

# Microsoft Confidential

## QuickTime / DirectX Convergence Proposal

### Migration to MOV file format

- Microsoft adopts MOV files
  - Phase out WAV, AVI, MID files
  - Re-vector our ASF 2 work into MOV
- MOV becomes the media container for Windows and Mac
- Collaboration between Apple and Microsoft on MOV going forward

### Codec Détente

- Cross license all of the codecs that we own between the two companies
  - Most of these codecs are old codecs that just cause our mutual customers pain
  - MPEG4 is our newest streaming video codec
- Collaboration on all future codecs
  - We have a substantial codec group and are hiring aggressively in this space
- Codec plug in model is native to platform

### Internet Co-operation

- Enhancing DHTML for multimedia
  - Co-operation on synchronization tags
  - VML+ tags (Vector Graphics)
- Codecs central
- Chrome?

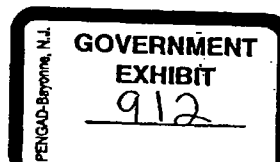
### Run-Time

- Run-Time is DirectX on Windows, QuickTime on the Mac
- Microsoft streaming media client for the Mac is branded QuickTime
  - Built on QuickTime run-time
  - Supports Microsoft streaming media server
  - Ships with the Mac OS as the exclusive streaming media client
- We will license DirectX to Apple for the Mac if desired

### QuickTime Author

- We adopt QT video editing APIs
  - On Windows must use DirectX media run-time
- Apple adopts AAF
  - We will work with the other promoters to make Apple a promoter (we do not believe this will be hard at all)
- Apple and Microsoft work together on MPEG4 and SMPTE standards bodies
  - Get adoption of MOV and AAF technologies

Microsoft Confidential



1 of 2

A 2580

#### **PR & Attribution**

- **Microsoft announcements**
  - Adoption of MOV as the Windows file format
  - Adoption of QT Authoring services
- **Joint announcements**
  - Adoption of AAF
  - Joint MPEG4 and SMPTE standards efforts
  - Collaboration/Co development of ASF2 as MOV streaming
- **Display the QT logo on the Windows Media Player whenever a MOV file is playing**
- **SDK attribution for QT Author**

