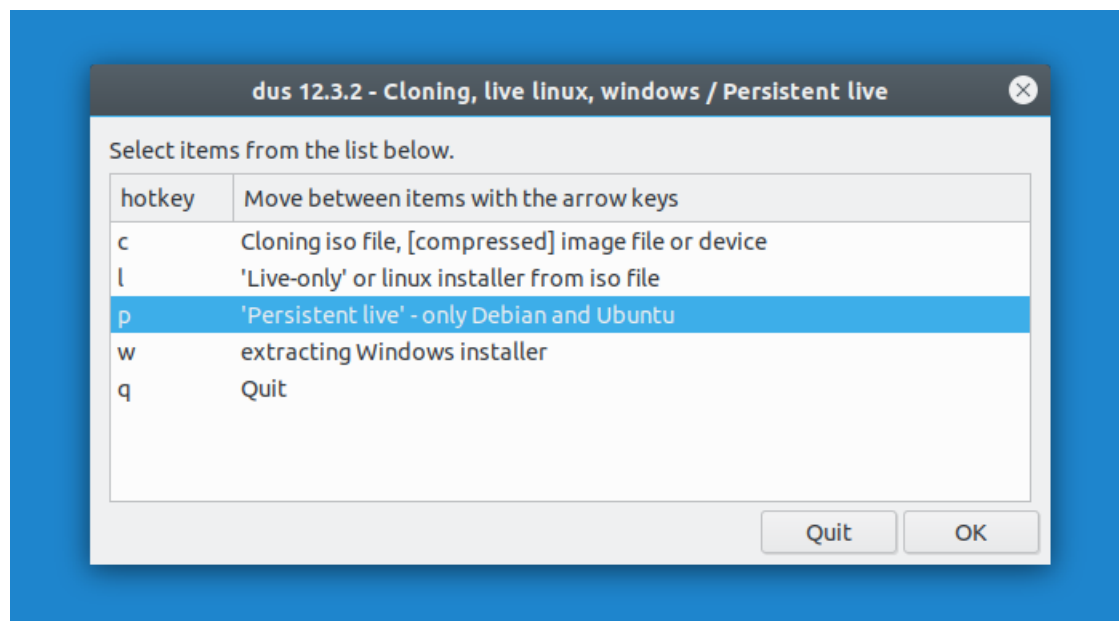


Create A Persistent Storage Live USB With Ubuntu, Linux Mint Or Debian (UEFI, >4GB Persistence Support)



When you create a regular Linux live USB, you can install software, download files, make changes to the system, and so on, but all of these changes are lost after a reboot. A persistent live USB allows saving any changes you make to the live system, so the they are still present the next time you boot to it.

This article explains creating a persistent live USB with Ubuntu (and flavors like Kubuntu, Xubuntu, Ubuntu MATE, etc.), Linux Mint, Debian or elementary OS (it should work with any Debian or Ubuntu based Linux distribution), using [mkusb](#). You'll need to be running Ubuntu, Linux Mint or Debian to install mkusb (it seems you may be able to install mkusb on other Linux distributions, but there's no list of dependencies to install manually, and it may or may not work).

mkusb can create persistent live drives that work in both UEFI and BIOS mode. The persistence storage partition created by mkusb uses casper-rw, so it can have a size of more than 4 GB, unlike some other similar tools.

This tool can not only create persistent storage live USB drives, but also regular bootable live USBs of Linux distributions, wipe a device, and more. The only downside of mkusb is its user interface, which uses Zenity and can be a bit confusing, but other than that the application works great.

