# How To Easily Upgrade Linux Kernel In Ubuntu And Linux Mint

Last updated February 2, 2019 By Abhishek Prakash (https://itsfoss.com/author/abhishek/)

**Brief**: This article shows you **how to upgrade to latest Kernel easily** with GUI tool Ukuu. Though the article is tested for Ubuntu, it should also work for other Ubuntu based Linux distributions such as Linux Mint, elementary OS, Linux Lite etc.

I am assuming that you already know what is Linux kernel

(https://www.howtogeek.com/howto/31632/what-is-the-linux-kernel-and-what-does-it-do/). This is the core software that drives any Linux distribution. All the Linux distributions use the kernel at their core topped with Shell and then GUI elements. This is what <u>Linus Torvalds</u>

(https://www.youtube.com/watch?v=eE-ovSOQK0Y) created 25 years ago and this is what he still works on.

A newer version of Linux kernel is released every few months with new features (such as support for more hardware), bug fixes etc.

Should you upgrade to the latest Linux kernel, manually?



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Thing is that when a new Linux Kernel is released if the several weeks/months before your Linux distribution makes it available for your system. It also depends on the factor if Linux Kernel release was LTS (long term support) or not. Yes, even Linux Kernel release have LTS and non-LTS versions, in case you didn't know.

Linux distributions are responsible for your system's stability and this is why they don't release a newer version of Linux Kernel unless they test it for regression on their end. This ensures that your system is not messed up because of hardware incompatibility or any other such issue.

In my opinion, there is no 'real' need of upgrading to a newer Linux kernel unless it provides you a good enough reason.

For example, I use Dell XPS 13 Kaby Lake Ubuntu Edition (https://itsfoss.com/dell-xps-13-ubuntu-<u>review/)</u> and I read that <u>kernel 4.10 will provide a performance boost for Kaby Lake processor</u> (http://www.pcworld.com/article/3173618/linux/kaby-lake-is-unleashed-with-kernel-410.html). This tempted me to upgrade Ubuntu to latest Linux Kernel but Ubuntu won't be providing this kernel version anytime soon if it ever does. In such a situation, I could choose to upgrade Linux kernel manually.

# Easily upgrade Linux Kernel in Ubuntu and Linux Mint

You can upgrade Linux kernel on your own in Linux command line with a few apt-get commands (https://itsfoss.com/apt-get-linux-guide/). But the kernel upgrade procedure is much easier and more convenient with a GUI tool called <a href="Ukuu">Ukuu</a> (<a href="http://www.teejeetech.in/p/ukuu-kernel-upgrade-utility.html">http://www.teejeetech.in/p/ukuu-kernel-upgrade-utility.html</a>) (Ubuntu Kernel Update Utility).

This GUI tool is developed by Tony George who has provided us with several other useful tools for Ubuntu such as <u>battery monitor for Ubuntu (https://itsfoss.com/monitor-laptop-battery-linux/)</u>, <u>app</u> backup tool Aptik (https://itsfoss.com/restore-apps-ppa-ubuntu-aptik/) etc.

**Warning**: Before we see how to upgrade Linux kernel in Ubuntu with Ukuu, I must warn you that you should be aware of the risk. If something goes wrong, you may revert to a previous Kernel version but you must not panic. Make a backup of Ubuntu system (https://itsfoss.com/backup-restore-linux-

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easily haffled with troubleshooting, avoid playing with manual

# Step 1: Install Ukuu in Ubuntu and Linux Mint

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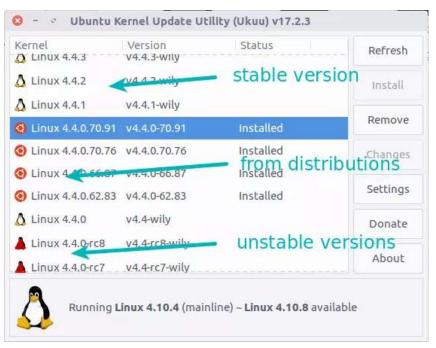
There is an official PPA provided by the developer to install this tool. Just use the commands below to install Ukuu:

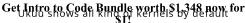
```
sudo add-apt-repository ppa:teejee2008/ppa
sudo apt-get update
sudo apt-get install ukuu
```

# Step 2: Using Ukuu to install latest Linux Kernel in Ubuntu

I am using Ubuntu 16.04 in this tutorial but Ukuu is available for other Ubuntu and Linux Mint versions as well.

