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PRACTICAL IT ENGLISH FOR CHINESE

实用IT英语



PRACTICAL IT ENGLISH FOR CHINESE



FE Stenley Church



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内容提要

本书是面向中国 IT 人士的英语培训教材。它针对中国人学习英语多年,已 具备一定基础的特点,力图通过大量模拟实际 IT 环境的训练辅以正确的方法, 让读者能够轻松用英语交流。全书通篇用英文写成,利于营造英语氛围,培养 语感,更体现本书"用英文思考"的主线。前 4 章,每页英文后附对应的中文 翻译,供英文阅读有困难的读者参考。

本书实用性强,可作为企业的培训教材,也可供大专院校计算机系及 IT 相关专业的学生使用,作为自学教材亦是不错的选择。

实用IT英语

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Dedication

To my wife, Lily Gabriela Mok, on the occasion of the 40th anniversary of our first date.

With love, Stanley

About the Authors

Dr. Stanley Chum



Stanley Chum received his Ph.D. degree in Computer and Communications Engineering from the University of Birmingham, United Kingdom. He accumulated over 25 years of practical experiences from Europe, Canada and United States, covering a broad range of expertise including research and development of computer and communications

system, project management, market analysis, product management, system engineering, network design, applications software development, system test, and ISO 9000 quality assurance and audit.

In early 1990s, Dr. Chum had acted as a United Nations Development Program (UNDP) envoy to China, and had made major contribution to the China telecommunications modernization strategic plan. He was also invited as an advisory professor for the Beijing University of Post and Telecommunications.

Dr. Chum's employment history includes senior management and engineering positions for Sprint Communications, GTE, Southern Pacific Communications, Pacific Bell (all of United States), Canada Nortel and Bell Research Labs, and Cable and Wireless (United Kingdom). Dr. Chum was also Lecturer for the University of California.

Dr. Chum returned to China in 2005, and directed his interest to the Chinese academia. In China, he serves as Professor for Beijing University of Aeronautics and Astronautics, and Chief Technology Officer for National Software Talents Training Center (Computer software and Integrated Circuits Promotion Center, China Ministry of Information Industry). He also provides consulting services to Wyse Technology (China R&D Center), Microsoft, and China Electricity Central Research Laboratory.

Dr. Jason Cheng



Jason Cheng received his M.S. and Ph.D. degrees in Computer Science from the University of Hawaii, United States, with over 15 years of programming, software engineering and management experience in major US enterprises including Sprint Communications and Starvox.

Currently Dr. Cheng is the Director of the National Software Talents Training Center (Computer Software and Integrated Circuits Promotion Center, China Ministry of Information Industry), Specialist Advisor for China Sourcing Alliance (Computer Software and Integrated Circuits Promotion Center, China Ministry of Information Industry). Chief Executive Officer of Beijing Sinobitek Technology, Professor and Head of the Software Engineering and Management Specialty Department, College of Software, Beijing University of Aeronautics and Astronautics. Dr. Cheng was the former China R&D Director for Wyse Technology (USA), and Vice President of Logical Exchange, Inc. (USA).

作者简介

覃伯淇 获英国伯明翰大学计算机与通信工程专业博士学位,具有 25 年在美国、加拿大及欧洲企业工作的经验,涉及领域包括计算机及通信产品的研发、项目管理、市场分析、产品管理、系统工程设计、网络设计、应用软件开发、端对端的集成系统测试以及 ISO 9000 质量保障与审核等。

20 世纪 90 年代初,曾作为联合国发展项目(UNDP)专家帮助中国进行通信发展项目的策划,并被聘为北京邮电大学的顾问教授。

覃伯淇博士早期在美国服务过的企业有 Sprint 通信公司、GTE 公司、南太平洋通信公司、太平洋贝尔公司,并先后在加拿大北电网络公司及贝尔实验室、英国大东电信公司等任职,还曾担任美国加州大学讲师。

2005 年回国从事信息技术等方面的研究和顾问工作,并任北京航空航天大学软件学院教授和信息产业部软件与集成电路促进中心国家软件外包人才培养项目管理中心技术总监。近期曾担任高级顾问的企业包括美国 Wyse 公司中国研发中心、微软公司及中国电力网研究所等。

程建群 获美国夏威夷大学计算机科学专业硕士及博士学位,具有 15 年在美国、印度及中国企业工作的经验,涉及领域包括计算机及通信软件的设计和开发、市场分析、系统工程管理技术等,服务过的美国企业包括 Sprint 通信公司及 Starvox 公司。

程建群博士近期担任信息产业部软件与集成电路促进中心国家软件外包人才培养项目管理中心主任、信息产业部软件与集成电路促进中心中国软件外包联盟专家委员、北京比特华科技有限公司总裁、北京航空航天大学软件学院软件工程与管理专业主任及教授、曾任美国 Wyse 公司中国区负责人及 Logical Exchange 公司副总裁。

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My colleague, Professor Jason Cheng, had been very helpful in his contributions to some sections of this book. I am grateful and obliged to Professor Cheng for coauthoring this book.

