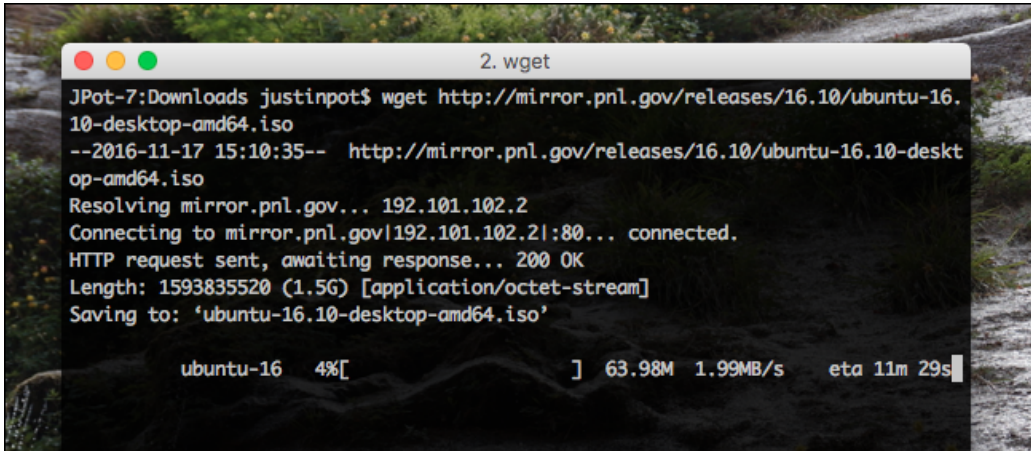


How to Use wget, the Ultimate Command Line Downloading Tool

A screenshot of a macOS Terminal window titled "2. wget". The terminal shows the command `JPot-7:Downloads justinpot$ wget http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso` and its output. The output includes the timestamp `--2016-11-17 15:10:35--`, the URL, the file name `op-amd64.iso`, the IP address `192.101.102.2`, connection status `connected`, HTTP status `200 OK`, file length `1593835520 (1.5G) [application/octet-stream]`, and the save path `Saving to: 'ubuntu-16.10-desktop-amd64.iso'`. At the bottom, a progress bar shows `ubuntu-16 4%[] 63.98M 1.99MB/s eta 11m 29s`.

```
JPot-7:Downloads justinpot$ wget http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso
--2016-11-17 15:10:35-- http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso
Resolving mirror.pnl.gov... 192.101.102.2
Connecting to mirror.pnl.gov|192.101.102.2|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1593835520 (1.5G) [application/octet-stream]
Saving to: 'ubuntu-16.10-desktop-amd64.iso'

ubuntu-16  4%[ ] 63.98M 1.99MB/s  eta 11m 29s
```

Newer isn't always better, and the `wget` command is proof. First released back in 1996, this application is still one of the best download managers on the planet. Whether you want to download a single file, an entire folder, or even mirror an entire website, `wget` lets you do it with just a few keystrokes.

Of course, there's a reason not everyone uses `wget`: it's a command line application, and as such takes a bit of time for beginners to learn. Here are the basics, so you can get started.

How to Install wget

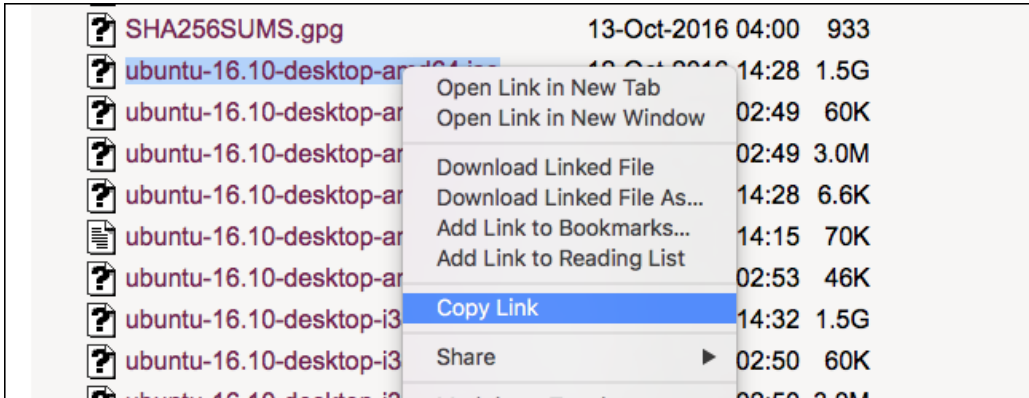
Before you can use `wget`, you need to install it. How to do so varies depending on your computer:

- Most (if not all) Linux distros come with `wget` by default. So Linux users don't have to do anything!
- macOS systems do not come with `wget`, but you can [install command line tools using Homebrew](#). Once you've set up Homebrew, just run `brew install wget` in the Terminal.
- Windows users don't have easy access to `wget` in the traditional Command Prompt, though [Cygwin provides wget and other GNU utilities](#), and [Windows 10's Ubuntu's Bash shell](#) also comes with `wget`.

