

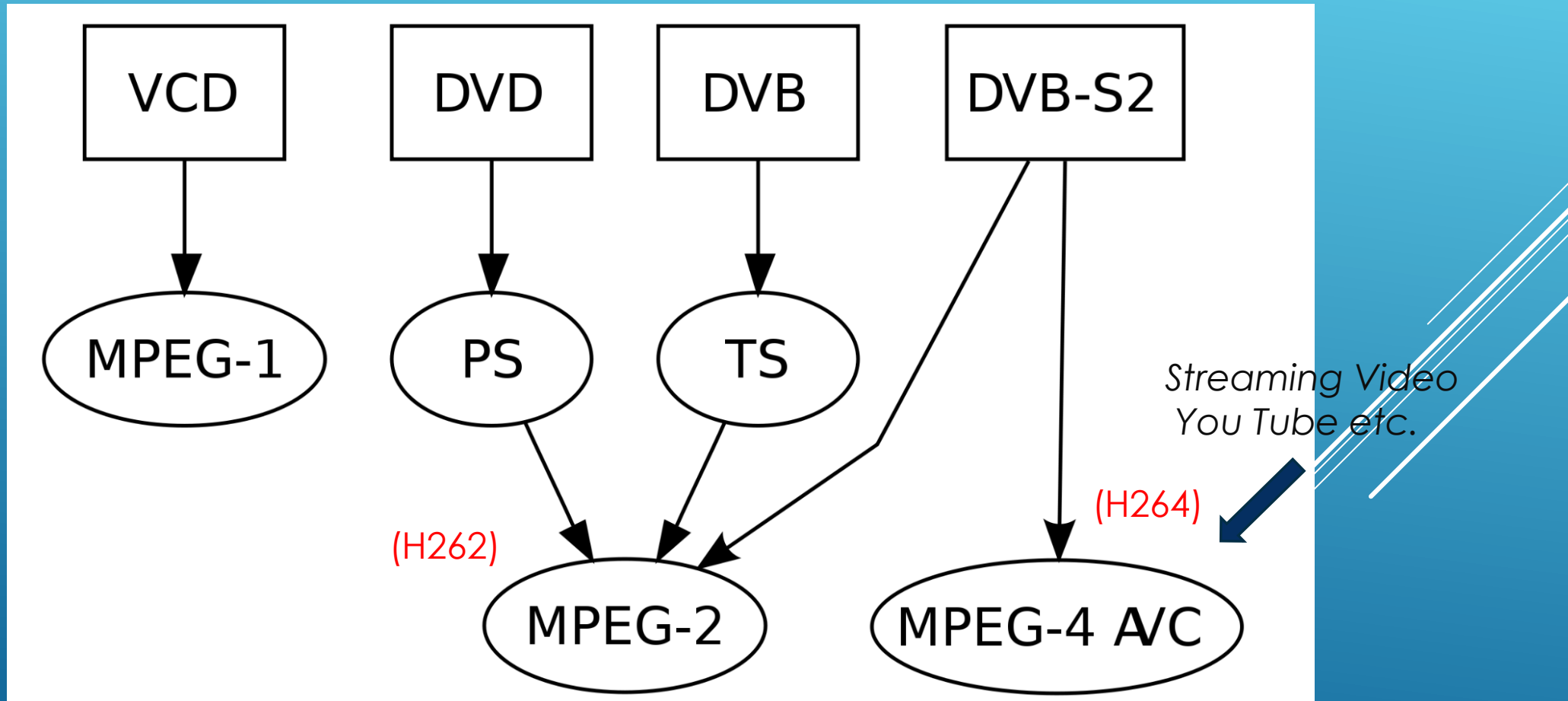
Video Streaming File Conversions



HEVC
High Efficiency Video Coding

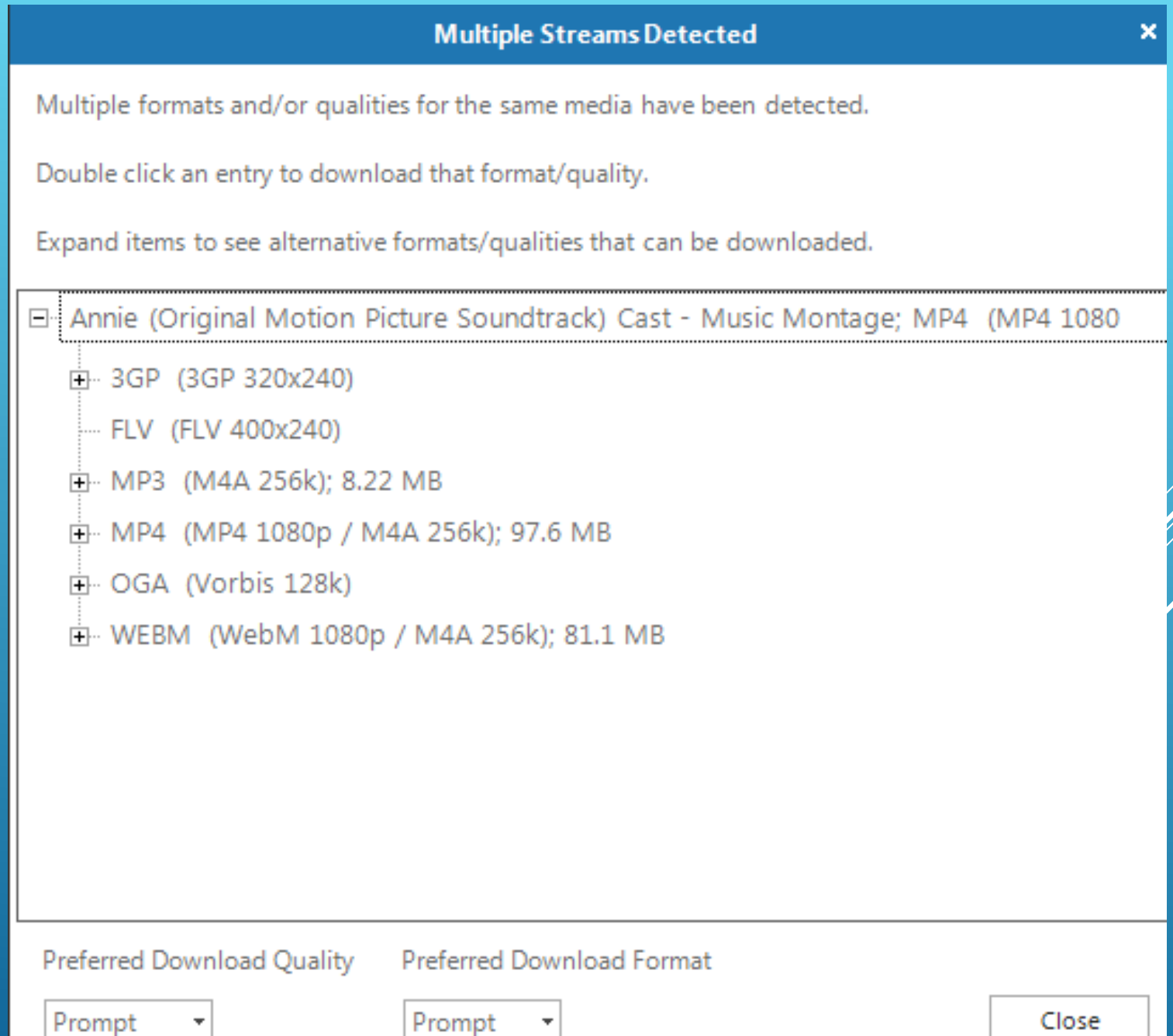
Review

Motion Picture Expert Group (MPEG) - Sets standards



YouTube - allows different download formats

- *Quality*
- *File size*
- *Resolution etc.*



Multiple Streams Detected [X]

Multiple formats and/or qualities for the same media have been detected.


Double click an entry to download that format/quality.

