QuickTime and the Internet

QuickTime is Apple Computer's industry-standard architecture for creating, editing and playing video, audio, 3D and other digital media on personal computers. It is used by multimedia content creators for everything from CD-ROMs to professional broadcasting to the Internet.

QuickTime is not an application, but an entire technology for storing, editing, and playing sound, video, animation, graphics, text, and music. Additionally, an extension of the basic QuickTime technology called QuickTime VR can display 360-degree navigable "virtual reality" scenes. Because QuickTime is based on an open architecture, multimedia creators can easily add differentiating features to their products by extending its capabilities.

The QuickTime file format has established itself as an acknowledged standard for multimedia distribution. QuickTime 3.0 will be widely supported across different hardware platforms and software operating systems, including consistently featured versions for Mac OS, Windows 95, and Windows NT.

Since the advent of the World Wide Web, savvy designers have learned how much value QuickTime content can bring to a web site. More than 20,000 web pages already use QuickTime movies to educate, inform, and entertain visitors. A wide array of content authoring tools enables designers to quickly create Quick-Time-enhanced Internet sites. Sophisticated new features available in the soon to be released QuickTime 3.0 version can be accessed over the Internet with the new QuickTime Plug-in 2.0 version.

Why the QuickTime Plug-in?

The QuickTime Plug-in 2.0 enables Netscape Navigator and Microsoft Internet Explorer to display QuickTime-based media directly within a web page. As the Internet contains many digital media types (including video, audio, still images, VR virtual reality, 3D, and text,) the job of picking the right Internet plug-in or application to play back the myriad of available content can be time-consuming and frustrating for the user. With the newest QuickTime Plug-in 2.0, the job of viewing and playing back disparate media types over the Internet will be dramatically simplified. QuickTime and QuickTime VR movies obtained on the Internet can be viewed with any QuickTime-capable application or within a web browser by using the QuickTime Plug-in. The QuickTime 2.0 Plug-in will be available at no charge from the QuickTime web site (http://quicktime.apple.com).

QuickTime on the Internet Features

- Offers cross-platform creation, editing and playback of multimedia
- Supports a wide range of multimedia formats
- "Fast Start" feature enables movies to start playing while they are still downloading
- Can default to the optimum movie file for different connection speeds
- Can create "Hot Spots" and URL links to other web pages or multimedia files
- Can create "Poster Frame" movie preview image to save on download time or need

http://quicktime.apple.com

QuickTime and the Internet

The QuickTime Plug-in 2.0 will work with Netscape Navigator 2.0 or later (including Netscape Communicator 4.0) and Microsoft Internet Explorer (Macintosh version 2.0 or later; Windows version 3.0 or later.) Within each browser, QuickTime offers a consistent interface and features for accessing Internet multimedia content, and allows web page designers to integrate dynamic content directly into their web pages without having to run a separate "helper" application.

"Fast Start"

The "Fast Start" feature in the QuickTime Plug-in presents the first frame of a movie almost immediately and begins playing the movie before it has been completely downloaded. "Fast Start" works seamlessly on any HTTP server (even across firewalls) and requires no special server software.
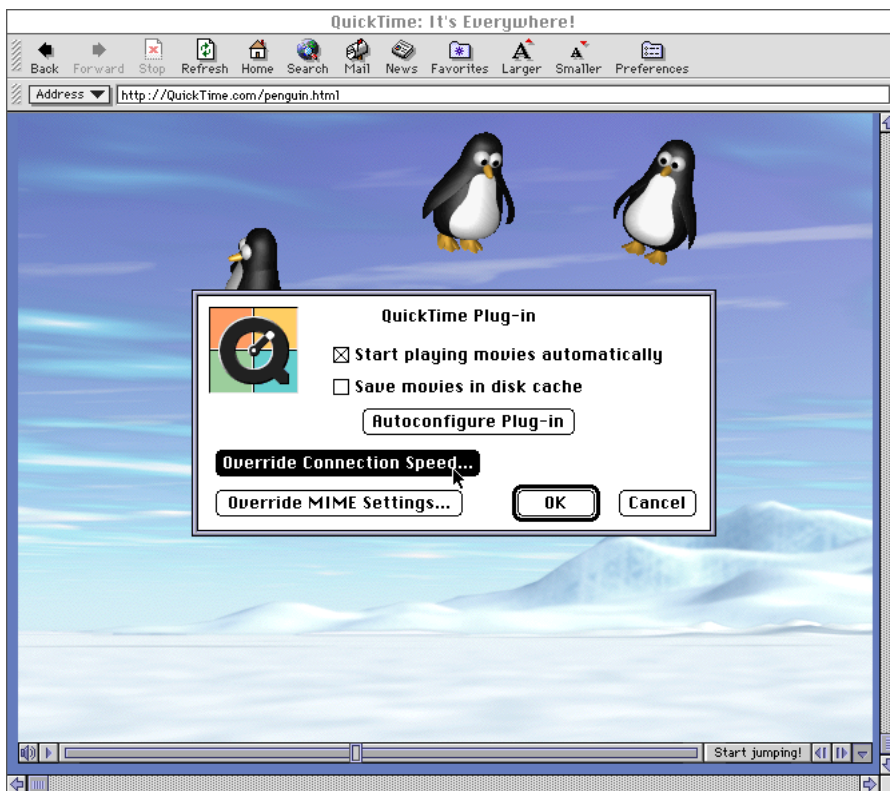
Alternate Data Rates and Languages

