

Prior to installing any of the QuickTime for Windows software, you should confirm that your system meets the following standards:

1. Minimum Hardware Requirements:

- * A personal computer with an 80386DX or faster CPU.
- * A CPU speed of 25 MHz or higher.
- * 4 megabytes of conventional and extended memory.
- * A CD-ROM drive supported by Microsoft Windows (access time less than 350ms, and sustained transfer rate of at least 150K per second)
- * A hard disk with at least 2 megabytes free for the basic QuickTime for Windows software.
- * Mouse (or other pointing device) supported by Microsoft Windows.
- * A ".WAV" compatible sound card supported by Microsoft Windows.
- * For optimal viewing, a 16-bit (32,000 colors) or 24-bit (16.7 million) accelerated color video adapter is strongly recommended.

PC AUDIO CARD COMPATIBILITY

The following chart summarizes the audio hardware products that were tested with QuickTime for Windows 1.1. Most compatibility issues are based on driver versions. With some boards, more than 1 driver was tested. In most cases, the latest available driver was tested. THE DRIVER TESTED MAY NOT BE THE SAME VERSION AS THAT WHICH CAME WITH THE AUDIO CARD. Contact the vendor for the latest driver version. Known bugs are included.

The information is provided in the following format and is delimited by tabs:

Manufacturer	Model	Bit Depth	Stereo	Driver	Version
--------------	-------	-----------	--------	--------	---------

<u>Creative Labs</u>	<u>SoundBlaster Pro</u>	<u>8</u>	<u>yes</u>	<u>SBPSND.DRV</u>	<u>5/15/92 11:12</u>
<i>This driver has a known problem that affects both QuickTime for Windows and Microsoft Video for Windows. When sound samples less than 2k are played, the card may play 1/4 second of sound repeatedly for about 5 seconds. This can be triggered by any QuickTime movie, or simulated by clicking to and from two playing Movies in the Movie Player.</i>					

<u>Creative Labs</u>	<u>SoundBlaster Pro</u>	<u>8</u>	<u>yes</u>	<u>SBPSND.DRV</u>	<u>2/5/93</u>
<i>Audio sticks because of a driver problem.</i>					

<u>Creative Labs</u>	<u>SoundBlaster Pro/16</u>		<u>16</u>	<u>yes</u>	<u>SB16SND.DRV 12/11/92</u>
<u>11:08</u>					

<u>Creative Labs</u>	<u>Sound Blaster 2.0</u>				<u>2/16/93</u>
<i>Audio sticks because of a driver problem. Problems with sound in loop appears only in the driver which currently ships with the board. Previous and subsequent driver releases do not exhibit the problem.</i>					

<u>Creative Labs</u>	<u>ThunderBoard</u>	<u>8</u>	<u>no</u>	<u>SNDBLST2.DRV</u>	<u>3/10/92 3.1</u>
<u>Creative Labs</u>	<u>ThunderBoard</u>	<u>8</u>	<u>no</u>	<u>SNDBLST2.DRV</u>	<u>5/13/92</u>

<u>MediaVision ProAudio Spectrum</u>	<u>8</u>	<u>yes</u>	<u>MVPROAUD.DRV</u>	<u>2/3/93 1.3</u>	
<i>Earlier versions of this driver cause sound to be repeated at random.</i>					
<u>MediaVision ProAudio Spectrum Plus</u>	<u>16</u>	<u>yes</u>	<u>MVPROAUD.DRV</u>	<u>2/3/93 1.3</u>	
<i>Make the following modifications to the QTW.INI file. See the end of this document for instructions:</i>					

[Sound]
RequestedRate=22095

ActualRate=22536

MediaVision ProAudio Spectrum Plus 16 yes MVPROAUD.DRV 5/15/92

MediaVision ProAudio Spectrum 16 16 yes MVPROAUD.DRV 2/3/93 1.3

MediaVision Thunder and Lightning 8 Stereo 22 Mono 44 TLWAVE.DRV 8/25/92

Make the following modifications to the QTW.INI file. See the end of this document for instructions:

[Sound]

RequestedRate=22222

MediaVision AudioPort 8 no MVAPORT 4/14/92 15:10

Does not support sound sampled a t above 11Kz.

