



The Unofficial Manual for Zorin 17 Core

by

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(E. & O.E.)

 ZORIN OS

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(amended from the Unofficial Manual for ZorinOS 15 Core)

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Acknowledgements

The Zorin Team.

Cover image taken from a plymouth theme available from gnome-look.org, <https://www.gnome-look.org/p/2105968>

The Z logo I embellished with fire effect, 'Zorin on fire'! using Inkscape and GIMP.

Wallpaper added to collection:

<https://www.pling.com/p/1394577>

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Introduction/Foreword (whatever ...)

Welcome to the wonderful world of ZorinOS where it is hoped you too will enjoy this beautifully garnered Operating System. I first 'discovered' Zorin when it was at release 4 (around 2010?) which led to my first installation video of triple booting Windows™ XP/Windows™ 7/Zorin 4 64-bit:

(<http://www.veoh.com/watch/v283328437Pyp3Byy>)

I have been fortunate to have experience of GNU/Linux since 2002, introduced to me by a brilliant School IT Technician, named Chris, who gave me Knoppix 2.9 – Wow! an OS that had a human voice to alert you to the fact the system was up and running – and not even installed!

I was determined that Zorin should not go the way of Freespire, which until I discovered Zorin, was the only community-based OS to have a Windows™ feel (apart from the commercial parent, Linspire, which rose and fell by the hands of the same man, Michael Robertson.) Having joined the forum, initially in 2010, and had been providing answers to unanswered threads, after 2 weeks I suddenly found myself becoming a moderator! A great honour and great responsibility. I hope I have been able to enrich users experience of ZorinOS over the years.

System Requirements:

<https://help.zorin.com/docs/getting-started/system-requirements/>

Now to the nitty-gritty. Before going any further, to quote **Wolfman**,
"Preparation and planning prevent poor performance! 😊"

subtitled "Fail to Plan, Plan to Fail!"

To dual-booters, before doing anything to your Other OS, make sure it is up-to-date and you have a backup of your entire system, (at the very least your data) in the event something should go wrong, or to quote Admiral Jack Denver

"Anything could happen in the next half hour!". For complete system backup my preferred paid for option is Acronis (for Windows™)

(<https://www.acronis.com/en-gb/personal/true-image-comparison/>), and best

free option for simplicity of use, is rescuezilla (<https://rescuezilla.com/>). The

pros of Acronis is that you can 'squash' a hard drive image to varying degrees of compression, but primarily its advantage is that it can do proportional image copying from a large to small drive and vice versa but only works for creating

backups of Windows, rescuezilla has to be the same size of drive or bigger – it can not clone proportionally. There are other free ones too, Easeus

(<https://www.easeus.com/>) and Paragon (<https://www.paragon->

[software.com/free/br-free/](https://www.paragon-software.com/free/br-free/)) to name but two - remember these are Windows™

applications and no guarantee they will ever work in respect of GNU/Linux.

These are Windows™ specific options, only rescuezilla is a cross-platform backup tool.

Whilst we are on the subject of backup, System Repair software is something to also have present: If you have Windows™ 7 or higher, make yourself a System Repair Disc now before anything else, especially notebook users who may not have access to Windows™ Media – Just enter ‘Repair Disc’ in the Windows™ Menu Search bar, it should be the first thing to come up in results. System Rescue CD (<https://www.system-rescue-cd.org/>), Ultimate Boot CD (<https://www.ultimatebootcd.com/>) are excellent tools for issues with booting Windows. For data recovery I would only trust one piece of software following a trial of its demo (I still don't own a copy): GetDataBack for NTFS (et.al.) (<https://www.runtime.org/data-recovery-software.htm>)

If you are an existing GNU/Linux or Zorin OS user, backup your ‘/home’ folder/s (folders if more than one user) and be sure to use Ctrl+ H to show all your hidden folders to ensure your settings of currently installed apps are preserved. Please note that you cannot preserve your Printers, just as you can't in that other OS, and if you installed 3rd party applications, make sure you have backed up any .deb file or .tar.gz or other file that contains applications from sources other than from the Zorin Software Channel or alternative Package Manager (e.g., Synaptic).

Update your system!: When was the last time you bothered to update any of your manufacturers hardware drivers, in particular the BIOS? Some members of the Zorin forum in the past have had issues with installation, quickly resolved by an update to the Motherboard's BIOS. Also be sure you follow the manufacturer's guidelines on how to update the BIOS. On some earlier systems (early 00's) some manufacturer/s were offering an update via Windows – bad move – you could so easily, er hem, trash the BIOS undertaking such a route! Those wanting to dual-boot should use that Other OS's Disk Management Utility to shrink the main system partition to allow room for Zorin to reside, and never put any GNU/Linux on a drive at the start of the drive if dual booting as you are opening yourself up to potential future woes. Finally, if you are looking at dual-booting you should ALWAYS choose the ‘Something Else’ method. Tutorial video on dual-booting with Windows™ 7 here: <https://vimeo.com/110085401>

Dual booting tutorial for Windows™ 8/(10) here (extra special thanks to Matthew Moore): <https://www.youtube.com/watch?v=xITgaWs9BD0>

Advice on where to get Zorin:

<https://zorin.com/os/download/>

Validation of downloaded .iso:

When downloading DO NOT use any Download Accelerator Managers as this has been known to cause corrupt downloads.

Once you have downloaded the .iso, check its integrity (checksum) by using either SHA256 (<https://itsfoss.com/checksum-tools-guide-linux/> this useful walkthrough will show you how to use gkthash tool) if you are using GNU/Linux.

For Windows users download Raymond's utility from here:

<https://www.softpedia.com/get/Security/Security-Related/MD5-and-SHA-1-Checksum-Utility.shtml>

Correct SHA256 checksums for

Zorin OS 16.3 Core 64-bit

Zorin OS 16.3 Lite 64-bit

Zorin OS 16.3 Pro 64-bit

Zorin OS 16.3 Pro Lite 64-bit

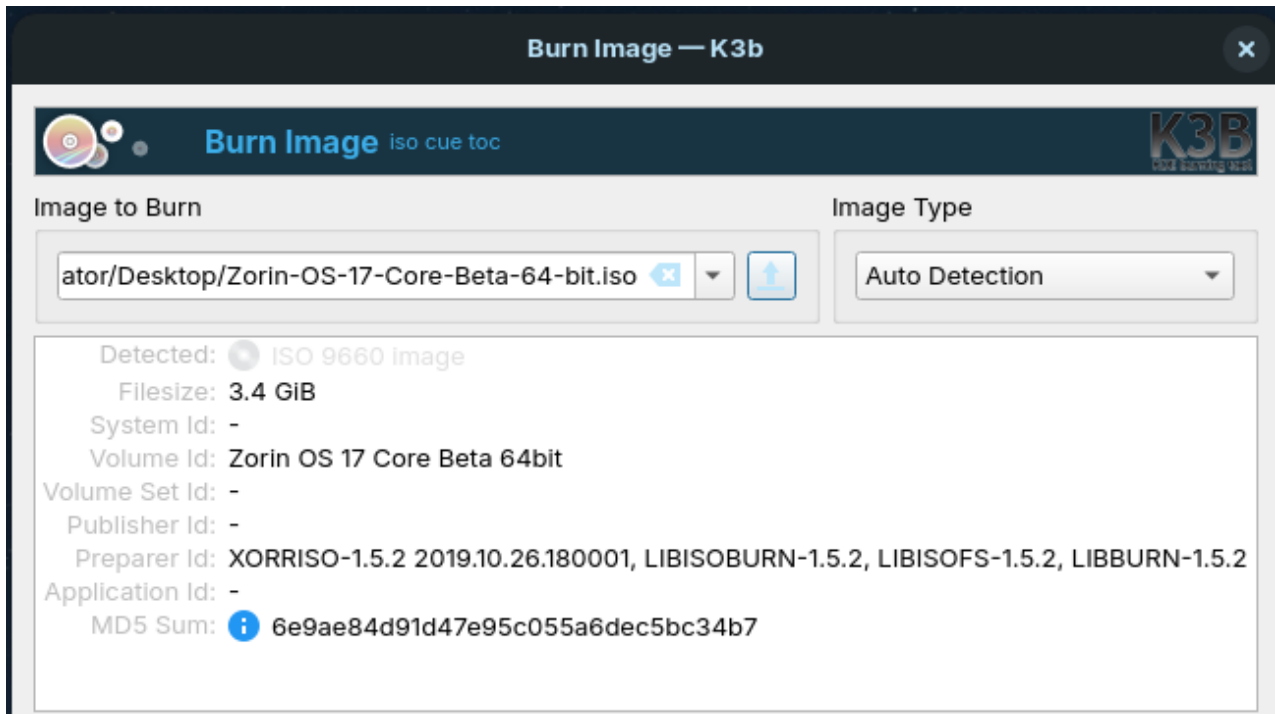
Zorin OS 16.3 Education 64-bit

Zorin OS 16.3 Education Lite 64-bit

Zorin OS 17 Core 64-bit

can be found [here](#)

If you install K3b CD/DVD burner this will generate the MD5 sum of the iso:



If you are going to burn a DVD for Zorin in Windows, I can only recommend one product and that is imgburn – get it from here: <https://ninite.com>

When using image burn, burn at the SLOWEST possible speed – this used to be 1x but most modern burners slowest speed these days is 8x. So even if you selected 1x, imgburn is smart enough to automatically adjust to your burner's speed.

If you intend to install via USB/Thumb Drive, format it to FAT32 File System and then follow the guide here:

<https://help.zorin.com/docs/getting-started/install-zorin-os/>

or alternatively if using Windows use 'Rufus':

<https://www.techrepublic.com/article/pro-tip-use-rufus-to-create-a-bootable-usb-drive-to-install-almost-any-os/>

And one other option, Ventoy – it works for me!:

<https://www.ventoy.net/en/index.html>

Whether installing alongside an existing Operating System or on its own, I always select 'something else' or 'advanced' dependent on what GNU/Linux system I am installing – it means you are in control with less likelihood of things going wrong.

Changing the Boot order:

Now once you have your chosen media you will need to change your Boot order from HDD/SSD to DVD/USB. This on grey machines (system builds that are not manufacture branded) will require booting to the BIOS and going to the 'Boot Options' page, and changing the order of boot sequence to the device that holds the image of Zorin. Some motherboards in the past have had a default key of F8 which is a bit bizarre from a Windows™ users perspective!

On Dell machines it is F2 to enter the BIOS, F12 to do a one time change in the boot order, For HP PCs (<https://support.hp.com/in-en/document/c00364979>), HP Notebooks (<https://www.support.hp.com/us-en/document/c01443326/>), Toshiba (<https://support.toshiba.com/sscontent?docId=98080545>), Acer (https://uk.answers.acer.com/app/answers/detail/a_id/7550/~/-/changing-boot-order) Asus (<https://www.asus.com/us/support/FAQ/1008277/>) Lenovo (<https://support.lenovo.com/gb/en/solutions/ht117661>)

How to manage UEFI when installing Zorin:

<https://www.howtogeek.com/56958/htg-explains-how-uefi-will-replace-the-bios/>
<https://altgov2.org/csm-vs-uefi/>

Understanding the difference between MBR (Master Boot Record) and the newer GPT (GUID Partition Table)

(<https://www.howtogeek.com/193669/whats-the-difference-between-gpt-and-mbr-when-partitioning-a-drive/>)

A warning to Notebook (Laptop) owners!:

I can only speak of HP Note/Netbooks but this may also be true of others. Basically what HP does is make a System Partition – this would normally get created with Windows™ 8/10, and appears at the start of the hard drive. Next comes the partition with Windows on it (C:\ drive), then a 'system restore/drivers' partition, and lastly media recovery creator to create DVD's to reinstall the original OS to the Notebook. All of these partitions, even the FAT32 ones, are flagged as Primary Partitions – this prevents the installation of any other Operating System so you need to make some hard decisions on what to do. My advice would be to create the reinstall media and save in a safe place then delete that partition which does that. Regardless of how many drives you have, you can only ever have 4 primary Partitions. You will need only ONE primary partition to be created for Zorin after you have used Windows Drive Manager to shrink C:\ drive.

Basic manual formatting and installation:

1. One Primary partition, formatted to Ext4 FS (File System) to hold the 'root' system - '/' - 80 Gb or 81920 Mib should be more than adequate.
2. An extended partition after the Primary, at the END of which you create a 'swap area' equivalent to double the amount of Physical Memory you have installed in your machine. No need to specify a file system as due to the very nature of creating a 'swap area' it knows what to do.
3. Whatever is left at the start of the Extended partition, format to Ext4, and mark it as '/home' - this is where all your Personal Files (and other users '/home' folders) will reside, including any Windows applications in the hidden '.wine' folder.
4. If you are installing to a complex OS structure, you may need to create a '/boot' partition of 512 Mb BEFORE the '/' partition – as this is where you will store GRUB if you intend to use the 'non-traditional method' using EasyBCD (the free one) from NeoSmart Technologies (<https://neosmart.net/EasyBCD/>). It ('/boot') is also useful on Asus eeePc's that had the 10 Gb split SSD where Windows™ could not be put on the larger part – well you can with GNU/Linux!
Please note that EasyBCD cannot be used with Windows™ 11.

Booting from a USB on a Notebook/Desktop whose BIOS prevents booting from USB:

Possible Solution 1: Check for BIOS updates from your dedicated manufacturer website (PC, Notebook, Motherboard).

Possible Solution 2: (You will need a floppy drive/external floppy drive for this or an external/optical drive):

<https://www.plop.at/en/bootmanagers.html>

Only Zorin to be installed?:

If Zorin is going to be the only system on your device, then choose the first installation option where it wants to wipe everything out. If you have a Note/Net-book you may want to backup your entire drive/system using either Acronis or free system backup software and an external Hard Drive before commencing. Particular care should be taken if attempting to install to an eMMC device – these are worse than Celeron and Sempron powered devices as they have limited storage space (normally 32 Gb) and limited memory (2 Gb) and if one component fails on the main processing board, the machine becomes dead as nothing can be replaced/repared. So avoid Chromebooks and their adversarial spin-offs like the plague! If you have the spare cash to buy a machine that is dedicated to run GNU/Linux then I advise you to take a look at the following potential suppliers – but read reviews before taking the plunge:

GNU/Linux dedicated Hardware Manufacturers/Suppliers:

Respect Your Freedom (RYF) Certified:

(<https://www.fsf.org/resources/hw/endorsement/respects-your-freedom>)

Others: <https://linuxpreloaded.com/>

<https://www.cyberciti.biz/hardware/laptop-computers-with-linux-installed-or-preloaded/>

United Kingdom:

<https://www.entroware.com/store/desktops>

<https://www.entroware.com/store/laptops>

<https://minifree.org/> (ship worldwide)

<https://zorinos.com/computers/>

(https://starlabs.systems/?rfsn=2798196.ef7ef&utm_source=zorin)

Netherlands: <https://zorinos.com/computers/> (<http://bit.ly/novacustomzorin>)

Australia:

<https://www.linuxnow.com.au/dsintro.html#standarddesktops>

USA (Desktop, Notebook and hardware components and peripherals – ship worldwide)

<https://www.thinkpenguin.com/>

<https://system76.com/>

<https://zareason.com/>

<https://puri.sm/products/>

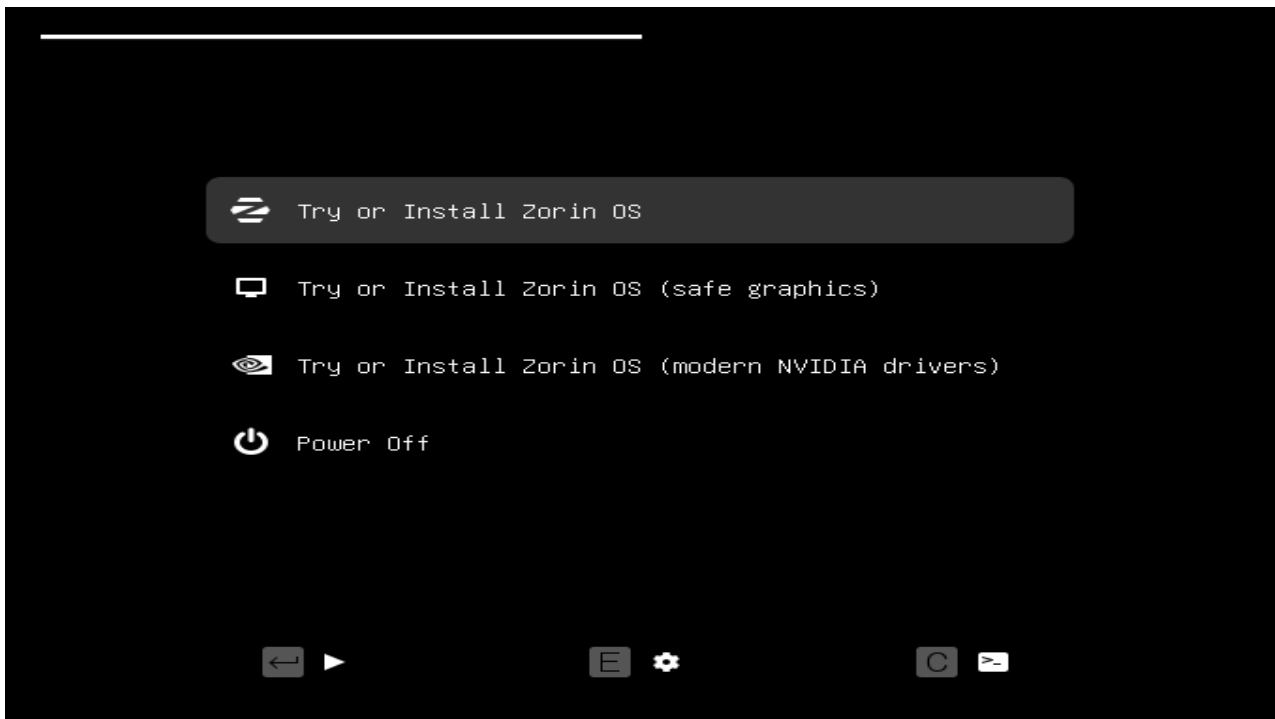
If you must:

<https://www.dell.com/en-us/work/shop/cty/pdp/spd/xps-13-9370-laptop?view=configurations>

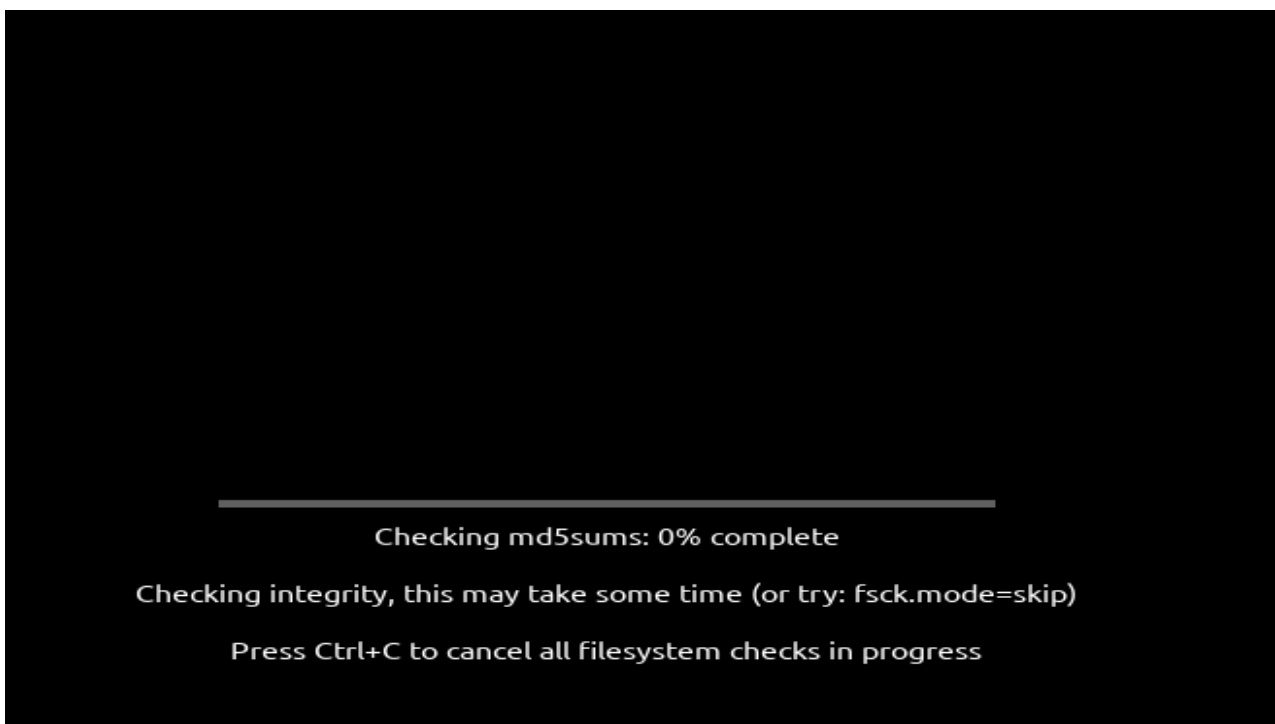
Before you make any purchase, search for video reviews, owner reviews before making your choice should you go down a dedicated GNU/Linux route – you will pay a premium above a mass produced device for that Other OS but you will be guaranteed that GNU/Linux will run on them. If you are considering purchasing any machine, particularly Notebooks, that currently has Windows™ 10 on them, ask the vendor to boot into the BIOS to see if you are able to disable Fast Boot and Windows™ Boot Manager. If you can't then don't buy it.

1. Booting your Zorin media in 'live' mode.

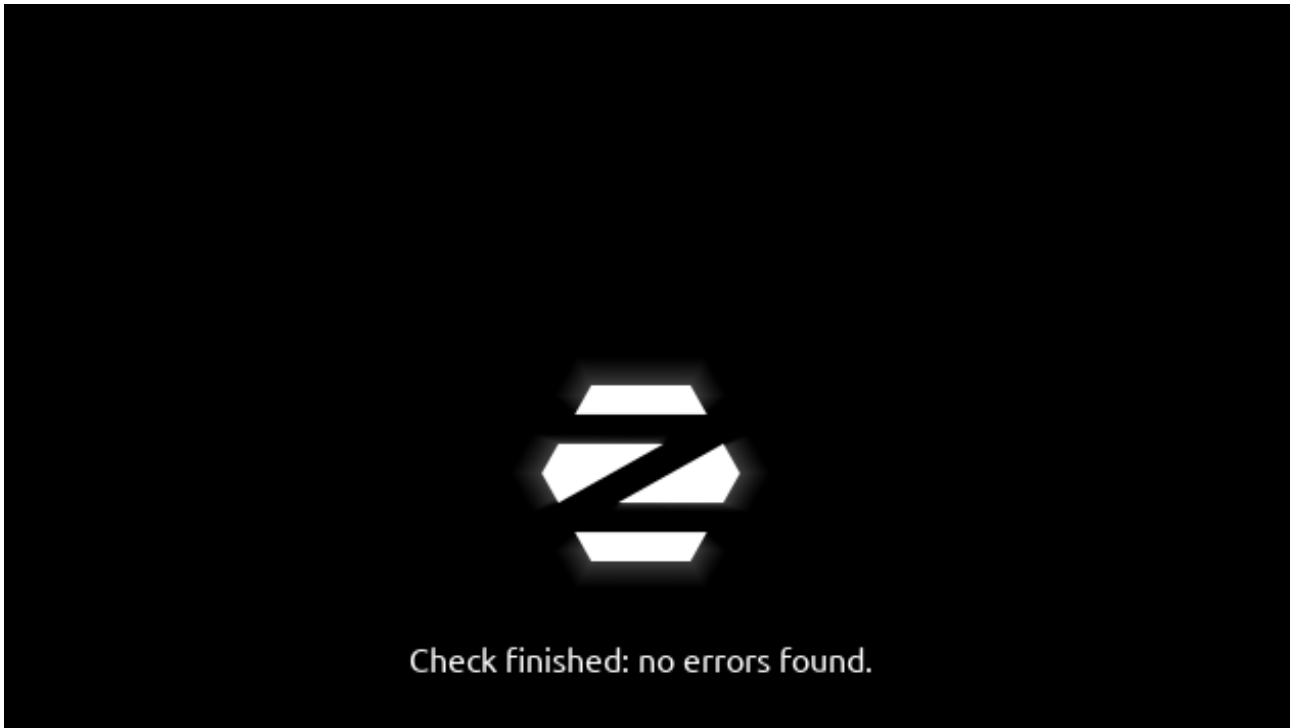
This is what the initial boot screen should look like before you start.



There are no options to select unlike Zorin 12.x other than selecting ENTER to boot your desired choice or press the TAB key to amend the boot parameters, such as nomodeset, acpi=off etc. During boot you should see the 'Z' logo briefly, then this screen:



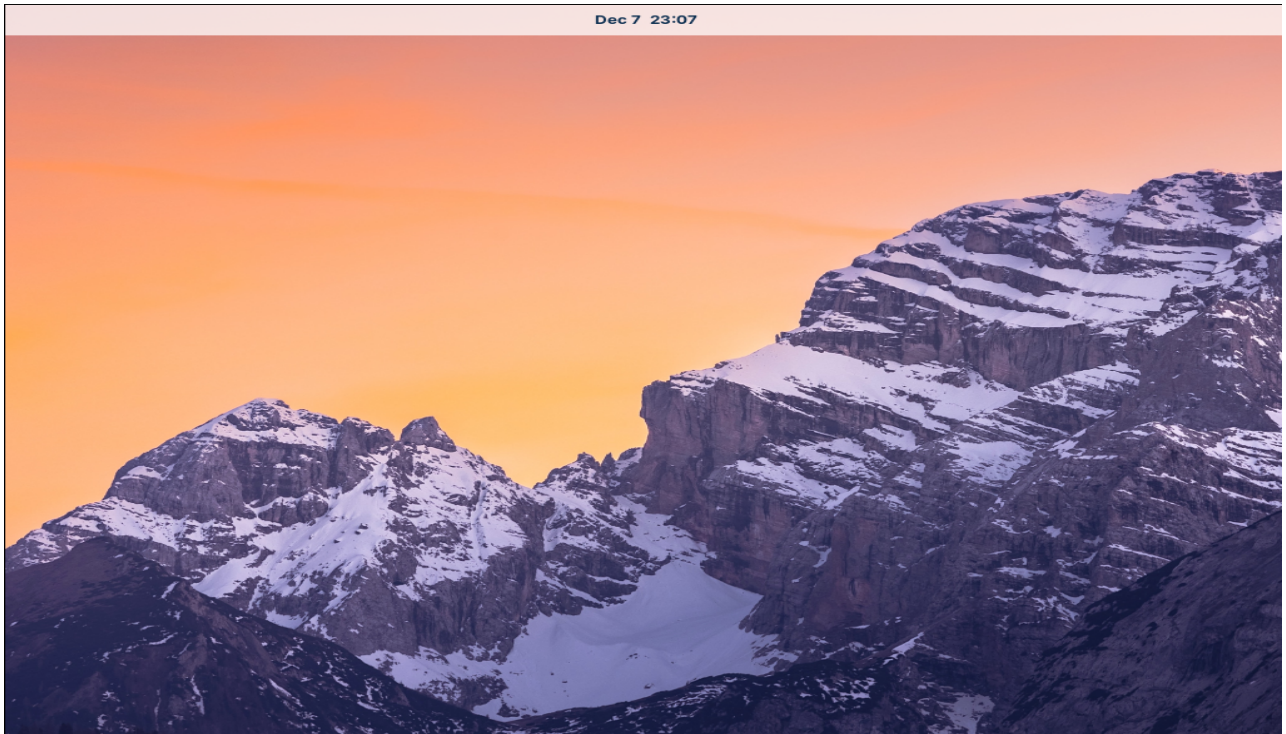
If you wait for the integrity check to complete, you will see this screen on successful completion:



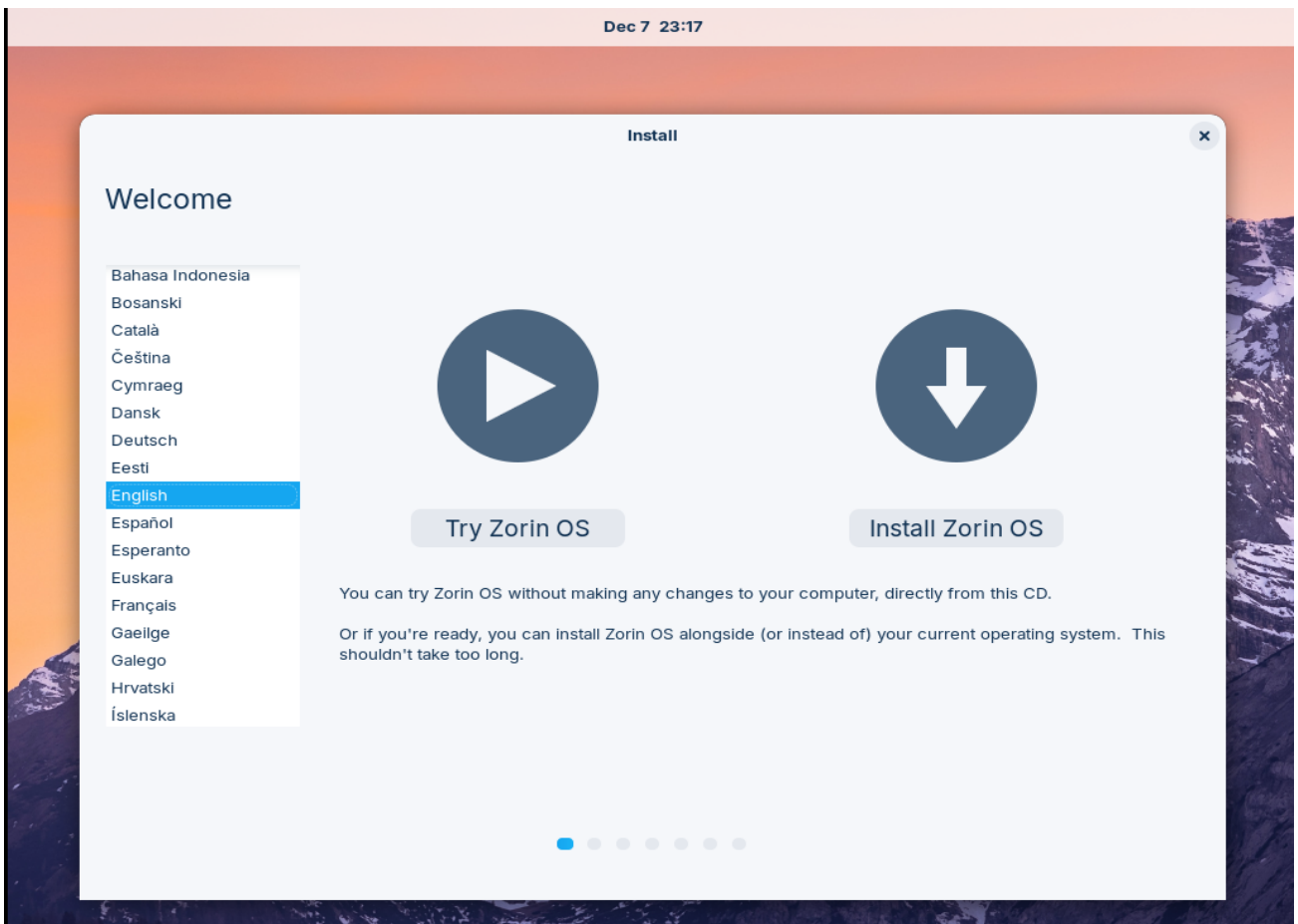
Next you will see the new 'ZORIN' logo appear, flying in from left to right quickly, letter by letter to make this:



You should eventually see the following image, the default wallpaper:



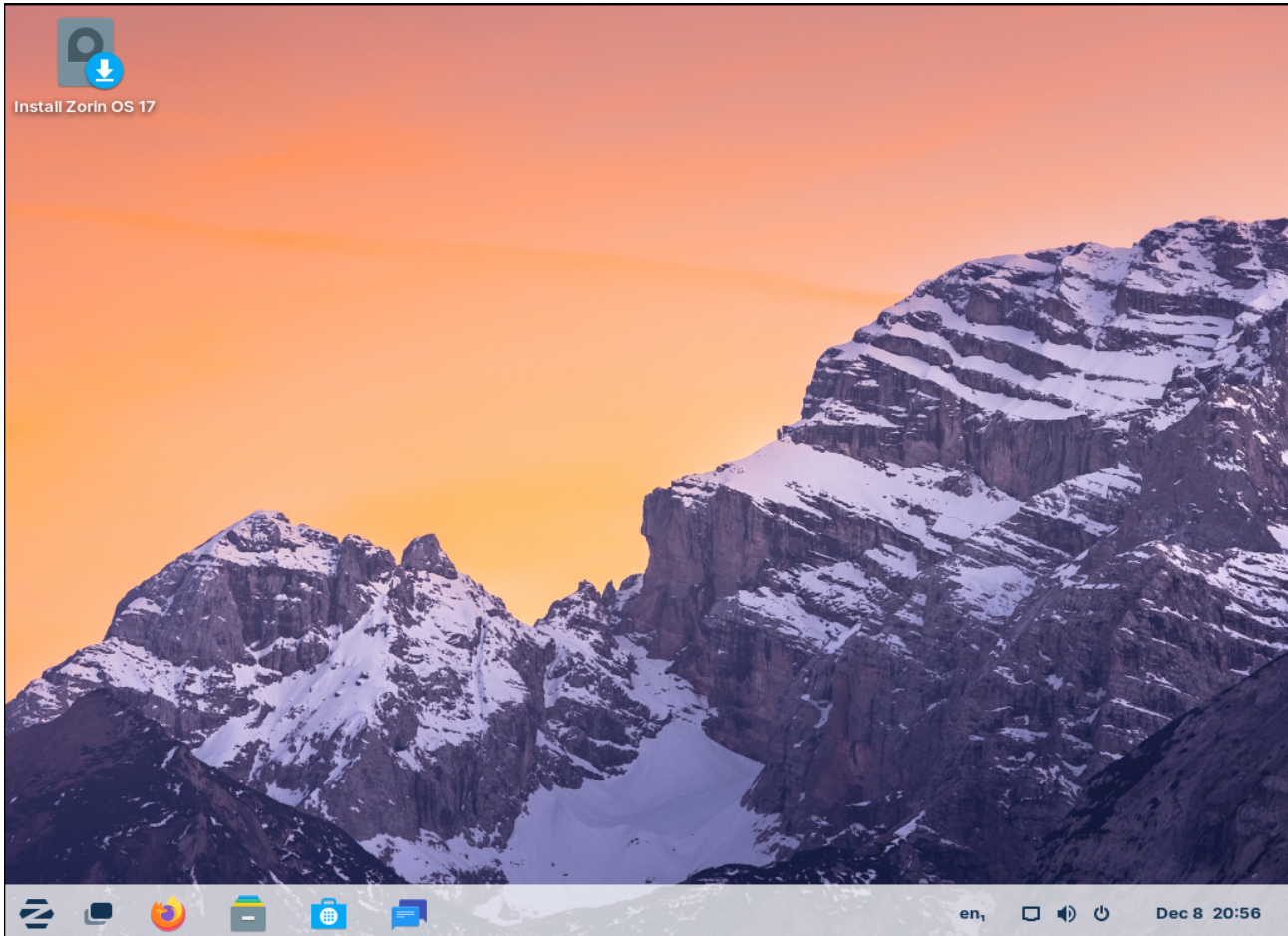
Then these options appear, together with the login sound:



Notice you get a second bite at the cherry to 'Try Zorin' or 'Install Zorin' – note also in the left pane is a list of languages – choose the one that meets your locale before proceeding – you should still opt for 'Try Zorin' to discover how well it is compatible with your system. Please bear in mind that Hardware is generally manufactured to Windows™ specifications which is a Closed Source Operating System, which means none of it's code is freely available to alter to meet the needs of GNU/Linux users or their hardware driver needs. You need to click on the 'Try Zorin' button – the screen will momentarily go black and shortly afterward the Desktop appears.

2. The Live Desktop – a guided tour.

This is the default desktop image (changing the image for something else will be covered later under 'Settings').

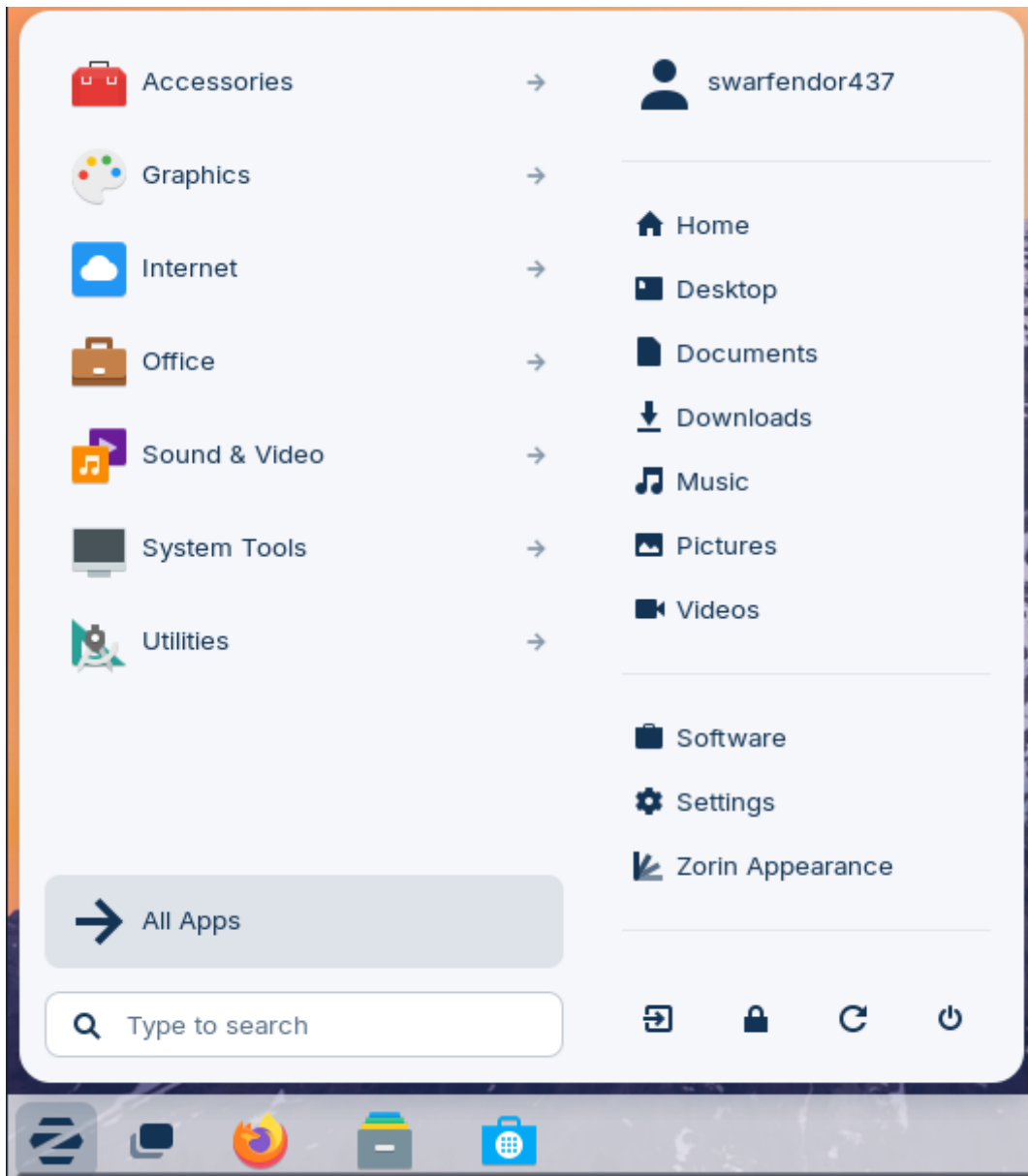


First up the '**Dash**' (formerly called '**Panel**') at the bottom of the screen comprises of the Menu (indicated by the 'Z') immediately to the right is the **Overview** button, followed by the default Browser, **Firefox** (Flatpak edition), **Files** (formerly Nautilus [File Explorer]), and finally, **Software** channel icon. On the far right is the equivalent, but very much different to, the System Tray that can be found on Windows.

The Dash (formerly 'Panel') - left side.

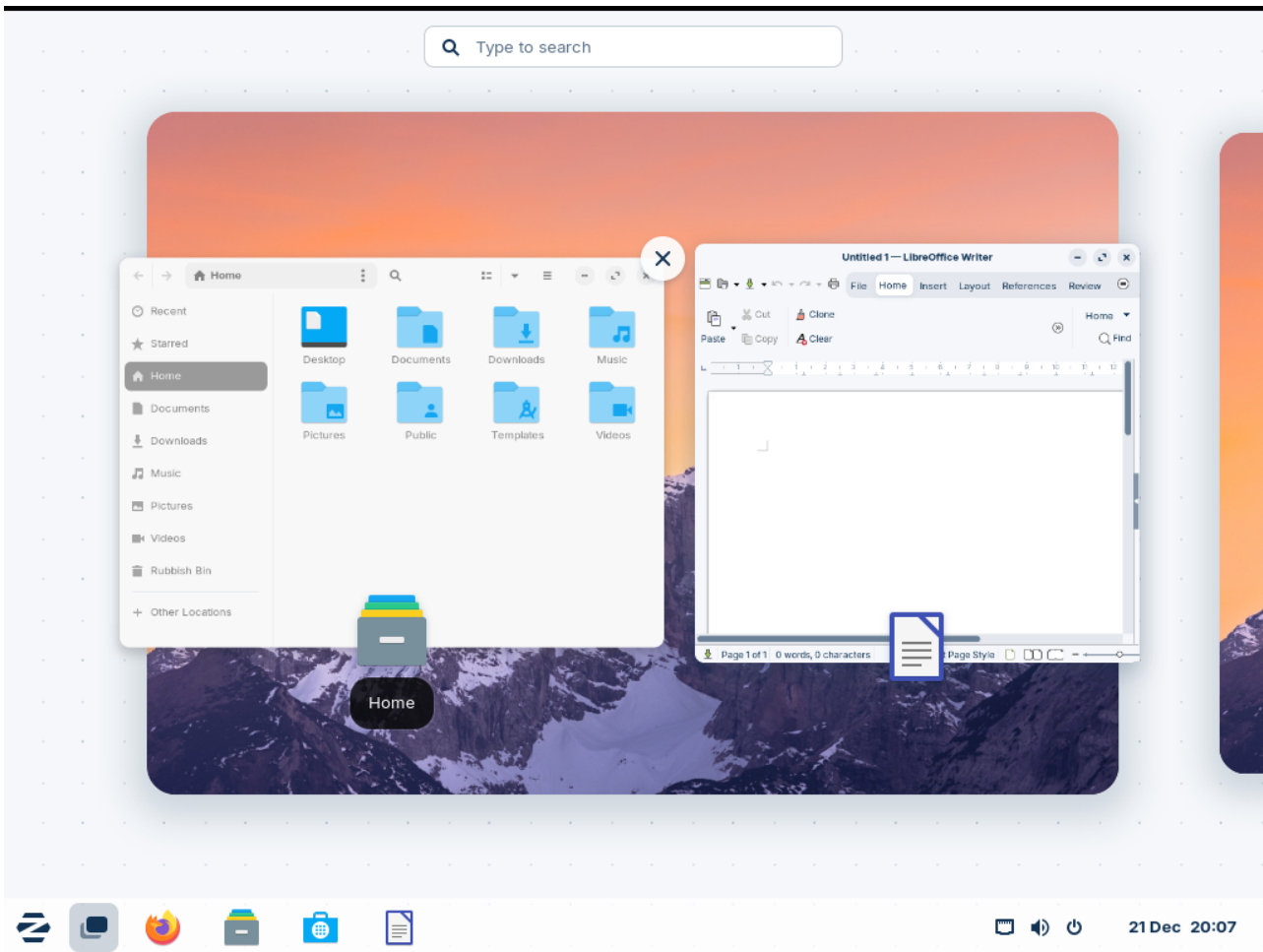


From left to right we have the **Z Menu**, **Activities Overview**, **Firefox** (Web Browser), **Files** (File Explorer), **Software** (Application Store).

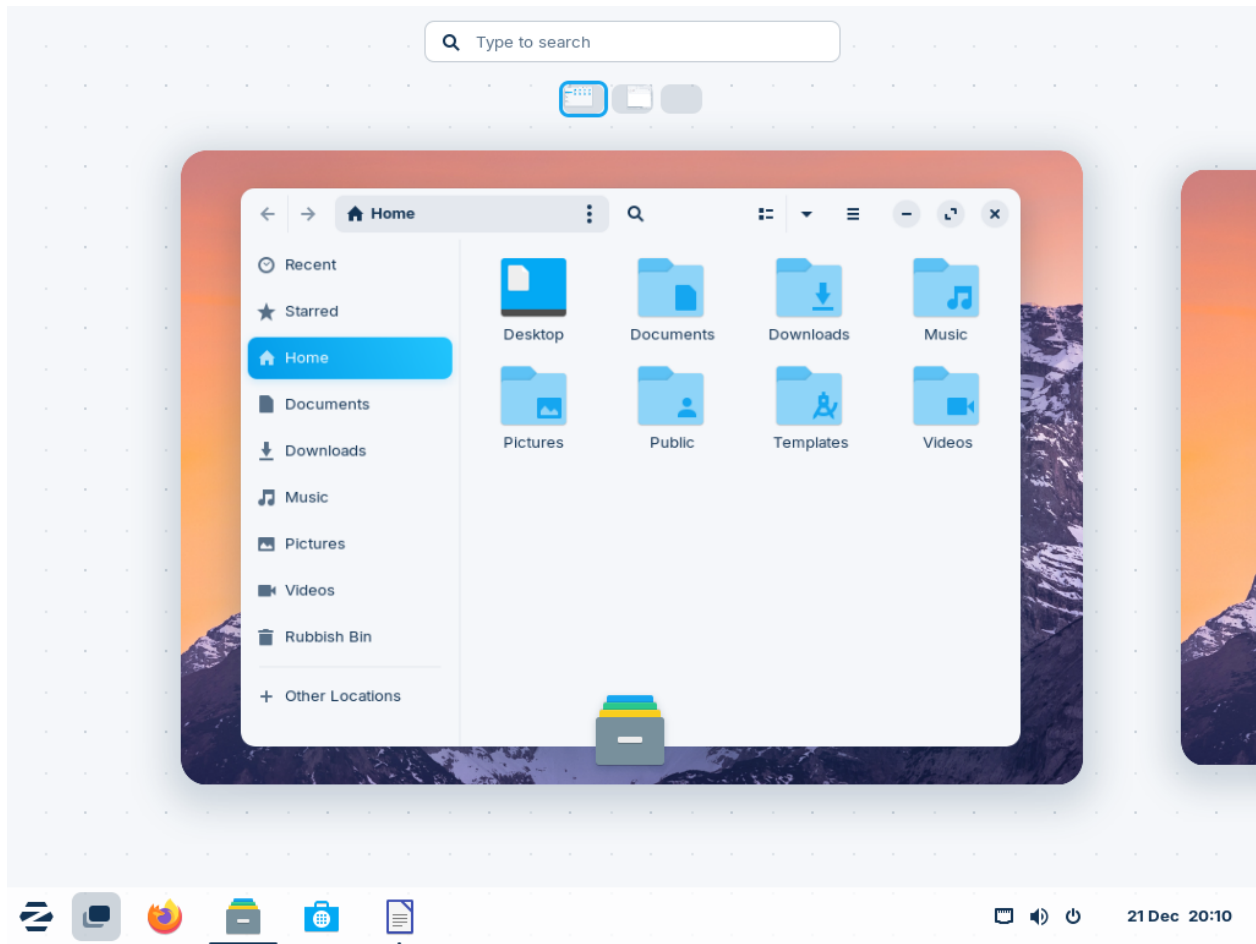


The Z Menu icon - Left Clicking on this launches the familiar Zorin Menu.

The Activities Overview Icon - left clicking this will show all open Windows on the **Desktop**:

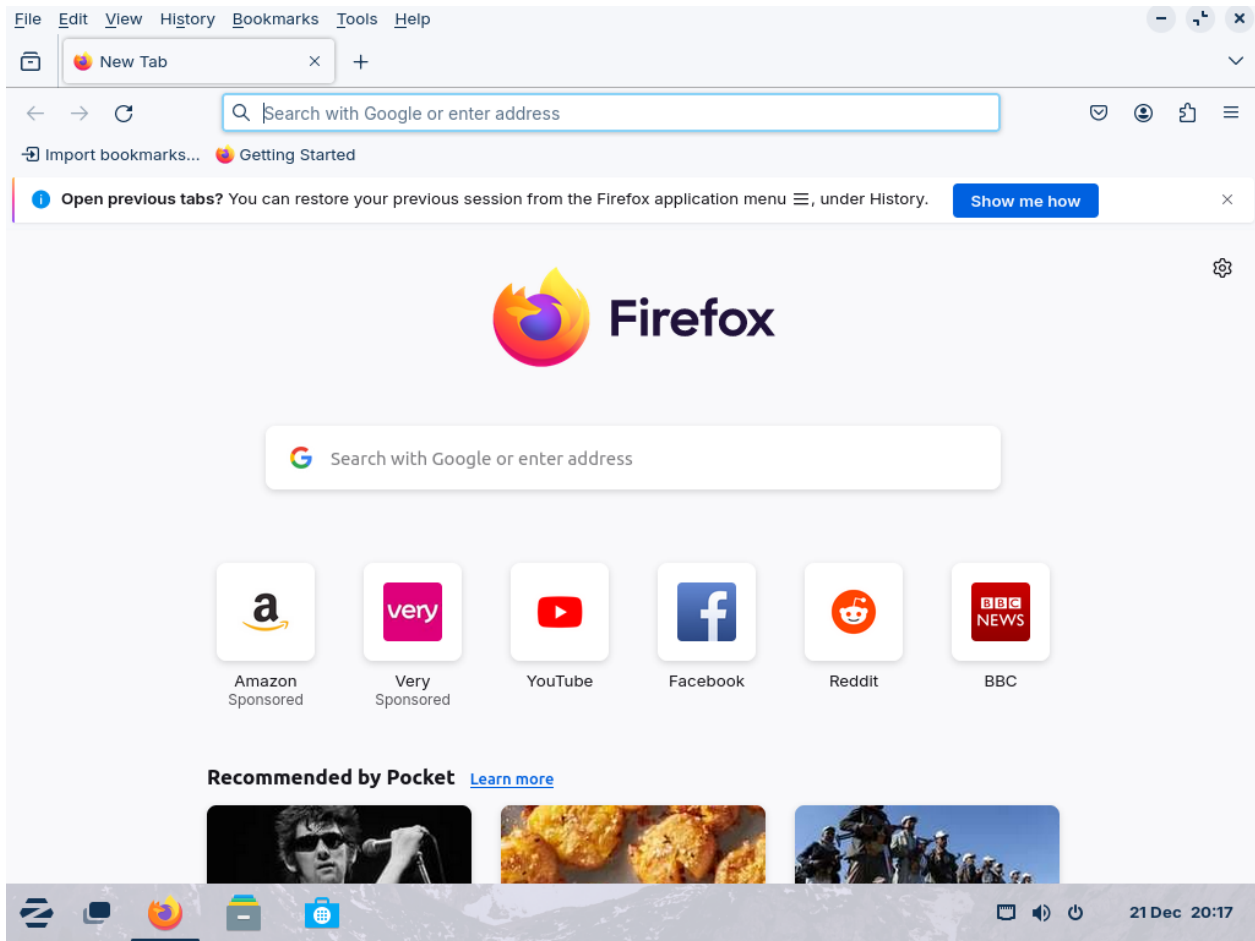


Notice you can see the edge of another screen to the right - this is the second **workspace** allowing you to have a different application open on each workspace which you can easily toggle between. Whilst you are in **Activities Overview** mode you can drag open windows to the next adjacent workspace. When you do this, you will notice that a third empty workspace is created as indicated by the little windows at the top of the screen as shown at the top of the next page:



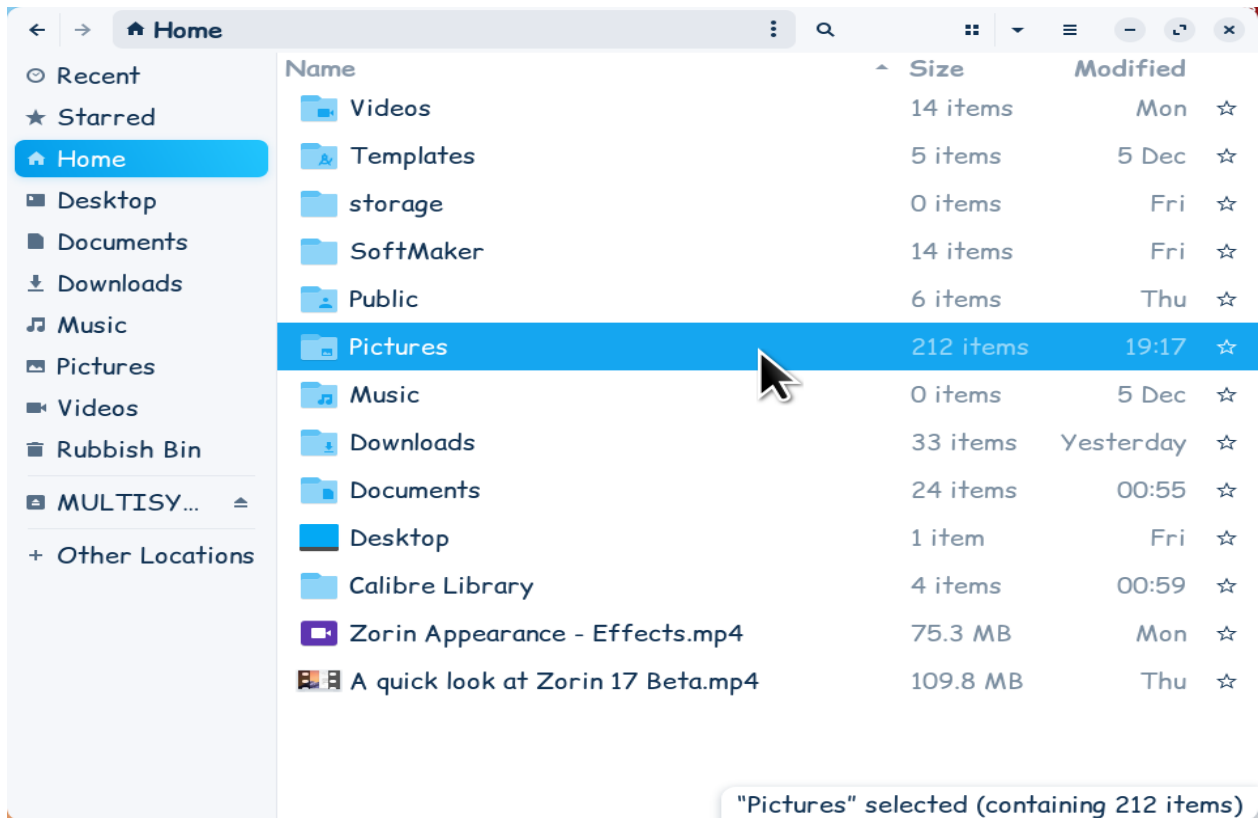
You can use the wheel on your mouse to navigate between workspaces, or alternatively, use Ctrl+ Alt+ L or R arrow (cursor) keys.

