

Ask Ubuntu is a question and answer site for Ubuntu users and developers. Join them; it only takes a minute:

[Sign up](#)

Here's how it works:

Anybody can ask a question

Anybody can answer

The best answers are voted up
and rise to the top

How to select video quality from youtube-dl?

[Ask Question](#)



I have installed youtube-dl in my 14.04.

228

I can download video by following command,



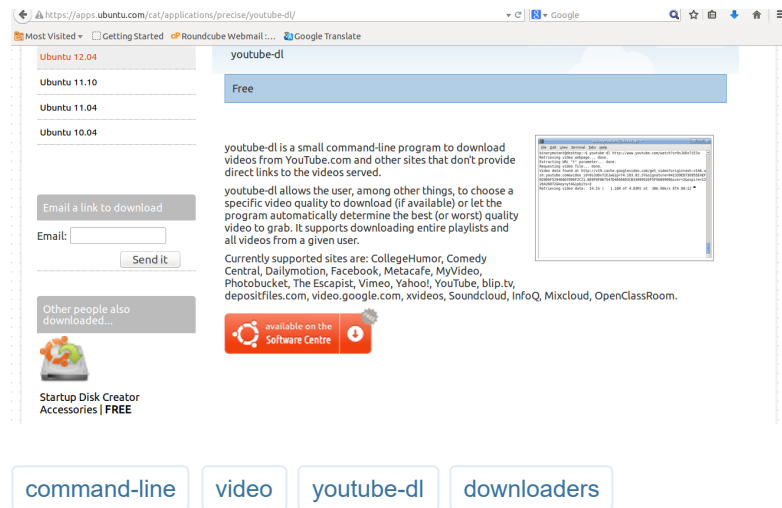
```
$ youtube-dl [youtube-link]
```



128

But I want to know **how to select available pixel quality of youtube video(i.e 1080p, 720p, 480p, etc).**

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).



edited Mar 20 '18 at 10:31



muru

1

asked Jun 21 '14 at 10:03



A J

6,019 15 37 57

- 1 The description above is obsolete. From the `man` page:
"youtube-dl now defaults to downloading the highest available quality as reported by YouTube, which will be 1080p or 720p in some cases." — **Jos** Jun 21 '14 at 10:08
- 1 Note that YouTube has employed some sort of protection that prevents downloading tools from downloading (or even seeing) the 1080p version, but you can still download all other resolutions up to and including 720p. — **thomasrutter** Oct 1 '14 at 3:19

I know I'm a little late to the party, but here's my experience:
askubuntu.com/a/1097056/327339. Use the `-f best` option.
— **Gabriel Staples** Nov 29 '18 at 17:50

ANSWERS



To download a video, you type the URL after the command like so:

332



```
youtube-dl 'http://www.youtube.com/watch?v=P9pzm5b6FFY'
```



To select the video quality, first use the `-F` option to list the available formats, here's an example,

```
youtube-dl -F 'http://www.youtube.com/watch?v=P9pzm5b6FFY'
```

Here's the output:

```
[youtube] Setting language
[youtube] P9pzm5b6FFY: Downloading webpage
[youtube] P9pzm5b6FFY: Downloading video info webpage
[youtube] P9pzm5b6FFY: Extracting video information
[info] Available formats for P9pzm5b6FFY:
format code extension resolution note
140      m4a      audio only DASH audio , audio@128k
160      mp4      144p      DASH video , video only
133      mp4      240p      DASH video , video only
134      mp4      360p      DASH video , video only
135      mp4      480p      DASH video , video only
136      mp4      720p      DASH video , video only
17       3gp      176x144
36       3gp      320x240
5        flv      400x240
43       webm     640x360
18       mp4      640x360
22       mp4      1280x720 (best)
```

The best quality is 22 so use `-f 22` instead of `-F` to download the MP4 video with 1280x720 resolution like this:

```
youtube-dl -f 22 'http://www.youtube.com/watch?v=P9pzm5b6f'
```

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

or optionally use the following flags to automatically download the best audio and video tracks that are available as a single file:

```
youtube-dl -f best 'http://www.youtube.com/watch?v=P9pzm5t
```