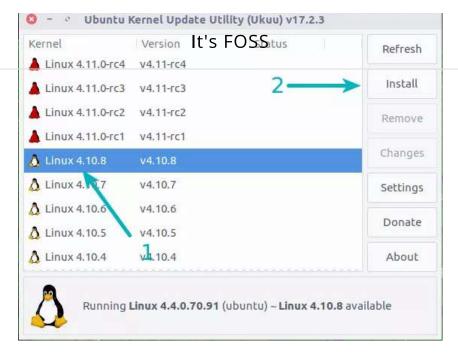
Once you have installed Ukuu, start it. It will refresh the list of available <u>Linux kernels available for Ubuntu (http://kernel.ubuntu.com/~kernel-ppa/mainline/)</u>. By default, it will show you all the available kernels, including the unstable release kernel (tagged with RC and with red Tux icon). Kernel versions from the distributions are labeled with the logo and the other versions have just the good old Tux logo.





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over 30,000+ copies sold! avoid the release candidates. Select the desired Kernel version and ver Linux Kernel version.



Install new Linux kernel

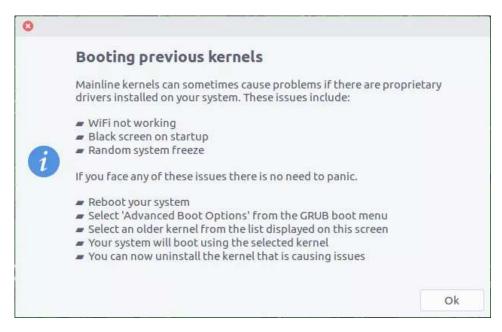
Of course, it will require admin password for this action. Once you have entered your password, you can see the installation progress in the application itself. Focus on the end result to know if it new Linux kernel was installed successfully or not.

```
0 - 0
0K
Preparing to install 'v4.10.4'
Selecting previously unselected package linux-headers-4.10.4-04100
4-generic.
(Reading database ... 318466 files and directories currently insta
lled.)
Preparing to unpack linux-headers-4.10.4-041004-generic 4.10.4-041
004.201703180831 amd64.deb .
Unpacking linux-headers-4.10.4-041004-generic (4.10.4-041004.20170
Selecting previously unselected package linux-image-4.10.4-041004-
generic.
Preparing to unpack linux-image-4.10.4-041004-generic 4.10.4-04100
4.201703180831 amd64.deb ...
Unpacking linux-image-4.10.4-041004-generic (4.10.4-041004.2017031
80831) ...
                                 Cancel
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Installing newer Linux Kernel
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```

need to panic. We thing will be wrong the system. Just try a different

Kerner version and it might work.

Once installation finishes, you'll see a very helpful screen that tells you if anything goes wrong with the new Linux kernel, you can always choose to boot into the older kernel from the grub menu.



Useful information at the end of kernel upgrade with Ukuu

When you boot into the system next, you'll be running the Linux kernel you had just installed.

Checking Linux kernel version in Ubuntu

One thing to note here is that installing a new kernel doesn't mean that the older kernel has been removed from the system. It remains at your disposal. By default, Ubuntu boots into the newest Linux Kernel installed on the system.

# Rollback the changes/Downgrade Linux Kernel



- Boot into an older kernel
- Remove the newer Linux kernel you don't ងដ៏គ្រះFOSS

Let's see how to do that.

# Step 1: Boot into an older Linux kernel

When you are booting into your system, on the grub menu, select the Advanced options for Ubuntu.



Select Advanced options for Ubuntu

In here, you'll see all the installed Linux kernels on your system. Select an older one. Don't choose the upstart or recovery mode, just go with the normal ones. I'll discuss them in a separate article, perhaps.



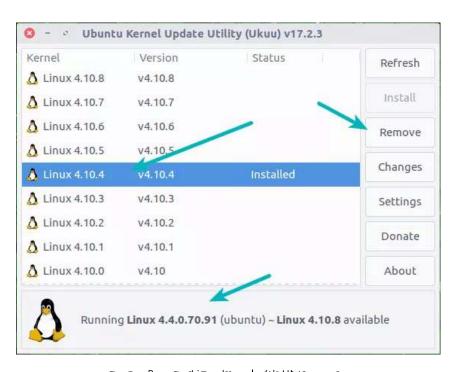
```
Ubuntu, with Linux 4.10.4-041004-generic (upstart)
Ubuntu, with Linux 4.10.4-041004-generic (recovery mode)
Ubuntu, with Linux 4.4.0-70-generic
Ubuntu, with Linux 4.4.0-70-generic (upstart)
Ubuntu, with Linux 4.4.0-70-generic (recovery mode)
Ubuntu, with Linux 4.4.0-66-generic
Ubuntu, with Linux 4.4.0-66-generic (upstart)
Ubuntu, with Linux 4.4.0-66-generic (recovery mode)
Ubuntu, with Linux 4.4.0-66-generic (recovery mode)
Ubuntu, with Linux 4.4.0-62-generic
Ubuntu, with Linux 4.4.0-62-generic (upstart)
