



The **Ultimate**

# DIGITAL MUSIC

GUIDE

THE  
BEST WAY  
TO STORE,  
ORGANIZE,  
AND PLAY  
DIGITAL  
MUSIC

que

MICHAEL MILLER

---

The Ultimate  
**DIGITAL  
MUSIC**  
GUIDE

**Michael Miller**

**que**<sup>®</sup>

800 East 96th Street,  
Indianapolis, Indiana 46240

---

# The Ultimate Digital Music Guide

Copyright © 2012 by Pearson Education, Inc.

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

ISBN-13: 978-0-7897-4844-7

ISBN-10: 0-7897-4844-4

*Library of Congress Cataloging-in-Publication Data is on file.*

Printed in the United States of America

First Printing: June 2012

## Trademarks

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Que Publishing cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

## Warning and Disclaimer

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided is on an “as is” basis. The author and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book.

## Bulk Sales

Que Publishing offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales. For more information, please contact

**U.S. Corporate and Government Sales**

**1-800-382-3419**

**corpsales@pearsontechgroup.com**

For sales outside of the U.S., please contact

**International Sales**

**international@pearsoned.com**

## Associate Publisher

Greg Wiegand

## Acquisitions Editor

Rick Kughen

## Development Editor

Rick Kughen

## Technical Editor

Karen Weinstein

## Managing Editor

Kristy Hart

## Project Editor

Anne Goebel

## Indexer

Erika Millen

## Proofreader

Jess DeGabriele

## Publishing Coordinator

Cindy Teeters

## Cover Designer

Anne Jones

## Composer

Tricia Bronkella

---

# Contents at a Glance

Introduction

**Part I: Understanding Digital Music**

- 1 The History of Music Distribution—From Piano Rolls to iTunes
- 2 Exploring the Different Ways to Listen to Music Today
- 3 How Digital Music Works
- 4 Understanding Digital Audio File Formats
- 5 Understanding Copyright, Piracy, and Other Legal Issues
- 6 Understanding DRM

**Part II: Downloading Music**

- 7 Understanding Music Downloading
- 8 Downloading Music from the iTunes Store
- 9 Downloading Music from the Amazon MP3 Store
- 10 Downloading Music from Other Online Music Stores
- 11 Finding Free Music to Download
- 12 Downloading Music from P2P File-Sharing Sites

**Part III: Managing Your Music**

- 13 Storing Your Digital Music
- 14 Organizing Your Digital Music Collection
- 15 Finding and Downloading Cover Art
- 16 Creating the Perfect Playlist

**Part IV: Streaming Music**

- 17 Understanding Streaming Music
- 18 Listening to Music with Spotify
- 19 Listening to Music with Other Streaming Music Services
- 20 Accessing Your Music in the Cloud
- 21 Listening to Internet Radio

**Part V: Playing Your Music—at Home**

- 22 Understanding Home Digital Music Playback
- 23 Ripping Your Physical Music Collection
- 24 Playing Digital Music on Your Computer
- 25 Playing Digital Music on a Home Media Player
- 26 Building a Whole House Digital Audio System

**Part VI: Playing Your Music—On the Go**

- 27 Playing Music on a Portable Music Player or Smartphone
- 28 Listening to Streaming Music on a Portable Music Player or Smartphone
- 29 Playing Your Portable Music in the Living Room

**Part VII: Sharing Your Music**

- 30**    Burning Your Music to a CD or USB Drive
- 31**    Sharing Your Music Over a Network or Online
- 32**    Sharing Your Music—Socially

**Part VIII: Discovering New Music**

- 33**    Discovering New Music with Last.fm and Pandora Radio
  - 34**    Discovering New Music in the Amazon and iTunes Stores
  - 35**    Discovering New Music via Social Media
  - 36**    Exploring the Best Music Review Sites and Blogs
- Index

