

© 2009

Elgato Systems LLC 900 Kearny Street • Suite 750 San Francisco, CA 94133 United States of America

Elgato Systems GmbH Nymphenburgerstr. 14 80335 München Germany

http://www.elgato.com

Revision 1.0



Turbo.264 HD Features

Instantly access your HD camcorder movies on a Mac

Preview and move HD camcorder movies to your Mac or iPod in one fast and easy step. Turbo.264 HD automatically detects AVCHD camcorders.

Convert all popular video formats

Drag and drop any video file into the application and convert it to a high-quality H.264 file in standard or HD resolutions. H.264 video is a universal format that can be played on iPod, iPhone, Apple TV, gaming consoles, selected smartphones, and on the web.

Incredibly fast and easy to use

Comes with intuitive software and converts videos at amazing speeds. Dramatically accelerates video encoding when used with Mac applications such as iMovie, QuickTime Pro, Final Cut Pro, and EyeTV.

Suitable for pros as well as novices

Crop, scale, trim, batch process, and easily merge multiple clips into one movie. Select from a range of presets or add your own video output profiles.

Welcome To Turbo.264 HD!

Step One: Installing Turbo.264 HD Software 5

Step Two: Launching Turbo.264 HD for the First Time 5

Registering Turbo.264 HD Online 5

Where to get help 5

System Requirements 5

Turbo.264 HD Hardware

What can Turbo.264 HD hardware do? 6

How do I attach Turbo.264 HD to my Mac? 6

What does the light on Turbo.264 HD indicate? 6

Turbo.264 HD Window

How do I add a file to the Turbo.264 HD window? 7

How do I remove a file from the Turbo.264 HD window? **7**

How do I resize the Turbo.264 HD window? 7

How can I tell that the Turbo.264 HD hardware is connected? **7**

How do I start encoding files? 8

How do I stop encoding files? 8

How do I select the encoding format for files? 8

How do I find out more about the files I've added? 8

Can I encode more than one file at the same time? 8

Can I encode from a video DVD? 8

How can I combine multiple clips into one movie? 8

Encoding Formats

What types of video can Turbo.264 HD create? 9

What devices can use video from Turbo.264 HD? 9

What export format presets can Turbo.264 HD use? 9

How can I select an export format preset for a file? 10

How do I export to an iPod? 10

How do I export to an iPhone or iPod touch? 10

How do I export to an Apple TV? 10

How do I export to a Sony PlayStation Portable (PSP)? 10

How do I export to YouTube? 10

How do I export to 720p? 10

How do I export to 1080p? 10

Can Turbo.264 change the resolution of a file to match a certain export format? **10**

Custom Presets

How can I make custom export format settings? 12

How can I remove a custom export format setting? 12

What custom settings can I use for video? 12

What custom settings can I use for audio? 14

What are some other custom settings I can use? 14

Editor

What are the parts of the the editor? 15

How do I open the editor? 15

How do I use the editor to select and remove content? 16

What are the keyboard shortcuts for the editor? 16

Preferences

How can I choose where Turbo.264 HD will export to? 17

How do I automatically check for updates? 17

AVCHD Capture

How can I use Turbo.264 HD to capture AVCHD? 18

How can I get other video from my camera? 18

How can I combine multiple AVCHD clips? 18

Application Support

How do I use Turbo.264 HD with other applications? 20

What applications can use Turbo.264 HD? 20

How does Turbo.264 HD work with EyeTV? 20

How does Turbo.264 HD work with iMovie '09? 20

How does Turbo.264 HD work with QuickTime Player Pro? 21

AppleScript

Dictionary 22

Turbo.264 HD AppleScript Commands 22

Sample AppleScript 22

Export Format Details

iPod Small 23

iPod Best 23

iPhone and iPod touch 23

Apple TV 23

Sony PSP 23

YouTube 23

HD 720p 23

HD 1080p 24

Input formats 24

Welcome To Turbo.264 HD!

This guide shows you how to begin encoding video to the H.264 format on your Macintosh. It covers installing and configuring Turbo.264 HD software and includes instructions for using the most common features of Turbo.264 HD.

Step One: Installing Turbo.264 HD Software

- Insert the Turbo.264 HD software CD into your DVD-ROM drive.
- Drag and drop the Turbo.264 HD application where you would like to install it. We recommend the Applications folder.