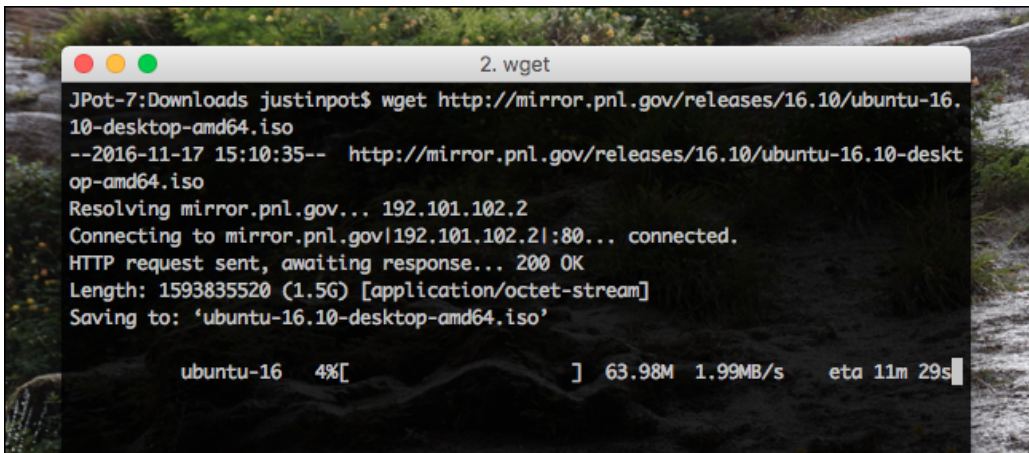
Once you've installed `wget`, you can start using it immediately from the command line. Let's download some files!

Download a Single File

Let's start with something simple. Copy the URL for a file you'd like to download in your browser.



Now head back to the Terminal and type `wget` followed by the pasted URL. The file will download, and you'll see progress in realtime as it does.



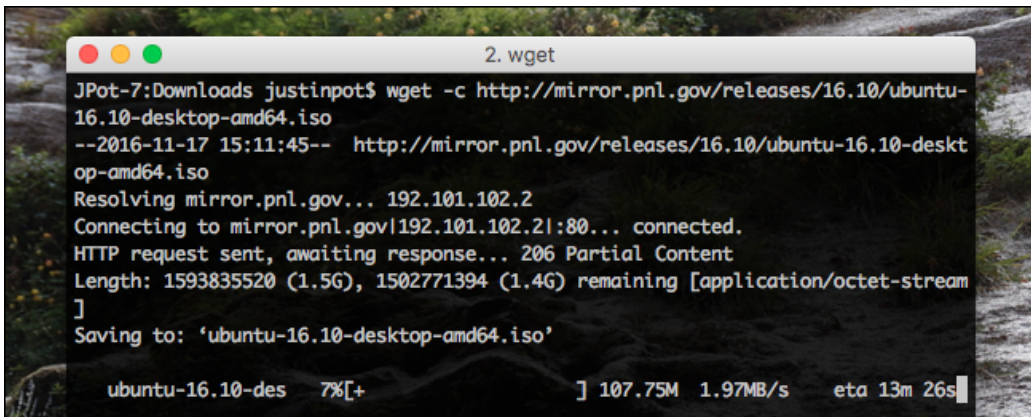
RELATED: [How to Manage Files from the Linux Terminal: 11 Commands You Need to Know](#)

Note that the file will download to your Terminal's current folder, so you'll want to `cd` to a different folder if you want it stored elsewhere. If you're not sure what that means, check out [our guide to managing files from the command line](#). The article mentions Linux, but the concepts are the same on macOS systems, and Windows systems running Bash.