A common problem on web sites today is how best to display multimedia files to users who are using different connection speeds.

Alternate data rates allow the user to select the most appropriate connection speed to view QuickTime movie content.

Until now, web site designers either had to create their files for a lowest common denominator (e.g. a 28.8kb modem), or design more complex, higher-quality files knowing that users of lower-speed modems might become frustrated with download times or viewing quality. The other alternative means offering multiple versions of each file and forcing users to choose the appropriate one for their available bandwidth.

The QuickTime Plug-in 2.0 now enables a web page to display a single link to multiple versions of the movie. The content author simply specifies which version to select for various data rates and then the appropriate version is downloaded for the user. This means that web site designers can now produce the highest quality versions of content for users with higher-speed connections, while still keeping low-bandwidth versions that will not frustrate users of lower data rate modems. Each user automatically gets the optimum version without having to navigate through a confusing array of choices.

The new Plug-in can also play alternate versions based on language options. For example, a single embedded link could reference movies with Spanish, French, and English soundtracks or text captioning. A particular language could even be automatically selected based on the localized system software on the user's computer.

Movie Hot Spots and Auto-Go-to URLs

URLs can be attached to specific areas ("hot spots") of QuickTime movies and movie elements such as sprites, facets of QuickDraw 3D images, and text tracks. URL links can be linked to other QuickTime movies, QuickTime VR panoramas and objects, animations, music, text, web graphics, or complete web pages. Even sprite movies can have a URL associated with them so that clicking on a particular sprite or area of the movie takes the user to the specified URL. Individual frames of movies can also be encoded to automatically launch a particular URL web page (the Auto-Go-to feature) that can be displayed in tandem next to the still-playing movie.
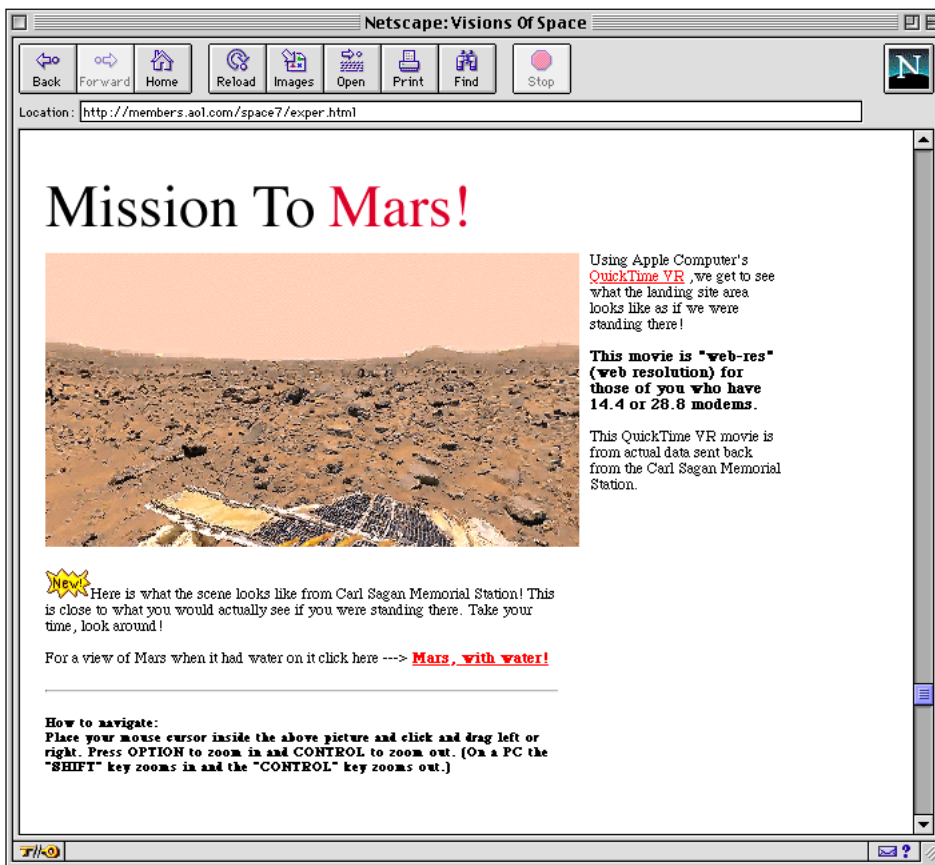
"Poster Frame" Preview of Movies

A "poster frame" preview image representing a movie can be embedded on a web page, minimizing the download time that would be otherwise required. If the user clicks on the poster frame, the full-length movie would then be downloaded, appearing in exactly the original location within that same web page. Multiple poster frames can be placed on a page, representing each of the corresponding movies that a user can access, all without ever leaving the original web page. The end result is a simplified web interface for the web designer and a better, less confusing experience for the user.