Step Two: Launching Turbo.264 HD for the First Time

- Navigate to the folder where you installed the Turbo.264 HD Software and double-click the Turbo.264 HD icon.
- The first time you launch Turbo.264 HD, a Setup Assistant will guide you through the complete setup and configuration of your Turbo.264 HD software.
- You will be asked to enter an Activation Key. This either came with your Turbo.264 HD product, or has been provided to you electronically. Keep this key in a safe place, in case you need to reinstall the Turbo.264 HD software.
- When you complete the Setup Assistant, the Turbo.264 HD window will appear.
- Turbo.264 HD also installs a QuickTime component, so that some other applications can use it for exports.

Registering Turbo.264 HD Online

Registering Turbo.264 HD entitles you to the following benefits:

- Notification of product updates
- Technical support
- Special offers

To register:

- •Open your web browser and go to: www.elgato.com/registration.html
- Enter the requested information and click the "Submit" button.

Where to get help

Both the Turbo.264 HD Support web site at

http://support.elgato.com

and the **Turbo.264 HD Help**, accessible through the Help menu, are your first destinations for getting answers to your troubleshooting questions.

System Requirements

- Macintosh computer with Intel Core processor
- 512 MB of RAM
- built-in USB 2.0 port
- Mac OS X 10.5.6 Leopard (or later)
- QuickTime 7.6 (or later)

Turbo.264 HD Hardware

What can Turbo.264 HD hardware do?

Turbo.264 HD is a powerful hardware encoding device that quickly converts any video to the advanced H.264 (MPEG-4) format.

Drag and drop any video file into the application and convert it to a high-quality H.264 file in standard or HD resolutions. H.264 video is a universal format that can be played on iPod, iPhone, Apple TV, gaming consoles, selected smartphones, and on the web.

Turbo.264 HD supports many third-party Mac video applications as well as EyeTV.



How do I attach Turbo.264 HD to my Mac?

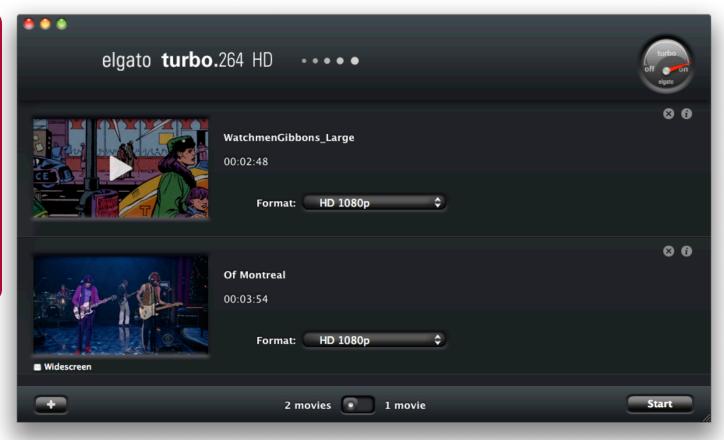
Turbo.264 HD can work with any USB 2.0 port built into your Mac. It can also use most powered USB 2.0 hubs.

You can connect Turbo.264 HD directly to an USB 2.0 port, or you can use the included USB extension cable, if there is a tight fit due to other nearby USB plugs.

What does the light on Turbo.264 HD indicate?

Once Turbo.264 HD is connected to your Mac, it is ready to start encoding via the Turbo.264 HD software, or other compatible applications.

The light on the front of the unit will glow red during the encoding process, and will be off when no export is happening.



Turbo.264 HD Window

How do I add a file to the Turbo.264 HD window?

There are three ways to add a file to the Turbo.264 HD window:

- Select Add Files from the File menu.
- Press the "+" button at the bottom left corner of the Turbo.264 HD window.
- Drag a video file, or a folder full of video files, onto the Turbo.264 HD window.

If Turbo.264 HD is encoding files, then no more files can be added unit the encode is complete.

How do I remove a file from the Turbo.264 HD window?

Press the grey, circular icon with an "x" inside of itone will be displayed per item in the Turbo.264 HD window. Removing a file from the Turbo.264 HD window does not remove it from your Mac.

Hold down the **Option** key and press the "x" to delete all files from the Turbo.264 HD window.

How do I resize the Turbo.264 HD window?

Grab the lower right corner of the window and drag it horizontally, vertically or diagonally.

How can I tell that the Turbo.264 HD hardware is connected?

At the top right corner of the Turbo.264 HD window there is a circular gauge. It will be red, and will point at "off", if the Turbo.264 HD hardware is not connected. It will be black, and will point at "on", if the Turbo.264 HD hardware is connected

How do I start encoding files?

