

Contents

Introduction	xv
About This Book	xv
Course Prerequisites	xvi
Course Organization and Sequence	xvi
Conventions and Symbols Used in This Book.....	xvii
The Avid Learning Partner Program.....	xvii
How Can I Learn More?	xx
SECTION I	
Concepts and Exercises	1
Lesson 1. Background Information.....	3
The Pro Tools Digital Audio Workstation.....	4
Audio Processing	4
MIDI Production.....	4
Notation and Scores	4
Mixing and Automation	5
Audio for Video Post-Production.....	5
Pro Tools History and Evolution.....	5
Roots in Digidrums.....	5
Digidrums Becomes Digidesign	6
Digidesign Merges with Avid Technology.....	7
Pro Tools in This Decade.....	8
Updates to Pro Tools 12.....	9
Audio Basics: Waveform, Frequency, and Amplitude	10
Waveform	10
Frequency	10
Amplitude.....	10
Recording and Playing Back Analog Audio.....	11
Converting Audio to Digital Format	11
The Importance of Sample Rate	11
The Importance of Bit Depth.....	12
Sample Rate, Bit Depth, and File Size.....	13
Recording in Digital Format.....	13
Pro Tools System Configurations.....	13
Software Options	13
Host-Based Systems Versus DSP-Accelerated Systems.....	14
Audio Interface Options.....	14
Cross-Platform Issues	16
Keyboard Commands.....	16
File-Naming Conventions	17
Review/Discussion Questions	18
Exercise 1. Audio Interface Options.....	19

Lesson 2. Getting Started with Pro Tools.....	21
Target Systems.....	22
Software Installation and Operation	22
Included Plug-Ins and Extras	23
Pro Tools Software Features	23
Pro Tools File Structure	24
File Organization	24
Session Components	24
Starting Pro Tools.....	26
Powering Up Your Hardware.....	26
Using the PACE iLok System.....	27
Launching Pro Tools	27
Accessing Connected Audio Devices	28
Optimizing Host-Based Pro Tools Performance.....	28
The Pro Tools Menu Structure.....	29
File Menu.....	29
Edit Menu.....	29
View Menu.....	29
Track Menu	30
Clip Menu	30
Event Menu	30
AudioSuite Menu	30
Options Menu.....	30
Setup Menu.....	30
Window Menu.....	31
Marketplace Menu	31
Help Menu	31
Main Pro Tools Windows	31
Edit Window.....	31
Mix Window	35
Transport Window	37
Additional Editor Windows.....	38
Review/Discussion Questions	40
Exercise 2. Pro Tools Main Windows	41
Lesson 3. Pro Tools Basic Controls	45
Edit Tool Functions.....	46
Zoomer Tool.....	46
Trim Tool.....	47
Selector Tool.....	47
Grabber Tool.....	48
Scrubber Tool.....	48
Pencil Tool.....	49
Smart Tool.....	49

Edit Modes	50
Shuffle Mode	50
Slip Mode.....	50
Spot Mode.....	51
Grid Mode.....	52
Time Scales and Rulers	52
Main Time Scale	53
Sub Time Scale.....	54
Ruler Display Options.....	54
MIDI Control Features.....	56
Wait for Note	56
Metronome	57
Countoff Controls	57
MIDI Merge Mode	57
Tempo Ruler Enable.....	57
Meter Display	58
Tempo Field	58
Tool Tips	58
Review/Discussion Questions	59
Exercise 3. Primary Tools and Controls.....	61
Lesson 4. Creating Your First Session	63
The Dashboard	64
Creating and Configuring a Pro Tools Document	64
Creating and Using Session Documents	65
Creating and Using Project Documents.....	65
Using Templates	66
Choosing Parameter Settings	66
File Size Considerations	68
Working with Tracks	68
Adding Tracks	68
Naming Tracks	71
Deleting Tracks.....	72
Adding Audio to Tracks	72
Controlling Playback.....	73
Timeline Selections.....	73
Edit Selections.....	73
Working with Linked Timeline and Edit Selections	73
Starting and Stopping Playback	74
Locating the Playback Cursor	74
Selecting the Scrolling Behavior	75
Saving, Locating, and Opening Pro Tools Files.....	75
Saving a Session or Project.....	75
Locating and Opening a Session File.....	76
Review/Discussion Questions	80
Exercise 4. Creating a Session.....	82