Firefox - Web browser.

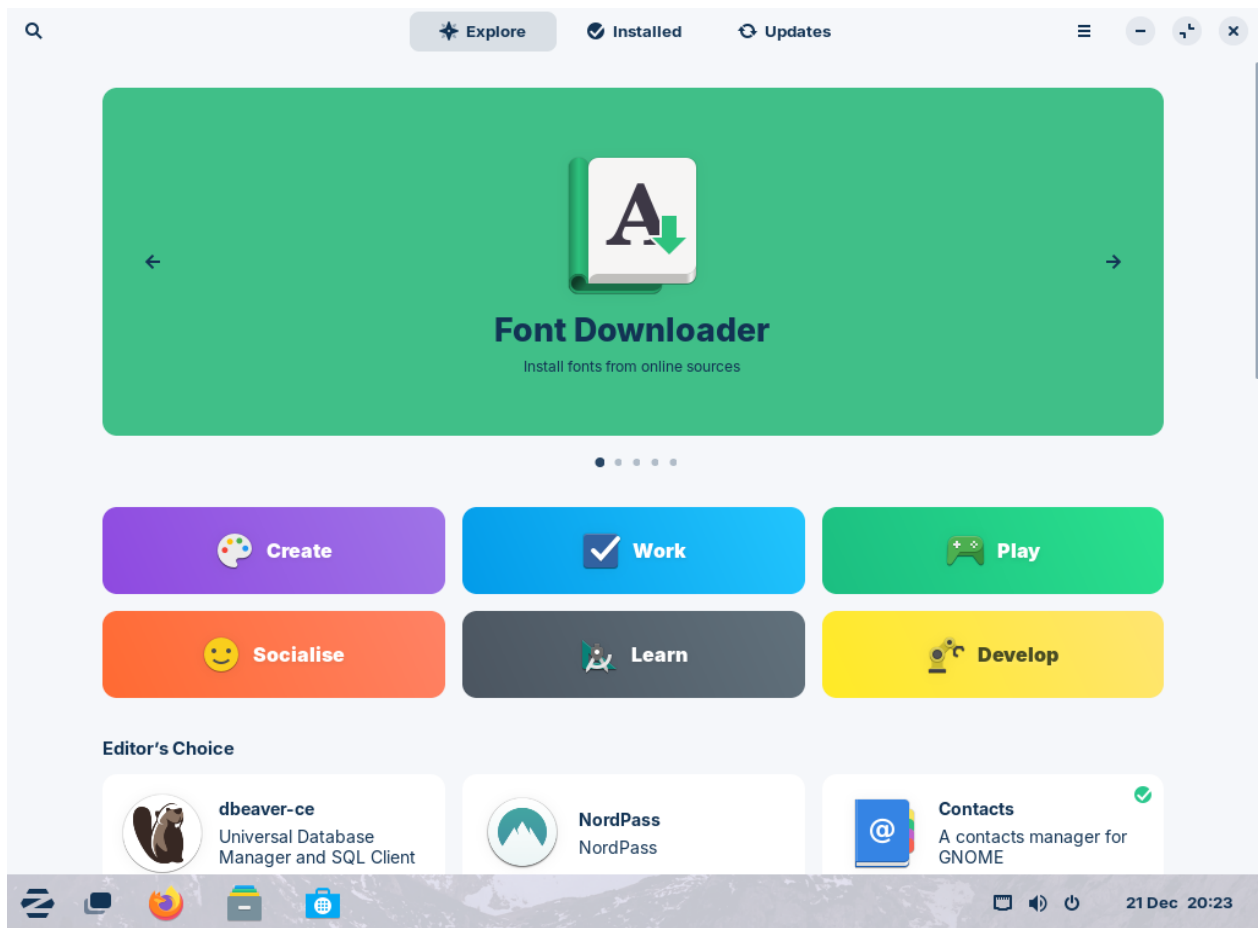


Notice that the Firefox icon on the **Dash** has a line underneath it - this indicates that you have the application open and one window/tab open. Opening a new window will show 2 lines, one long one, a space, and the start of another line. Floating your mouse cursor over the Firefox icon will create two tiny pop-up windows - move your pointer to the window you wish to view.

Files (File Explorer):



Software - This is where you can install applications.

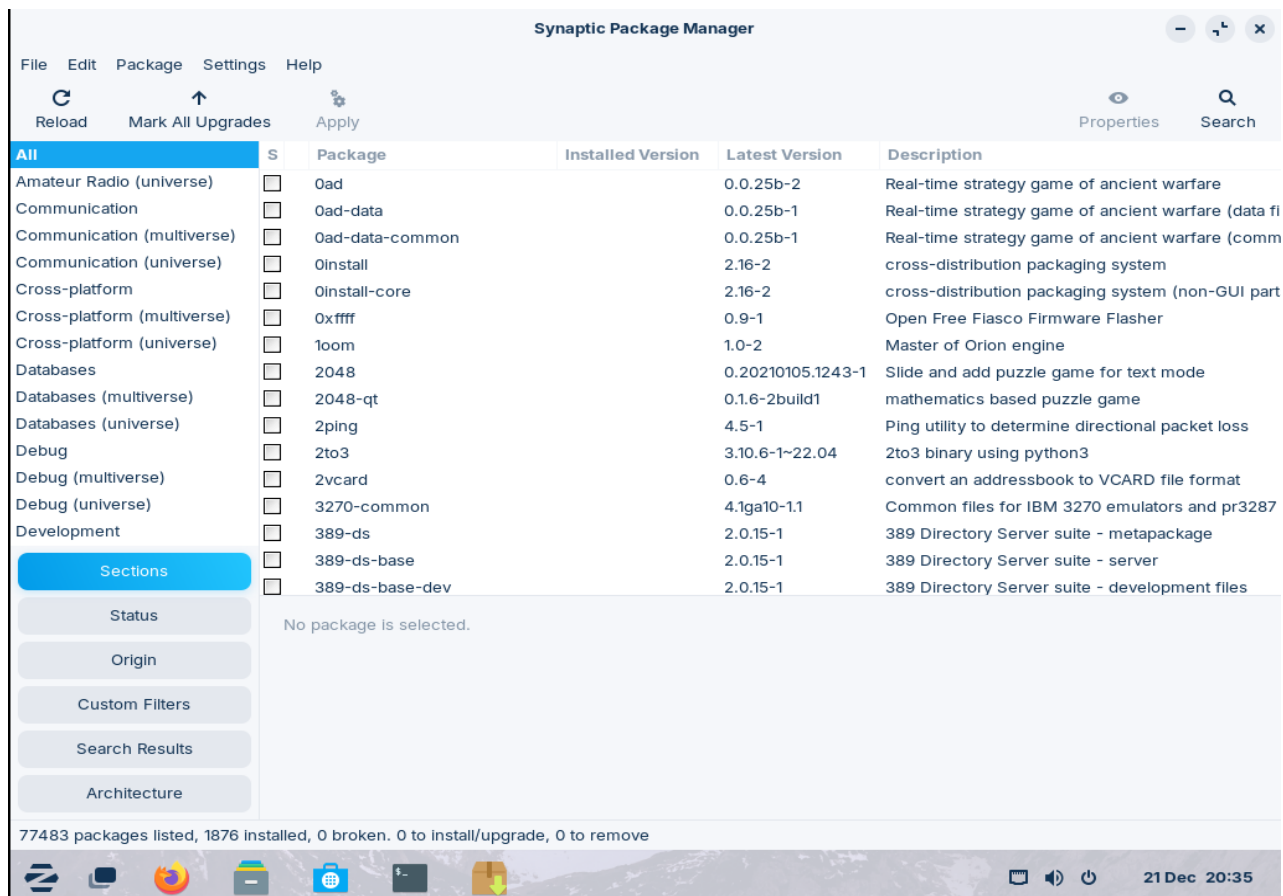


But this is not the only source of **Software**. Other options include downloading applications from the official website of an application producer, or an alternative option, if you don't wish to use sandboxed applications which are either **flatpak**, **snap**, from the **Software** application or an **App Image**, you can use **Synaptic (Package Manager)** [but there are some applications in the Software channel that offer more than one option, including APT packages - the latest Zorin release is a big improvement in this area.] My preferred method of installing **Synaptic** is via the terminal (Ctrl+ Alt+ T or Menu | Utilities | Terminal).

```
sudo apt install synaptic
```

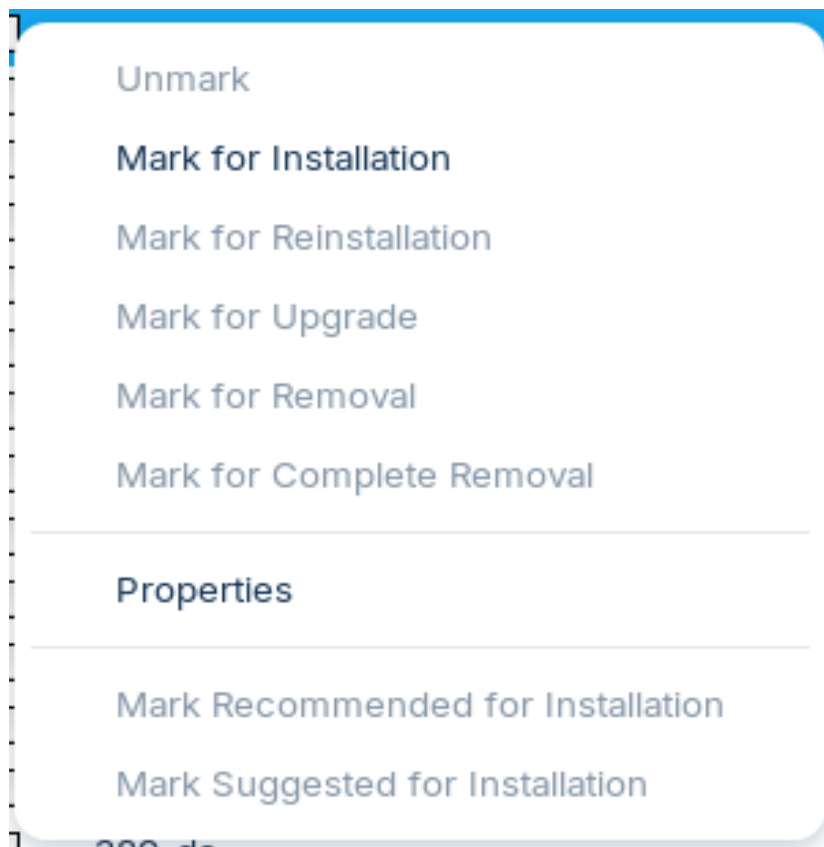
You will need to supply your login password to elevate yourself to root, or better still, when you install Zorin, create an 'administrator' account, then yourself as a **Standard** user - installing applications would then need the password of the 'administrator' account, just like that other OS! You can stay in the terminal to launch **Synaptic** because you have already elevated the terminal to 'root' privileges, just enter - sudo synaptic.

When you launch **Synaptic Package Manager** it brings up this interface:



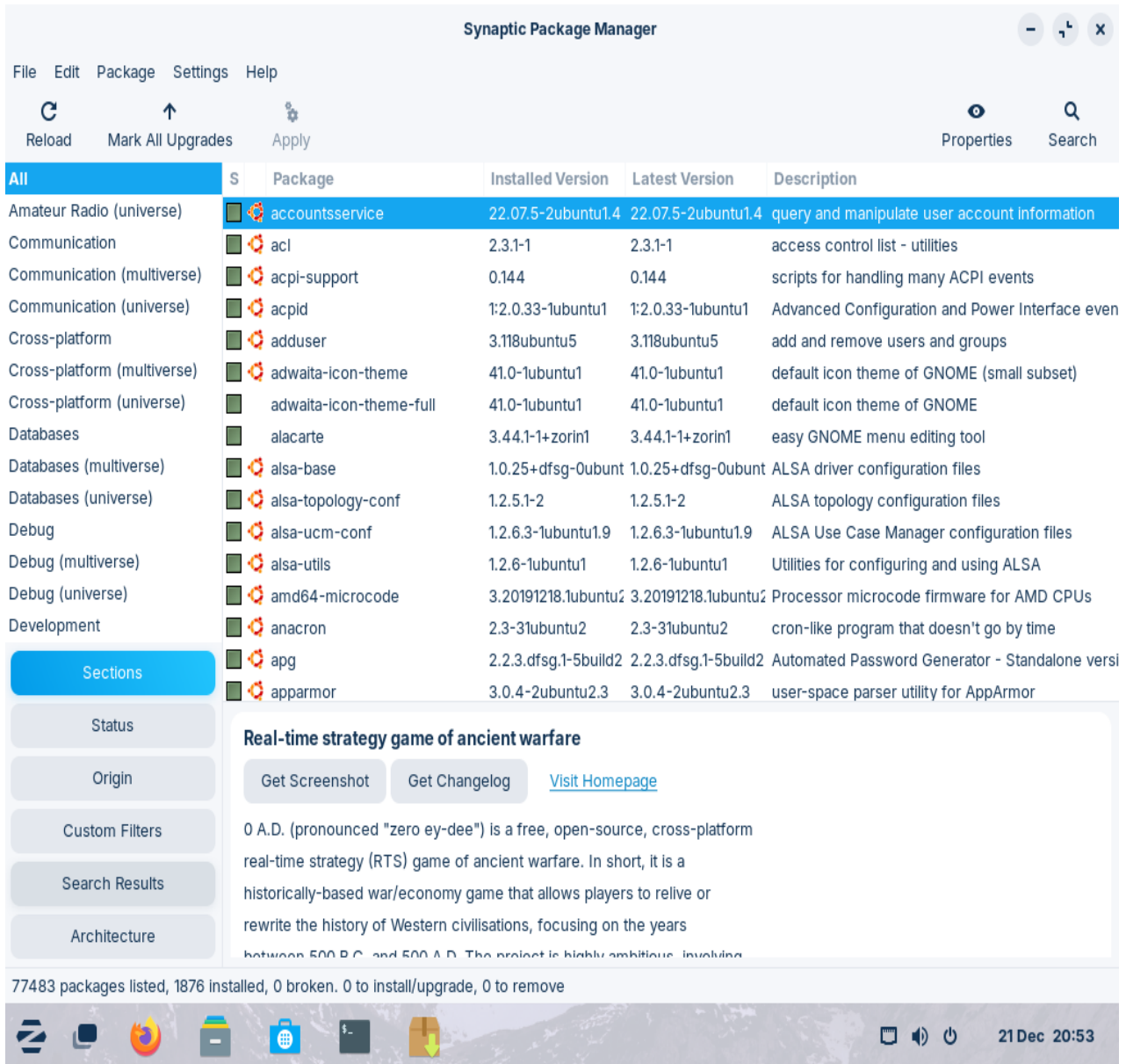
Synaptic is split into 3 main panes, with a Menu Bar at the top of the window which has 'Reload', 'Mark All Upgrades' and 'Apply' (greyed out) buttons beneath it. To the far right on the same line as these buttons, 'Properties' (greyed out), and 'Search' (magnifying glass).

The left hand pane comprises of different **Sections**, laid out in alphabetical order. Above all the sections is the all encompassing word **All** which basically that if you placed your cursor in the pane to the right, you would have a very long scrolling time to view all the available applications. By far the easiest method is to use the **Search** function (please remember that any Software application only looks for GNU/Linux applications, not Windows or Mac or Android apps!) When you select an application with the left mouse button in the top right pane, a description of that application appears in the bottom right pane. If you wish to install an application that you are interested in having, right-click the little square to the left of the application name which will bring up these options:

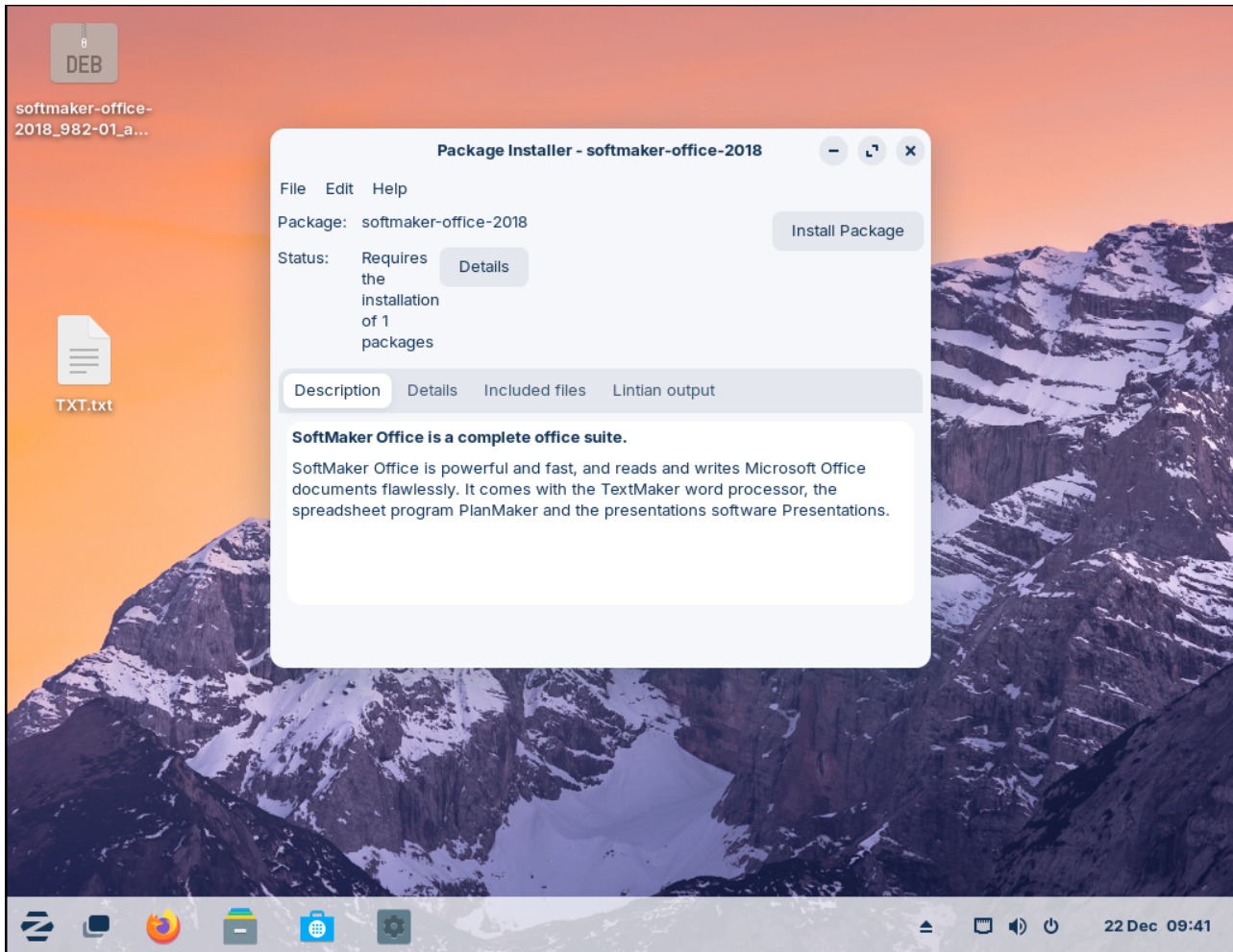


To install, select **Mark for Installation**, then click on the **Apply** button - this will begin the installation process.

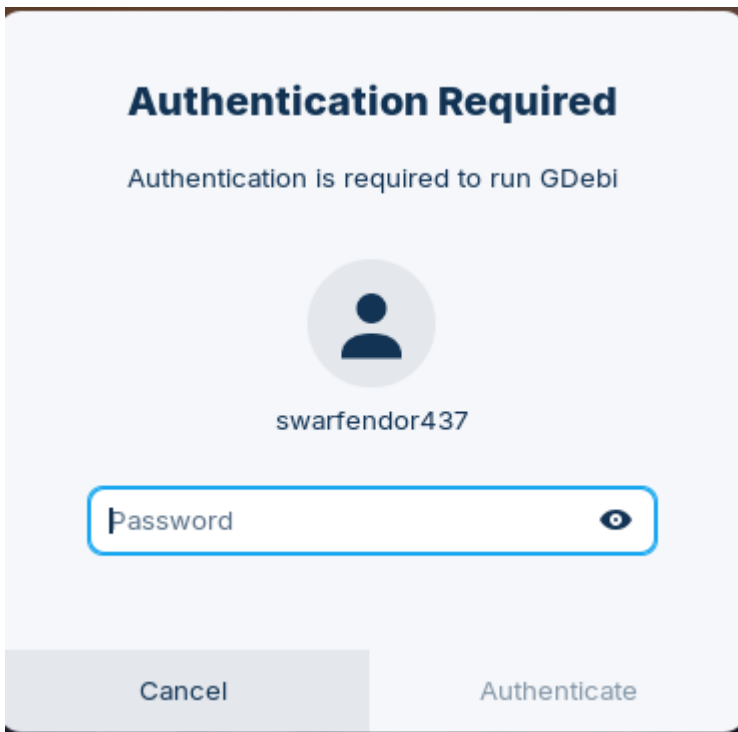
At the very top of the column of little squares you will see the letter **S**. If you click on this, all of the applications that are installed in Zorin will be brought to the top of the list in alphabetical order.



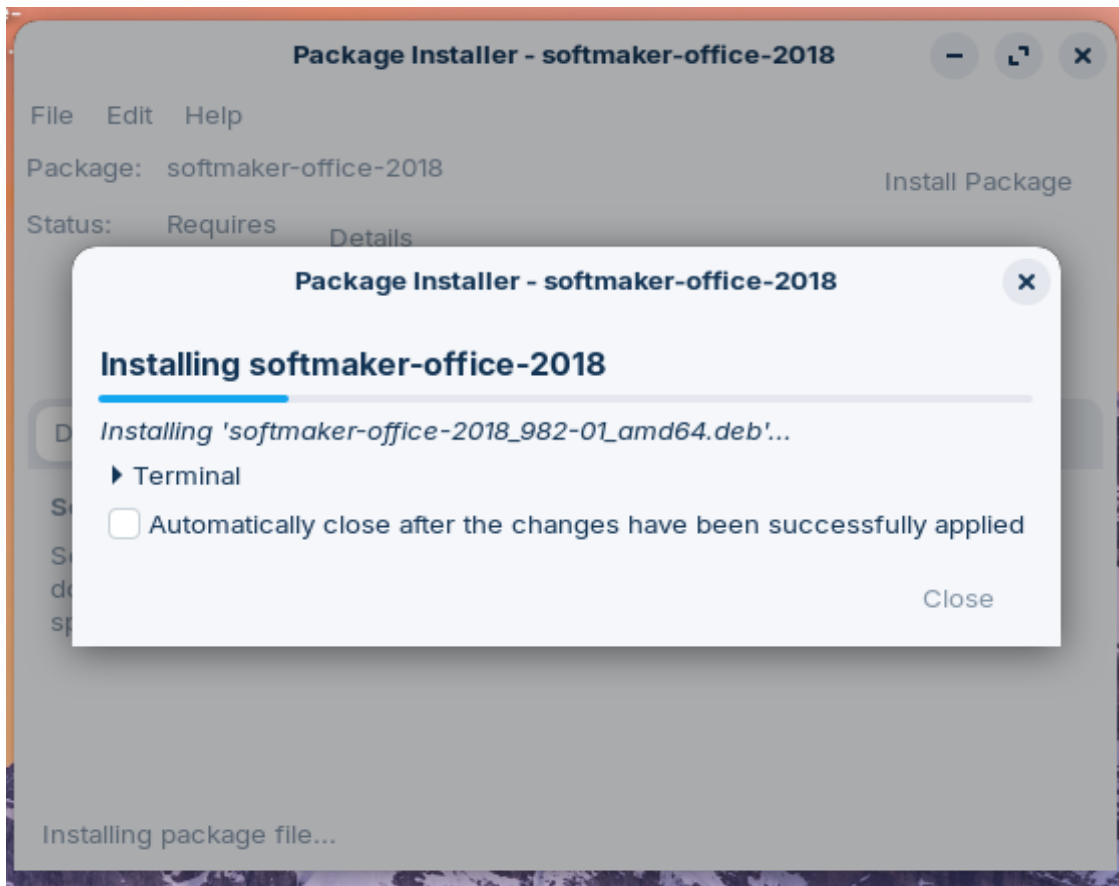
For 3rd party applications, for example, FreeOffice from SoftMaker or the paid version, SoftMakerOffice 2024 Professional .deb file, then a useful utility is **gdebi** (gnome .deb installer).



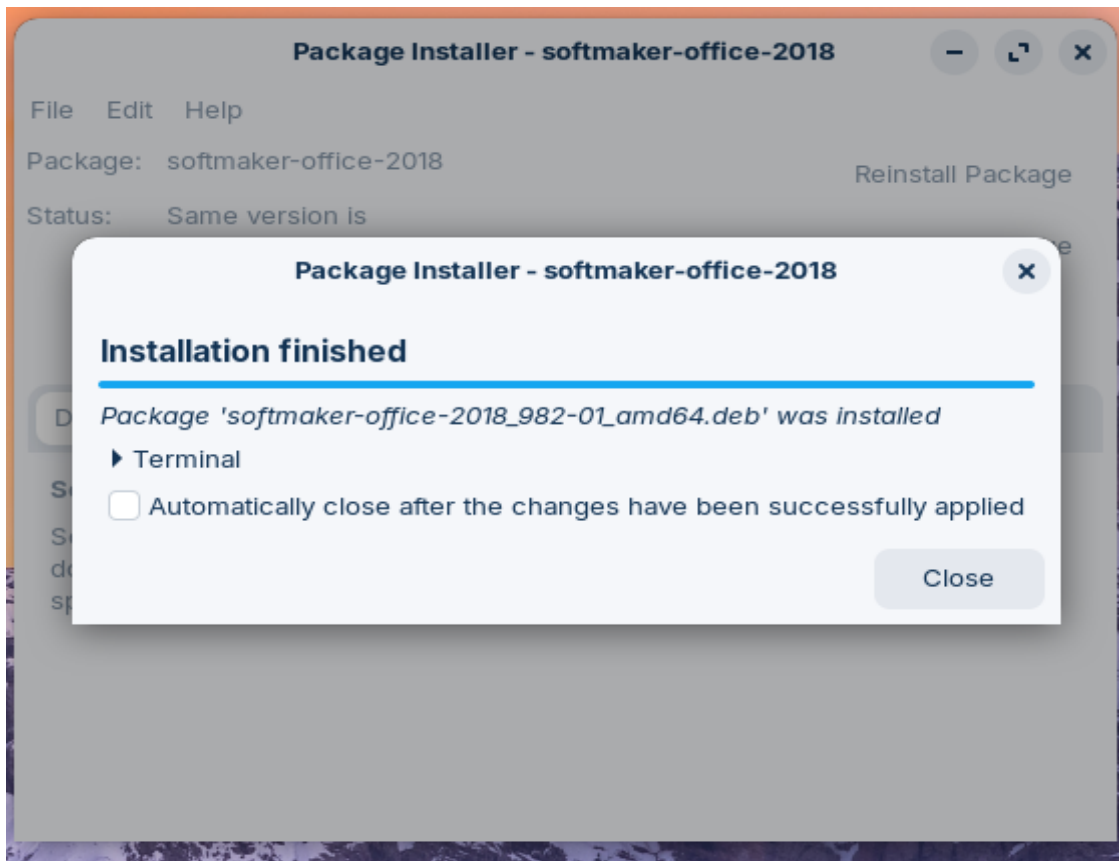
The nice thing about **gdebi** is that it checks that all dependencies are present, and it also lets you know if additional packages are going to be installed. When you click on the **Install Package** button you will be asked for your password to elevate you to 'root', unless you have made a separate 'administrator' account, then you would enter that password.



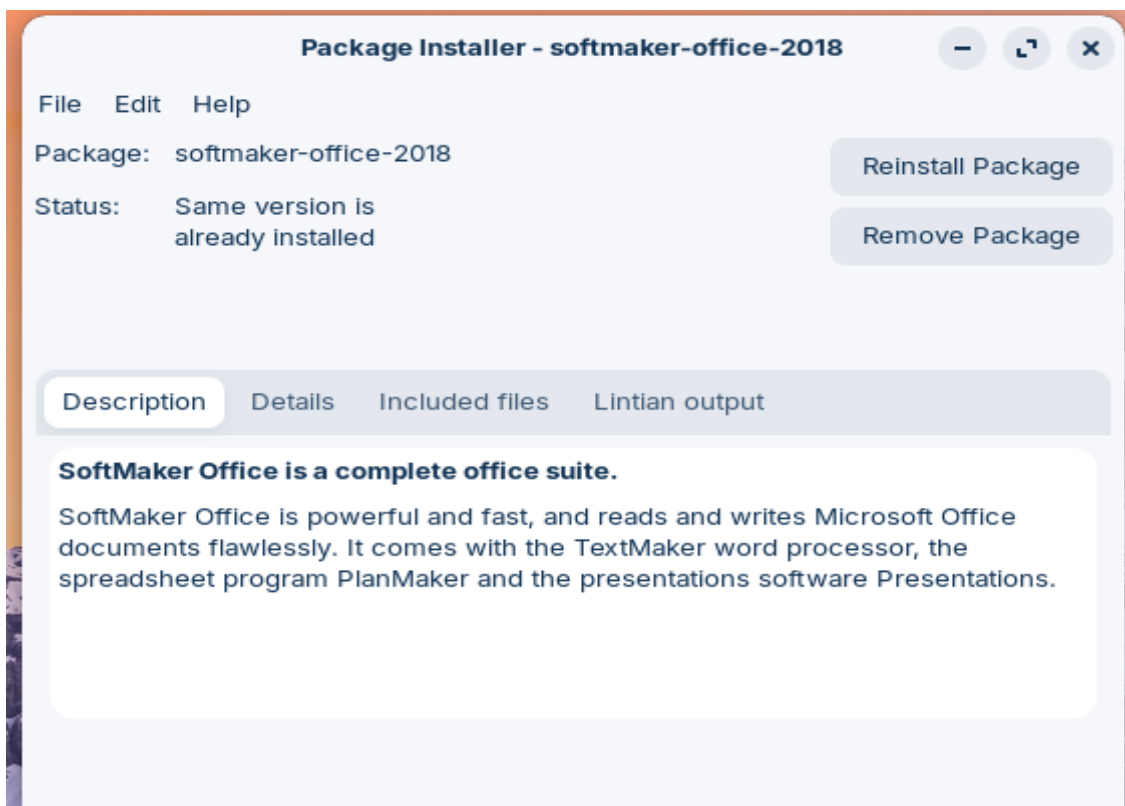
You then get a new popup window, similar to software update to say it is installing the package:



Once complete, you will be notified:



After you click on the 'Close' button the gdebi interface shows this:



So if the application did not install correctly first time, you can select **Reinstall Package** or if you have changed your mind, **Remove Package**.

In terms of third party **.deb** packages it is worth inspecting them before you extract them to make sure there are no malware present in the package.

[From Unofficial Manual for Zorin 15 Core:

Inspect 3rd Party .deb packages before installing:

These should always be inspected before 'extracting' as whilst not a virus, malicious code could be lurking there:

"I always open the debs and check for suspicious post-install scripts

This is how to do that. ...

Listing the files from a debian package using `dpkg -c`

`dpkg` is the package manager for debian. So using `dpkg` command you can list and extract the packages, as shown below.

To view the content of *.deb file:

Code:

```
:
$ dpkg -c ovpc_1.06.94-3_i386.deb
dr-xr-xr-x root/root      0 2010-02-25 10:54 ./
dr-xr-xr-x root/root      0 2010-02-25 10:54 ./ovpc/
dr-xr-xr-x root/root      0 2010-02-25 10:54 ./ovpc/pkg/
dr-xr-xr-x root/root      0 2010-02-25 10:54 ./ovpc/pkg/lib/
dr-xr-xr-x root/root      0 2010-02-25 10:48 ./ovpc/pkg/lib/header/
-r-xr-xr-x root/root     130 2009-10-29 17:06 ./ovpc/pkg/lib/header/libov.so
.
.
.
-r-xr-xr-x root/root     131 2009-10-29 17:06 ./ovpc/pkg/etc/conf
dr-xr-xr-x root/root      0 2010-02-25 10:54 ./ovpc/pkg/etc/conf/log.conf
```

Extracting the files from a debian package using dpkg -x

Use dpkg -x to extract the files from a deb package as shown below.

Code:

```
:  
$ dpkg -x ovpc_1.06.94-3_i386.deb /tmp/ov  
$ ls /tmp/ov  
ovpc
```

DEB files are ar archives, which always contains the three files — debian-binary, control.tar.gz, and data.tar.gz. We can use ar command and tar command to extract and view the files from the deb package, as shown below.

First, extract the content of *.deb archive file using ar command.

Code:

```
:  
$ ar -vx ovpc_1.06.94-3_i386.deb  
x - debian-binary  
x - control.tar.gz  
x - data.tar.gz  
$
```

Next, extract the content of data.tar.gz file as shown below.

Code:

```
:
$ tar -xvzf data.tar.gz
./
./ovpc/
./ovpc/pkg/
./ovpc/pkg/lib/
./ovpc/pkg/lib/header/
./ovpc/pkg/lib/header/libov.so
.
.
./ovpc/pkg/etc/conf
./ovpc/pkg/etc/conf/log.con
"
```

[With acknowledgement to **Blackwolf** on **ultimateeditionoz.com** forum – sadly the forum is no more.]

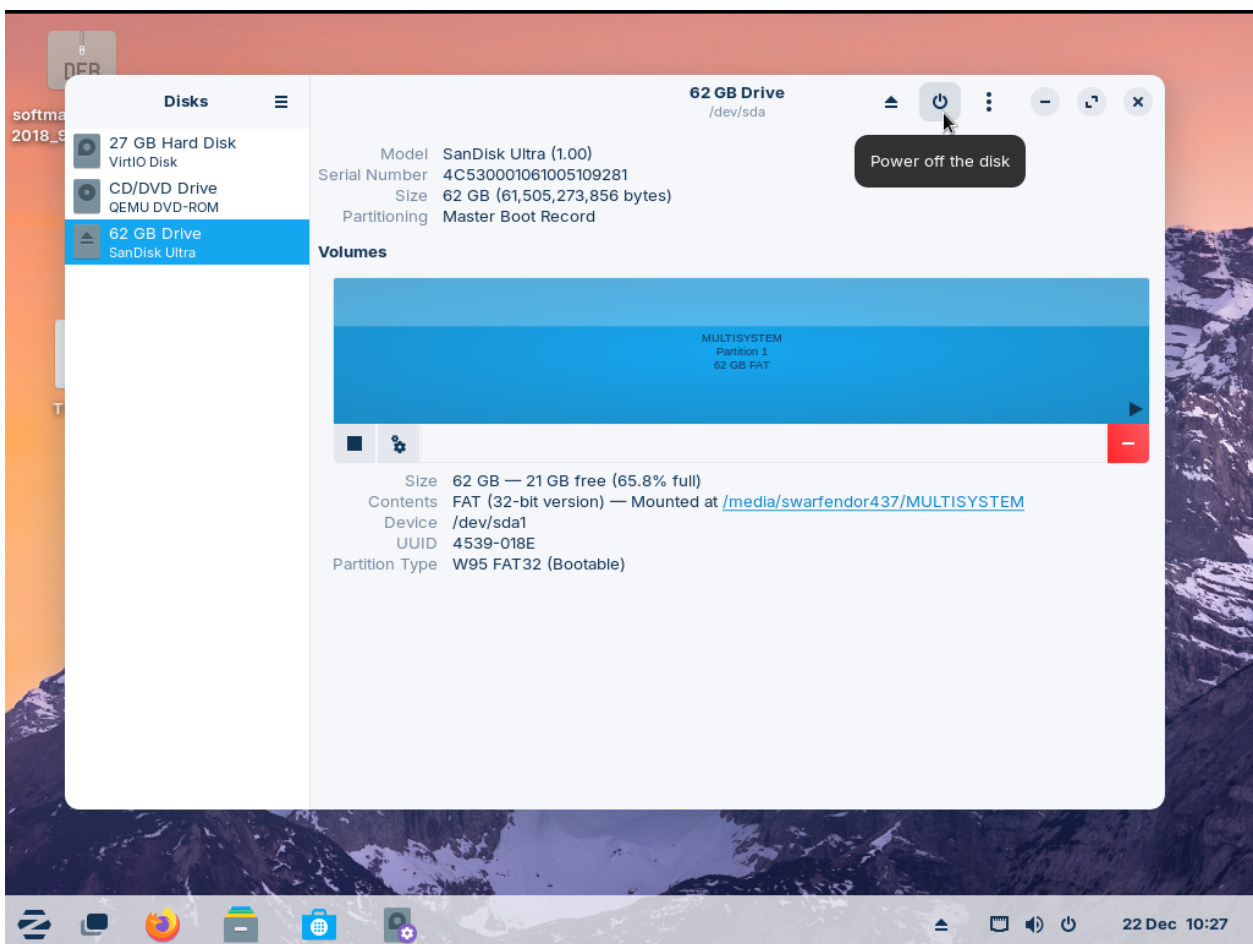
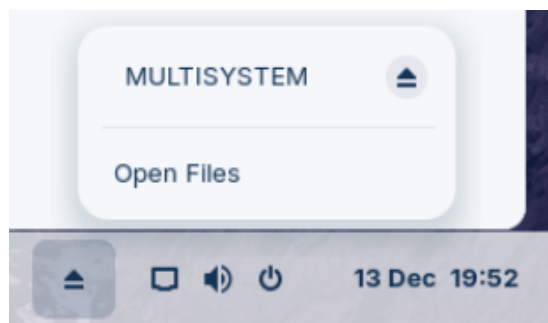
There was an instance of a GNU/Linux theme uploaded to gnome-look.org called Ubundows that had not been checked by Admin for that site; the file once extracted executed 'Unix' commands to wipe the hard drive clean of all content - YOU HAVE BEEN WARNED! 😊

[End of extract from Unofficial Manual for Zorin 15 Core.]

Dash - the right side, the **System Tray**.



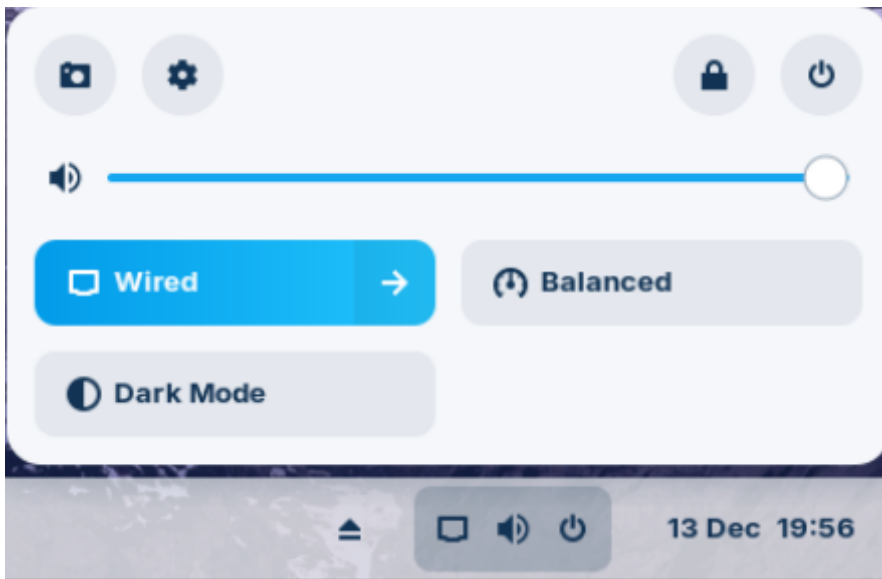
Starting on the left we have a triangle pointing upwards with a line underneath. Left click on this icon to reveal what devices are attached to the machine such as USB drives, with the option to view their contents, or unmount the drive for removal (though I always prefer to play safe and use **Disks** to power off, after unmounting.)



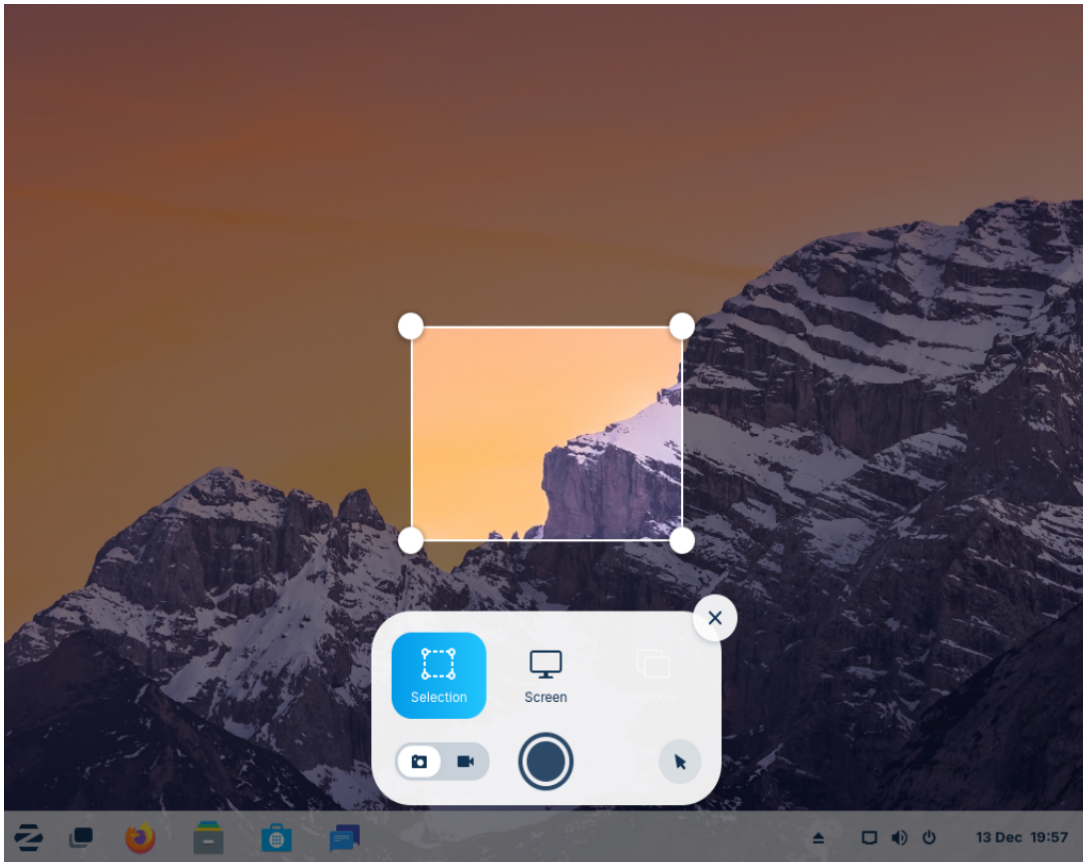
The next item is a group of 3 icons, the group name of which is **Quick Settings**, comprising of **Network, Sound (Audio), Power options**.



Left click on this group to reveal this interface revealing further shortcuts to **Screenshot/Desktop screencast (Camera Icon), Display settings (cog), Lock Screen (padlock), and Dark Mode** (if you want to manually change the screen from **Light** to **Dark** and vice-versa:



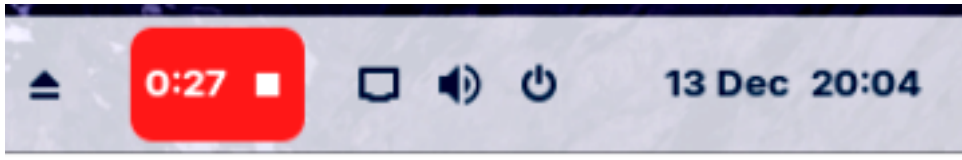
Selecting the **Camera** icon found top-left of the interface, launches the Screenshot application interface (can also be launched via Search bar on Menu):



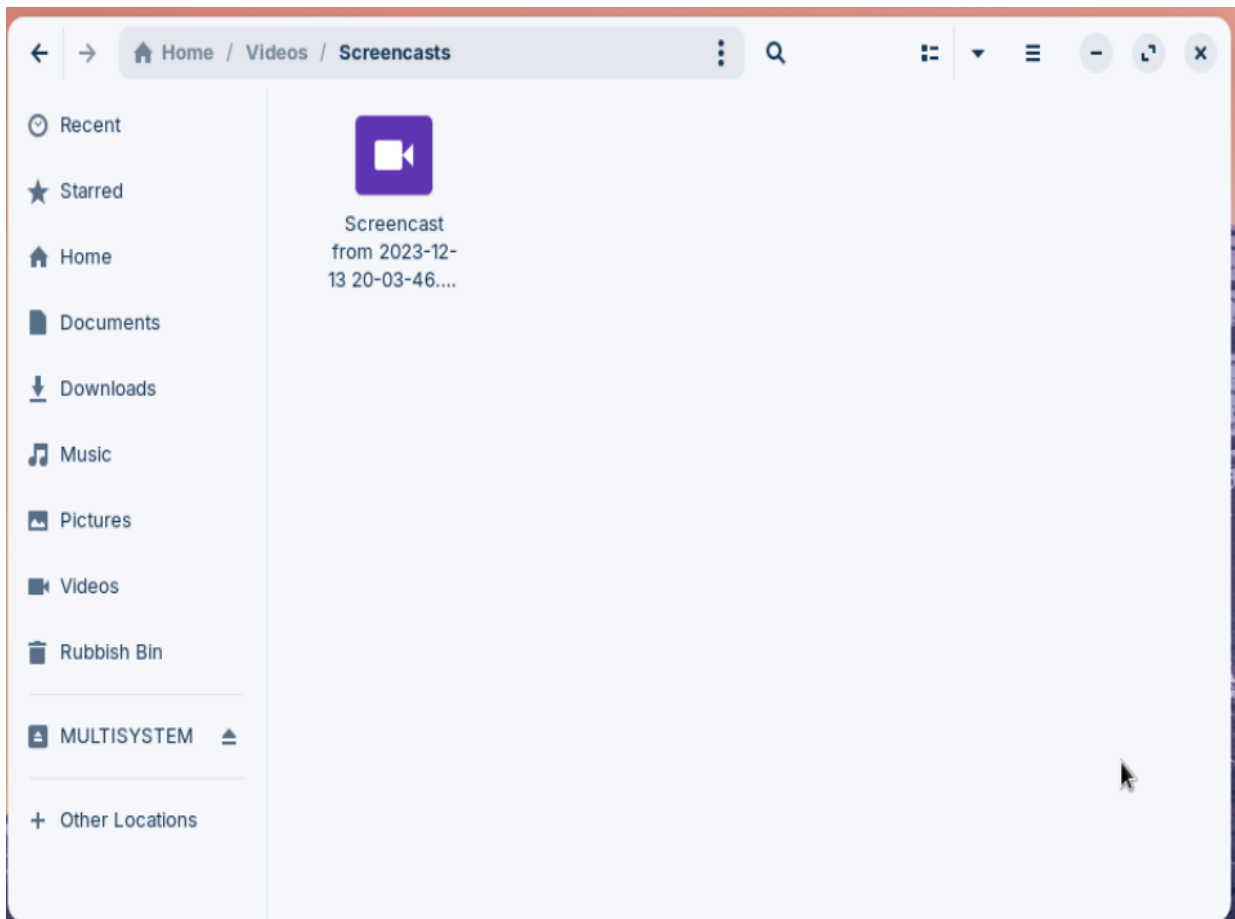
By default, the first option is to take a screenshot of a selected area that you wish to capture, and if the area is not in the part of the screen you want the screenshot to be taken you can move the highlighted square's corners by dragging them with the mouse where you want the content of the screen to be captured. Notice also the group of 2 icons bottom left - the default setting is to take a still shot, the next option is to make a video of the desktop, a screencast. To take a snapshot of the desktop using the camera function, or to start capturing a video, you left click on the large black circle which has a black ring around it.

The pointer bottom right is not selected - select it if you want the pointer to be captured in the screenshot/video capture. Your captured still image of the area of the desktop or Desktop selection is saved in **Home | Pictures | Screenshots**.

When recording a video of the desktop, a timer shows up in the Dash as shown below. To stop recording, left-click the red box with the timer.

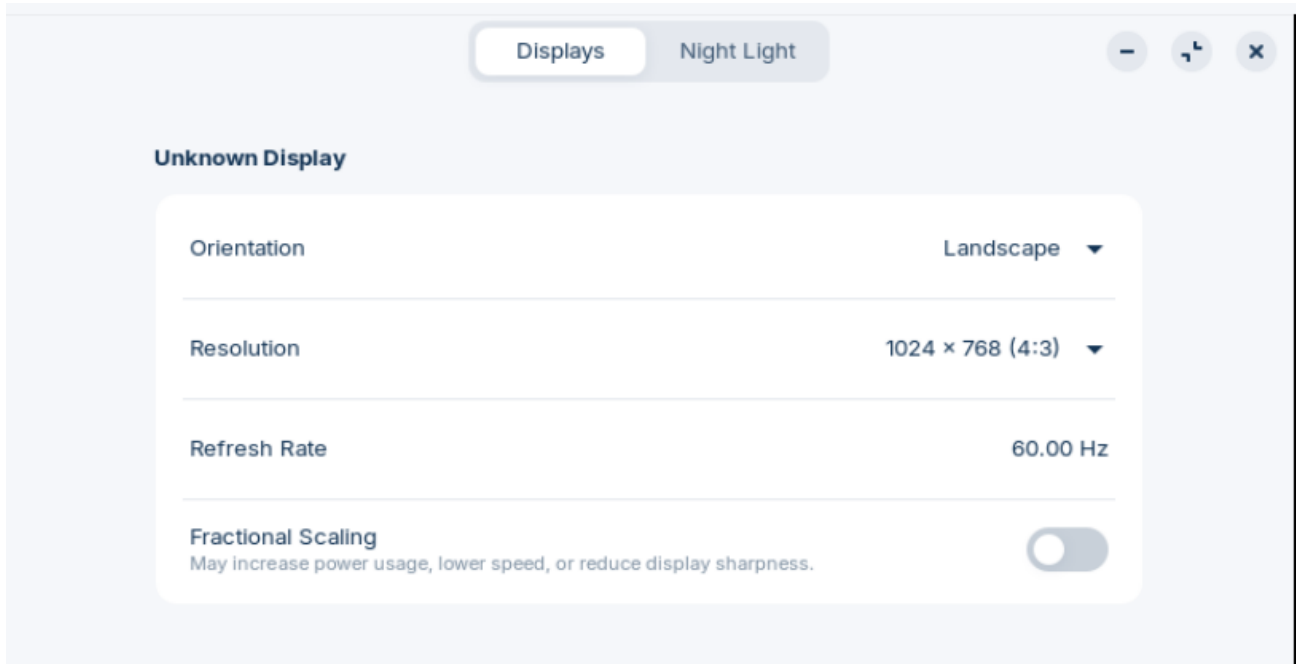


Your screencast will get saved in **Home | Videos | Screencasts**

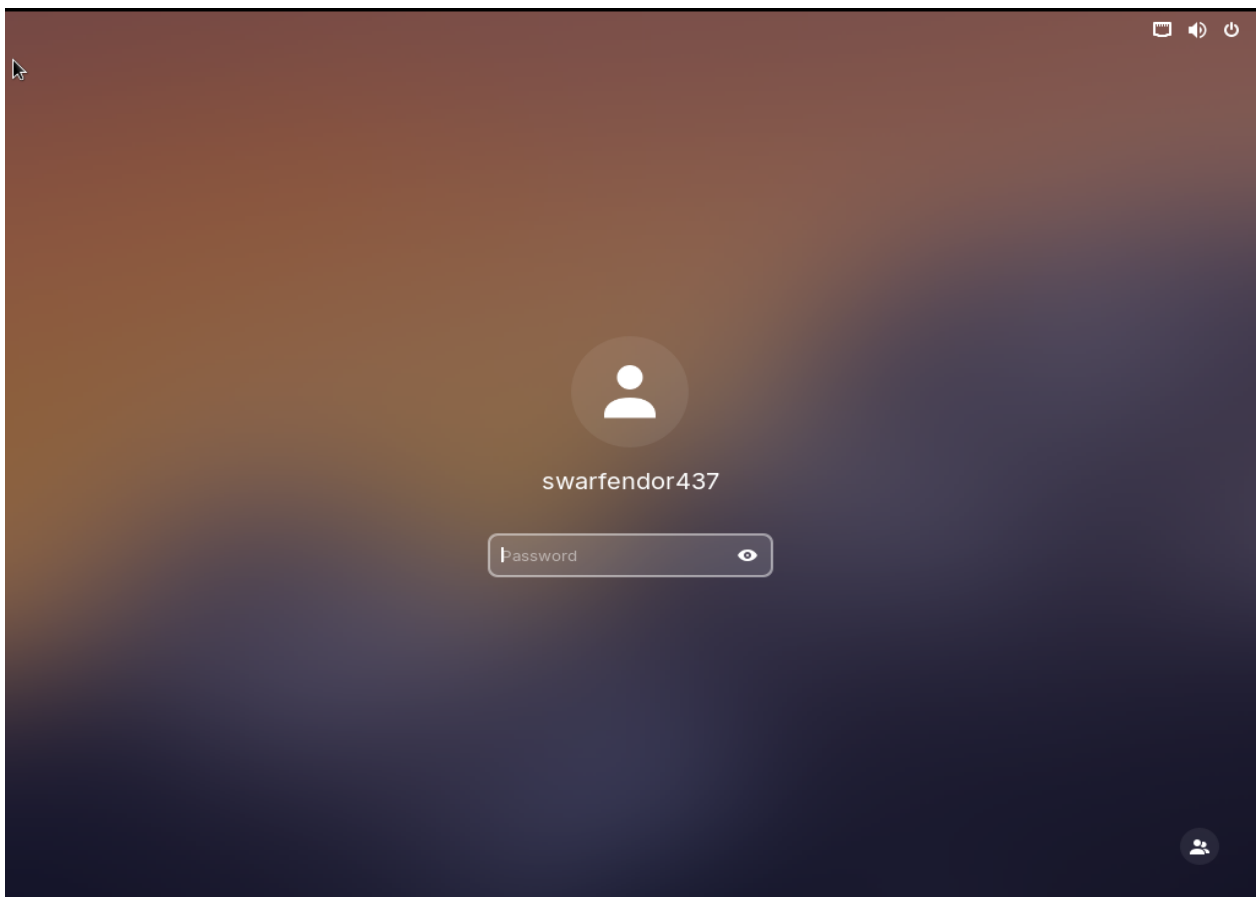


Returning to the expanded panel:

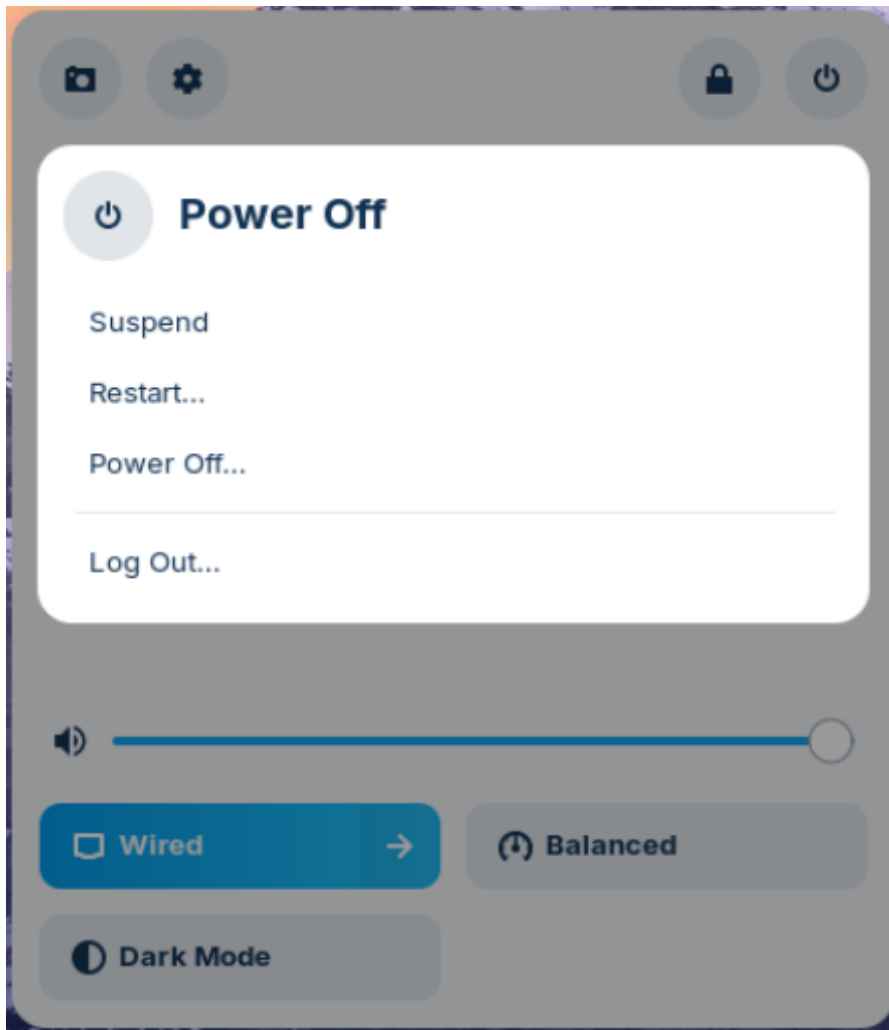
Selecting the **cog** to the right of the camera button reveals the **Displays** settings within the **Settings** menu:



Selecting the **Padlock** icon, activates the **Screen Lock**.