Press the **Start** button at the bottom right corner of the Turbo.264 HD window to start encoding. It will take a few seconds to prepare the Turbo.264 HD hardware, and then each file will be encoded one at a time.

How do I stop encoding files?

Press the **Stop** button at the bottom right corner of the Turbo.264 HD window to stop all encoding.

How do I select the encoding format for files?

After you add each file to the Turbo.264 window, you can select an unique encoding format for that file. The specifics of each encoding format are discussed in the next chapter, **Encoding Formats**.

How do I find out more about the files I've added?

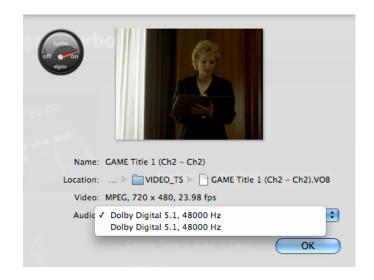
Next to each file is a small circular button with a "i" inside. Press that to find out the location, resolution, and other aspects of each file

Can I encode more than one file at the same time?

Add multiple files to the Turbo.264 window. By default, each file will use the last encoding format you've selected. You can change each file to use an unique format, if you like. Then, press the **Start** button to begin encoding, and each file will be encoded one at a time.

Can I encode from a video DVD?

Turbo.264 HD can accept unencrypted DVD content that may be on your hard drive. Add an unencrypted VIDEO_TS folder to the Turbo.264, and then Turbo.264 HD will be able to use the video for encoding.



Press the "i" button next to each DVD video file to select the audio track, if more than one track is available.

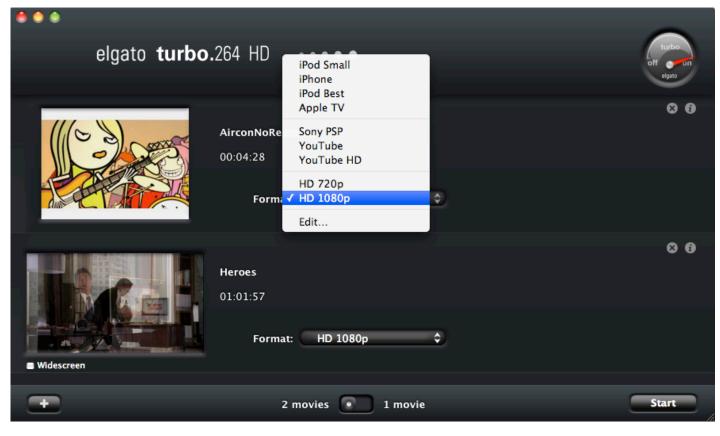
How can I combine multiple clips into one movie?

Multiple clips can be chained together to encode one movie. Each clip is a chapter in the resulting QuickTime movie.

There is a switch at the bottom of the main window to create multiple movies or a single movie. Moving the switch to the right will chain all of the clips together.



When creating a single movie, the format preset popup can be adjusted by the topmost clip only.



Encoding Formats

What types of video can Turbo.264 HD create?

Turbo.264 can encode to the H.264 format, at various resolutions, up to full HD (1080p).

What devices can use video from Turbo.264 HD?

Many video playback devices can use H.264 video, including the iPod, iPhone, Apple TV, Sony PlayStation Portable, and Sony PlayStation 3.

What export format presets can Turbo.264 HD use?

To make it easy to prepare video for various devices, there are export format presets you can use:

iPod Small iPhone iPod Best Apple TV Sony PSP YouTube YouTube HD HD 720p HD 1080p

Each preset represents a certain resolution and bitrate, along with other characteristics of H.264 video.

How can I select an export format preset for a file?

Add a file to the Turbo.264 window, and then choose an export format from the **Format** pop up menu.

How do I export to an iPod?

Add a file to the Turbo.264 window, and then choose an iPod export format from the Format pop up menu. You have two choices, iPod Small and iPod Best.

How do I export to an iPhone or iPod touch?

Add a file to the Turbo.264 window, and then choose the **iPhone** export format from the **Format** pop up menu.

How do I export to an Apple TV?

Add a file to the Turbo.264 window, and then choose the **Apple TV** export format from the **Format** pop up menu.

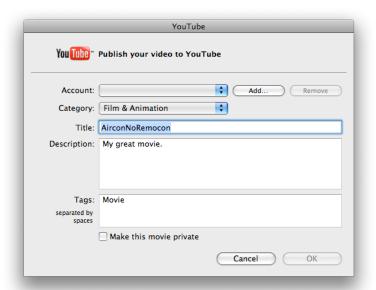
How do I export to a Sony PlayStation Portable (PSP)?