---

# Table of Contents

Introduction .....	1
--------------------	---

## **Part I: Understanding Digital Music**

<b>1</b>	The History of Music Distribution—From Piano Rolls to iTunes .....	11
	How Do You Collect Music When There’s No Music to Collect? .....	12
	Between the Sheets .....	13
	Going on Record .....	14
	The Rise of Radio .....	15
	It’s a Long-Playing World .....	16
	The Singles Life .....	18
	The Tale of the Tape .....	19
	Say Hello to My Little Friend, the Compact Disc .....	21
	Going Digital .....	22
	What’s Next .....	24
<b>2</b>	Exploring the Different Ways to Listen to Music Today .....	29
	Going Old School with Compact Discs .....	29
	Ripping Digital Tracks from CD .....	31
	Downloading Digital Tracks—Legally .....	32
	Downloading Digital Tracks—Not So Legally .....	34
	Getting All You Can Eat from a Subscription Service .....	35
	Listening Anywhere on Any Device from the Cloud .....	36
	Listening to Internet Radio .....	37
<b>3</b>	How Digital Music Works .....	39
	The Way We Were: Remembering Analog Audio .....	39
	The New Wave: Understanding Digital Audio .....	41
	Making a Digital Recording .....	41
	Storing and Playing Digital Audio .....	43
	Dealing with Digital Compression .....	43

	The Benefits of Digital Music .....	44
	Quality .....	45
	Easier Storage .....	45
	Easier Organization .....	45
	Streaming .....	46
<b>4</b>	Understanding Digital Audio File Formats .....	49
	Evaluating File Formats .....	50
	Uncompressed Formats .....	50
	Lossy Compressed Formats .....	51
	Lossless Compressed Formats .....	53
	Comparing Formats, in a Nutshell .....	54
	Considering Bitrate .....	55
	Comparing the Major Digital Music Ecosystems .....	56
	The MP3 Ecosystem .....	56
	The Apple Ecosystem .....	57
	The Windows Media Ecosystem .....	59
	Choosing the Right File Format .....	59
	What Works with What .....	60
	Choosing an Ecosystem .....	61
	Choosing a Bitrate .....	62
<b>5</b>	Understanding Copyright, Piracy, and Other Legal Issues .....	65
	Understanding Copyright and Royalties .....	66
	How Copyright Works .....	66
	Calculating Royalties .....	66
	Royalties on Online Performances .....	67
	The Dark Side of Downloading: Online Piracy .....	68
	The Spread of Piracy .....	68
	The Impact of Illegal Downloading .....	69
	What's Legal—and What's Not .....	70
<b>6</b>	Understanding DRM .....	75
	What DRM Is and What it Does .....	76
	The State of DRM Today .....	76
	Problems with DRM .....	77
	Dealing with DRM .....	79

**Part II: Downloading Music**

<b>7</b>	Understanding Music Downloading .....	83
	How Music Downloading Works .....	84
	Requirements for Downloading Music .....	84
	How to Download Music to Your Computer .....	85
	Where to Download From .....	85
	Online Music Stores .....	85
	Subscription Download Services .....	88
	Free Download Sites .....	89
	File-Sharing Sites .....	89
	Choosing the Right File Format .....	89
	Why Downloading Makes Sense .....	90
<b>8</b>	Downloading Music from the iTunes Store .....	93
	iTunes Over the Years: A Musical History Tour .....	94
	Getting to Know the iTunes Store .....	95
	Installing the iTunes Software .....	96
	iTunes Store Pricing .....	96
	Navigating the iTunes Store .....	97
	Creating an Apple Account .....	98
	Searching the iTunes Store .....	100
	Browsing the iTunes Store .....	101
	Purchasing Items from the iTunes Store .....	103
	Introducing iTunes in the Cloud .....	104
<b>9</b>	Downloading Music from the Amazon MP3 Store .....	107
	Amazon.com—From Books to Tunes .....	108
	Getting to Know the Amazon MP3 Store .....	108
	Amazon MP3 Store Pricing .....	109
	Creating an Amazon Account .....	110
	Setting Up an Account .....	110
	Enabling 1-Click Ordering .....	110
	Navigating the Amazon MP3 Store .....	111
	Navigation Controls .....	112
	Left Column .....	113