I also want to acknowledge my American and Canadian colleagues and best friends, Terry Kero, Dar Biring, and Finbarr Motherway. Their comments, suggestions, sharing experiences, and many discussions held with me had been very helpful. Li Songfeng from Turing Book Company of Posts & Telecom Press had participated in the translation of some sections of this book. I appreciate his work in such a short time.

Most materials presented in this book were synthesized from my lectures for both graduate and undergraduate students at the Beijing University of Aeronautics and Astronautics, the University of California Berkeley Extension, as well as the Information Technology enterprises and other training institutions including the China National Software Talents Training Center (Computer Software and Integrated Circuits Promotion Center, China Ministry of Information Industry). Some of the practical study cases and ideas were borrowed from my students' class work and home work.

Stanley Chum October, 2009

致谢

我要感谢爱妻莫妮琍和我的儿子覃震曦,他们在百忙中抽空细心阅读了本书的初稿,并作了许多富有建设性的评价。同时,也感谢他们在我编写本书的过程中对我的理解、耐心和鼓励。从我撰写博士论文开始,妻子就一直默默地支持着我。

感谢我的同事同时也是本书合著者的程建群教授,他帮助编写了书中的一些章节。

我还要对我在美国和加拿大的同事兼好友 Terry Kero、Dar Biring 和 Finbarr Motherway 表示感谢。他们与我进行了多次经验交流和讨论,并 对我撰写本书的方向和思路提供了非常有帮助的意见和建议。人民邮电 出版社图灵公司的李松峰在紧张的节奏下参与了部分章节的翻译工作,在此一并表示衷心的感谢。

这本书的许多材料融合了我以往在各院校和企业对大学毕业生、本 科生与项目经理等的讲课内容。其中包括北京航空航天大学、美国加州 大学伯克利分校继续教育学院、信息产业部软件与集成电路促进中心国 家软件外包人才培养项目管理中心以及其他培训机构和信息技术企业 等。书中一些练习是从学生的课堂及家庭作业改编而成的。

> 章伯淇 2009 年 10 月

Preface



The use of English language in China had been very limited in the past century. It is only until these recent ten years people in China began to recognize the need of using English in their work (and to some extent in their daily life) when China becomes more open to foreign countries. Schools, colleges and universities began to add more emphasis on teaching English. Today, Chinese college and university graduates generally should have achieved certain English language proficiency (generally measured at CET-4 or CET-6). Also, there are many specialty English language schools throughout China offering English language training at various levels. Nonetheless, unfortunately, most such graduates would find themselves speechless in the situation where English language has to be used in communications. Also, written correspondences and documentation by such graduates are often far less than acceptable.

This book titled, "Practical IT English for Chinese", is written as a text book to support the training for people whose mother tongue is primarily Chinese and who are engaged in Information Technology (IT) related businesses. While IT businesses cover a very wide range of disciplines, our focus is basically technology-oriented. Our main targeted readers are engineers and managers who are working on software systems development, testing, operations and maintenance, as well as related business domains supported by such software systems. This book can be used as a university text book for undergraduate and graduate students preparing for their career in the IT industry.

Most IT related documentation and correspondences are written in English, and most verbal communications in the work place required English, especially when a foreign company is involved. In IT business, especially in IT operations and software products development and their outsourcing, English

本书的目标读者

上一个世纪,英语在国内是不大使用的。直到最近 10 年,随着中国开放程度的加大,中国人开始意识到无论在工作上还是日常生活中随时都有使用英语的必要。中小学校和高等院校也开始日益重视英语教学。目前,中国高校一般都要求毕业生的英语达到某种熟练程度(通常要通过 CET-4 或 CET-6,即大学英语四六级考试)。此外,众多专门的英语学校也遍及全国,提供各种层次的英语培训课程。但尽管如此,仍然有不少大学毕业生在需要使用英语交流的情况下,感到有话却难以说出口。同样,这些大学生用英语写信和写文章的能力也远远达不到应有的水平。

本书名为《实用 IT 英语》,旨在为以汉语为母语且从事 IT 相关工作的人士提供具体的帮助和英语训练。虽然信息技术(IT)所涵盖的领域非常广泛,但本书的重点仅仅在技术方面。本书的目标读者主要是从事软件系统开发、测试、运行及维护工作的工程师和管理人员,以及使用相关软件系统的各业务领域的人士。本书既可以作为在校大学生的教材,也可以作为想在 IT 行业谋求更大发展的大学毕业生和在职人士的参考书。

