Worldwide

Developers

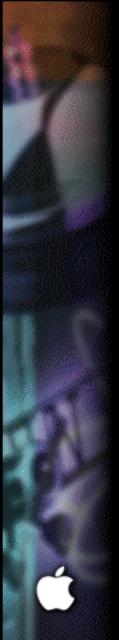# Conference

QuickTime Overview

Peter Hoddie

Chief Architect, QuickTime

The QuickTime Media Layer

- **Multi-platform technologies for media creation, publishing, and playback**
- **Scalable from Internet playback to professional authoring**
- **QuickTime Media Layer**
  - QuickTime
  - QuickDraw 3D
  - QuickTime VR

What Is QuickTime?

- Powerful platform for media integration
  - Why is this important?
    - Many media
      - Video, sound, 3D, VR, text, music, etc.
    - Many standards
    - Many hardware and software platforms
    - Many environments

What Is QuickTime?

- Richly descriptive file format
- Fully-specified component architecture
  - Synchronization, 2D/3D imaging, audio, media capture, media storage, hardware abstraction, hardware acceleration, application services
- Powerful collection of high-quality component implementations
  - Abstract architecture alone isn't enough
- Media format, operating system, and hardware neutral

Where Are We Today?

- QuickTime 3.0
  - Will ship in next quarter
  - Best System Software, New Media Magazine 1997
  - Best Internet Tool, NetGuide, 1997
  - NAB Pick of Show, Television Broadcast Magazine
- QuickDraw 3D 1.5
  - Shipped Mac and Windows March, 1997
  - Best of show: Comdex 1996
  - Over 100 applications supporting API
- QuickTime VR 2.0
  - Shipped for Macintosh, January 1997
  - Windows version ships with QuickTime 3.0

QuickTime in the Market

- **More than 50% of all multimedia CD titles are authored on Macintosh**

  - QuickTime has made this possible

- **More than 50% of digital video on Internet is QuickTime format**

- **QuickTime can view over 80% of media-rich Internet info**

QuickTime Values

- Painless media integration
- Embrace standards
- Serve diverse markets
  - Internet, consumer multimedia, professional
- Scalable
- Extensible

QuickTime Benefits

- **Consumers**
  - Easy media access—it just works
  - Rich media experiences
- **Application and tool developers**
  - Powerful built-in services let developers focus on their unique advantages
  - Media abstraction layer
- **Hardware vendors**
  - High-performance I/O
  - Well-defined acceleration architecture

QuickTime: Media Integration Platform

- **QuickTime supports many standards…**
  - Content creators must work with many formats
  - Developers focus on unique advantages
  - Users get easy access to the data
- **…and adds value to existing standards**
  - Instant import, original data untouched
  - Work around limitations in existing formats

Demo

Professional Media

- Key issues
  - Interoperability and cross-platform
  - Image and audio quality
  - Flexibility
    - Integration of video, audio, 3D
- Where is QuickTime being used?
  - File format
  - Hardware
  - Applications and tools

DV-Format and FireWire/IEEE1394

- **DV-format is changing the industry**
  - Economics, performance, integration with desktop video PCs
- **QuickTime's support is very rich**
  - Capture, SW-decode and HW support, encode, fully compatible, fully integrated
- **QuickTime is the leader**
  - First and best system-level integration

adaptec

Effects and Transitions

- **Natural next-step in evolution of QuickTime architecture**
  - Dual-stream hardware now affordable
- **Standardize effects descriptions**
  - Industry lacks credible interoperability story
  - Applications traditionally hard-wired to boards
- **Provide rich set of built-in effects**
  - SMPTE wipes and common multimedia transitions

Multimedia Authoring: Sprites

- Introduced in QuickTime 2.1
  - Many enhancements for QuickTime 3.0
- Dynamic media type
  - Excellent in bandwidth constrained environments
- Compelling media integration

QuickTime on the Internet

- **QuickTime is a dominant Internet format**
- **Internet presents unique challenges**
  - Bandwidth, protocols, platforms
- **QuickTime tames Internet media**
  - Rich set of low-data rate media types
  - Seamless integration through QuickTime plug-in
  - User-friendly features
    - FastStart, non-QuickTime formats
  - Web-friendly features
    - Tool compatibility, URL hotspots, data rate alternates

Demo

QuickTime Streaming

- QuickTime plug-in solves many problems
  - No firewall constraints, employs standard protocols
- As Internet matures, more powerful options exist
  - No download, across lossy networks, new protocols, live broadcast
- What's our value-add?
  - Streaming beyond just video and sound
  - Excellent compatibility
  - Existing tools and techniques remain useful

Other QuickTime Platforms

- **QuickTime already relevant beyond Mac OS and Windows**
  - Silicon Graphics, Scitex
  - Each platform has unique capabilities

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- **QuickTime already relevant beyond Mac OS and Windows**
  - Silicon Graphics, Scitex
  - Each platform has unique capabilities
- Java integration
  - Complements platform-neutral approach
  - Core to Rhapsody

QuickTime on Rhapsody

- How will Rhapsody benefit QuickTime?
  - Excellent environment for tools development
  - Plus all the benefits of an industrial-strength OS
- Why it's interesting for QuickTime customers
  - New QuickTime features accessible sooner

QuickTime Interactive: Next Generation Media Integration

- Standard for adding interactivity to your media
- Enables authoring tools to work together
- Simplifies authoring process
- Standard player means developers don't have to create their own

Summary

- Well established standard
- Supports all major platforms
- State of the art media technology
- Services reach across all media market segments
- Continuing to aggressively enhance to address emerging technologies and markets

Q&A

Other Sessions of Interest

- Interactive Media Track:
  Thursday and Friday
- QuickTime Overview for Developers
  - Thursday, 8:30 AM
- QuickDraw 3D Overview
  - Thursday, 9:50 AM
- QuickTime VR Overview
  - Friday, 12:10 PM
- Many additional break-out sessions
  throughout both days