QuickTime for Windows: Compression Algorithms (2/93)

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TOPIC ---

What compression does QuickTime for Windows use? I'm particularly interested in Video for Windows compression technique and whether QuickTime uses or supports it.

DISCUSSION ---

QuickTime uses five proprietary compression algorithms (Apple Video, Apple Compact Video, Apple Animation, Apple Graphics, and Apple Raw), and one JPEG international standard algorithm (Apple Photo Compressor). Each of the algorithms is best suited for a different type of image:

- The Apple Video Compressor is best suited to digitized video content that needs to be displayed at interactive speeds.

- The Apple Compact Video Compressor is best suited to compressing 16-bit and 24-bit video sequences. It typically obtains higher compression ratios, better image quality, and faster playback speeds than the Apple Video Compressor. However, it takes significantly longer to compress images than the Apple Video Compressor.

- The Apple Animation Compressor is best suited to animation and computer-generated video content. Images captured from videotape generally have considerable visual noise, which can degrade the compression effectiveness.

- The Apple Graphics Compressor is a better choice than the Animation Compressor whenever performance is less important than compression ratio. Generally, the Graphics Compressor generates a compressed file that is half the size of the same image compressed by the Animation Compressor. However, the decompress speed of the Graphics Compressor is half that of the Animation Compressor.

- The Apple Raw Compressor is useful for reducing image storage requirements by converting an image from one pixel depth to another. Resulting compression ratios are identical to the change in pixel depth ratio, that is, 32 bit to 16 bit gives 2:1 compression and 32 bit to 24

bit gives 4:3 compression.

- The Apple Photo Compressor implements the Joint Photographic Experts Group (JPEG) algorithm. It's most suited for still image compression.

Video for Windows offers only two proprietary compression algorithms, Intel Indeo and Microsoft Video1. Intel Indeo is used for performance playback of digitized video and Microsoft Video1 offers better compression than Indeo but slower playback.

At this time, QuickTime and Microsoft's Video for Windows are competing to become the Video standard for PCs. QuickTime doesn't currently use or support Video for Windows compression techniques.

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