Center Column .....	113
Right Column .....	114
Searching the Amazon MP3 Store .....	115
Conducting Basic Searches .....	115
Conducting an Advanced Search .....	116
Browsing the Amazon MP3 Store .....	117
Purchasing Items from the Amazon MP3 Store .....	118
Introducing Amazon Cloud Drive and the Amazon Cloud Player .....	120
<b>10</b> Downloading Music from Other Online Music Stores .....	123
Why Switch from Apple and Amazon? .....	123
What Can Other Stores Do That Apple and Amazon Can't? .....	125
Exploring the Competition .....	126
Google Play Music .....	126
Bandcamp .....	127
CD Baby .....	129
Classical Archives .....	130
eMusic .....	132
Zune Marketplace .....	134
Discovering High Resolution Music Online .....	135
B&W Society of Sound .....	135
HDtracks .....	136
iTrax .....	138
Linn Records .....	139
<b>11</b> Finding Free Music to Download .....	141
Downloading from Official Label and Artist Sites .....	142
Downloading from Free Artist Communities .....	143
ARTISTdirect .....	143
BeSonic .....	143
dmusic .....	145
MP3.com .....	145
PureVolume .....	146
SoundClick .....	147
Finding Tunes with MP3 Search Sites .....	148
Downloading Music from MP3 Newsgroups .....	149

<b>12</b>	Downloading Music from P2P File-Sharing Sites .....	151
	Understanding File Sharing .....	152
	A Short History of File Sharing .....	152
	How P2P File Sharing Works .....	153
	Then There's BitTorrent.....	153
	A Few Good Reasons Not to Use File-Sharing Sites .....	154
	It's Illegal .....	154
	You're Helping to Starve Musicians to Death .....	155
	Quality Is Questionable .....	155
	It's Likely Infested with Malware .....	156
	Yes, Virginia, There are Some Benefits to File Sharing .....	157
	It's Free .....	157
	You Can Choose Your Format .....	157
	You Can Find Stuff You Can't Get Anywhere Else .....	158
	A Quick Look at the Most Popular File-Sharing Sites .....	159
	Gnutella .....	159
	eDonkey .....	160
	Kad .....	160
	BitTorrent .....	160
	Considering Legal File Sharing Networks .....	160
	Protecting Yourself (and Your Computer) When File Sharing .....	161
	Protecting Against Viruses .....	161
	Protecting Against Spyware .....	162
	Use Anti-Malware Software .....	162
	Just Don't Do It .....	162

### **Part III: Managing Your Music**

<b>13</b>	Storing Your Digital Music .....	167
	How Much Storage Space Do You Need? .....	168
	Storing Digital Music on Your Home PC .....	169
	When Local Storage Makes Sense .....	169
	When Local Storage Isn't Enough .....	171
	Storing Digital Music on a Dedicated PC .....	171
	What Is a Media PC? .....	171
	When Using a Dedicated PC Makes Sense .....	174
	When a Dedicated PC Doesn't Do the Job .....	174

Storing Digital Music on a Home Server .....	175
What Is a Home Server? .....	175
When Using a Home Server Makes Sense .....	177
When a Home Server Is Overkill .....	177
Sharing Your Library Over a Home Network .....	178
Backing Up Your Digital Library .....	179
Backing Up Locally .....	179
Backing Up Over the Network .....	180
Backing Up Online .....	180
<b>14 Organizing Your Digital Music Collection .....</b>	<b>183</b>
Organizing Audio Files on Your Computer .....	184
Understanding Song Tags .....	185
What Can Possibly Go Wrong? .....	189
Editing Tags .....	190
Editing Tags Directly in a File .....	190
Editing Tags in iTunes .....	191
Editing Tags in Windows Media Player .....	193
Editing Tags with Third-Party Software .....	194
Five Tricks for Better Organized Music Libraries .....	195
Delete Duplicate Tracks .....	195
Combine Multi-Disc Albums into a Single Album .....	196
Separate Combination Albums into Individual Albums .....	197
Assign Multiple Genres .....	197
Add Song Lyrics .....	198
<b>15 Finding and Downloading Cover Art .....</b>	<b>201</b>
Understanding How Cover Art Works .....	202
What Can Go Wrong with Cover Art .....	203
Where to Find Cover Art .....	204
How to Change Cover Art .....	206
Changing Album Art Files Manually in Windows .....	206
Changing Album Art in iTunes .....	206
Changing Album Art in Windows Media Player .....	207
Changing Album Art with a Third-Party Program .....	207
<b>16 Creating the Perfect Playlist .....</b>	<b>213</b>
Why Listen to Playlists? .....	214
Creating a Playlist from Your Digital Music Collection .....	214