Continue an Incomplete Download

If, for whatever reason, you stopped a download before it could finish, don't worry: `wget` can pick up right where it left off. Just use this command:

```
wget -c file
```

A terminal window titled '2. wget' showing the execution of the command 'wget -c http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso'. The output shows the file being resolved, connected to, and downloaded in partial content mode. A progress bar at the bottom indicates the download is 7% complete at 107.75M, with a speed of 1.97MB/s and an estimated time to completion of 13m 26s.

```
JPot-7:Downloads justinpot$ wget -c http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso
--2016-11-17 15:11:45-- http://mirror.pnl.gov/releases/16.10/ubuntu-16.10-desktop-amd64.iso
Resolving mirror.pnl.gov... 192.101.102.2
Connecting to mirror.pnl.gov|192.101.102.2|:80... connected.
HTTP request sent, awaiting response... 206 Partial Content
Length: 1593835520 (1.5G), 1502771394 (1.4G) remaining [application/octet-stream]
Saving to: 'ubuntu-16.10-desktop-amd64.iso'

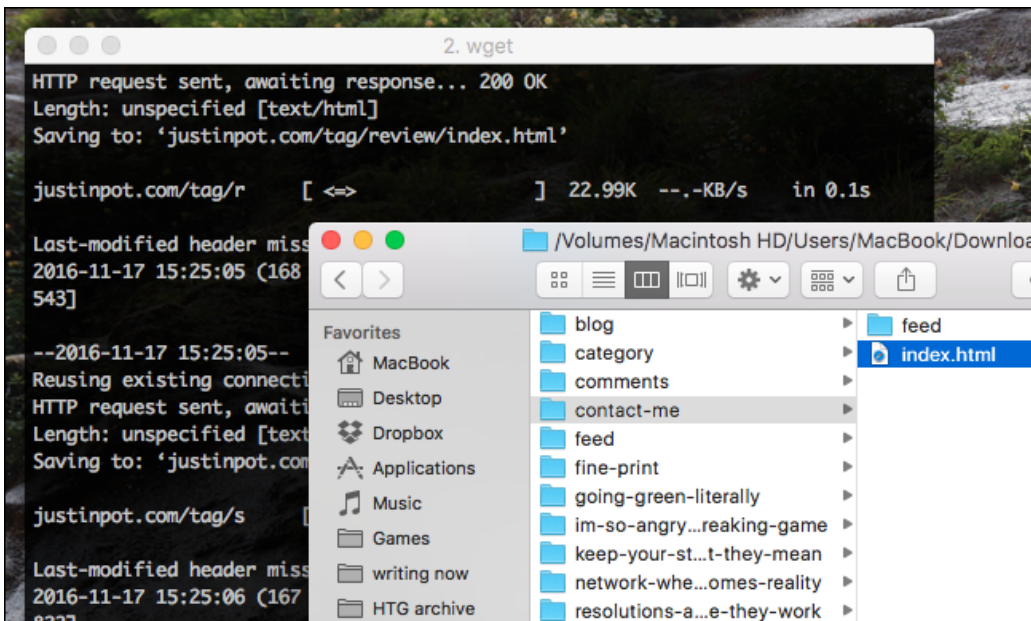
ubuntu-16.10-des  7%[+          ] 107.75M  1.97MB/s   eta 13m 26s
```

The key here is `-c`, which is an “option” in command line parlance. This particular option tells `wget` that you’d like to continue an existing download.

Mirror an Entire Website

If you want to [download an entire website](#), `wget` can do the job.

```
wget -m http://example.com
```



By default, this will download everything on the site `example.com`, but you’re probably going to want to use a few more options for a usable mirror.

- `--convert-links` changes links inside each downloaded page so that they point to each other, not the web.
- `--page-requisites` downloads things like style sheets, so pages will look correct offline.

- `--no-parent` stops `wget` from downloading parent sites. So if you want to download <http://example.com/subexample>, you won't end up with the parent page.

Combine these options to taste, and you'll end up with a copy of any website that you can browse on your computer.

Note that mirroring an entire website on the modern Internet is going to take up a massive amount of space, so limit this to small sites unless you have near-unlimited storage.

