

Learn about new HEVC / H.265 video standards

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HEVC (High Efficiency Video Coding) or H.265 is the latest video compression standard developed by the ITU-T VCEG (Video Coding Expert Group) group and ISO / IEC MPEG group (Moving Picture Experts Group) , and is the next generation video standard after H.264 / AVC.

1. What is HEVC / H.265?

HEVC (High Efficiency Video Coding), also known as H.265, is a new video compression standard that inherits H.264 / MPEG-4 AVC. HEVC is researched and developed by the ITU-T VCEG (Video Coding Expert Group) group and ISO / IEC MPEG group (Moving Picture Experts Group).

The first H.265 / HEVC version was approved in January 2013.

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Or you can understand that HEVC na (H.265) is used to provide significantly improved image quality at the same bit rate.

Users can take advantage of this to improve compression performance in one of the two ways below (or in some cases, it is possible to combine both):

1. At the same level of image quality, HEVC enabled compressed video into a file, which AVC only activated about half (or 1/2 bit rate).
1. When compressing a file of the same size or bit rate as AVC, HEVC provides significantly better image quality.



2. HEVC has twice the data compression ratio compared to H.264 / MPEG-4 AVC

1. Most video compression standards come from the Motion Compensated Prediction algorithm (Motion Compensated Prediction). Pixel blocks are encoded by accessing another area in the same frame (intra-prediction), or in another frame (inter-prediction).
1. HEVC allows predicting encrypted blocks in blocks of different sizes than residual errors. Each high-level encryption unit (or CTU) is first encoded like a quad-tree prediction.
1. **Note** : Quadtree is a tree branched data structure, used to partition existing two-dimensional space into smaller, more manageable areas. Different from the binary tree, each partition, quadtree will divide the current region into 4 regions. Therefore each node in quadtree can have 4 derived nodes or no derived nodes, without exception.
1. HEVC can encode motion vectors with much greater accuracy than H.264 / AVC.
1. HEVC is integrated Adaptive Motion Vector Prediction, a new way to improve predictability (inter-prediction).
1. The Deblocking filter is improved
1. Sample Adaptive Offset (sample deviation compatible) - built-in filter.

You can refer to more:

1. **Instructions for encrypting and setting up password protection for USB in Windows**

2. **How to play live video on YouTube?**

3. **Instructions to encrypt and 'hide' BitTorrent traffic data**

Having fun!

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