User Guide

Linux Mint

Apr 27, 2026

SOFTWARE

This is the Linux Mint User Guide.

This Guide is not final. Content is being added slowly but surely :)

CHAPTER

ONE

UPDATE MANAGER

The Update Manager provides your operating system with software and security updates.

Updates are important because they keep your computer safe, eliminate bugs and can even add new features to your operating system.

Unfortunately they also sometimes introduce new issues called 'regressions', which can break things which worked well before.

To keep your computer safe and in good working condition, it is recommended to apply all available updates and to set up system snapshots, so that you can restore your system in case something goes wrong.

1.1 Core concepts

1.1.1 Software regressions

Updates keep your computer safe, eliminate bugs and even sometimes add new features to your operating system.

Unfortunately they also sometimes introduce new issues called 'regressions'.

Regressions are very common in the software industry. They're inherent to software development. Code changes can cause regressions. No matter how skilled developers are, they can't always predict every possible situation or test on every possible hardware specification.

When a regression happens, it breaks something which worked well before.

Sometimes it doesn't really matter, but sometimes it matters a lot.

It depends on what part of the operating system is affected and whether or not you're able to work around it or to fix it.

Say, the PDF reader is no longer able to print. Well, it's annoying… but it's not as problematic as if your network connection stopped working or if you were suddenly unable to boot the computer or to login.

In the latter case, it can be very problematic if you're not experienced with Linux and you don't know how to troubleshoot.

1.1.2 System snapshots

Timeshift, the system snapshot utility, is available in all versions of Linux Mint.

It can be used to create snapshots manually but also to automate system snapshots.

Linux Mint recommends the automation of daily and boot snapshots.

If an update, a mistake, a bug or a malicious program breaks something on your computer, you can restore the operating system from any snapshot, thus cancelling the problem as if it never happened.

Note: System snapshots only cover the operating system itself. They do not include or affect your personal data.

1.1.3 The different types of updates

There are different types of updates:

- 'Software updates' are updates which fix bugs (or also sometimes which bring new features).
- 'Security updates' are updates which patch vulnerabilities.
- 'Kernel updates' represent the installation of a newer kernel.

Security is very important but also very technical. Vulnerabilities don't always affect your computer and can be quite difficult to understand. Most people don't understand them at all and their personal computers are rarely at risk. That said, a security breach can have dire consequences, so it is always recommended to take them seriously.

Software updates aren't as important. They bring bug fixes or improvements which are not related to security.

Note: In Linux Mint, kernel updates bring both security patches and bug fixes (and sometimes even new features), and they impact critical parts of the operating system. This makes kernel updates important from a security point of view, but also prone to regressions which can be hard to fix for novice users.

1.2 Kernel updates

The kernel is the central part of the operating system. Among other things, it is responsible for hardware support.

Note: In Linux Mint, kernel updates bring both security patches and bug fixes (and sometimes even new features), and they impact critical parts of the operating system. This makes kernel updates important from a security point of view, but also prone to regressions which can be hard to fix for novice users.

From a security point of view, it is important to apply kernel updates.

A kernel regression could however affect your ability to connect to the Internet, to start your desktop environment or even to boot the operating system.

For this reason it is important to be cautious when applying kernel updates and to know how to revert them when something goes wrong.

1.2.1 Multiple kernels can be installed

When you apply an update, you replace the old version of the software with the new version.

Things are different when it comes to kernels. When you apply a "kernel update", you don't actually update the kernel, you install a new kernel alongside the existing one.

Every time you apply a kernel update, you install a new kernel on the system, without removing the old ones.

At boot time, the computer selects the most recent one.

1.2.2 Identifying the current kernel

If you want to know which kernel you are currently using, open a terminal and type:

```
uname -a
```

1.2.3 Installing and removing kernels

You can install and remove kernels from the Update Manager.

Select "View" -> "Linux Kernels" in the menu.

Note: You cannot remove the kernel you are currently using. To remove it, you need to reboot and select a different kernel to boot with.

1.2.4 Selecting a kernel

You can have multiple kernels installed, but you can only run one kernel at a time.

When you boot the computer, the very first screen is called the Grub menu. This menu allows you to choose operating systems but you can also use it to select a kernel.

Note: If you only have one operating system installed, your boot sequence might skip the Grub menu. To force the Grub menu to show, boot the computer and keep pressing the left Shift key.

To select a kernel, choose "Advanced options" in the Grub menu. You should see all the kernels currently installed. Select the one you want to use and your computer will boot with that one.

1.2.5 Checking the DKMS status

The kernel includes all open source drivers and these usually work very well. Proprietary drivers (NVIDIA, AMD, Broadcom…etc) are not included and they need to compile themselves against every kernel you install. This is done via a mechanism called DKMS.

If a proprietary driver isn't properly recompiled with DKMS for one of your kernels, it will not function correctly with that kernel.

After installing or removing a kernel, you can check your DKMS status, to make sure all proprietary drivers are properly installed for each of your kernels with the following command:

```
dkms status
```

Note: New kernel series usually become available before proprietary drivers support them via DKMS. If you are using proprietary drivers, it is recommended to stick to kernel updates and not to install kernels from series which are newer than the series of the recommended kernels.

1.2.6 Reverting a kernel update

If something doesn't work with the latest kernel you installed (or the latest kernel update), reboot, select the kernel you were previously using, remove the new kernel and reboot again.

1.3 Command line tools

The Update Manager provides a command line utility called *mintupdate-cli*.

If you are experienced with Linux, you can use this tool in your scripts or your cron jobs to automate the installation of software updates.

1.3.1 Listing updates

You can use the "list" command to list updates:

```
mintupdate-cli list
```

You can use -s to only show the security updates.

You can use -k to only show the kernel updates.

For instance, the following command lists all security updates:

```
mintupdate-cli list -s
```

1.3.2 Applying updates

You can use the "upgrade" command to apply updates, using the same options.

For instance, the following command applies kernel updates:

```
sudo mintupdate-cli upgrade -r -k
```

Note the -r argument, which was added to refresh the cache.

For more information on mintupdate-cli and a complete list of arguments, type:

```
mintupdate-cli -h
```

CHAPTER

TWO

SNAP STORE

The Snap Store, also known as the *Ubuntu Store*, is a commercial centralized software store operated by Canonical.

Similar to AppImage or Flatpak the Snap Store is able to provide up to date software no matter what version of Linux you are running and how old your libraries are.

2.1 Criticism

2.1.1 Centralized control

Anyone can create APT repositories and distribute software freely. Users can point to multiple repositories and define priorities. Thanks to the way APT works, if a bug isn't fixed upstream, Debian can fix it with a patch. If Debian doesn't, Ubuntu can. If Ubuntu doesn't Linux Mint can. If Linux Mint doesn't, anyone can, and not only can they fix it, they can distribute it with a PPA.

Flatpak isn't as flexible. Still, anyone can distribute their own Flatpaks. If Flathub decides they don't want to do this or that, anyone else can create another Flatpak repository. Flatpak itself can point to multiple sources and doesn't depend on Flathub.

Although it is open-source, Snap on the other hand, only works with the Ubuntu Store. Nobody knows how to make a Snap Store and nobody can. The Snap client is designed to work with only one source, following a protocol which isn't open, and using only one authentication system. Snapd is nothing on its own, it can only work with the Ubuntu Store.

This is a store we can't audit, which contains software nobody can patch. If we can't fix or modify software, open-source or not, it provides the same limitations as proprietary software.

2.1.2 Backdoor via APT

When Snap was introduced Canonical promised it would never replace APT. This promise was broken. Some APT packages in the Ubuntu repositories not only install snap as a dependency but also run snap commands as root without your knowledge or consent and connect your computer to the remote proprietary store operated by Canonical.

2.2 Disabled Snap Store in Linux Mint 20

Following the decision made by Canonical to replace parts of APT with Snap and have the Ubuntu Store install itself without users knowledge or consent, the Snap Store is forbidden to be installed by APT in Linux Mint 20.

Note: For more information read the announcements made in May 2020 and June 2019.

2.3 How to install the Snap Store in Linux Mint 20

Recommended or not, if you want to use the Snap Store, re-enabling and installing it is very easy.

```
sudo rm /etc/apt/preferences.d/nosnap.pref
apt update
apt install snapd
```

CHAPTER

THREE

WINDOWS ISOS AND MULTIBOOT USB

Whether you want to make a USB stick which can boot multiple ISOs or simply boot from a Windows ISO image, we recommend using Ventoy.