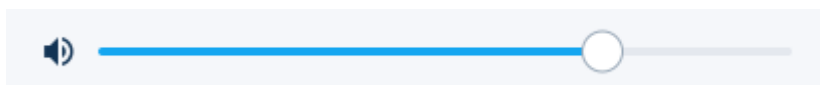


Selecting the **Power** icon gives you the following options:



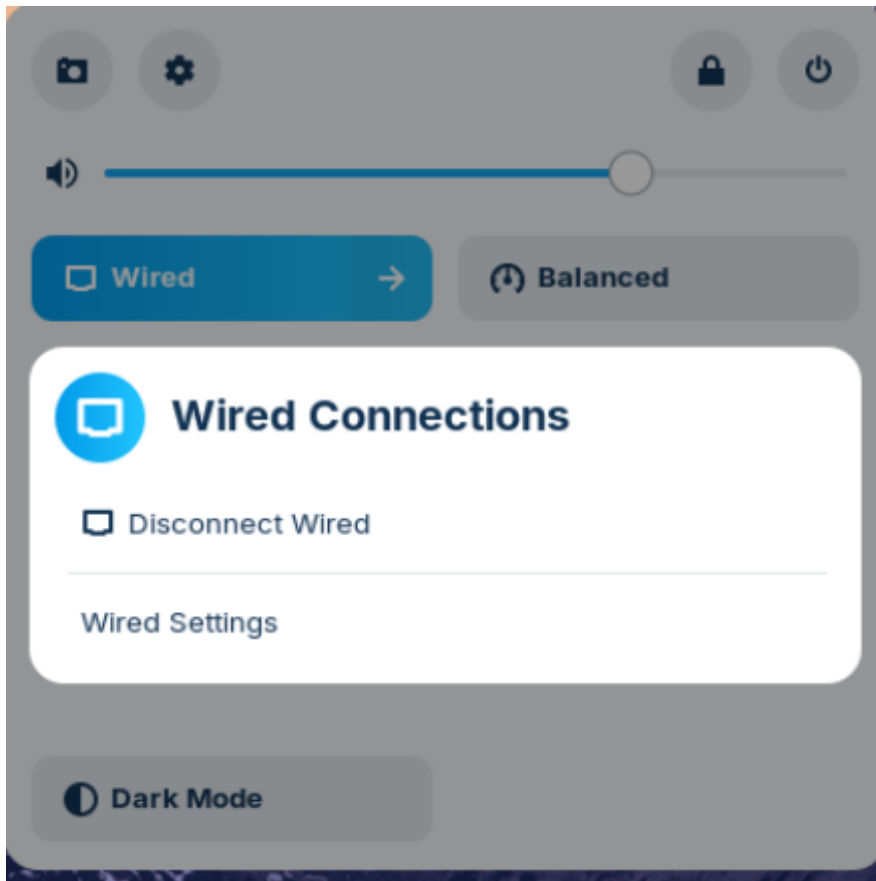
To close this window, just press **Esc** on the keyboard.

Using the left mouse button and holding the white circle on the **Speaker** line



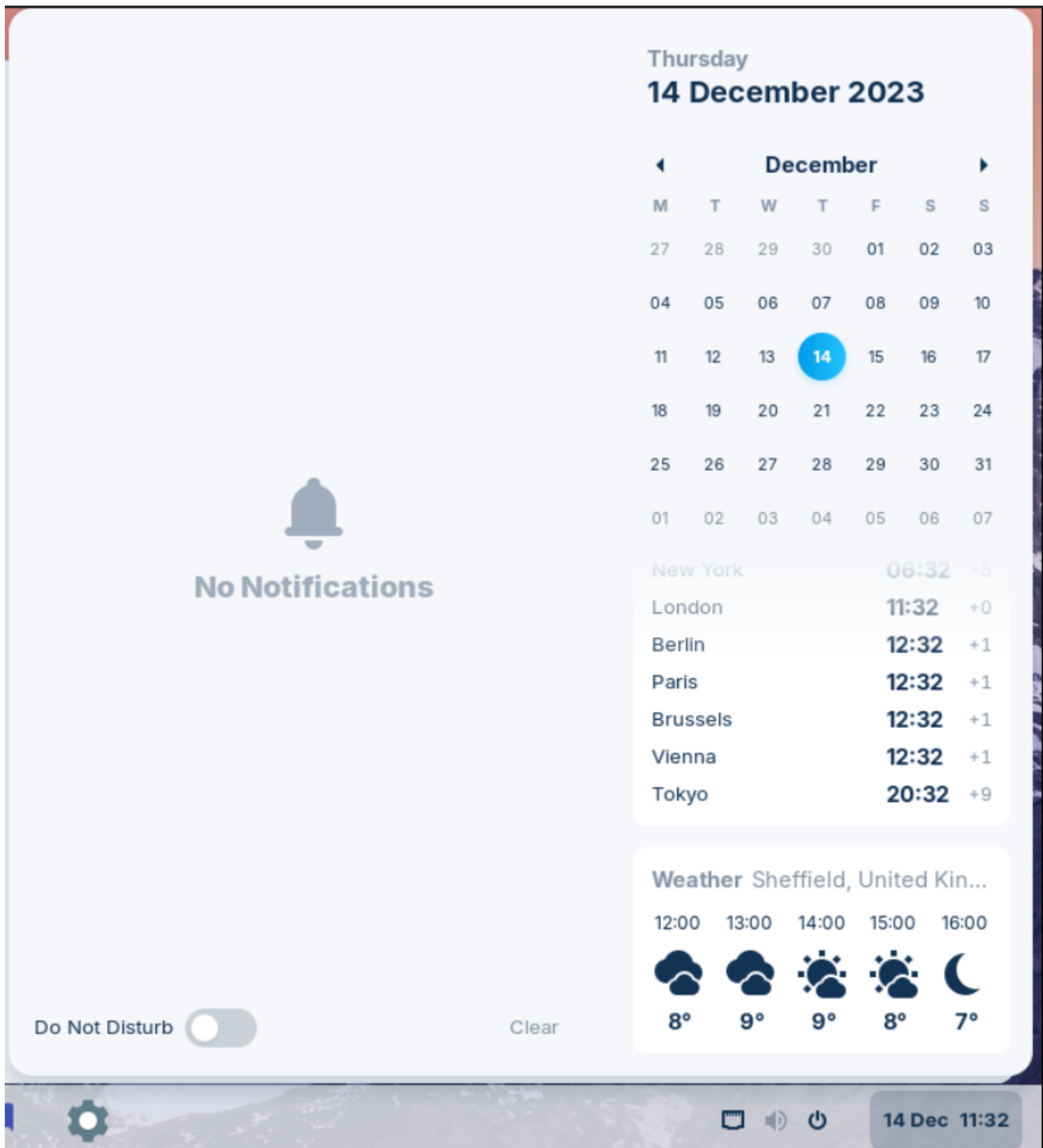
and dragging to the left decreases system volume, to the right, increases the system volume.

The blue bar with the **Network** icon identifies the connection as being **Wired**. If you click on the part which has the **Network** icon and word **Wired**, it disconnects you from the network, i.e., turns network connection off. Selecting the arrow on the right reveals the following:



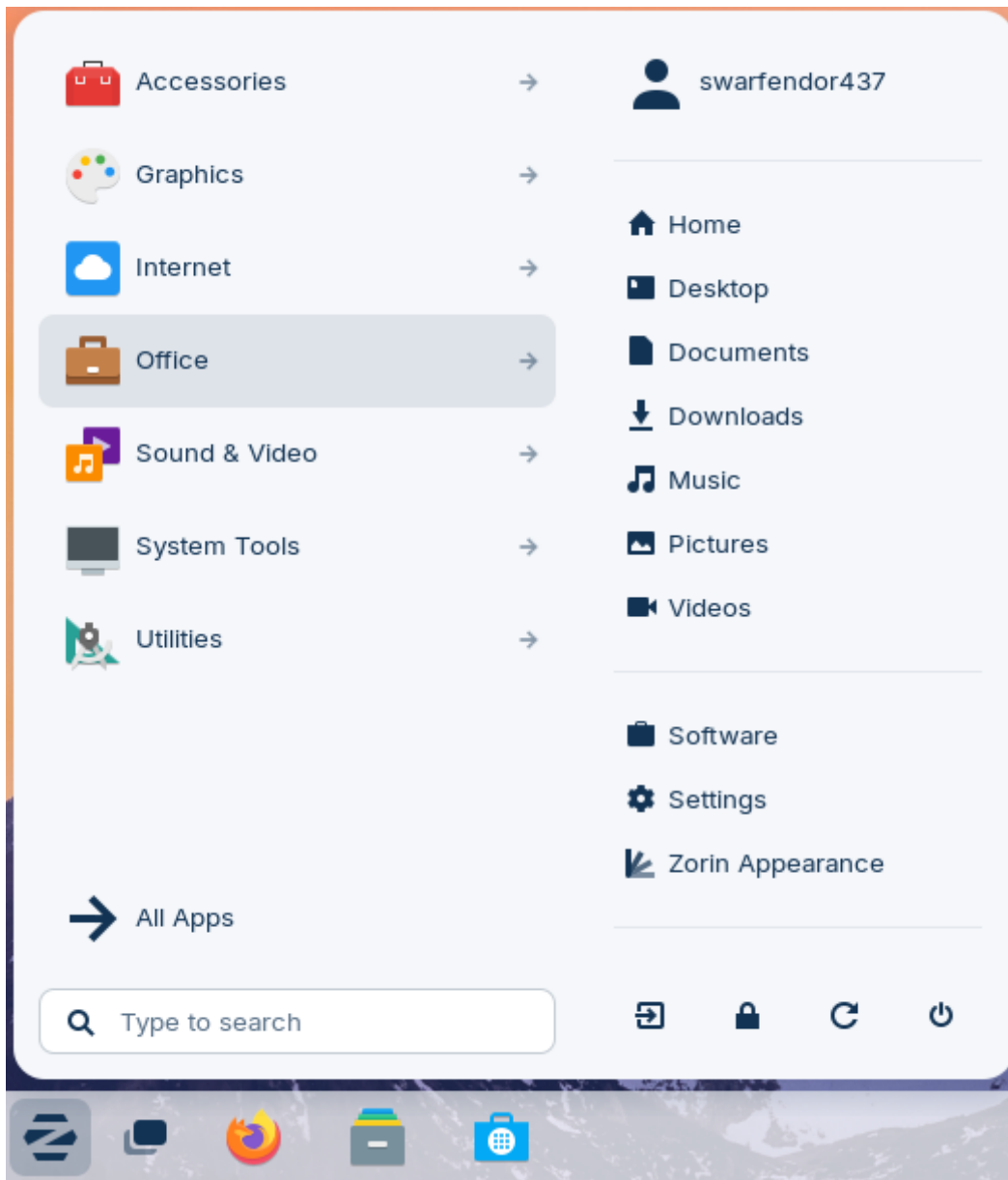
Selecting **Wired Settings** takes you to the **Network** section of **Settings**. To the right of the **Network** 'bar' can be seen the greyed out bar with the word **Balanced**. This is the quick setting for **Power Management**. Selecting this item changes the setting from **Balanced** to **Power Saver**. Lastly, the greyed out bar with the symbol of dark and light with the words **Dark Mode** to the right is an instant switch from the default **Light Mode** to **Dark Mode** and vice-versa.

The last item of the **System Tray** is the **Date & Time** section. Right-click this part of the **System Tray** and you will reveal, **Calendar**, **World Clocks** (you have to add Cities in the Clocks application to see these), and **Weather** (you will need to add your location to the **Weather** application in **Accessories** before you can see it here:



a. The Zorin Menu and its sub-menus:

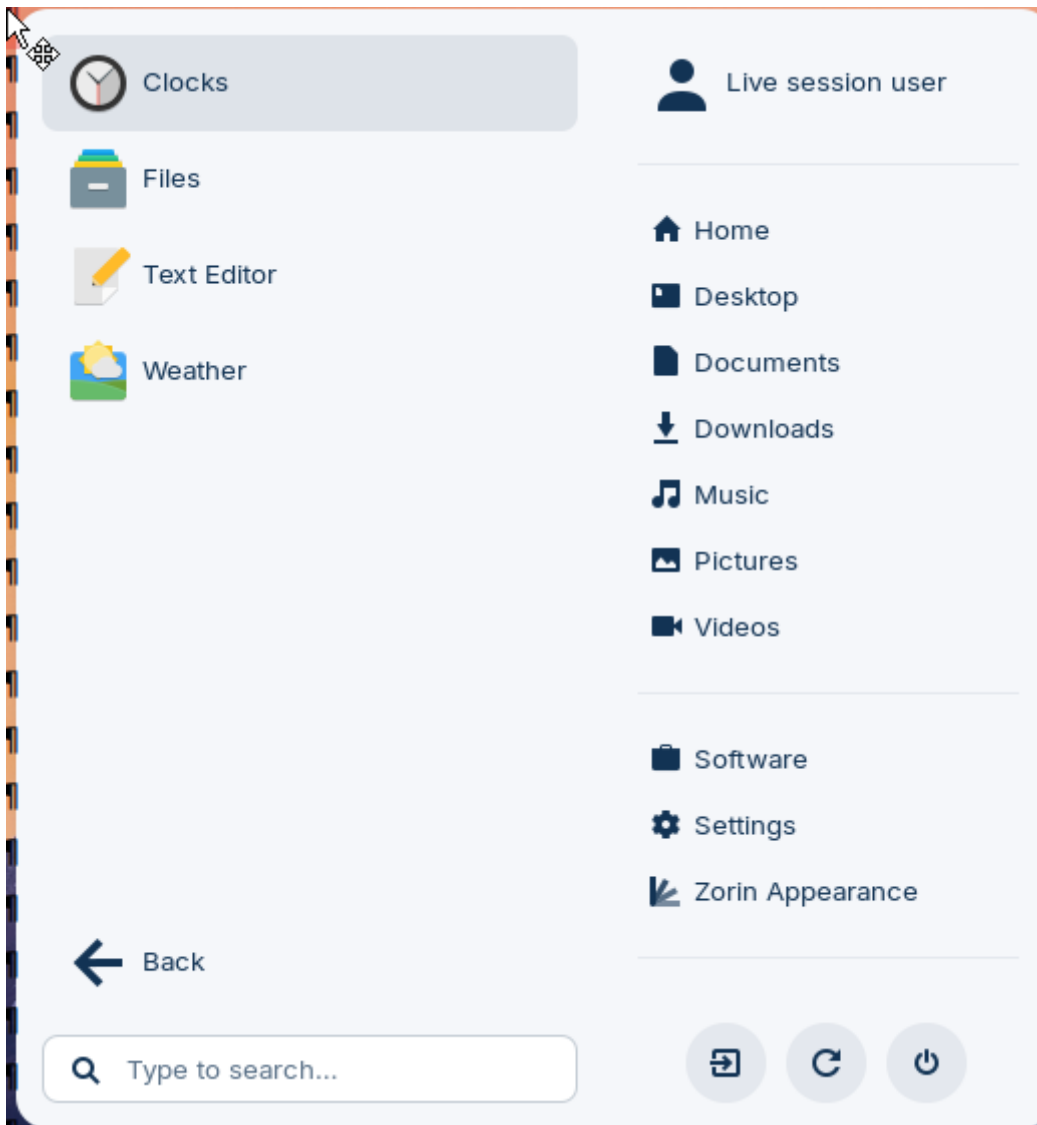
The default **Menu** of Zorin will be familiar to a lot of Windows migrators similar to that of Windows 7 with Applications listed on the left and Personal Folders and System Settings to the right and a 'search' bar at the bottom:



The key sub menus are: **Accessories, Graphics, Internet, Office, Sound & Video, System Tools, Utilities.**

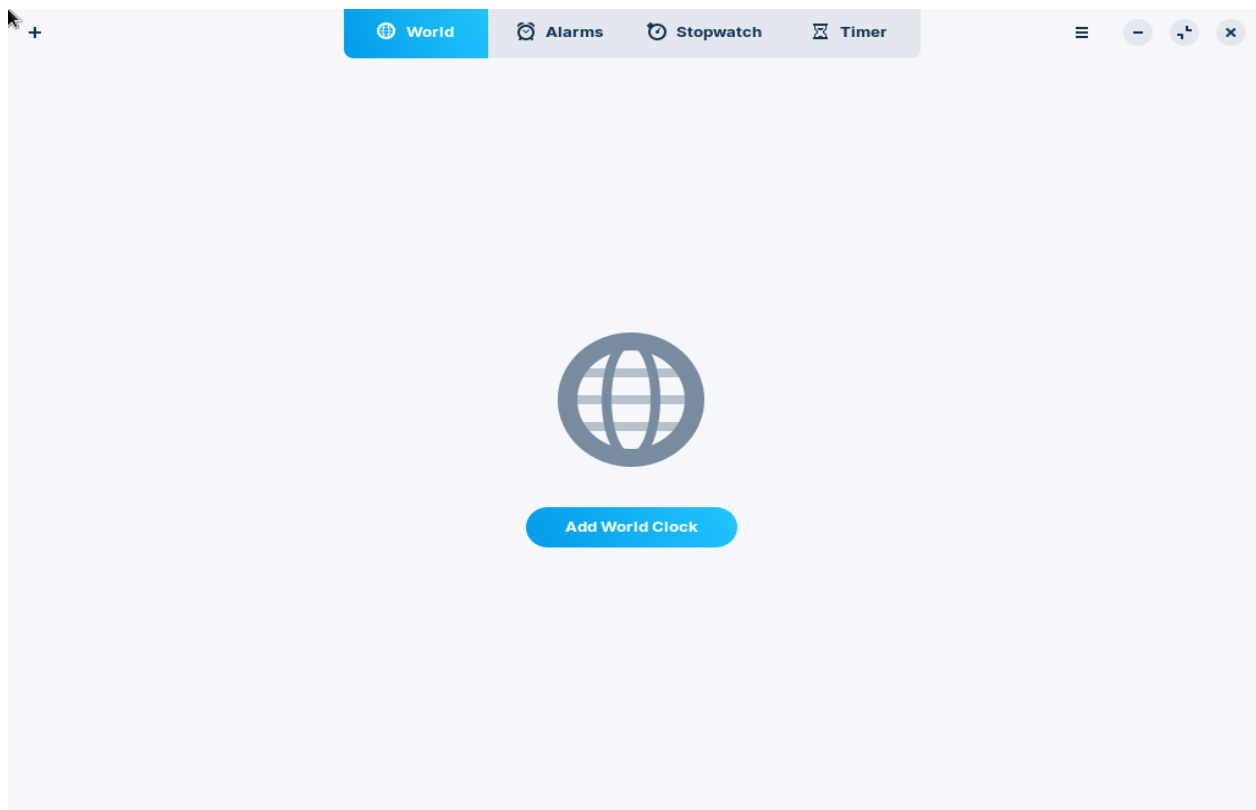
Sub-menus:

i. Accessories;



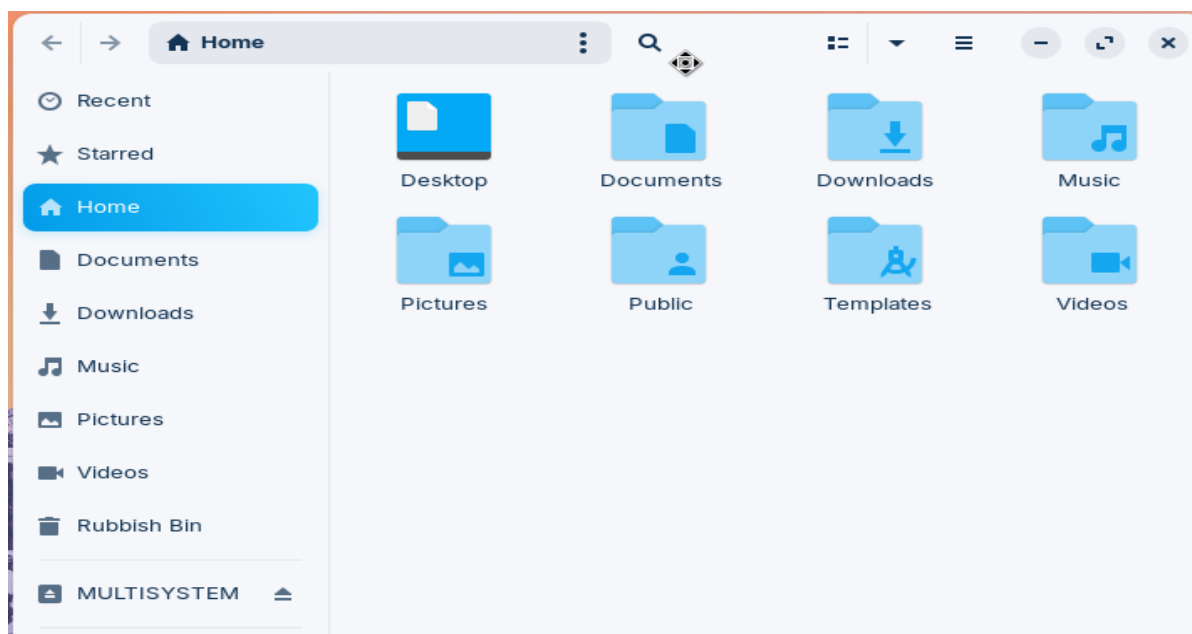
Here we have **Clocks**, **Files**, **Text Editor** (gedit), **Weather** (On the old version you needed to enter a sub-district of your City, now it will accept City entered, provided it is in the Weather provider's Database.)

Clocks

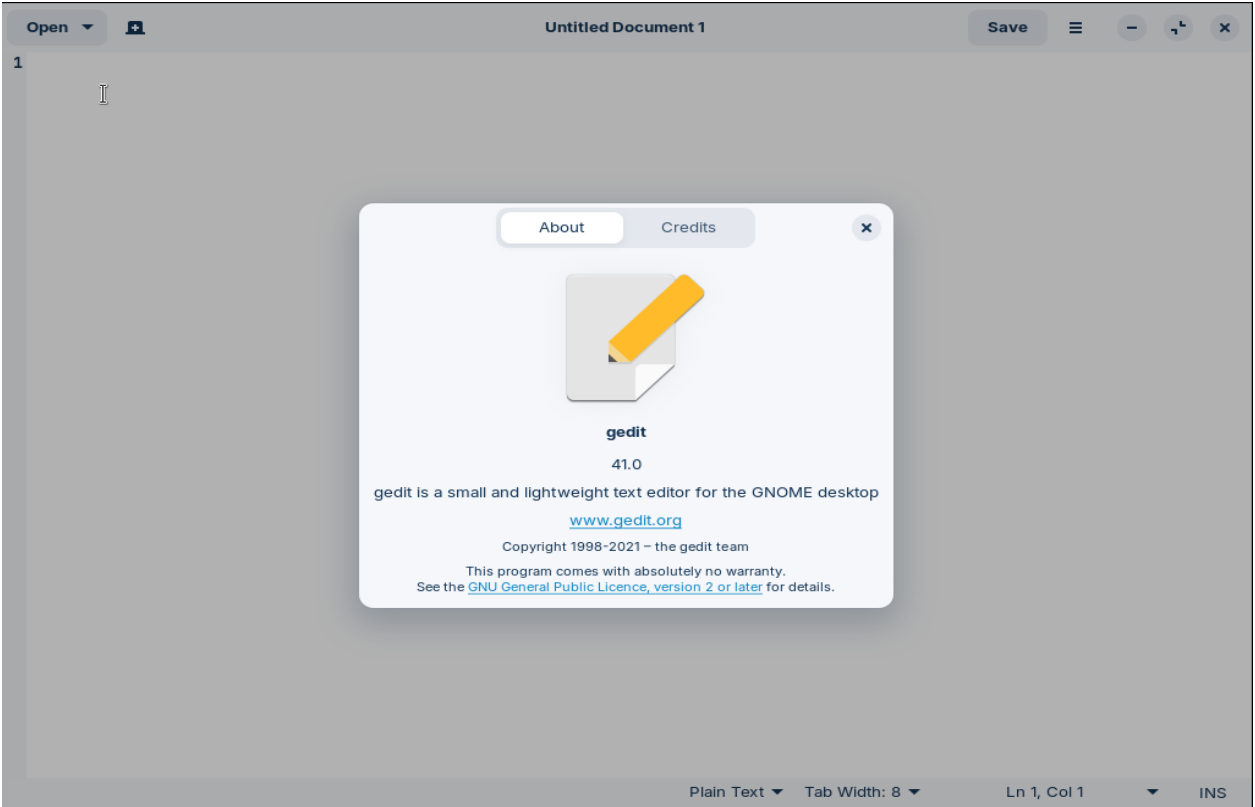


Clocks allows you to: Add a World Clock (Major cities on Timelines) (Useful if you have business contacts abroad and you need to speak to them before their office closes!), set **Alarms**, run a **Stopwatch**, or start a **Timer**.

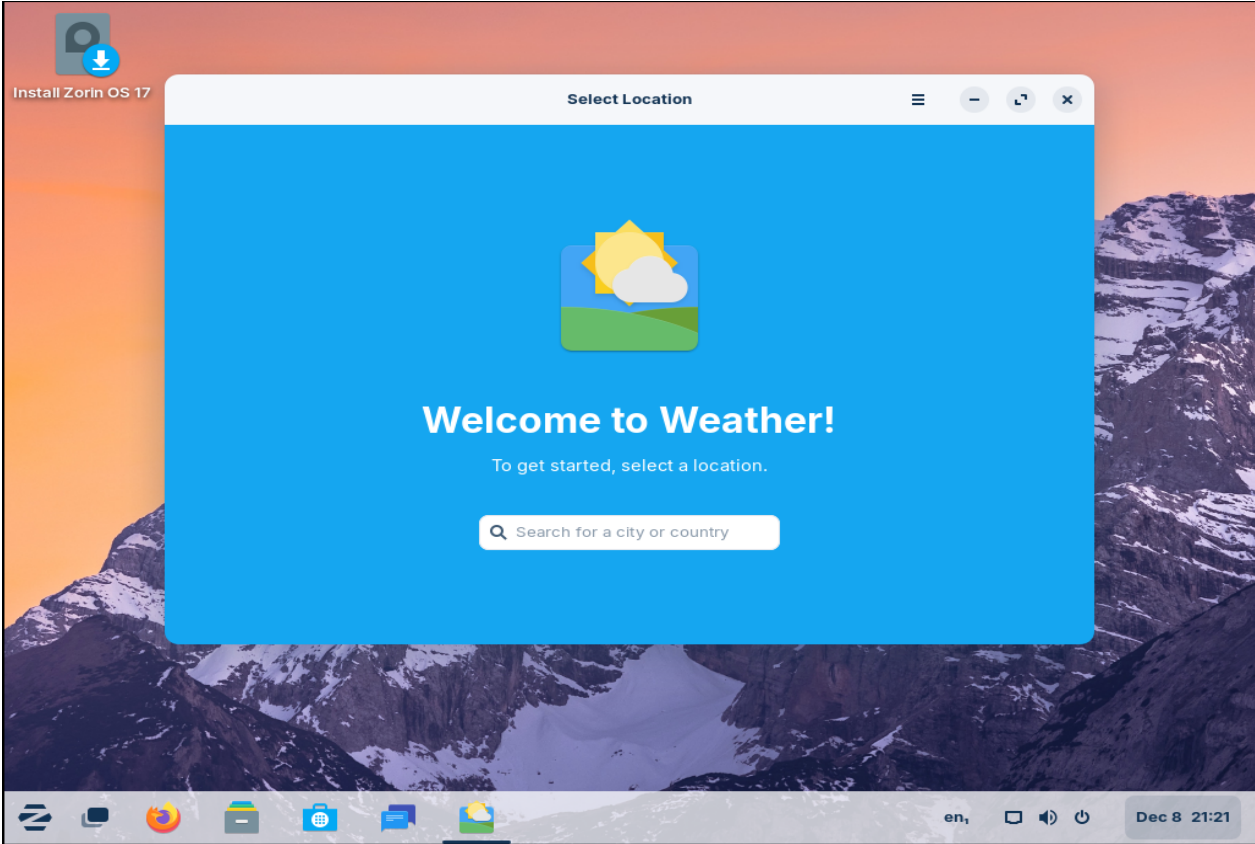
Files (formerly Nautilus file explorer)

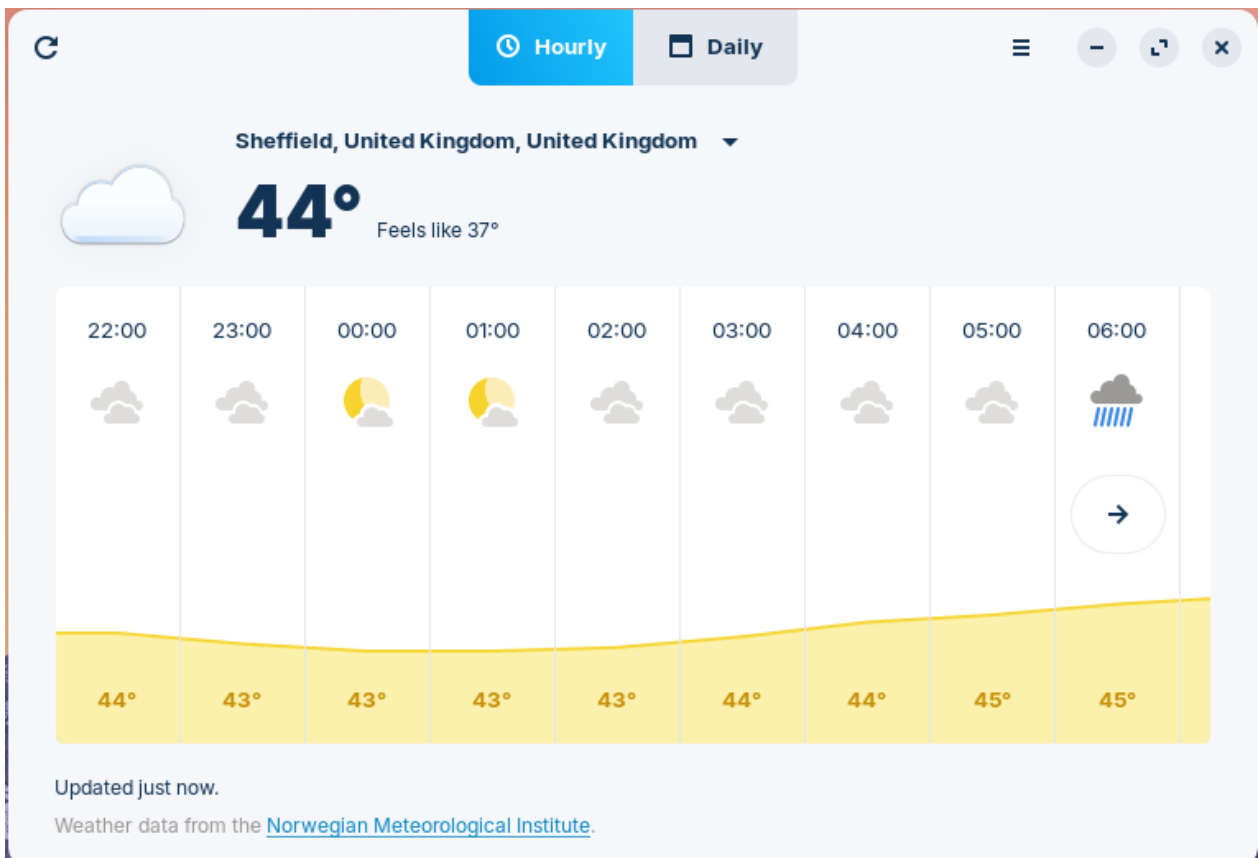
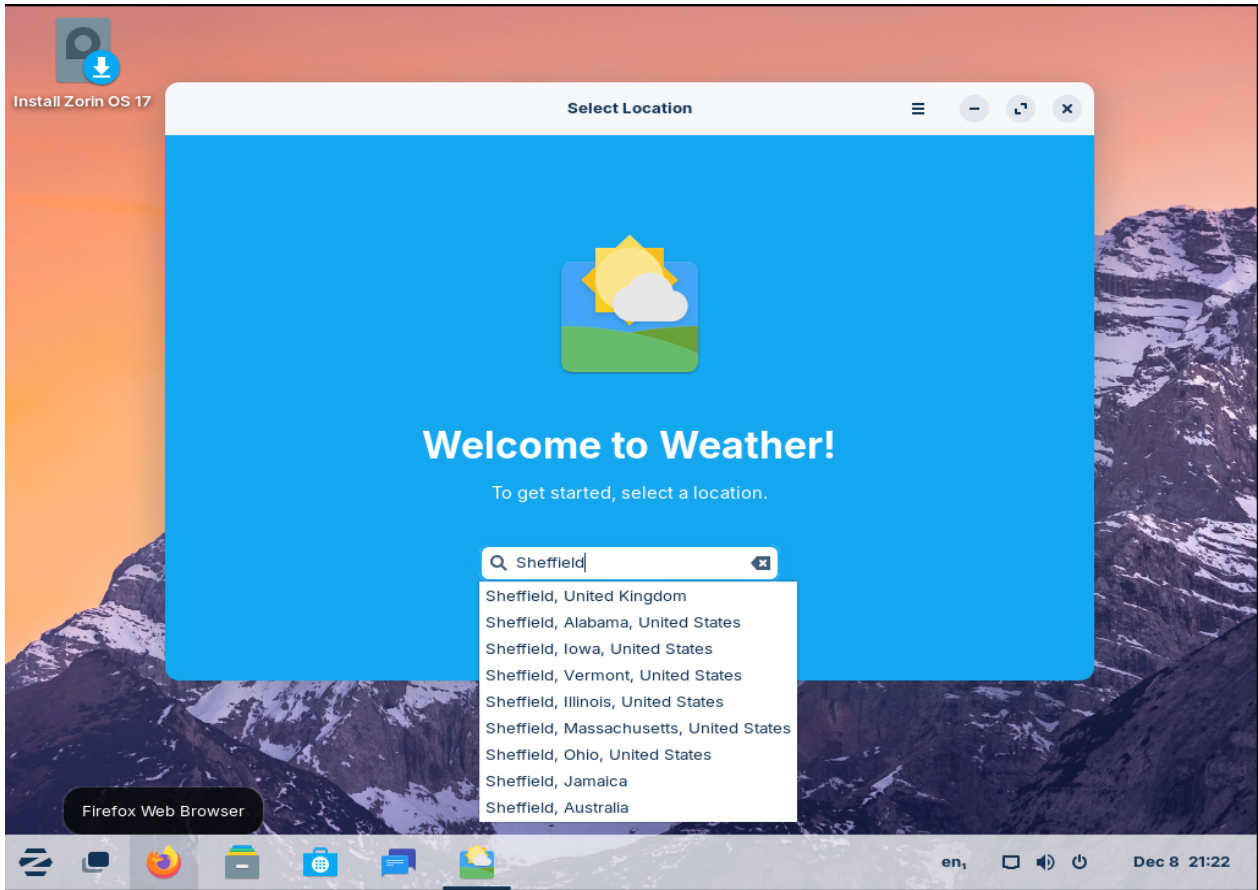


Text Editor (gedit), similar to Notepad it is used to create .txt files.

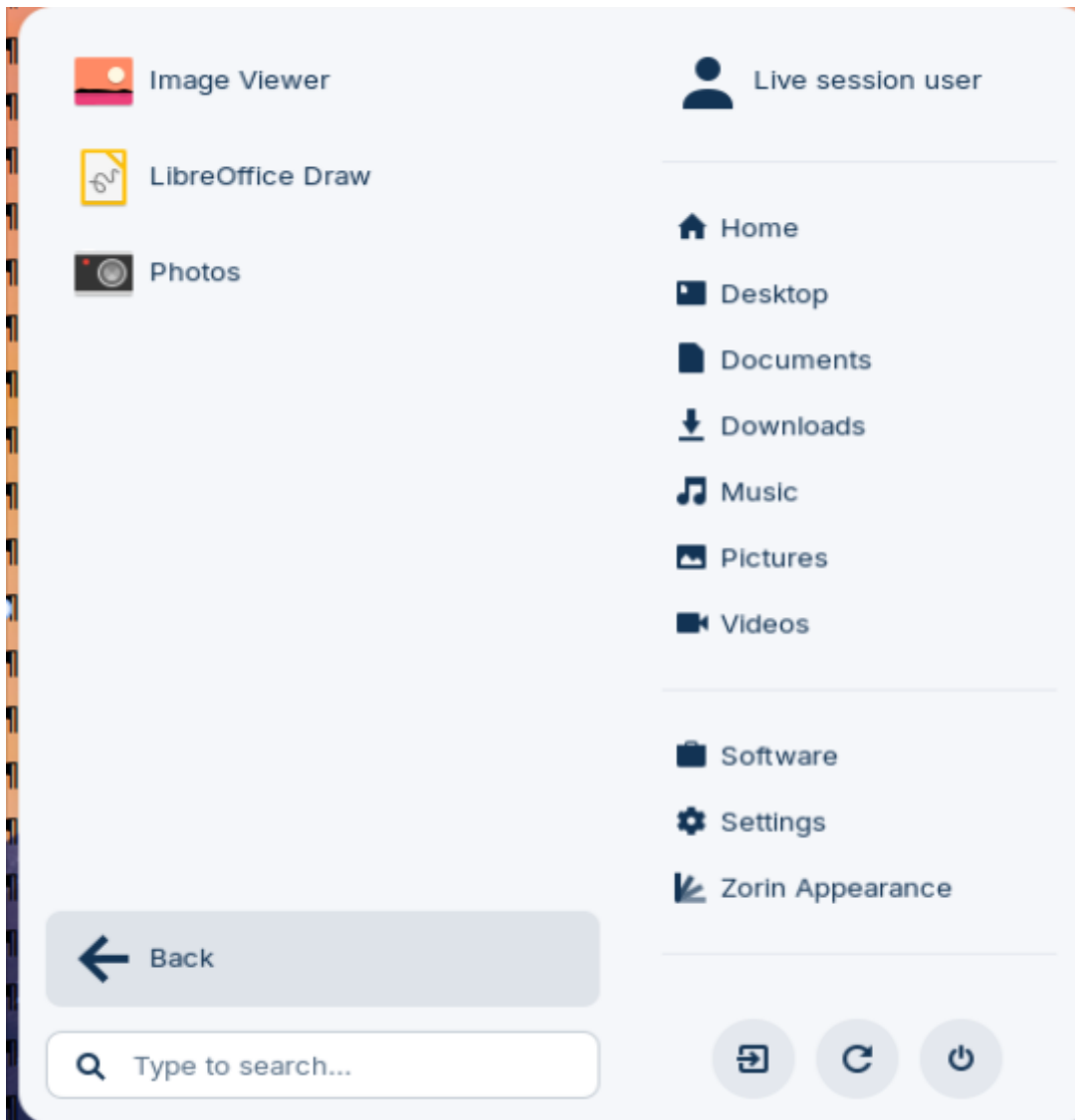


Weather



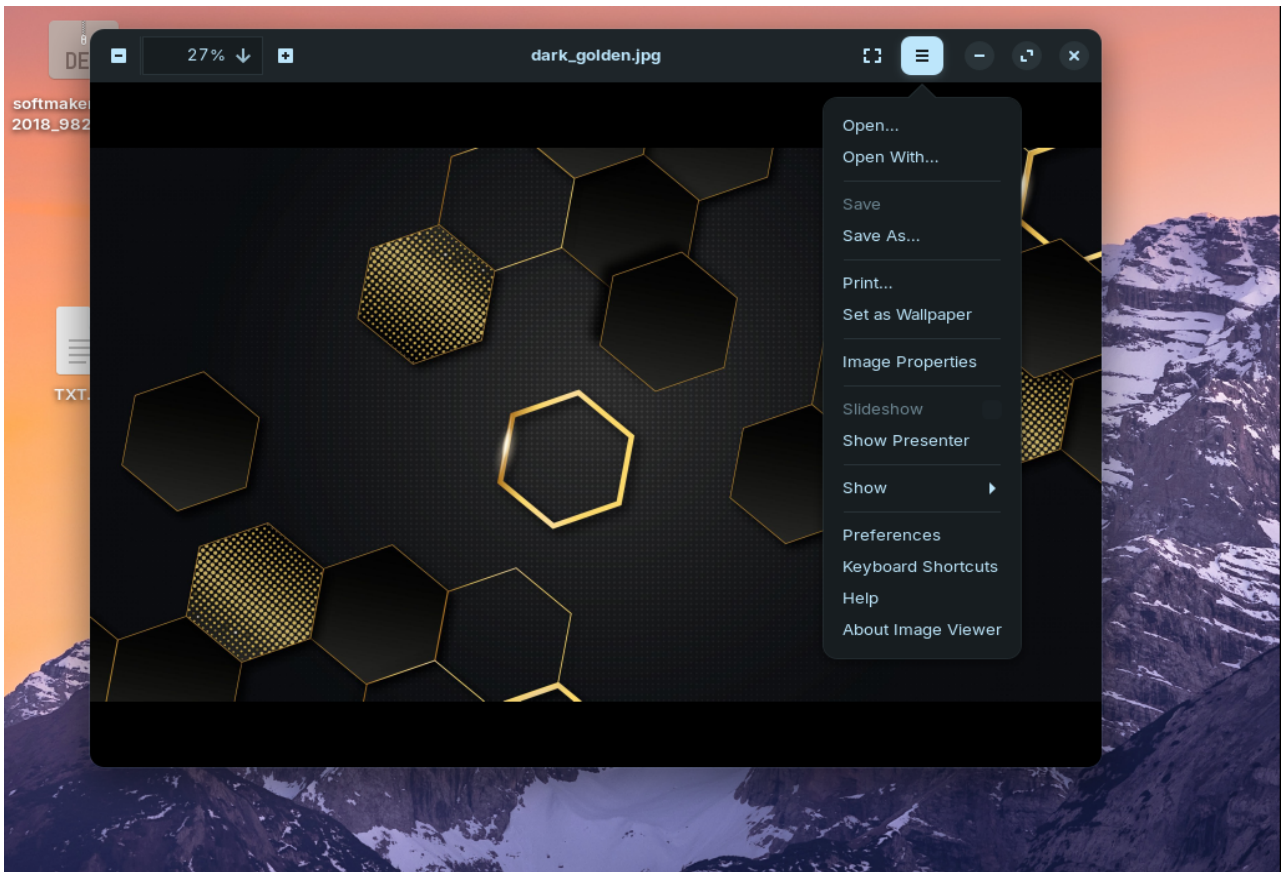


ii. Graphics;

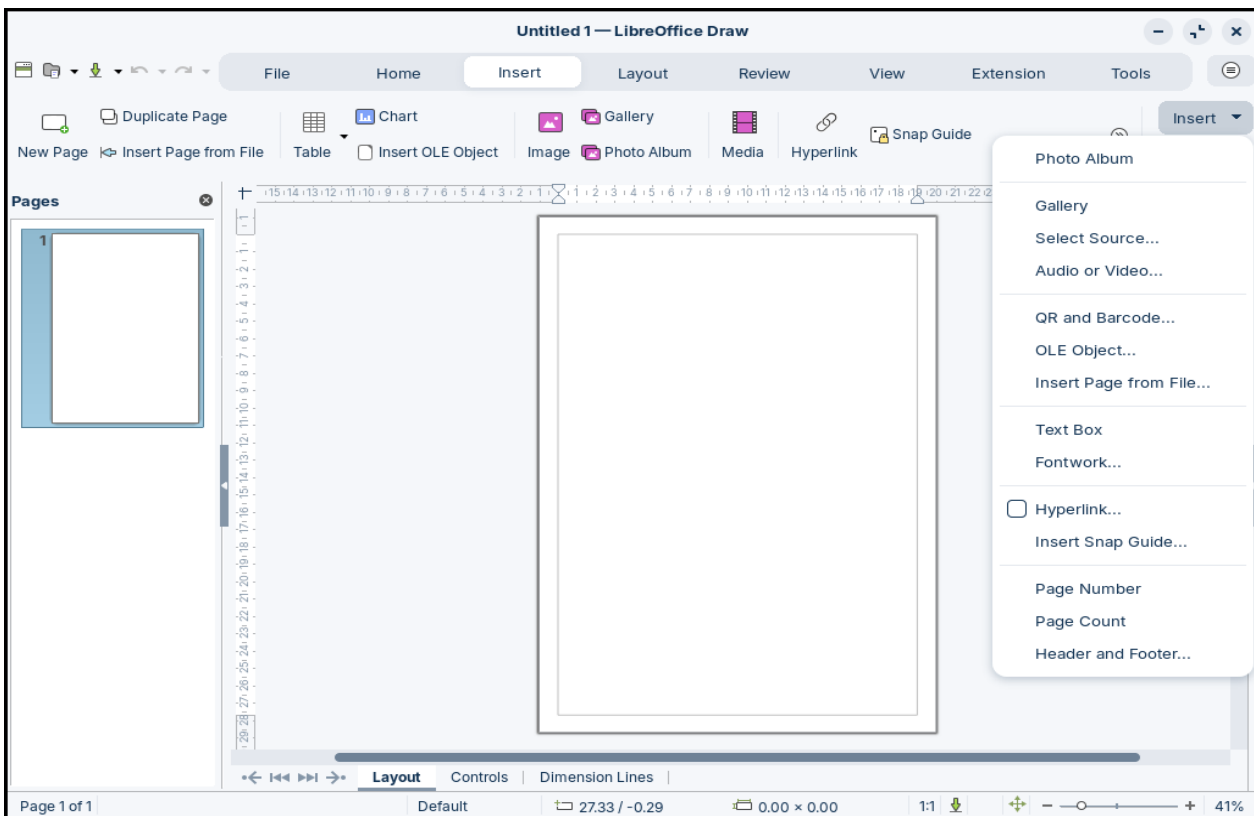


The Graphics applications on offer are **Image Viewer** (View images you have downloaded or in your Pictures folder within **Home**), **LibreOffice Draw** (Create your own diagrams), and **Photos** (from Online Accounts or Pictures Folder).