Add a file to the Turbo.264 window, and then choose the **Sony PSP** export format from the **Format** pop up menu.

How do I export to YouTube?

Add a file to the Turbo.264 window, and then choose the **YouTube** or **YouTube HD** export format from the **Format** pop up menu.

The first time you export to YouTube, you will be asked for your account information. An official YouTube account will work, but a general Gmail account will not.



This information will be remembered the next time you export to YouTube.

How do I export to 720p?

Add a file to the Turbo.264 window, and then choose the **720p** export format from the **Format** pop up menu. This file can also be used with the PlayStation 3.

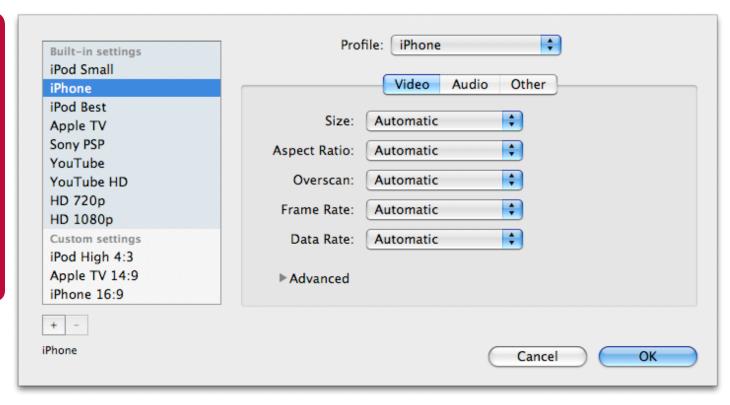
How do I export to 1080p?

Add a file to the Turbo.264 window, and then choose the 1080p export format from the Format pop up menu. This file can also be used with the PlayStation 3.

Can Turbo.264 change the resolution of a file to match a certain export format?

Yes. For example, if you have a HD file, and you want to use it on an iPhone, then select the **iPhone** preset. Turbo.264 will scale down the file to match the perfect resolution for the iPhone, which is much smaller than HD resolutions.

Turbo.264 HD will not take a file with a smaller resolution, and scale it up to a larger resolution. For example, if you add a iPhone-sized file to Turbo.264 HD, and choose the 1080p export format, then the resulting file will not be 1080p - it will still be iPhone resolution.



Custom Presets

How can I make custom export format settings?

Add a file to the Turbo.264 window, and then choose **Edit...** from the bottom of the **Format** pop up menu.

A new sheet will appear, that offers many options that can be used to make custom export format presets.

The **Built-in settings** are listed on the left, along with any **Custom settings** that you have created.

At the top, there are options to select a **Profile**, and then you can use the **Video**, **Audio** and **Other** sections to customize that profile.

As soon as you start that customization, a new Custom setting is automatically created, with a name that reflects the new settings. For example,

if you select a Built-in setting, like **iPhone**, and then change the **Aspect Ratio** to **4:3**, you'll see a new Custom setting for **iPhone 4:3**.

Each Custom setting can have as many modifications as you like. You can also rename any Custom setting by clicking on its name.

How can I remove a custom export format setting?

Highlight the Custom setting in the list, and then press the "-" key at the bottom left corner of the window.

What custom settings can I use for video?

There are a number of custom settings for video. What follows is a brief description of each:

Size

Automatic - Turbo.264 HD will select the best setting

Custom - You can enter numbers to adjust the width (w) and height (h). Some numbers beyond the specifications of your selected profile may not be allowed.

Aspect Ratio

Automatic - Turbo.264 HD will select the best setting
4:3 - The aspect ratio will be cropped to 4:3
14:9 - The aspect ratio will be cropped to 14:9
16:9 - The aspect ratio will be cropped to 16:9
Wide - The aspect ratio will be cropped to a
Widescreen format

Overscan

Automatic - Turbo.264 HD will select the best setting On - Part of the edges of the image will be cropped Off - The edges of the image will not be cropped

Frame Rate

Automatic - Turbo.264 HD will select the best setting

15 - 15 frames per second (fps)

23.976 - 23.976 frames per second (fps)

24 - 24 frames per second (fps)

25 - 25 frames per second (fps)

29.97 - 29.97 frames per second (fps)

30 - 30 frames per second (fps)

Custom - Enter the number of frames per second (fps). Some numbers beyond the specifications of your selected profile may not be allowed.

