语教材建设突破方面,依照高等职业教育国家示范校建设的要求,做出了许多努力,但由于编者的水平有限,加之时间仓促,书中内容难免有错误、不足和疏漏之处,恳请各教学单位、行业和企业的工作人员及广大读者不吝赐教、批评指正。

编　者
2009 年 1 月

学习引导

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Contents

Information Technology
and Our World

1

Unit 1　The Development of Computer Technology

COMPETENCIES

After you have read this text, you should be able to answer the following questions.

1. *Do you think that computers have become one of the most important helpful "partners" of human beings? Why?*

2. *What did engineers develop in the late 1960s and early 1970s?*

3. *What is the phylogeny of Microsoft?*

4. *Who designed and developed Apple?*

5. *What is the difference between IBM and Apple?*

6. *What were the first generation programs?*

7. *Can you tell us something about Bill Gates?*

8. *What is the relationship between Computers and Internet?*

9. *When did many application packages begin to appear?*

10. *When did IBM introduce its own microcomputer IBM PC?*

TEXT

Electronic computer was one of the greatest inventions in the 20th century. Once talking about the computer, we have to think of the birth of ENIAC (Electrical Numerical Integrator & Calculator).
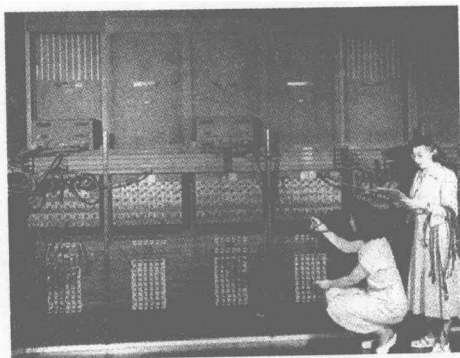

Figure 1-1　ENIAC

The start of World War Ⅱ produced a large need for computer capacity, especially for the military. New weapons were made for which trajectory tables and other essential data were needed. In 1946, John P. Eckert, John W. Mauchly and their associates at the Moore School of Electrical Engineering of University of Pennsylvania decided to build a high-speed electronic computer to do the job. This machine became known as ENIAC (Figure 1-1).

In the early 1950s, the respectable German John von Neumann proposed the concept of a stored program computer—an architecture which has become the foundation for most commercial processors used today. In a von Neumann machine, the program and the data

occupy the same memory. The machine has a program counter (PC) which points to the current instruction in memory. The PC is updated on every instruction. When there are no branches, program instructions are fetched from sequential memory locations. (A branch simply updates the PC to some other location in the program memory.) Except for a handful of research machines and a very small collection of commercial devices, all of today's commercial processors work on this simple principle.

In the late 1960s and early 1970s, engineers made great strides in reducing the size of electronic components. They developed the semiconductor chip, which was about the size of a fingernail and could contain hundreds of transistors. The semiconductor chips enabled engineers to miniaturize the circuits contained in all electronic devices. Most importantly, it produced a new generation of mainframes and minicomputers with increased capability, greater speed, and smaller size.

The microprocessor became a reality in the mid-1970s with the large-scale integrated (LSI) circuit. The earliest microcomputer, the Altair 8800, was developed in 1975 by Ed Roberts; this machine used the Intel microprocessor and had less than 1 kilobyte of memory.

In order for microcomputers to become problem-solving tools, a number of hurdles needed to be overcome. The first was to simplify the program for the machines. One step in this direction was taken by a young Harvard drop-out named Bill Gates, who wrote a version of the programming language BASIC for one of the earliest microcomputers. BASIC had been introduced at Dartmouth College in the mid-1960s by John Kemeny and Kenneth Kurtz. Thus it was a popular programming language on mainframe computers. Gates founded a computer company called Microsoft, which has become one of the major producers of software for microcomputers.

In 1977, Steve Jobs and Stephen Wozniak, two microcomputer enthusiasts, working in a garage, designed their own microcomputer. This was to be named the Apple (Figure 1-2). And their fledgling business was to become the Apple Computer Corporation. Business grew at an unprecedented rate. In no time, Apple was selling hundreds and then thousands of machines per month.

One reason behind Apple's success was the availability of number of useful application programs. The most important of these was spreadsheet VISICALS, which allowed accountants and financial planners to
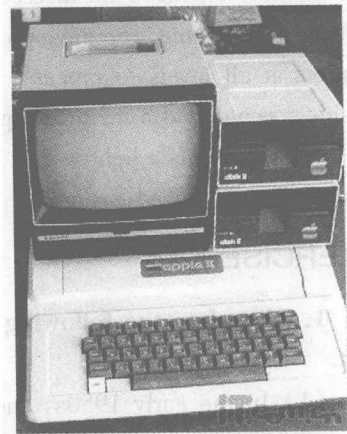

Figure 1-2   APPLE II

automate many of the calculations that they were accustomed to doing on adding machines, or with pencil and paper. Hours of calculations were thus completed in a matter of seconds. Such raw power did much to convince peoples that microcomputers were real problem-solving tools, not toys.

At about the same time as the introduction of the Apple Ⅱ, a number of the microcomputers appeared on the market. One of the most popular computers was Tandy Corporation's TRS-80. Apple and Tandy were the two largest manufacturers. Each with about a 25 percent share of the market.