A few related articles from Linux Uprising that might interest you:

- [bootiso: Easy ISO To Bootable USB Drive From The Command Line \(from Linux or Windows ISOs\)](#)
- [How To Encrypt An USB Drive With VeraCrypt \(Compatible With Windows, macOS and Linux\)](#)
- [How To Customize Ubuntu Or Linux Mint Live ISO With Cubic](#)

How to install and use mkusb to create a persistent storage live USB with Ubuntu, Linux Mint or Debian

1. Install [mkusb](#) on Ubuntu, Linux Mint or Debian

In **Ubuntu, Linux Mint, elementary OS and other Ubuntu-based Linux distributions or flavors**, mkusb can be installed by using its official PPA:

```
sudo add-apt-repository ppa:mkusb/ppa
sudo apt update
sudo apt install --install-recommends mkusb mkusb-nox usb-pack-efi
```

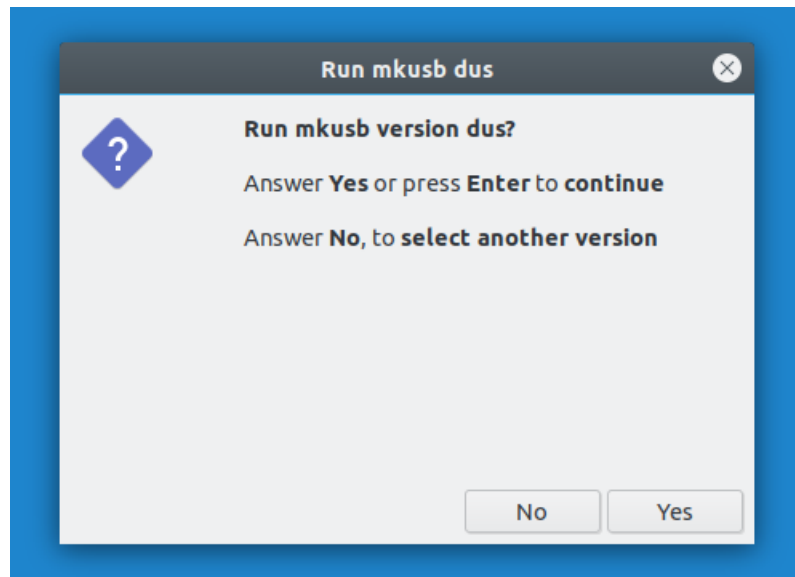
For **Debian**, the mkusb developer recommends using the same Ubuntu PPA. That's because mkusb is only a series of scripts which don't depend on specific Ubuntu package versions, so it works on Debian (unlike most PPA repositories). Manually add the mkusb PPA and install this tool in Debian:

```
echo "deb http://ppa.launchpad.net/mkusb/ppa/ubuntu bionic main" | sudo tee /etc/apt/sources.list.d/mkusb.list
```

```
sudo apt-key adv --keyserver keyserver.ubuntu.com --recv 54B8C8AC
sudo apt update
sudo apt install --install-recommends mkusb mkusb-nox usb-pack-efi
```