Creating and Sharing Playlists on the Web .....	216
8tracks .....	216
FIQL .....	216
Greatestplaylist .....	217
Jog.fm .....	217
Mixtape.me .....	219
Playlist.com .....	219
ShareMyPlaylists .....	219
Tips for Creating the Ultimate Playlist .....	221
1: Tag Tracks Before You List .....	221
2: Keep the Beat .....	221
3: Build a Mood .....	222
4: Mix It Up .....	222
5: Program by Sub Genre .....	222
6: Program by Activity .....	222
7: Consider the Length .....	223
8: Put Tracks in Multiple Playlists .....	223
9: Discover New Music Online .....	223
10: Share Your Playlist with Friends .....	223
11: Experience Serendipity .....	223
12: Don't Stop Editing .....	224
13: Get Creative .....	224

## Part IV: Streaming Music

<b>17</b> Understanding Streaming Music .....	229
Understanding Streaming Audio .....	230
How Streaming Audio Works .....	230
Compromises and Requirements .....	230
Exploring Streaming Music Online .....	232
Streaming Music Services .....	232
Internet Radio .....	233
Cloud-Based Music Services .....	233
<b>18</b> Listening to Music with Spotify .....	237
Getting to Know Spotify .....	237
Subscribing and Getting Started .....	238
Getting Around Spotify .....	239

Importing Local Files into Spotify .....	240
Importing Files .....	240
Viewing and Playing Imported Music .....	241
Listening to Local Files on Your Mobile Device .....	241
Viewing and Playing Music .....	241
Playing an Individual Track .....	242
Playing an Album .....	243
Playing Music in a Queue .....	243
Viewing Artist Information .....	244
Listening to Spotify Radio .....	245
Creating a New Radio Station .....	245
Playing a Spotify Radio Station .....	246
Working with Playlists .....	247
Creating a New Playlist .....	247
Adding Tracks to a Playlist .....	247
Playing a Playlist .....	247
Listening to Spotify Offline .....	248
Making a Playlist Available for Offline Listening .....	248
Listening Offline .....	249
Sharing Your Music with Spotify Social .....	249
Adding Facebook Friends .....	249
Adding Other Spotify Users .....	250
Sharing Tracks .....	250
Sharing Albums .....	251
Sharing Playlists .....	251
Sharing Artists .....	251
Sharing Everything You Listen To .....	251
Collaborating on a Playlist .....	251
Extending Spotify with Apps .....	252
Scrobbling to Last.fm .....	254
Listening on the Go with Spotify Mobile .....	254
<b>19</b> Listening to Music with Other Streaming Music Services .....	257
Grooveshark .....	257
Last.fm .....	259
MOG .....	259
Pandora Radio .....	260