Early microcomputer users banded together into groups to exchange ideas and to share solutions to problems. A strong spirit of adventure encouraged users to feel they were participating in a major intellectual turning point in computer use. Part of the excitement was created by the unusual mixture of people who participated. In addition to computer scientists and engineers, physicians, business people, and students become microcomputer enthusiasts, at work as well as at home. All were interested in the same goal: using microcomputers to solve problems.

So many application packages began to appear around 1980. The first generation programs for word processing, data management, spreadsheets, and communication allowed novice users to experience the power of microcomputing.

However, most corporations underestimated the significance of bringing computing power down to the level of the individual users. This view abruptly changed in 1981 when International Business Machines(IBM), the largest computer company in the world, introduced its own microcomputer, dubbed the IBM PC ("PC" being the abbreviation for personal computer). The fact that IBM, a company of such corporate prestige, would enter this market convinced businesses that the microcomputer was more than a passing fad. Within a short time, the microprocessor was recognized as a productivity tool to be used by workers at all levels to process, store, retrieve, and analyze information. Almost every business could find a legitimate place for the microcomputer (Figure 1-3).

Now, there is a light-weight, notebook computer, or portable computer (Figure1-4), designed to be moved easily.

EXERCISES

1. Complete the following note-taking with the information mentioned in the text.

(1) In the early 1950s, the respectable German John von Neumann proposed the concept of a _____ computer—an architecture which has become the foundation for most commercial processors used today. In a von Neumann machine, the program and the
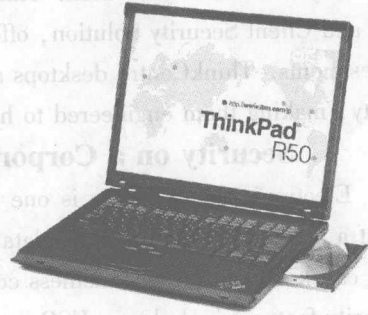
Figure 1-3 IBM 286

Figure 1-4 IBM R50

data occupy the same _____.

(2) One step in this direction was taken by a young Harvard drop-out named _____, who wrote a version of the programming language _____ for one of the earliest microcomputers.

(3) This view abruptly changed in 1981 when _____, the largest computer company in the world, introduced its own microcomputer, dubbed the _____.

(4) In addition to computer scientists and engineers, physicians, _____, and students become _____, at work as well as at home.

2. Translate the following sentences into Chinese.

(1) When there are no branches, program instructions are fetched from sequential memory locations.

(2) The semiconductor chips enabled engineers to miniaturize the circuits contained in all electronic devices. Most importantly, it produced a new generation of mainframes and minicomputers with increased capability, greater speed, and smaller size.

(3) A strong spirit of adventure encouraged users to feel they were participating in a major intellectual turning point in computer use.

(4) The fact that IBM, a company of such corporate prestige, would enter this market convinced businesses that the microcomputer was more than a passing fad.

READING MATERIALS

Product Description 1: Lenovo ThinkCentre Desktops

Businesses rely on their PCs to get things done. They need a PC that delivers high quality and reliability, so they can concentrate on running the company. ThinkCentre desktops are put through a series of rigorous voltage, shock, vibration, and drop tests be-

fore they ever reach your desk. ThinkVantage® Technologies such as Rescue and Recovery and Client Security Solution, offer peace of mind for your valuable data and technology investments. ThinkCentre desktops are built with rock solid quality, reliability, and durability, making them engineered to help you succeed.

Security on a Corporate Level at a Small Business Price

Electronic data security is one of the top concerns of today's business owners. They want a PC that can protect their data and their technology investments. They also want PCs that can keep up as their business continues to grow. ThinkCentre desktops offer improved security features including a USB panel enable/disable feature to help prevent data theft or sabotage and chassis intrusion detection to help prevent tampering. Coupled with the fingerprint reader keyboard, ThinkCentre desktops are dependable PCs that can help protect the valuable data and technology investments businesses make.

Energy Efficient Desktops

Select models of ThinkCentre A61, M57, and M57p desktops and towers meet new Energy Star™ 4.0 compliance. These desktops consume less power, emit less heat and make less noise. The end result for users is a cost-effective PC and a cooler, quieter environment.

EPEAT® Gold

Electronic Product Environmental Assessment Tool rates the A61e in the Gold category, making the A61e one of the most environmentally friendly PCs available. The A61e is one of the smallest energy efficient desktops. It is easy to move and install. It also helps keep workspaces clear, and employees productive.

Productivity for Business

Business owners need every employee to be as productive and efficient as possible. They need PCs that will empower their employees. ThinkCentre desktops help you set up, maintain, understand and enhance your system via the ThinkVantage Productivity Center.

The new Intel® 45 nm based processor technology offers improved overall system performance, and expands power management compatibility for new levels of energy-efficiency.

Dual Independence Display (DID)

DID support enables you to view up to 4 screens simultaneously. DID can help reduce errors in text editing, spreadsheets, and other tasks with easier navigation between applications, improving productivity across your business.

With thoughtfully designed tools to increase productivity and efficiency, ThinkCentre desktops can save you money and time.

The ThinkCentre Energy Calculator

This tool uses actual energy calculations from internal Lenovo testing, to determine