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Apple MPEG Media System: Frequently Asked Questions (12/95)

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TOPIC -----

This article contains frequently asked questions (FAQ) about the Apple MPEG Media System and related MPEG terminology.

DISCUSSION -----

Question:
What is MPEG-1?

Answer:
MPEG-1 is an ISO standard developed by the Moving Picture Experts Group for compressing and decompressing video and audio for playback on computers, gameplayers and CD-ROM discs. MPEG-1 is a compression and decompression standard which allows you to play full screen, full motion digital video on your computer.

By definition, MPEG-1 offers the following features:

- Playback from a standard CD-ROM drive
- 74 minutes of video per CD-ROM disc
- Full motion video (30 fps for NTSC; 25 fps for PAL; 24 fps for film playback)
- 24-bit video playback
- 16-bit audio

Question:
Is it really full screen digital video?

Answer:
By definition of MPEG-1, the screen size is 352x240, regardless of the type of computer it is used on. As a result, all computers, including Macintosh and PC compatible, require some sort of pixel doubling/pixel replication in order to

get to 640x480.

Question:

How does this differ from QuickTime?

Answer:

QuickTime provides a mechanism for playing back video sequences at anywhere from 10 to 24 frames per second in a 320x240 window. When viewing the video, it can be choppy and slow. MPEG video played back is smooth flowing full motion.

Question:

What about software based MPEG?

Answer:

Software MPEG, although inexpensive has many limitations. First, software-based MPEG requires at least a 90 MHz Pentium system, which is expensive. Software MPEG playback of non-interactive video titles requires approximately 80% of the computers cycles and does not provide full motion playback. As a result, the computer and user can not perform any tasks in the background while watching a video. More importantly, software MPEG will not have the bandwidth and capability to run interactive titles. Hardware based MPEG solutions on the other hand, require only approximately 20% of the machines cycles. As a result, users can perform tasks on their computer (such as working on a spreadsheet) while simultaneously playing an MPEG movie. In addition, a hardware based MPEG solution is required in order to run any interactive games and interactive education titles.

Question:

What is the Apple MPEG Media System?

Answer:

The Apple MPEG Media System is an MPEG-1 playback (decompression only) card for the Macintosh.

Question:

What computers does this work in?

Answer:

The Apple MPEG Media System works in Macintosh or Power Macintosh computers with an LC-PDS slot and a Video In Slot, such as the Macintosh 630 series of computers, the Power Macintosh 5200 and 6200 series, and the Macintosh LC 580.

The Apple MPEG Media System also requires the Apple Video System or the Apple TV/Video System.

The Apple MPEG Media System does not work in the Macintosh 630 DOS Compatible computer or the Performa 640 DOS Compatible because the MPEG card fits into the LC PDS slot, which is already occupied in the DOS Compatible computers. The Apple MPEG Media System also does not work in Macintosh 630 series computers,

which have a Processor Upgrade Card installed. The Processor Upgrade Card in these computers blocks the PDS slot, which the Apple MPEG Media System requires.

Question:

How much does the Apple MPEG Media System cost?

Answer:

Under \$300, and it includes several MPEG titles.

Question:

Can I play any MPEG titles on my Macintosh?

Answer:

There are a number of different playback standards that have been developed by various companies. Many are proprietary in nature, and as a result have limited playback capability. The different playback standards and their compatibility with the Apple MPEG Media System are as follow:

Digital Videos

This is a Philips proprietary standard. The Apple MPEG Media system can play back all non-interactive Digital Videos.

CDi

CDi and Digital Video are essentially the same. The Apple MPEG Media system can play back all non-interactive CD-i titles.

Video CD-ROM discs

The Apple MPEG Media system can play back all Video CD titles. The interactive Video CD titles simply have a graphical user interface as a front end for selecting and playing the movies on the CD-ROM disc. The Apple MPEG Media System already has a graphical, intuitive user interface to select movies in Apple Video Player.

Interactive titles

The first generations of interactive titles will specify whether they play on Windows or the Mac OS. Interactive titles developed on PC compatible computers will not work on Macintosh computer. However, the Apple MPEG Media System is tightly integrated with QuickTime 2.x. As a result, with QuickTime and QuickTime for Windows a developer could potentially develop a title that would work on both Macintosh and Windows systems.

Article Change History:

12 Dec 1995 - Added information on Processor Upgrade Card.

01 Dec 1995 - Change title and added keyword.

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