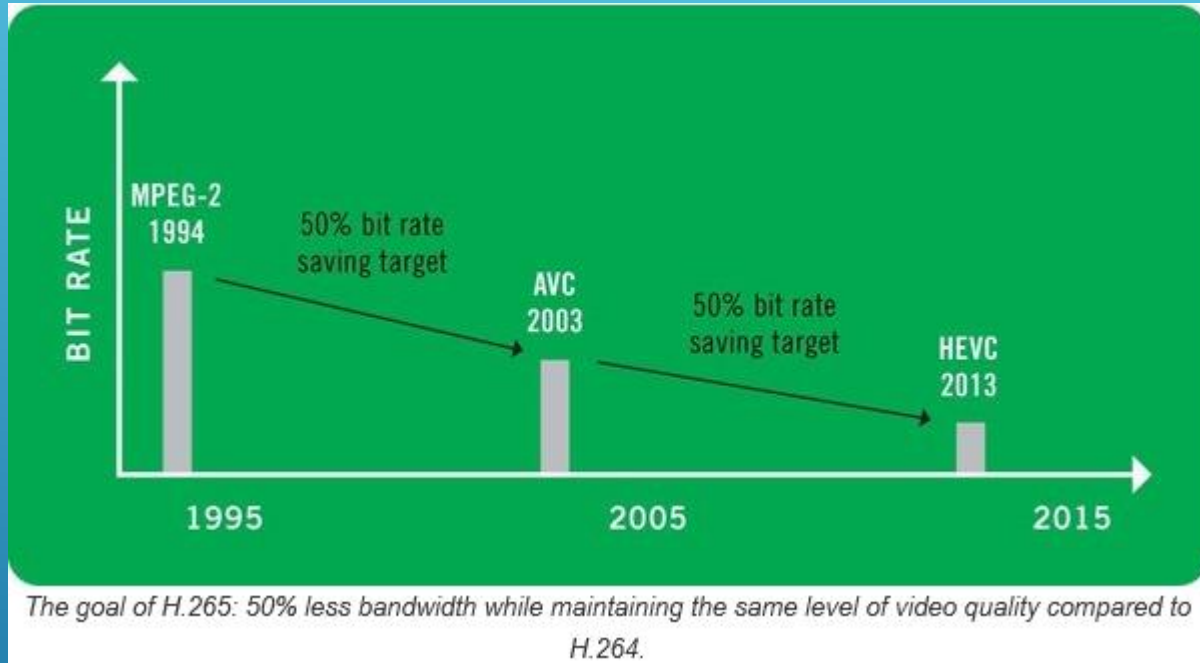
Expand items to see alternative formats/qualities that can be downloaded.

- [-] Annie (Original Motion Picture Soundtrack) Cast - Music Montage; MP4 (MP4 1080
 - [+] 3GP (3GP 320x240)
 - [+] FLV (FLV 400x240)
 - [+] MP3 (M4A 256k); 8.22 MB
 - [+] MP4 (MP4 1080p / M4A 256k); 97.6 MB
 - [+] OGA (Vorbis 128k)
 - [+] WEBM (WebM 1080p / M4A 256k); 81.1 MB

Preferred Download Quality: Preferred Download Format:

2015

H264  H265 (HEVC) High Efficiency Video Codec



Drivers

- 4K TV (Broadcast & Streaming)
- Video Film,
- Mobile video content, etc.

