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## QuickTime Versions, System Requirements, Installation (5/95)

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TOPIC -----

QuickTime is the multimedia architecture for the Macintosh computer family. It allows any color-capable Macintosh to integrate dynamic data types such as video, sound, and animation into presentations, training materials, and documents. Hundreds of commercial applications support QuickTime.

DISCUSSION -----

### Four Components

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The QuickTime architecture has four key components:

- True synchronization of streams of information in time -- video and sound, for example, using the movie controller.
- A variety of compression schemes, to minimize storage requirements.
- A standard graphical interface for navigating, manipulating, and editing data.
- A rich, flexible file format that readily accommodates these new information types.

### QuickTime 1.5 Features

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Compared to earlier versions, QuickTime 1.5 provides:

- Larger screen software-only movie playback. Up to 320 x 240 pixels at up to 15 frames per second, or four times the screen area on a Macintosh LC II. Movies on screen will now be twice as big. Alternatively, you can play back movies of 160 x 120 pixels at up to 30 frames per second on a Macintosh LC II.

- Integrated support for Kodak Photo CD allows digitizing photos onto a CD-ROM where QuickTime can access them. Features include easily viewed "thumbnails," QuickTime overview movie of photo images, and file-format translation -- so you can paste Photo CD images into any Macintosh application that supports PICT files.
- Improved CD-ROM data handling for enhanced QuickTime movie playback from a CD.
- Improved network performance for better CD playback over a network.
- Faster 1-bit dithering offers enhanced and smoother viewing of QuickTime movies on PowerBook computers and other monochrome computers.
- Generic media handlers allow developers to incorporate different data types into QuickTime movies to create new movie track types.
- Text Track, a new feature that allows integration of texts into QuickTime movies.
- Human Interface support for compression settings, sound input devices, and video digitizers. Developers can now easily change settings and features in their hardware.

#### QuickTime 1.6 Features

- Significantly improved performance, sound, and graphics support.
- Movies play back more than 10 percent faster than the previous version 1.5, delivering smoother playback.
- The new sound manager provides customers using third-party sound cards with the ability to input and play back CD-quality, 16-bit sound from QuickTime movies. Sound Manager version 3.0 completely replaces the existing Sound Manager, and it works with all versions of QuickTime. If Sound Manager 3.0 is installed, QuickTime 1.6 will take advantage of its new features.
- A Movie Import component allows you to open Audio CD tracks from QuickTime's Standard File Preview dialog, just as you could open PICS and AIFF files with QuickTime 1.5. If you have an AppleCD 300 or 300i drive, you can use QuickTime 1.6 to convert tracks of your favorite audio CD directly into QuickTime movies.
- By supporting ColorSync, Apple's color-matching technology, QuickTime 1.6 will ensure that colors in a movie played on one color monitor will be the same when played on any other color monitor.
- QuickTime 1.6 requires 90 percent less memory than the previous version when installed, giving Macintosh customers with entry-level computers more flexibility when installing QuickTime.

#### QuickTime 1.6.1 Fixes

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QuickTime 1.6.1 fixed problems with the Alias Manager, incompatibilities with NOW and HAM utilities extensions, and with the decompressor for Photo CD.

#### QuickTime 2.0

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QuickTime 2.0 is significant because it provides larger video at faster frame rates, support for music, and support for interactive television applications.

#### Larger, Faster, TV Like Video

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Video on computers is often confined to small windows and played at less than 12 frames per second, making the video appear rough and jerky. QuickTime 2.0 provides greatly increased performance resulting in full-screen movies without the addition of any hardware. This closely resembles what viewers see on television today. For example, on a Macintosh LC 475, one of Apple's lowest-cost computers, 30 frames per second video is possible at a resolution of 320 x 240, or full-screen video (640 x 480) is possible at 15 frames per second.

Key components of the new video enhancements are new features that support professional-level video editing. QuickTime 2.0 includes support for time-code, 60 fields per second video and high data throughput greater than 3 MB per second. This represents a 300 percent increase over previous versions of QuickTime.

#### Interactive Television Support

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QuickTime 2.0 creates an infrastructure for development and delivery of interactive television applications through MPEG support and network enhancements. Now, with its new device protocols, QuickTime can address distributed networks and devices, such as video servers, on the information superhighway.