3.1 Ventoy

Ventoy is an open source tool which creates a special USB stick.

That stick contains an exFAT partition in which you can copy multiple ISO files and an EFI partition where Ventoy puts its bootable menu.

When you boot on the Ventoy USB stick, the menu lists all the ISOs you placed in the exFat partition and you can boot any of them.

3.1.1 Installation

Go to the Ventoy release page to find the latest version of Ventoy.

Download the *tar.gz* archive and decompress it.

Right-click the decompressed ventoy folder and choose *Open in terminal*.

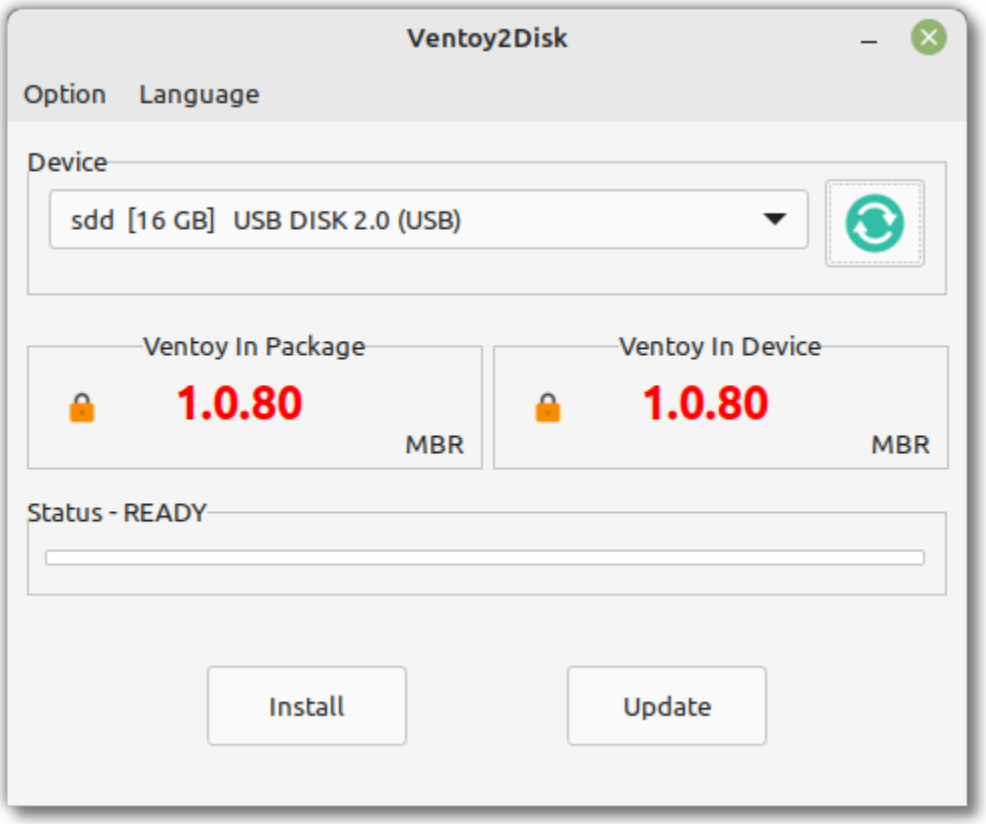
Run the following command to start Ventoy:

```
sudo ./VentoyGUI.x86_64
```

3.1.2 Using Ventoy

Choose the device which corresponds to your USB stick.

Press the *Install* button.



Once Ventoy is installed, your USB stick should now be called *ventoy*.

Mount it if's not already mounted.

Copy ISO files to the stick.

Boot on the Ventoy USB stick.

The ISOs you copied should appear as bootable options.

CHAPTER

FOUR

GRUB BOOT MENU

Grub is the boot menu.

If you have more than one operating system installed, it allows you to select which one to boot.

Grub is also useful for troubleshooting. You can use it to modify the boot arguments or to boot from an older kernel.

4.1 How to make the Grub menu always visible

If you only run Linux Mint and there are no other operating systems on the computer, the menu is hidden by default.

To make it visible, as root, add these lines to */etc/default/grub.d/90_custom.cfg*:

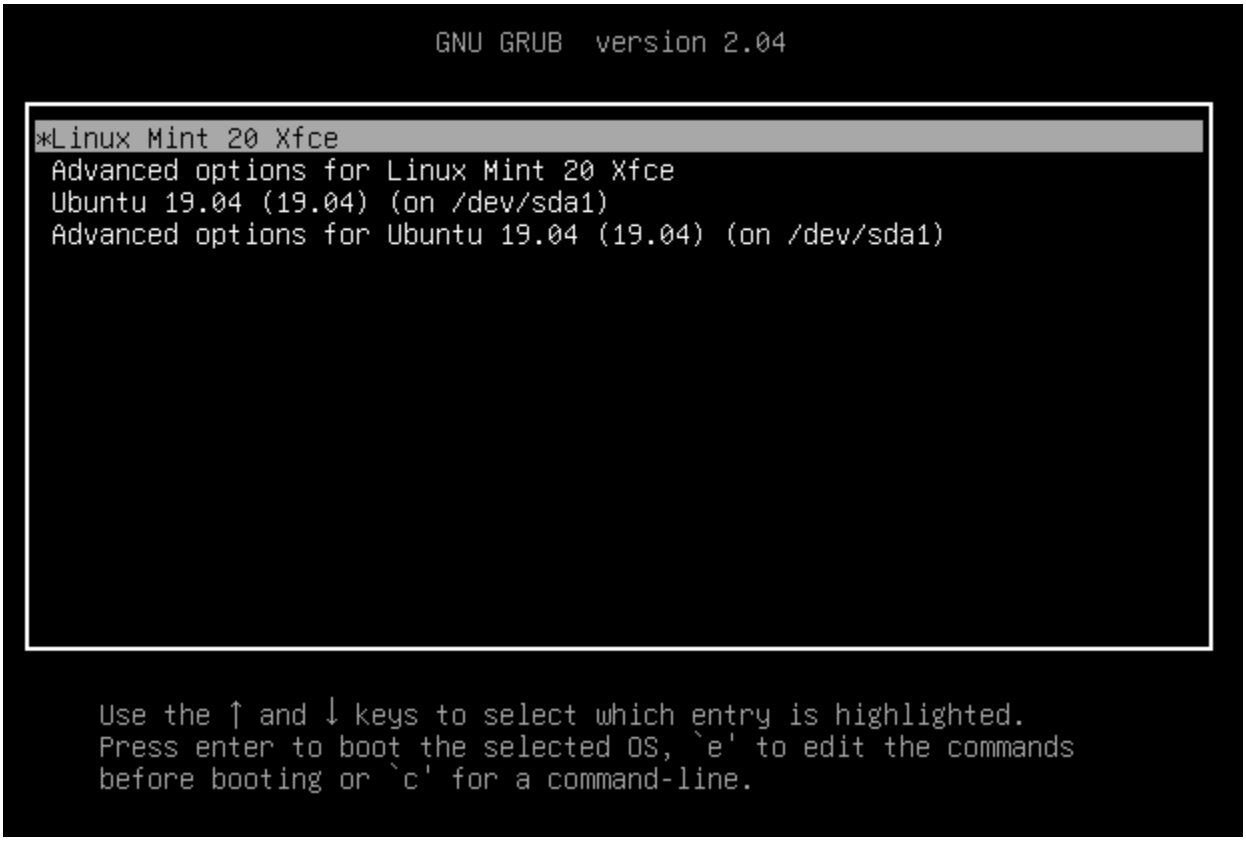
```
GRUB_TIMEOUT="5"
GRUB_TIMEOUT_STYLE="menu"
```

Then type the following commands in a terminal:

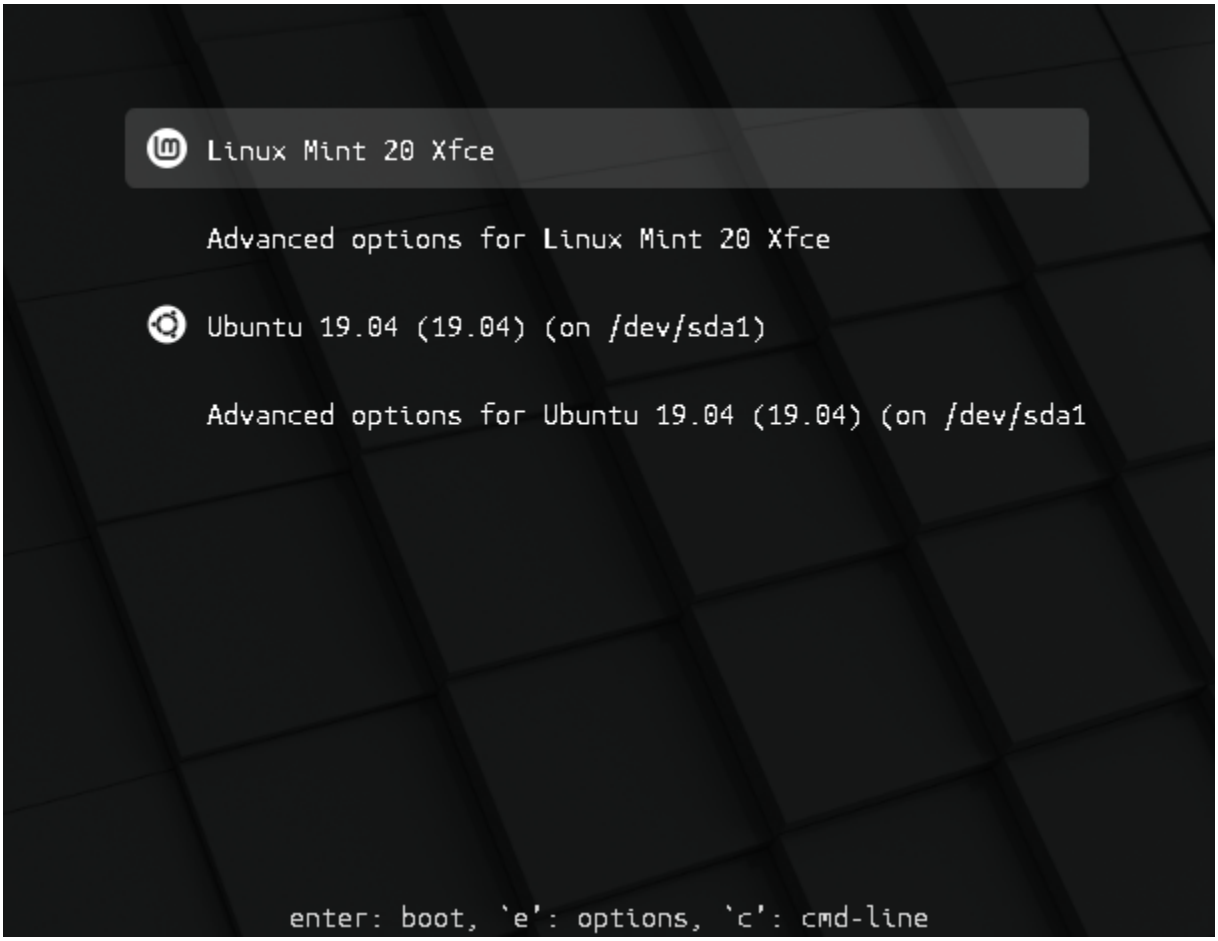
```
sudo update-grub
```

4.2 How to theme the Grub menu

For compatibility reasons, some releases sometimes ship without a Grub theme:



You can make it look like this:



To do so, open a terminal and type:

```
apt install --reinstall -o Dpkg::Options::="--force-confmiss" grub2-theme-mint
```

Or if you have a HiDPI screen, type this instead:

```
apt install --reinstall -o Dpkg::Options::="--force-confmiss" grub2-theme-mint-2k
```

CHAPTER

FIVE

BLUETOOTH

5.1 Enabling/disabling Bluetooth

5.1.1 Rfkill

Bluetooth can be disabled by using a software kill switch.

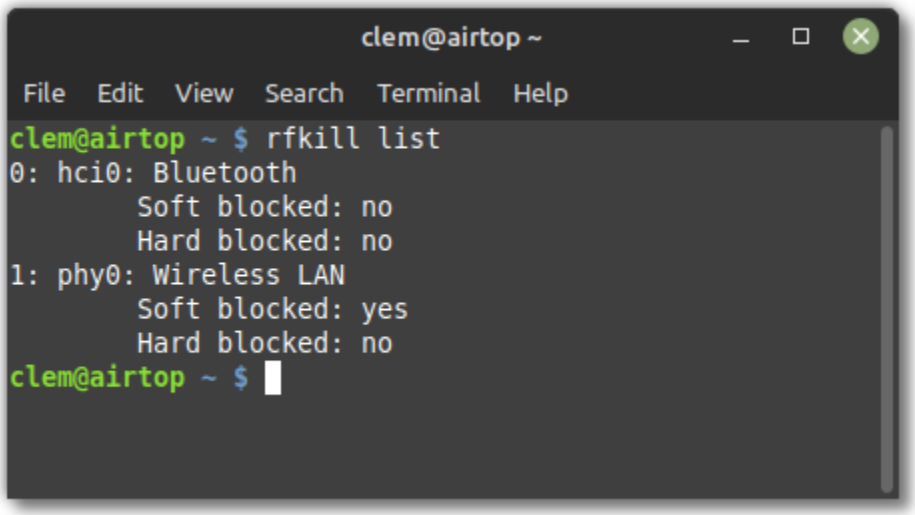
On some laptops, a hardware kill switch is also provided either via a special function key or key combination or a dedicated physical button or mechanism.

Using the *rfkill* command, you can see the state of these switches.

Open a terminal and type:

```
rfkill list
```

The output lists the state of software and hardware kill switches for all your wireless devices:



In the picture above you can see that Bluetooth is neither *Soft blocked* nor *Hard blocked* and is therefore enabled.

You can use rfkill to block (i.e. disable) or unblock (i.e. enable) bluetooth:

```
rfkill block bluetooth
rfkill unblock bluetooth
```

5.1.2 Blueman

Blueman is the default Bluetooth Manager in Linux Mint.

It provides the little Bluetooth icon in your system tray.

To disable Bluetooth right-click the tray icon and select *Turn Bluetooth Off*.

To enable Bluetooth right-click the tray icon and select *Turn Bluetooth On*.

To allow non-admin users on your system to disable or enable Bluetooth, they must be added to the `netdev` group. You can do this with `sudo adduser <username> netdev`.

The very first time you open Blueman it asks if Bluetooth should be enabled automatically.

To check whether this feature is enabled open a terminal and type:

```
gsettings get org.blueman.plugins.powermanager auto-power-on
```

If *auto-power-on* is set to *true*, Blueman automatically unblocks Bluetooth at startup. Note that this setting is user-specific.

If you want to disable Bluetooth at startup you need to set *auto-power-on* to *false*:

```
gsettings set org.blueman.plugins.powermanager auto-power-on false
```

Note: The *auto-power-on* option was recently removed in Blueman's master branch. It's still present in Blueman 2.3.5 but it's likely to disappear in newer versions.

5.1.3 Systemd-rfkill

Systemd provides a service which saves the state of your kill switches during shutdown and restores them on the next boot.

This service is a core part of systemd and is installed in Linux Mint by default.

Note: Blueman runs after systemd-rfkill, so if Blueman's *auto-power-on* setting is enabled it overrides systemd-rfkill.

5.1.4 Bluez

Bluez is the Bluetooth stack used by Blueman.

Bluez has a setting called *AutoEnable* in the file */etc/bluetooth/main.conf*.

If you don't want Bluez to automatically enable Bluetooth during boot set this option to false.