Data Rate

Automatic - Turbo.264 HD will select the best setting **Custom** - Enter the number of kilobits per second (kpbs). Some numbers beyond the specifications of your selected profile may not be allowed.

Advanced Settings

Please note that uninformed adjustments of the Advanced Settings may cause encoding errors, or output that won't work as intended.

H.264 Profile

Automatic - Turbo.264 HD will select the best setting Baseline - Used for lower resolution video

Main - Used for standard resolution video

High - Used for high resolution video

H.264 Level

1.0 to 5.1 - Select a level from a wide range of choices

GOP Size

Automatic - Turbo.264 HD will select the best setting **Custom** - Enter the number of frames for each GOP (Group of Pictures). Some numbers beyond the specifications of your selected profile may not be allowed.

GOP Structure

Automatic - Turbo.264 HD will select the best setting I - Only I frames will be used.
IP - I and P frames will be used.
IBP - I, B and P frames will be used.
IBBP - I, B and P frames will be used.
IBRBP - I, B, P and R frames will be used.

Interlace Mode

Automatic - Turbo.264 HD will select the best setting
Frame - Frame based interlacing
Field - Field based interlacing
MBAFF - MacroBlock Adaptive Field Frame
interlacing
PAFF - Picture Adaptive Field Frame interlacing

Entropy Coding

Automatic - Turbo.264 HD will select the best setting CAVLC - Entropy encoding that can work with most profiles CABAC - Entropy encoding that can work with some profiles

What custom settings can I use for audio?

There are a number of custom settings for audio. What follows is a brief description of each:

Sample Rate

Automatic - Turbo.264 HD will select the best setting **24.000 kHz** to **48.000 kHz** - You can select a specific audio sample rate, in kilohertz.

Channels

Automatic - Turbo.264 HD will select the best setting **Mono** - The audio will be the same for both audio channels

Stereo - The audio will use stereo separation

Data Rate

Automatic - Turbo.264 HD will select the best setting **64 kbps** to **160 kbps** - You can select a specific audio data rate, in kilobits per second.

What are some other custom settings I can use?

There are a number of other custom settings. What follows is a brief description of each:

Dolby Digital

Automatic - Turbo.264 HD will select the best setting
On - Only available for the AppleTV and Custom
Profiles
Off Only available for the AppleTV and Custom

Off - Only available for the AppleTV and Custom Profile

Chapter Markers

These settings affect playback via QuickTime, like with an iPhone or Apple TV.

Automatic - Turbo.264 HD will select the best setting
On - Video will use chapter markers
Off - Video will not use chapter markers

Closed Captions

These settings affect playback via QuickTime, like with an iPhone or Apple TV.

Automatic - Turbo.264 HD will select the best setting On - Captions will be on via QuickTime Off - Captions will be off via QuickTime



Editor

What are the parts of the the editor?

There are a number of items in the editor:

Timeline: The horizontal bar represents the overall length of the recording. Light blue sections with red stripes mark the selected clips of video.

Playhead: A large white triangle above the timeline indicates which point in the recording is currently playing (or paused). Use the button at the bottom left corner of the editor, or the spacebar, to toggle between play and pause.

Markers: Pairs of smaller triangles beneath the time line are designed to bookend the clip you want to cut from the recording. There are no markers visible for a new recording. To add a marker, use the button in the center of the editor, beneath the timeline. Press this button to add a new pair of markers at the current Playhead position. To delete a marker group, click either one of the pair, and press the Delete key on the keyboard.

How do I open the editor?

After you find your recording in the Turbo.264 HD window, click on the thumbnail picture to open the editor.

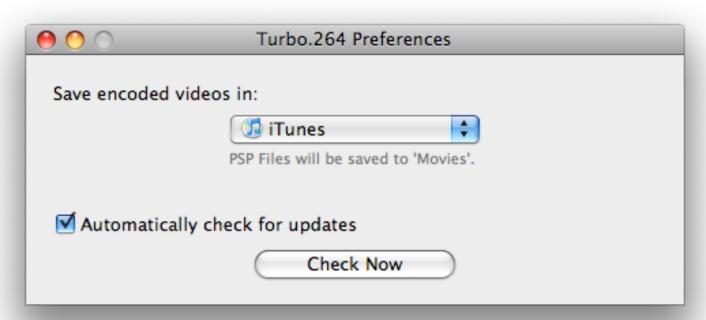
How do I use the editor to select and remove content?