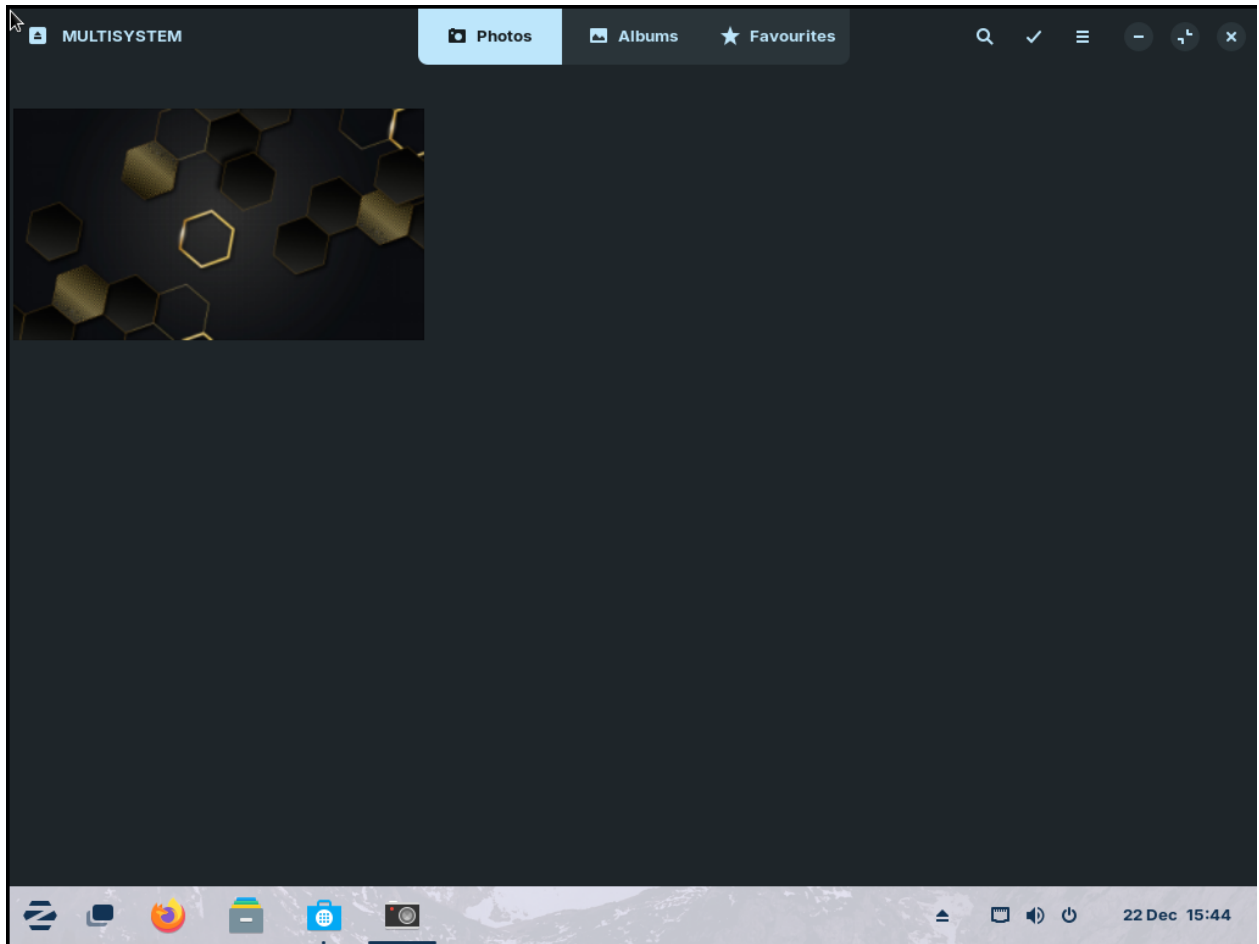
Image Viewer



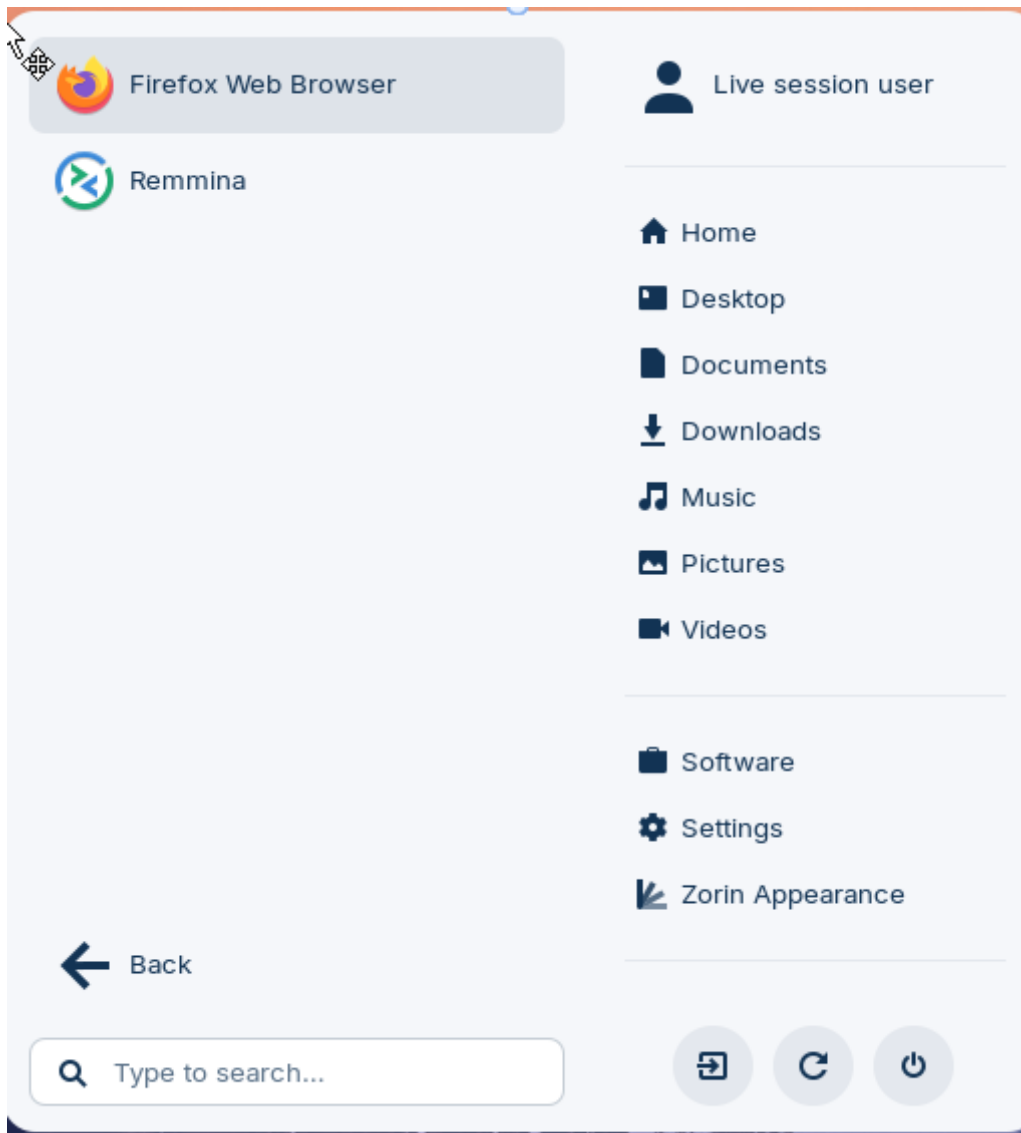
LibreOffice Draw



Photos

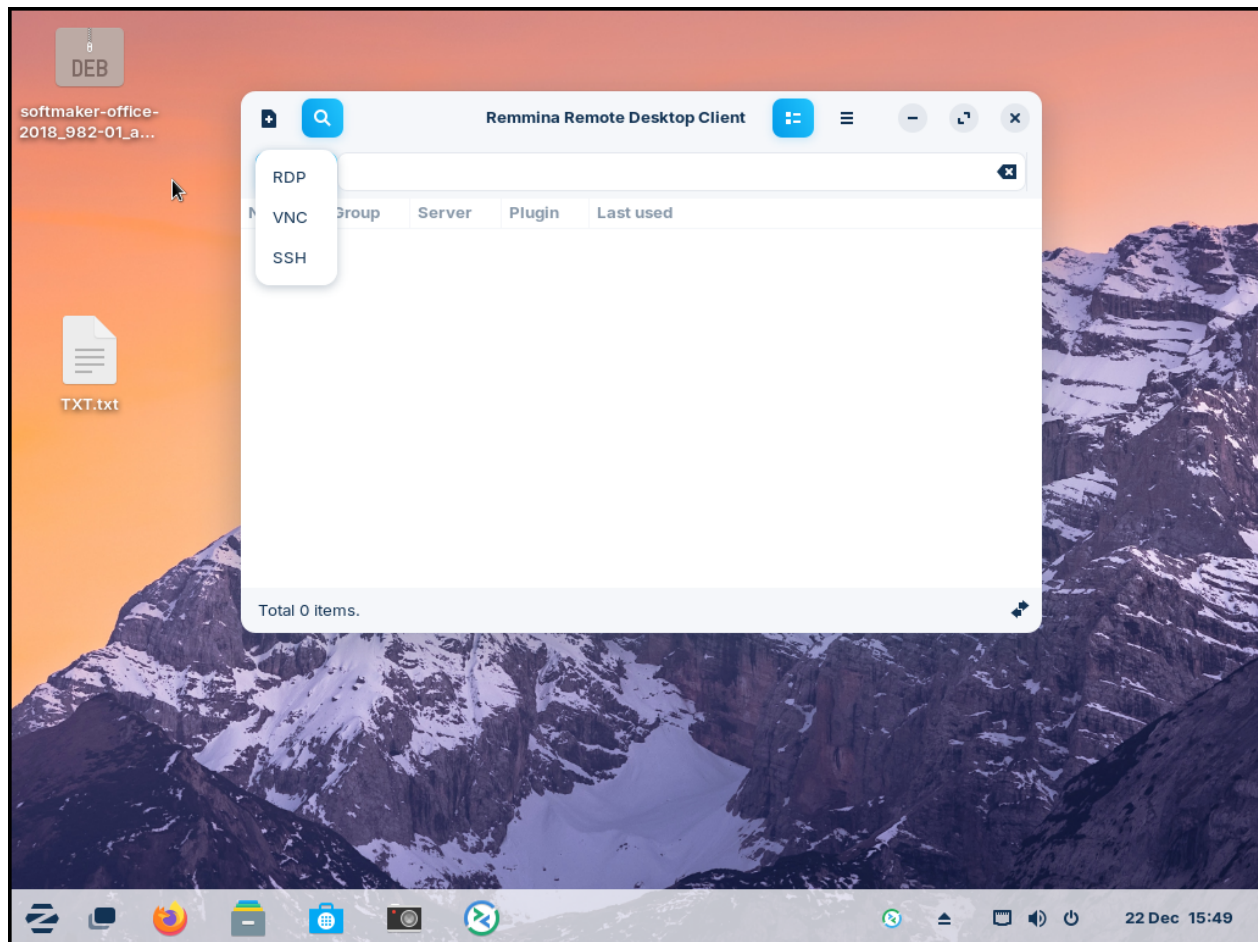


iii. Internet



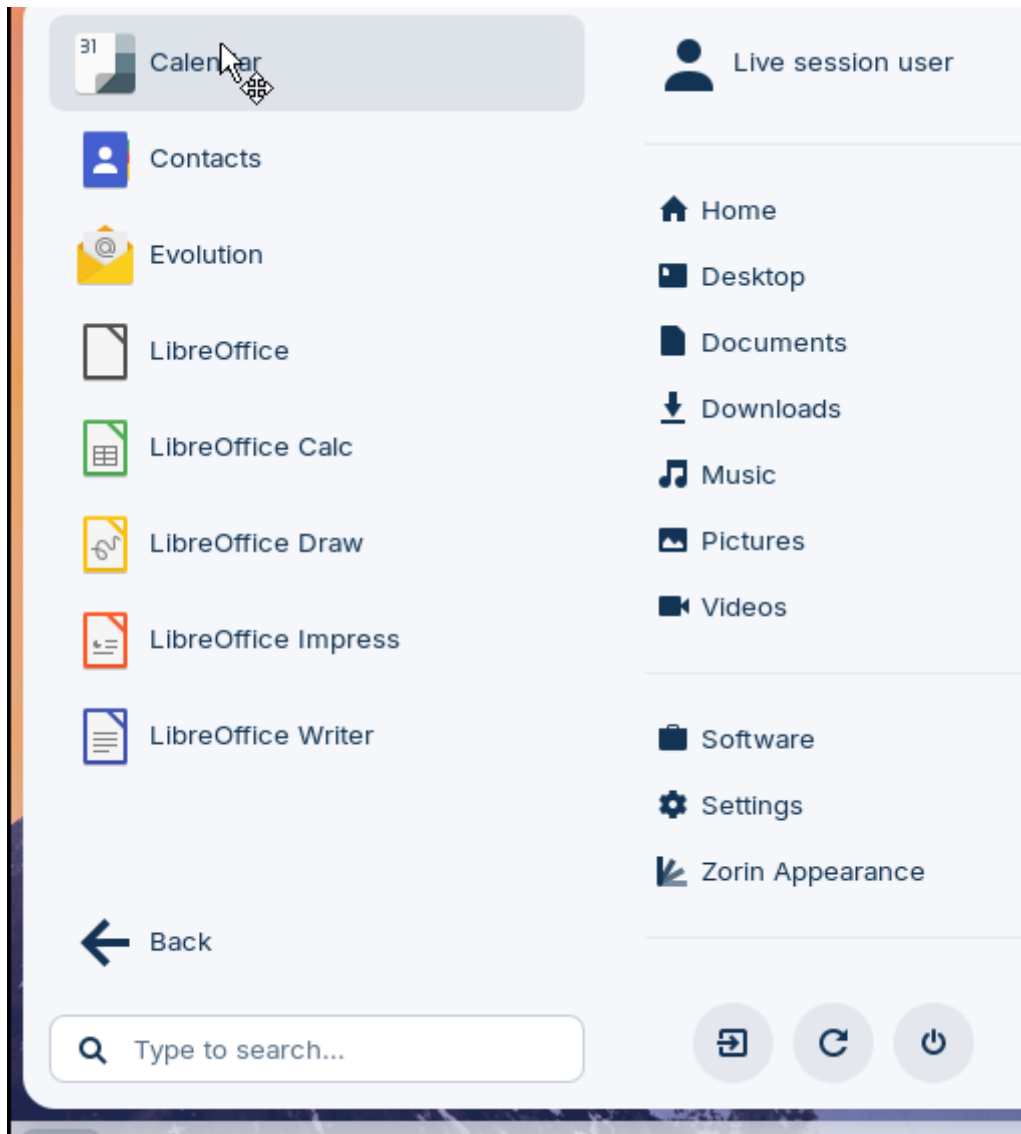
The applications in this sub-menu comprise of **Firefox** (Web Browser, see page [25](#)), and **Remmina** (Remote Desktop Access for GNU/Linux).

Remmina



This is a useful tool to connect to a private web page at your work to access servers. I will share with you my experience, ironically only found out how to do this 1 month before retirement, working from home! At the time I was running Devuan 3.1.1 and using virt-manager to run Windows 8.1 Professional 32-bit. Using Edge, I logged into the private page. Once there I had to click on a link to the shared drive. When this was selected, the server downloaded a tiny .exe file called cpub.exe. I saved this to a mounted USB in the VM. I then unmounted the USB from the VM and mounted it in the Host. I then launched Remmina within Devuan and pointed it to the cpub.exe file - RESULT! Once I had this setup, all I had to do was enter my username, credentials, and domain and I gained access immediately, unlike Windows which required me to provide my username and credentials **3** times!

iv. Office



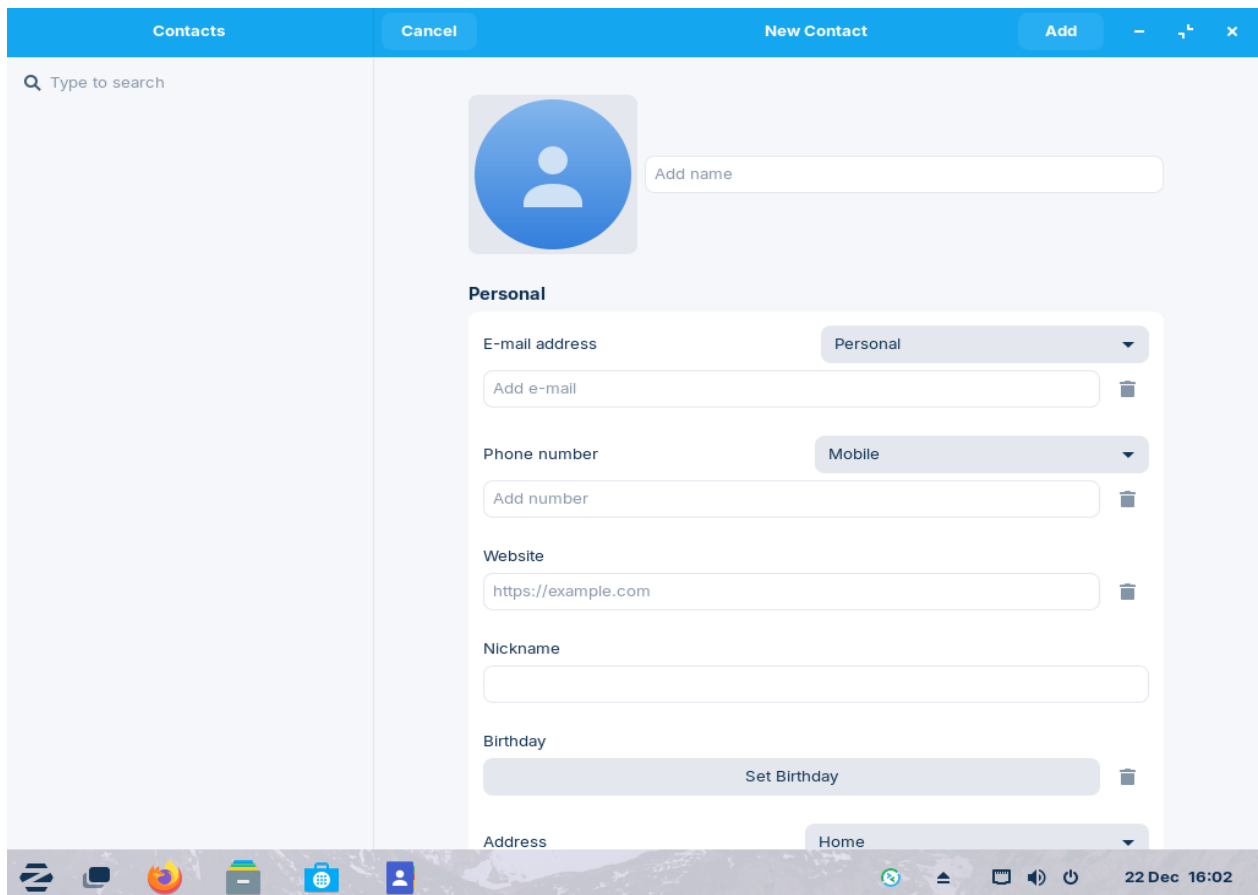
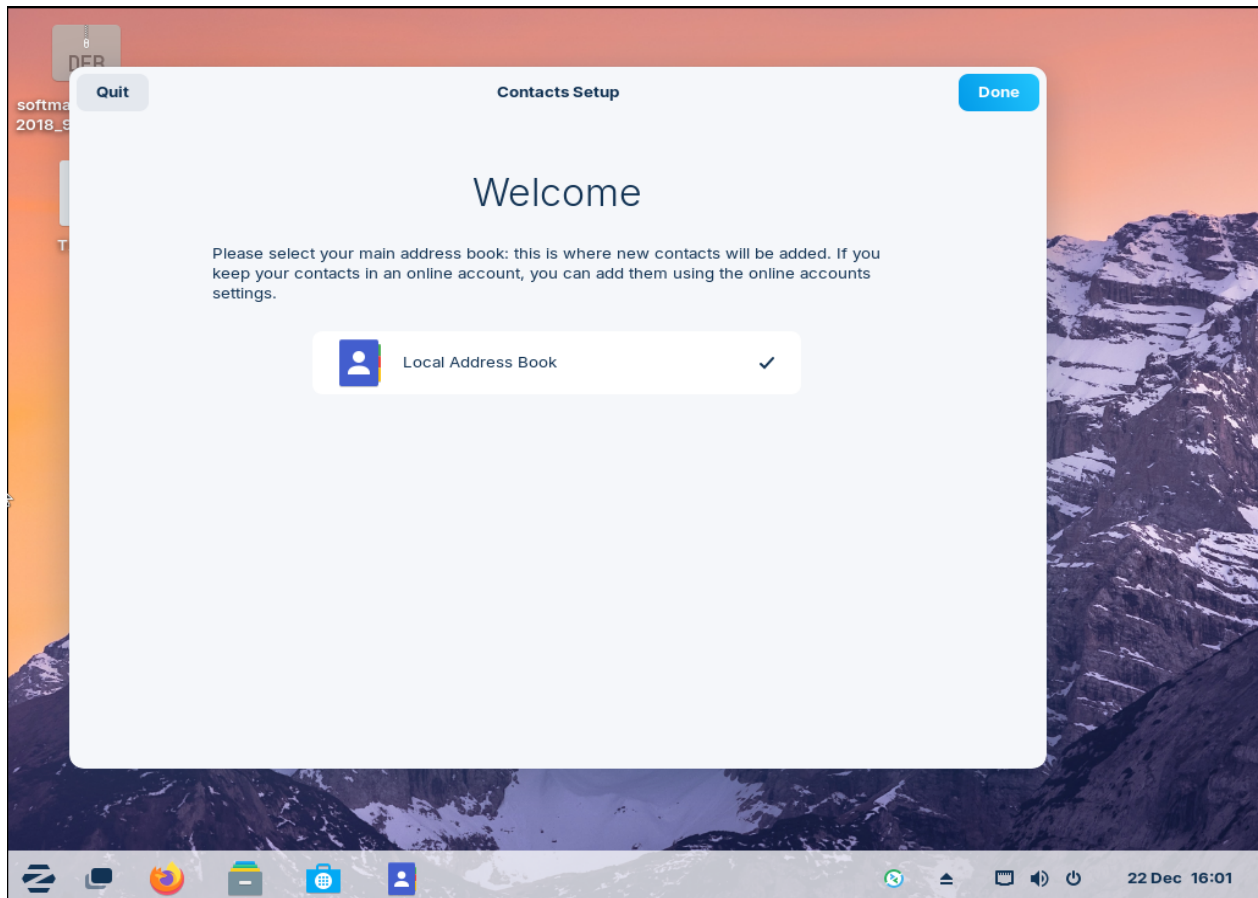
In this section we have **Calendar**, **Contacts**, **Evolution** (an Outlook Gnome equivalent mail client), **Libre Office** (overview of all applications) – **Calc** (spreadsheet application), **Draw** (simple Drawing application), **Impress** (Presentation application), **Writer** (Text processor).

Calendar

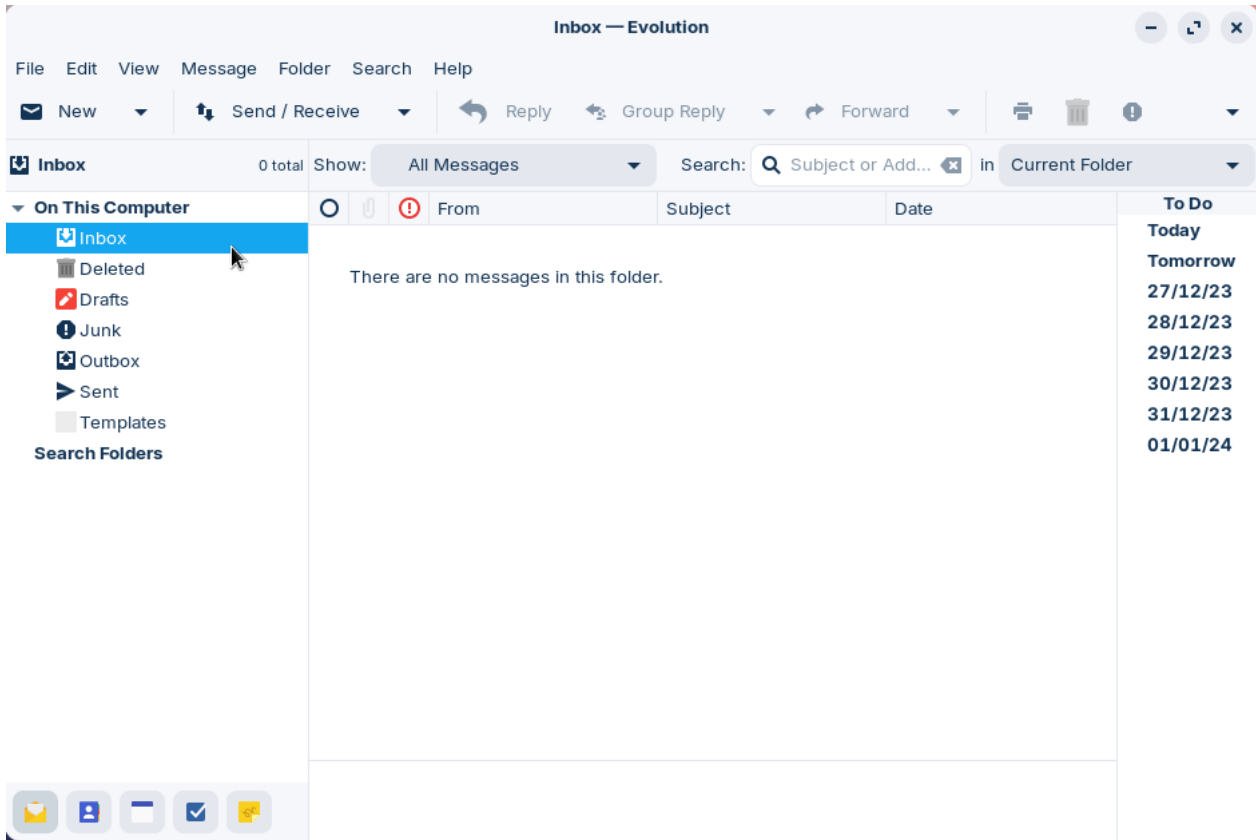
The image shows a desktop calendar application for December 2023. The calendar is displayed in a grid format with columns for days of the week (MON to SUN) and rows for dates. The date 22 is highlighted in a light blue color. The interface includes a top navigation bar with buttons for '+ Today', navigation arrows, and view options: 'Week', 'Month' (selected), and 'Year'. There is also a search icon and window control buttons. The bottom of the screen shows a taskbar with various application icons and system tray icons, including the date and time '22 Dec 16:00'.

MON	TUE	WED	THU	FRI	SAT	SUN
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

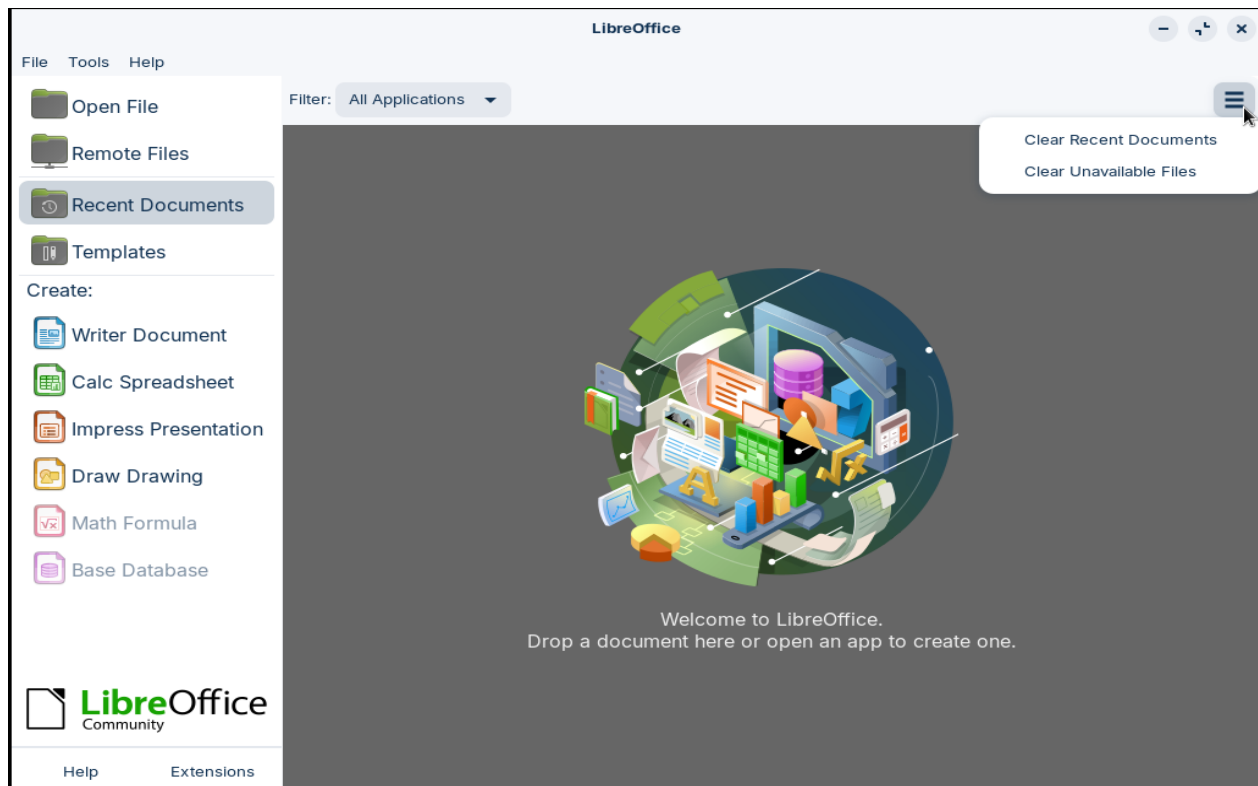
Contacts



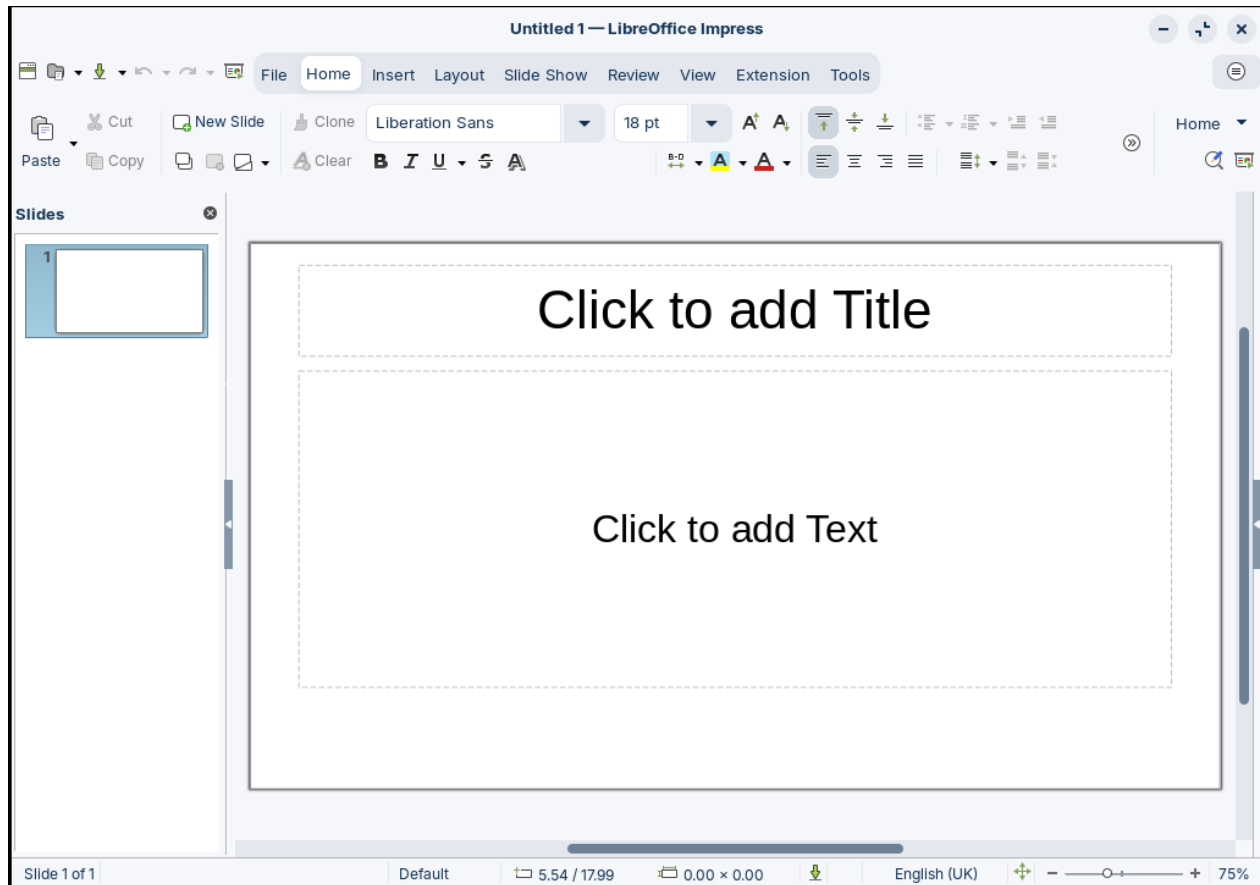
Evolution (Linux equivalent of Outlook with Calendar):



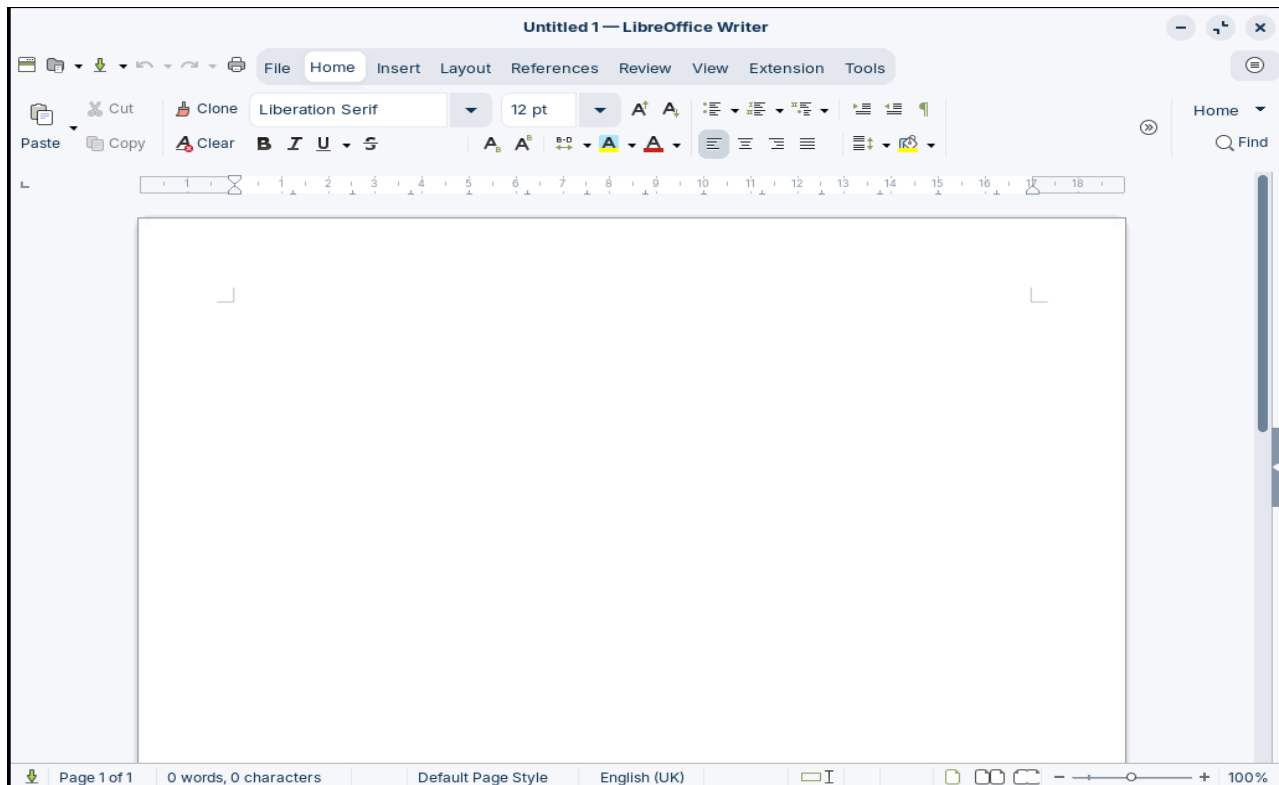
LibreOffice (central)



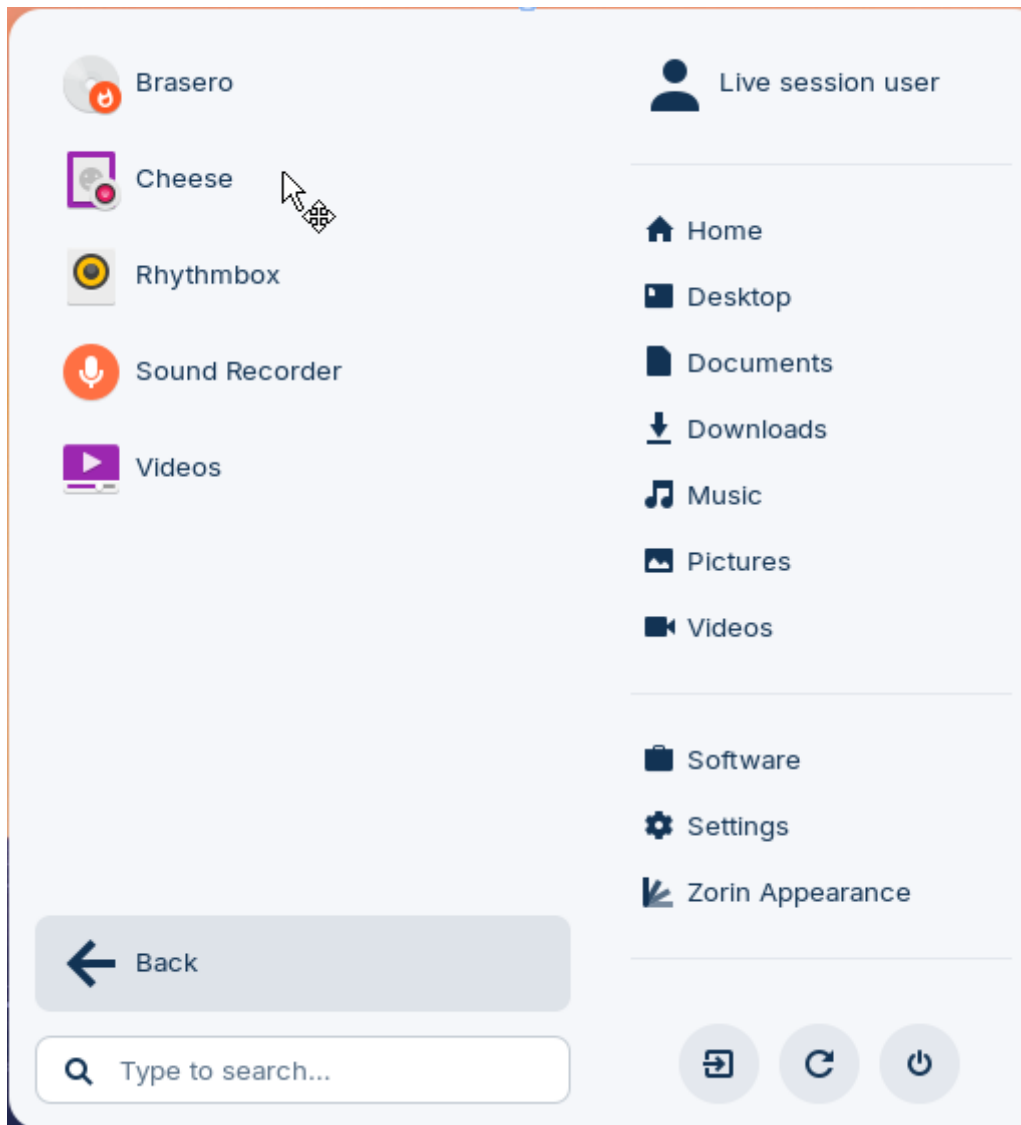
LibreOffice Impress - Presentation application.



LibreOffice Writer - Text Processor.

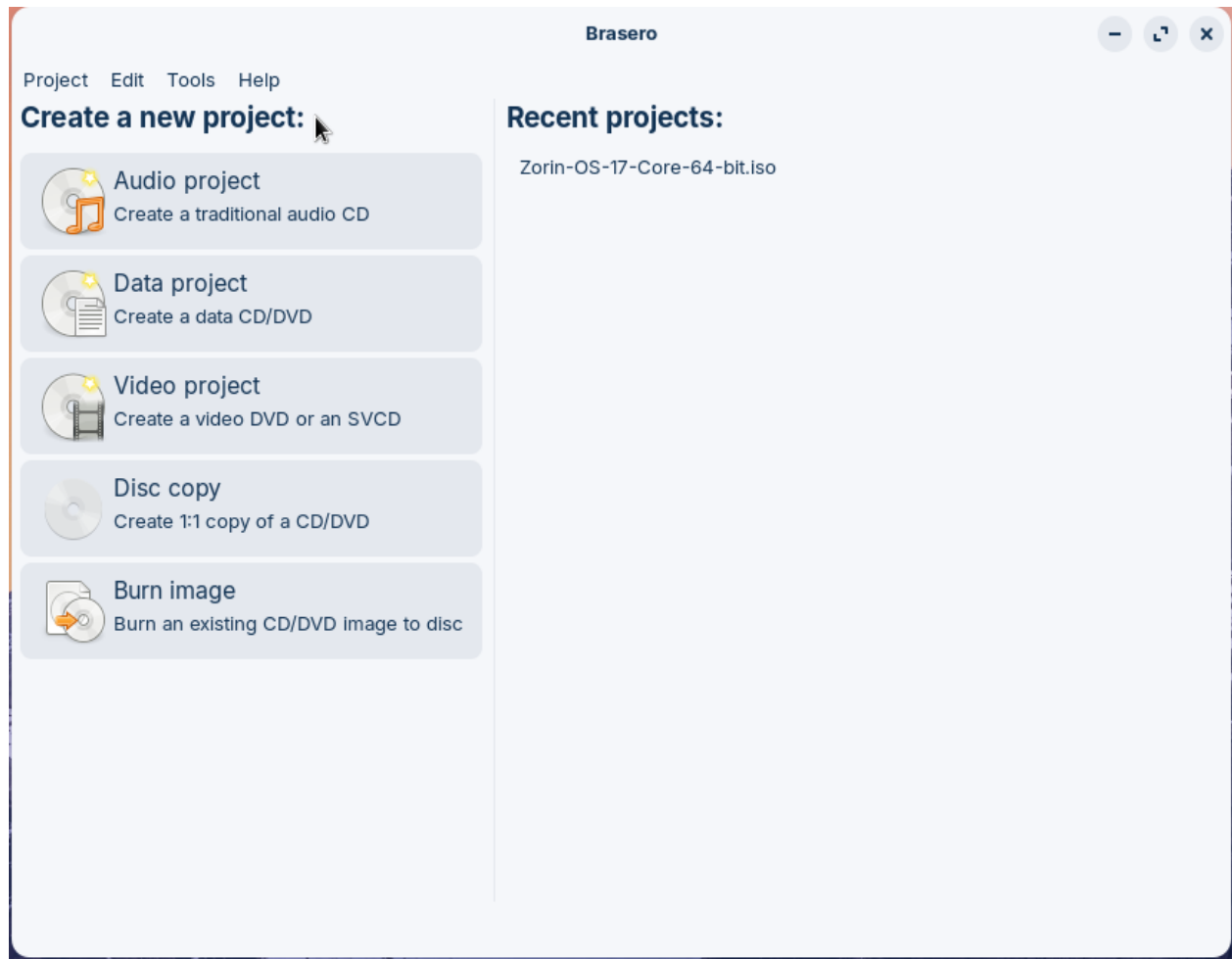


v. Sound & Video;



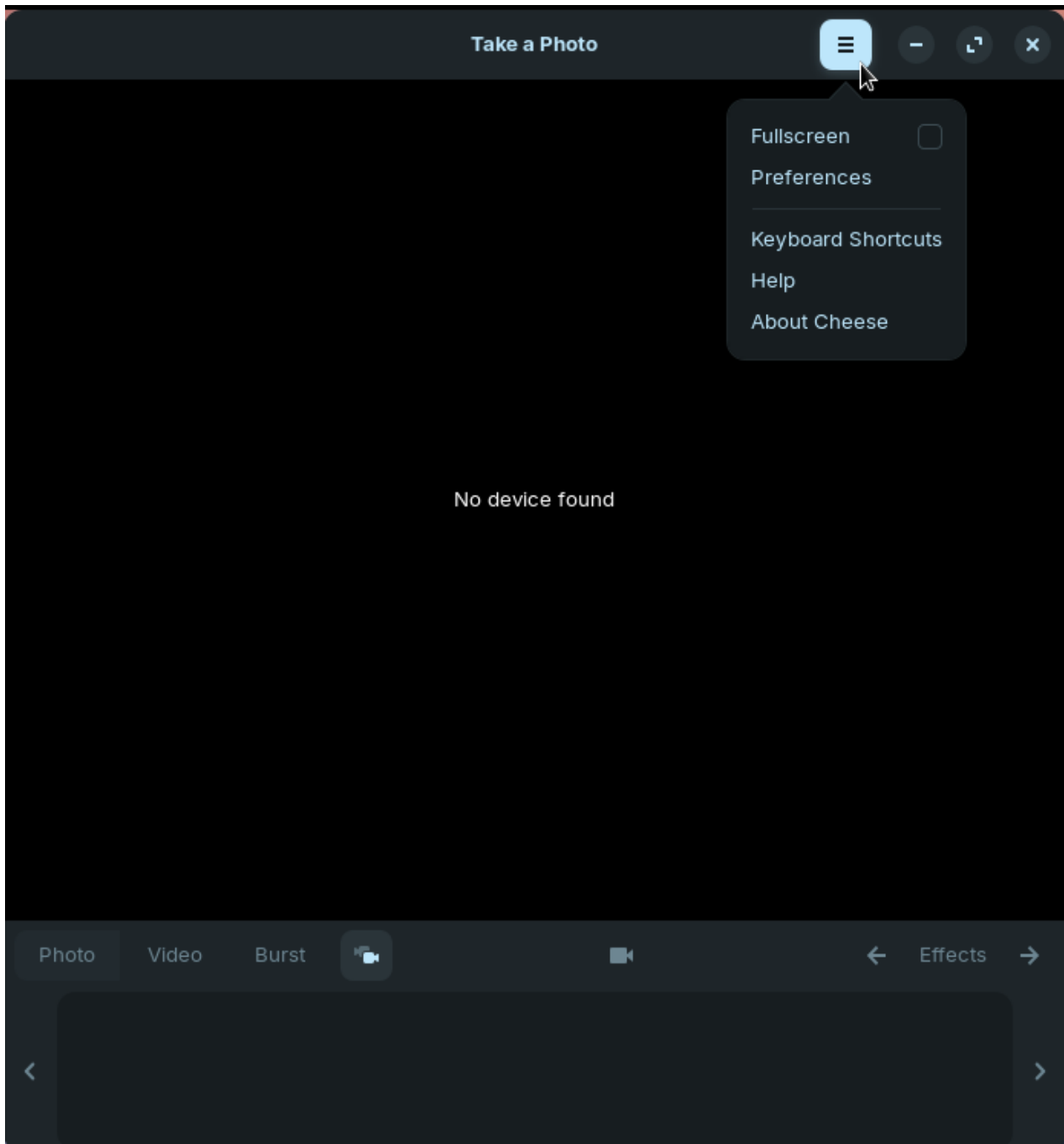
This section comprises of **Brasero** (disc burner – Audio, Data, DVD, Video, Music), **Cheese** (Web cam application with built-in effects), **Rhythmbox** (default audio player), **Sound Recorder**, **Videos** (default movie/video file player).

Brasero



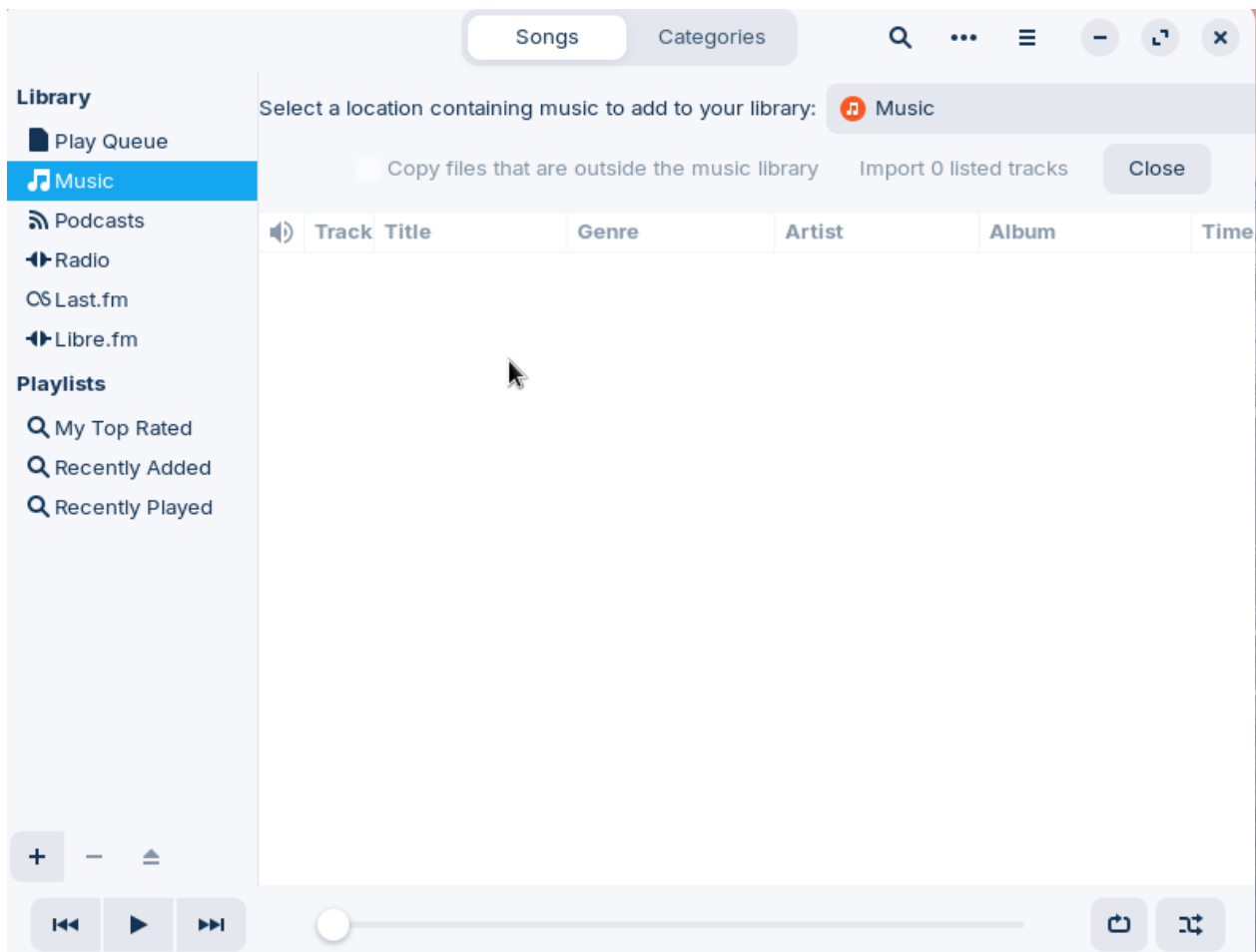
Always launch Brasero first before burning a disc. Right-clicking an .iso and then from a context menu selecting 'Burn with Brasero' has always led me to burn coasters!

Cheese (Webcam application).

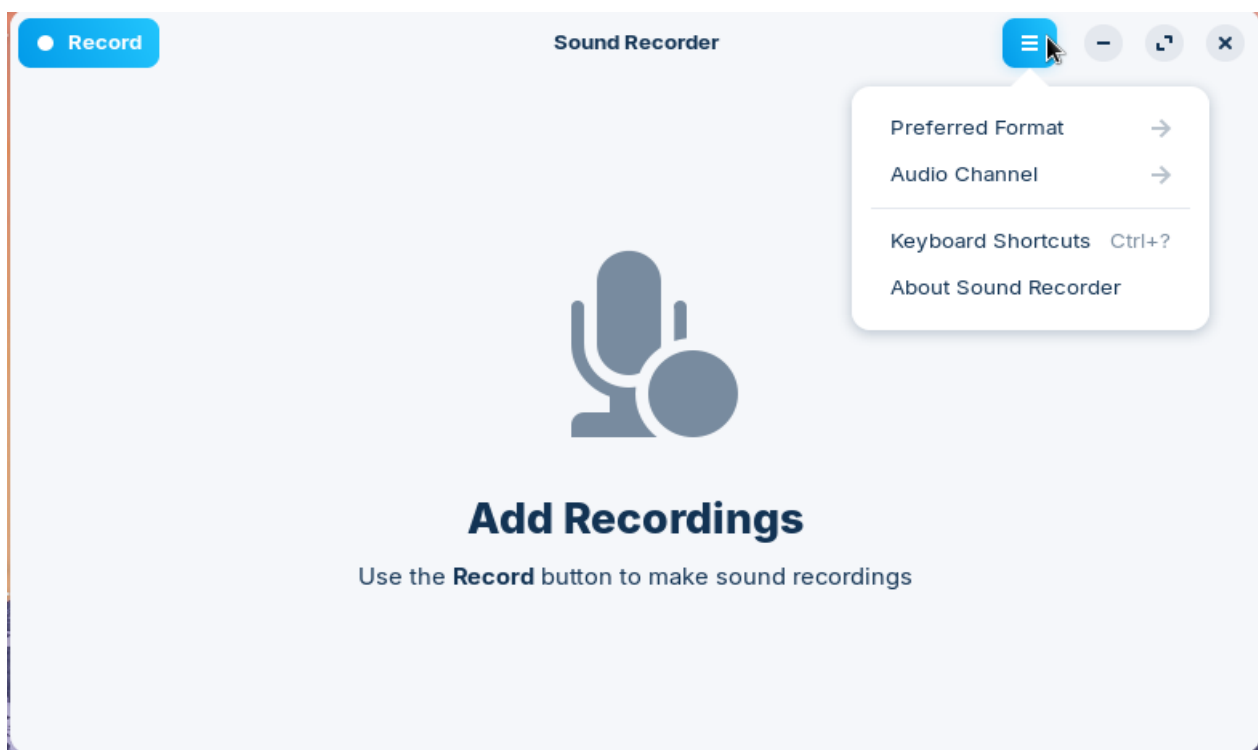


Currently I don't have a webcam attached, hence the black screen!

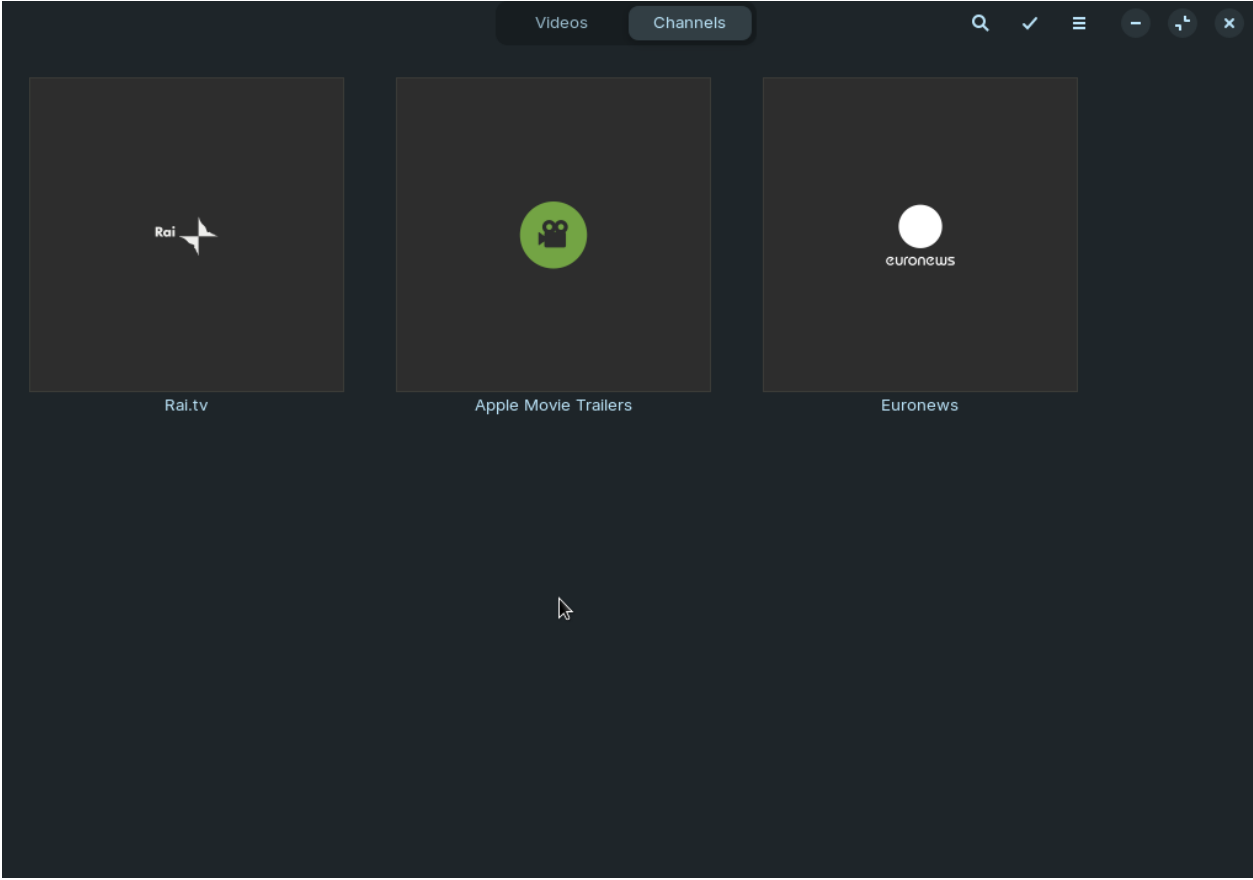
Rhythmbox (Application to play your music collection, internet radio, online music accounts).