If you encounter any error during the muxing process or an issue with the video quality selection, you can use one of the following commands:

```
youtube-dl -f 'bestvideo[ext=mp4]+bestaudio[ext=m4a]/best\noutput-format mp4 'http://www.youtube.com/watch?v=P9pzm5b6
```

or as [Gabriel Staples](#) pointed out [here](#), the following command will typically select the actual best single file video quality resolution instead of video quality bit-rate:

```
youtube-dl -f best 'http://www.youtube.com/watch?v=P9pzm5t
```

These commands will ensure you download the highest quality mp4 video and m4a audio from the video as a single file or will merge them back into a single mp4 (using `ffmpeg` in my case). If `ffmpeg` or `avconv` is not available, `youtube-dl` should fall back to the single file `-f best option` instead of the default.

[Click here for more detailed information and some different examples.](#)

[Also, click to see this related answer by Gabriel Staples.](#)

Source: www.webupd8.org/2014/02/video-downloader-youtube-dl-gets.html

Source: github.com/rg3/youtube-dl

By using our site, you acknowledge that you have read and understand our Cookie Policy, Privacy Policy, and our Terms of Service.

**976** 1 10 27

answered Jun 21 '14 at 10:19

**mchid****24.1k** 2 55 89

- 5 Make sure that you do not choose DASH . That will be unplayable! – **ps95** Sep 13 '14 at 4:21

@prakharsingh95 the DASH audio only can be converted to standard wave or mp3 format using gnac or similar software.
– **mchid** Sep 17 '14 at 12:09 ✎

- 1 I meant DASH Video . I tried to download 4K , but that's all in DASH format (DASH allows youtube to preserve bandwidth). It's radically different it will mostly be unplayable. – **ps95** Sep 24 '14 at 19:41

@prakharsingh95 Yeah if anything you might be able to view the mp4 using VLC as VLC allows you to sync the video with a separate file for audio. I haven't tried it though. Have you tried converting the mp4 file from the DASH download to avi format? I think they are similar. – **mchid** Sep 25 '14 at 5:05 ✎

- 2 Yes. Dash is of course playable, but you need to mux the streams with something like avconv . Too slow for 4K . – **ps95** Sep 29 '14 at 8:39 ✎

**95**

You can download 1080p using youtube-dl , but you need to do a little extra work. Usually it will only download 720p as its max even if you can see 1080p on youtube.com.

Run with -F to see available formats:

```
youtube-dl -F https://www.youtube.com/watch?v=-pXRP3w-S
```

[Home](#)[Questions](#)[Tags](#)[Users](#)[Unanswered](#)

```

141      m4a      audio only DASH audio 255k , audio
160      mp4      256x144    DASH video 111k , 12fps
247      webm     1280x720   DASH video 1807k , 1fps,
136      mp4      1280x720   DASH video 2236k , 24fps
248      webm     1920x1080  DASH video 3993k , 1fps,
137      mp4      1920x1080  DASH video 4141k , 24fps
43       webm     640x360
18       mp4      640x360
22       mp4      1280x720   (best)

```

notice that `youtube-dl` has labeled the last option 1280x720 as the 'best' quality and that's what it will download by default, but that the line starting with 137 is actually higher quality 1920x1080. Youtube has separated the video and audio streams for the lines labeled DASH so we also need to pick the highest quality audio which in this case is the line starting with 141. Then we run `youtube-dl` again this time specifying the audio and video:

```
youtube-dl -f 137+141 https://www.youtube.com/watch?v\=-p
```

and it will download the 1080p video and auto-merge it with the highest-quality audio. It should also auto-deleted the separate downloaded parts. This method is a little extra work, but will get you the best results.

edited Mar 17 '18 at 20:22



mchid

24.1k 2 55 89

answered Jan 24 '15 at 21:59




Ryan Horrisberger

1,051 7 5


10 thank you very much, didn't know about 137+141 – **whitesiroi**
May 5 '15 at 14:48

2 Your example and others present easy choices for the audio

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

audio@128k (44100Hz), 1.79MiB or DASH audio 127k , m4a_dash container, aac @128k (44100Hz), 1.94MiB . I had to choose but am uncertain about quality, or perhaps compatibility. – [user643722](#) Jun 10 '15 at 12:13 

The best thing about youtube-dl is that it is multi-platform. This solution doesn't just work on Linux, but also on Mac and Windows. Thank you! – [Antony](#) Jun 2 '16 at 23:19