Subjective video performance comparison

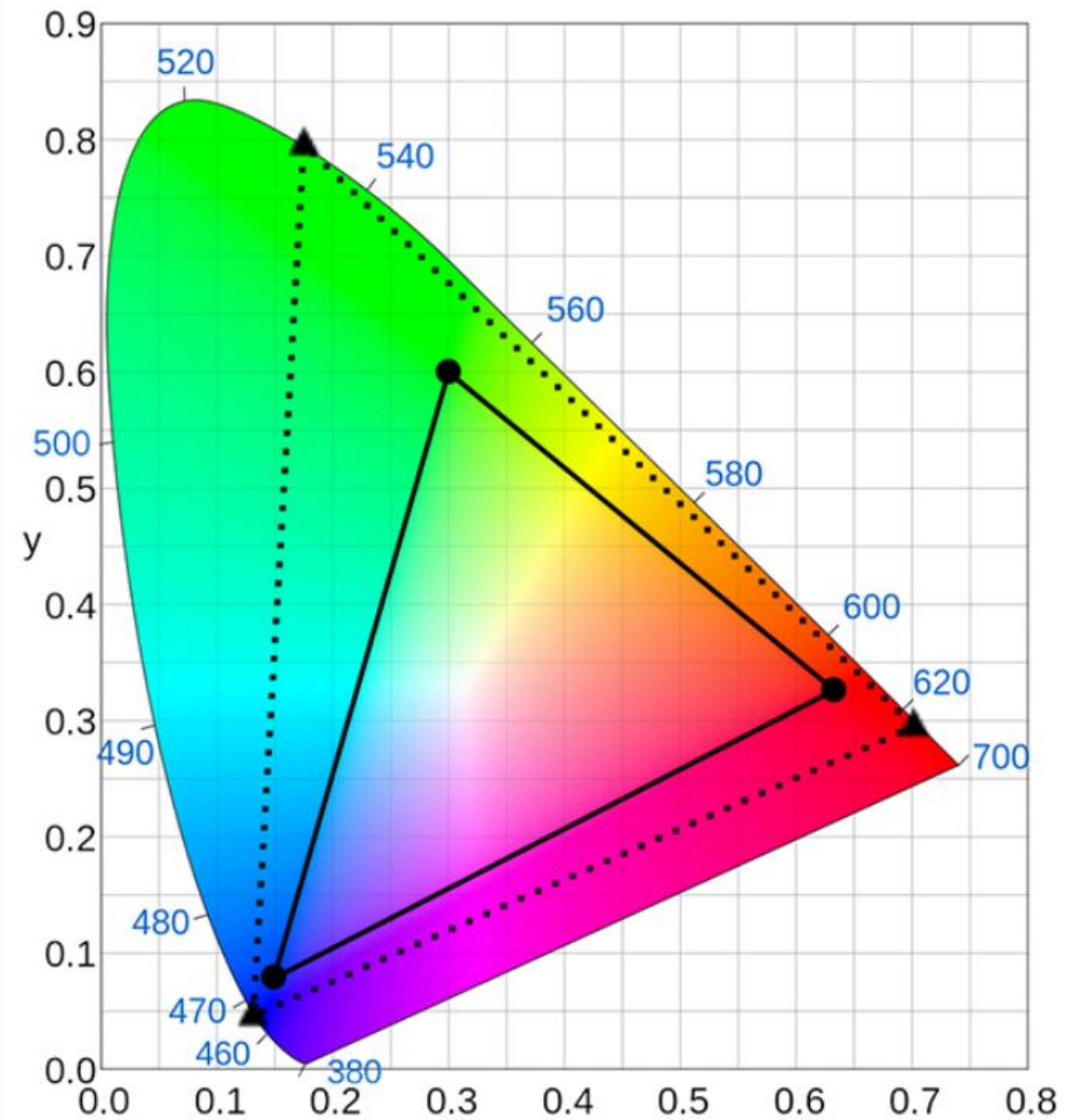
Video coding standard	Average bit rate reduction compared to H.264/MPEG-4 AVC HP			
	480p	720p	1080p	4K UHD
HEVC	52%	56%	62%	64%

Level	Max. bit rate	Max. resolution
1	0,1 Mbit/s	176x144 @ 15fps
2	1,5 Mbit/s	352x288 @ 30fps
2.1	3,0 Mbit/s	640x360 @ 30fps
3	6,0 Mbit/s	960x540 @ 30fps
3.1	10,0 Mbit/s	1280x720 @ 33fps
4	12,0 Mbit/s	2048x1080 @ 30fps
4.1	20,0 Mbit/s	2048x1080 @ 60fps
5	25,0 Mbit/s	4096x2160 @ 30fps
5.1	40,0 Mbit/s	4096x2160 @ 60fps
5.2	60,0 Mbit/s	4096x2160 @ 120fps
6	60,0 Mbit/s	8192x4320 @ 30fps
6.1	120,0 Mbit/s	8192x4320 @ 60fps
6.2	240,0 Mbit/s	8192x4320 @ 120fps

Profile Levels for H265

Improved color gamut with
10bit color .

4K TV, New Computer monitors



A visual representation of Rec. 709 and BT.2020 standards**

Encoding / Decoding

Encoding

HEVC encoding is complex and can require up to 10 times the computer power to encode at the same speed as H264.

Decoding

Is less of a problem but the load is about double that for H264.

Why is HEVC so much more efficient?

- Larger Macroblock size
 - Especially important for 4K video
 - Up to 64 x 64 pixels (vs 16 x 16 for H.264)



- Low complexity areas can be described more efficiently
- **H265 can search for similarities in blocks in 34 directions compared to 9 directions for H264.**

Software / Hardware.

Software Encoding

- x265
- Nvenc (Nvidea)
- VSO
- TMPGEnc (Video Mastering Works 6)
- DivX (X265Labs)
- XiliSoft Video Converter Ultimate V7.8.8

Software Decoding

As listed above x265 decoder (UHDcode)

VLC V2.2.1

DivX [DivX Software](#)

*** Windows 10 will natively support HEVC decoding) ***

Other useful Tools

The screenshot displays the MediaCoder x64 0.8.34.5716 application window. The interface includes a menu bar (File, Item, Features, Job, Playback, Options, Support) and a toolbar with icons for ADD, DELETE, EMPTY, INFO, PLAY, WIZARD, EXTEND, SETTINGS, PAUSE, and START. An 'Output Folder' field is set to '<Original Folder>' with an 'Open' button.