	Raditaz .....	260
	Rara.com .....	261
	Rdio .....	262
	Rhapsody .....	263
	Slacker Radio .....	264
	Turntable.fm .....	265
	Zune Music Pass .....	266
<b>20</b>	<b>Accessing Your Music in the Cloud .....</b>	<b>269</b>
	How Cloud-Based Music Services Work .....	270
	Pros and Cons of Streaming Music from the Cloud .....	271
	Advantages of Cloud Streaming Services .....	271
	Disadvantages of Cloud Streaming Services .....	272
	Comparing Cloud Music Services .....	273
	Amazon Cloud Player .....	275
	Google Play Music .....	277
	iTunes Match .....	278
	MP3tunes .....	280
	mSpot .....	281
	MyMusicCloud .....	282
	Streaming Music from Your Own PC .....	283
	Audiogalaxy .....	284
	Subsonic .....	285
<b>21</b>	<b>Listening to Internet Radio .....</b>	<b>289</b>
	Understanding Internet Radio .....	289
	What's Out There .....	290
	Listening to Web-Only Radio .....	291
	Searching for Internet Radio Stations .....	294
	Listening to Terrestrial and Satellite Radio Online .....	295
 <b>Part V: Playing Your Music—At Home</b>		
<b>22</b>	<b>Understanding Home Digital Music Playback .....</b>	<b>301</b>
	Music Is for the Home .....	302
	Different Ways to Listen to Digital Music in Your Home .....	302
	Digital Music via PC .....	303
	Digital Music via Network Music Player .....	304
	Digital Music via iPod .....	305
	Other Items to Consider .....	306

<b>23</b>	<b>Ripping Your Physical Music Collection</b> .....	<b>309</b>
	Ripping CDs to Digital .....	310
	Understanding the Process .....	310
	Choosing the Best Digital File Format and Bitrate .....	310
	Choosing the Best Ripping Application .....	311
	Ripping a CD with iTunes .....	313
	Ripping a CD with Windows Media Player .....	314
	Ripping Lots of CDs .....	316
	Filling in the Metadata .....	317
	Ripping Vinyl Discs and Analog Tapes to Digital .....	317
	Understanding the Process .....	318
	Choosing the Right Equipment .....	319
	Choosing the Right Software .....	322
	Splitting a Side .....	323
<b>24</b>	<b>Playing Digital Music on Your Computer</b> .....	<b>327</b>
	Choosing and Using a Music Player Application .....	328
	What a Music Player Does .....	328
	Evaluating Music Player Programs .....	329
	Using the iTunes Player .....	331
	Using Windows Media Player .....	335
	Using MediaMonkey .....	337
	Improving Your Computer's Sound .....	339
	Using an External Digital to Analog Converter .....	340
	Choosing Better Speakers .....	344
	Using Headphones .....	355
	Connecting Your Computer to Your Home Audio System .....	355
	Making the Connection .....	355
	Choosing a Ten Foot Interface .....	358
	Controlling Your System .....	366
<b>25</b>	<b>Playing Digital Music on a Home Media Player</b> .....	<b>375</b>
	What Exactly Is a Home Media Player? .....	376
	Choosing a Home Media Player .....	377
	Evaluating Home Media Players .....	380
	Sony SMP-N200 .....	380
	Apple TV .....	380
	Western Digital WD TV Live .....	382
	Seagate FreeAgent GoFlex TV HD Media Player .....	383

Microsoft Xbox 360 .....	383
Netgear NTV550 HD Media Player .....	385
D-Link Boxee Box .....	385
Logitech Squeezebox Touch .....	386
Sonos Connect .....	388
Denon DNP-720AE .....	389
Pioneer N-30 Audiophile Networked Audio Player .....	390
Marantz NA7004 Network Audio Player .....	391
NAD C446 Digital Music Tuner .....	391
Logitech Transporter SE Network Music Player .....	392
Musical Fidelity M1 CLiC .....	393
Connecting via DLNA .....	394
<b>26 Building a Whole House Digital Audio System .....</b>	<b>397</b>
How Whole House Audio Works .....	398
Using Personal Computers .....	399
Using Networked Media Players .....	400
Using Media Center Extenders .....	402
Using Freestanding Media Players .....	403
<b>Part VI: Playing Your Music—On the Go</b>	
<b>27 Playing Music on a Portable Music Player or Smartphone .....</b>	<b>411</b>
Choosing a Portable Music Player .....	412
Apple's iPods .....	412
Other Portable Music Players .....	415
Playing Music on a Smartphone .....	419
Apple's iPhone .....	419
Android Phones .....	421
Windows 7 Phones .....	423
Playing Music on a Tablet .....	424
Apple's iPad .....	424
Amazon's Kindle Fire .....	424
Other Android Tablets .....	425
Managing Music on Your Portable Device .....	425
Syncing Your iPod or iPhone .....	426
Configuring Sync Options .....	427
Syncing Your Music .....	428