QuickTime 2.0 supports MPEG, widely regarded as the industry-standard method of delivering video into the home for interactive television applications such as Video On Demand (VOD) and home shopping. However, MPEG, by itself, allows only playback. With QuickTime 2.0, users of MPEG-based devices will be able to edit, search for, interact with, as well as play back-video information.

#### Note:

QuickTime requires additional hardware for MPEG playback.

#### Music For The Masses

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Building on Apple's industry renowned ease-of-use, QuickTime 2.0 makes it much easier for computer users to create, edit, playback and synchronize music with video—all without a technical understanding of MIDI technology. In the past, users of Macintosh computers and other personal computers have required an

understanding of MIDI technology in order to create and playback music on computers.

In addition, QuickTime 2.0's music capabilities will save disk space for users, because QuickTime music tracks are much smaller than digital audio. For example, Beethoven's 5th Symphony could easily fill a 300 MB hard disk if stored as CD-quality audio, but when represented as a QuickTime music track it would fill just a single 800K floppy disk.

#### Compatibility with Older Versions of QuickTime

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Movies created with earlier versions of QuickTime will playback with QuickTime 2.0, and usually they will playback more smoothly.

Applications and tools which support early versions of QuickTime, Movie Player and Movie Converter for example, will playback QuickTime 2.0 movies.

#### QuickTime 2.0 Availability

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Developers: QuickTime 2.0 and QuickTime for Windows 2.0.x are available to software developers on the QuickTime Software Developer Kit (SDK) through APDA, and include licensing agreements from Apple's Software Licensing division.

End Users: QuickTime 2.0 for Mac OS is available as part of System 7.5 or can be downloaded from CompuServe (GO QTIME) for a small fee.

QuickTime 2.0 for Windows is available from CompuServe for a small fee (GO QTIME).

QuickTime 2.0 for both Mac OS and Windows can also be downloaded from the internet for a small fee. It is available from the WWW site:

<http://quicktime.apple.com>

All earlier versions of QuickTime are no longer available and have been removed from Apple SW Updates.

Most QuickTime products also include a copy of QuickTime.

#### System Requirements

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QuickTime requires a Macintosh computer with a 68020 or later microprocessor, with system software version 6.0.7 or later. Apple recommends at least 4MB of memory when using QuickTime with System 7. QuickTime relies on the capabilities of 32-bit QuickDraw, which only runs on 68020 or later Macintosh computers.

If you want to use QuickTime on an older Macintosh, you might be able to upgrade the unit or use a third-party board to bring it up to a 68020 microprocessor or higher. QuickTime will then work with System 7 installed, or with the 32-bit QuickDraw file installed in system 6.0.5 or 6.0.7.

## Installation

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To install, simply drag the QuickTime extension to your System Folder and restart. Please note that the Installer for QuickTime Starter Kit 1.0 will replace QuickTime versions 1.5, 1.6, 1.6.1, or 2.0 with 1.0. Just reinstall the QuickTime 1.5, 1.6, 1.6.1, or 2.0 extension. QuickTime 2.0 also has additional components that need to be installed including QuickTime PowerPlug (For use only on Power Macintosh computers), and QuickTime Musical Instruments (for MIDI playback). Both the QuickTime PowerPlug and QuickTime Musical Instruments go in your Extensions folder.

With System 6.0.7, the 32-bit QuickDraw file is located on the Printing Tools disk in the Apple Color folder and is not automatically installed. You must install it manually. With System 7 and later versions, 32-bit QuickDraw is built into the system software, and a separate file for 32-bit QuickDraw is no longer required.

If QuickTime movies don't play in the Scrapbook, follow these steps:

- 1) Copy the Scrapbook DA from the QuickTime disk to your Apple Menu Items folder.
- 2) Replace your existing Scrapbook DA.

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## Article Change History:

- 24 May 1995 - Added QuickTime 2.0 information.
- 29 Sep 1994 - Reviewed for consistency and format.
- 04 Aug 1994 - Removed binary file. Took QRG out of title. Verified against contents of the fax document.

## Support Information Services

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