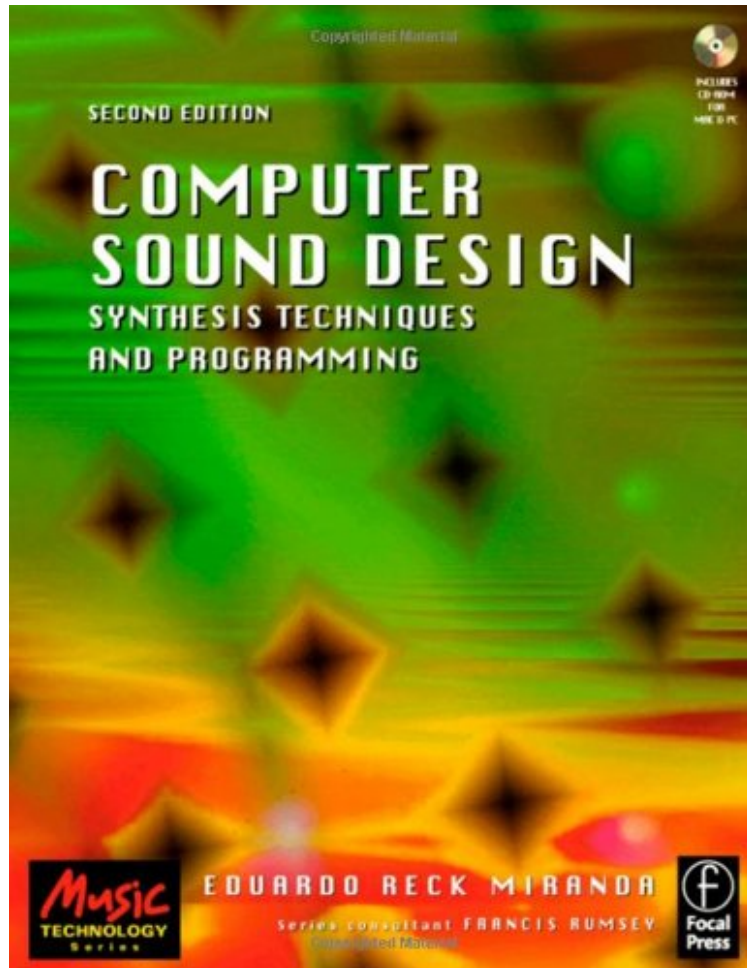


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## Computer Sound Design: Synthesis techniques and programming (Music Technology)

*Eduardo Miranda*

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#2923329 in Books 2002-09-05 Original language: English PDF # 1 .69 x 7.82 x 9.281, 1.27 #File Name: 0240516931288 pages | File size: 63.Mb

**Eduardo Miranda : Computer Sound Design: Synthesis techniques and programming (Music Technology)** before purchasing it in order to gauge whether or not it would be worth my time, and all praised Computer Sound Design: Synthesis techniques and programming (Music Technology):

0 of 0 people found the following review helpful. This Book is NOT A Guide to Programming! By David This book is a VERY good Survey or Overview of Sound and Music synthesis. The main focus is on the physics of sound and on \*general\* description of Symbolic representations of oscillator systems. It is what I would expect to be given as a photo copied handout in a beginning University Intro course on Sound. Not a \$60 Textbook. As well, the description lead me to believe it was a tutorial on programming Sound for the computer, whereas it is a theoretical book only. There is ONE snippet of C code about 10 lines long. Misleading description, and the book sample does not let you

know it! I am returning this. 7 of 8 people found the following review helpful. Excellent book! By John Simpson This is an excellent book and I found it ideal as a text book for sound synthesis courses. It covers a wide range of different synthesis techniques and the concepts are clearly explained with examples and useful diagrams. What I found most positive in this book is that it does not focus on any one system in particular (ie, it's not a user guide for a specific software). Rather, it surveys of a number of systems - commercial and public domain - including unusual ones for physical modelling such as Praat and CORDIS. Also there is a chapter of more advanced synthesis techniques using genetic algorithms and artificial intelligence, which makes it a nice addition to the norm. I only wished the book was longer, with more in-depth discussion on some of the many interesting examples. The CD-ROM has useful additional materials and tutorials. 15 of 19 people found the following review helpful. Most welcome and very helpful By A Customer The book is designed to be very practical. It can serve as an introduction, but also as a clarification and reminder for the already experienced reader. The author provides the support necessary for finding one's own path in an extremely clear fashion, so that every step appears simple. The choice of topics includes important and neatly classified methods for sound modelling. At the end, the book ventures towards "the cutting edge" - applying artificial intelligence techniques and evolutionary computing for sound design, and taking into account the implications of parallel computing for sound synthesis: the author is himself conducting research in these promising fields, at the new frontier of computer music. The CD-ROM provides useful software as well as tutorials and examples. Doing one's own thing with digital sound technology requires some effort indeed: but this effort is necessary to take advantage of vast potential resources in an original, personal and musical fashion, and this book should help in this worthwhile endeavor. I believe that *Computer Sound Design - Synthesis Techniques and Programming* will play a useful role in the diffusion of knowledge and know-how on software synthesis, and greatly facilitate the approach of digital sound design.

This comprehensive introduction to software synthesis techniques and programming is intended for students, researchers, musicians, sound artists and enthusiasts in the field of music technology. The art of sound synthesis is as important for the electronic musician as the art of orchestration is important for symphonic music composers. Those who wish to create their own virtual orchestra of electronic instruments and produce original sounds will find this book invaluable. It examines a variety of synthesis techniques and illustrates how to turn a personal computer into a powerful and flexible sound synthesiser. The book also discusses a number of ongoing developments that may play an important role in the future of electronic music making. Previously published as *Computer Sound Synthesis for the Electronic Musician*, this second edition features a foreword by Jean-Claude Risset and provides new information on: the latest directions in digital sound representation advances in physical modelling techniques granular and pulsar synthesis PSOLA technique humanoid voice synthesis artificial intelligence evolutionary computing The accompanying CD-ROM contains examples, complementary tutorials and a number of synthesis systems for PC and Macintosh platforms, ranging from low level synthesis programming languages to graphic front-ends for instrument and sound design. These include fully working packages, demonstration versions of commercial software and experimental programs from top research centres in Europe, North and South America.

"Clear, readable and detailed without being wordy or heavy." Tony Thompson, Mighty Wight Productions  
s of the previous edition: 'An extremely readable and comprehensive coverage of the audio synthesis domain. No high level maths required. The straight forward and lucid descriptions of each of the major synthesis approaches (and some of the more esoteric ones too) will empower the reader to get a deeper (and better) understanding of their synthesis instrument. The addition of several software synthesis applications makes this worth the price alone. New noises abound. As a MAX MSP user this was exactly what I needed to begin designing new synthesis instruments...great book.' A reader, .com...an excellent source of ideas for creating innovative sounds for my mixes and multimedia works.' A reader, .com  
About the Author Eduardo Reck Miranda is a researcher at Sony Computer Science Laboratory, and a renowned composer in his own right. He is one of the creators of the Computer Music Group (NUCOM) of the Brazilian Computer Science Society (SBC); he is also a member of the International Computer Music Association (ICMA), the Brazilian Electroacoustic Music Association (SBME) and the Audio Engineering Society (AES). He is on the editorial boards of *Leonardo Music Journal*, *Organised Sound*, and *Contemporary Music* .