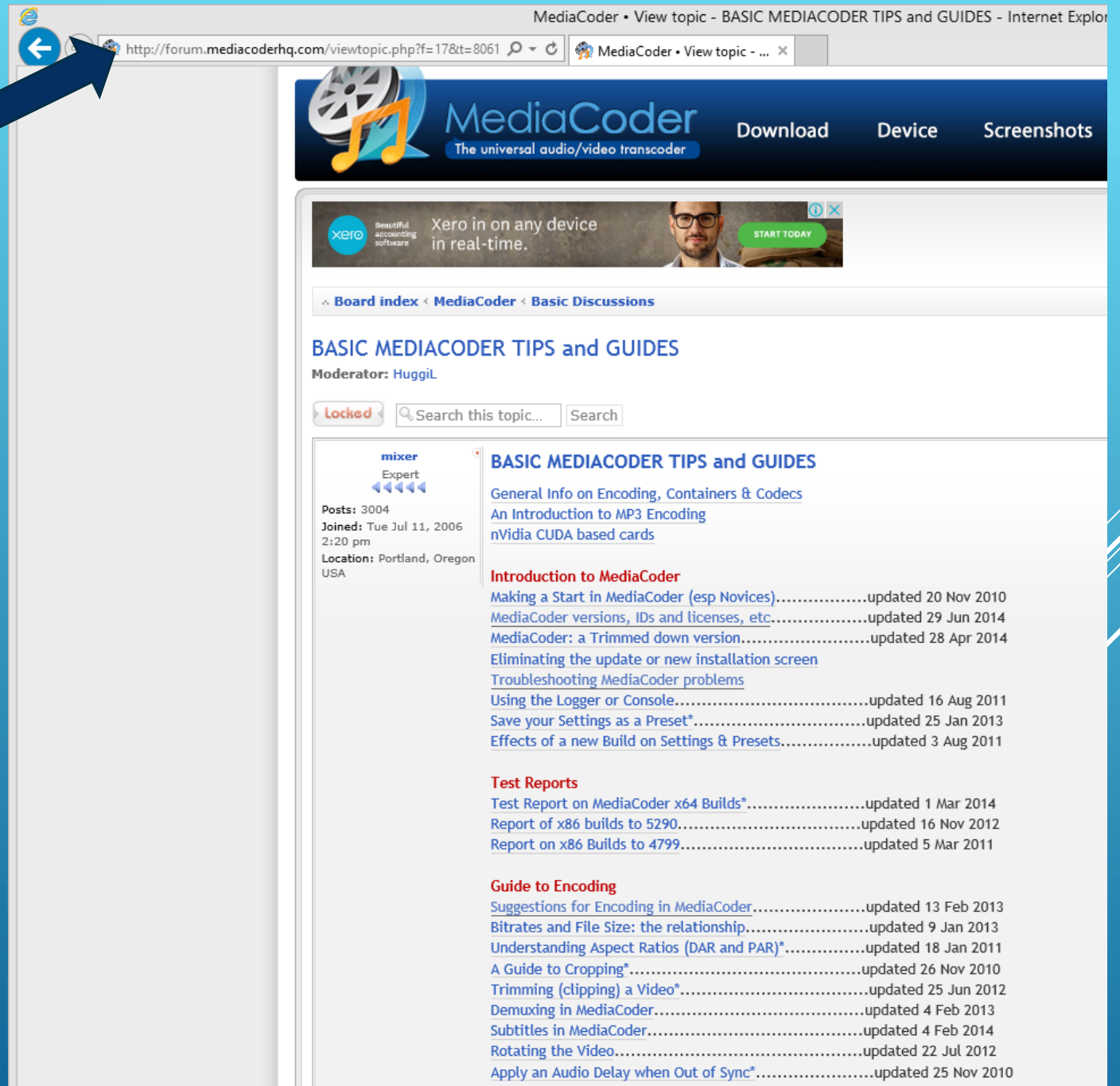
The main area shows a file list with columns for Name, Size, Duration, State, Speed, and Type. The selected file is 'elephants-dream-1080-cfg02.mkv' (138 MB, 10:58, Ready, Matroska Video). To the right, the 'Properties' pane shows details for the selected file: Container: Matroska, Bitrate: 1767 Kbps, Duration: 10:58.1, Size: 138.7 MB, Overhead: 2.8%, and Video (0): HEVC.