CHAPTER

SIX

LOST PASSWORD

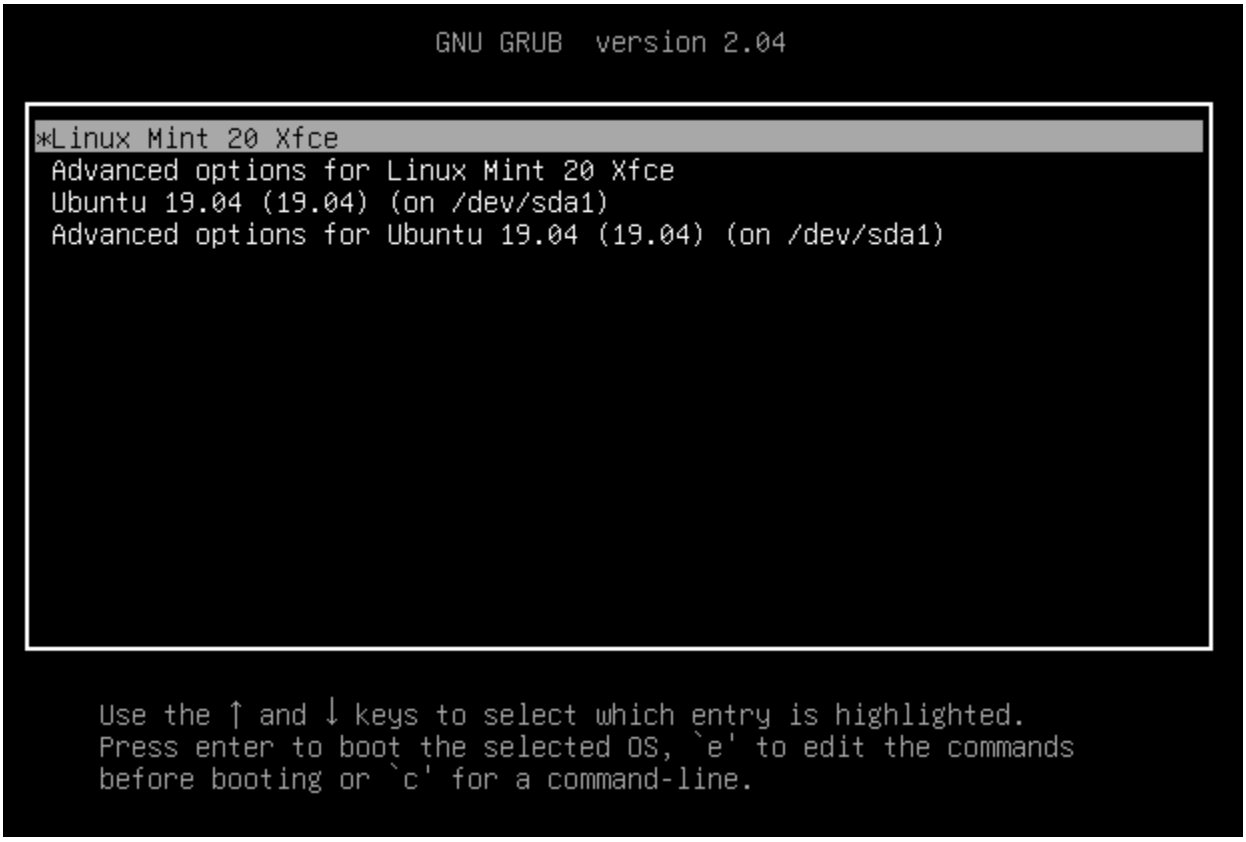
Warning: If your disk is encrypted it is not possible to reset the password. If your home directory is encrypted changing your login password won't help. Unless you made a backup of your encryption passphrase it is not possible to access the files.

If you forgot your password, and neither your partition nor your home directory are encrypted, there are two ways to reset it:

- Recovery mode
- Chroot from live ISO

6.1 Recovery Mode

Boot up the computer, and after the BIOS screen, hold down the left Shift key to force the boot menu to show up:

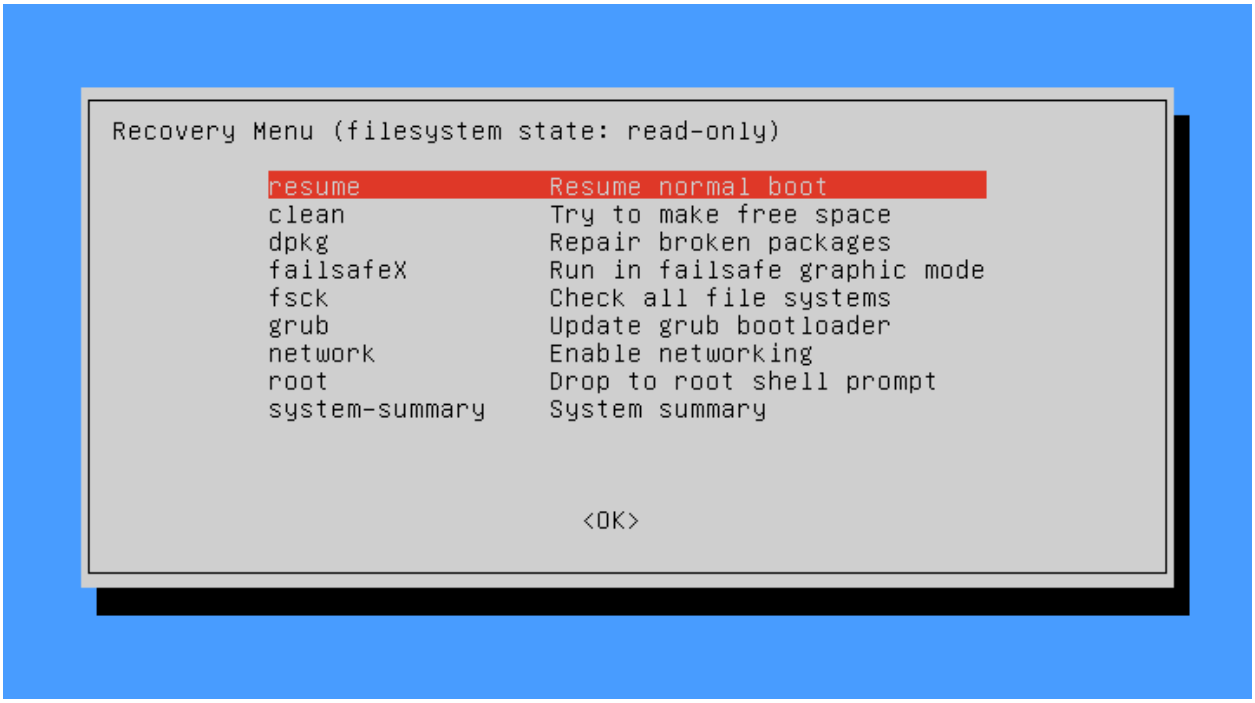


Note: On some computers you might need to press the Escape key instead.

Select the second entry from the top, the one that starts with *Advanced options*.

Then on the next screen, select the second entry again, the one that ends with *(recovery mode)*.

Linux Mint will then starts in recovery mode and present this menu:



Select *root* to get a root prompt and press Enter.