Lesson 5. Making Your First Audio Recording	87
Before Recording.....	88
Audio Storage Requirements	88
Disk Usage Window	89
Preparing to Record.....	89
Creating a Click Track (Optional)	89
Checking Hardware Connections.....	91
Record-Enabling Tracks	92
Setting Input Path, Level, and Pan	92
Recording and Managing Audio.....	94
Organizing after Recording.....	95
Return to Playback Mode.....	95
Organize Audio Files and Clips.....	95
Removing Audio Clips and Deleting Audio Files.....	98
Review/Discussion Questions	101
Exercise 5. Recording Audio	103
Lesson 6. Importing and Working with Media	107
Considerations Prior to Import.....	108
File Characteristics	108
Split Stereo versus Interleaved Files	109
Importing Audio.....	109
Import Audio Dialog Box	109
Importing Audio with the Import Command.....	111
Importing Audio with Workspace Browsers	112
Batch Importing Audio.....	114
Importing Video	114
Video Track Display	115
Working with Video Tracks.....	115
Review/Discussion Questions	116
Exercise 6. Importing Audio.....	117
Lesson 7. Making Your First MIDI Recording	121
MIDI Basics	122
MIDI in Pro Tools.....	122
Creating MIDI-Compatible Tracks	123
Sample-Based Operation versus Tick-Based Operation	123
Time Scale and Rulers for Working with MIDI	125
Setting the Base Meter and Tempo.....	126
Setting the Base Meter.....	126
Setting the Base Tempo	127
Preparing to Record MIDI.....	128
Connecting a MIDI Device.....	128
Checking MIDI Inputs/Outputs	129
Record-Enabling MIDI-Compatible Tracks.....	131
Setting Record Options	131

Using Virtual Instruments.....	133
Placing a Virtual Instrument on an Instrument Track	133
Using Xpand!2	134
Using Boom.....	135
Using Structure Free.....	137
Recording MIDI.....	138
Viewing MIDI Data on MIDI-Compatible Tracks	139
MIDI Clips View	139
MIDI Notes View	140
Velocity View.....	141
MIDI Editor Window Views	141
Review/Discussion Questions	143
Exercise 7. Working with MIDI.....	145
Lesson 8. Selecting and Navigating.....	151
Using the Universe View.....	152
Resizing the Universe	152
The Current View Indicator	153
Moving and Scrolling from the Universe View	153
Types of Selection.....	153
Creating Timeline Selections	153
Creating Edit Selections.....	156
Working with Selections.....	157
Creating Separate Timeline Selections and Edit Selections	157
Making Selections on Multiple Tracks	158
Selecting Material Based on Selected Tracks	158
Using the Tab Key.....	159
Tabbing to Transient Points.....	160
Adjusting the Session View	161
Adjusting Track Height.....	161
Changing the Track Order	163
Using the Zoomer Tool.....	164
Using Zoom Toggle.....	165
Changing the Horizontal and Vertical Zoom	166
Storing and Recalling Zoom Presets	167
Adding Markers to Your Session	167
About Memory Locations	167
Creating a Marker.....	167
The Memory Locations Window	169
Recalling a Marker Location.....	170
Deleting a Marker Location.....	170
Creating a Selection Using Markers.....	171
Review/Discussion Questions	172
Exercise 8. Configuring the Session and Adding Memory Locations.....	174