Make the following modifications to the QTW.INI file. See the end of this document for instructions:

[Sound]

RequestedRate = 11025

ActualRate=11025

MediaVision CDPC

Microsoft Microsoft Sound System 16 yes SNDSYS.DRV 9/21/92 1.0

Cardinal Technologies Sound Studio, Sound Vision 16 yes TAPIGSS1.DRV 12/28/92

Orchid Sound Producer Pro 8 yes PRODUCER.DRV 1/13/93

Orchid Sound Producer Pro 8 yes PRODUCER.DRV 10/1/92

Turtle Beach. MultiSound 16 yes MULTISND.DRV 8/27/92 1.1

ATI Stereo F/X. 8 yes SFX.DRV 5/4/92

IBM M/Audio 16 yes ACPA.DRV 10/29/92 11:38

Adjusting the volume from the Movie Controller may cause the volume to be muted. To restore the volume, stop and restart the movie."

Sound may skip when resizing window.

Sound is played at 44khz by doubling the samples.

IBM M/Audio 16 yes ACPA.DRV 8/28/92

Limited volume control from keyboard.

NOTE:

The AdLib Gold Card audio system is not supported in QuickTime for Windows 1.1.

PC VIDEO CARD COMPATIBILITY

The following chart summarizes the video display cards that were tested with QuickTime for Windows 1.1. Most compatibility issues are based on driver versions. With some boards, more than 1 driver was tested. In most cases the latest available driver was tested. THE DRIVER TESTED OR SUPPORTED MAY NOT BE THE SAME VERSION AS THAT WHICH CAME WITH THE VIDEO CARD. Contact the vendor for the latest driver version. Known bugs are included. For Pixel Depth : 8 bits = 256 colors, 15 bits = 32,768, 16 bits = 65, 536 and 24 bits is 16 million colors.

If your video card is not listed below and you are having SEVERE compatibility problems, you may consider modifying the QTW.INI file. Change the [Video] setting

to Optimize = Driver. This may resolve severe compatibility problems with a specific video card but will also reduce the performance of Movie playback. See **MODIFYING QTW.INI FOR COMPATIBILITY.**

The information is provided in the following format and is delimited by tabs:

Adapter Optimized?	Video Chip	Driver	Driver Version	Bit Depth	Res.
----- <u>Standard VGA</u>	<u>Windows EGA</u>	<u>Win 3.1</u>	<u>4</u>	<u>640 x 350</u>	<u>No</u>
<i>Compatability tests only have been performed. That is, we ensure we dont GP fault. Otherwise, EGA playback is not supported, primarily because its pixels are not square, and QuickTime for Windows does not compensate for this.</i>					
<u>Standard VGA</u>	<u>Windows VGA</u>	<u>Win 3.1</u>	<u>4</u>	<u>640 x 480</u>	<u>No</u>
<u>IBM 8514\</u>	<u>Windows</u>	<u>3/10/92</u>	<u>3.1</u>	<u>8</u>	<u>1024 x 768</u> <u>No</u>
<i>We do not optimize any devices that use an 8514 co-processor. They do NOT allow direct pixel writes.</i>					
<u>IBM XGA</u>	<u>OEM</u>	<u>7/27/92</u>	<u>2.01</u>	<u>8</u>	<u>640x480</u> <u>Yes</u>
<i>Only XGA20 supports 16-bit color. Do NOT use the drivers supplied with Windows 3.1. Instead, use the drivers supplied by IBM.</i>					
<u>IBM XGA</u>	<u>OEM</u>	<u>7/27/92</u>	<u>2.01</u>	<u>16</u>	<u>1024x768</u> <u>Yes</u>
<i>(see above)</i>					
<u>IBM XGA2</u>	<u>OEM</u>	<u>7/27/92</u>		<u>8</u>	<u>640x480</u>
<u>IBM XGA2</u>	<u>OEM</u>	<u>7/27/92</u>		<u>16</u>	<u>640x480</u>
<u>IBM XGA2</u>	<u>OEM</u>	<u>7/27/92</u>		<u>8</u>	<u>800x600</u>
<u>IBM XGA2</u>	<u>OEM</u>	<u>7/27/92</u>		<u>16</u>	<u>800x600</u>
<u>ATI VGA XL 68800</u>	<u>Windows</u>	<u>4/9/92</u>		<u>4</u>	<u>800 x 600</u> <u>Yes</u>
<u>ATI VGA XL 68800</u>	<u>OEM</u>	<u>4/10/92</u>		<u>8</u>	<u>1024 x 768</u> <u>Yes</u>
<u>ATI VGA XL 68800</u>	<u>OEM</u>	<u>4/20/92</u>		<u>16</u>	<u>800 x 600</u> <u>Yes</u>
<i>(see above)</i>					
<u>ATI VGA XL 68800</u>	<u>OEM</u>	<u>8/14/92</u>	<u>1.42</u>	<u>16</u>	<u>640x480</u> <u>No</u>
<u>ATI Graphics/Pro 68800</u>	<u>OEM</u>	<u>11/27/92</u>		<u>8</u>	<u>1024x768</u> <u>No</u>
<i>We do not optimize any devices that use an 8514 co-processor. They do NOT allow direct pixel writes.</i>					
<u>ATI Graphics/Pro 68800</u>	<u>OEM</u>	<u>11/27/92</u>		<u>16</u>	<u>640x480</u> <u>No</u>
<i>(see above)</i>					
<u>ATI Mach 32 68800</u>	<u>OEM</u>	<u>1/5/93 (BLD #59)</u>		<u>8</u>	<u>640x480</u> <u>Yes</u>
<u>ATI Mach 32 68800</u>	<u>OEM</u>	<u>1/5/93 (BLD #59)</u>		<u>16</u>	<u>1024x768</u> <u>Yes</u>
<i>(see above)</i>					
<u>Orchid IIs</u>	<u>Western Digital</u>	<u>OEM</u>	<u>3/1/92</u>	<u>3.1</u>	<u>8</u> <u>800 x 600</u> <u>Yes</u>
<i>This card (and other ET4000-based cards) has consistently proved very reliable.</i>					
<u>Orchid IIs</u>	<u>Western Digital</u>	<u>OEM</u>	<u>3/1/92</u>	<u>3.1</u>	<u>16</u> <u>800 x 600</u> <u>Yes</u>
<i>(see above)</i>					
<u>Orchid Fahrenheit VA</u>	<u>S3</u>	<u>OEM</u>	<u>2/19/93</u>	<u>10:00</u>	<u>8</u> <u>640x480</u> <u>Yes</u>
<u>Orchid Fahrenheit VA</u>	<u>S3</u>	<u>OEM</u>	<u>2/19/93</u>	<u>10:00</u>	<u>16</u> <u>1024x768</u> <u>Yes</u>
<i>Earlier versions of this driver will lock the system when a copy to the clipboard is attempted from the Movie Player or Picture Viewer in 800x600x16 mode.</i>					
<u>Orchid Fahrenheit VA</u>	<u>S3</u>	<u>OEM</u>	<u>2/19/93</u>	<u>10:00</u>	<u>24</u> <u>640x480</u> <u>Yes</u>