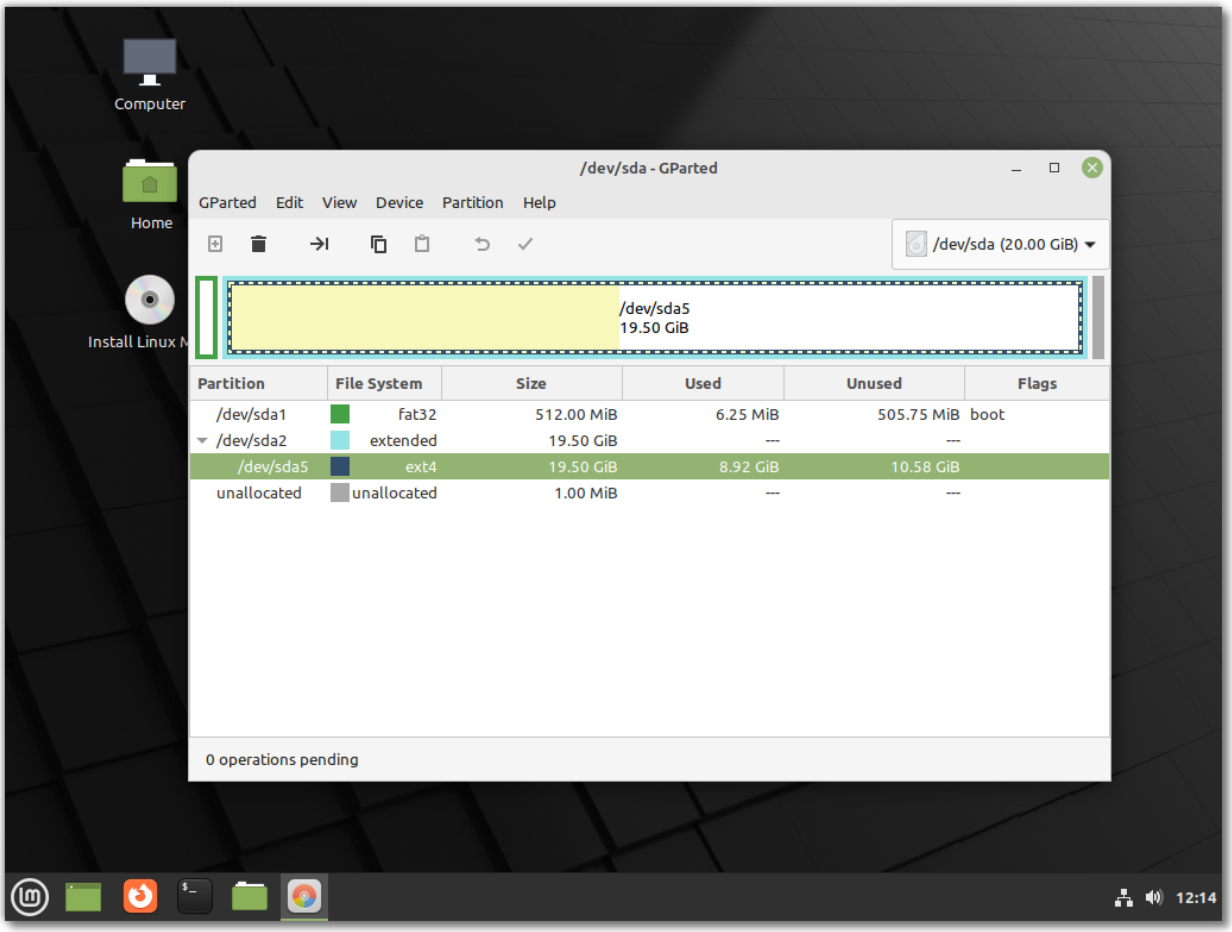
Use the passwd command to reset your password. Say your username is *joe*, type:

```
passwd joe
```

6.2 Chroot from Live ISO

Boot up the computer from the live ISO.

Once in the live session launch *Gparted* from the applications menu.



Identify your Linux Mint partition (usually a large ext4 partition). In the example above the Linux Mint partition is */dev/sda5*.

Open a terminal and type the following commands:

```
mkdir hdd
sudo mount /dev/sda5 hdd
sudo chroot hdd
mount -o remount,rw /
passwd joe
```

Replace */dev/sda5* with your Mint partition and *joe* with your username.

6.3 Forgotten username

If you can't remember your username type the following command, either in the chroot prompt or the recovery mode prompt:

```
ls /home
```

This command lists the directories in /home which usually corresponds to the list of usernames on the OS.

CHAPTER

SEVEN

PRINTERS AND SCANNERS

7.1 Driverless Printing and Scanning (IPP)

Since version 21, Linux Mint features driverless printing and scanning:

- Printers and scanners are detected and added automatically.
- Communication with the device is done via a standard protocol called *IPP*.
- No drivers are needed.
- Installed drivers are not used.

This standard protocol works with many devices, so for most printers and scanners, there is nothing to do. Everything just works out of the box.

To print a document open *File -> Print...* in your application.

To scan a document open *Document Scanner* from the application menu.

7.2 Manufacturer Drivers

If your device doesn't work well with *IPP* you can use drivers from your manufacturer instead.

In this case you need to:

- Disable *IPP*
- Install your manufacturer's drivers

7.2.1 Disabling IPP

IPP takes priority so as long as it's installed, drivers won't be used.

To remove IPP support from your computer open a terminal and type:

```
apt remove ipp-usb sane-airscan
```

7.2.2 Hewlett-Packard (HP)

The HP drivers are called *HPLIP*.

They are open-source and they already are installed by default in Linux Mint.

Installing hplip-gui

In addition to the already installed *hplip* driver, there is a package available in the Linux Mint repositories called *hplip-gui*.

This package provides the following utilities:

- An HP status tray icon
- HP Device Manager
- HPLIP Toolbox
- HPLIP Fax Utility
- Fax Address book

Although you do not need *hplip-gui* to use your HP device, it can provide extra information (such as ink levels) and help troubleshooting.

Installing the proprietary plug-in

Some HP printers require proprietary software technologies to allow full access to printer features and performance. Unfortunately, these technologies cannot be open sourced, but to resolve this HP uses a binary plug-in for these printers.

To see if your printer requires the HP plugin-in, check the list of devices at the HP Developer Website.

To install the plugin-in, open a terminal and type:

```
apt install python3-pyqt5
sudo hp-setup
```

Then follow the instructions written on that website.

7.2.3 Brands which provide .deb packages

The following brands provide Linux drivers for their printers and scanners in the form of *.deb* packages:

- Epson
- Lexmark
- Samsung
- Xerox

Look for Linux drivers on your manufacturer's website, download the packages and double-click them to install them with *Gdebi*.

Hint: When you have a choice between different package options, choose *.deb*. If you have a choice for the package architecture choose *amd64* (note that this is sometimes called *x86_64* or even just *64-bit*).

7.2.4 Canon

Canon provides Linux drivers for its printers and scanners. They have different websites for Europe, the USA and various countries.

When downloading drivers from Canon, choose the *debian Package archive* option.

If they come as *.tar.gz* archives, decompress them.

Canon driver archives usually contain an *install.sh* script which already has execution permissions. Run it and follow the instructions provided by Canon.

7.2.5 Brother

Brother provides a utility to download and install the right driver for you.

Download the utility, choose *deb* when asked.

Decompress it, give it permission to execute and run it in a terminal:

```
chmod a+rx ./linux-brprinter-installer*
sudo ./linux-brprinter-installer*
```

Then follow the instructions provided by Brother.

7.3 Troubleshooting

7.3.1 Adding IPP support

In Linux Mint 20.x *IPP* isn't installed by default.

If you want to give it a try, remove your printer using the *Printers* configuration tool.

Then install *ipp-usb* and *sane-airscan* from the repositories:

```
apt install ipp-usb sane-airscan
```

Finally reboot the computer.

7.3.2 Disabling network printers detection

Network printers are automatically added and reappear even if you remove them.

If you do not like this behaviour, remove the *cups-browsed* package.

7.3.3 Removing ippusbxd

ippusbxd was an early implementation of *IPP* over USB. It didn't work well and caused many issues. It was installed by default in Linux Mint 20. If this package is installed on your computer, make sure to remove it.

```
apt remove ippusbxd
```

Then reboot your computer.

7.3.4 Additional info

More information is available online on:

- ipp-usb
- sane-airscan

CHAPTER

EIGHT

UPGRADES

8.1 Your Version

To find your version of Linux Mint, open a terminal and type:

```
cat /etc/linuxmint/info
```

8.2 Long Term Support

Each major Linux Mint release is supported for 5 years.

Version	Supported until
19, 19.1, 19.2, 19.3	April 2023
20, 20.1, 20.2, 20.3	April 2025
21, 21.1, 21.2, 21.3	April 2027
22, 22.1, 22.2, 22.3	April 2029

8.3 Upgrade Paths

The table below shows the upgrade paths between the various Linux Mint releases.

From version	To version	Type of upgrade	Tutorial
17	17.3	Minor	https://blog.linuxmint.com/?p=2955
17.1			
17.2			
17.3	18	Major	https://community.linuxmint.com/tutorial/view/2316
18	18.3	Minor	https://blog.linuxmint.com/?p=3462
18.1			
18.2			
18.3	19	Major	https://community.linuxmint.com/tutorial/view/2416
19	19.3	Minor	https://blog.linuxmint.com/?p=3838
19.1			
19.2			
19.3	20	Major	https://linuxmint-user-guide.readthedocs.io/en/latest/upgrade-to-mint-20.html
20	20.3	Minor	https://blog.linuxmint.com/?p=4216
20.1			
20.2			
20.3	21	Major	https://linuxmint-user-guide.readthedocs.io/en/latest/upgrade-to-mint-21.html
21	21.3	Minor	https://blog.linuxmint.com/?p=4629
21.1			
21.2			
21.3	22	Major	https://linuxmint-user-guide.readthedocs.io/en/latest/upgrade-to-mint-22.html
22	22.3	Minor	https://blog.linuxmint.com/?p=4980
22.1			
22.2			

Note: There are no other upgrade paths than the ones listed above. For instance, you cannot upgrade version 21 to version 22 directly, you first need to upgrade it to 21.3, then to 22.