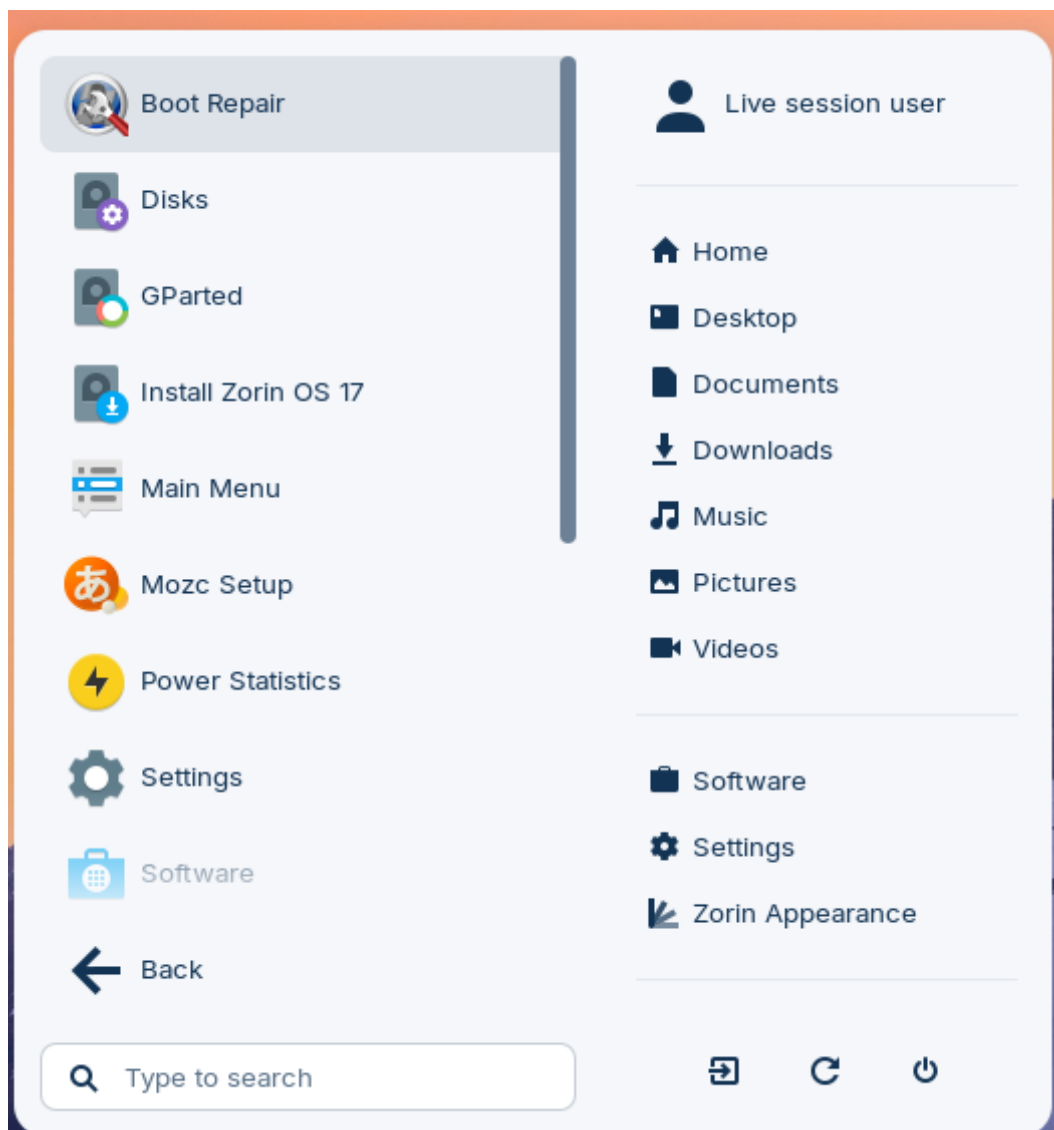
Sound recorder (use a microphone or the mic built in to your webcam).



Videos (this is a multimedia application that can also play audio files as well as videos). Additionally can access Internet media streams as shown below.

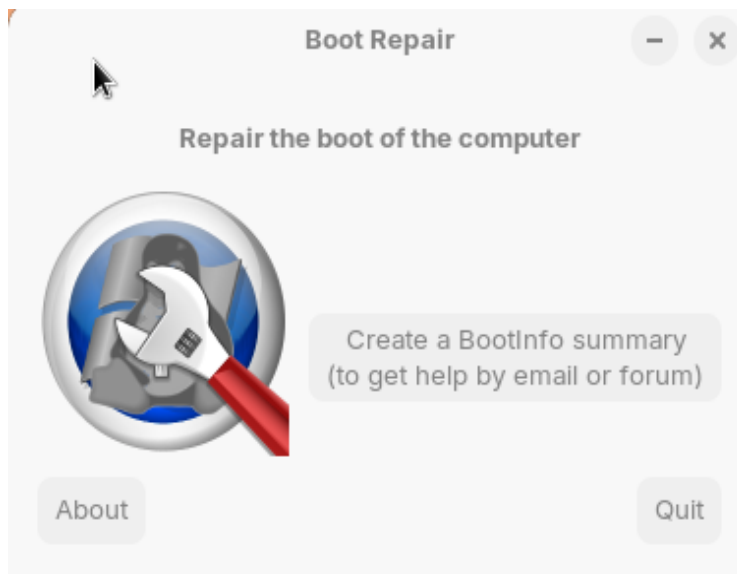


vi. a. System Tools – Top;

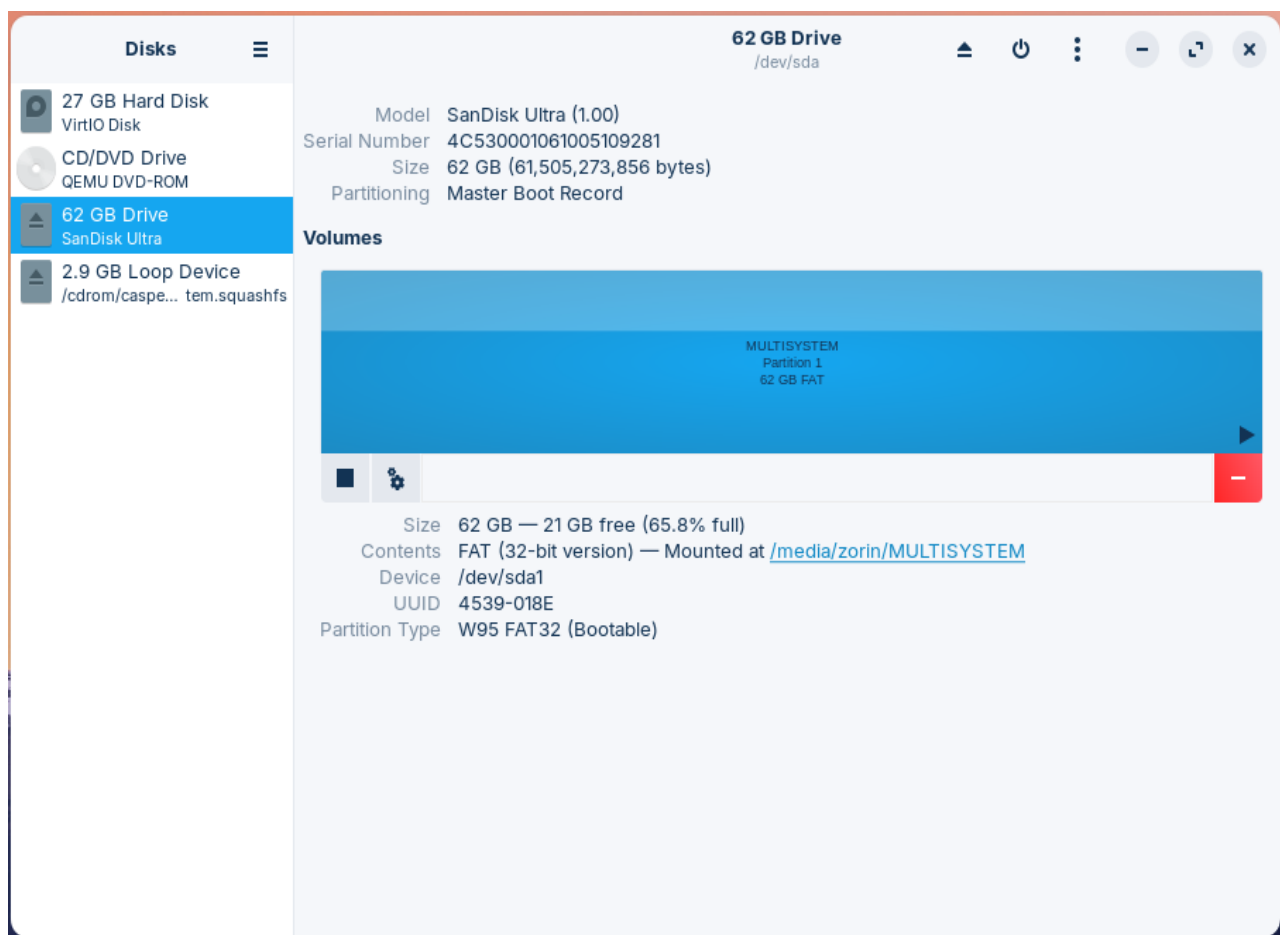


In live mode comprises **Boot Repair, Disks, GParted, Install Zorin OS 17, Main Menu, Mozc Setup, Power Statistics, Settings.**

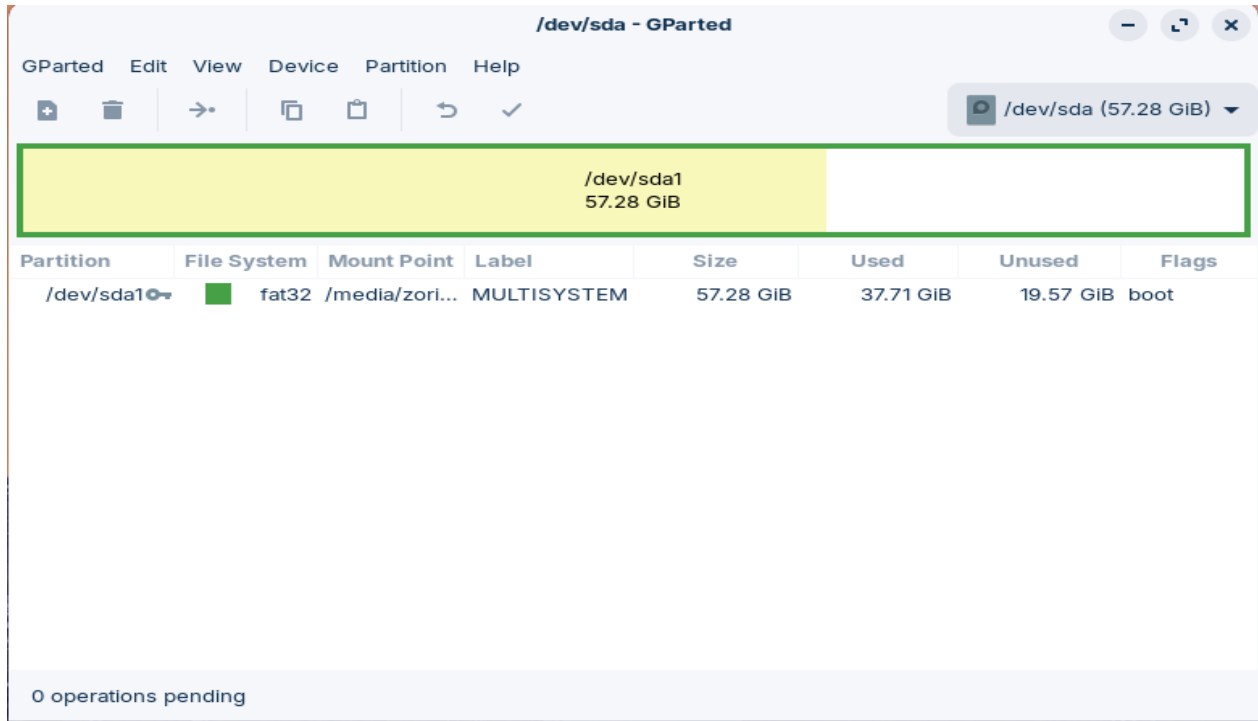
Boot Repair, (this item is only present while running in live mode, should you have issues with the installed system).



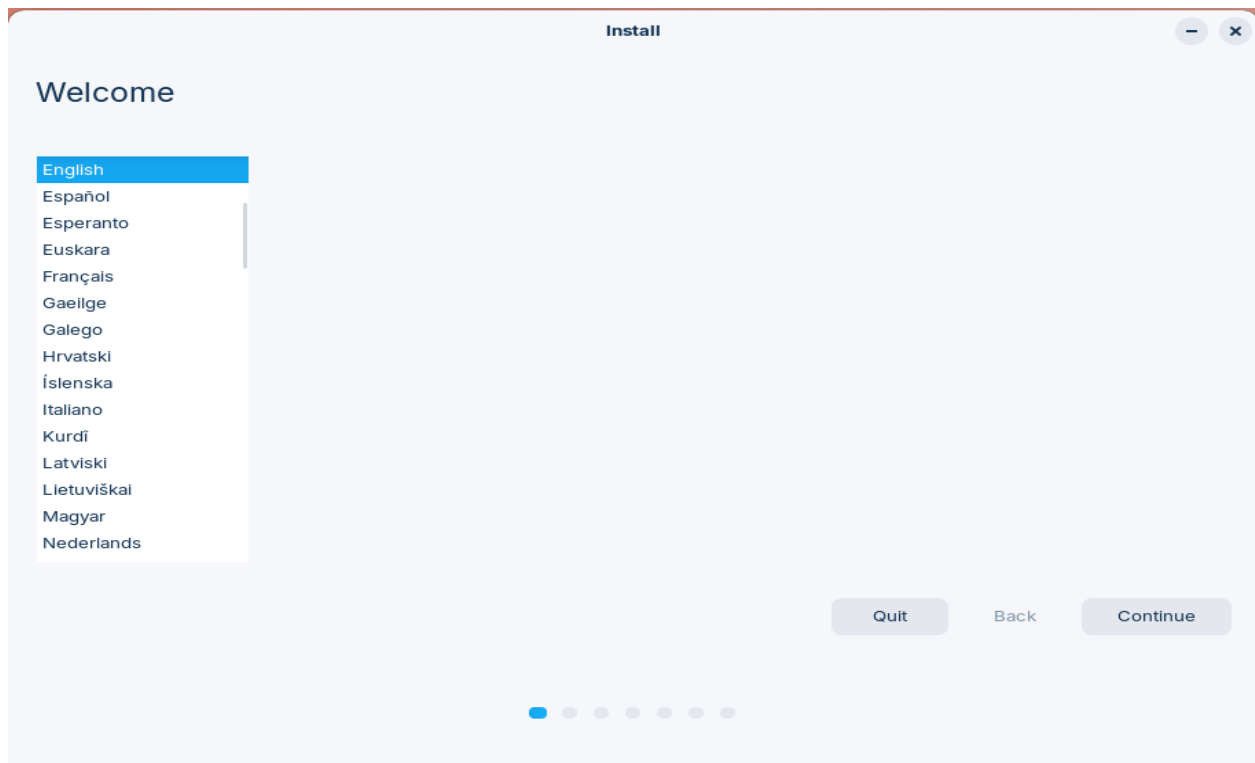
Disks (for mounting / unmounting and safely powering off / removing external / additional drives, including USB thumb drives, and can also be used to check the current health of your hard drive/s),



Gparted (Gnome Partition Editor – for partitioning Hard Drive – gets removed after installation!).



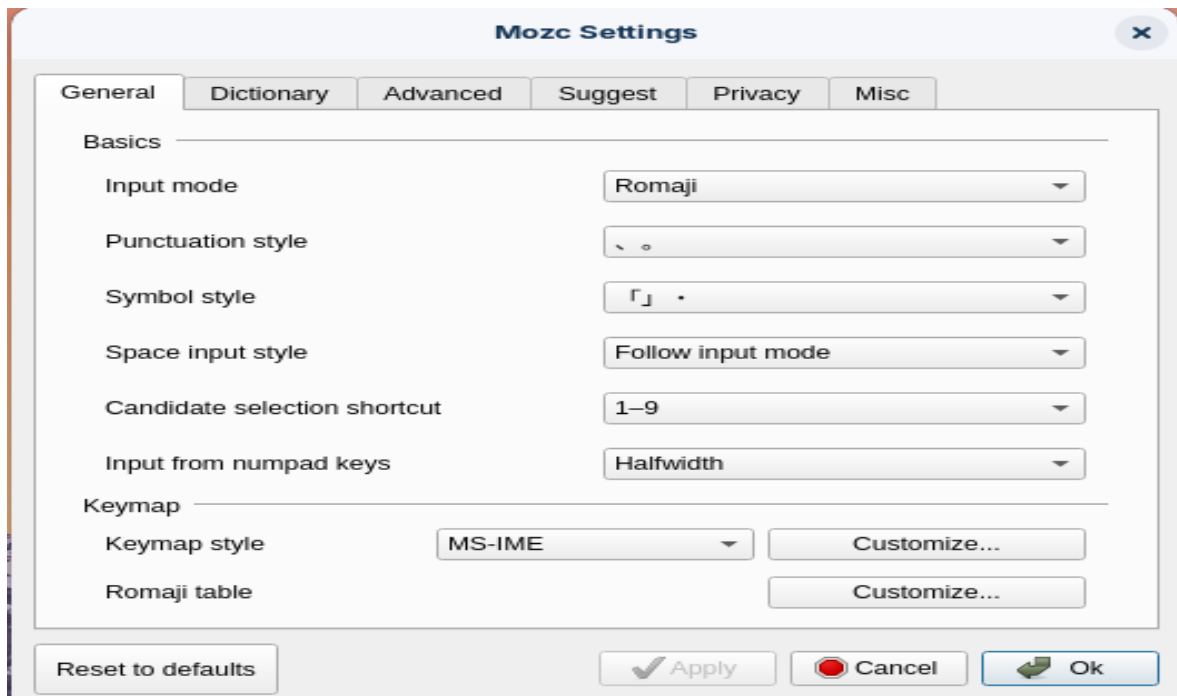
Install Zorin OS 17 (this launches the installation to hard disk interface – don't do this until you are happy that Zorin performs as you expect it to in live mode – you could also use the shortcut on the desktop to start the installation procedure).



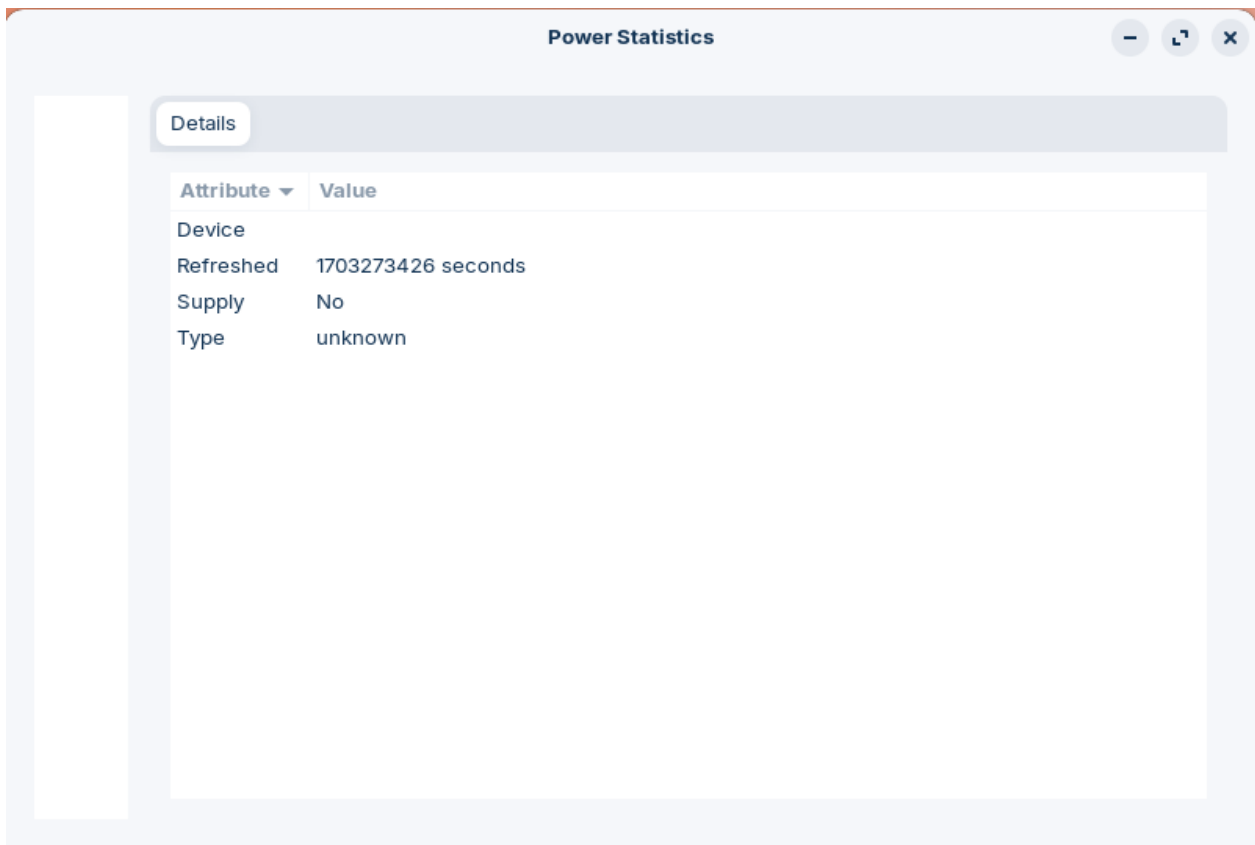
Main Menu – (AI Acarte Menu editor to edit your main menu to show hide applications as you so wish and add new ones),



Mozc Setup, (Japanese Input settings),

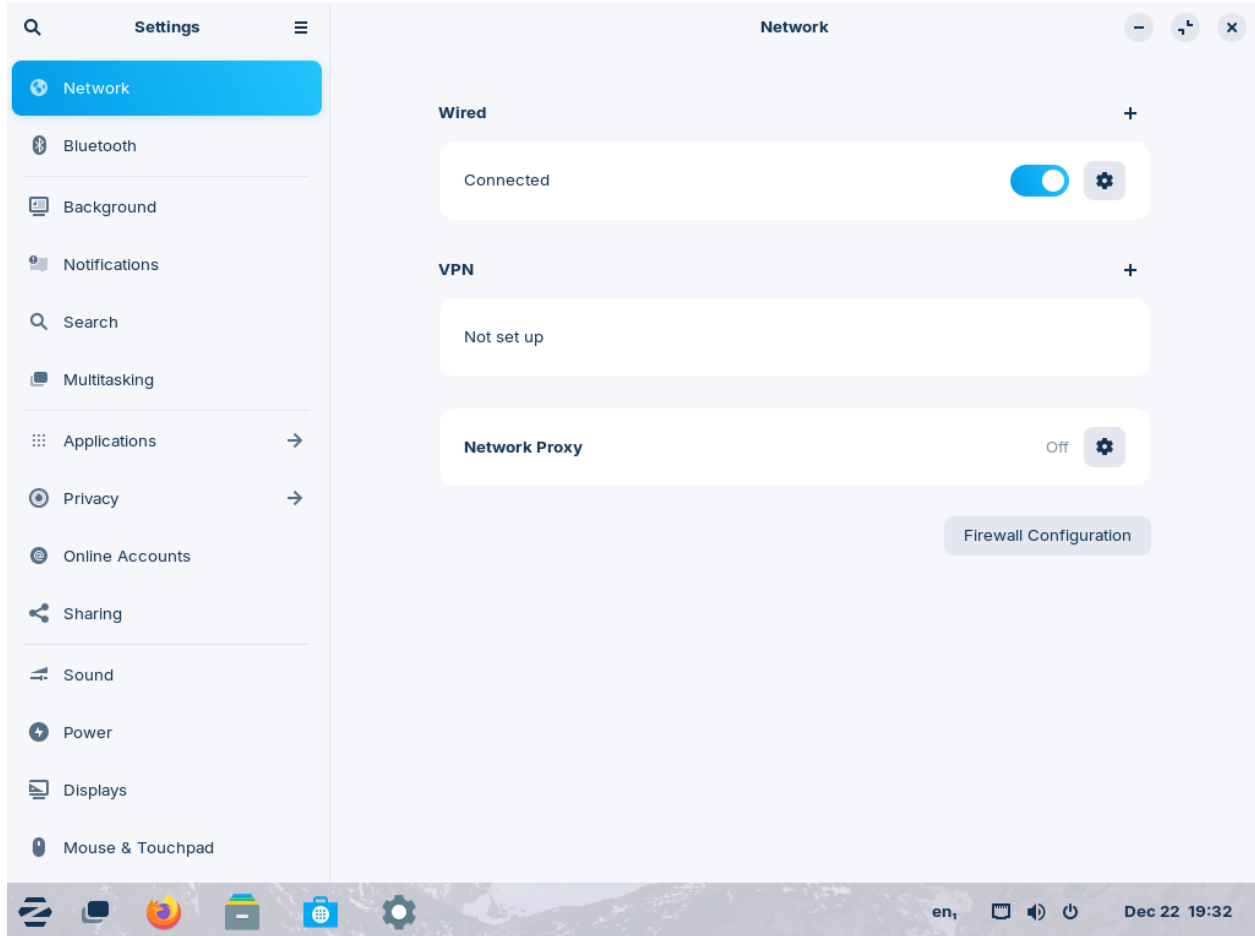


Power Statistics (Processor wakeups information),

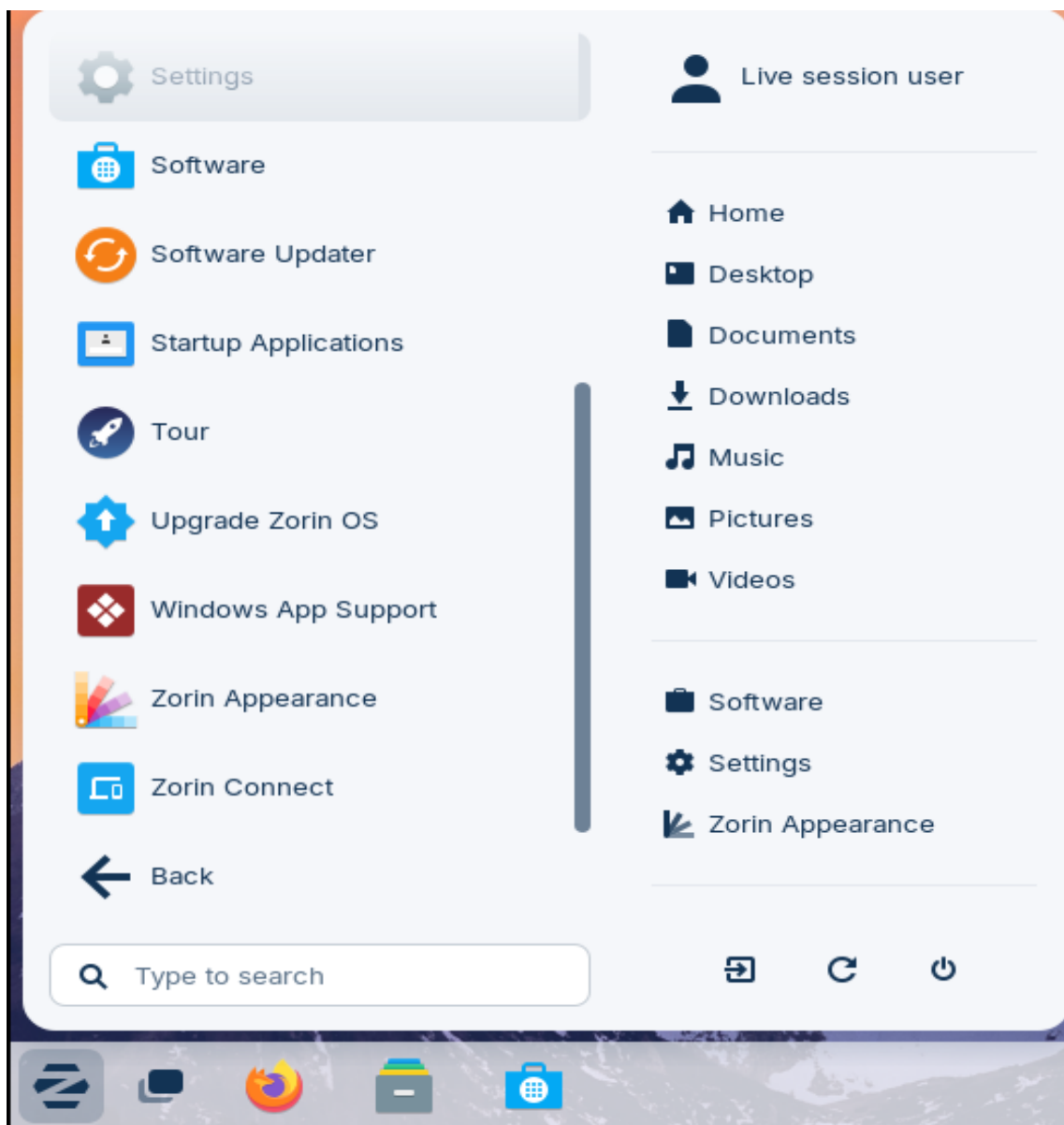


No information given as screenshot of Power Statistics is of VM (Virtual Machine).

Settings (the GNU/Linux equivalent of 'Control Panel' but very different in lots of ways but simple enough to understand – covered later in the manual),



vi. b. System Tools – Bottom

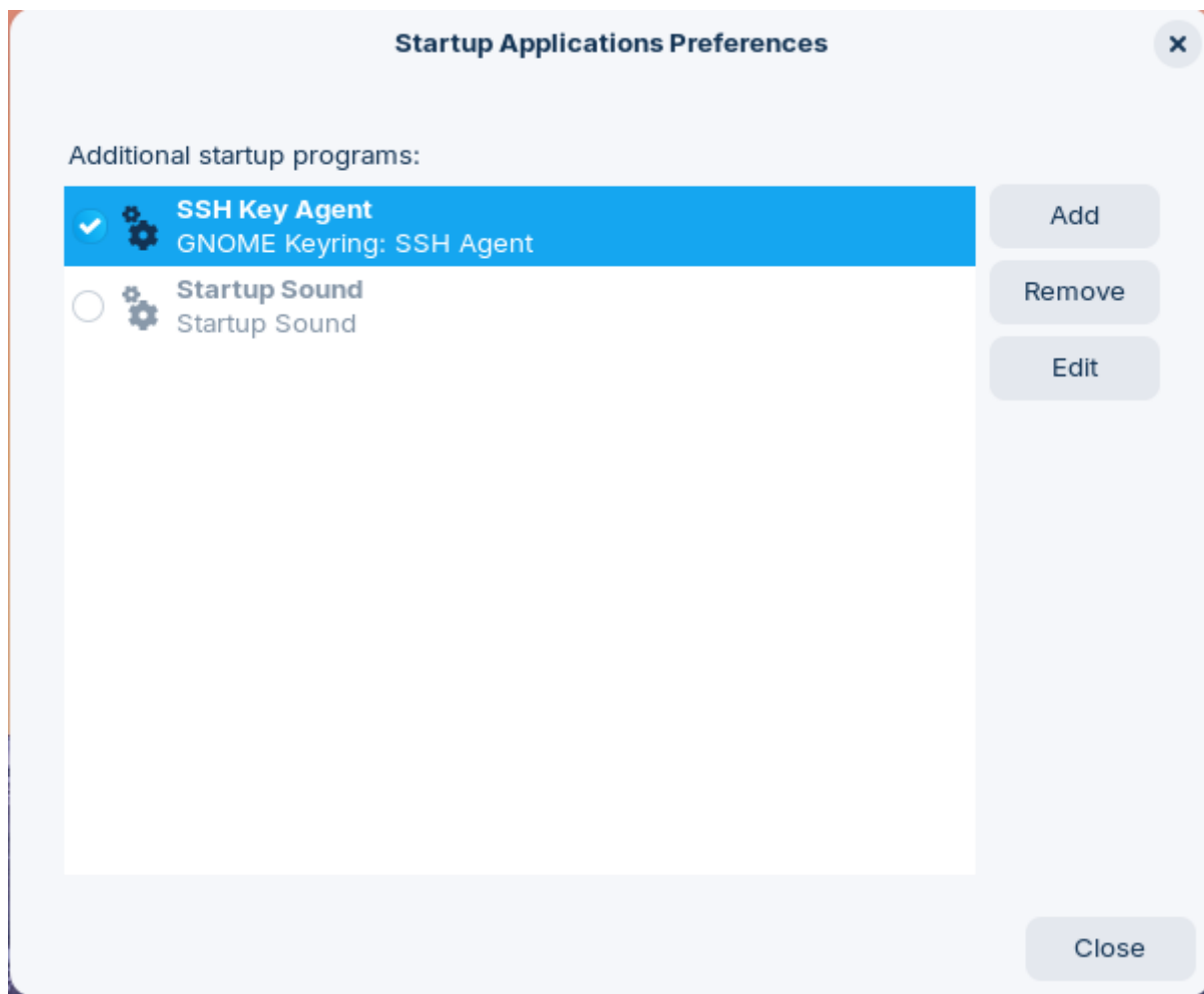


Here we have **Software** (Main source of Applications, predominantly in **Flatpak** format, but other formats included, such as **APT**, **Software Updater** which updates your System Software as well as Applications, **Startup Applications** are those which start to run automatically immediately after you have signed in to the desktop, **Tour**, a slideshow presentation of guiding you round the layout and features of the OS (Operating System), **Upgrade Zorin OS** is a tool designed to allow you to upgrade to the next major release of Zorin, which will be 18 - the tool is not currently ready for use with Zorin 17, but is available for Zorin 15 for those wishing to upgrade to 16, and for Zorin 16 users it is also available to upgrade to the latest release, 17.

Windows App Support, when you select this it will install the current stable version of **WINE** (Wine Is No Emulator), together with **PlayOnLinux**, **Zorin Appearance** contains a multitude of different ways for your Desktop to look and behave, and lastly **Zorin Connect**, software which enables your smartphone to be connected to your Zorin Desktop.

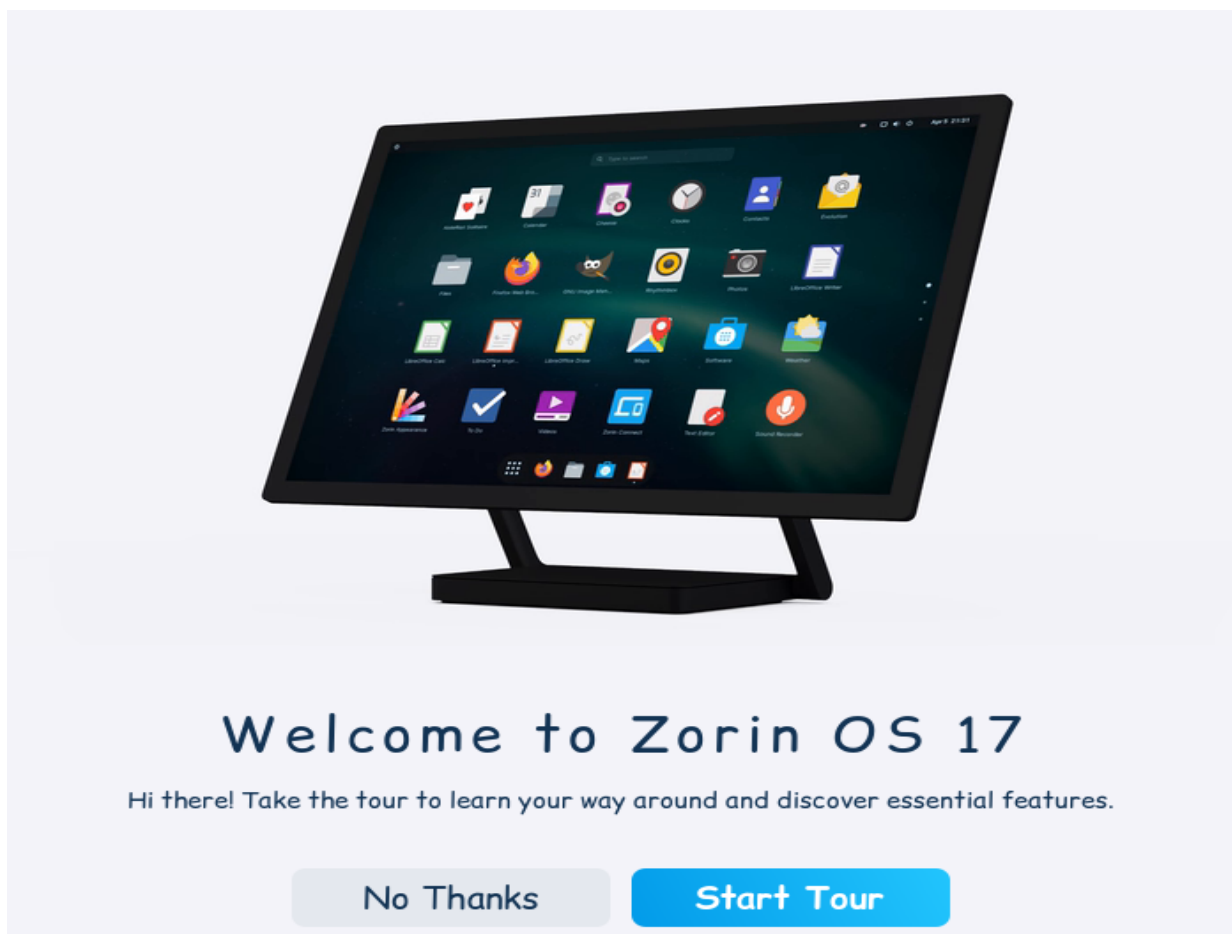
Software has been covered elsewhere in the manual(see page [26](#)), so will now look at:

Startup Applications:

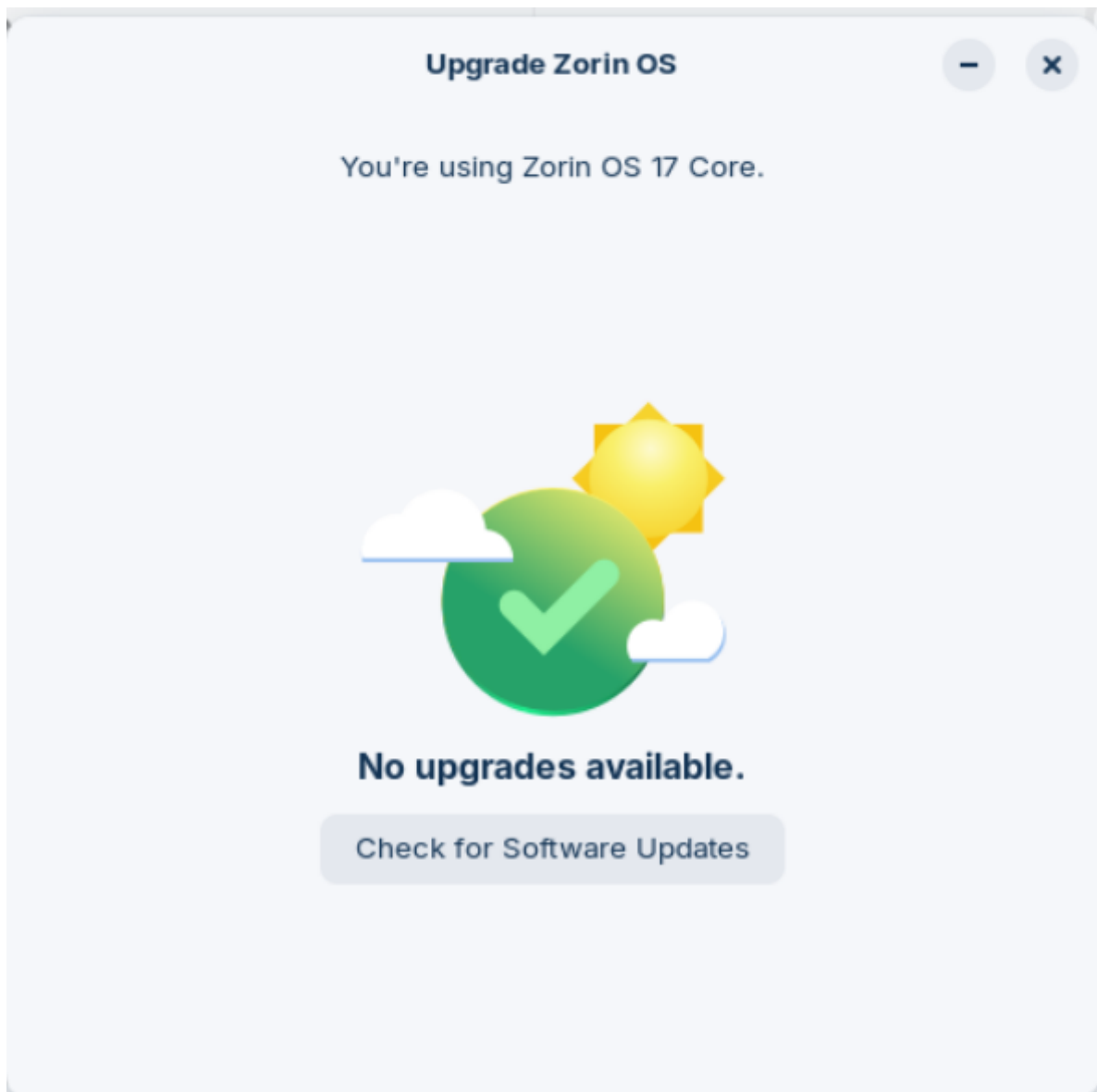


Notice that the **Startup Sound** only works during live mode. After installation it becomes disabled. If you like the startup sound being present after you login, check mark the circle to the left, then select the **Close** button. You can **add** or **remove** applications you want to run automatically after you have logged in. You can edit entries, so that if you wanted a different startup sound you could change it for another one.

Tour (This is a slideshow built into the system to help show you around the **Desktop**, starting with the **Menu**, then **Appearance** (where you choose how your Desktop Environment should look to your personal preferences, advisory if you are running inside a Virtual Machine as you get better performance if installed, option to **Connect Online Accounts** (this excludes Facebook because Gnome developers have not resolved the issue since it was discovered 7 years ago, or it could be down to Facebook not liking GNU/Linux. (I can't stand Facebook, never been on it, never will!)), Link your phone and computer with **Zorin Connect** - you need to download the smartphone app, **Zorin Connect**, in order to use this function, Use Software to find and install apps (but you are not limited to using the Software Channel, but more on that later), final slide offering a link to the **Help** section of ZorinOS, <https://help.zorin.com/>).



Upgrade Zorin OS - This is the upgrade tool that allows you to upgrade to the newest version of Zorin OS. Once it is up and running, always err on the side of caution by backing up either your whole system, or just the /home folder, including hidden files which store application information/preferences - if they are not shown, press Ctrl+ H to unhide them - they all start with a period/full stop, e.g., .wine, this would hold all your WINE configurations for any Windows Applications you install.

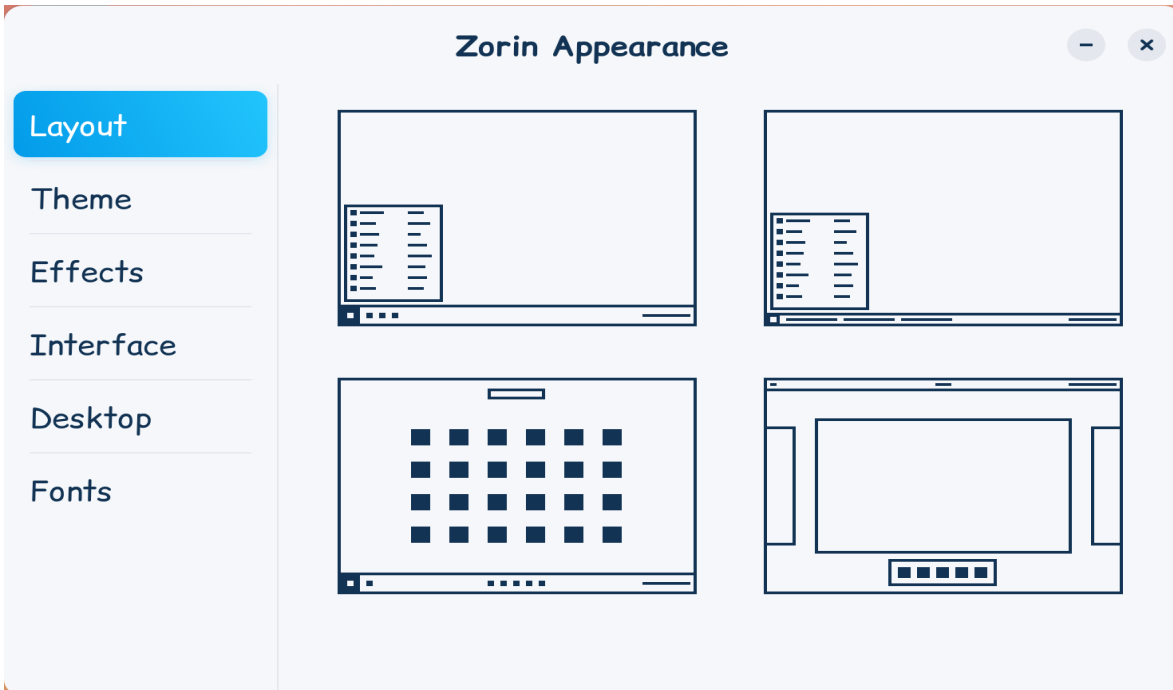


Windows App Support - This installs the current version of **WINE (WINE Is No Emulator)**, including **PlayOnLinux** for you to install Windows Applications/Games. Please be aware that not all Windows Applications will run using WINE. To find out what runs, visit the commercial site of the WINE developers here:

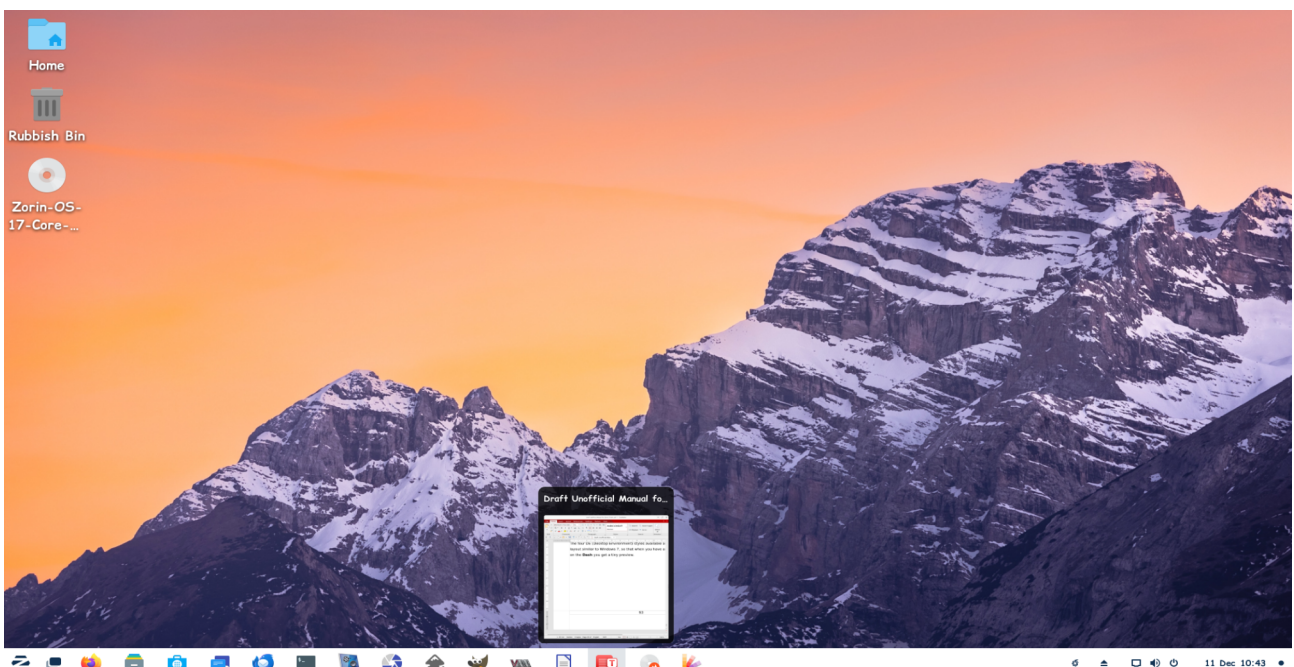
<https://www.codeweavers.com/compatibility>

3. Zorin Appearance

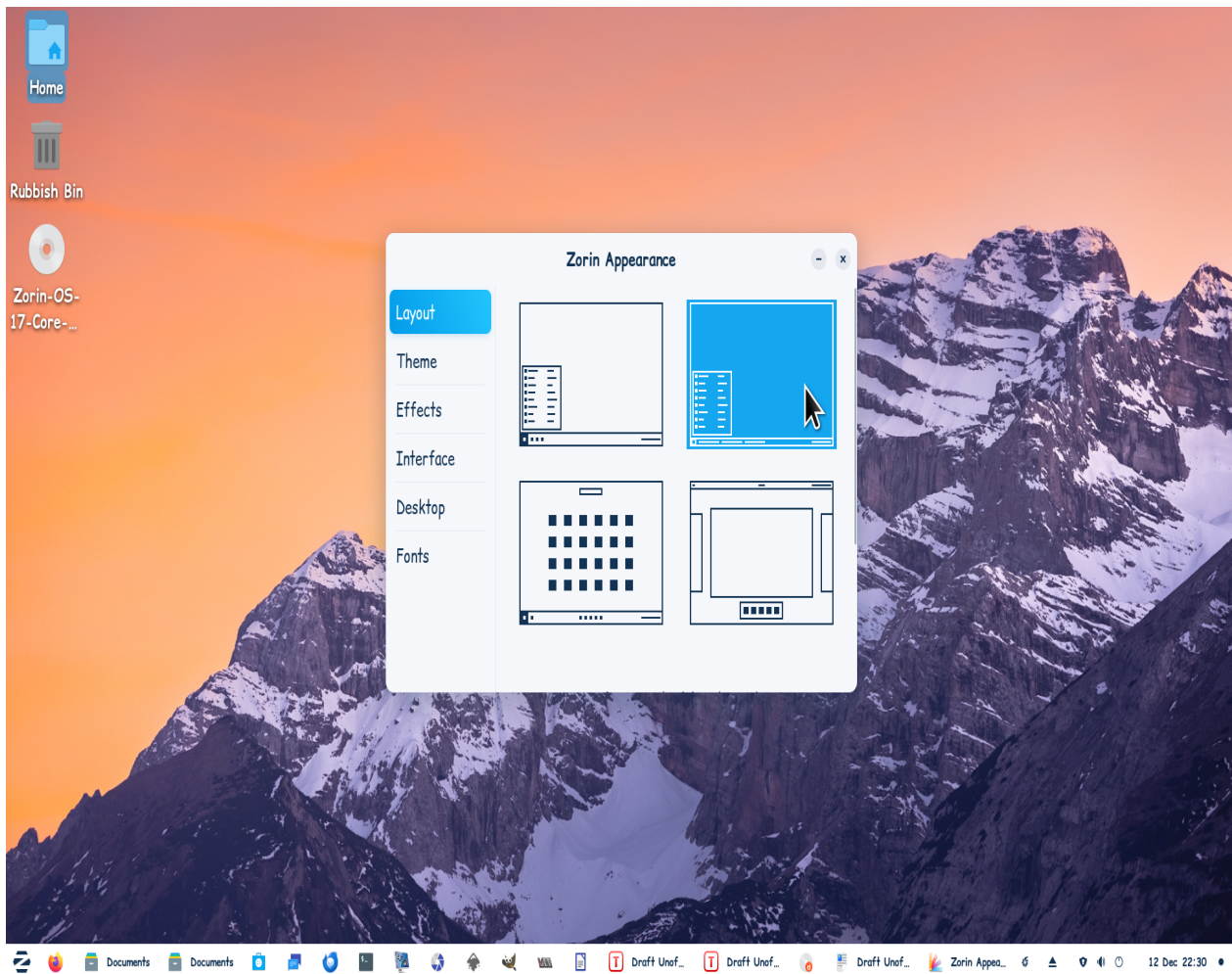
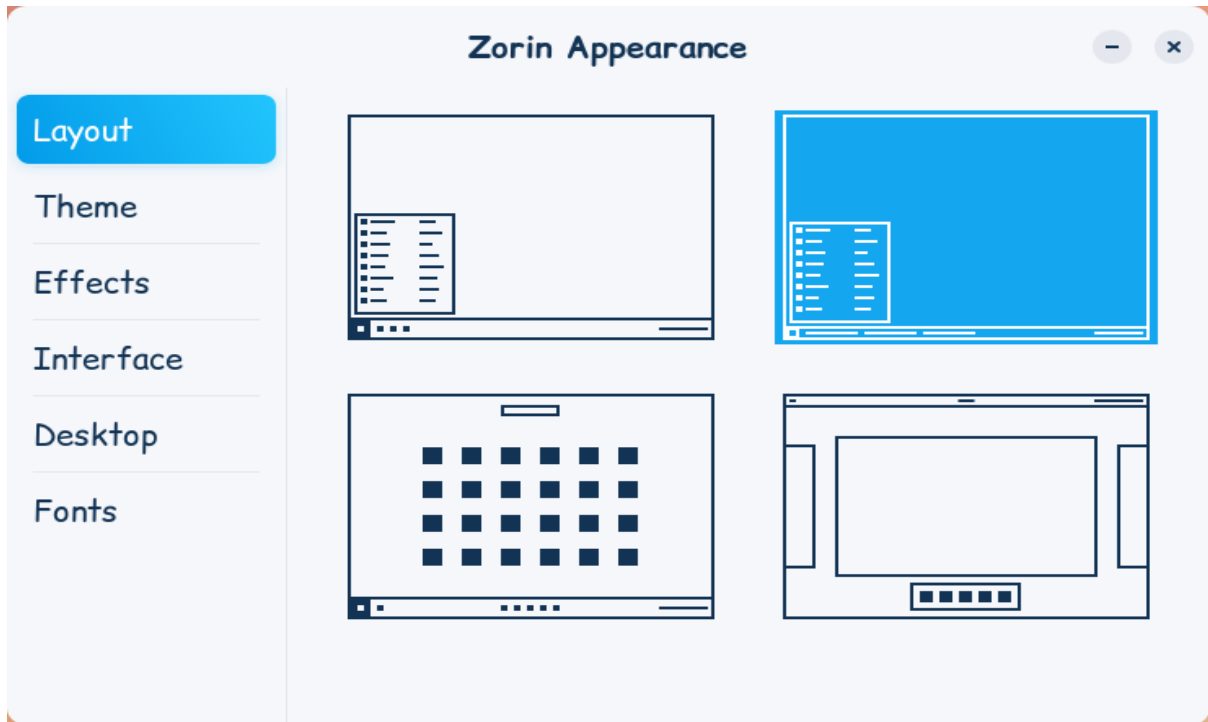
This is where you can change your **Layout** (DE styling), **Theme** (colours, light/dark), **Effects** (Animations, Spatial Desktop (Cube)), **Interface** (Titlebar Buttons, Left Super Key (binding) and Advanced Window Tiling and **Taskbar Settings**, Desktop (icons), Fonts (system-wide).