	Improving Your Device's Sound Quality .....	428
	Upgrading Your Earbuds (or Headphones) .....	428
	Adding an Outboard DAC .....	432
<b>28</b>	<b>Listening to Streaming Music on a Portable Music Player or Smartphone .....</b>	<b>437</b>
	Evaluating Streaming Audio on Portable Devices .....	438
	Listening to Streaming Music Services on the Go .....	439
	Listening to Internet Radio on the Go .....	441
	Listening to Streaming Music from the Cloud .....	442
<b>29</b>	<b>Playing Your Portable Music in the Living Room .....</b>	<b>447</b>
	Connecting Your Device to External Speakers .....	448
	Connecting to Powered Speakers .....	448
	Connecting to a Tabletop Speaker System .....	449
	Connecting Your iPod to Your Home Entertainment System .....	453
	Connecting via an Adapter Cable .....	453
	Connecting via an iPod Dock .....	454

**Part VII: Sharing Your Music**

<b>30</b>	<b>Burning Your Music to a CD or USB Drive .....</b>	<b>461</b>
	Burning Music CDs .....	462
	A Short History of Home Recording .....	462
	Understanding CD Burning .....	462
	Understanding CD Standards and Formats .....	463
	Choosing CD Burning Software .....	465
	Before You Burn: Preparing Your Hardware .....	465
	Before You Burn: Configuring Your Software .....	466
	Burning an Audio CD .....	467
	Burning an MP3 CD .....	469
	Burning Music Files to a USB Drive .....	469
<b>31</b>	<b>Sharing Your Music Over a Network or Online .....</b>	<b>473</b>
	Sharing Music Over a Network .....	473
	Sharing Music via Email .....	474
	Sharing Music via a Cyberlocker .....	475

<b>32</b>	Sharing Your Music—Socially .....	479
	Sharing Music on Facebook .....	480
	Sharing Music from Another Music Service .....	480
	Viewing Your Friends' Music .....	481
	Sharing Music via Live Chat .....	483
	Sharing Links to MP3 Files .....	483
	Sharing Music on Twitter .....	484
	Sharing Music via Spotify .....	486
	Sharing to Facebook .....	486
	Sharing to Twitter .....	487
	Sharing to Other Spotify Users .....	488
	Sharing via Windows Live Messenger .....	488
	Sharing to Anyone via Email .....	489
	Sharing Music via iTunes Ping .....	489
	Posting to Ping .....	490
	Viewing Your Ping Page .....	491
	Finding Friends to Follow .....	493

## Part VIII: Discovering New Music

<b>33</b>	Discovering New Music with Last.fm and Pandora Radio .....	497
	Discovering New Music with Last.fm .....	498
	Scrobbling from Other Music Services .....	498
	Scrobbling from PC-Based Music Players .....	499
	Investigating Last.fm's Recommendations .....	500
	Creating Radio Stations .....	501
	Discovering New Music with Pandora Radio .....	503
	Creating a New Radio Station .....	504
	Fine-Tuning Your Radio Stations .....	505
<b>34</b>	Discovering New Music in the Amazon and iTunes Stores .....	509
	Discovering New Music on Amazon .....	510
	Viewing General Recommendations .....	510
	Viewing Music Recommendations .....	510
	Fine Tuning Amazon's Recommendations .....	513
	Discovering New Music on Your Own .....	514
	Discovering New Music on iTunes .....	517
	What's Interesting (and Promoted) in the Store .....	517
	Previewing New Music .....	520
	Getting Genius Recommendations .....	522

<b>35</b>	Discovering New Music via Social Media .....	525
	Discovering New Music on Facebook .....	526
	Discovering New Music on Twitter .....	528
	Discovering New Music on MySpace .....	528
	Exploring the Social Aspects of Spotify and Other Music Services .....	530
<b>36</b>	Exploring the Best Music Review Sites and Blogs .....	535
	Exploring Music News and Review Websites .....	536
	Discovering Music Blogs .....	539
	Reading Online Music Magazines .....	542
	Using Music Recommendation Sites .....	545
	Index .....	549