# DirectX Multimedia

## Strategy

End User Experience



### Content Creation Tools

Authoring

Liquid Motion

Content Platform

U4  
Dynamic  
HTML

Chrome

High level API

DirectX  
media

DirectX files

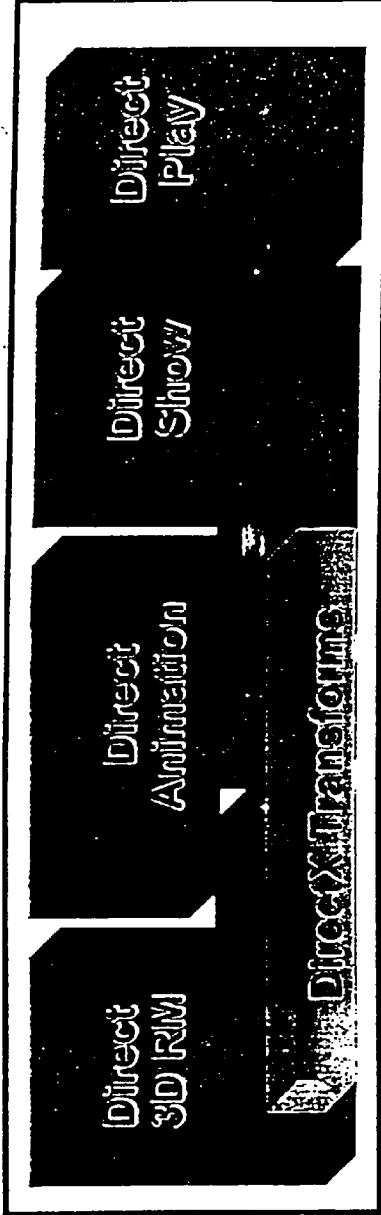
Low level API

DirectX  
foundation

DirectX author

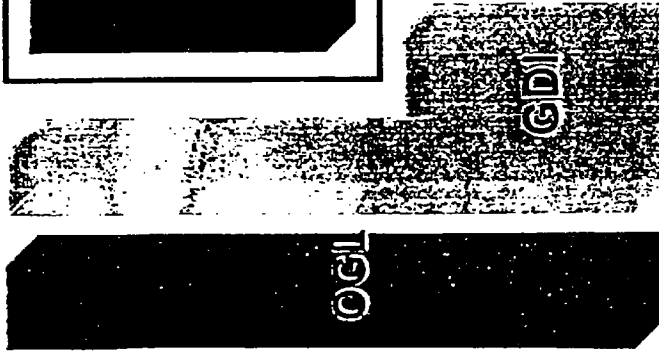
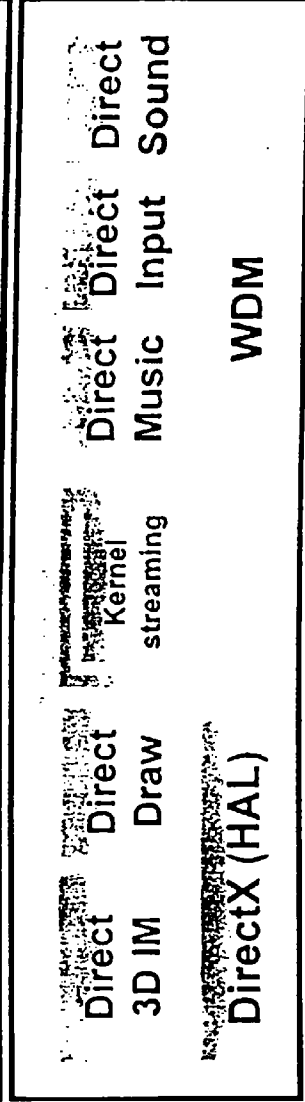
Chrome  
Windows Media Player

DirectX architecture



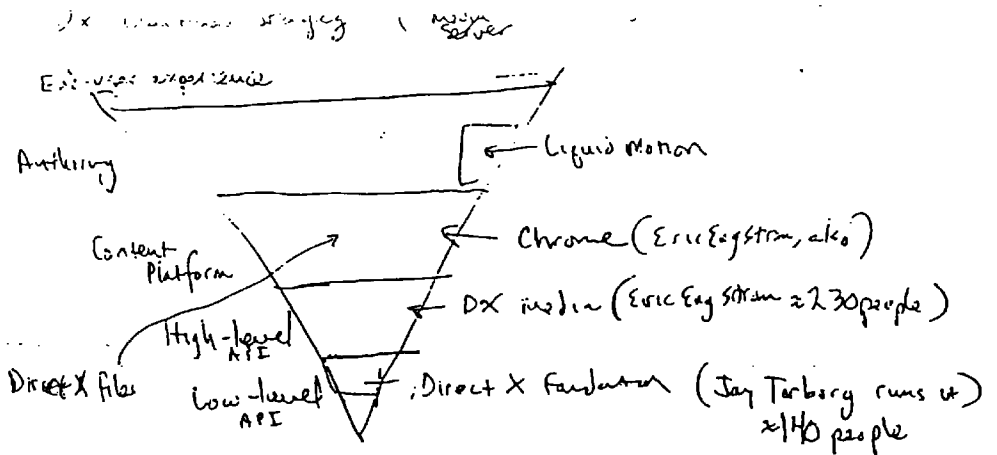
DirectX media

DirectX foundation



Hardware

DX Overview  
 Chrome Demo  
 QT Convergence



20 people working on codecs → 40 people soon

Want Apple client to work <sup>well</sup> with MS Netshow server

[ 150 people working on streaming server ]

- Adopt QT File Format
- Resolve Codec mess

[ MS claims they have 70% of IP pool for MPEG-4 codec ]

Can we agree on streaming formats + protocols ?

- Protocols
- Codecs
- XML tags

"Build a unified run-time for Windows; use it in Office, IE, Windows." - Engstrom

~~If MS is to ship QT apis, then~~

Eric Engstrom  
 Chris Phillips  
 Cristiano Pierry

Phil Schiller  
 Avie  
 Steve Jobs  
 Peter Hobbie

Monday, June 15, 1998 -  
 CEO Conf. Room

A 2584