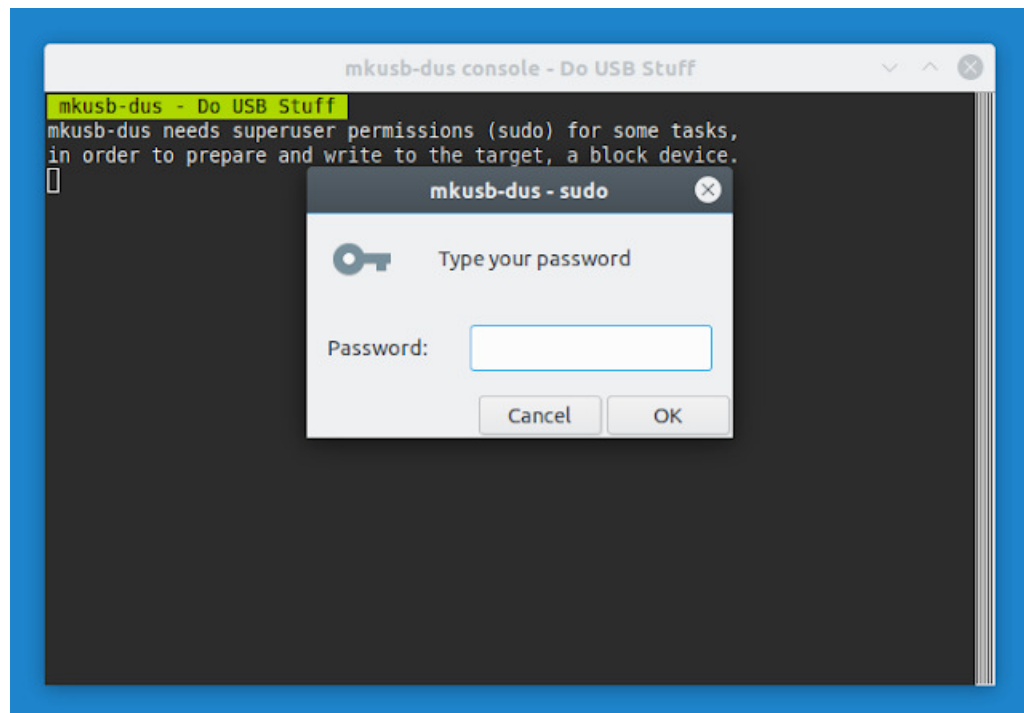
You may also install mkusb on other Linux distributions, but the installation may require installing some packages manually, etc. See the [mkusb wiki page](#) for how to do this.

2. Launch mkusb from the applications menu. When it starts, the application asks you if it should run the `dus` version of mkusb (a revamped interface of mkusb), or another version:



In this dialog press `YES` to continue with the "dus" version.

3. Next, you'll see a mkusb window that asks to enter your password on top of a terminal window:



Enter your password and press `OK` to continue. Make sure you don't close the terminal window, as that's where mkusb runs the commands required to create a persistent storage, bootable live USB!

4. mkusb will now present a list of options:

[make bootable usb](#)

Select the first one - `Install (make a boot device) -`, and press `OK` to continue.

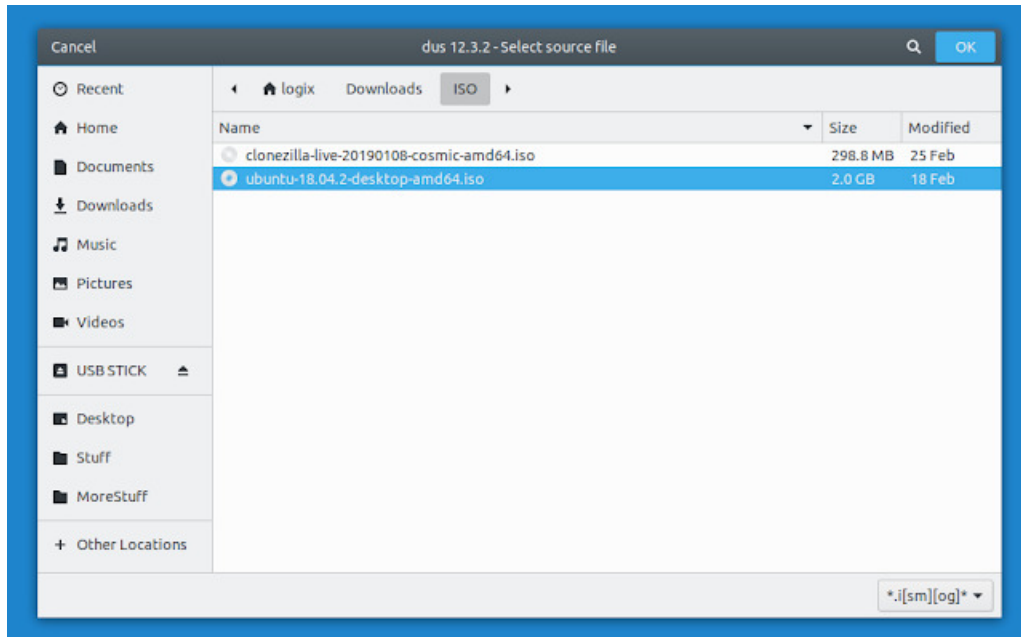
5. Next, another list of options is presented:

[create persistent live usb debian ubuntu](#)

To create a persistent storage live USB, click on the third option - `'Persistent live' - only Debian and Ubuntu`

-, and click ok.