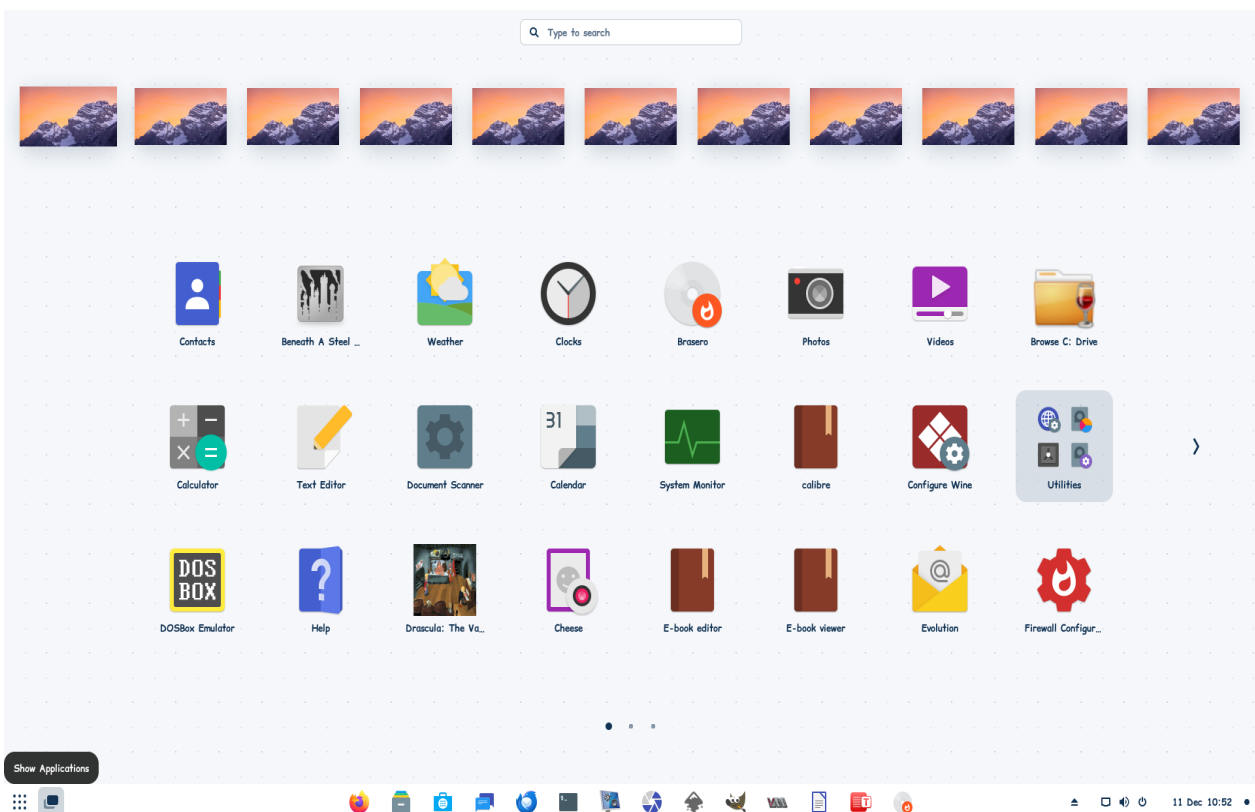
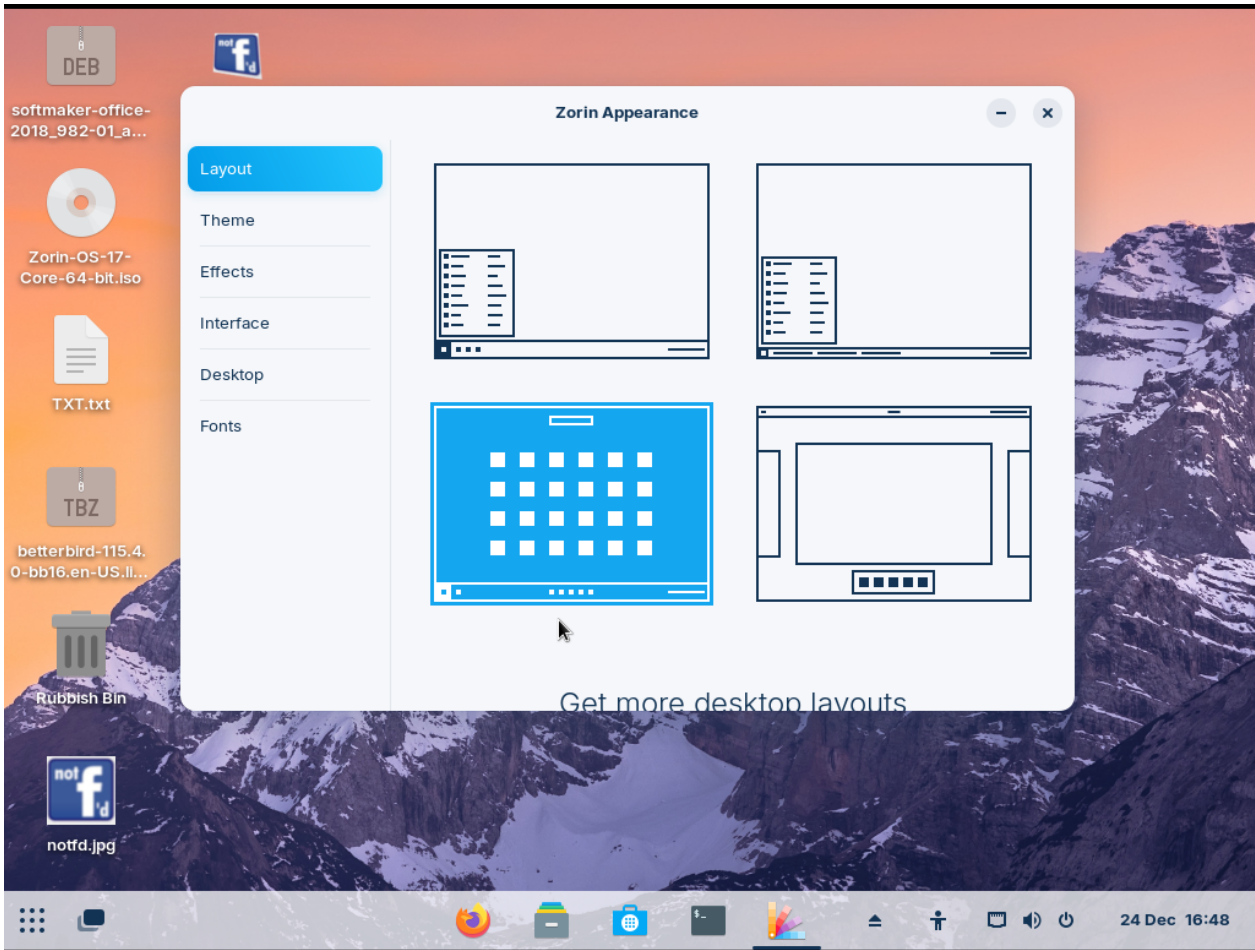
The four DE (Desktop Environment) styles available are as follows. Top Left is a layout similar to Windows 7, so that when you have an application open that is on the **Dash** you get a tiny preview as you hover over the icon.



The top right option is more like Windows 2000 where the **name of the application** that is open is shown in the **Dash** as opposed to **Icons**.

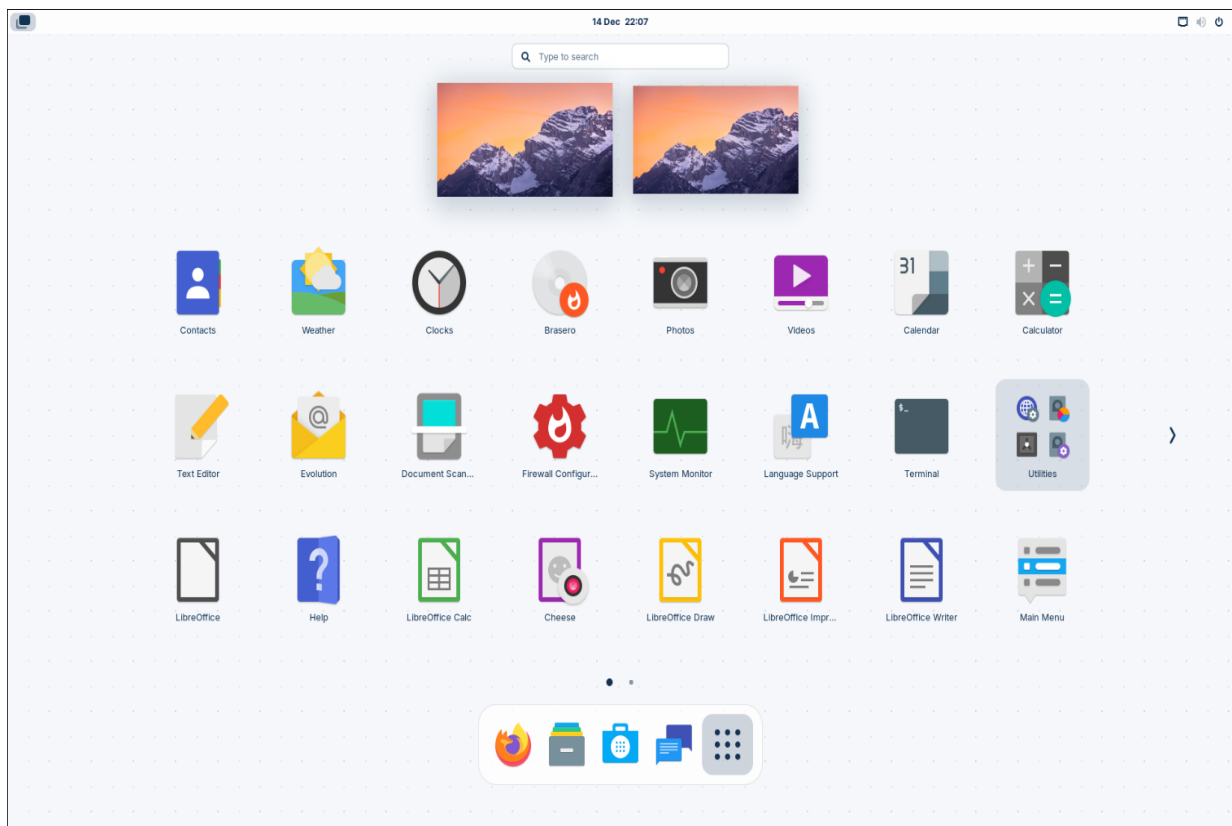
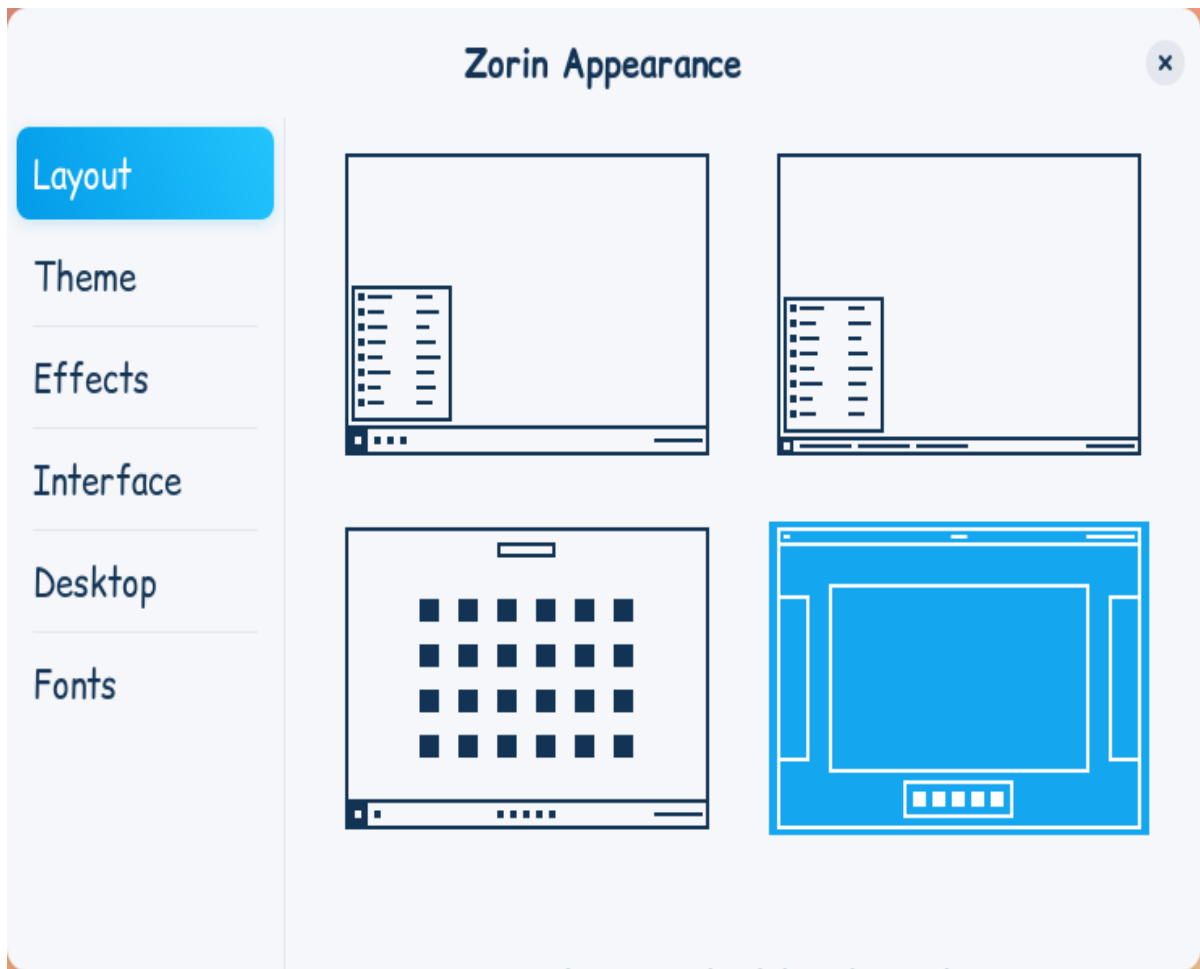


The bottom left style is aimed at Tablets and touch screens and is similar to Pantheon as used in another distribution.



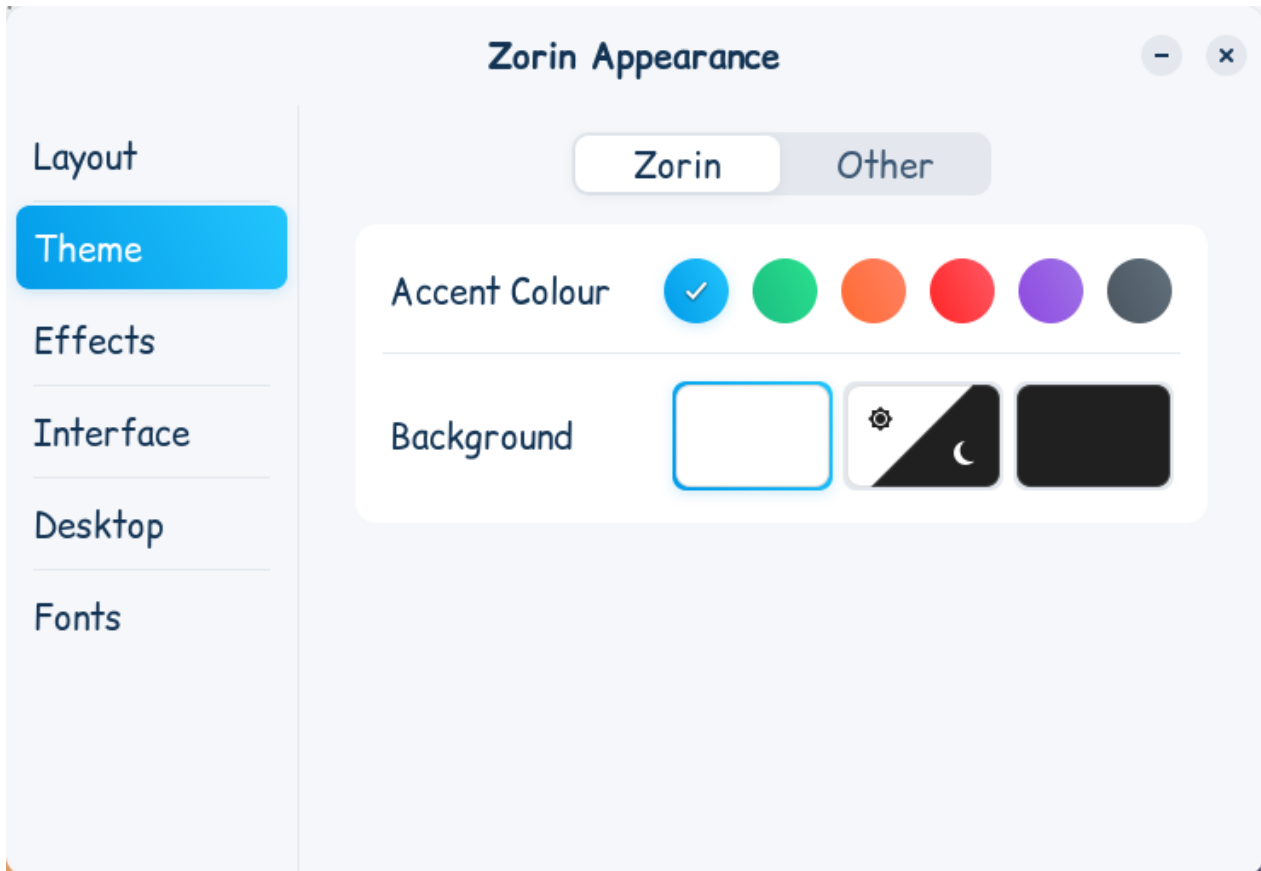
The mini screens at the top indicate you have potentially 12 different workspaces at your disposal when you select the 'Grid' Menu button on the **Dash**. The dots at the bottom of the grid indicate that there are 3 screens of applications in total, each screen containing up to 24 icons per screen. To move to the next screen, click on the right arrow. The search bar at the top to find applications by name should you wish to do so. I have noticed that the first page of applications on my screenshot is not in strict alphabetical order but the subsequent pages are.

The last one, bottom right, is a Gnome style desktop which is different to the original concept of Gnome and I for one found it painful to use. To see the **Dash** at the Bottom you have to click on the **Activities Overview** button at the top. I also discovered that the Window Buttons to minimise, maximise disappear, leaving only the close button option.

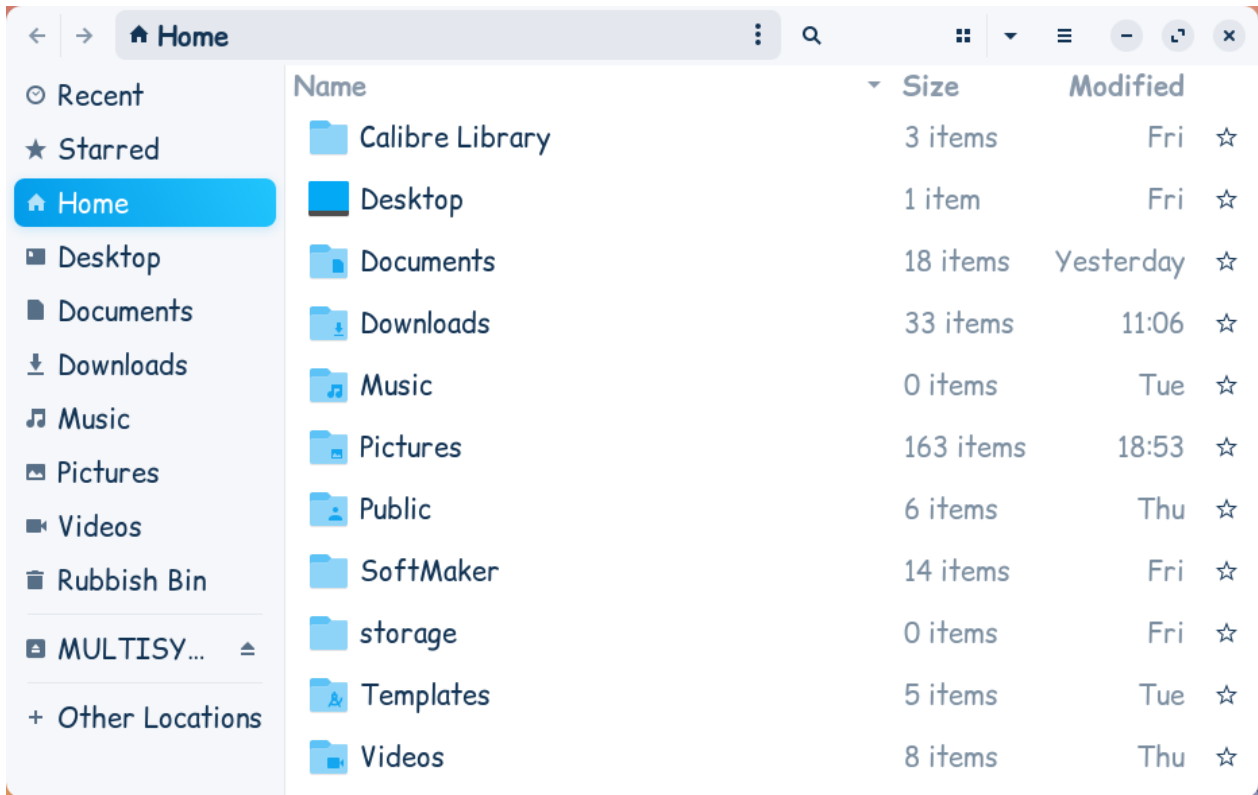


Theme

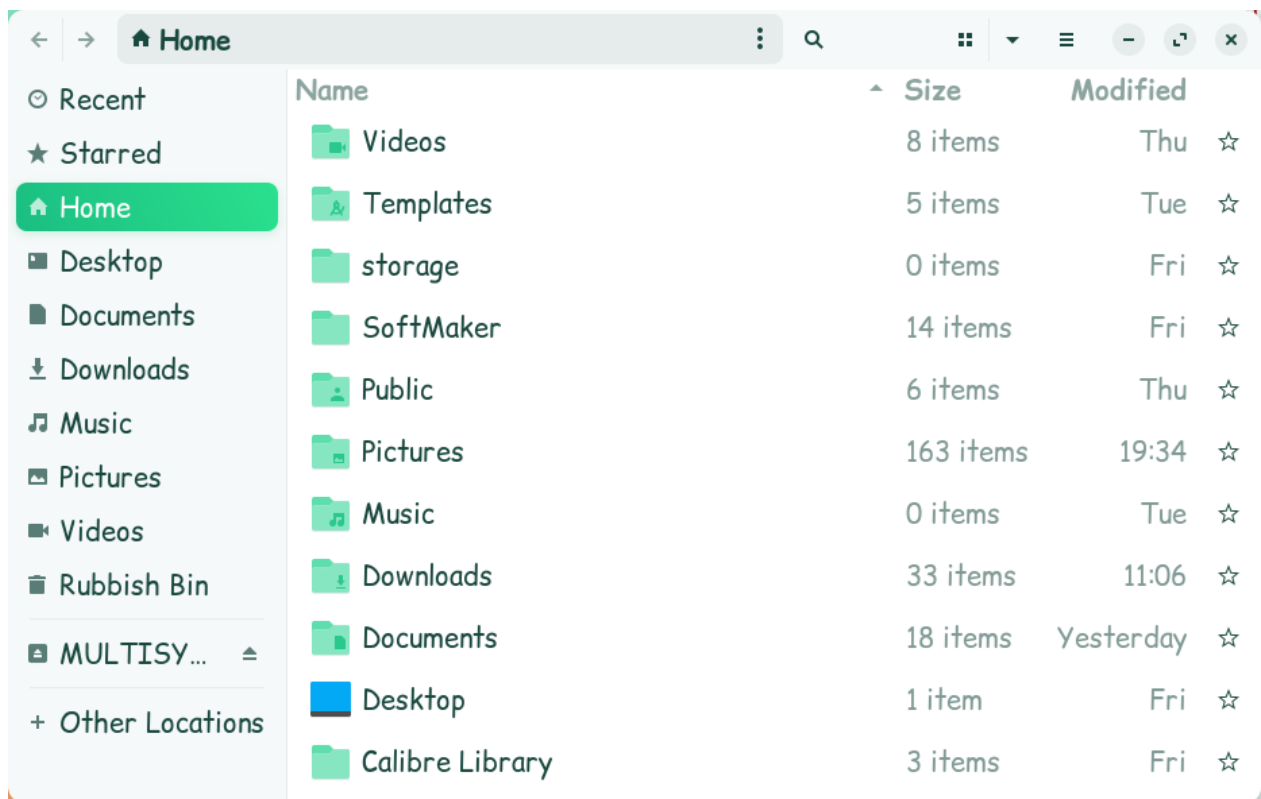
This option shows the different colour schemes available for Icons and Windows. There are two tabs, **Zorin** and **Other**.



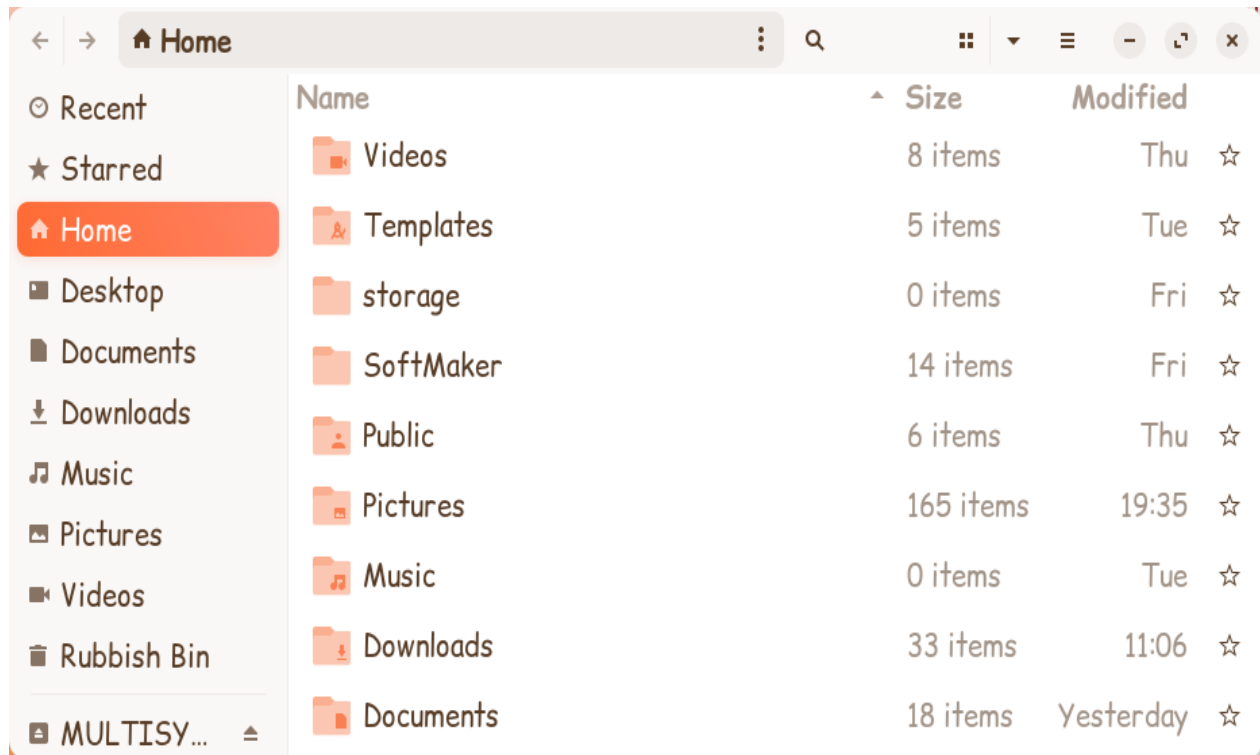
The Default Zorin Accent Colour is Blue:



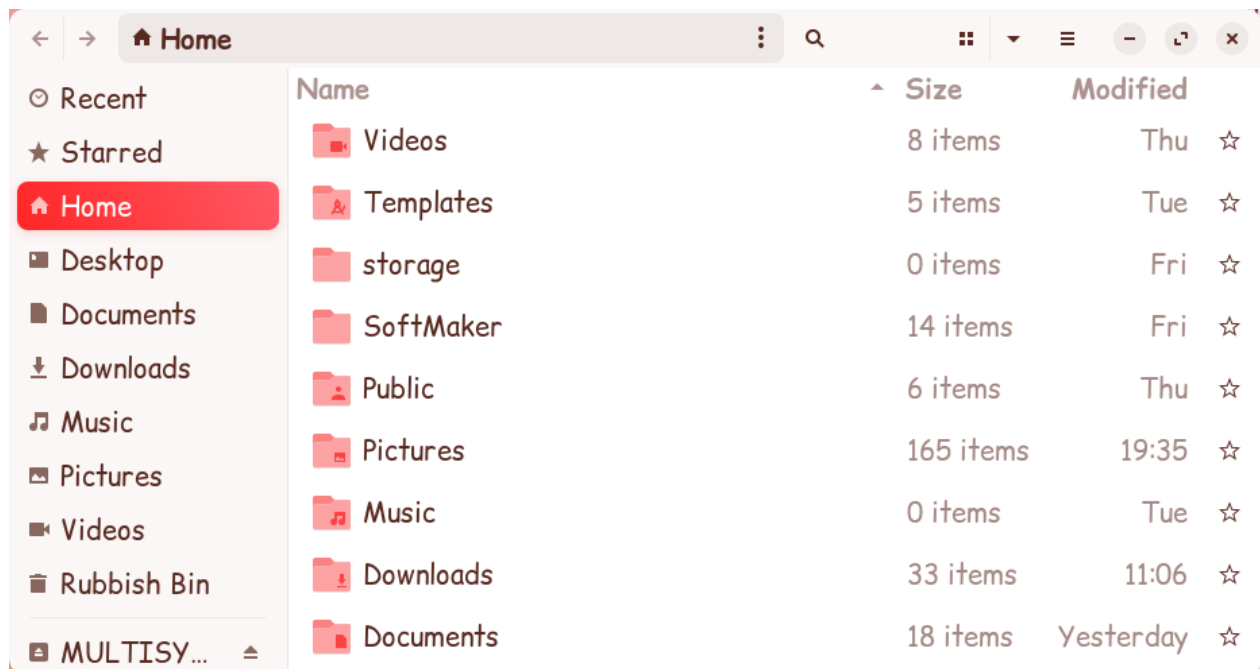
Green:



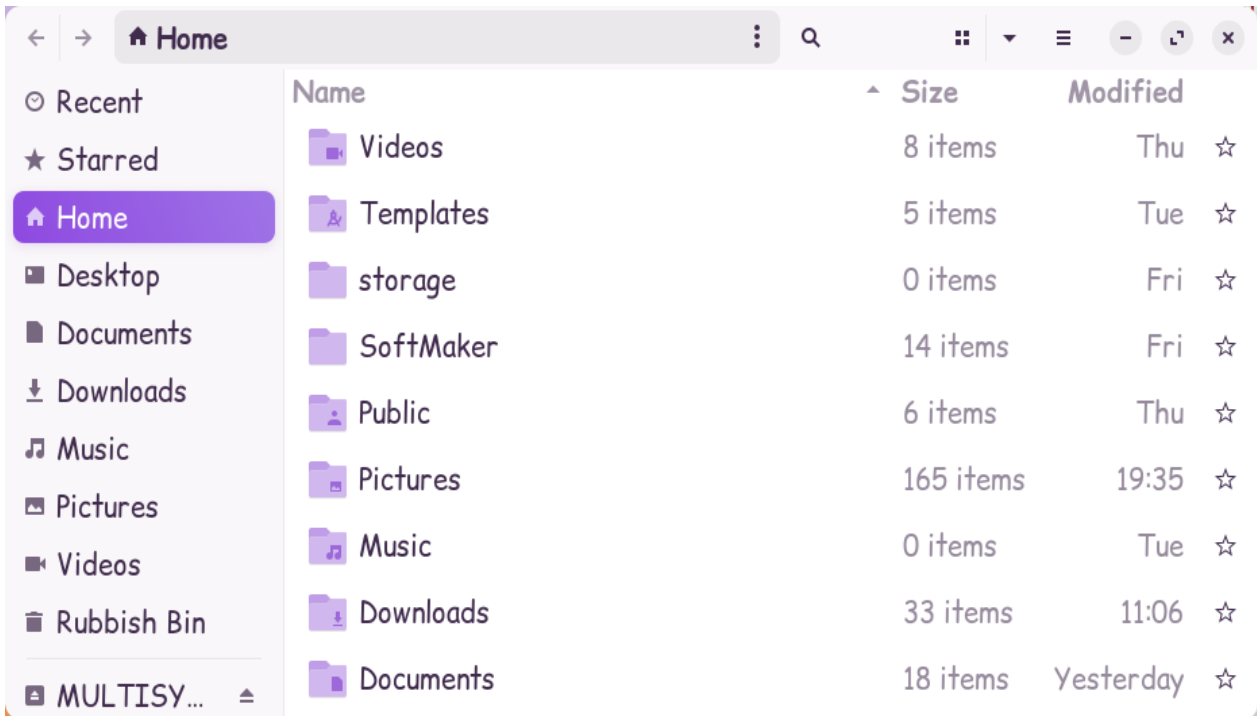
Orange:



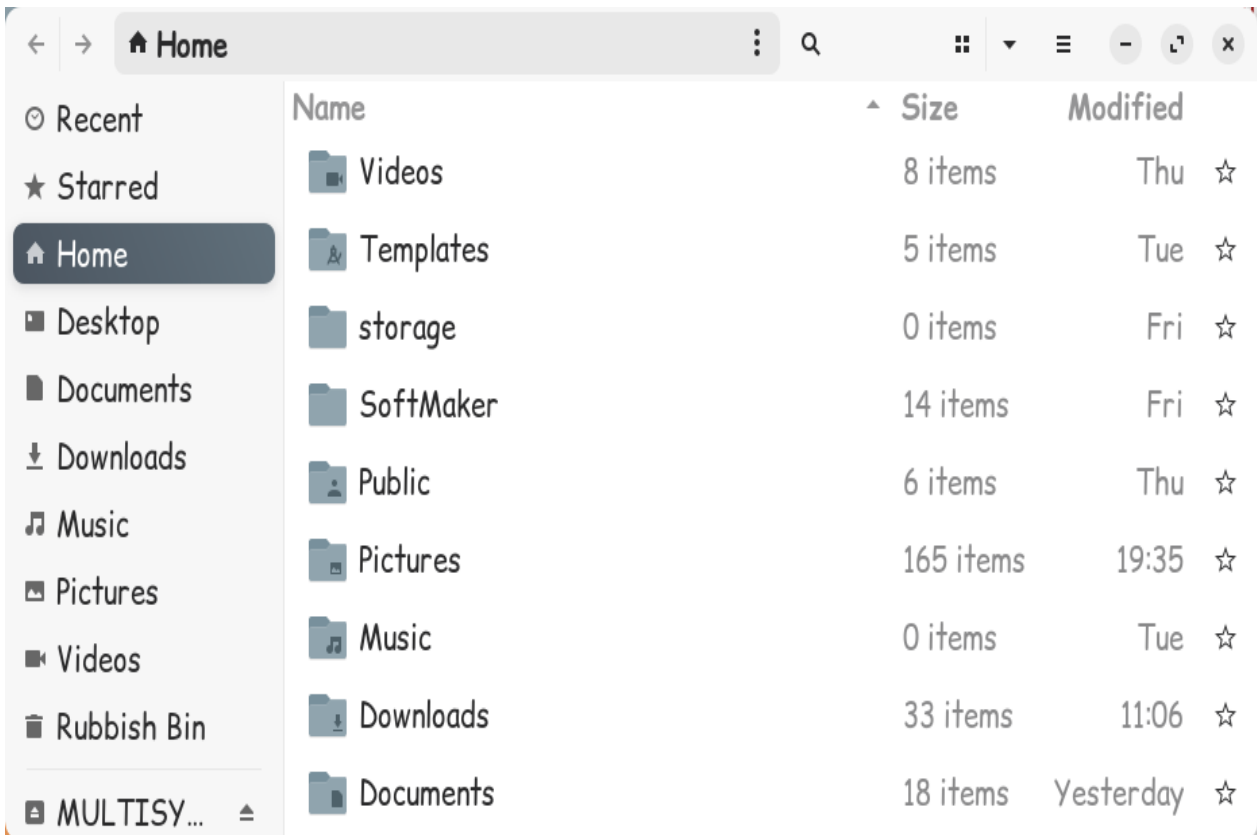
Red:



Purple:



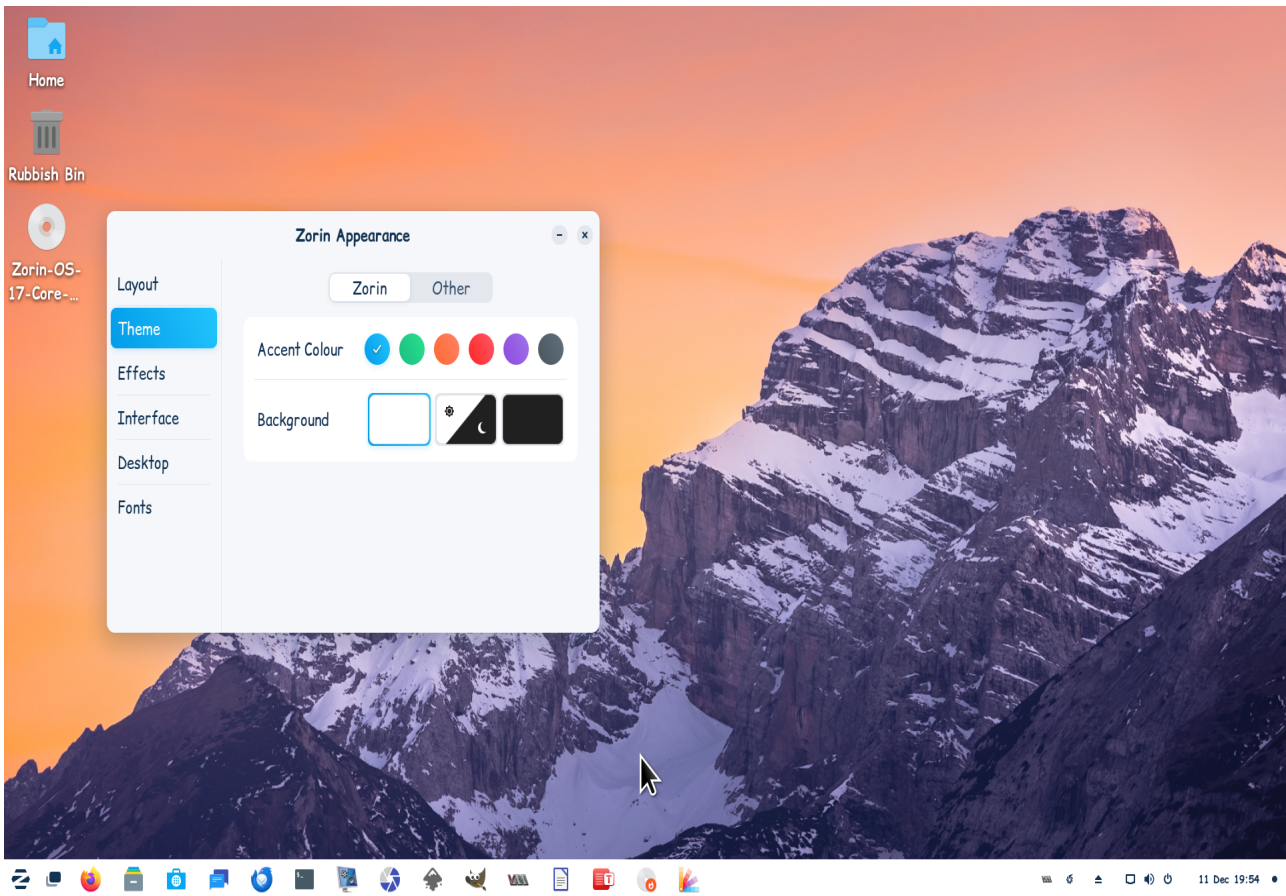
Grey:



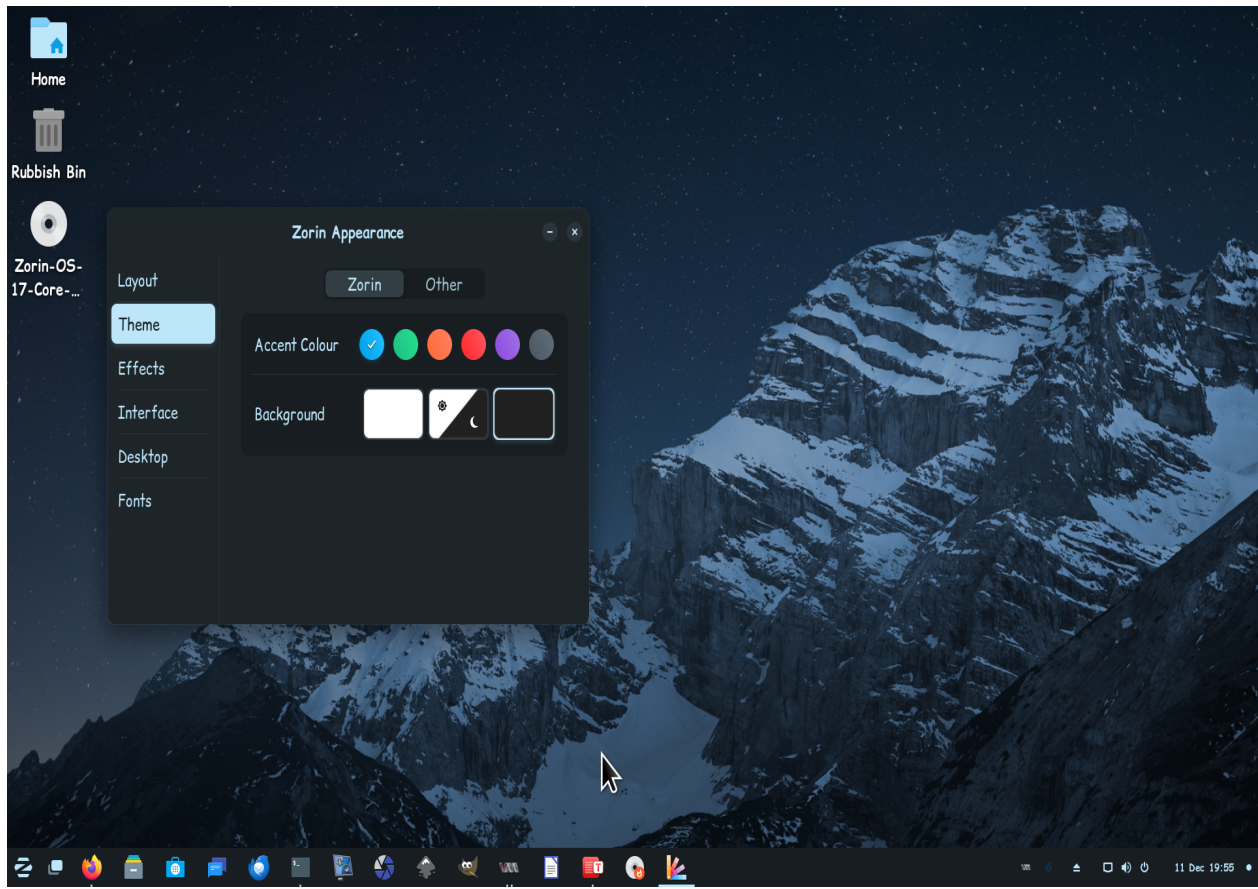
Background

This setting gives you the option to have a light Background, dark Background, or a combination, where it is light during the daytime and transforms to dark at night time. You can set this middle option, and a **Schedule** appears, which can be Manual where you enter the time when the desktop should be Light and when it should change to Dark. Alternatively you can use 'Sunset to Sunrise' setting, but I somehow feel it should say 'Sunrise to Sunset' - or Is it just me!

Light



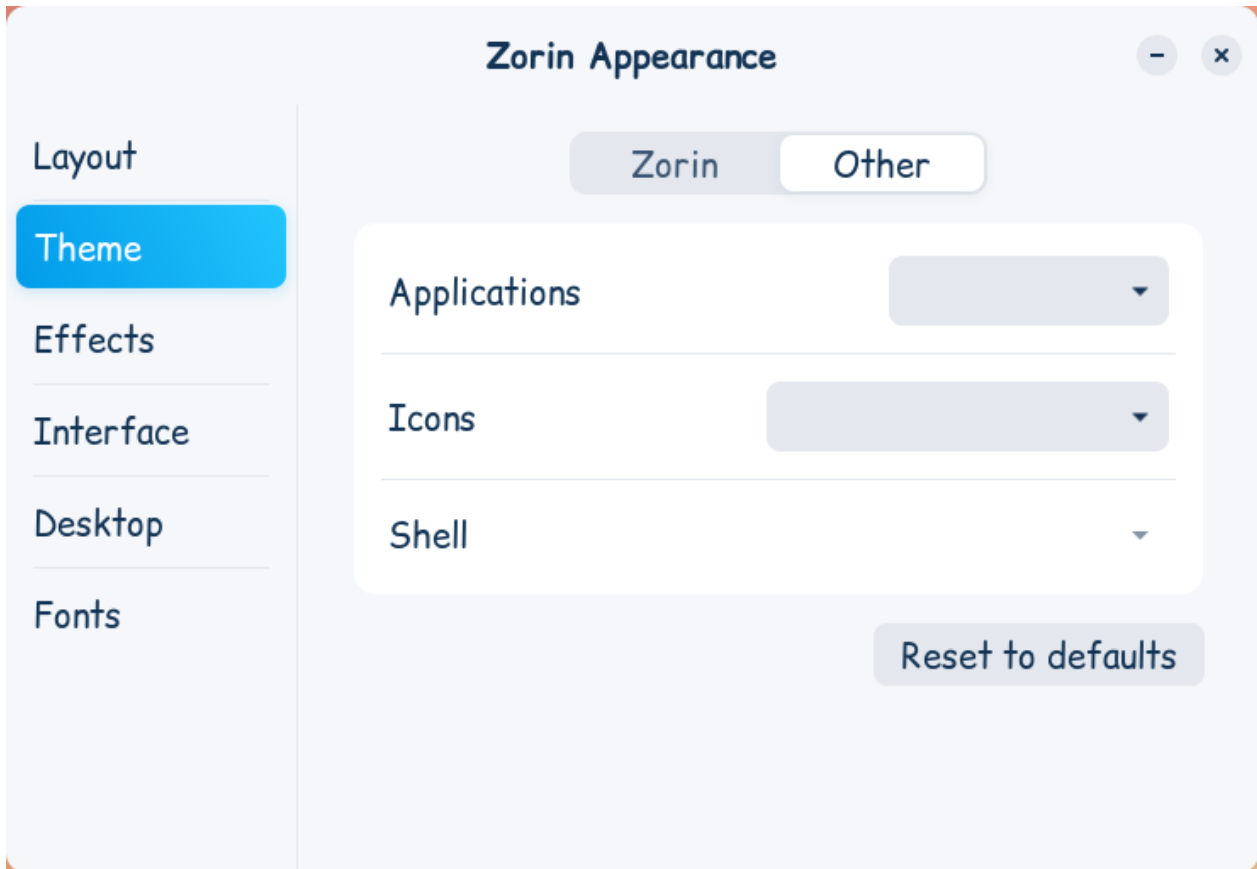
Dark



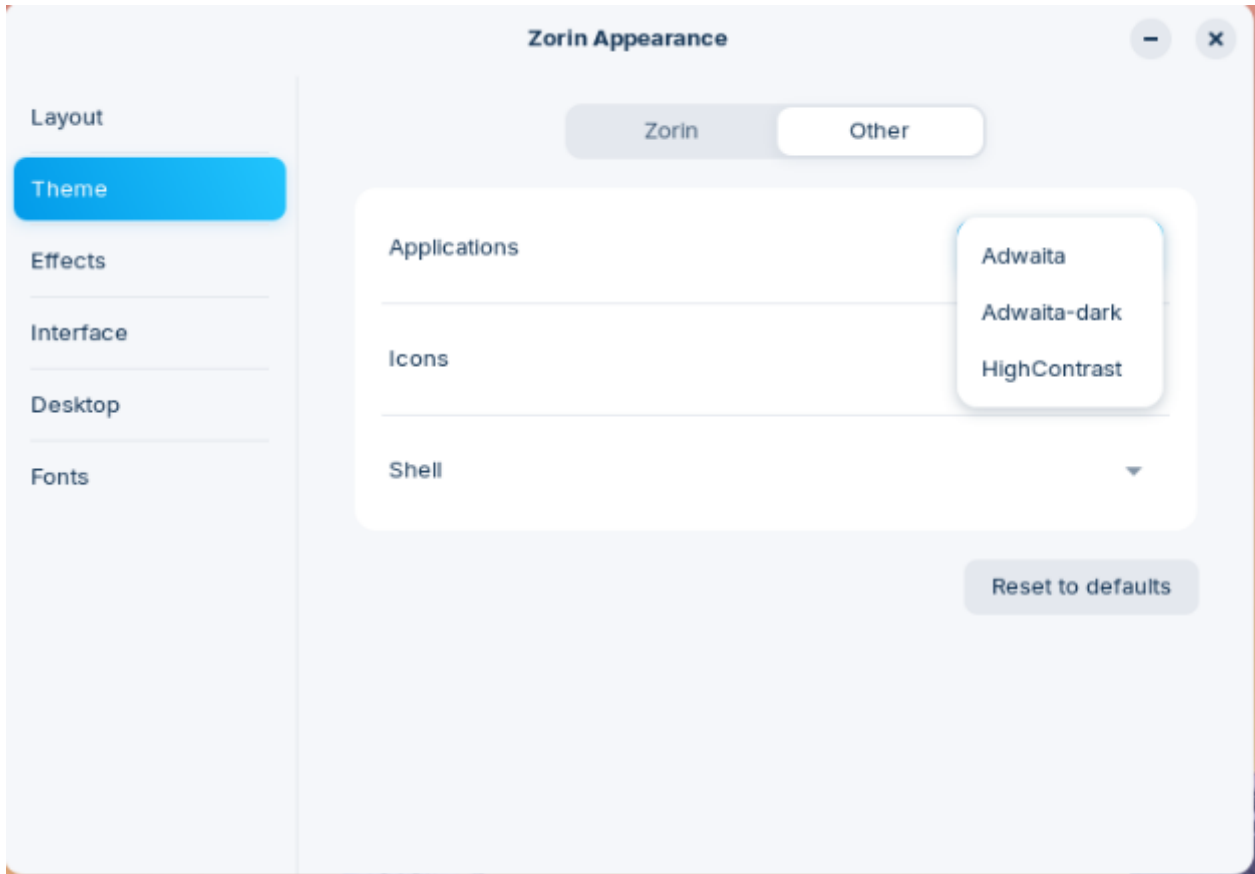
Other

This comprises of 3 blank fields, **Applications**, **Icons** and **Shell**.

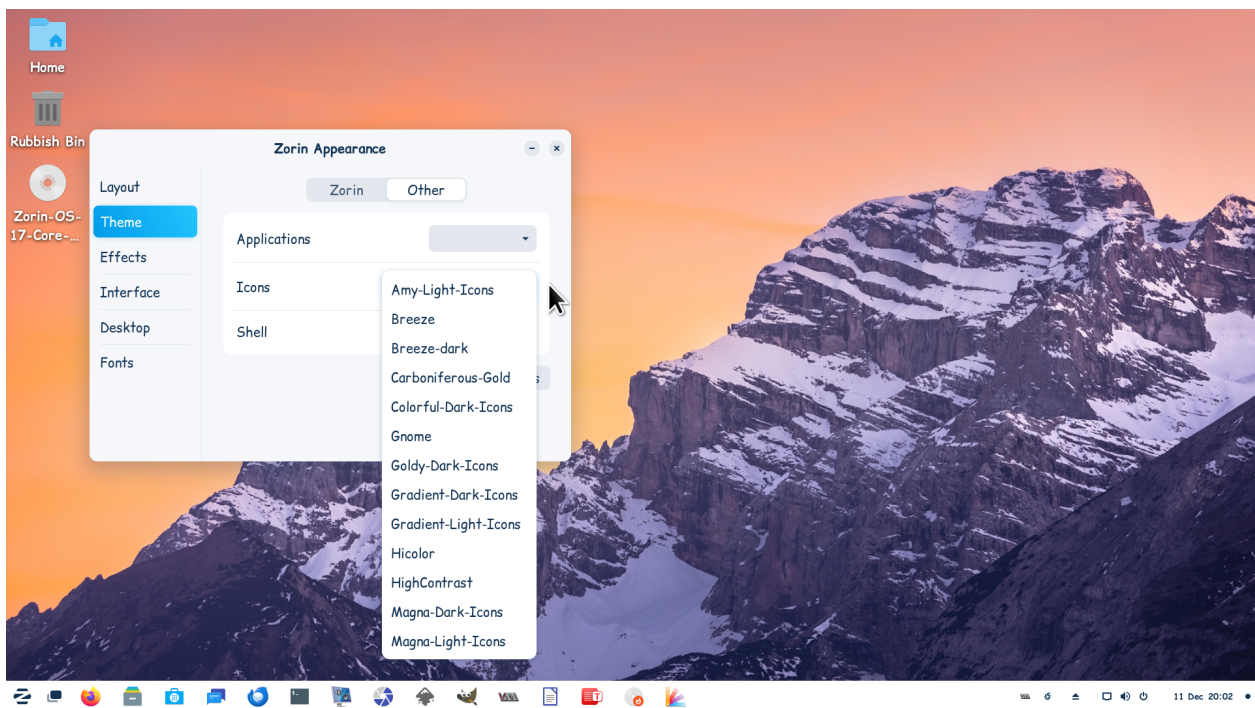
If things don't go as you expected with the drop-down options available, the escape route is to click on **Reset to defaults**.