<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>8</u>	<u>640x480</u>	
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>15</u>	<u>640x480</u>	
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>16</u>	<u>640x480</u>	
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>24</u>	<u>640x480</u>	
<i>Movies shifted to the left.</i>					
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>8</u>	<u>800x600</u>	
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>15</u>	<u>800x600</u>	
<u>Orchird VLB (Local Bus)</u>	<u>OEM</u>	<u>2/19/93</u>	<u>16</u>	<u>800x600</u>	
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>8</u>	<u>640x480</u>	<u>Yes</u>
<i>Color changes when running movies.</i>					
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>16</u>	<u>800x600</u>	<u>Yes</u>
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>15</u>	<u>640x480</u>	
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>16</u>	<u>640x480</u>	
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>8</u>	<u>800x600</u>	
<u>Orchid Fahrenheit 1280</u>	<u>OEM</u>	<u>8/10/92 10:00</u>	<u>15</u>	<u>800x600</u>	
<u>Orchid Pro designer IIs/D 1.1</u>		<u>4/7/92</u>	<u>8</u>	<u>640x480</u>	
<u>Orchid Pro designer IIs/D 1.1</u>		<u>4/7/92</u>	<u>8</u>	<u>800x600</u>	
<u>Orchid Pro designer IIs/D 1.1</u>		<u>4/7/92</u>	<u>15</u>	<u>800x600</u>	
<u>Orchid Pro II</u>	<u>OEM</u>	<u>3/1/92</u>	<u>8</u>	<u>640x480</u>	
<u>Orchid Pro II</u>	<u>OEM</u>	<u>3/1/92</u>	<u>15</u>	<u>640x480</u>	
<u>Orchid Pro II</u>	<u>OEM</u>	<u>3/1/92</u>	<u>8</u>	<u>800x600</u>	
<u>Video 7</u>	<u>OEM</u>	<u>3/10/92 3.1</u>	<u>8</u>	<u>800 x 600</u>	<u>Yes</u>
<u>Diamond Stealth S3</u>	<u>OEM</u>	<u>9/25/92</u>	<u>8</u>	<u>640x480</u>	<u>Yes</u>
<u>Diamond Stealth S3</u>	<u>OEM</u>	<u>9/25/92</u>	<u>16</u>	<u>640x480</u>	<u>Yes</u>
<u>Diamond SpeedStar 24</u>	<u>OEM</u>	<u>4/14/92</u>	<u>24</u>	<u>640x480</u>	<u>Yes</u>
<i>This card, and other ET4000-based cards have consistently proved very reliable.</i>					
<u>Diamond SpeedStar 24</u>	<u>S3</u>	<u>OEM 4/14/92</u>	<u>8</u>	<u>640x480</u>	<u>??</u>
<u>Diamond SpeedStar 24</u>	<u>S3</u>	<u>OEM 4/14/92</u>	<u>15</u>	<u>640x480</u>	
<u>Diamond SpeedStar 24</u>	<u>S3</u>	<u>OEM 4/14/92</u>	<u>8</u>	<u>800x600</u>	
<u>Diamond SpeedStar 24</u>	<u>S3</u>	<u>OEM 4/14/92</u>	<u>15</u>	<u>800x600</u>	
<u>Diamond SpeedStar 24x</u>	<u>Western Digital</u>	<u>OEM</u>	<u>4/28/92 12:08</u>	<u>8</u>	<u>1024x768</u>
<u>Yes</u>					
<u>Diamond SpeedStar 24x</u>	<u>Western Digital</u>	<u>OEM</u>	<u>4/28/92 12:08</u>	<u>16</u>	<u>800x600</u>
<u>Yes</u>					
<u>Diamond SpeedStar 24x</u>	<u>Western Digital</u>	<u>OEM</u>	<u>4/28/92 12:08</u>	<u>24</u>	<u>640x480</u>
<u>Yes</u>					
<u>S3 Linear Address S3</u>	<u>OEM</u>	<u>n/a</u>	<u>8</u>	<u>1024x768</u>	<u>Yes</u>
<i>No Windows drivers are available as of April 93 that used the S3 805 in linear address mode. We do optimize, however, for the current drivers that use banked mode.</i>					
<u>S3 Linear Address S3</u>	<u>OEM</u>	<u>n/a</u>	<u>16</u>	<u>800x600</u>	<u>Yes</u>
<i>(see above)</i>					
<u>S3 Linear Address S3</u>	<u>OEM</u>	<u>n/a</u>	<u>24</u>	<u>640x480</u>	<u>Yes</u>
<i>(see above)</i>					
<u>Matrox 1024</u>	<u>OEM</u>	<u>8/21/92 2.07</u>	<u>24</u>	<u>1024 x 768</u>	<u>No</u>

