# Ebu Input

Dynamic range compression

*April 2020. 'EBU Mode' metering to supplement EBU R 128 loudness normalisation, Version 3.0, European Broadcasting Union, 2016-01-25, EBU Tech 3341, retrieved*

Dynamic range compression (DRC) or simply compression is an audio signal processing operation that reduces the volume of loud sounds or amplifies quiet sounds, thus reducing or compressing an audio signal's dynamic range. Compression is commonly used in sound recording and reproduction, broadcasting, live sound reinforcement and some instrument amplifiers.

A dedicated electronic hardware unit or audio software that applies compression is called a compressor. In the 2000s, compressors became available as software plugins that run in digital audio workstation software. In recorded and live music, compression parameters may be adjusted to change the way they affect sounds. Compression and limiting are identical in process but different in degree and perceived effect. A limiter is a compressor with a high ratio and, generally, a short attack time.

Compression is used to improve performance and clarity in public address systems, as an effect and to improve consistency in mixing and mastering. It is used on voice to reduce sibilance and in broadcasting and advertising to make an audio program stand out. It is an integral technology in some noise reduction systems.

European Broadcasting Union

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The European Broadcasting Union (EBU; French: Union européenne de radio-télévision, UER) is an alliance of public service media organisations in countries within the European Broadcasting Area (EBA) or who are members of the Council of Europe. As of 2024, it is made up of 123 member organisations from 56 countries, and 31 associate members from a further 20 countries. It was established in 1950, and has its administrative headquarters in Geneva.

The EBU owns and operates the Eurovision and Euroradio telecommunications networks on which major television and radio broadcasts are distributed live to its members. It also operates the daily Eurovision news exchange in which members share breaking news footage. In 2017, the EBU launched the Eurovision Social Newswire, an eyewitness and video verification service. Led by Head of Social Newsgathering, Derek Bowler, the service provides members of the EBU with verified and cleared-for-use newsworthy eyewitness media emerging on social media.

The EBU, in co-operation with its members, produces programmes and organises events in which its members can participate, such as the Eurovision Song Contest, its best known production, or the Eurovision Debates between candidates for president of the European Commission for the 2014, 2019 and 2024 parliamentary elections. The director-general is Noel Curran since 2017.

AES3

*Engineering Society (AES) and the European Broadcasting Union (EBU) and so is also known as AES/EBU. The standard was first published in 1985 and was revised*

AES3 is a standard for the exchange of digital audio signals between professional audio devices. An AES3 signal can carry two channels of pulse-code-modulated digital audio over several transmission media

including balanced lines, unbalanced lines, and optical fiber.

AES3 was jointly developed by the Audio Engineering Society (AES) and the European Broadcasting Union (EBU) and so is also known as AES/EBU. The standard was first published in 1985 and was revised in 1992 and 2003. AES3 has been incorporated into the International Electrotechnical Commission's standard IEC 60958, and is available in a consumer-grade variant known as S/PDIF.

1080p

*Contribution Codecs" (PDF). EBU. March 2010. Archived (PDF) from the original on July 17, 2011. Retrieved June 26, 2010. EBU (March 2009). "EBU – TECH 3333: HDTV*

1080p (1920 × 1080 progressively displayed pixels; also known as Full HD or FHD, and BT.709) is a set of HDTV high-definition video modes characterized by 1,920 pixels displayed across the screen horizontally and 1,080 pixels down the screen vertically; the p stands for progressive scan, i.e. non-interlaced. The term usually assumes a widescreen aspect ratio of 16:9, implying a resolution of 2.1 megapixels. It is often marketed as Full HD or FHD, to contrast 1080p with 720p resolution screens. Although 1080p is sometimes referred to as 2K resolution (meaning having a horizontal resolution of approximately 2,000 pixels), other sources differentiate between 1080p and (true) 2K resolution.

1080p video signals are supported by ATSC standards in the United States and DVB standards in Europe. Applications of the 1080p standard include television broadcasts, Blu-ray Discs, smartphones, Internet content such as YouTube videos and Netflix TV shows and movies, consumer-grade televisions and projectors, computer monitors and video game consoles. Small camcorders, smartphones and digital cameras can capture still and moving images in 1080p (sometimes 4K, or even 8K) resolution.

Sound card

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A sound card (also known as an audio card) is an internal expansion card that provides input and output of audio signals to and from a computer under the control of computer programs. The term sound card is also applied to external audio interfaces used for professional audio applications.

Sound functionality can also be integrated into the motherboard, using components similar to those found on plug-in cards. The integrated sound system is often still referred to as a sound card. Sound processing hardware is also present on modern video cards with HDMI to output sound along with the video using that connector; previously they used a S/PDIF connection to the motherboard or sound card.

Typical uses of sound cards or sound card functionality include providing the audio component for multimedia applications such as music composition, editing video or audio, presentation, education and entertainment (games) and video projection. Sound cards are also used for computer-based communication such as voice over IP and teleconferencing.