Applications drop-down list:



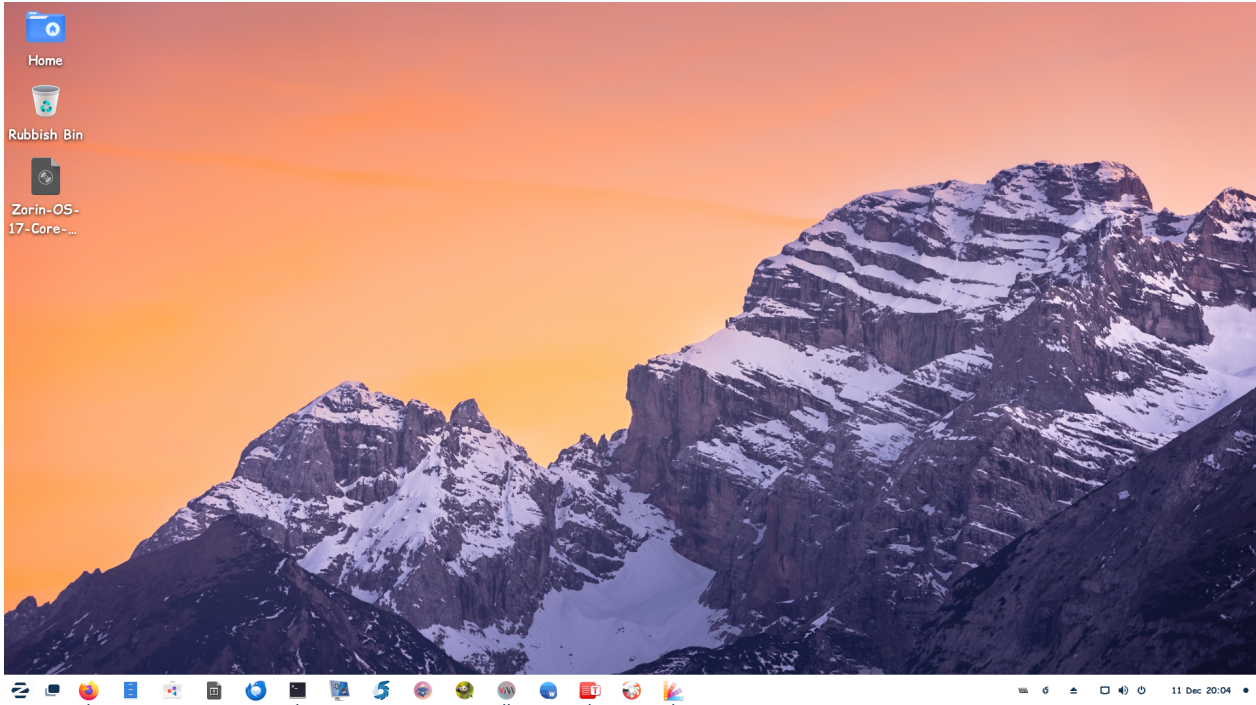
Icons drop-down list:



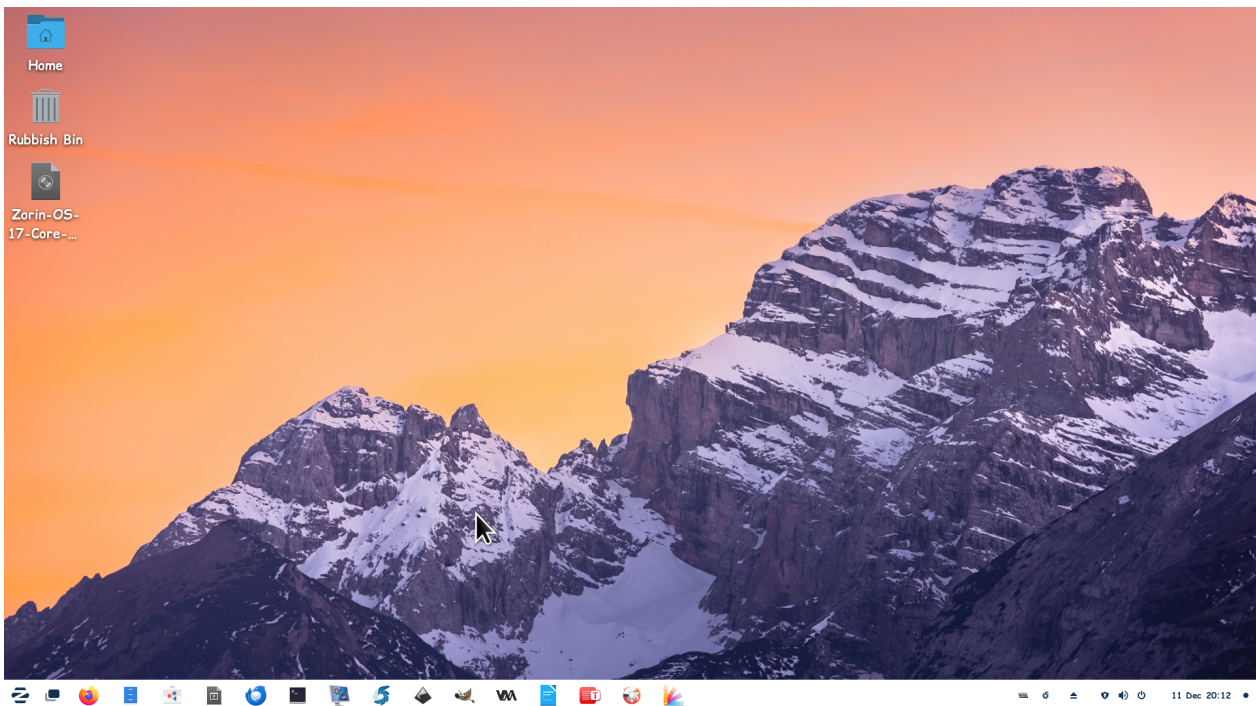
Please be aware I have added some additional icons whilst playing around with Plasma DE! (Amy-Light-Icons, Breeze, Breeze-Dark, Carboniferous-Gold, Colorful-Dark-Icons, Gnome, Goldy-Dark-Icons, Gradient-Dark-Icons, Gradient-Light-Icons, Magna-Dark-Icons, Magna-Light-Icons being the ones that are not present in the Beta).

Hicolor and HighContrast are the only options available by default.

Amy-Light-Icons:

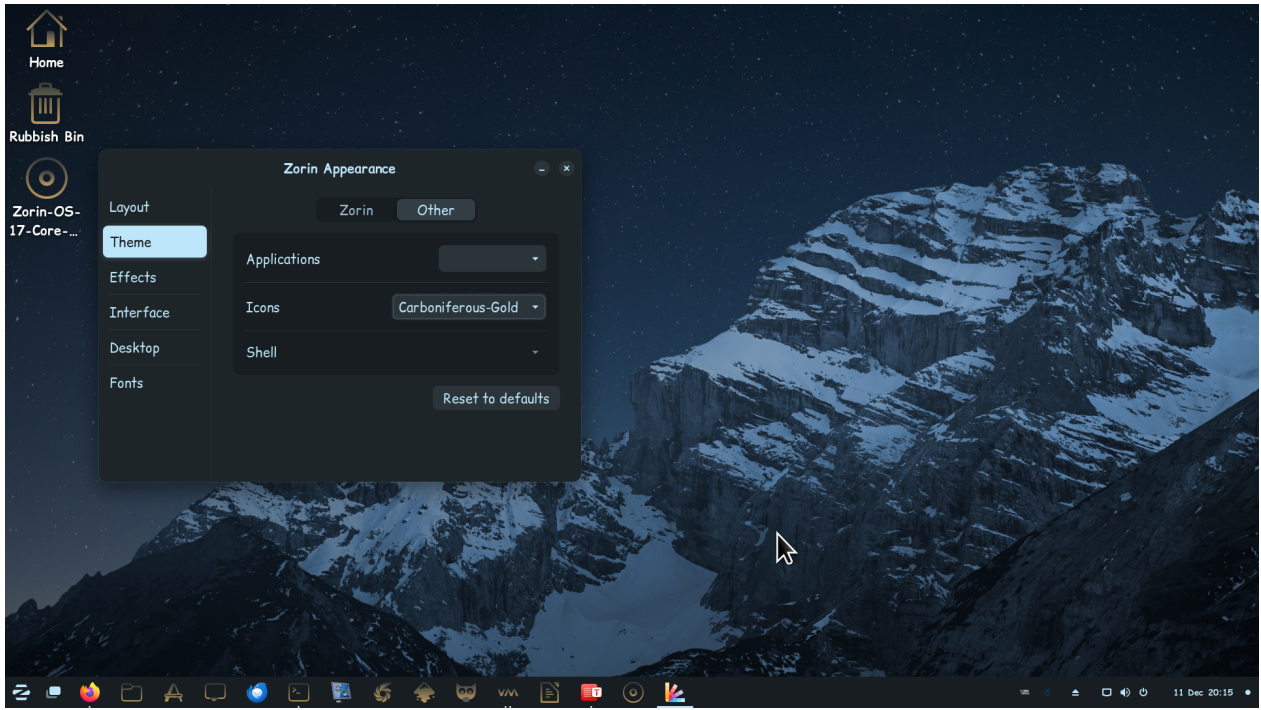


Breeze:

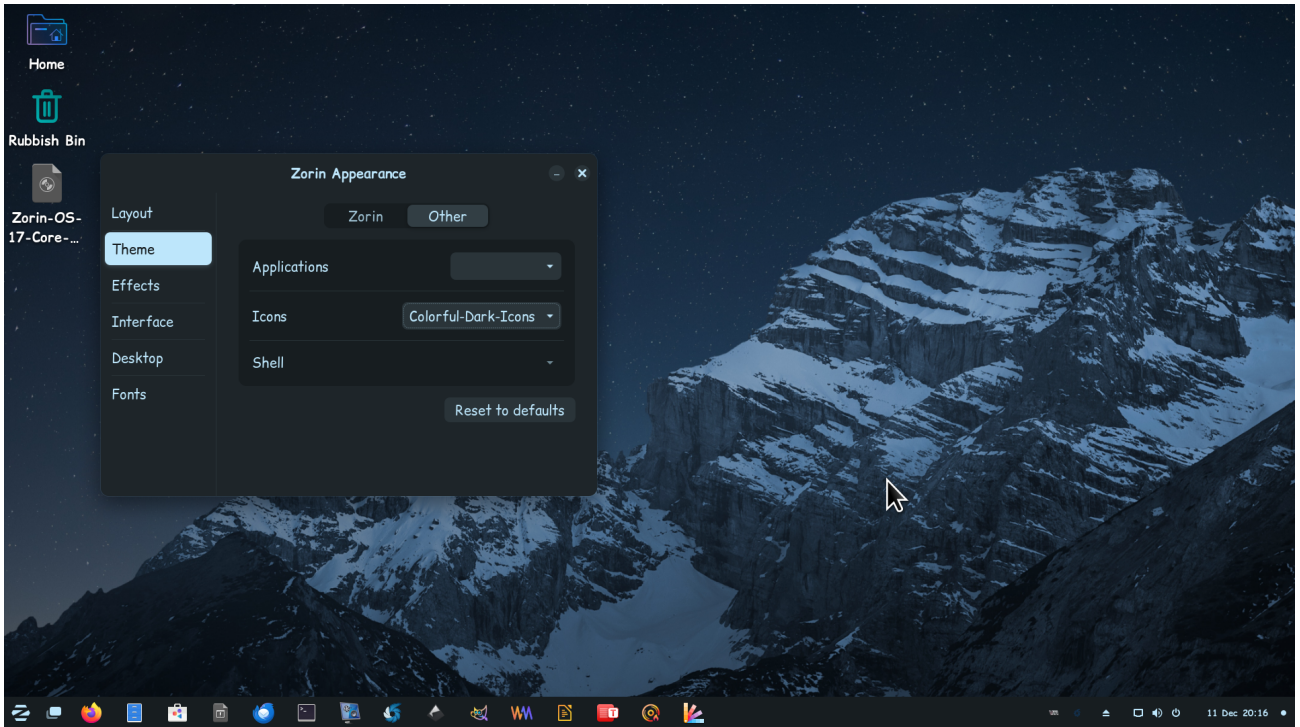


Breeze-dark (Not bothered to do a screenshot, the only change it made was the icon for virt-manager and changed it from black ... to white!)

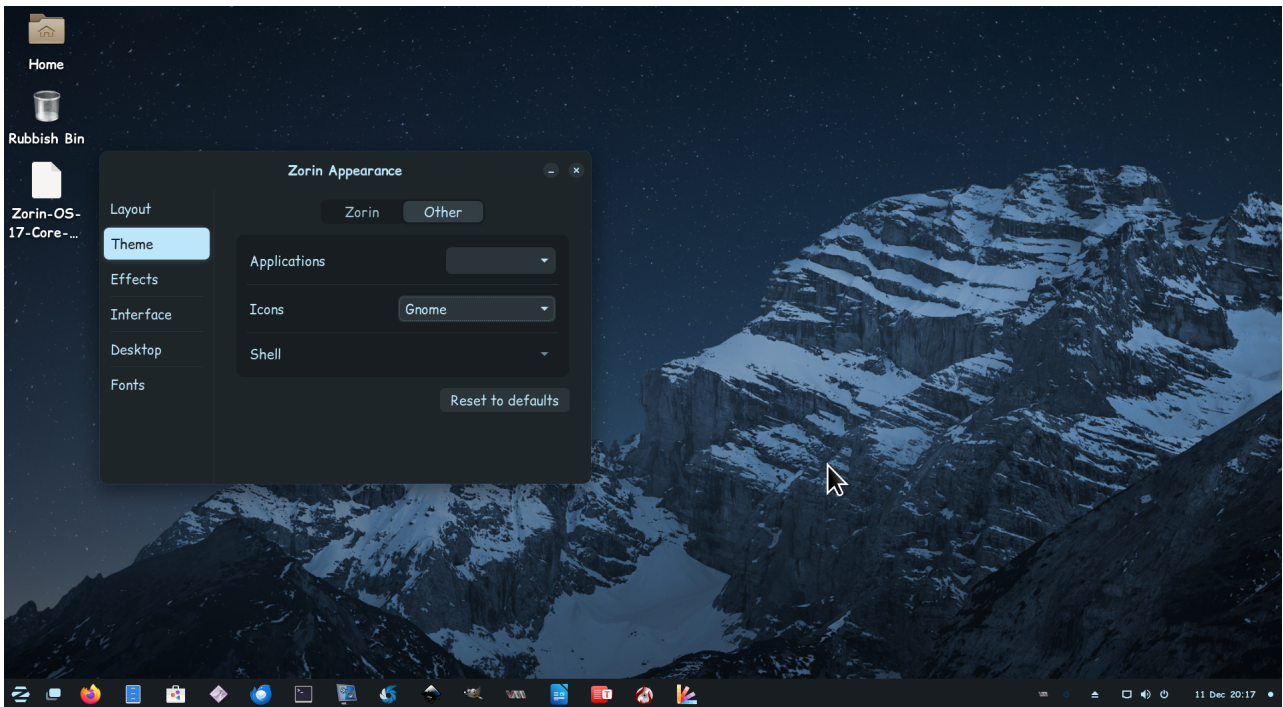
Carboniferous-Gold:



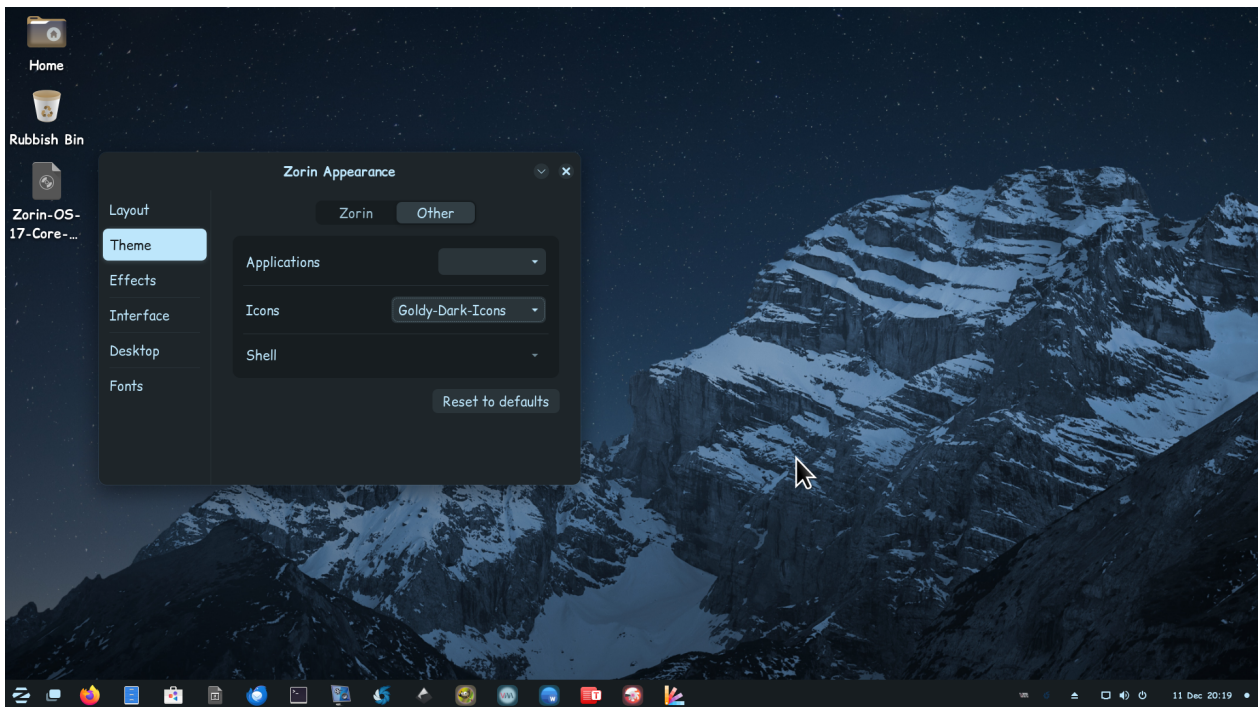
Colorful-Dark-Icons:



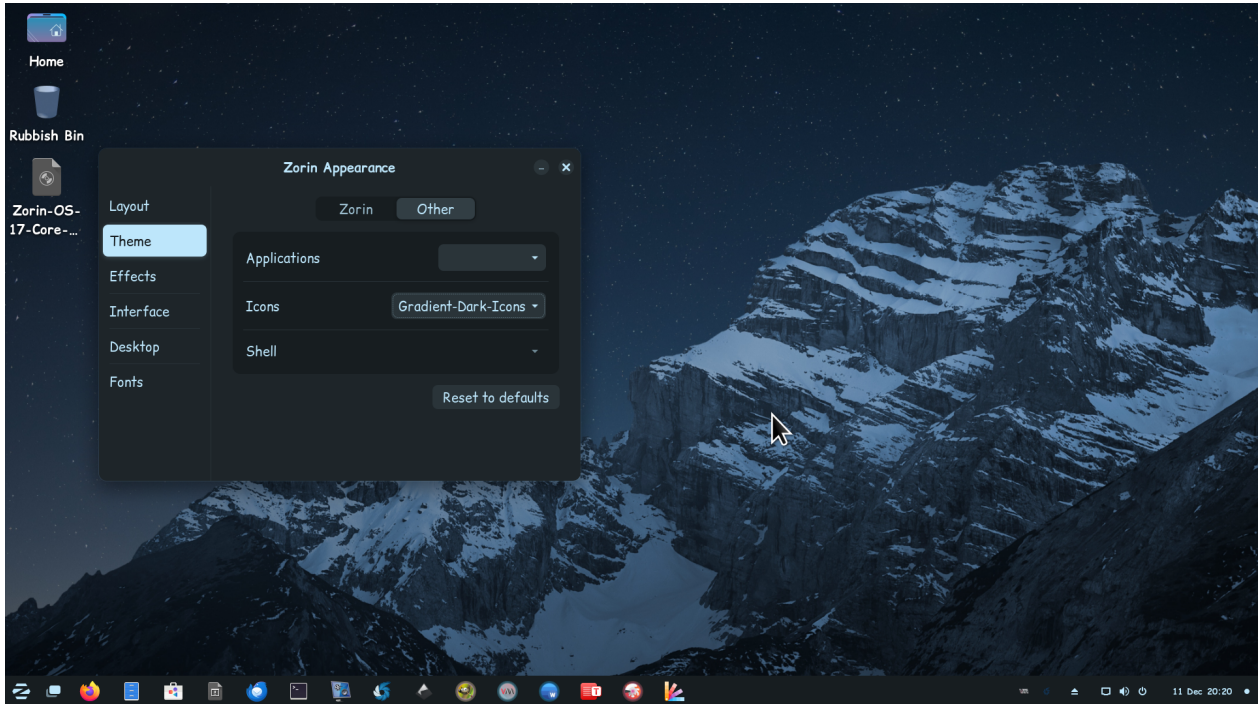
Gnome:



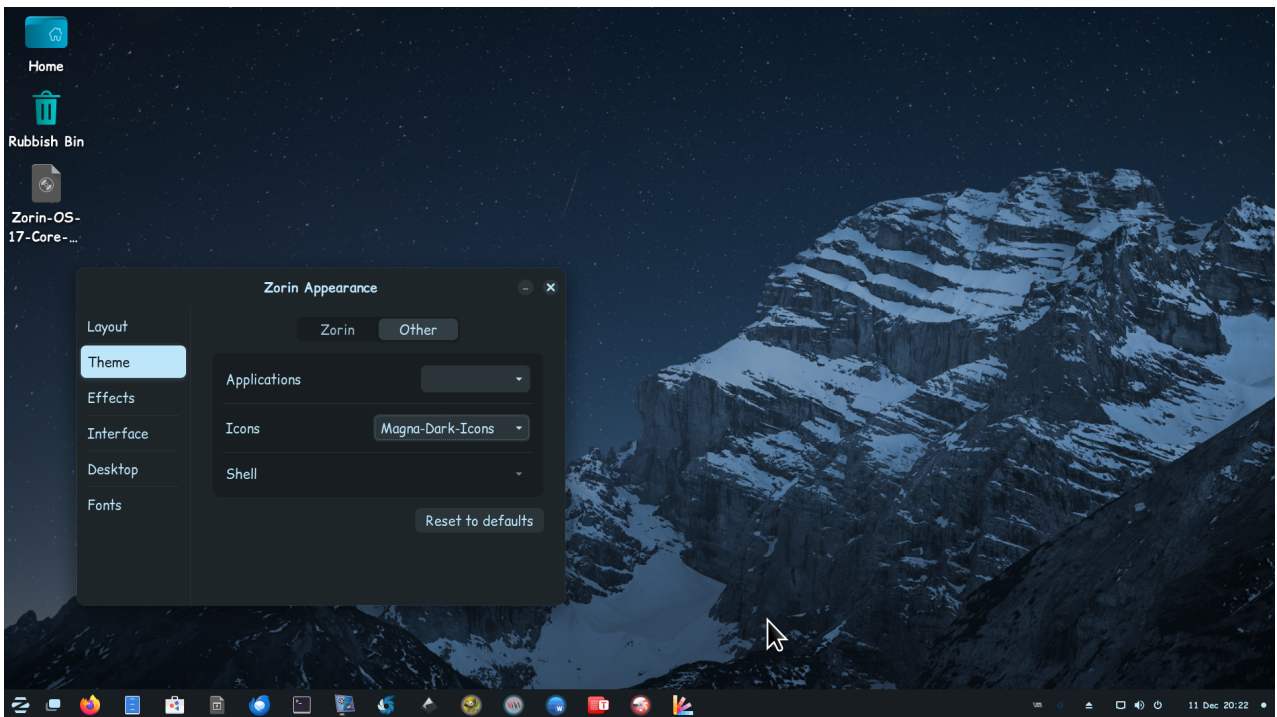
Goldy-Dark-Icons:



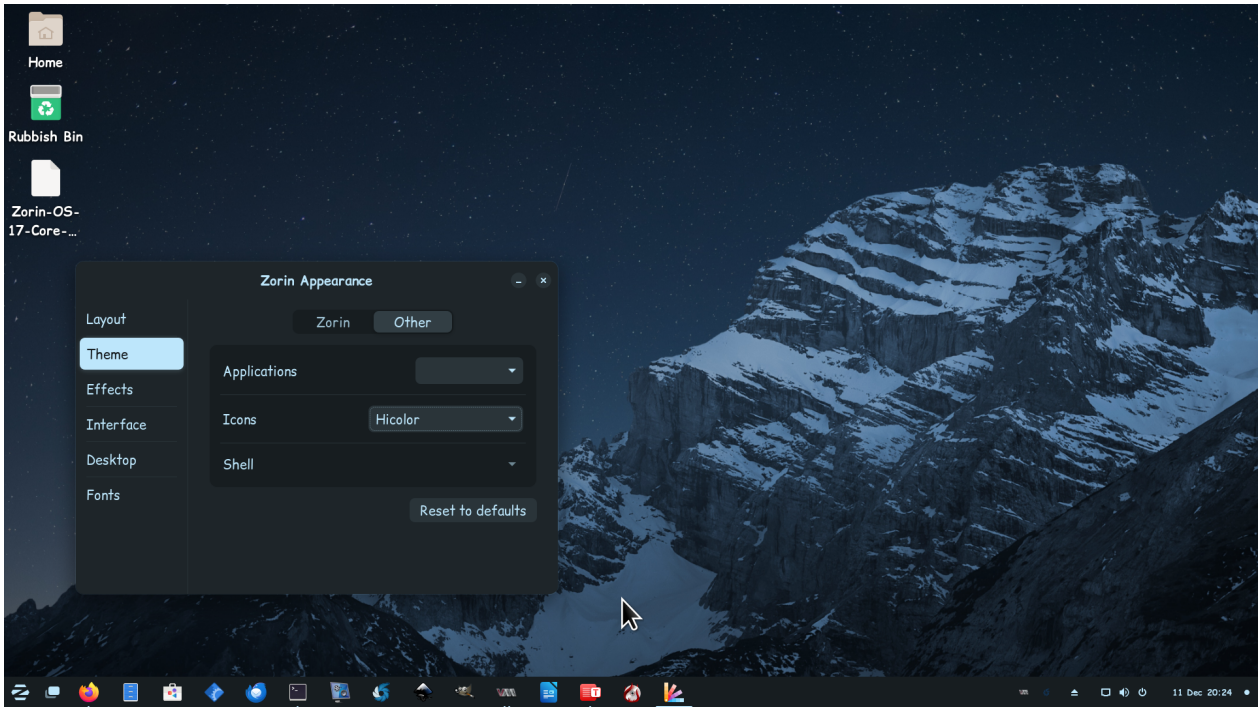
Gradient-Dark-Icons: (Gradient-Light-Icons not much different so no screenshot.)



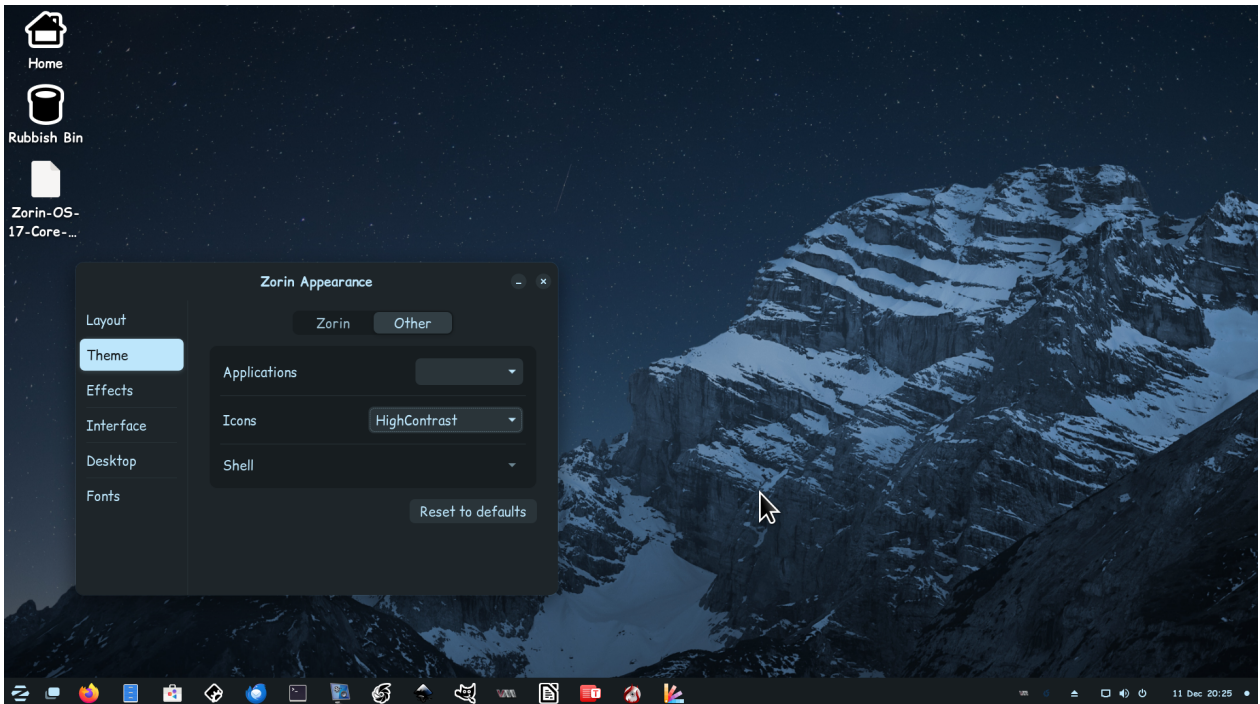
Magna-Dark-Icons: (Magna-Light-Icons - not much different so no screenshot.)



Hicolor:



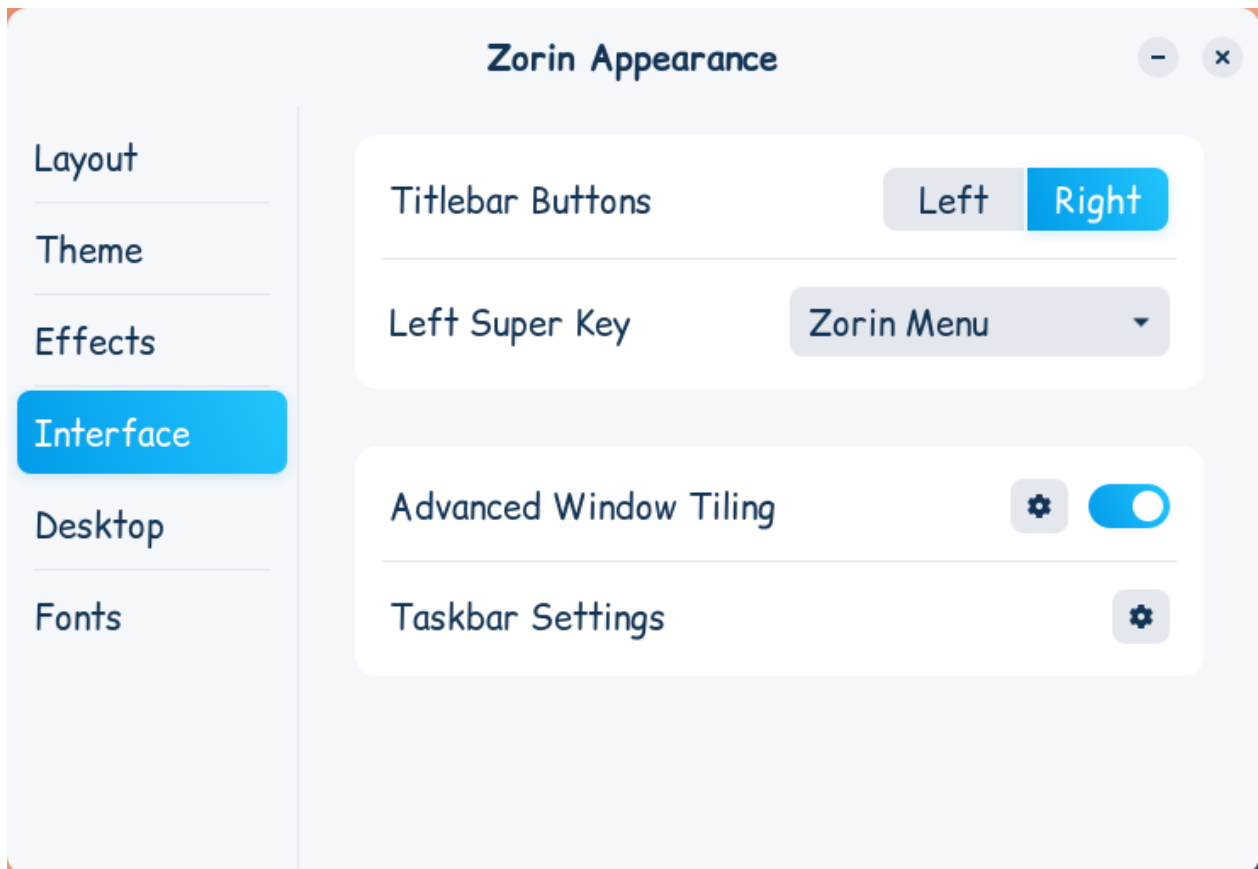
HighContrast:



Effects - see video I created here:

<https://vimeo.com/893473421?share=copy>

Interface



This is where you can decide on where the Titlebar Buttons are placed (minimise, maximise, close), what to designate the Left Super Key to do. The default is **Activities Overview**, but you can change this to **Zorin Menu** by using the drop down arrow to the right.

Advanced Window Tiling. Not quite sure how to describe what this does! Selecting the cog reveals the following interface (top-half) on the next page.

Advance Window Tiling - General Settings (top half)

The screenshot shows the 'General' settings tab for 'Advance Window Tiling'. The interface includes a title bar with 'General' and 'Keybindings' tabs, and a close button. The settings are organized into several sections:

- Tiling Popup**
 - Open after tiling a window**:
 - Include apps from all workspaces**:
- Tile Groups**
 - Raise together**:
A tile group is created when a window gets tiled. If a tiled window is raised, raise the other windows of its tile group as well.
- Gaps**
 - Windows**: 0 (with - and + buttons)
 - Screen Edges**: 0 (with - and + buttons)
 - Maximized Windows**:
- Dynamic Keybinding Behavior**

The keybindings to maximize and tile to the top/bottom/left/right may change their behavior based on the window's tiling state

 - Disabled**
Don't change the keybindings' behavior
 - Window Focus**
Switch focus to the tiled window in the direction of the pressed shortcut
 - Tiling State**
Adapt the tiling state to the pressed shortcut. For instance, a window tiled to the right half will tile to the bottom-right

Advance Window Tiling - General Settings (bottom-half)

The screenshot shows a settings window titled 'Advance Window Tiling' with two tabs: 'General' (selected) and 'Keybindings'. The window is divided into several sections:

- tiling state**
 - Disabled**
Don't change the keybindings' behavior
 - Window Focus**
Switch focus to the tiled window in the direction of the pressed shortcut
 - Tiling State**
Adapt the tiling state to the pressed shortcut. For instance, a window tiled to the right half will tile to the bottom-right quarter, if 'tile to bottom' is activated
 - Tiling State (Windows)**
Like 'Tiling State' but if the window isn't tiled or is already tiled to the bottom and the 'tile to bottom' shortcut is activated, minimize the window
- Active Window Hint**
 - Disabled**
Don't indicate the focused window
 - Minimal**
Temporarily indicate the focused window when switching to a workspace with multiple non-overlapping windows
 - Always**
Always indicate the focused window unless it's maximized or in fullscreen. There are issues on Wayland with GTK4 popups
- Other**
 - Monitor Switch Grace Period**
When a window is dragged to a new monitor the tile preview will stick to the old monitor for a very short time. This way you can tile windows by 'throwing' it towards any screen edge even if a monitor is bordering that edge.

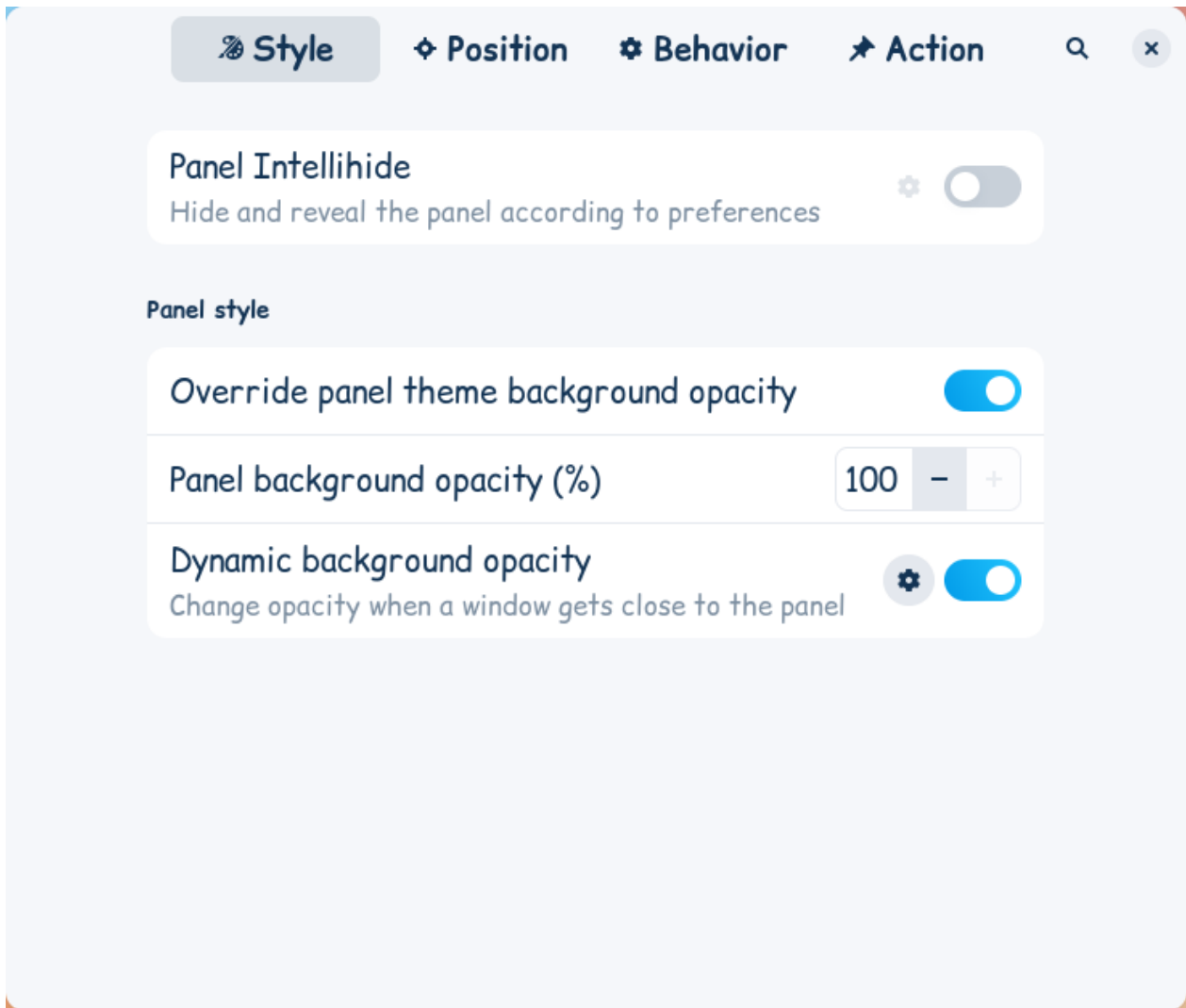
Advanced Window Tiling - Keybindings

The screenshot shows a settings window with two tabs: 'General' and 'Keybindings'. The 'Keybindings' tab is active. The settings are organized into three sections: 'General', 'Edge Tiling', and 'Corner Tiling'. Each setting is presented in a row with a description and a keybinding or status.

Section	Setting	Keybinding / Status
General	Tile Editing Mode <small>A keyboard-driven mode to manage your tiled windows</small>	Disabled ↗
	Toggle Maximization	Super+Up / Super+KP 5 ↗
	Restore Window Size	Super+Down ↗
	Move Window to Center	Disabled ↗
Edge Tiling	Tile to top	Super+KP 8 ↗
	Tile to bottom	Super+KP 2 ↗
	Tile to left	Super+Left / Super+KP 4 ↗
	Tile to right	Super+Right / Super+KP 6 ↗
Corner Tiling	Tile to top-left	Super+KP 7 ↗
	Tile to top-right	Super+KP 9 ↗
	Tile to bottom-left	Super+KP 1 ↗
	Tile to bottom-right	Super+KP 3 ↗

Taskbar Settings

Style



Taskbar Settings

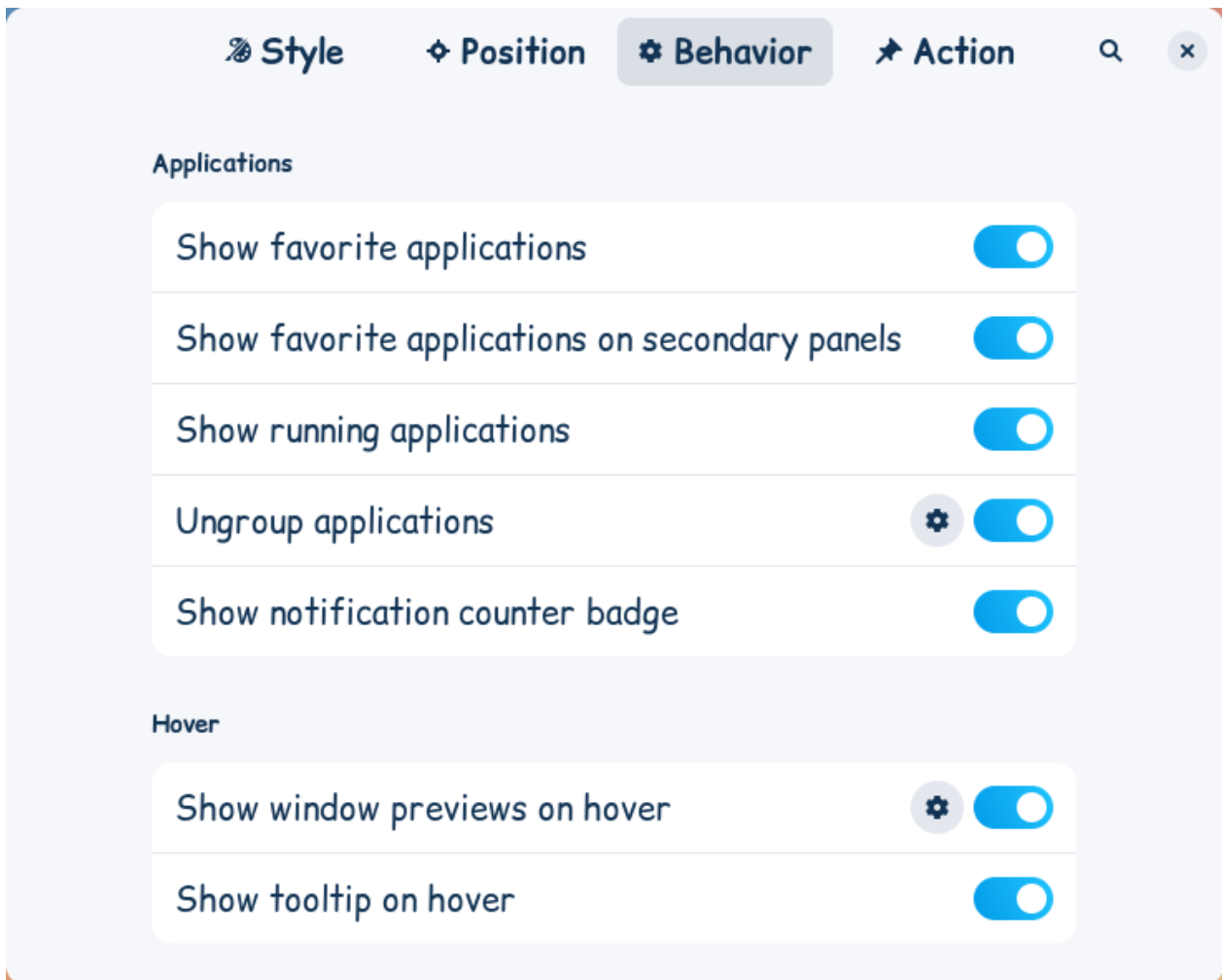
Position

The screenshot shows the 'Position' tab of the GNOME Taskbar Settings window. At the top, there are four tabs: 'Style', 'Position' (selected), 'Behavior', and 'Action'. Below the tabs, the 'Panel' section has a toggle for 'Display panels on all monitors' which is currently turned off. The 'Order and Position on monitors' section includes a checked checkbox for 'Apply changes to all monitors' and a dropdown menu for 'Primary monitor'. The 'Panel screen position' section has four buttons: 'Bottom' (selected), 'Top', 'Left', and 'Right'. The 'Panel thickness' section features a slider ranging from 32 to 64 pixels, with the current value set at 40 px. The 'Panel length (%)' section has a slider ranging from 20 to 100, with the current value set at 100%. The 'Anchor' section has a dropdown menu set to 'Center'. The bottom section is a list of taskbar items, each with up/down arrows, a visibility toggle, and a stacking order dropdown. The items are: Left box, Show Applications button, Activities button, Taskbar, Center box, Right box, System menu, Date menu, and Desktop button. The Date menu and Desktop button items have a gear icon next to them, indicating they are configurable.

Item	Visible	Stacking Order
Left box	Visible	Stacked to left
Show Applications button	Visible	Stacked to left
Activities button	Visible	Stacked to left
Taskbar	Visible	Stacked to left
Center box	Visible	Stacked to right
Right box	Visible	Stacked to right
System menu	Visible	Stacked to right
Date menu	Visible	Stacked to right
Desktop button	Visible	Stacked to right

Taskbar Settings

Behavior



Taskbar Settings

Action

The screenshot shows the GNOME Taskbar Settings window with the 'Action' tab selected. The window has a title bar with tabs for 'Style', 'Position', 'Behavior', and 'Action'. There are search and close icons in the top right corner. The settings are organized into four sections: 'Click action', 'Scroll action', 'Hotkey overlay', and 'Gnome functionality'. Each section contains one or more settings with descriptive text and interactive controls like dropdown menus, toggle switches, and gear icons.

Click action

Click action
Behaviour when clicking on the icon of a running application.

Scroll action

Scroll icon action
Behavior when mouse scrolling over an application icon.

Hotkey overlay

Use hotkeys to activate apps
Enable Super+(0-9) as shortcuts to activate apps. It can also be used together with Shift and Ctrl.

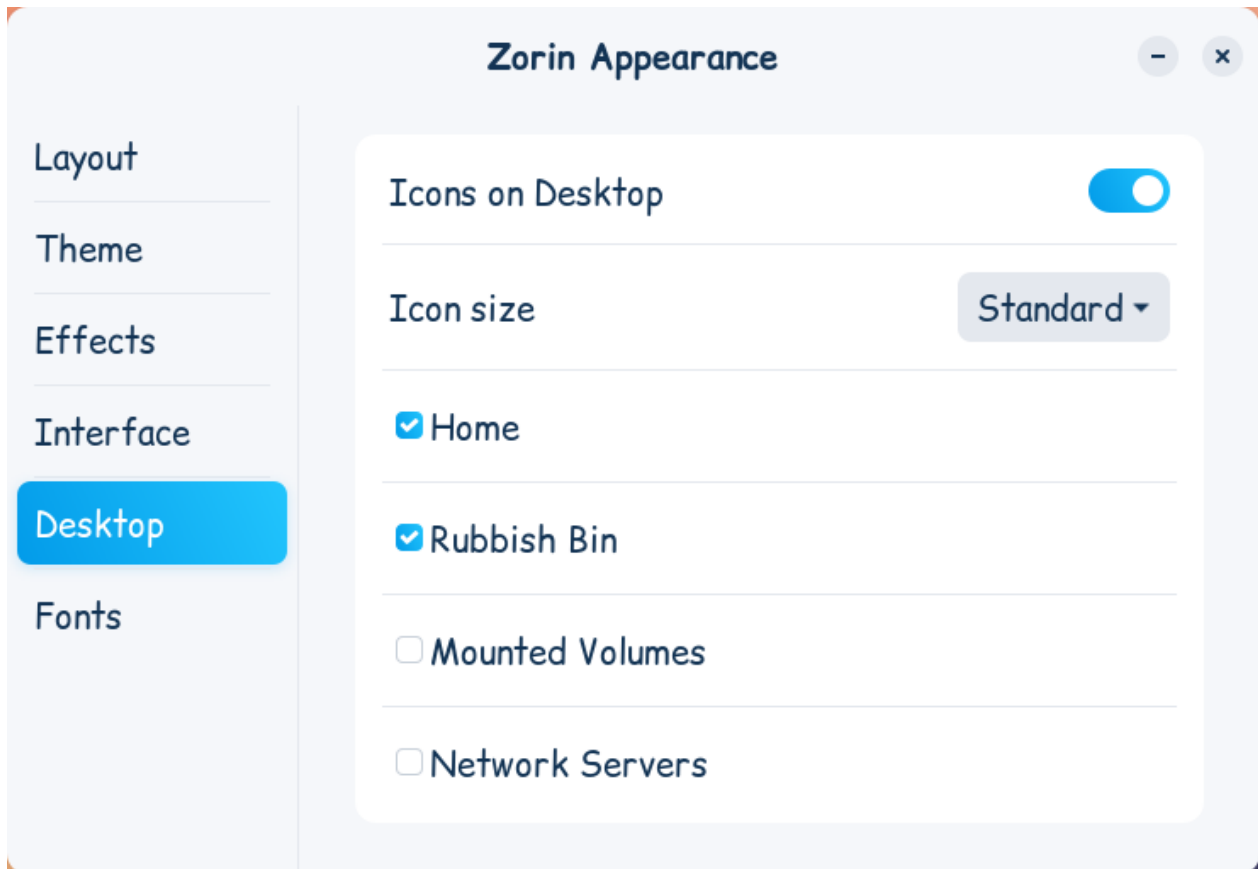
Gnome functionality

Keep original gnome-shell top panel

Activate panel menu buttons on click only (e.g. date menu)

Desktop

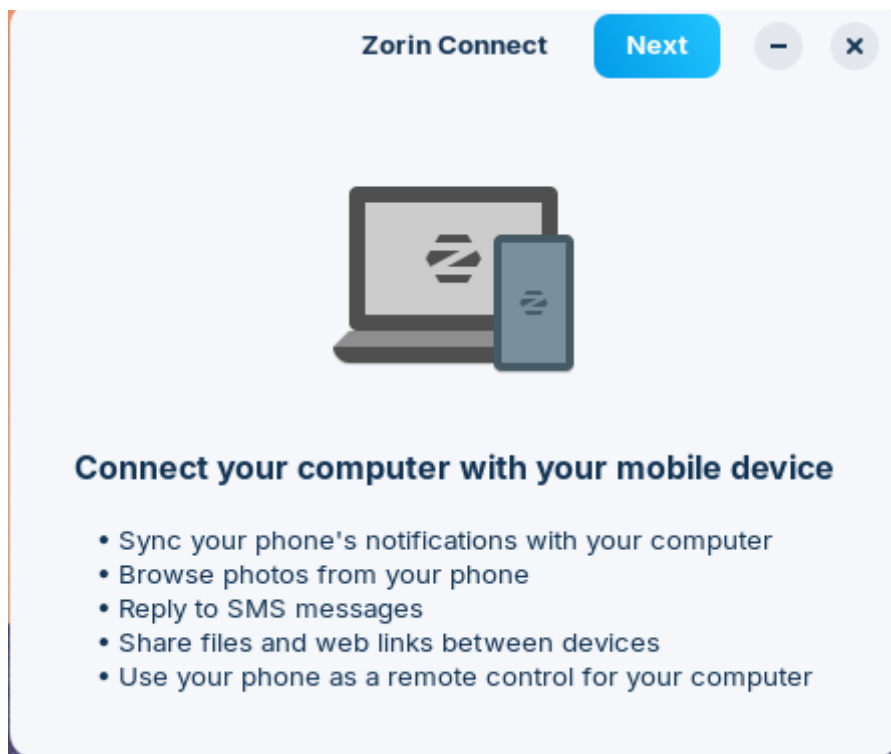
This is where you can decide whether or not you wish to have **system icons** (Home, Rubbish Bin, Mounted Volumes, Network Servers) on the Desktop or not, and what size you would like them to be (Tiny, Small, Standard or Large).



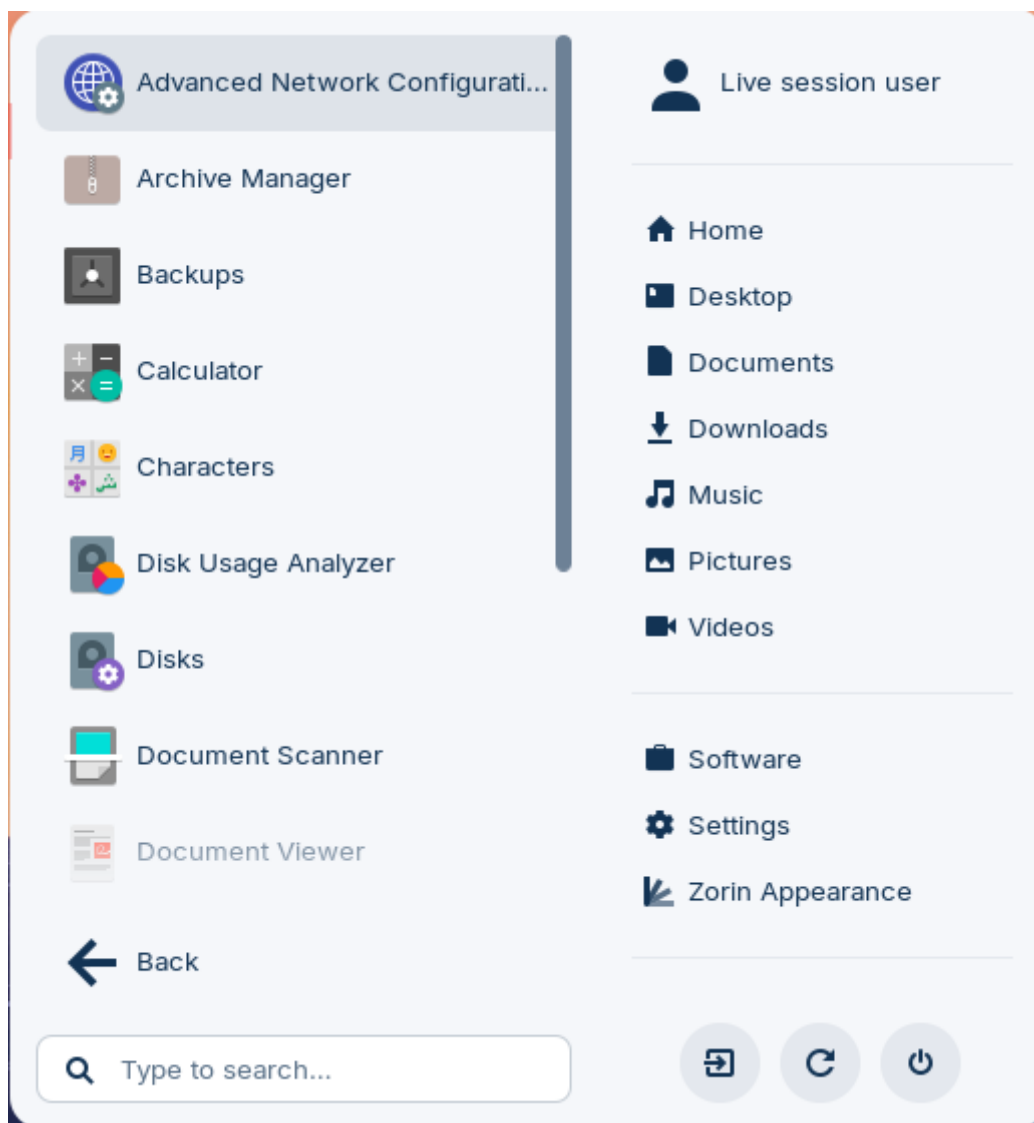
Fonts - This is where you can decide on the fonts you wish to use throughout the system. You might have noticed that I have adopted the 'Comic Relief' font, which is the open source equivalent of Microsoft's Comic Sans font.

