



# Tech Info Library

## QuickTime: Computer Speed Affects Playback (8/94)

Revised: 8/19/94  
Security: Everyone

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Article Created: 23 December 1991  
Article Reviewed/Updated: 19 August 1994

TOPIC -----

We've noticed with QuickTime a wide disparity of playback caused by dropping of video frames to remain synchronized with sound when moving from one computer to another. Only when we get to Macintosh IIx speeds do we seem to maintain frame integrity.

DISCUSSION -----

The QuickTime engineers deliberately designed QuickTime to do exactly what you describe. Each computer has limitations of how many instructions it can process in a given amount of time. For QuickTime, this imposes certain performance limitations.

When performance needs exceed performance limitations, adjustments must be made to preserve timing and synchronization. When playing a movie with one or more video and audio tracks, QuickTime drops video frames to preserve timing and synchronization. This solution is much less damaging to the presentation than dropping audio segments.

There are several factors that contribute to the performance that you observe when playing QuickTime movies. Some of them are:

- The CPU (68020, 68030, 68040, or PowerPC) and its clock speed
- The number of tracks played at one time
- The precision of the data within each track (examples: bits/pixel, pits/audio sample)
- The background processes that run at playback time (examples: VBL tasks, drivers, file sharing, and so on)

- AppleTalk network traffic. (Each Macintosh partially inspects EVERY packet that comes by to determine whether the packet was addressed to it.)

Article Change History:

19 Aug 1994 - Revised to show that QuickTime requires 68020 computer or better.

Support Information Services

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Tech Info Library Article Number:9443