Balanced audio

*of the line. This impedance balance permits the balanced line receiver (input stage of the next device) to reject common-mode signals introduced to the*

Balanced audio is a method of interconnecting audio equipment using balanced interfaces. This type of connection is very important in sound recording and production because it allows the use of long cables while reducing susceptibility to external noise caused by electromagnetic interference. The balanced interface guarantees that induced noise appears as common-mode voltages at the receiver which can be rejected by a

differential device.

Balanced connections typically use shielded twisted-pair cable and three-conductor connectors. The connectors are usually three-pin XLR or 1?4 inch (6.35 mm) TRS phone connectors. When used in this manner, each cable carries one channel, therefore stereo audio (for example) would require two of them.

A common misconception is that balanced audio requires the signal source to deliver equal waveforms of opposite polarity to the two signal conductors of the balanced line. However, many balanced devices actively drive only one side of the line, but do so at an impedance that is equal to the impedance of the non-driven side of the line. This impedance balance permits the balanced line receiver (input stage of the next device) to reject common-mode signals introduced to the two conductors by electromagnetic coupling.

Eurovision Song Contest 1956

*(RAI), was formulated by an EBU committee led by Swiss broadcaster and executive Marcel Bezençon. Following approval at the EBU's General Assembly in 1955*

The Eurovision Song Contest 1956, originally titled the Gran premio Eurovisione 1956 della canzone europea (English: Grand Prix of the Eurovision song competition 1956; French: Grand prix Eurovision 1956 de la chanson européenne), was the first edition of the Eurovision Song Contest, held on 24 May 1956 at the Teatro Kursaal in Lugano, Switzerland, and presented by Lohengrin Filipello. It was organised by the European Broadcasting Union (EBU) and host broadcaster Radio svizzera italiana (RSI) on behalf of the Swiss Broadcasting Corporation (SRG SSR). It is the only time that the contest has been hosted by a solo male presenter.

Inspired principally by the Italian Sanremo Music Festival, held annually since 1951, the concept of a televised European song contest, initially proposed by Italian broadcaster Radiotelevisione italiana (RAI), was formulated by an EBU committee led by Swiss broadcaster and executive Marcel Bezençon. Following approval at the EBU's General Assembly in 1955, the rules and structure of the contest were agreed upon. Several of the rules utilised in this first contest would subsequently be altered for future editions, and it remains the only edition in which each country was represented by two songs, with a voting process which was held in secret and where juries could vote for the entries from their own country.

Broadcasters from seven countries participated in the inaugural edition of the contest, and the first winner was the host country Switzerland, with the song "Refrain" performed by Lys Assia. The result was determined by an assembled jury composed of two jurors from each country, with each juror giving each song a score between one and ten. Only the winning country and song were announced at the conclusion of the event, with the results of the remaining participants unknown. Even though it was broadcast on television via the Eurovision network and radio in ten countries, no video footage of the event is known to exist, with the only video available being of the reprise performance from an independent archiver; the majority of the broadcast is, however, available in audio.

TEA1002

*at full saturation but 75% luminance*

similar to the EBU colour bars) and an inverter logic input bit that controls a variation of the base color (a 75% - The TEA1002 is a PAL video encoder chip produced by Mullard in 1982 and used on the Mattel Aquarius computer, the AlphaTantel Prestel adapter and the Microvector 256 color graphics display interface for Nascom and Gemini computers.

It was also used on teletext decoders and color bar generators associated with video test equipment.

It generates 16 colors based on Luminance, Chrominance and Saturation, usually with the 8 basic colors being similar to the EBU 75% color bars.

FFmpeg

*Amplify/Normalizer Volume (volume) Dynamic Audio Normalizer (dynaudnorm) EBU R 128 loudness normalizer (loudnorm) Modulation Sinusoidal Amplitude Modulation*

FFmpeg is a free and open-source software project consisting of a suite of libraries and programs for handling video, audio, and other multimedia files and streams. At its core is the command-line ffmpeg tool itself, designed for processing video and audio files. It is widely used for format transcoding, basic editing (trimming and concatenation), video scaling, video post-production effects, and standards compliance (SMPTE, ITU).

FFmpeg also includes other tools: ffplay, a simple media player, and ffprobe, a command-line tool to display media information. Among included libraries are libavcodec, an audio/video codec library used by many commercial and free software products, libavformat (Lavf), an audio/video container mux and demux library, and libavfilter, a library for enhancing and editing filters through a GStreamer-like filtergraph.

FFmpeg is part of the workflow of many other software projects, and its libraries are a core part of software media players such as VLC, and has been included in core processing for YouTube and Bilibili. Encoders and decoders for many audio and video file formats are included, making it highly useful for the transcoding of common and uncommon media files.

FFmpeg is published under the LGPL-2.1-or-later or GPL-2.0-or-later, depending on which options are enabled.

Integrated receiver/decoder

*ASI inputs / outputs. TSoIP inputs. AES/EBU Audio decoding. VBI reinsertion. WSS data and pass through. Transport stream demultiplexing. Genlock input. Frame*

An integrated receiver/decoder (IRD) is an electronic device used to receive a radio-frequency signal and convert digital information transmitted in it.