- 1 Nowadays this is the default, but only if you have avconv (libav) or ffmpeg installed to do the file conversion. For Windows, you want to set `--ffmpeg-location` in `%APPDATA%\youtube-dl\config.txt` to the directory where avconv/ffmpeg is installed. If you've got a low-end system you might want `-f bestvideo[fps<=30]+bestaudio` in there as well, to avoid 60fps video. – [GreenReaper](#) Apr 6 '18 at 22:16 

▲
25
▼

To select specific resolutions, you can specify the size and audio quality so they get selected automatically - so **for 480p:**

```
-f 'bestvideo[height<=480]+bestaudio/best[height<=480]'
```

with `bestvideo[height<=720]+bestaudio/best[height<=720]` for 720p etc. This can be added to config file at `~/.config/youtube-dl/config` (or even `/etc/youtube-dl.conf`) so you don't get oversized downloads:

```
mkdir ~/.config/youtube-dl
echo "-f 'bestvideo[height<=720]+bestaudio/best[height<=720]+bestaudio/best[height<=720]'" > ~/.config/youtube-dl/config
```

You can use `--ignore-config` if you want to disable the configuration file for a particular youtube-dl run.

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

Please note that if you often it will have to download a separate video and audio stream and merge them.

For more examples see [youtube-dl 's documentation](#).

answered Dec 31 '16 at 9:47



Wilf

22.2k 11 70 131

-
- 1 I had an issue where different segments of the same video had different format codes for the same resolution (e.g. hls-1476 for video 1 of 2 and hls-1665 for video 2 of 2 where both were 540p) so I couldn't just use "-f hls-1476" or "-f hls-1665" or I'd get "ERROR: requested format not available" Your command examples helped me retrieve what I wanted. – [ssnobody](#) Jan 22 '17 at 21:37
-
- 1 +1 for ~/.config/youtube-dl/config – [Marinos An](#) May 22 '17 at 18:15
-



Some of the other options to download the best quality videos other than that mentioned here depending on your convenience is given below:

7



Download best mp4 format available or any other best if no mp4 available

```
$ youtube-dl -f 'bestvideo[ext=mp4]+bestaudio[ext=m4a]/bes
```

Download best format available but not better than 480p

Download best video only format but no bigger than 50 MB

```
$ youtube-dl -f 'best[filesize<50M]'
```

Download best format available via direct link over HTTP/HTTPS protocol

```
$ youtube-dl -f '(bestvideo+bestaudio/best)[protocol^=http
```

Reference:

Directly from youtube-dl github page

edited Aug 17 '18 at 20:39



pomsky

35.2k

11

110

142

answered Aug 17 '18 at 13:58



Kurian Benoy

111

1

3



6

A bash wrapper script that prompts for the format, which includes all available renditions, including audio-only, video-only, and then streams the video/audio with [mpv](#).



Accepts both absolute youtube URLs and video IDs.

```
#!/usr/bin/env bash
# Download youtube video with desired quality

# youtube-dl accepts both fully qualified URLs and video i
```

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

```

echo "Fetching available formats for $url..."
youtube-dl -F "$url"
read -p "Please enter the desired quality code: " FORMAT

echo "Streaming with quality $FORMAT..."
mpv --cache=1024 $(youtube-dl -f $FORMAT -g "$url")

```

Sample output:

```

yt.sh https://m.youtube.com/watch?v=Dax_tnZRExc
[youtube] Dax_tnZRExc: Downloading webpage
[youtube] Dax_tnZRExc: Downloading video info webpage
[youtube] Dax_tnZRExc: Extracting video information
[youtube] Dax_tnZRExc: Downloading MPD manifest
[info] Available formats for Dax_tnZRExc:
format code  extension  resolution note
139          m4a         audio only DASH audio  49k ,
48k (22050Hz), 308.75KiB
249          webm         audio only DASH audio  50k ,
250          webm         audio only DASH audio  70k ,
171          webm         audio only DASH audio 118k ,
140          m4a         audio only DASH audio 127k ,
mp4a.40.2@128k (44100Hz), 820.00KiB
251          webm         audio only DASH audio 130k ,
160          mp4         256x144    DASH video 109k ,
only, 703.64KiB
278          webm         256x144    144p 111k , webm c
only, 439.72KiB
242          webm         426x240    240p 243k , vp9, 2
133          mp4         426x240    DASH video 252k ,
only, 1.54MiB
134          mp4         640x360    DASH video 388k ,
only, 1.24MiB
243          webm         640x360    360p 458k , vp9, 2
135          mp4         854x480    DASH video 761k ,
only, 2.40MiB
244          webm         854x480    480p 893k , vp9, 2
136          mp4         1280x720   DASH video 1382k ,
only, 4.56MiB
247          webm         1280x720   720p 1754k , vp9, 2
137          mp4         1920x1080   DASH video 2350k ,
only, 8.48MiB
248          webm         1920x1080   1080p 2792k , vp9,
17          3gp         176x144    small , mp4v.20.3,

