Difference between H.264 and X.264

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Today's society demands more and more efficient ways of storing and displaying video. A codec is a method of storing video - essentially the language in which the video is stored. Codecs are constantly updated and become more efficient. H.264 became a popular codec during the web video boom, providing content producers with a way to store loads of online video in significantly less space than before.

Codecs and Encoders

In short, H.264 is the codec and X.264 is the encoder. The codec is the language and the encoder is the compiler for that language. X.264 was developed in the early 2000s as a free command-line encoder to translate video to H.264. The makers of X.264 made this utility available for free in the hope of enhancing the new H.264 codec.

Uses of X.264

X.264's software has been integrated into many programs. Since the encoder only works from the command line, the developers took it and included it in the graphical user interface (GUI) of their programs. Programs such as ffmpeg, Handbrake, VLC Media Player, and MeGUI use the X.264 backend. X.264 is in a way transparent software, since user interaction with it is done bridging through the interface of other software.

Uses of H.264

H.264 is used today to feed large amounts of video into any bandwidth-constrained setting. Sites like YouTube, DailyMotion, Hulu, and Netflix have all taken advantage of the H.264 codec's ability to squeeze large amounts of video into a small space. HDTV Europe is broadcast using H.264, along with DVD Blu-ray discs. Videos saved to iPod and iPhone are saved in H.264 to maximize capacity and efficiency.

Why use H.264 and X.264?

H.264 and X.264 work in tandem to bring more video to everyone on demand. As broadband Internet and wireless Internet develop, more bandwidth will be devoted to video transmission. Netflix, a company that uses the H.264 compression standard to stream movies to any home in the world, consumes most of the Internet bandwidth in the US during peak hours. Technologies like X.264 turn video into H.264 video so you can enjoy movies, TV, and more anywhere there's an Internet.