8.4 Types of upgrade

8.4.1 Minor

Upgrades from one point release to another point release within the same major version of Linux Mint are simple and easy to perform. They take just a few minutes.

8.4.2 Major

Upgrades from one major version to the next are usually more complex. They can take up to a few hours. They can require a certain level of knowledge and experience from the user.

8.4.3 Alternatives

If you cannot upgrade perform a fresh installation.

Generic instructions on fresh upgrades are also available.

CHAPTER

NINE

HOW TO UPGRADE TO LINUX MINT 20

This page explains how to upgrade from Linux Mint 19.3 to Linux Mint 20.

9.1 Requirements

9.1.1 64-bit architecture

Although both 32-bit and 64-bit versions of Linux Mint 19.3 are supported until April 2023, new releases of Linux Mint, including 20, are only available in 64-bit.

To upgrade to Linux Mint 20 you need to be running the 64-bit version of Linux Mint 19.3.

To check which version you're running type:

```
dpkg --print-architecture
```

If it says **amd64** you can upgrade to Linux Mint 20.

If it says **i386**, it means you're using the 32-bit version. In this case you cannot upgrade and you need to stick with Linux Mint 19.3.

9.1.2 Experience with APT

To upgrade to Linux Mint 20 you need experience with APT and the command line.

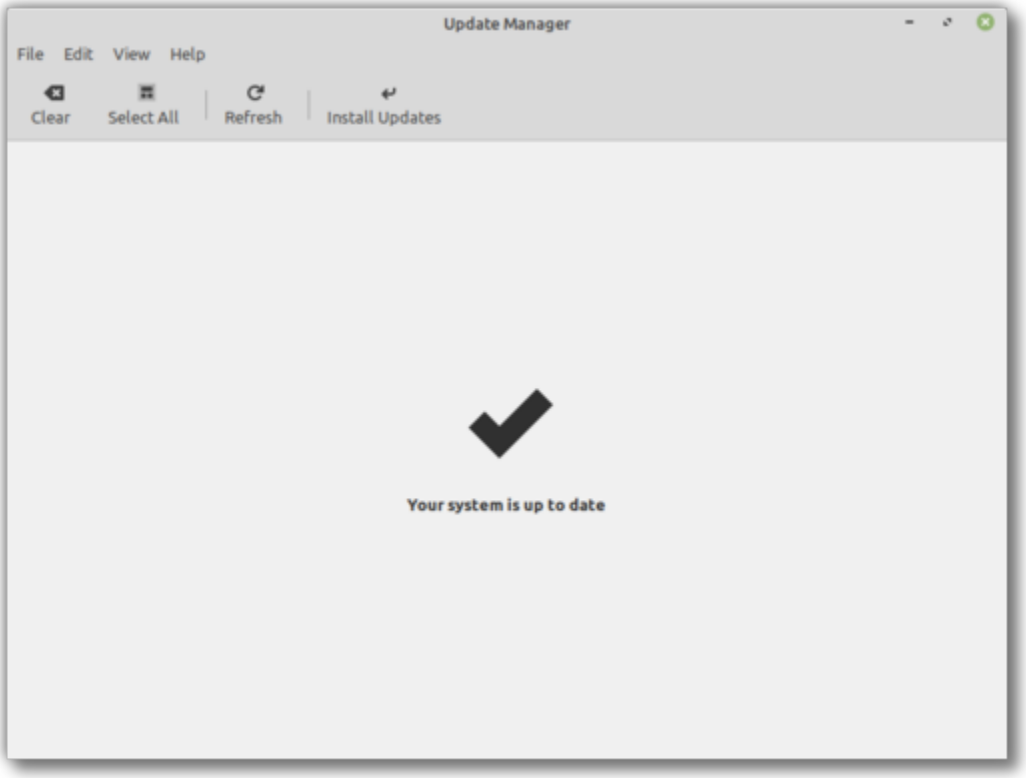
Upgrading to a newer package base is not trivial and it should not be performed by novice users.

You need to know how to type commands and read their output.

You also need to be experienced with APT. During the upgrade you'll need to understand the output of APT commands. You'll need to understand if a package needs to be removed, if it blocks the upgrade or if it conflicts with another package.

9.2 Preparation

9.2.1 Apply all package updates

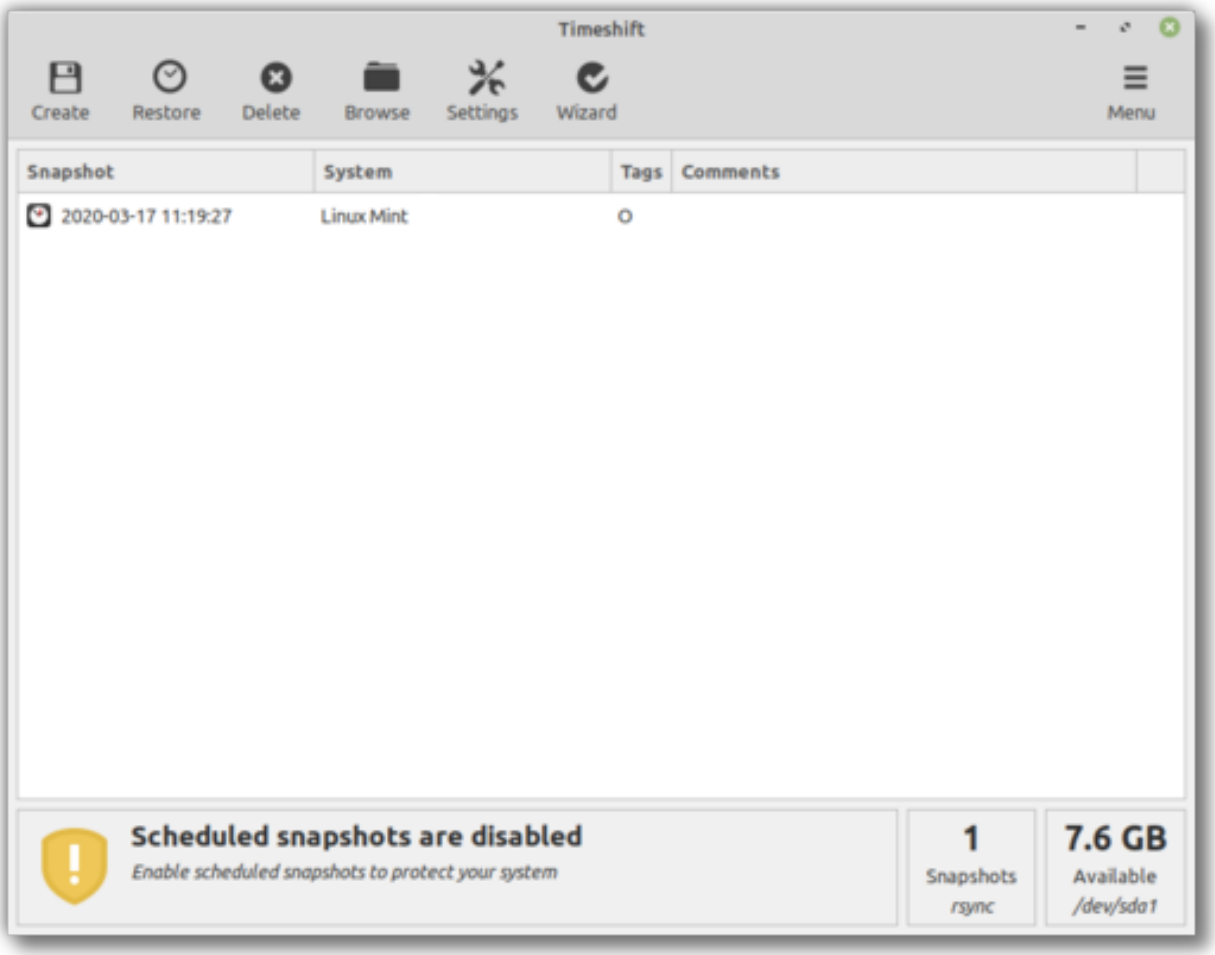


To apply all updates:

- Launch the Update Manager with *Menu* → *Administration* → *Update Manager*.
- Press the *Refresh* button to update the cache.
- Press the *Select All* button to select all updates.
- Press the *Install Updates* button.
- Follow the instructions from the Update Manager and install all updates until the manager tells you the system is up to date.
- Reboot the computer.