- 1) After you find your recording in the Turbo.264 HD window, click on the thumbnail picture to open the editor.
- 2) The editor will open, and there will be editing controls at the bottom of the window. Note the upside down triangle above the blue bar that's the Playhead.
- 3) Move the Playhead to the first section you want to cut out.
- 4) At the middle bottom of the screen there is a circular button with two triangles in it. That's the Add Markers button. Press it to add a pair of markers at the beginning of the clip.
- 5) Move the marker on the right slowly to the right. The footage will slowly jump ahead, and then you can highlight the last frame you want to cut. The blue bar should now be light blue with red stripes, meaning that the clips are selected.
- 6) After placing all markers, press the Done button to exit the editor. Turbo.264 HD will ignore the marked sections of that file, when it comes time to process it.

What are the keyboard shortcuts for the editor?

□ Delete deletes a marker

Spacebar plays and pauses video



Preferences

new

How can I choose where Turbo.264 HD will export to?

In the Turbo.264 HD menu, select Preferences.

You can Save encoded videos in:

iTunes Movies Documents Desktop Source Folder Other...

The **Other...** option will let you select the exact location you prefer to save your exports.

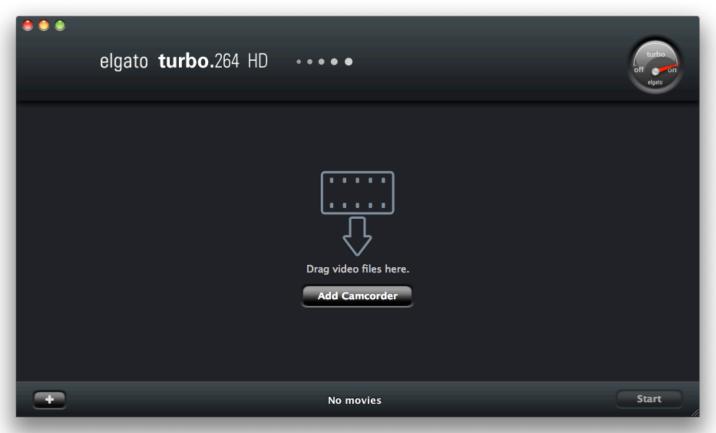
How do I automatically check for updates?

In the Turbo.264 HD menu, select Preferences.

Turn the **Automatically check for updates** option on if you would like Turbo.264 HD to remind you when a

version is available, via a automatic online check.

You can also use the **Turbo.264 HD** menu to manually **Check for Updates**.



AVCHD Capture

How can I use Turbo.264 HD to capture AVCHD?

AVCHD cameras create one clip for each recording session. A full camera hard drive generally contains 10-100 source files.

Turbo.264 HD features an Add Camcorder button in the main window that appears when an AVCHD camera is detected to your Mac. This button only will show up if the main window is empty.

If there are multiple cameras, the button turns into a popup listing all camera volumes.

Adding a camcorder to Turbo.264 HD creates multiple clips in the main window.

You can also use the **Add Camcorder** option from the **File** menu.

How can I get other video from my camera?

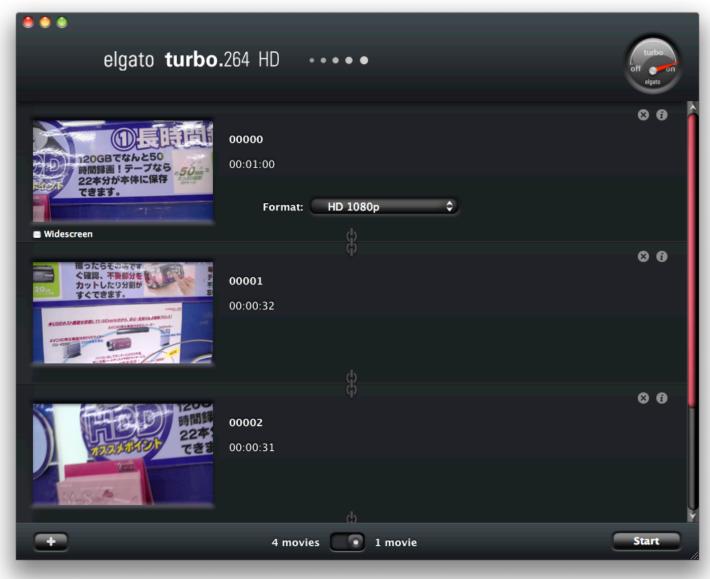
If your camera can capture non-AVCHD video in small clips, perhaps in an AVI container, then Turbo. 264 HD may be able to capture it.

