

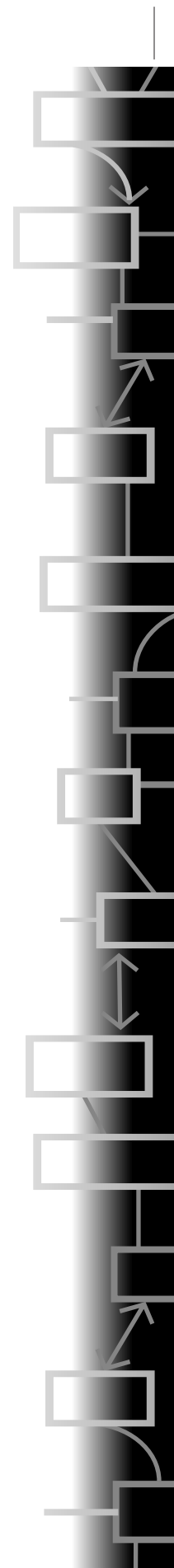
# Introduction

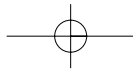
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**A**N INTRODUCTION SHOULD give a noble purpose for writing a book. I should say that the purpose of this book is to help real programmers who have real problems in the real world. But the *real* reason this short book is being published is to save me the trouble of writing any more emails and posting more code on Internet Newsgroups. This topic has been hot on all the SQL-related websites and the solutions actually being used by most working programmers have been pretty bad. So why not collect everything I can find and put it in one place for the world to see?

In my book *SQL For Smarties* 2nd edition (Morgan-Kaufmann, 2000), I wrote a chapter on a programming technique for representing trees and hierarchies in SQL as nested sets. This technique has become popular enough that I have spent almost every month since *SQL For Smarties* was released explaining the technique in Newsgroups and personal emails. And people who have used it have been sending me emails with their programming tricks. Oh, I will still have a short chapter or two on trees in any future edition of *SQL for Smarties*, but this topic is worth this short monograph.

The first section of the book is a bit like an introductory college textbook on graph theory, so you might want to skip over it, if you are current on the subject. If you are not, then the theory there will explain some of the constraints that appear in the SQL code later. The middle sections deal with programming techniques and the end sections deal with related topics in computer programming.





The code in the book was checked using a SQL - 92 and SQL - 99 syntax validator program at the Mimer website (<http://developer.mimer.com/validator/index.htm>). I have used as much core SQL - 92 code as possible. When I needed procedural code in an example, I used SQL/PSM but tried to stay within a subset that can be easily translated into a vendor dialect (see Jim Melton's book, *Understanding SQL's Stored Procedures*, for details of this language [Morgan-Kaufmann, ISBN 0-55860-461-8, 1998]).

There are two major examples (and some minor ones) in this book. One is an organizational chart for an unnamed organization and the other is a parts explosion for a Frammis. Before anyone asks what a Frammis is, let me tell you that it is what holds all those Widgets that the MBA students were manufacturing in the fictional companies in their textbooks.

I invite corrections, additions, general thoughts, and new coding tricks at my email address ([joe.celko@northface.edu](mailto:joe.celko@northface.edu)) or my publisher's snail mail address.