9.2.2 Create a system snapshot

If anything breaks or if anything goes wrong during the upgrade, you can go back in time and revert all changes by restoring your latest system snapshot. Whatever happens, you're covered. You'll be able to restore your operating system to this current state, either from within Linux Mint, or by launching Timeshift from a live Mint session (live DVD or live USB).



To create a system snapshot:

- Launch Timeshift with *Menu* → *Administration* → *Timeshift*.
- Follow the wizard to select a destination for your snapshots.
- In the toolbar, click on the *Create* button to make a manual snapshot of your operating system.

9.2.3 Purge PPAs and 3rd party repositories

PPAs or 3rd party repositories can introduce issues during the upgrade if the versions of the packages they provide are higher than in Linux Mint 20. This can result in unmet dependencies, held packages or resolver issues.

To purge 3rd party packages follow these steps:

- Launch the Software Sources tool from *Menu* → *Administration* → *Software Sources*.
- Open the *Additional repositories* tab and disable all additional repositories.
- Open the *PPA* tab and disable all PPAs.
- Click on the button to refresh your APT cache.
- Open the *Maintenance* tab and click on *Downgrade Foreign Packages*.
- Select all foreign packages and click *Downgrade*.

- Click on *Remove Foreign Packages*.
- Select all foreign packages and click *Remove*.
- Reboot the computer.
- Create another Timeshift snapshot.

Note: This step is optional but it is strongly recommended. Some PPAs are perfectly fine, some aren't. Some only add packages and don't impact the upgrade process, others introduce dependencies which cannot be resolved.

You can leave some foreign packages installed or in their 3rd party version and try to upgrade if you want. If it works, then great. If it doesn't, you can always restore the previous snapshot and follow the steps above to purge them before trying again.

9.3 Upgrade

9.3.1 Install the upgrade tool

To install the upgrade tool, open a terminal and type:

```
apt install mintupgrade
```

9.3.2 Check the upgrade

To simulate an upgrade, open a terminal and type:

```
mintupgrade check
```

Then follow the instructions on the screen.

This command temporarily points your system to the Linux Mint 20 repositories and calculates the impact of an upgrade.

Note that this command doesn't affect your system. After the simulation is finished, your original repositories are restored.

The output shows you if the upgrade is possible, and if it is, which packages would be upgraded, installed, removed and kept back.

Note: It is extremely important that you pay close attention to the output of this command.

Keep using **`mintupgrade check`** and do not proceed to the next step, until you're happy with the output.

Hint: If this steps fails half-way through type **`mintupgrade restore-sources`** to go back to your original APT configuration.

9.3.3 Download the package updates

To download the packages necessary to upgrade, type the following command:

```
mintupgrade download
```

Note that this command doesn't actually perform the upgrade itself, but just downloads the packages.

9.3.4 Apply the upgrades

Warning: This step is non-reversible. Once you perform it, the only way to go back is by restoring a system snapshot.

To apply the upgrades, type the following command:

```
mintupgrade upgrade
```

9.3.5 Downgrade foreign packages

Some of your packages might have a lower version in Linux Mint 20 than in Linux Mint 19.3. To guarantee they function properly, they need to be downgraded.

- Launch the Software Sources tool from *Menu* → *Administration* → *Software Sources*.
- Open the *Maintenance* tab and click on *Downgrade Foreign Packages*.
- Select all foreign packages and click *Downgrade*.

9.3.6 Delete foreign packages

Some packages no longer exist in Linux Mint 20 and can safely be removed.

- Launch the Software Sources tool from *Menu* → *Administration* → *Software Sources*.
- Open the *Maintenance* tab and click on *Remove Foreign Packages*.
- With the exception of packages you want to keep, select all foreign packages and click *Remove*.

9.4 Troubleshooting

9.4.1 Installing mintupgrade

If you can't find *mintupgrade* in the repositories, switch to the default Linux Mint mirror and refresh the APT cache.

9.4.2 Restoring a snapshot

A known issue affects Timeshift. When restoring a snapshot, if the *Disclaimer* window is empty, wait for about 2 minutes for the text to appear. Once the disclaimer text is there you can press *Next* and restore your snapshot. Pressing *Next* before the text appears results in a failure to restore. If you did, reboot and try to restore again.

9.4.3 Skipping the timeshift requirement

If you're using another snapshot tool and would rather not use Timeshift, you can skip the Timeshift requirement with the following command:

```
echo "{}" | sudo tee /etc/timeshift.json
```

Don't forget to remove that file after the upgrade if you want Timeshift to work properly.

9.4.4 Computer freeze

On some computers the upgrade can be quite intensive and it can temporarily freeze the desktop. This can last for up to 10 minutes at times or even take hours on slow computers. This is OK, be patient and give it time.

If this becomes a problem, logout completely, drop to console with `CTRL+ALT+F2` and run **`mintupgrade upgrade`** from there instead.

9.4.5 Broken boot

If the computer no longer boots, boot from the live Linux Mint 19.3 ISO.

From the live session, launch *Boot Repair* and use it to fix the boot sequence.

If this doesn't work, boot from the live Linux Mint ISO again, and launch *Timeshift*.

Timeshift is able to scan your drives from the live session and restore your snapshot from there.

9.4.6 Boot warnings

You can ignore boot warnings related to *ACPI* or *initramfs unpacking*. They're cosmetic and do not affect the boot sequence.

9.5 Notes

The upgrade overwrites files in */etc/* with default configuration files. You can restore files indivually by the Timeshift snapshot you made prior to upgrading.

To restore your lightDM settings, run the Login Window configuration tool (**`sudo lightdm-settings`**).

9.6 Alternatives

If you cannot upgrade perform a fresh installation.

Generic instructions on fresh upgrades are also available.

CHAPTER

TEN

HOW TO UPGRADE TO LINUX MINT 21

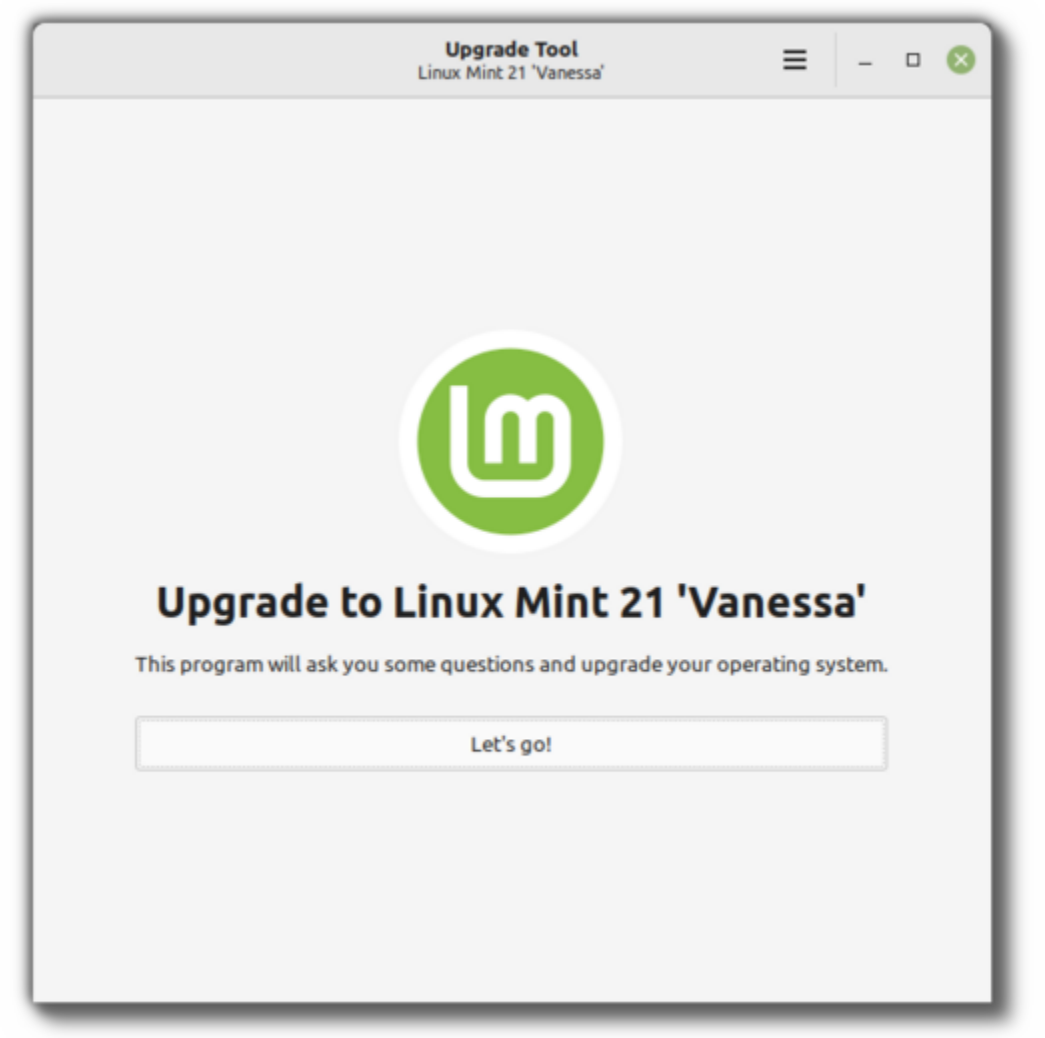
This page explains how to upgrade from Linux Mint 20.3 to Linux Mint 21.