Ubuntu, with Linux 4.4.0-62-generic (recovery mode)
```

Booting into an older Linux kernel in Ubuntu

### Step 2: Downgrade Linux kernel

Once you boot into the system with the older Linux kernel, start Ukuu again. Make sure that you are not deleting the kernel that you are running at present.

Select the newer kernel version which you don't want anymore and click on Remove.



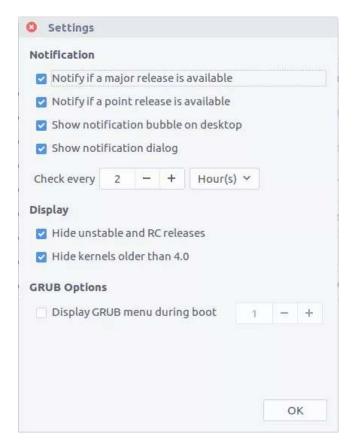


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downgrade the Linux kernel in Ubuntu.

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While we are discussing it, I would like to point put a few more features of Ukuu. Ukuu has settings option that allows you to not display release candidates of kernels in the list. You can also hide Linux kernel versions older than version 4.0.



Additional options in Ukuu

You can also choose the option to display desktop notifications in case new Linux Kernel are available.





Desktop notification for new Linux kernel availability

## Uninstall Ukuu

To uninstall Ukuu, you'll have to follow the same procedure as <u>removing a PPA from Ubuntu</u> (<a href="https://itsfoss.com/how-to-remove-or-delete-ppas-quick-tip/">https://itsfoss.com/how-to-remove-or-delete-ppas-quick-tip/</a>). Just use the commands below:

sudo apt-get remove ukuu

And to remove the PPA from the software sources list, use the command below:

sudo add-apt-repository --remove ppa:teejee2008/ppa

That's it.

# How do you upgrade Linux kernel?

Ukuu is a nice graphical tool for easily upgrading Linux kernel in Ubuntu based Linux distributions. It works like a charm and sticks to what it is intended for. I hope this tutorial was helpful to show you how to upgrade Linux kernel easily.

So, do you often upgrade Linux kernel on your own or do you wait for your distribution to provide the upgrade? How do you do it?



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About Abhishek Prakash

I am a professional software developer, and founder of *It's FOSS*. I am an avid Linux lover and open source enthusiast. I use Ubuntu and believe in sharing knowledge. Apart from Linux, I love classic detective mysteries. I'm a huge fan of Agatha Christie's work.

27 comments

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## Zack Alger

5 days ago

I have followed these steps for my Razer Blade Stealth 13" running Ubuntu 18.04LTS. It will not boot into any version other than the one I started with and complains that "you need to load the kernel first". I have search high and low on the web and can't find what this means or how to fix it:/ Any suggestions?

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## Rahul Singh

2 months ago

these are not working for me, am using lenovo ideapad 330

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### Angki Pranamukti

### It's FOSS

2 months ago

Hi thank you bro for nice information!

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#### chris

3 months ago

Great tool – especially for Mint where the Update Manager kernel tool is generally wrong. Mine shows 3.13.0-37-generic as 'loaded' which apparently is the default when it does not understand the current kernel. I'm actually on 4.19.1....

Vote: Share ▼

#### Pedro

4 months ago

Hey, awesome guide, Prakash!

I was fighting against my linux mint OS – I'd bricked it twice while trying to resolve wacom tablet issues – but simplying updating my kernel resolved everything. Thanks a lot for sharing your knowledge... since I've started using Linux, I felt in love for its smoothness.

Thanks:)

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