```

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

```
22          mp4          1280x720   hd720 ,  avc1.64001F
Please enter the desired format #
```

If you want to download the video as opposed to stream it, just remove the `mpv --cache=1024` part and the dollar sign with brackets.

edited Feb 7 at 14:59

answered Jun 29 '16 at 13:27



ccpizza

951 9 14



How to get the *best* video quality available.

1



[This answer here, with the most votes](#), *should* be right to give you the best video quality available, but....it's not.

`bestvideo+bestaudio` seems to choose only the best video and best audio of the options that are **video only** and **audio only**, then it merges the two together. Note that this also appears to be identical to the default behavior of youtube-dl. However, on the video I was looking at, the best quality was a single, pre-merged file that was already in a format with combined video and audio. The

`bestvideo+bestaudio` option did NOT choose this best quality 720p file because it was looking only for **separate** video and audio files. Details below.

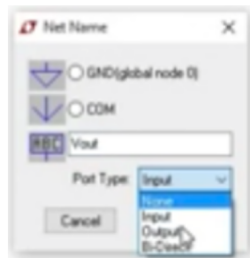
```
youtube-dl -f best https://youtu.be/FWGC9SqA3J0
```

In short: use the `-f best` option, NOT the `-f bestvideo+bestaudio` option!

Proof:

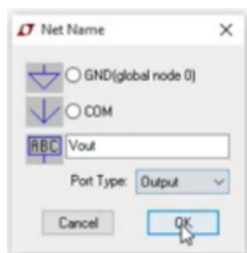
-f bestvideo+bestaudio

lower quality for some reason
not legible
lower quality than browser
18.0 MB file
takes longer to download



-f best

higher quality for some reason
legible
same quality as best option on YouTube in browser
14.8 MB file
downloaded faster



More specifically, see below for the results of running

```
youtube-dl -F https://youtu.be/FWGC9SqA3J0
```

in order to see what video 'F'ormats are available for download:

```
gabriel ~ $ youtube-dl -F https://youtu.be/FWGC9SqA3J0
[youtube] FWGC9SqA3J0: Downloading webpage
[youtube] FWGC9SqA3J0: Downloading video info webpage
[youtube] FWGC9SqA3J0: Downloading MPD manifest
[youtube] FWGC9SqA3J0: Downloading MPD manifest
[info] Available formats for FWGC9SqA3J0:
format code  extension  resolution note
139          m4a         audio only DASH audio  50k , m4a_
(22050Hz), 2.30MiB
249          webm         audio only DASH audio  51k , opus
250          webm         audio only DASH audio  62k , opus
```

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).

```

(44100Hz), 6.13MiB
160      mp4      256x138    DASH video  108k , mp4_
24fps, video only
134      mp4      640x348    DASH video  142k , mp4_
24fps, video only, 3.42MiB
133      mp4      426x232    DASH video  242k , mp4_
24fps, video only
136      mp4      1280x694    DASH video  473k , mp4_
24fps, video only, 8.01MiB
135      mp4      854x464    DASH video 1155k , mp4_
24fps, video only
17       3gp      176x144    small , mp4v.20.3, mp4a
36       3gp      320x174    small , mp4v.20.3, mp4a
43       webm     640x360    medium , vp8.0, vorbis@
18       mp4      640x348    medium , avc1.42001E, m
22       mp4      1280x694    hd720 , avc1.64001F, mp

