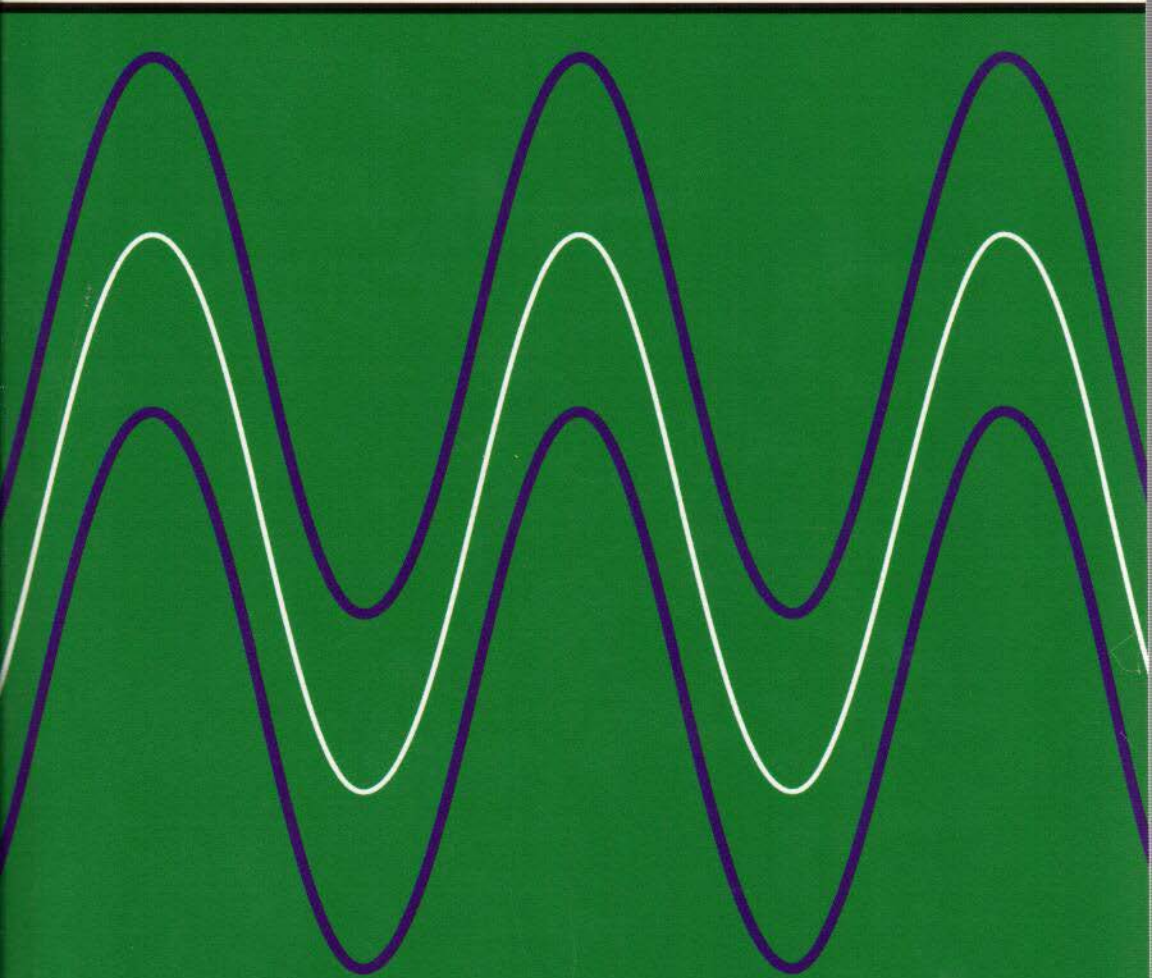


# THE AUDIO DICTIONARY

Glenn D. White and Gary J. Louie



THIRD EDITION  
*Revised & Expanded*

THE  
AUDIO  
DICTIONARY

Glenn D. White  
and  
Gary J. Louie

*Third Edition, Revised and Expanded*

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This edition contains several entries from Larry Blake's Glossary of Film Sound terms. The complete version of which is only available on his Swelltonelabs website <[www.swelltonelabs.com](http://www.swelltonelabs.com)>.

## Codec

up a computer program is usually in cryptic form, and this is also often called code.

**Codec** Abbreviation for Code-Decode. In the audio world, a codec is a software application that encodes a digitized audio signal file into a different format, often for the purpose of reducing its size. This process is also called data compression, or simply compression. The encoded file must be decoded to recover the original audio file, a process one might expect to be called decompression, but we have not heard this term used in practice. An example of a familiar codec is PKZip.exe that encodes any computer file into a "Zip" file that is smaller than the source file. The file can then be stored in its compressed form and then "unzipped" to recover the file in its original form. Such a codec is called "lossless" because no information is lost in the coding-decoding process. Another example of a lossless codec is used by ANALOG-TO-DIGITAL CONVERTERS (ADCs) and DIGITAL-TO-ANALOG CONVERTERS (DACs), used to encode and decode the audio signal to be recorded onto a COMPACT DISC. Since there are usually errors in writing and reading coded audio, some people think it should not be called lossless. Elaborate ERROR CORRECTION and ERROR CONCEALMENT schemes are used in CD players for this reason. Some codecs do not recover the original signal exactly, and they are called "lossy." An example of a lossy codec is Dolby AC-3, which uses PSYCHOACOUSTIC principles to remove parts of the signal that cannot be heard by the human ear due to MASKING by louder sounds, a technique called "perceptual coding." This allows the coded files to be more compressed, resulting in much smaller coded files than are possible with lossless coding. Other examples of lossy codecs are the ATRAC system on MiniDiscs, audio MP3, and video MPEG2.

Codecs have been around for a long time—Samuel F. B. Morse's so-called Morse Code for telegraphy is a codec, as are all secret codes for communication.

**Coercivity** Coercivity is a measure of a magnetic material's resistance to being demagnetized. Coercivity is an important specification of MAGNETIC TAPE. Tapes with low coercivity are easily demagnetized, meaning they can become erased if exposed to relatively small magnetic fields. Units of coercivity are OERSTEDS.

**Cogging** Uneven torque as a function of rotation produced by an electric motor because of the finite number of poles in the motor. Cogging in direct-drive turntable motors or tape recorder spooling motors can cause FLUTTER unless the motors are carefully designed to reduce the effect.

**Coherer** A type of DETECTOR invented in 1892 by the Frenchman Edouard Branly after a discovery by D. E. Hughes of England and used in very early radio receivers that received SIGNALS from spark gap TRANSMITTERS. The coherer consisted of a small insulating cylinder containing zinc and silver filings with a contact wire on each end. The RF signal received by the antenna, or "aerial," caused the particles to "cohere," or stick together, and to detect the signal. The Russian experimenter Popoff added a small ham-