## About the Author

**Michael Miller** has written more than 100 nonfiction how-to books over the past 20 years, including *Sams Teach Yourself Spotify in 10 Minutes*, *How Home Theater and HDTV Work*, *Creating a Digital Home Entertainment Center with Windows Media Center*, *The Complete Idiot's Guide to Home Theater Systems*, *The Complete Idiot's Guide to Music History*, and *Absolute Beginner's Guide to Computer Basics*.

Mr. Miller has established a reputation for clearly explaining technical topics to nontechnical readers, and for offering useful real-world advice about complicated topics. More information can be found at the author's website, located at [www.molehillgroup.com](http://www.molehillgroup.com).

## Dedication

To Sherry, with whom I share all my music.

## Acknowledgments

Thanks to all the usual suspects at Que who helped to turn my manuscript into a printed book, including but not limited to Rick Kughen, Anne Goebel, and Greg Wiegand. Thanks also to Karen Weinstein, who served as technical editor for this book and helped to make sure all the technical details are correct.

Most especially, thanks to all my friends who have graciously shared their music with me over the years. You turned me on to a lot of great stuff, and I hope I've returned the favor.

## We Want to Hear from You!

As the reader of this book, *you* are our most important critic and commentator. We value your opinion and want to know what we're doing right, what we could do better, what areas you'd like to see us publish in, and any other words of wisdom you're willing to pass our way.

We welcome your comments. You can email or write to let us know what you did or didn't like about this book—as well as what we can do to make our books better.

*Please note that we cannot help you with technical problems related to the topic of this book.*

When you write, please be sure to include this book's title and author as well as your name and email address. We will carefully review your comments and share them with the author and editors who worked on the book.

**Email:** [feedback@quepublishing.com](mailto:feedback@quepublishing.com)

**Mail:** Que Publishing  
ATTN: Reader Feedback  
800 East 96th Street  
Indianapolis, IN 46240 USA

## Reader Services

Visit our website and register this book at [www.quepublishing.com/register](http://www.quepublishing.com/register) for convenient access to any updates, downloads, or errata that might be available for this book.

---

# Introduction

I am a music lover. Big time. My wife and I try to catch at least one or two major shows a month, and I'm an "A Train" member of and frequent visitor to our local jazz club. (That's the Dakota Jazz Club in Minneapolis, one of the best in the nation.) I have more than 1,700 albums in my music collection, or more than 25,000 individual tracks if you count that way. I listen to jazz and rock and folk and soul, and even the occasional Broadway show tune. I'm fairly sure I know the entire Great American Songbook by heart, and can throw out the names of all the backing musicians on most of the big hits (and a lot of album cuts) pressed during the 1960s and 1970s. I play drums, piano, and a little guitar, and write books about music history and music theory and the like. I may be an expert on certain aspects of music, if that sort of thing matters or impresses you.

## IN THIS INTRODUCTION

- What's in This Book
- Who This Book Is For
- How This Book Is Organized
- Conventions Used in This Book
- Let's Get Ready to Rock and Roll

I'm guessing that you're a music lover too. Maybe not as extreme as me—or maybe you are—but a music lover, nonetheless. You have your own personal tastes and opinions as to what makes good music, I'm sure, and no doubt have a decent collection of said music in your possession. Your collection might be on compact disc, or it could be on vinyl or audiocassette, but I'm guessing at least part of your collection is digital, coming either from ripped CDs or Internet downloads. Or maybe your collection isn't digital—yet—but you want to go that route.

I have to tell you, moving to an all-digital music library has a lot of benefits—if you do it right. When your music is in digital format, it's a snap to find that one track or album and play it virtually instantly; no more hunting through your entire collection for that song you just can't quite put your fingers on. A digital music library is also easy to organize just about any way you want to, and then reorganize with the click of a button; if you want to play only soul music or only folk, that's a snap, too.