Support for QuickTime VR 2.0

QuickTime VR support is built into the QuickTime Plug-in, making it easy for web visitors to experience virtual-reality scenes of products, places and people on the more than 9,000 sites that now use QuickTime VR. Navigating with a keyboard and a mouse, QuickTime VR users can look around a room, or outdoors, or view an object from all sides.

Web site designers can extend the power of QuickTime VR scenes by taking advantage of the URL Hot Spot capability in the latest QuickTime Plug-in. This feature enables areas of a QuickTime VR panorama to be linked to any content on the Web.

Users can pan and zoom QuickTime VR panoramas using a combination of mouse and keyboard commands.

Web Development Tools

A large number of products are available from Apple and other vendors that let web content creators work with QuickTime movies, including tools such as Internet Movie Tool, which can add the "Fast Start" capability to older QuickTime movies by single or batch process, preserving investment in work already completed.

QuickTime and the Internet

Availability

Both the Mac OS and Windows versions of QuickTime Plug-In version 2.0 and QuickTime VR 2.0 require QuickTime 3.0 software. You will be able to download all of these products along with MoviePlayer version 3.0 from Apple's QuickTime web site (http://quicktime.apple.com) projected for Fall 1997.

QuickTime 3.0 on the Internet Features

- Provides full access to QuickTime 3.0 features including URL linking ("Hot Spots")
- Supports QuickTime VR 1.0 and 2.0 movies (requires QuickTime VR 2.0)
- Allows web designers to associate multiple versions (including language tracks) of a QuickTime movie to a single link so that users automatically get the optimum version for their connection speed.
- Allows users to "Drag and Drop" movies to the desktop from the browser.
- Lets users click on a URL "Hot Spot" area or sprite, or even facets of a QuickDraw 3D image, in a QuickTime or QuickTime VR movie, and jump to other web pages or multimedia or still image files
- Supports all popular codecs and multimedia file formats
- Includes an accessible pop-up menu to access plug-in features—even sound-only files
- Offers a preferences dialog box to set incoming or preferred connection speed
- Allows users to access or disable wide variety of MIME types
- Permits data to be retrieved transparently from a CD-ROM or the Internet and can switch to the second preference choice if the first is not accessible
- Automatically sends a URL at a specified point in a QuickTime movie with the "Auto-go-to" capability
- Previews "Poster Frame" of a movie that can be downloaded on user request to the same location on the web page as the original Poster Frame, even with multiple choices available on the same page.

Supported Browsers

- Netscape Navigator 2.0 and 3.0
- Netscape Communicator 4.0
- Microsoft Internet Explorer (Macintosh version 2.0 and 3.0)
- Microsoft Internet Explorer for Windows 3.0

Supported Media & Graphics Types

- QuickTime movie
- MPEG audio and video (with additional extension)
- AVI video
- AIFF audio
- AU audio
- WAV audio
- MIDI audio
- GIF image
- SGI image
- Photoshop image
- Windows BMP image
- JPEG image
- MacPaint image
- Targa Truevision image
- FLC animation
- GIF animation

Supported EMBED Commands

QuickTime and QuickTime VR
- HEIGHT and WIDTH—specifies size of movie in web pages
- HIDDEN—allows sound-only movies to play in the background without affecting the look of a web page
- AUTOPLAY—starts movie playing automatically
- LOOP—loops movie playback automatically
- CONTROLLER—specifies whether or not to display the QuickTime movie controller bar
- HREF—indicates which URL to link to when the movie is clicked
- TARGET—provides a frame target for the URL specified in a HREF tag
- CACHE—indicates whether the movie should be cached (Netscape Navigator 3.0 only)
- BGCOLOR—sets a background color for the movie display
- SCALE—scales the movie display automatically
- VOLUME—sets the default playback volume

QuickTime VR only
- CORRECTION—specifies an image correction mode
- PAN—sets the initial pan angle
- TILT—sets the initial tilt angle
- FOV—sets the initial field of view angle
- NODE—sets the initial node

Apple Computer, Inc. 1 Infinite Loop Cupertino, CA 95014 (408) 996-1010 http://www.apple.com/