First, refresh your cache and install the Upgrade Tool by typing the following commands in a terminal:

```
apt update
apt install mintupgrade
```

Then type the following command to launch the Upgrade Tool:

```
sudo mintupgrade
```



Follow the instructions on the screen.

When the tool is done and the upgrade is successful uninstall it and reboot your computer.

```
apt remove mintupgrade
sudo reboot
```

This is a major upgrade. It can take several hours.

You will be asked to be up to date and to prepare system snapshots. Do not rush, do not take shortcuts.

Don't hesitate to seek help if you have questions or if you face problems with the upgrade.

10.1 Troubleshooting

10.1.1 Installing mintupgrade

If you can't find *mintupgrade* in the repositories, switch to the default Linux Mint mirror and refresh the APT cache.

10.1.2 Repairing boot

If the computer no longer boots, boot from the live Linux Mint 21 ISO.

From the live session, launch *Boot Repair* and use it to fix the boot sequence.

If this doesn't work, boot from the live Linux Mint ISO again, and launch *Timeshift*.

Timeshift is able to scan your drives from the live session and restore your snapshot from there.

10.2 Notes

The upgrade overwrites files in */etc/* with default configuration files. You can restore files indivually by the Timeshift snapshot you made prior to upgrading.

To restore your lightDM settings, run the Login Window configuration tool (`sudo lightdm-settings`).

10.3 Alternatives

If you cannot upgrade perform a fresh installation.

Generic instructions on fresh upgrades are also available.

CHAPTER

ELEVEN

HOW TO UPGRADE TO LINUX MINT 22

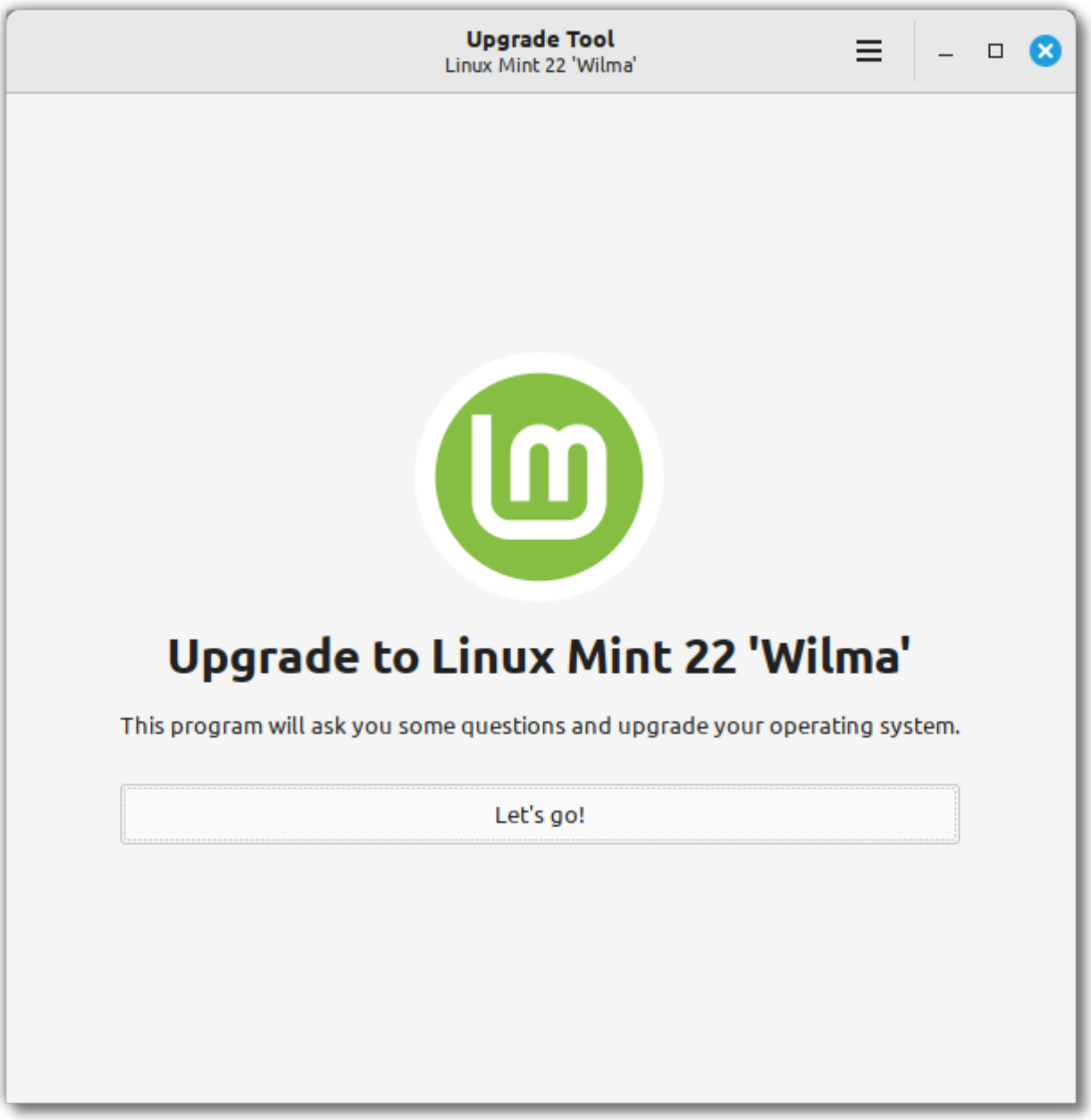
This page explains how to upgrade from Linux Mint 21.3 to Linux Mint 22.

First, refresh your cache and install the Upgrade Tool by typing the following commands in a terminal:

```
apt update
apt install mintupgrade
```

Then type the following command to launch the Upgrade Tool:

```
sudo mintupgrade
```



Follow the instructions on the screen.

When the tool is done and the upgrade is successful uninstall it and reboot your computer.

```
apt remove mintupgrade
sudo reboot
```

This is a major upgrade. It can take several hours.

You will be asked to be up to date and to prepare system snapshots. Do not rush, do not take shortcuts.

Don't hesitate to seek help if you have questions or if you face problems with the upgrade.

11.1 Troubleshooting

11.1.1 Installing mintupgrade

If you can't find *mintupgrade* in the repositories, switch to the default Linux Mint mirror and refresh the APT cache.

11.1.2 Repairing boot

If the computer no longer boots, boot from the live Linux Mint 22 ISO.

From the live session, launch *Boot Repair* and use it to fix the boot sequence.

If this doesn't work, boot from the live Linux Mint ISO again, and launch *Timeshift*.

Timeshift is able to scan your drives from the live session and restore your snapshot from there.

11.2 Notes

During the upgrade the font rendering will break and your fonts will become unreadable. The upgrade tool is protected against this issue and is not impacted. Do not interrupt the upgrade. Do not close the terminal attached to it. Ignore the issue until the upgrade is finished. For more information on this issue read Unreadable fonts during the upgrade.

The upgrade overwrites files in */etc/* with default configuration files. You can restore files individually by the Timeshift snapshot you made prior to upgrading.

11.3 Alternatives

If you cannot upgrade, then perform a fresh installation.

Generic instructions on fresh upgrades are also available.