IT 领域中的很多文档和信件都是以英文撰写的,而工作中的口语交流也经常需要使用英语,特别是涉及外国公司的时候。在 IT 领域,尤其是 IT 运营和软件产品开发及外包领域,英语是主要的工作语言,而

language is the primary and often the only communications media between a Chinese company and a foreign company. An engineer or manager working in such a Chinese company may mistakenly believe that they may not necessarily need to use English in doing their job. They think their primary job duty is to do coding or testing; or to manage, operate and maintain in such an IT environment. In reality, an IT engineer or manager would at times be pulled into a situation where they might need to communicate with a foreign company's personnel to explain how the codes are structured, to explain a detected software defect, to ask questions about details of certain features to be developed, or to make a suggestion. Furthermore, documentation about the coding, the test results, the user manual, etc. must also use English.

Therefore, an engineer or manager with good English language proficiency would have a lot of advantages in their job, and would be a much valuable asset to the employer.

The focus of this book is on "oral English communications". ("English technical writing skills" for Chinese IT professionals is a another subject written under a separate cover.)

Assumption

Students reading this book or taking this training course are assumed to have already achieved certain level of English language proficiency in reading, writing, listening and speaking. However, we assume that they have difficulties in applying the language in their work. Studying this text book and taking the parallel training course would help them to move to a higher level of proficiency and confidence in speaking English at work.

Most Chinese software engineers and graduates have passed CET-4 or above. However, they often say, "Excuse me, My English is very poor", before or after they talk in English. Just this statement alone would be a big obstacle in their English speaking performance.

"Speaking good English" is a kind of given "talent". Only very few people can do well, unless you are a person with English as your mother tongue, unless you are educated in an all-English environment for a reasonably long period, or unless you have undergone an intensive English language training program. On the other hand, "not being able to speak English" is a psycho-

且常常是中国公司与外国公司之间沟通的唯一语言。另一方面,中国公司的工程师或管理人员可能会错误地认为他们在工作中根本不需要使用英语,因为他们的主要工作就是编码、测试、管理、运营和维护相应的IT设施。而实际上,IT工程师或管理人员会有很多机会与外国公司的员工交流,比如解释自己的代码结构和所发现的软件缺陷,或者询问要开发的某项功能的细节,又或者提出建议。此外,还需要为代码编写注释、说明测试结果以及编写用户手册等。这些都需要使用英语。

因此,英语熟练的工程师或管理人员在工作中就会显得更有优势, 会成为公司老板心目中更有价值的人才。

本书的重点是"口语沟通"。(关于 IT 专业人士写作方面的内容,则可参考著者将要出版的另一本书——《英语技术写作能力》。)

学习本书的前提

作者假设阅读本书或参加以本书为教材的培训课程的人应该在英语的听说读写方面具有一定的熟练程度,但在工作中使用英语时有一定困难。通过学习本书同时参加相应的培训,可以帮助他们把工作中英语口语能力提升到一个新的高度。

大多数中国软件工程师和大学毕业生至少都已经通过了 CET-4,但他们在开口说英语之前或之后往往都会说:"抱歉,我的英语不好。" 其实,单单这一句话就是他们展现英语口语表达能力的一个巨大障碍。

"说一口流利的英语"需要具备某种"天赋"。除非你的母语就是英语,或者在纯英语的环境里学习和生活过足够长的时间,又或者参加过集中的英语培训,否则,很少有人能把英语说得很流利。另一方面,"不能说英语"则是用英语沟通上的一个心理障碍,毕竟你已经通过了 CET-4

logical barrier toward communications in English, because you have already passed CET-4 or above.

This book consists of advanced level English learning materials. Students who feel too difficult in following these materials are encouraged to take other fundamental English language courses first.

🥻 Objectives

The objectives of the training using this text book are:

- (1) To study the various situations where engineers and managers may encounter and may need to use English language while working in an IT company.
- (2) To better understand the dynamics of these situations so as to play a more meaningful and contributing role using English language.
 - (3) To practice English language under these circumstances.

This text book and the parallel training course are not about the English vocabulary, grammar, composition, literatures or daily life conversation. Rather, the purpose of this book is focused on how to get around your psychological barrier so that at work you can communicate in English "reasonably well", after you have successfully studied this text book and completed the training in a relatively short period of time. The training program typically should be taken in a training class, but self-training is also possible if you follow the details provided in this book rigorously. Please note that when I say, "Reasonably Well", I mean that this training will not make you become an English talent matching those native English speaker. Rather, it will help you to adequately communicate with others at work. Through time and on-going practices you will continue to improve your English speaking capability.

