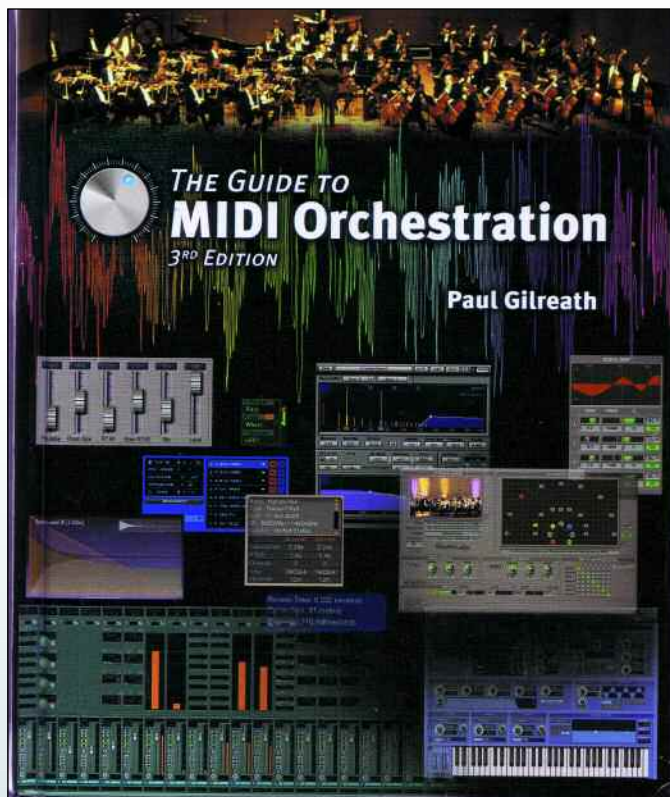


# “The Guide to MIDI Orchestration” by Paul Gilreath

This behemoth book takes on the huge subject from top to bottom

Review by  
Doyle W. Donehoo



The first thing you notice about this 779-page book is that it is very large and weighs five pounds. This tome demands attention.

The Guide to MIDI Orchestration was written by Paul Gilreath, and I am sure writing this third edition book was an overwhelming task, especially in the light of the rapid and major recent advances in MIDI Orchestration in regards to computers, samplers, plug-ins, music hardware, software, and sample based instruments. Let’s break this book down into basic sections and take a look at what each offers.

## Orchestral sections

This subject is covered in seven chapters. Gilreath begins by reviewing the evolution of orchestral music and composers, past and present. Then he reviews each section of the orchestra and explains each one’s use and function. Gilreath includes many substantial details about instrument technique and how particular instruments are soloed or blended with other instruments. Finally, he ends this particular group of chapters with a rather technical “Orchestration Basics” chapter.

Sequencing and sequencing techniques

The sequencing section begins with a how-to for getting started, but the real fun of this part of the book is when Gilreath begins exploring sequencing technique for orchestra sections. These chapters address the orchestra in its natural sections: strings, woodwinds, brass, and percussion, along with harp and piano.

First comes the string section, which also has the greatest number of issues and problems to solve. The novice MIDI Orchestrator will hear a lot about Legato, and the author again does a good job of explaining the concepts involved and the techniques to master this playing style.

He goes into alternate bowing directions and overcoming the “machine-gun effect,” as well as using first and second violins, dynamics, and other techniques. For woodwinds, brass, and percussion, the book covers many of the same concerns that were brought up in the strings section, while addressing subjects particular to each group of instruments.

Harp and piano have their own bag of tricks and concerns. The text provides a lot of thoughtful, informative discussion that’s especially useful for anyone who may not have given enough thought to these instruments.

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computer super-user who's familiar with computer and music software and hardware. Thus the book goes through the basic essentials of the computer-based studio, and it does a good job. MIDI orchestration is very CPU-, storage-, and memory-intensive, and the book points out why.

Next Gilreath the all-important concerns of the MIDI and audio interfaces, along with software audio drivers, hardware, digital clocking, and the concept of the Digital Audio Workstation (DAW). The book kicks things into the next gear with fairly extensive discussions of sequencers, samplers, V.I. hosts, latency, mixers, audio monitors, MIDI control surfaces, and a fairly detailed discussion of how to put all this stuff together—which is no small task.

### Room emulation fx and plug-ins

Room (or more likely hall) emulation is an important aspect of MIDI orchestration, so the book goes into reverbs, impulse-based convolution reverbs, and orchestral libraries that were recorded in natural hall settings. The book explains the philosophy and application of various approaches of recreating a hall environment for a MIDI orchestra, and then reviews the most popular plug-ins available.

### Softsamplers

This subject is given its due with a thorough discussion of the various samplers avail-

able. Also covered are file formats, file conversion, and interfacing.

### Mixing

Some developers have produced sample libraries with natural hall sound, while other developers subscribe to the philosophy that for maxim flexibility, instruments should not be recorded fixed in their stereo position. The book discusses these points and explains the philosophy behind the various approaches, while suggesting a fairly typical and traditional approach to instrument panning in the stereo field with a nice chart.

Then we get into the techniques of using the mixer and plug-ins to get a reasonable representation of an orchestra.

### Orchestra and voice libraries

Before getting into the actual libraries, the book spends a short chapter discussing their development, their technology base, and the choices a MIDI orchestrator has to make when purchasing a library.

The voice, percussion, and orchestral library discussions happily go into great detail about the majority of the most popular libraries currently available, with a comprehensive review. These discussions are important, because some libraries come with their own sample players and unique interfaces, and the sample-based instruments themselves are quite varied.

### Appendix

The remainder of the book has some useful appendices: instrument ranges, descriptive frequency range chart, music company resources organized by category, and finally the index.

### Conclusions

Even for experienced orchestrators and composers, this book is a useful reference; for anybody just starting out as a MIDI orchestrator, this book is a must-have. No other book is so comprehensive—it includes just about everything a MIDI orchestrator should know.

Pound for pound at a list price of \$69.95, this book is a good investment.

*Doyle W. Donehoo ([www.sierra-trails.com](http://www.sierra-trails.com)) is a game music composer and was also a software engineer for many years. He is a serious practitioner of sample-based instrument orchestration and sound engineering, a sample instrument developer, and feature writer. Doyle has lectured at the Game Developer Conference (GDC) on the subject of virtual orchestration, and is a beta tester for numerous music-related products. VI*

*Doyle first reviewed Gilreath's book on [www.music4games.com](http://www.music4games.com), and this article was adapted from that article with their kind permission.*