When you use the **Add Camcorder** button, any other video files that may be accessible will appear as an option. Turbo.264 HD can read many standard hard drive formats, and can also recognize cards or images that may be mounted on your Mac.

How can I combine multiple AVCHD clips?

Multiple clips can be chained together to encode one movie. Each clip is a chapter in the resulting QuickTime movie.

There is a switch at the bottom of the main window to create multiple movies or a single movie. Moving



the switch to the right will chain all of the clips together.

When creating a single movie, the format preset popup can be adjusted by the topmost clip only.

Application Support

How do I use Turbo.264 HD with other applications?

When Turbo.264 HD is first launched, a special QuickTime component is installed on your Mac, in this location:

Hard Drive/Library/QuickTime

In general, all applications are free to use the Turbo. 264 HD QuickTime component, once Turbo.264 HD is installed on a Mac. Some applications may need to be slightly updated, so that they can call upon Turbo.264 HD via QuickTime.

What applications can use Turbo.264 HD?

Here is a growing list of applications that can use Turbo.264 HD to accelerate some exports.

Apple Software:

iMovie '09 (http://www.apple.com/ilife/imovie/)

QuickTime Player (Pro access) (http://www.apple.com/quicktime/pro/)

Other Software:

EyeTV (http://www.elgato.com/)

The method of using Turbo.264 HD will vary from application to application.

How does Turbo.264 HD work with EyeTV?

EyeTV will automatically detect the Turbo.264 HD, if it is attached to your Mac.

Then, if you choose certain H.264 export options in EyeTV, the Turbo.264 HD will be used to accelerate the export.

These are the export options which will use the Turbo.264:

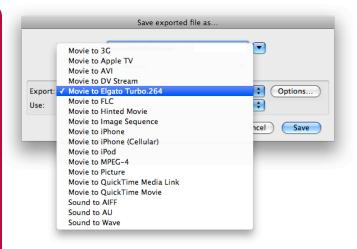
- iPod button at the top of the EyeTV Programs window (if H.264 iPod exports are chosen in the EyeTV General Preferences)
- Apple TV button at the top of the EyeTV Programs window
- **iPhone** button at the top of the EyeTV Programs window (also compatible with iPod Touch)
- A scheduled recording set to export to Apple TV
- A scheduled recording set to export to an H.264 iPod format
- A scheduled recording set to export to the iPhone (also compatible with iPod touch)
- The for Apple TV export option, from the Export option of the File menu
- The for iPod (Best) export option, from the Export option of the File menu
- The for iPod (Smallest) export option, from the Export option of the File menu
- The for PSP (H.264) export option, from the Export option of the File menu
- The for iPhone export option, from the Export option of the File menu

When the Turbo.264 HD is being used to export, the progress bar in EyeTV will change to red, and there will be a series of pulsing circles below the export bar.

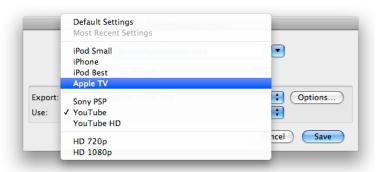
How does Turbo.264 HD work with iMovie '09?



Select a project from the iMovie library. Choose **Export using QuickTime...** from the **Share** menu, and then choose the Turbo.264 HD option from the **Export** pop-up menu.



Then, select your favorite preset (including Custom Presets) under the **Use:** menu. The **Options...** button will reveal the same custom settings window as in the Turbo.264 HD software.



How does Turbo.264 HD work with QuickTime Player Pro?

Open a movie using QuickTime player. Choose **Export** from the **File** menu, and then choose the Turbo.264 HD option from the **Export** pop-up menu.

AppleScript

Many functions in Turbo.264 HD can be accessed using AppleScript.

Dictionary

The AppleScript Dictionary of Turbo.264 HD lists all available commands and parameters. To write scripts and browse the dictionary the application **Script Editor** is available on every computer running Mac OS X. It can be found under Applications/AppleScript. You can also find example scripts in the online Elgato Knowledgebase.

If you find that there is functionality in Turbo.264 HD that is not present in the AppleScript dictionary, please write us at support@elgato.com. We will try to accommodate your needs in future software updates.