Principles

The following principles are employed in the design of this training course:

- (1) Expose yourself to communications situations commonly found in an IT related work environment.
- (2) Understand what are the "right" and "useful" things to say or write at various situations.

甚至更高水平的考试。

本书中学习资料的难度属于中级到高级,读者如果感觉这些资料学习起来有困难,建议你先进行一些基础性的英语学习。

本书的目标

使用本书进行英语训练有以下几个目标。

- (1) 了解 IT 公司的工程师和管理人员在工作时可能需要使用英语的各种场景。
- (2) 充分理解这些场景下可能出现的变化,以便在使用英语交流时 能扮演一个更有价值和作用的角色。
 - (3) 以这些环境作为背景来练习英语。

本书及相应的培训并不涉及英语词汇、语法、写作、文学或日常生活会话。本书旨在引导你克服心理障碍,让你在较短时间内通过学习本书并完成相应的练习之后能够在工作中"较为流畅"地使用英语与人交流。虽然本书中的练习一般应该在培训课堂上进行,但如果你能够严格按照本书的具体要求,通过自学也可以收到同样的效果。请注意,我们说"较为流畅"的意思,就是训练本身不会让你成为英语天才,也不会让你像说汉语一样流畅地说英语,但它能够让你在工作环境中有效地用英语与别人交流。只要坚持不懈地努力练习,假以时日,相信你一定能够不断提升自己的口语能力。

**本书的编写原则

本书配套的各种训练采用了以下原则。

- (1) 让你模仿在 IT 公司工作环境中常见的场景进行对话练习。
- (2) 让你明白在各种不同情况下,什么是"恰当"和"有用"的讲话或写作内容。

- (3) Recognize clearly the purpose of the communications session in question, and understand clearly your role in the session.
- (4) Maximize the use of limited vocabulary, and prepare you with plenty of terminologies of information technology.
- (5) Get rid of the fear in using English and focus on the substance of what you want to say.
- (6) Increase the interest of your counterpart in communicating with you, rather than to be shy away from the situation.

Organization of This Book

The original script of this book has been written in English. However, for the benefits of those readers who may have some difficulties in reading English, the theoretical portions of this book (Chapters 1 to 4) have Chinese translation. On the other hand, the practicing portions of this book are provided in English only. We believe that immerging yourself in a solely English environment and doing your practices therein is the only way to quickly and effectively improve your English speaking proficiency. We suggest that this training class shall also be conducted in English language.

This book consists of two parts:

- Part 1 Theory, background materials, guides and self practices (Chapters 1 to 4). This part is designed to allow you to prepare with practices and helpful materials.
- Part 2 Practical cases study (Chapter 5). This part will cover situations of conversational dialogs.

Part 1: Theory, Background Materials, Guides and Self Practices

The theory together with background materials and techniques for speaking better English will be covered in Part 1.

One main obstacle for not being able to communicate well in English is the Chinese-to-English translation processes which most Chinese people have to go through every time they need to speak in English. Chapter 1 addresses this problem in details and discusses some useful techniques to overcome this problem.

Substance is very important in any communications session in the work place. Therefore, understanding your own profession and the general

- (3) 明确知道沟通对话的目的,明确你自己在谈话中所扮演的角色。
- (4) 最大限度地利用你有限的词汇量,并增加一些 IT 术语来充实你自己。
- (5) 抛开对使用英语的恐惧,把注意力集中在你要表达的重点内容上。
 - (6) 提高对方与你谈话的意愿和兴趣,不要害怕说英语。

本书的组织结构

本书原文采用英语编写,但为了方便那些对英语阅读有困难的读者,本书的第1章至第4章中的理论部分采用了英汉对照的形式,而对话及练习部分不提供中文翻译。虽然某些内容有对应的中文,但我们还是认为你应该通过英文阅读来体会本书所要表达的意思,因为这才是迅速、有效地提升英语表达能力的关键。我们建议培训课程也采用英语授课方式。

本书主要分为两部分。

- 第一部分: 理论、背景资料、指南及自我练习(第1章至第4章)。 这部分的内容主要为读者提供了一些练习及有帮助的资料。
- 第二部分:实际案例学习(第5章)。这部分主要讨论了各种对话式交谈的场景。

第一部分:理论、背景资料、指南及自我练习

第一部分主要围绕着"如何能说好英语"介绍了相关理论、背景资料和技巧。

大多数中国人不能自如地使用英语交流的一个主要障碍就是每次说 英语时都会经过一次中英翻译的过程。我们在本书第1章将会详细讨论 这个问题,并介绍一些有用的技巧。

讲话的内容是你在工作中与别人沟通的核心所在。因此,理解自己 的职责和必备的相关知识、明确自己在某个场景中的角色、对自己的实