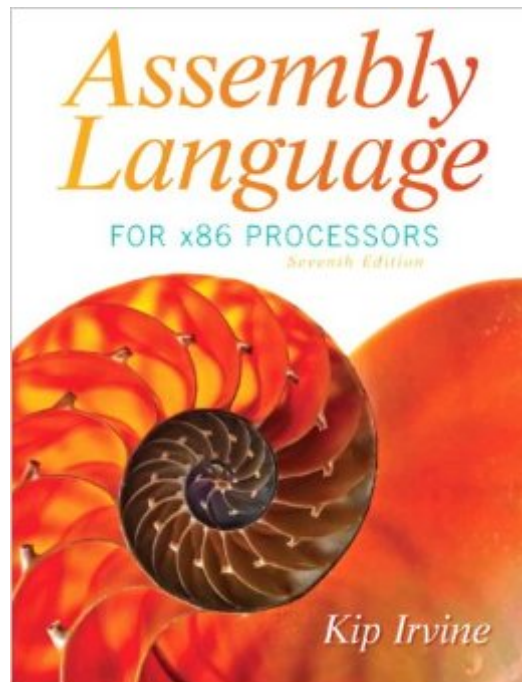# Assembly Language For X86 Processors (7th Edition)

Synopsis

Assembly Language for x86 Processors, 7e is intended for use in undergraduate courses in assembly language programming and introductory courses in computer systems and computer architecture. This title is also suitable for embedded systems programmers and engineers, communication specialists, game programmers, and graphics programmers. Proficiency in one other programming language, preferably Java, C, or C++, is recommended.Â Â Written specifically for 32- and 64-bit Intel/Windows platform, this complete and fullyupdated study of assembly language teaches students to write and debug programs at the machine level. This text simplifies and demystifies concepts that students need to grasp before they can go on to more advanced computer architecture and operating systems courses. Students put theory into practice through writing software at the machine level, creating a memorable experience that gives them the confidence to work in any OS/machine-oriented environment. Additional learning and teaching tools are available on the authorâ ™s web site atÂ Â http://asmirvine.com/Â where both instructors and students can accessÂ chapter objectives, debugging tools, supplemental files, a Getting Started with MASM and Visual Studio 2012 tutorial, and more. Â Teaching and Learning Experience This program presents a better teaching and learning experienceâ ”for you and your students. It will help: Â Teach Effective Design Techniques: Top-down program design demonstration and explanation allows studentsto apply techniques to multiple programming courses. Put Theory into Practice: Students will write software at the machine level, preparing them to work in any OS/machine-oriented environment. Tailor the Text to Fit your Course: Instructors can cover optional chapter topics in varying order and depth. Support Instructors and Students: Visit the author's web site http://asmirvine.com/ for chapter objectives, debugging tools, supplemental files, a Getting Started with MASM and Visual Studio 2012 tutorial, and more.

Book Information

Hardcover: 720 pages

Publisher: Pearson; 7 edition (March 21, 2014)

Language: English

ISBN-10: 0133769402

ISBN-13: 978-0133769401

Product Dimensions: 7.1 x 1.2 x 9.3 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review: 3.8 out of 5 starsÂ Â See all reviewsÂ (48 customer reviews)

Best Sellers Rank: #51,264 in Books (See Top 100 in Books)   #1 in Books > Computers & Technology > Programming > Languages & Tools > Assembly Language Programming   #193 in Books > Textbooks > Computer Science > Programming Languages   #14536 in Books > Reference

Customer Reviews

Initially, I hated this book. Hated it. But as I progressed through it I grudingly had to admit that I was learning. Let me state unequivocally, this IS a textbook - it's priced like one and it reads like one. It's not a self study book like the Head First, Deitel, Sams, Dummies, OReilly, et al series, but I think with a modest amount of effort one can learn using it.Negatives:- Price -There is absolutely no justification for the pricing on this book. Non-textbooks have just as much, if not more, content/quality for 1/3 of the cost.- Dated -This is the 6th edition of this book. The Sixth!! The front matter states that this book was previously published as "Assembly Language for Intel-Based Computers" which itself has been around since the early 90s. There are signs that the author has made attempts to drag this book into the current millennium but it's still got more age spots than a 3 month old banana.Plus, the "additions" only seem to highlight the fact that this is an old book. You've got supplemental info in various places: the publisher's website, the author's website, a companion website. Take this remark (pg 103):"This program generates no screen output, but you can (and should) run it using a debugger. Please refer to tutorials on the book's Web site showing how to use the Microsoft Visual Studio debugger."Another example, in chapter 5 he details opening/modifying the console window. I would think that anyone who has experience programming in C/Java/Python (as per the prereqs in 1.1.1) would already know what the console window is. This suggests that this is one of the many updates made to this book of the last decade or so which only adds to its fractured appearance.