Turbo.264 HD AppleScript Commands

encode v: Encode added files.

encode

[no error dialogs true]: Do not show error dialogs that happen during encoding. Caller can check lastErrorCode to find out about them.

add file v : Add a file to the queue for later encoding.

add file furl: The file(s) to be added.
[with destination alias]: file to export to
[exporting as iPod High/iPod Standard/Sony PSP/
AppleTV/iPhone/YouTube/YouTubeHD/HD720p/
HD1080p/custom]: type of export
[with custom setting text]: name of the custom setting if the export type is set to 'custom'
[replacing boolean]: replace file if it exists

Application n: The Turbo application itself. properties

lastErrorCode (integer, r/o): Last error code that occurred, e.g. during encoding. **isEncoding** (boolean, r/o): True if Turbo.264 is currently encoding, False if you can start a new encode.

isHardwarePluggedIn (boolean, r/o): True if the Turbo.264 hardware is plugged in.

Sample AppleScript

The following sample script will take a file called "file.mp4" on the Desktop, and immediately encode it for iPhone as a new file called "finished.mp4", saved on the Desktop.

tell application "Turbo.264 HD"
add file "/Users/nick/Desktop/file.mp4" with
destination "/Users/nick/Desktop/
finished.mp4" exporting as iPhone
encode
end tell

Please note that " "/Users/nick/Desktop/" is an example path; if your OS X account name is mary, then the path would be "/Users/mary/Desktop/". An easy way to find the correct path to a file would be to drag it onto the ScriptEditor window, at the point you want to use it - AppleScript will take care of the rest.

Export Format Details

iPod Small

Video: H.264 Baseline Profile (up to Level 1.3), 768

kbps max. 320x240 max., 30 fps max. Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: If the source movie is larger than 320x240 it will be scaled to fit within 320x240 preserving aspect ratio. Resolution is maintained if 320x240 or smaller. Frame rate is maintained when 30 fps and smaller

iPod Best

Video: H.264 Baseline Profile Low-Complexity, 1.5 Mbps max., 640x480 max., 30 fps max.

Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: If the source movie is larger than 640x480 it will be scaled to fit within 640x480 preserving aspect ratio. Resolution is maintained if 640x480 or smaller. Frame rate is maintained when 30 fps and smaller.

iPhone and iPod touch

Video: H.264 Baseline Profile (up to Level 1.3), 900

kbps max. 480×360 max., 30 fps max. Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: If the source movie is larger than 480×360 it will be scaled to fit within 480×360 preserving aspect ratio. Resolution is maintained if 480×360 or smaller. Frame rate is maintained when 30 fps and smaller.

Apple TV

Video: H.264 Main Profile, 5 Mbps max., 1280×720 pixels at 24 fps max. or 960×540 pixels at 30 fps max.

Audio: AAC-LC, stereo, 160 Kbps, 48 kHz

Note: When exporting to Apple TV format, for sources that contain Dolby Digital™ AC-3 audio, the digital audio will be passed through into the resulting file.

Sony PSP

Video: H.264 Main Profile, 1Mbps, 480x272, 30 fps. Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: A source with 16:9 aspect ratio will produce a 480x272 destination movie while a 4:3 video results in a 480x320 file.

YouTube

Video: H.264 Baseline Profile (up to Level 1.3), 300

kbps, 320x240, 30 fps max.

Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: If the source movie is larger than 320x240 it will be scaled to fit within 320x240 preserving aspect ratio. Resolution is maintained if 320x240 or smaller. Frame rate is maintained when 30 fps and smaller.

YouTube HD Video:

H.264 Main Profile, 5 Mbps max., 1280×720 max., 30 fps max.

Audio: AAC-LC, stereo, 128 Kbps, 48 kHz.

Note: If the source movie is larger than 1280×720 it will be scaled to fit within 1280×720 preserving aspect ratio. Resolution is maintained if 1280×720 or smaller. Frame rate is maintained when 30 fps and smaller.

HD 720p

Video: H.264 Main Profile, 10 Mbps max., 1280×720 pixels at 30 fps max.

Audio: AAC-LC, stereo, 160 Kbps, 48 kHz

Note: If the source movie is larger than 1280×720 it will be scaled to fit within 1280×720 preserving aspect ratio. Resolution is maintained if 1280×720 or smaller. Frame rate is maintained when 30 fps and smaller.

HD 1080p

Video: H.264 Main Profile, 10 Mbps max., 1920×1080

pixels at 30 fps max.

Audio: AAC-LC, stereo, 160 Kbps, 48 kHz

Input formats

AVCHD Video
QuickTime
AVI
DV
WMV
MPEG-1
MPEG-2 Program/Transport Stream
MPEG-4
MP4
M4V
H.263
H.264 AVC
Xvid
VIDEO_TS and many more.