6. mkusb will now ask you to select an ISO or IMG file:

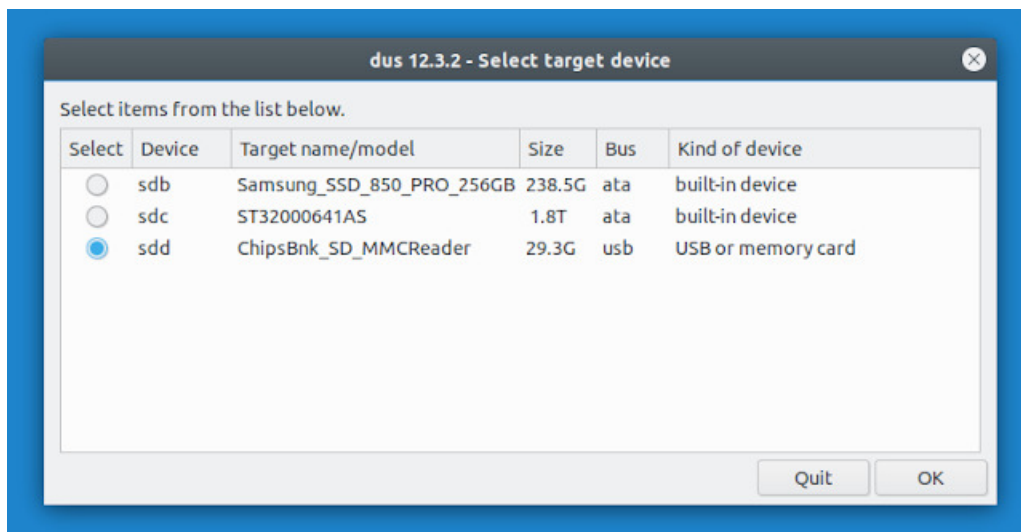


Select the Ubuntu (including Kubuntu, Xubuntu, Ubuntu MATE, Lubuntu, Ubuntu Budgie, etc.), Debian or Linux Mint (Cinnamon, MATE or Xfce) image from your filesystem, and click ok to continue.

7. For the next step, mkusb will present a list of storage devices. Make sure to select an USB or some other removable drive in this step, and