Due to various problems, the following video card configurations are not currently

supported by QuickTime for Windows.

Compaq Q-Vision

Paradise VGA 1024 in 640 x 480 at 256 colors using MMWD480.DRV (dated 9/10/91)

QuickTime locks up before the movie starts.

Contact Western Digital/Paradise at 1-800-832-4778 for support

2. Software Requirements

- * Microsoft Windows 3.1

3. Installing QuickTime

Simply run the SETUP.EXE program when you are in Windows.

4. Updating Your DOS System Files

"SETUP.EXE" will add the proper path name to your "AUTOEXEC.BAT" and reboot.
A sample path name would look like this:

```
SET PATH=C:\DOS;C:\WINDOWS;C:\QTW\BIN;
```

Optimizing Quicktime for Windows

MODIFYING QTW.INI FOR COMPATIBILITY

NOTE: Modification of the QTW.INI file should be done at your own risk. Typically one does not need to make any modifications to this file. For some compatibility issues, modifying the file will make video or audio cards work properly, but with reduced performance. Be sure to make a backup of the QTW.INI file before modifying it.

The most common modification to the QTW.INI is to change the [Video] setting to Optimize = Driver. This may resolve severe compatibility problems with a specific video card but will also reduce the performance of Movie playback.

Once, again modify at your own risk.

```
[Video] (in order of priority)
Optimize = Hardware (default)
           Driver
           BMP
           RAW
           DIB
```

```
[Video Optimize]
This is not used
```

```
[Override] // group
DREF = no or yes {NO forces QTW to use the file as self referencing, useful for QT
1.0 files}
```

```
[Data Handler]
CDROM Xfer Rate* = [integer] ranges from 100 to 600, where number is in K, default
```

is 328.

CDROM Seek Time* [integer from 0 to X] where x is 100 to 350 in ms for average seek, default is 200.

CDROM Block Size = [integer, expressed in K] default is 8, range is 1 to 64.