Download an Entire Directory

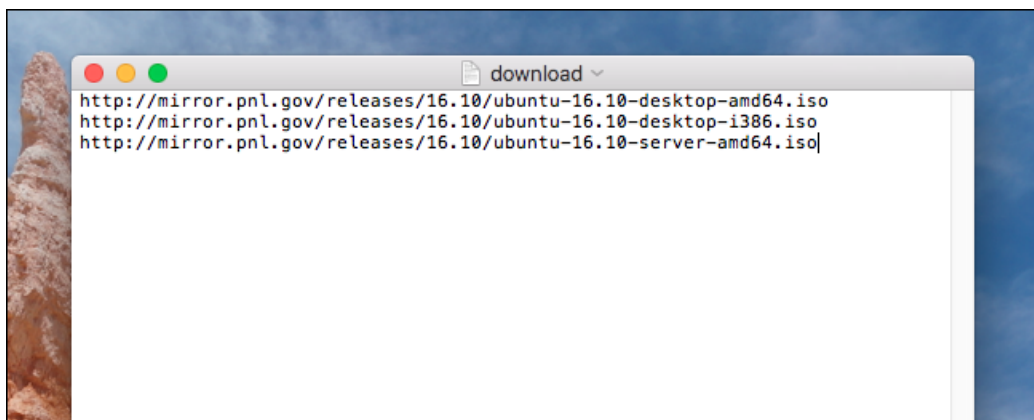
If you're browsing an FTP server and find an entire folder you'd like to download, just run:

```
wget -r ftp://example.com/folder
```

The `r` in this case tells `wget` you want a recursive download. You can also include `--no-parent` if you want to avoid downloading folders and files above the current level.

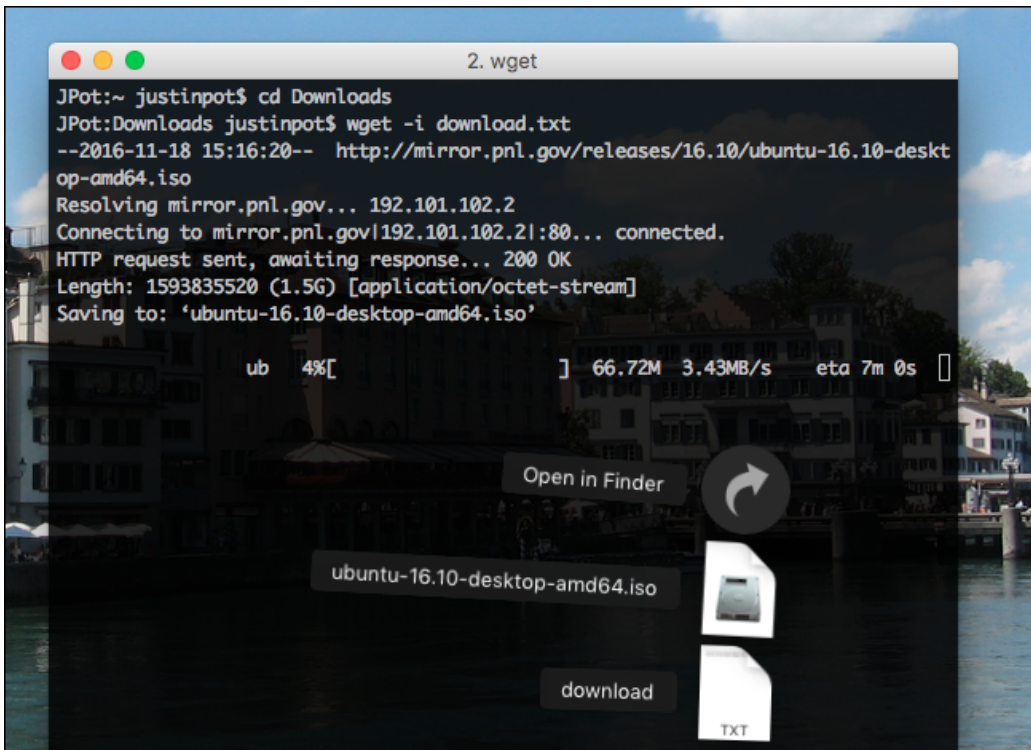
Download a List of Files at Once

If you can't find an entire folder of the downloads you want, `wget` can still help. Just put all of the download URLs into a single TXT file.



then point `wget` to that document with the `-i` option. Like this:

```
wget -i download.txt
```

Do this and your computer will download all files listed in the text document, which is handy if you want to leave a bunch of downloads running overnight.

A Few More Tricks

We could go on: wget offers a lot of options. But this tutorial is just intended to give you a launching off point. To learn more about what wget can do, type `man wget` in the terminal and read what comes up. You'll learn a lot.

Having said that, here are a few other options I think are neat:

- If you want your download to run in the background, just include the option `-b`.
- If you want wget to keep trying to download even if there is a 404 error, use the option `-t 10`. That will try to download 10 times; you can use whatever number you like.
- If you want to manage your bandwidth, the option `--limit-rate=200k` will cap your download speed at 200KB/s. Change the number to change the rate.

There's a lot more to learn here. You can look into [downloading PHP source](#), or [setting up an automated downloader](#), if you want to get more advanced.