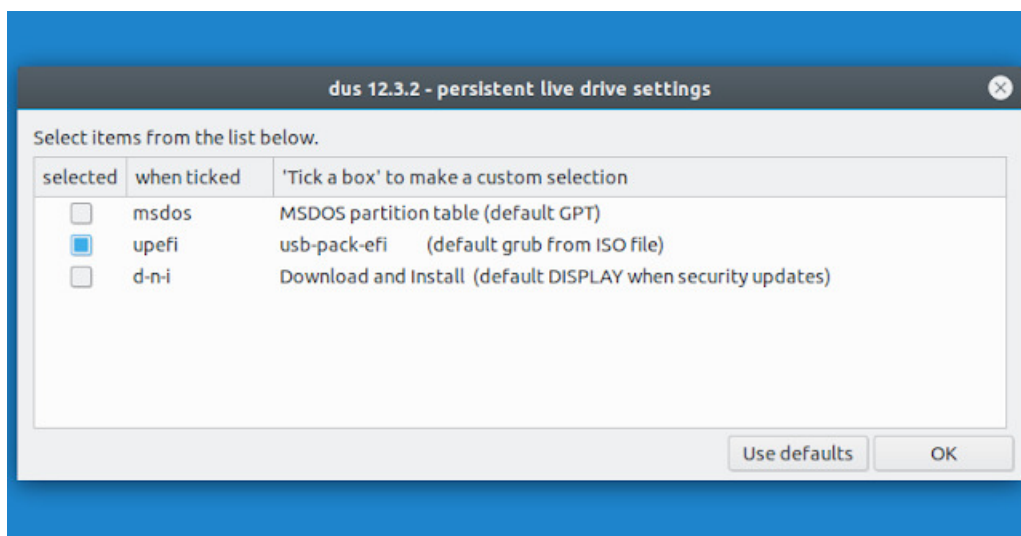
not your HDD/SSD

:



Double check that you've selected the correct target device (all data on the selected storage device will be lost!), and click ok to continue.

8. mkusb will now present some persistent live drive settings:



In this dialog you can enable `uEFI` (comes from the package named `usb-pack-efi`, used by `mkusb`), in which Grub works in UEFI and BIOS mode. You can also enable the `msdos` option, which can help with some HP computers that can't boot with Grub and GPT. Click `OK` when you're done.

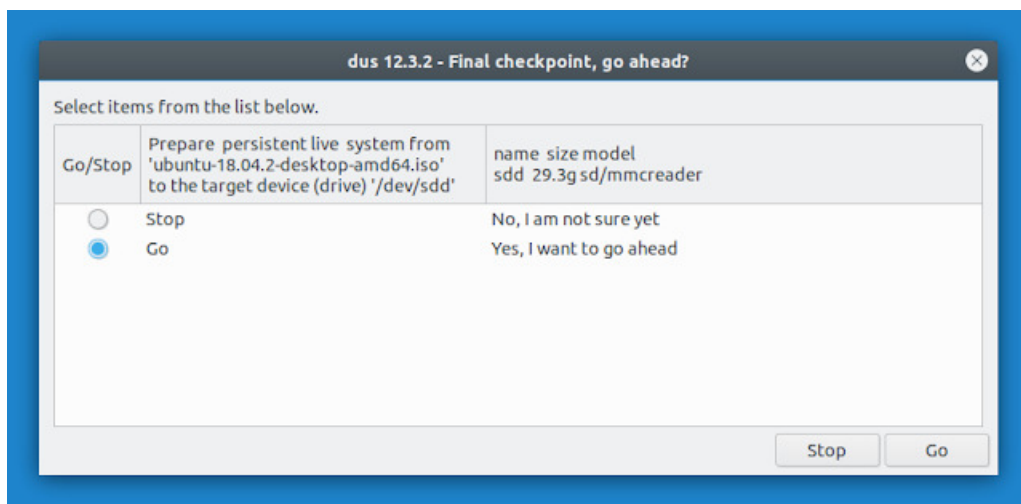
9. It's now time to select the percentage of available space for persistence:

[usb persistence settings](#)

This is the space that will be available for the Linux distribution you're going to install on the USB stick. Drag the slider to the desired persistence percentage and press the `OK` button. Don't worry about the size of the persistence partition, `mkusb` doesn't have the maximum 4 GB persistent storage limit present in some other bootable USB creators.

The remaining storage space on the USB drive will be used for a new `usbdata` partition that's formatted as NTFS, which can be accessed from Linux, Windows and macOS - use this partition to store data on the USB drive that you want to access from other operating systems.

10. In this final step you'll be presented with a confirmation screen:



If you're sure you've selected the correct storage device and ISO file, you can now proceed to start creating the persistent live USB.

Select the line that says `Go` (Yes, I want to go ahead) and press the `Go` button at the bottom of the window. After this, `mkusb` will start creating the persistent storage Ubuntu, Linux Mint or Debian live USB.

Now boot the new live USB and select one of the Grub menu entries that says "persistence" (there will also be some non-persistence Grub menu items).

inspired by [El Atareao](#)