Max Open Files =[integer] default is 64.

Max Consumers = [integer] usually same as Max Open Files. You can have multiple consumers per file.

Max Cache Size = [integer] expressed in K, default is 128, ranges from 64 to 512.

Disk Xfer Rate = [integer] same as CDROM Xfer Rate, default is 300.

Disk Seek Time [integer] expressed in milliseconds per average seek, default is 35.

Disk Block Size = [integer, expressed in K] default is 16, range is 1 to 64.

Network Xfer Rate = [integer] same as CDROM Xfer Rate, default is 250

Network Seek Time [integer] expressed in milliseconds per average seek, default is 40.

Network Block Size = [integer, expressed in K] default is 16, range is 1 to 64.

Floppy Xfer Rate = [integer] same as CDROM Xfer Rate, default is 18.

Floppy Seek Time [integer] expressed in milliseconds per average seek, default is 100.

Floppy Block Size = [integer, expressed in K] default is 2, range is 1 to 64.

[Sound]

Requested Rate = [integer] ranging from 5000 to 44000 (has to be exact rate for MPC cards)

Actual Rate = same possible rates as requested

* Set dynamically by QuickTime for Windows, based on what it senses as the CD-ROM speed.

Hardware Optimization:

An accelerated graphics card will significantly boost video performance. Quicktime movies are optimized for 16-bit color so a High Color, 32K, 65K, or 16 million color graphics card is highly recommended.

Make sure your CD-ROM drive is configured properly. If your CD-ROM controller/host adapter is capable of DMA transfer, always use the DMA option. Sample "CONFIG.SYS" for Mitsumi CD-ROM drive:

```
device = mtmcde.sys /d:miscd001 /m:32 /i:10 /t:5
```

Software configuration:

"SETUP.EXE" should have changed your "AUTOEXEC.BAT" to show a path declaration to include the new QuickTime driver software. (Sample)

```
SET PATH=C:\DOS;C:\WINDOWS;[path]:\qtw\bin
```

To optimize playback on your machine, read the QTW.INI file inside your \WINDOWS directory for more instructions.

For optimal performance, use Microsoft CD-ROM driver 2.0 or higher. Edit your

"AUTOEXEC.BAT" file to allocate at least 30K drive buffer. Example :

```
MSCDEX /d:mscd001 /m:30
```

If you use Windows For Workgroup, the installation process will append a "/s" switch to MSCDEX.EXE. This will cause problem with the viewer program. Please remove the switch with a text editor and restart the computer.

For more detailed instructions on CD-ROM driver software, please consult your CD-ROM owner's manuals.

Make sure you are using the most recent versions of HIMEM.SYS, EMM386.EXE, and SMARTDRV.EXE. The copies that came with DOS 6.0 are the most recent, and Windows 3.1 files are better than DOS 5.0 files. Your config.sys should have something like the following:

```
DOS=HIGH,UMB  
DEVICE=C:\WINDOWS\HIMEM.SYS  
DEVICE=C:\WINDOWS\EMM386.EXE RAM NOEMS
```

Your autoexec.bat should have something like:

```
C:\WINDOWS\SMARTDRV.EXE 1024 1024    (if you have 8 MB or more memory)  
C:\WINDOWS\SMARTDRV.EXE 1024 512    (if you have less memory)
```

MEMORY PROBLEMS:

QuickTime for Windows and Windows 3.1 is very memory hungry. The best way to speed-up video quality and display is to have at least 8 MB RAM. If you have less, make sure you do not have EMM386 allocating any expanded memory. Also, you should have SMARTDRV using as little memory as possible (512K cache). The biggest performance improvement other than upgrading to a 486 is to have more memory.

You can also use the 386 enhanced Virtual Memory settings to create a permanent swap file. This seems to improve performance slightly, but more RAM is better.

VIDEO PROBLEMS:

Some high-resolution video cards require updated driver software for operation of QuickTime for Windows. If you experience color display problems, Please contact your video board manufacturer to see if newer driver software is available.

If the video display is slow, you may not have enough memory. You can also try adjusting the colors to 64K colors rather than truecolor (16.7 million). This results in faster video display and doesn't affect picture quality.

ADDITIONAL INFORMATION

As with any product, you may need to tweak your system to get optimal performance. The most important considerations are improper configuration of EMM386 giving too much Expanded memory (Windows doesn't need any, but DOS apps do), and simply not enough memory. If you are running Windows with 4 MB RAM, you will see a REAL performance boost by upgrading.

If you have more questions regarding this product, you may contact us at:

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