Below the file list, the 'Current Task' and 'Total Tasks' fields are empty. The 'Task Mode' is set to 'Normal'. The 'Video' tab is active, showing settings for 'Video ID: 0'. The 'Enabled' checkbox is checked. The 'Video Bitrate' is set to 1000 Kbps. The 'Rate Mode' is 'Constant Bitrate', and the 'Format' is 'H.264'. The 'Encoder' is set to 'NVENC', and the 'Source' is also 'NVENC'. A dropdown menu is open, listing various encoders: NVENC, x265, JM Encoder, Xvidcore, VPX Encoder, Theora Encoder, VFW Encoder, WM Encoder, Dirac Encoder, FFmpeg, FFmbc, CUDA Encoder, and Image Sequencer.

Other settings include 'Auto Bitrate' (unchecked), 'Multi-Pass CRF' (unchecked), 'Copy Video' (unchecked), 'Auto' (checked), and 'GPU' (checked). The 'Preset' is 'High Quality', and the 'Device' is 'CUDA'. 'B-Frames' is set to 2 and 'GOP' is 250. There is an 'Advanced' button.

The bottom of the window features a status bar showing 'Idle', 'Intel(R) Core(TM) i7-5820K CPU / GeForce GTX 960 / OpenCL', and 'Video: H.264 Audio: Nero Encoder Container: MP4'. There are also links for 'Blog', 'Forum', 'Go PRO', and 'Donate'.

Go to this site for very good instructions on how to use MediaCoder and how to do encoding and decoding in general.



MediaCoder • View topic - BASIC MEDIACODER TIPS and GUIDES - Internet Explorer

http://forum.mediacoderhq.com/viewtopic.php?f=17&t=8061

MediaCoder • View topic - ...

MediaCoder
The universal audio/video transcoder

Download Device Screenshots

Xero Beautiful accounting software. Xero in on any device in real-time. START TODAY

Board index < MediaCoder < Basic Discussions

BASIC MEDIACODER TIPS and GUIDES

Moderator: HuggiL

Locked Search this topic... Search

mixer
Expert
Posts: 3004
Joined: Tue Jul 11, 2006 2:20 pm
Location: Portland, Oregon USA

BASIC MEDIACODER TIPS and GUIDES

[General Info on Encoding, Containers & Codecs](#)
[An Introduction to MP3 Encoding](#)
[nVidia CUDA based cards](#)

Introduction to MediaCoder

- [Making a Start in MediaCoder \(esp Novices\)](#).....updated 20 Nov 2010
- [MediaCoder versions, IDs and licenses, etc.](#).....updated 29 Jun 2014
- [MediaCoder: a Trimmed down version](#).....updated 28 Apr 2014
- [Eliminating the update or new installation screen](#)
- [Troubleshooting MediaCoder problems](#)
- [Using the Logger or Console](#).....updated 16 Aug 2011
- [Save your Settings as a Preset*](#).....updated 25 Jan 2013
- [Effects of a new Build on Settings & Presets](#).....updated 3 Aug 2011

Test Reports

- [Test Report on MediaCoder x64 Builds*](#).....updated 1 Mar 2014
- [Report of x86 builds to 5290](#).....updated 16 Nov 2012
- [Report on x86 Builds to 4799](#).....updated 5 Mar 2011

Guide to Encoding

- [Suggestions for Encoding in MediaCoder](#).....updated 13 Feb 2013
- [Bitrates and File Size: the relationship](#).....updated 9 Jan 2013
- [Understanding Aspect Ratios \(DAR and PAR\)*](#).....updated 18 Jan 2011
- [A Guide to Cropping*](#).....updated 26 Nov 2010
- [Trimming \(clipping\) a Video*](#).....updated 25 Jun 2012
- [Demuxing in MediaCoder](#).....updated 4 Feb 2013
- [Subtitles in MediaCoder](#).....updated 4 Feb 2014
- [Rotating the Video](#).....updated 22 Jul 2012
- [Apply an Audio Delay when Out of Sync*](#).....updated 25 Nov 2010

Questions ?

Demonstration