Lesson 9. Editing Your Media.....	179
Selecting Playback Options.....	180
Scrolling Modes.....	180
Loop Playback.....	180
Using the Edit Modes	181
Editing in Shuffle Mode.....	182
Editing in Slip Mode	182
Editing in Spot Mode	182
Editing in Grid Mode	183
Using the Snap To Grid Function.....	183
Configuring the Grid	184
Editing Clips.....	185
Basic Editing Commands	185
Special-Purpose Editing Commands.....	188
Moving and Trimming Clips.....	190
Using the Grabber Tool.....	190
Using the Trim Functions	191
Using the Nudge Function.....	193
Creating Fade Effects	195
Applying Fade-Ins and Fade-Outs	195
Applying Crossfades	196
Fade Settings.....	197
Undoing Your Work.....	197
Using Multi-Level Undo.....	197
Using Restore Last Selection.....	200
Using Revert to Saved.....	200
Restoring from Session Backups	201
Review/Discussion Questions	202
Exercise 9. Editing Audio.....	204
Lesson 10. Mixing and Creating a Bounce	209
Basic Mixer Terminology	210
Inputs	210
Outputs	210
Inserts	210
Sends and Returns.....	210
Working in the Mix Window.....	211
Configuring the Mix Window.....	211
Using Basic Automation.....	214
Recording Automation (Write Mode).....	215
Playing Back Automation (Read Mode).....	215
Turning Automation Off (Off Mode).....	216
Viewing Automation Playlists.....	216
Editing Breakpoint Automation.....	217

Using Plug-In Processors.....	217
Real-Time Plug-In Formats.....	217
Plug-Ins Provided with Pro Tools	218
Backing Up Your Session	220
Considerations for Backup and Archive Copies	220
Saving a Session Copy	220
Creating a Stereo Mixdown.....	222
Mixdown Options	222
Considerations for Bouncing Audio.....	222
Bouncing to Disk.....	222
Adding a Bounce File to Your iTunes Library.....	225
Review/Discussion Questions	226
Exercise 10. Automating Shared Effects and Creating a Stereo Bounce.....	228
SECTION II	
Supplemental Projects	235
Getting to Know the Sessions	236
Project 1.....	236
Project 2.....	236
Pro Tools System Requirements	236
Media Files for Supplemental Projects	236
Disk Space Requirements for Project Sessions.....	236
Download Instructions	237
Lesson 11. Project 1: Music Session	239
Powering Up.....	240
Opening the Music Project	240
Locate and Open the Session Template	240
Orient the Session Windows	242
Set the Preferences	243
Connect Monitoring Devices	244
Creating New Tracks.....	244
Create and Name Tracks.....	244
Save Your Session	245
Working with MIDI Data.....	245
Add a Virtual Instrument.....	246
Create a MIDI Clip	247
Add Another Virtual Instrument	248
Drag in a MIDI Clip.....	249
Edit a MIDI Performance	249
Save Work in Progress.....	251
Working with Audio Data.....	251
Import an Audio File to a Track	251
Import a Clip Group to a Track.....	252
Insert Time	253
Edit the Tracks	254
Save Work in Progress.....	255

Mixing in Pro Tools.....	255
Add EQ.....	255
Add Effects to the RadioVox Track	256
Add Reverb.....	257
Save Work in Progress	258
Mix the Project.....	259
Save Work in Progress	260
Finishing Your Work.....	260
Print the Score.....	260
Add Maxim.....	262
Add Dither.....	263
Bounce the Song	264
Archive Your Work	265
Lesson 12. Project 2: Post Session	267
Powering Up.....	268
Opening the Post Project	268
Locate and Open the Session Template	268
Orient the Session Windows.....	270
Set the Preferences	271
Connect Monitoring Devices.....	272
Creating New Tracks	272
Create and Name a Track	272
Save Your Session.....	273
Importing Media	273
Import a Movie	273
Import Files to the Clip List.....	275
Import Files from the Workspace Browser.....	275
Save Work in Progress	276
Editing in Pro Tools.....	276
Review the Project.....	277
Add Sound Effects.....	277
Change the Music	280
Save Work in Progress	281
Mixing in Pro Tools.....	281
Remove the Hum.....	281
Add Reverb.....	282
Enhance the Knock.....	283
Save Work in Progress	285
Listen to the Automated Mix	285
Finishing Your Work.....	286
Bounce the Video.....	287
Archive Your Work	288

Appendix A. Course Completion Information	291
Locating an Avid Learning Partner	291
Course Completion Exam	292
Pro Tools 110 and Beyond	292
Certification Options.....	292
Additional Projects.....	293
Appendix B. Avid Pro Tools Plug-Ins	295
Appendix C. AIR Effects and Instrument Plug-Ins	297
Index	299