This is one of the best books on the subject of Assembly, IA-86 and Windows Assembler specifically, and it is extremely good when compared to other programming books (in other languages).Assumptions about your goals: You want to learn IA-86 Assembly, and you prefer to learn it on Windows, and you know a bit about programming in general (in some language).The huff about the "Irvine libraries" from other reviewers is vastly overblown out of all proportion. The POINT of the libraries is to give the new assembly language programmer some basic tools so that meaningful programs can be immediately written without getting (immediately) into ALL the gory details.Details are the norm in assembly language programming but having to deal with all of the

details in Chapter 1, or in your first few programs would either be 1) overwhelming or 2) distracting from the key points that provide the basis for further learning.I saw the libraries mentioned; loaded them on my computer; and then pretty much ignored them as I learned directly from reading the book and in writing my own program(s).You only "need" the libraries if you 1) want to slavishly follow the examples and 2) don't won't to implement the equivalent functions yourself.If you are an advanced enough programmer (in general or in assembler specifically) it is largely trivial to implement the needed routines as you read and study the book -- as long as you have the time and don't find the extra work/details distracting.For some (perhaps crazy) reason, I decided to re-write one of my CPP multi-threaded network utilities in Assembly -- mostly to see how small I could make it and to force myself to learn Assembly.

This book contains a large amount of 16 bit (and 32 bit code that is glorified 16 bit) x86 code. We are now on 64 bits. 64 bit architecture has also changed. This book is representative of the approximately the 2000-2002 era of Windows ME or so, despite the fact it keeps getting "updated". I do not know what these updates consist of, but it still fails to address modern operating systems and architecture. Many students, unfamiliar with DOS, will be quickly lost by the extensive use of the DOS console.You will not learn x86 Assembly Language from this book. The pace is glacial and you will barely be able to output to the console by the time you finish. Assembly at this introductory level is not that hard, the author has just loaded down his book with useless minutiae, presumably to hide the fact that the book is increasingly outdated, its code is irrelevant, it fails to address the windows api, and it doesn't deal w/any modern MASM implementation. As a bonus, the writing is terrible and the programming exercises frequently require knowledge of material not covered at the time of the exercise (most of the chapter 5 exercises, for instance, essentially require bit-shifting, conveniently located in chapter 7 - 2 chapters afterwards), or, still better, are often not covered at all.But, perhaps the worst part of the book is that the author does not use a standard library (MASM32 would be ideal - or the libraries included w/the latest Visual Studio Express - available for free) instead the author writes his own proprietary library for the outdated last pre-VS hurrah of MASM. So, when you're finished with the book, not only will you have learned little, but you will not even have learned many standard calls or even a modern MASM implementation. Computers progress quickly.

Download to continue reading...

Assembly Language for x86 Processors (7th Edition) Modern X86 Assembly Language Programming: 32-bit, 64-bit, SSE, and AVX PC Assembly Language: learn how computer work easy ways to learn assembly language Body Language: Body Language Training - Attract Women &

Command Respect, by Mastering Your High Status Body Language (Body Language Attraction, Body Language ... Language Secrets, Nonverbal Communication) Some Assembly Required: Assembly Language Programming with the AVR Microcontroller The Gun Digest Book of Firearms Assembly/Disassembly Part I - Automatic Pistols: Pt. 1 (Gun Digest Book of Firearms Assembly/Disassembly: Part 1 Automatic Pistols) The Gun Digest Book of Tactical Weapons Assembly/Disassembly (Gun Digest Book of Firearms Assembly/Disassembly) The Gun Digest Book of Revolvers Assembly/Disassembly (Gun Digest Book of Firearms Assembly/Disassembly) Gun Digest Book of Revolvers Assembly/Disassembly (Gun Digest Book of Firearms Assembly/Disassembly) The Gun Digest Book of Firearms Assembly/Disassembly Part V - Shotguns: Shotguns Pt.5 (Gun Digest Book of Firearms Assembly/Disassembly: Part 5 Shotguns) A Communication from Sir Charles Brisbane, K.C.B. Governor of Saint Vincent: To the House of Assembly of That Colony, Enclosing Lord Bathurst's ... Assembly; and a Letter Depicting the Alarm BODY LANGUAGE : Decoding Alpha Male Body Language, Instantly Attract Any Woman Without Saying a Single word. (Body Language 101, Alpha male, Attract woman, ... Seduce Women, Eye Contact, Body Language) Programming Massively Parallel Processors, Second Edition: A Hands-on Approach The Definitive Guide to ARM® Cortex®-M3 and Cortex®-M4 Processors, Third Edition MODERN PROCESSOR DESIGN: Fundamentals of Superscalar Processors, Beta Edition The Definitive Guide to ARM® Cortex®-M0 and Cortex-M0+ Processors, Second Edition The Definitive Guide to ARM® Cortex®-M3 and Cortex®-M4 Processors Embedded DSP Processor Design, : Application Specific Instruction Set Processors (Systems on Silicon) Design of Softcore DSP Processors on FPGA Chips Modern Processor Design: Fundamentals of Superscalar Processors