```

Notice that row 22 says "(best)" to the far right of it. This is the only option which offers hd720 quality, which is the best quality I can get when watching this video in a web browser on YouTube. It is the clearest and has the best definition. When I use either of the commands recommended by the top answer:

```
youtube-dl -f bestvideo+bestaudio https://youtu.be/FWGC9Sq
```

OR:

```
youtube-dl -f 'bestvideo[ext=mp4]+bestaudio[ext=m4a]/bestv
output-format mp4 https://youtu.be/FWGC9SqA3J0
```

I end up with a video that is both lower quality/lower resolution, *and* has a larger file size. I don't understand it exactly, but the `-f best` option is definitely the only one that truly gives me the best resolution.

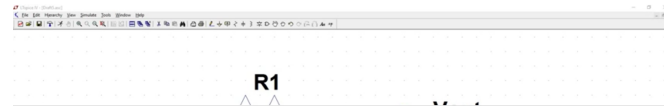
Here's some screenshots:

1. Using the **lower quality** `-f bestvideo+bestaudio`

By using our site, you acknowledge that you have read and understand our Cookie Policy, Privacy Policy, and our Terms of Service.

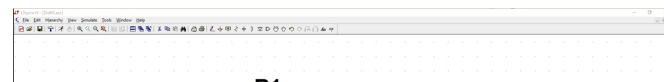
using the default option: `youtube-dl`

`https://youtu.be/FWGC9SqA3J0`):



-
- Notice how fuzzy the icons are at the top, and how difficult to read are the open window and tiny words within it!
- This is *significantly worse* than the quality I get when watching online at YouTube directly in the browser.
- This option also takes up more memory for some reason: the video is 18.0 MB, *and* it took longer for my system to download and re-combine (audio + video) than the `-f best` option below, which only had to do one download and no recombining since it was already one file.

2. Using the **higher quality** `-f best` option which I recommend:



- Notice how much clearer the small icons at the top and small font in the window are!
- This is the *identical resolution* to what I get when watching in the highest resolution possible directly in the browser on YouTube.
- This option also takes up *less* memory for some reason: the video is 14.8 MB.

Additional Reading:

See `man youtube-dl` for details.

edited Dec 4 '18 at 2:41

answered Nov 29 '18 at 9:18



Gabriel Staples

976 1 10 27

1 odd that I see listings for 1920x1080 options, but the 1280x720 (hd720) option still says "best" – nmz787 Jan 21 at 18:07



0



I am a disk saver, so I download videos of the format `1280 x 720`, because `4k` videos takes more size of my hard disk. So I add `youtube-dl` in `~/.bashrc` file like given below

Setting a work -

open terminal and type

By using our site, you acknowledge that you have read and understand our Cookie Policy, Privacy Policy, and our Terms of Service.

```
vim ~/.bashrc
```

now go to very bottom of the file and add given below command

- `alias yt='youtube-dl -if best'`
- save file by pressing `Ctrl o` then press `Enter`
- exit file by pressing `Ctrl x`
- and last run command `source ~/.bashrc` in terminal

Experiment -

Open terminal and type

```
yt https://www.youtube.com/watch?v=puPUJlV1-W4
```

It will start downloading video with the best quality.

Explanation -

Bash allows us to define aliases which act like shortcuts to bash commands

in our case we define alias as -

alias **yt**='youtube-dl -if best'

where **yt** is the shortcut command for 'youtube-dl' which gives relief

our fingers to type long command.

You can write anything at the place of **yt**.

I set a flag **-i** in `youtube-dl -if best`

which means

It will Continue on download errors, for example to skip unavailable videos in a playlist

answered Apr 19 at 13:00



Abhishek Kamal

154 13

-2



Nerol

33

-
- 2 Yes, as per the readme You also have option(s) to select intended format, see here: [github.com/rg3/youtube-dl/blob/master/...](https://github.com/rg3/youtube-dl/blob/master/README.md) – AjayKumarBasuthkar Jan 26 '16 at 17:18
-



protected by **Community ♦** Nov 4 '15 at 13:29

Thank you for your interest in this question. Because it has attracted low-quality or spam answers that had to be removed, posting an answer now requires 10 **reputation** on this site (the **association bonus does not count**).

Would you like to answer one of these **unanswered questions** instead?

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#).