Even better, a digital music library doesn't take up any physical space. You know those shelves and racks of discs and tapes? Pack all those old relics up and put them in the attic, because your new digital collection takes up no more space than a computer hard drive. Make your digital collection as big as you wish, it doesn't expand any physically.

You can also play a digital music library in multiple rooms of your house. You're not limited to that one CD player or turntable in your den or living room; with the right equipment, you can beam your music from a central location to any room you want. You can even listen to different tunes in different rooms at the same time—or the same tune in more than one room. Digital makes that easy.

Plus, when your music library is digital, it's easy to take it—all of it—with you. You can load your music on an iPod or iPhone, or listen to it over the Internet on another computer in another location. And all without carrying a single disc with you.

Of course, there are issues involved with maintaining a completely digital music collection. You have to decide on where to store your collection, which file format(s) to use, which bitrate to rip at, what kind of equipment to hook up in each room, how to organize your library—like I said, a lot of issues and a lot of choices to make. Make the wrong choices, and your easy-to-use digital music library becomes less convenient, if not downright annoying. Make the right choices, and listening becomes a real pleasure.

But which choices are the right ones for you? I'll tell you right now—there are no universal best choices that fit every music lover. Your situation is unique, and requires unique solutions.

I can, however, provide advice and guidance and tons of information that can lead you to the best solutions for you. That's why I wrote this book; *The Ultimate Digital Music Guide* is for music lovers like you and me who want the best possible digital music experience.

## What's in This Book

I've tried to make the content of this book reflect its title. That is, *The Ultimate Digital Music Guide* attempts to be the ultimate guide for digital music lovers. As such, it contains all the information you might need to create and maintain a digital music library, and to listen to your digital music. It even contains information on where you can find new music to listen to, and where to purchase and download new music.

That's it in a nutshell—*The Ultimate Digital Music Guide* is a book to enhance your digital collecting and listening experience. But what does that mean?

First, this book is designed to educate you about how digital music works. You need to have a little background before you can get started.

Second, this book is designed to inform you about the various options available. I'm talking both hardware and software options—the various ways you can store and listen to a digital music collection.

Third, this book is designed to show you how to do the things you need to do—how to hook up different types of equipment, how to rip and burn CDs, how to edit file information, and so forth. There's lots of “how to” information in these pages, as you might suspect.

Fourth, this book is designed to show you where to find the things you need. This means finding music to download, software programs to install, album cover art to use in your library, hardware to purchase, even new music to discover. There's a lot of good stuff out on the web, if you know where to look.

Fifth and finally, this book is designed to entertain, just a little bit. I like to think of myself as a somewhat entertaining writer, even when I'm writing about serious topics, and I think music is a fun topic to write about and discuss. Digital music isn't just about the bits and bytes, after all; it's also about the music itself, those songs and artists that mean something to us. Whether you're into the Beatles or the Rolling Stones (and if you're of a certain age you know they're somewhat mutually exclusive), or into Romantic symphonies or



---

sample content of The Ultimate Digital Music Guide: The Best Way to Store, Organize, and Play Digital Music

- [read High Wizardry \(Young Wizards, Book 3\) \(New Millennium Edition\)](#)
- [read online On Machiavelli: The Search for Glory online](#)
- [download online We, the People of Europe?: Reflections on Transnational Citizenship \(Translation/Transnation\) for free](#)
- [Waterfire Saga: Deep Blue pdf](#)
  
- <http://anvilpr.com/library/High-Wizardry--Young-Wizards--Book-3---New-Millennium-Edition-.pdf>
- <http://patrickvincitore.com/?ebooks/On-Machiavelli--The-Search-for-Glory.pdf>
- <http://berttrotman.com/library/Social-Cohesion-in-Greater-China--Challenges-for-Social-Policy-and-Governance--Series-on-Contemporary-China-.pd>
- <http://flog.co.id/library/Apache--Inside-the-Cockpit-of-the-World-s-Most-Deadly-Fighting-Machine.pdf>