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Data Formats; Digital Audio Codecs: Bit Rates, Streaming, and HD; Digital Audio Transmission: Streaming Audio or Captive Audio?; Streaming Digital Audio Data: Setting Your Bit Rates Optimally; High-Definition HD Digital Audio: 24-Bit 48 kHz Sampling Data; Digital Audio Storage and Playback: File Formats; MIDI: Musical Instrument Data Interface's MID, XMF, and MXMF; MPEG-3: The Popular MP3 Digital Audio Player Data Format
FLAC: The 24-Bit HD Audio Capable Free Lossless Audio CodecOgg Vorbis: A Lossy High-Performance Open Source Codec; MPEG-4: Advanced Audio Coding AAC-LC, AAC-ELD, or HE-AAC; AMR: The MPEG-4 Adaptive Multi-Rate Audio Codecs for Voice; Pulse-Code Modulation: Windows WAV or Mac AIFF PCM Codecs; Summary; Chapter 5: The Cleanup of Digital Audio: Noise Removal; Noise Removal: Algorithmic Processing; Noise Reduction: Defining the Background Noise; Noise Reduction: Removing the Background Noise; Summary; Chapter 6: The Isolation of Digital Audio: Trimming Tools; Audio Sample Editing: Basic Techniques
Trimming Digital Audio: Removing Unused DataExtracting Audio: Selecting Sample Components; Scrubbing Digital Audio: Sample Playback Rate; Rearranging Digital Audio: Cut, Copy, and Paste; Summary; Chapter 7: The Manual Labor of Digital Audio: Sample Editing; Audio Data Editing: Changing the Sample; Cleaning the Sample: Removing Isolated Artifacts; Sample Data Surgery: Removing Attached Artifacts; Algorithmic Sample Surgery: Integrated Artifacts; Summary; Chapter 8: The Algorithms of Digital Audio: Audio Processing; Algorithmic Audio Effects Processing; Waveform Amplitude: The Amplify Effect
Waveform Frequency: The Pitch Shifting Effect

Sommario/riassunto

This book is a new media mini-book covering concepts central to digital audio editing using the Audacity 2.1.1 open source software package which also apply to all of the professional audio editing packages. The book builds upon the foundational concepts of MIDI, synthesis (artificially created digital audio), and sampled waveforms (analog audio turned into digital audio). The book gets more advanced as chapters progress, and covers key concepts for new media producers such as how to maximize audio quality and which digital audio new media formats are best for use with Kindle, Android Studio, Java, JavaFX, iOS, Blackberry, Tizen, Firefox OS, Chrome OS, Opera OS, Ubuntu Touch and HTML5. The book also covers key factors regarding the data footprint optimization work process, streaming versus captive digital audio new media assets, digital audio programming and publishing platforms, and why data footprint optimization is important for modern day new media content development and distribution. Industry terminology involved in digital audio editing, synthesis, sampling, analysis and processing The work process which comprises a fundamental digital audio editing, analysis, and effects pipeline The foundational audio waveform sampling concepts that are behind modern digital audio publishing How to install, and utilize, the professional, open source Audacity 2.1 digital audio editing software Concepts behind digital audio sample resolution and sampling frequency and how to select settings How to select the best digital audio data codec and format for your digital audio content application How to go about data footprint optimization, to ascertain which audio formats give the best results Using Digital Audio Assets in Computer Programming Languages and Content Publishing Platforms.