Interface Text, Monospace Text and Document Text.

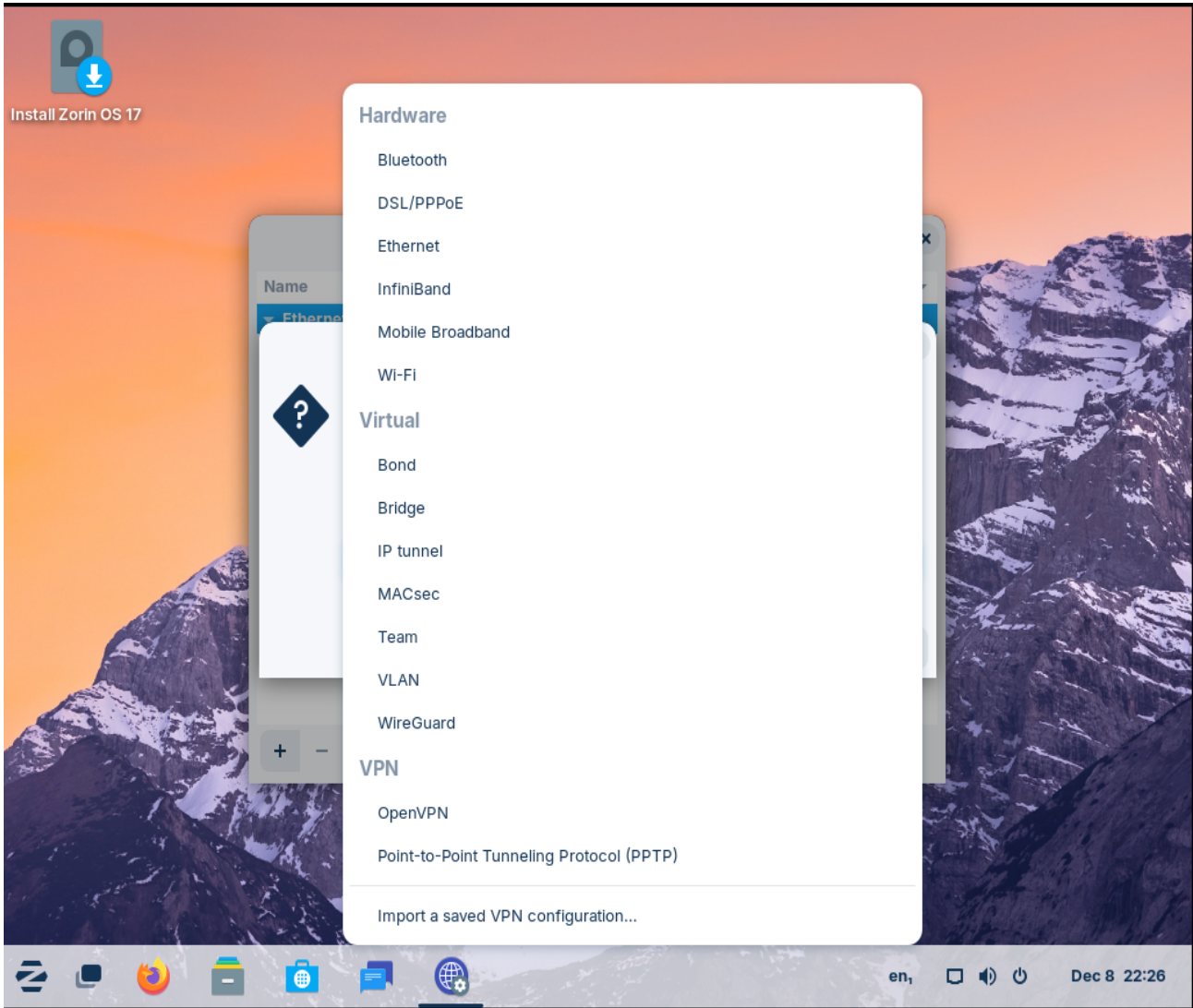
Zorin Connect- This is software to enable your smartphone to connect with the Zorin Desktop. With Zorin Connect you can see SMS messages on your Desktop, Send SMS messages from the Desktop, use your phone as a Multimedia Control device for Music, Video, or even as a Presentation remote control, the only requirement being that your smartphone has the Zorin Connect application installed and both have access to the same Network connection. You will need to download Zorin Connect for Android, either from Playstore or F-Droid or for I-Phone, App Store.



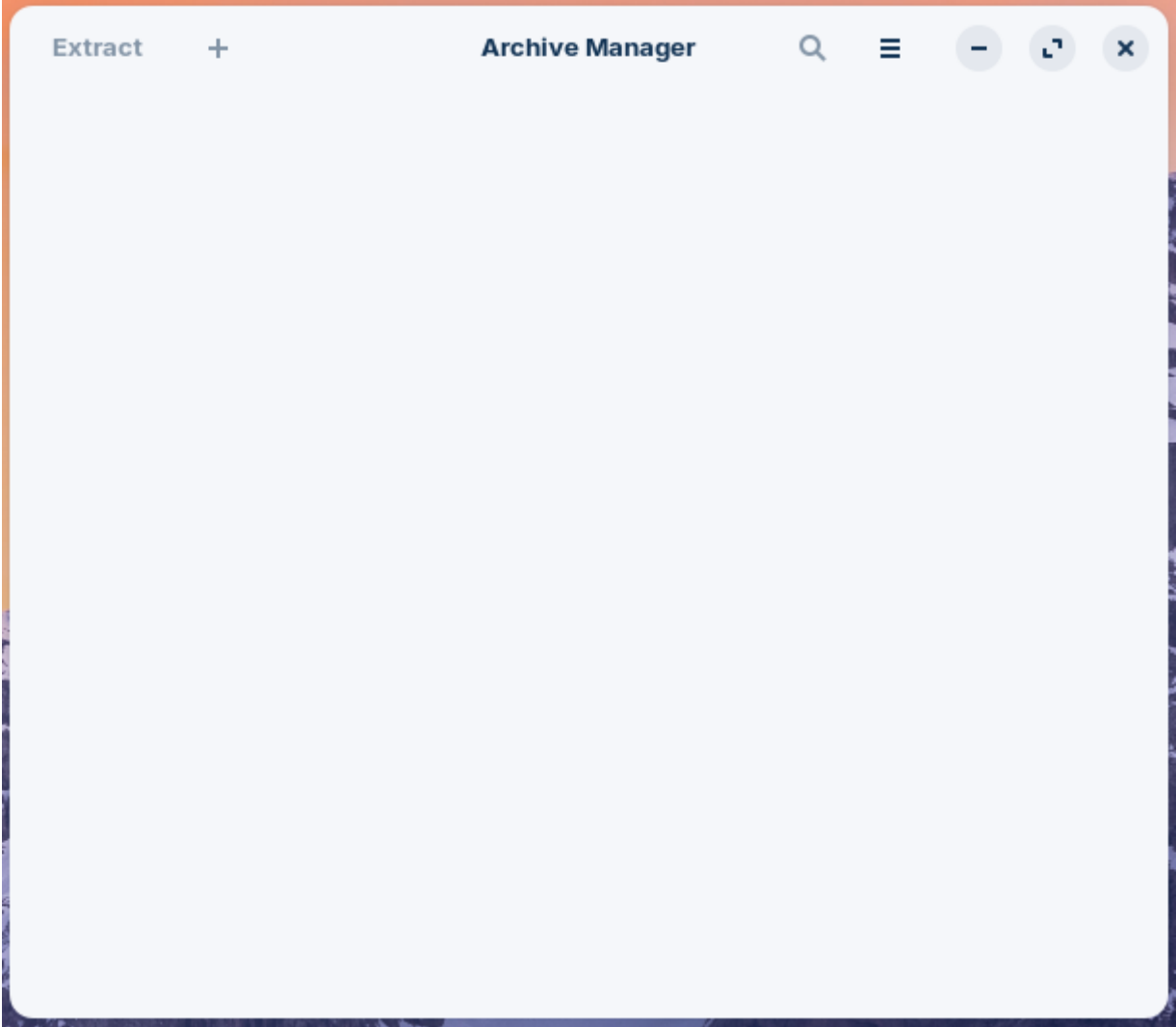
vii. a. Utilities (Top);



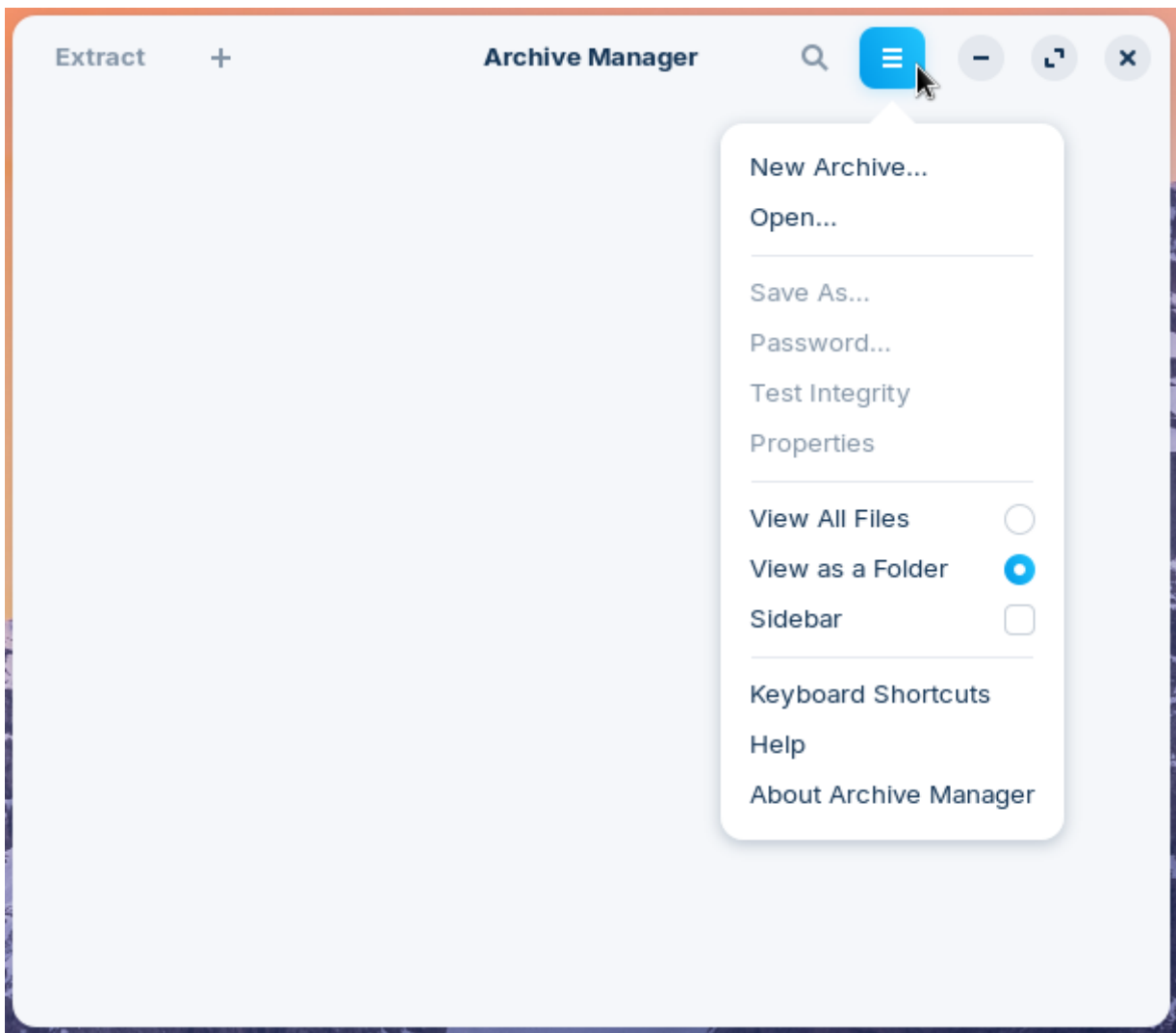
Advanced Network Configuration - Of all the latest changes to the OS, this has got to be one of the most outstanding updates to the Zorin Operating System. Gone are the days where users were struggling to connect using DSL/PPPoE - it's all here (see screenshot on next page).



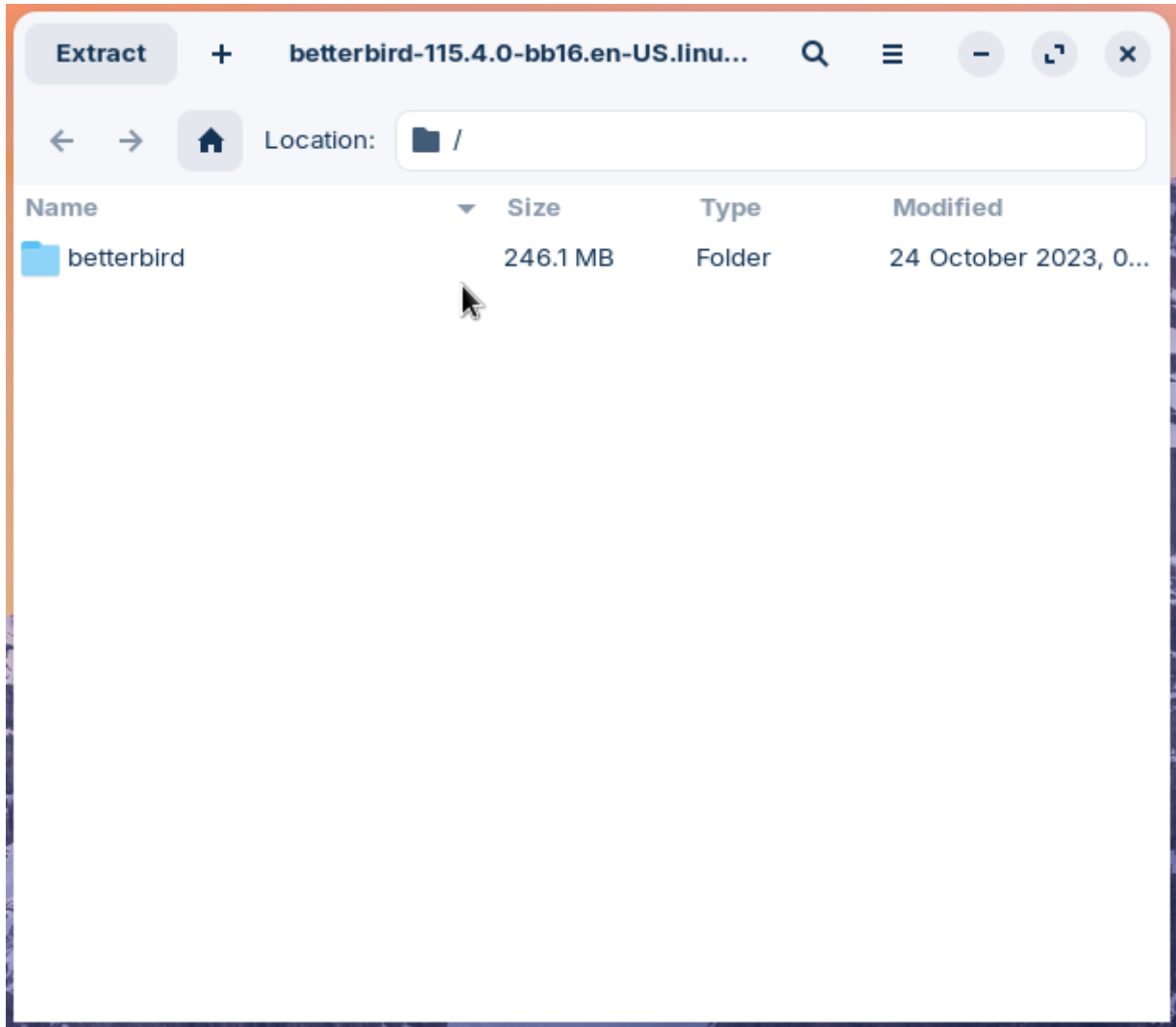
Archive Manager - this is similar to Winzip, WinRAR, 7-Zip archiving tool where you can extract compressed files, and compress files individually or as a batch.



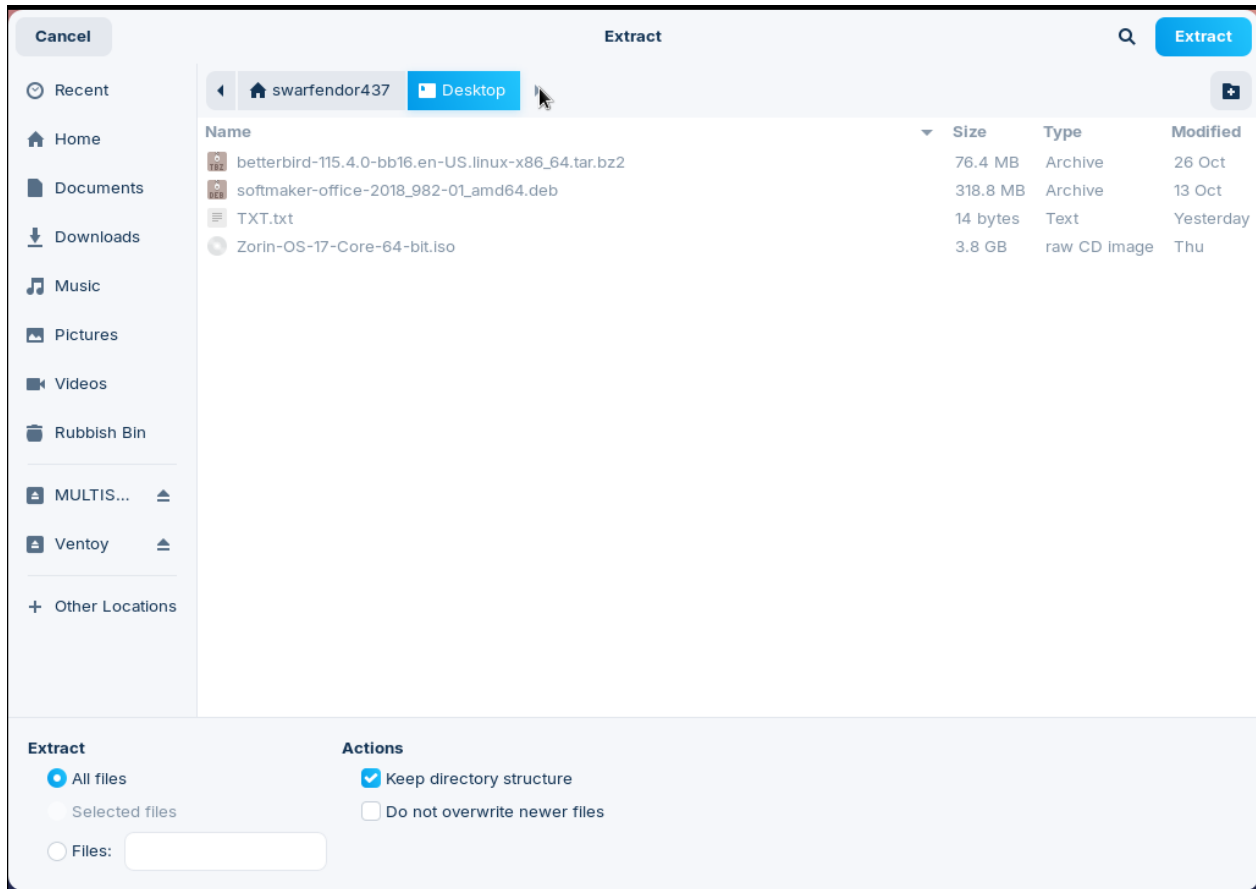
Click on the 'hamburger' icon (3 horizontal bars) to open the menu options:



Here I am selecting 'Betterbird', a fork of Thunderbird:



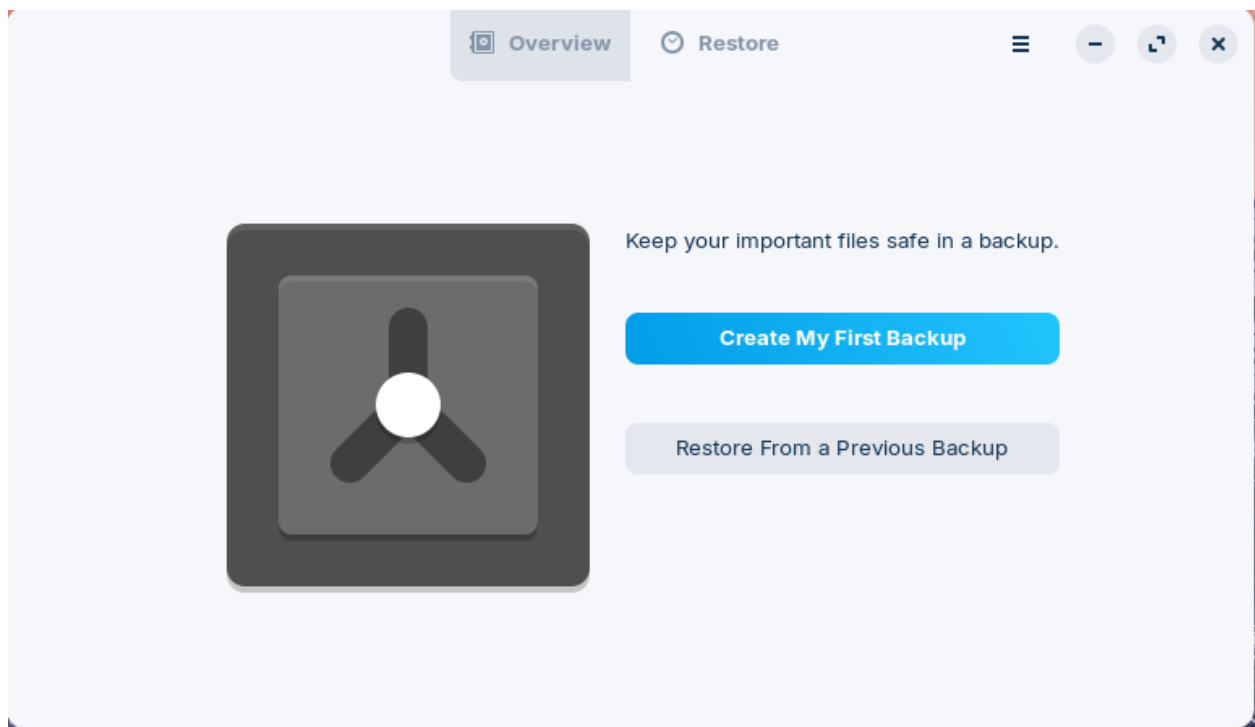
When selected you can extract to the original location (Desktop in this example) or a place of your choosing:



Backups - this is the new name for **Déjà Dup** - guide on its use here:

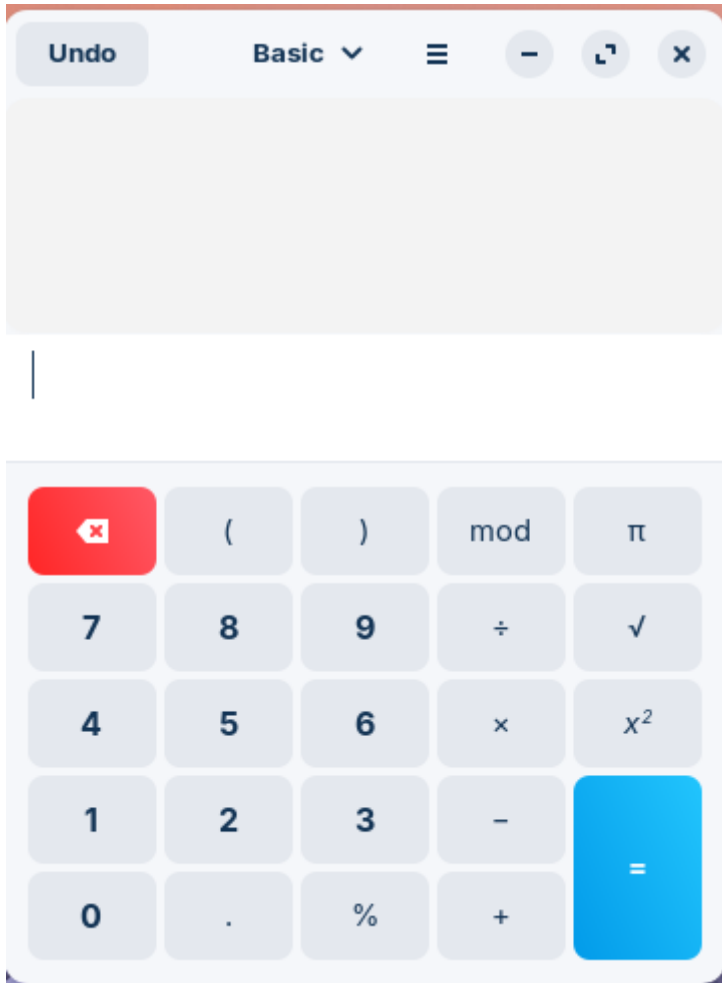
<https://askmeaboutlinux.com/2022/10/27/deja-dup-for-backups-on-linux/>

(Personally, it is just a lot simpler to create a folder on an external drive and copy the entire contents of your home folder into it (including hidden files), or better still, use Timeshift (more on this later), but it is always good practice to backup to an external drive on a regular basis to prevent loss of data.

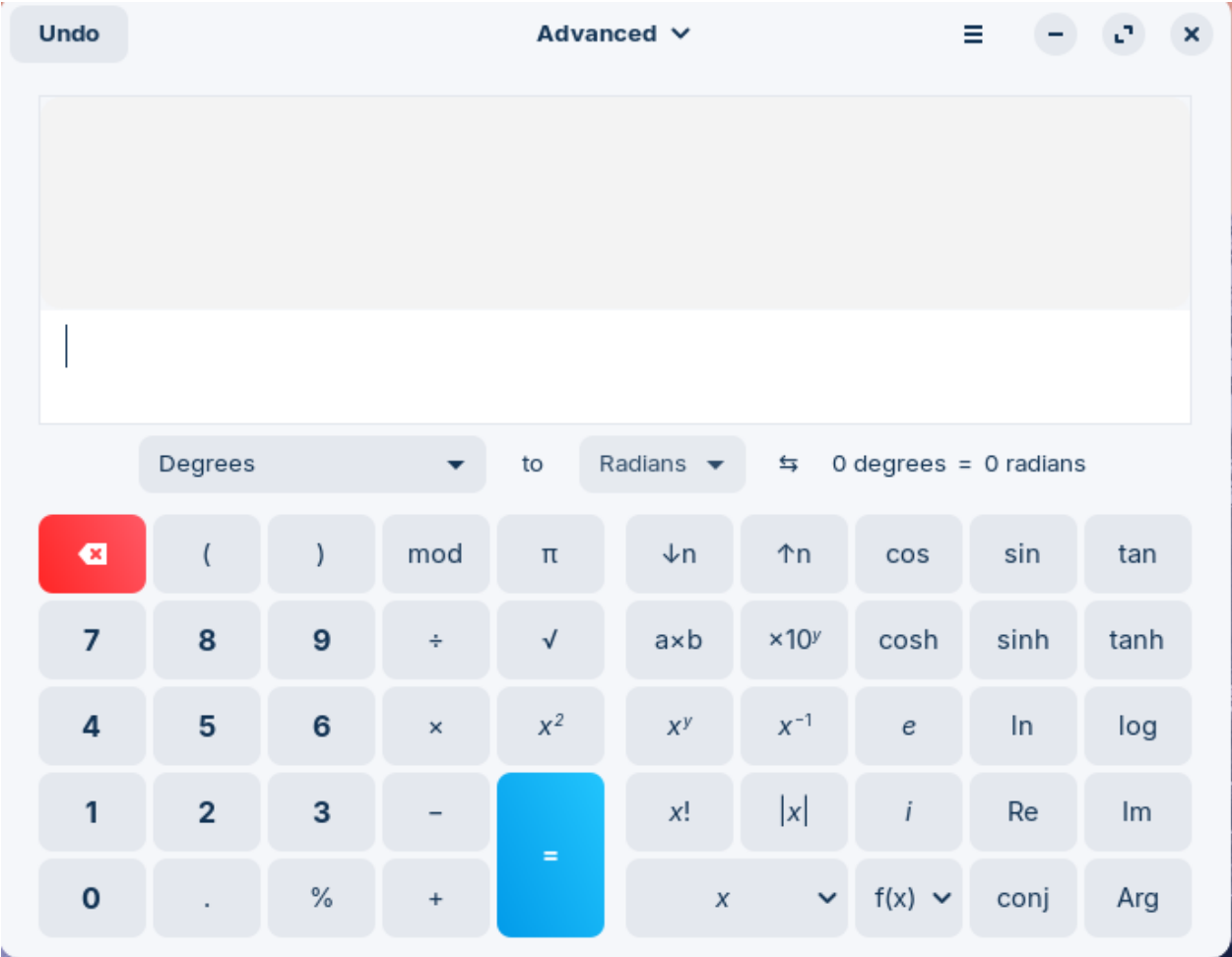


Calculator - a calculator with many faces, Basic, Advanced (Scientific), Financial (includes currency converter), Programming, Keyboard (= same as using Paper option as it used to be called - linear mathematics for want of a better description!

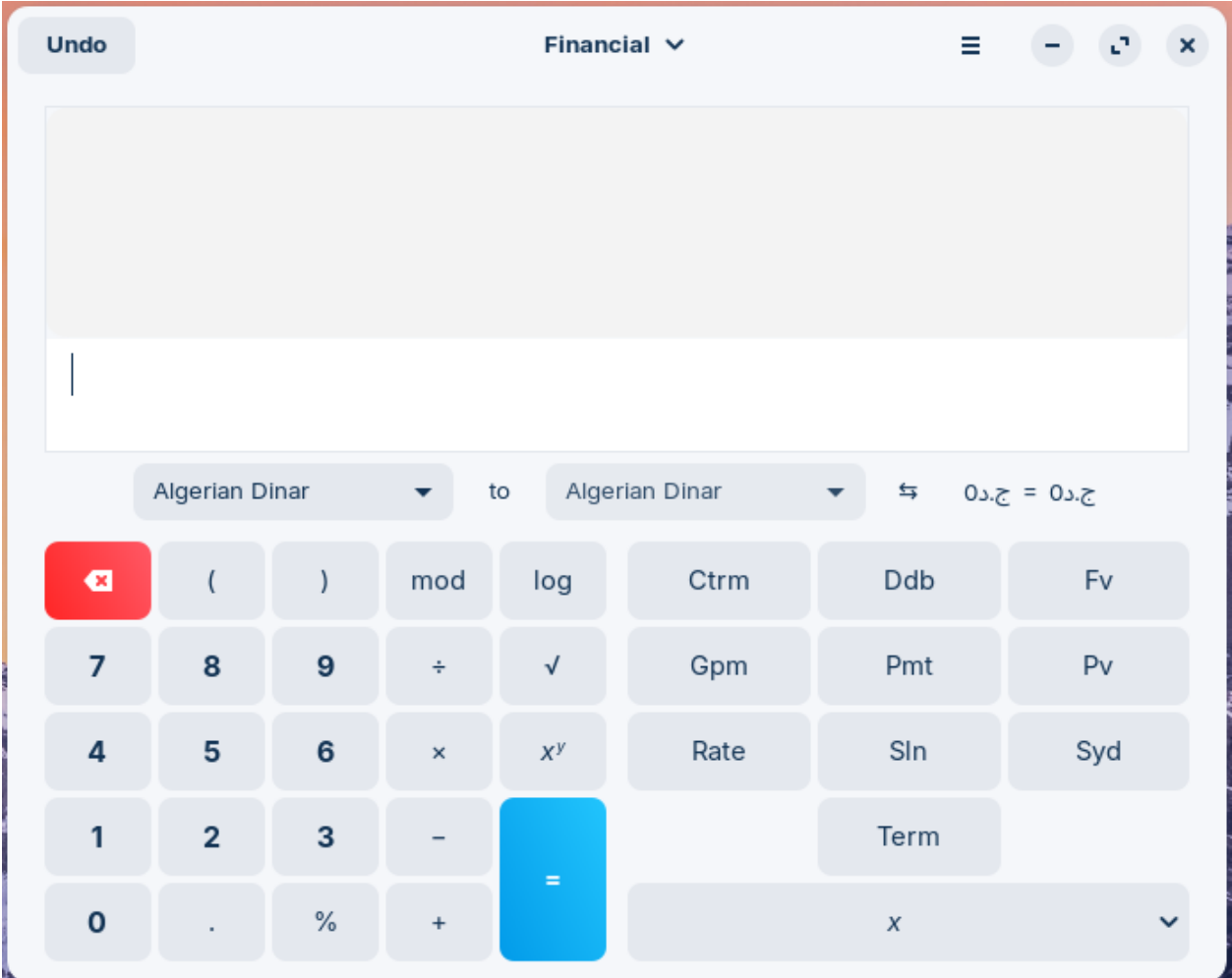
Basic:



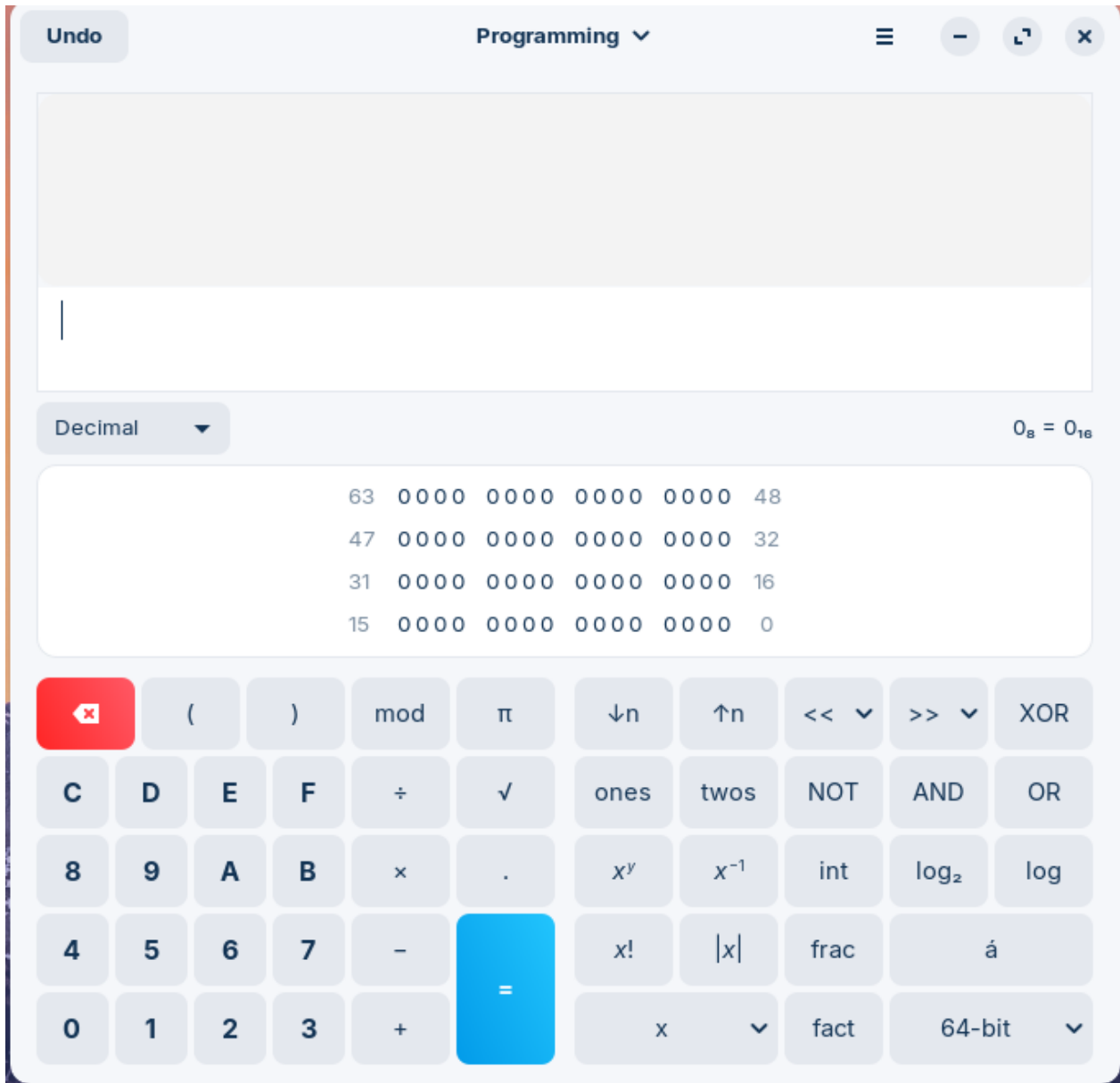
Advanced:



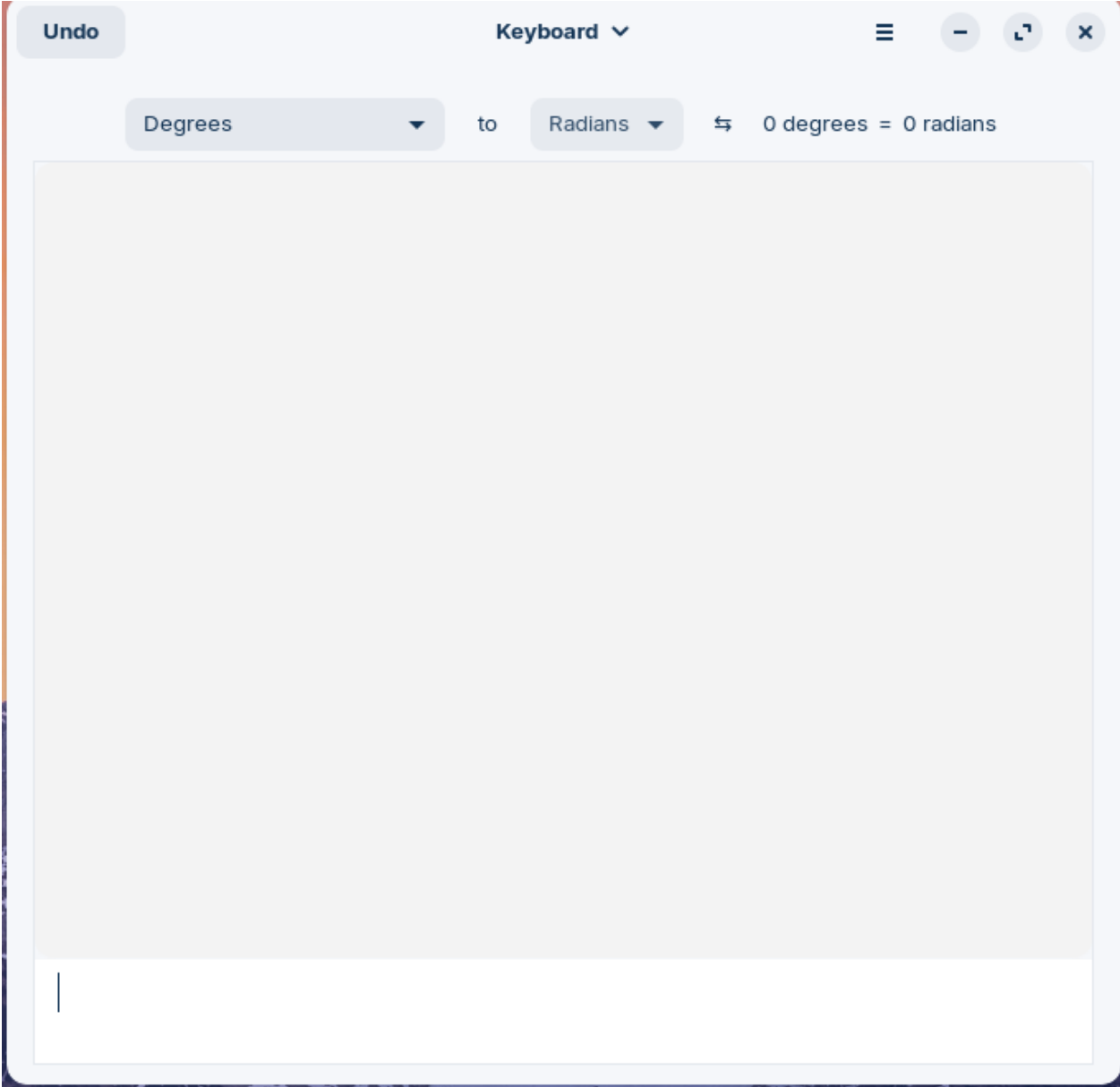
Financial:



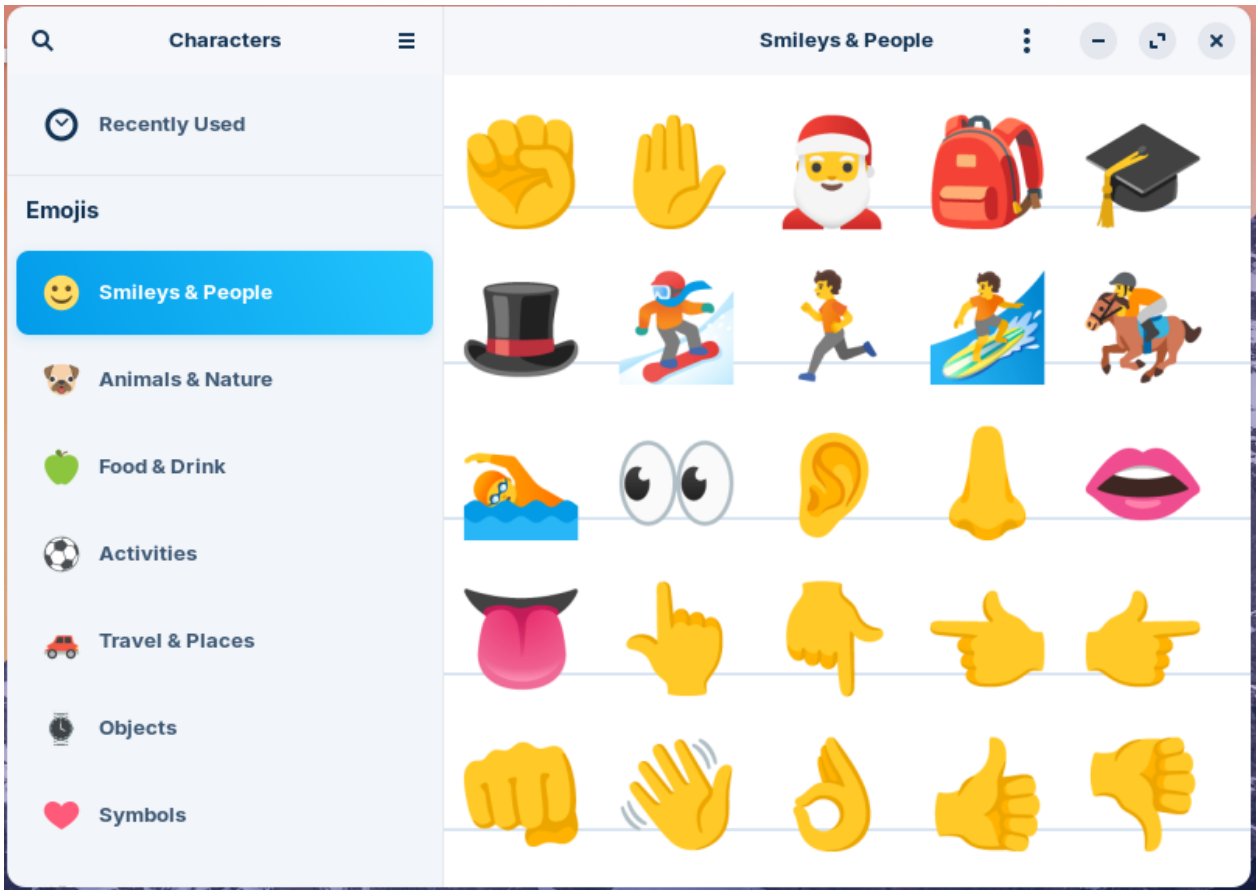
Programming:



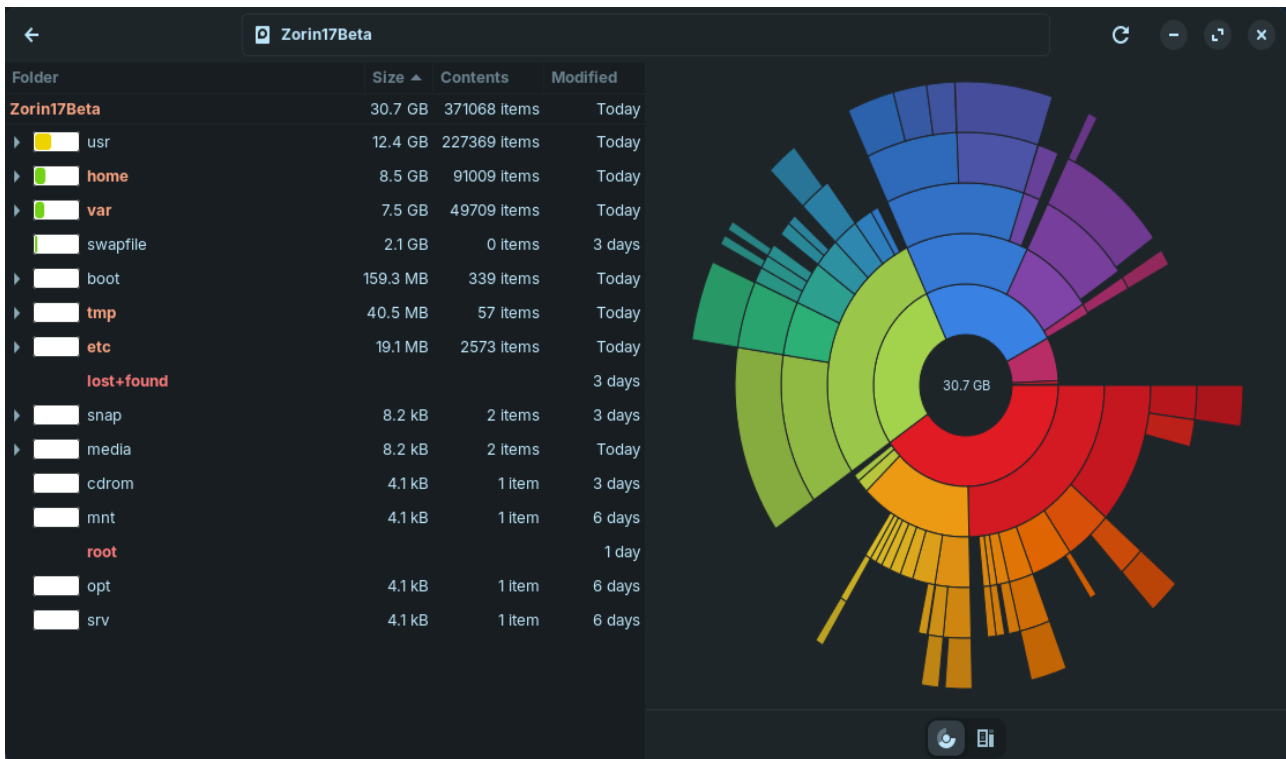
Keyboard:



Characters- basically, fancy emojis! Here is a sample:



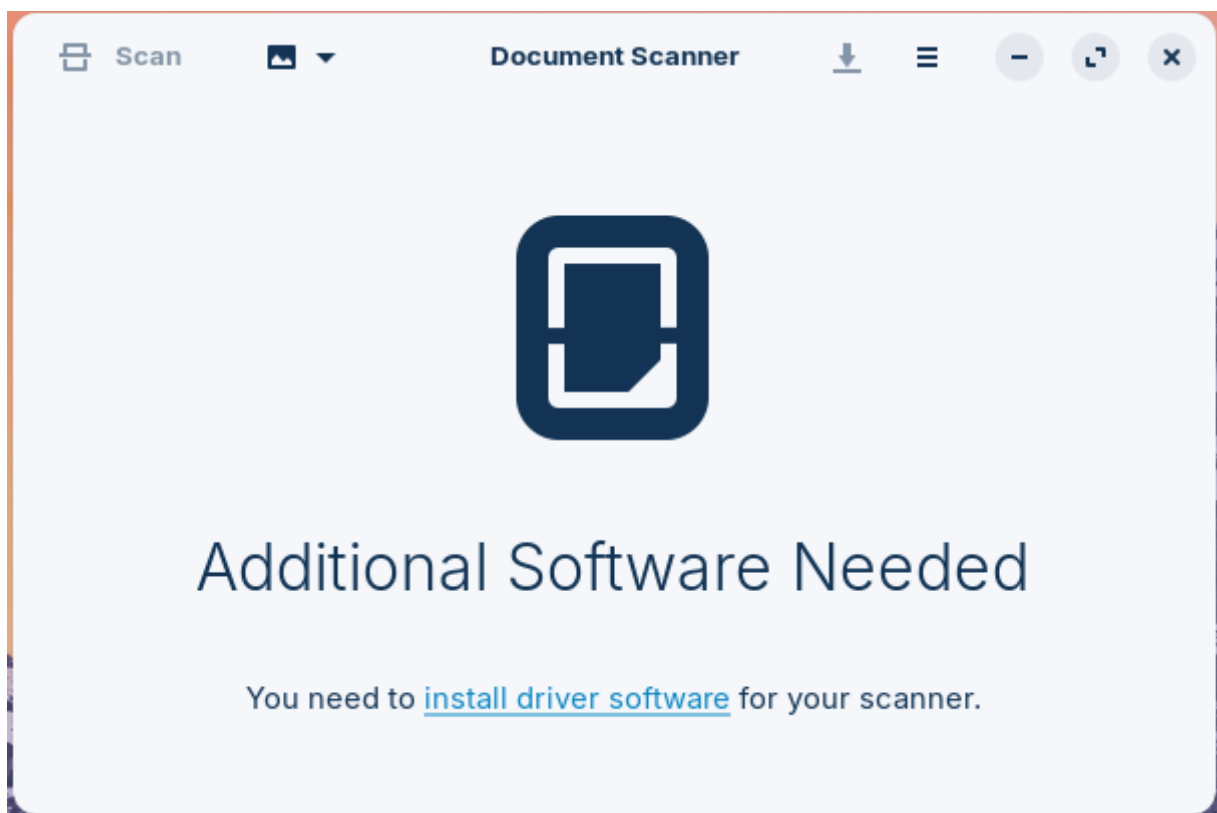
Disk Usage Analyzer - Analyses what is taking up space on your Disk/s:



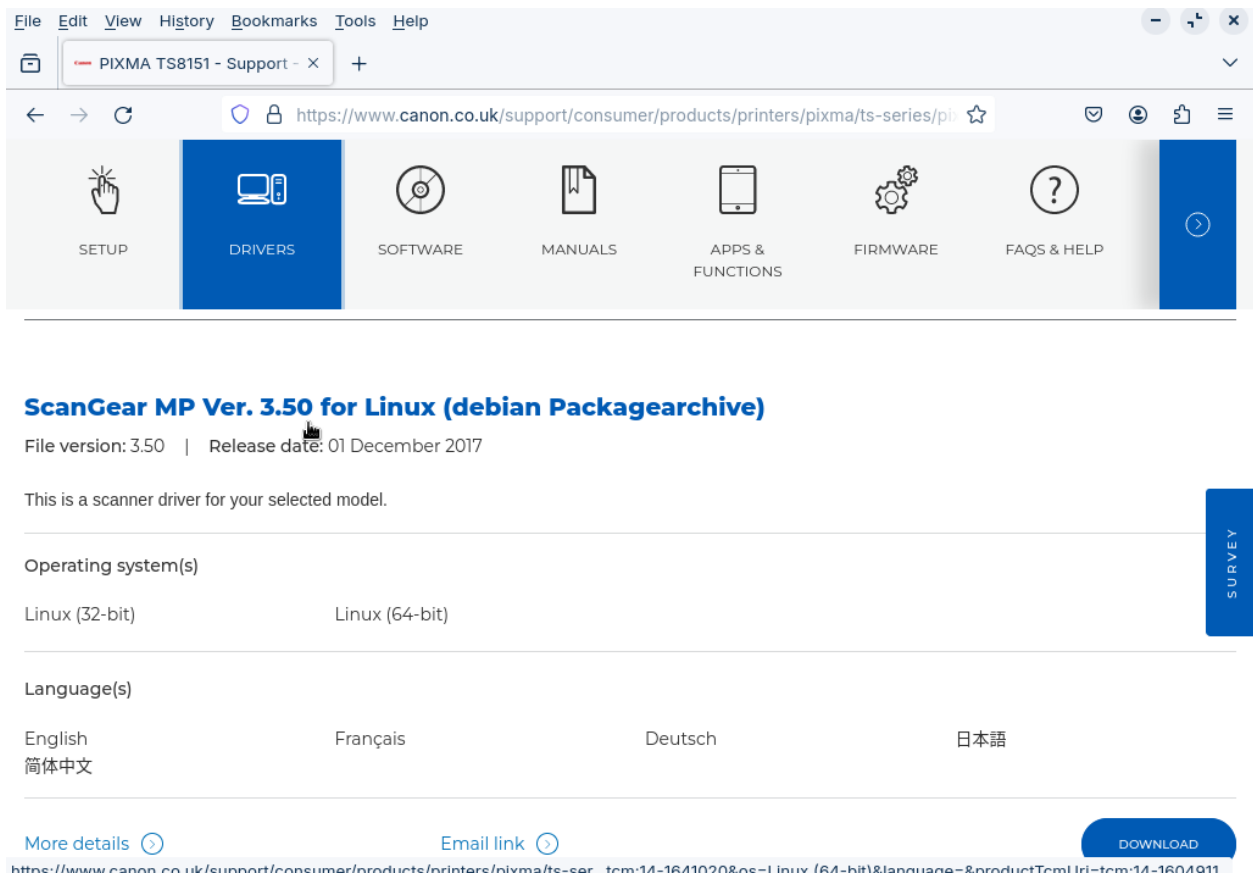
Disks (see page [36](#)) - this is a repeat of what can be found in System Tools - the choice is yours if you want to keep both Menu items or simply untick the one you don't want to appear in the Menu.

Document Scanner - simple interface to access your Scanner (if it is supported - most scanners are but there might be the odd one that doesn't work (such as my Canon LiDE 500F!). It will work, generally, with most 'All-in-One' Printer/Scanners. If not you can always purchase VueScan from here: <https://www.hamrick.com/>

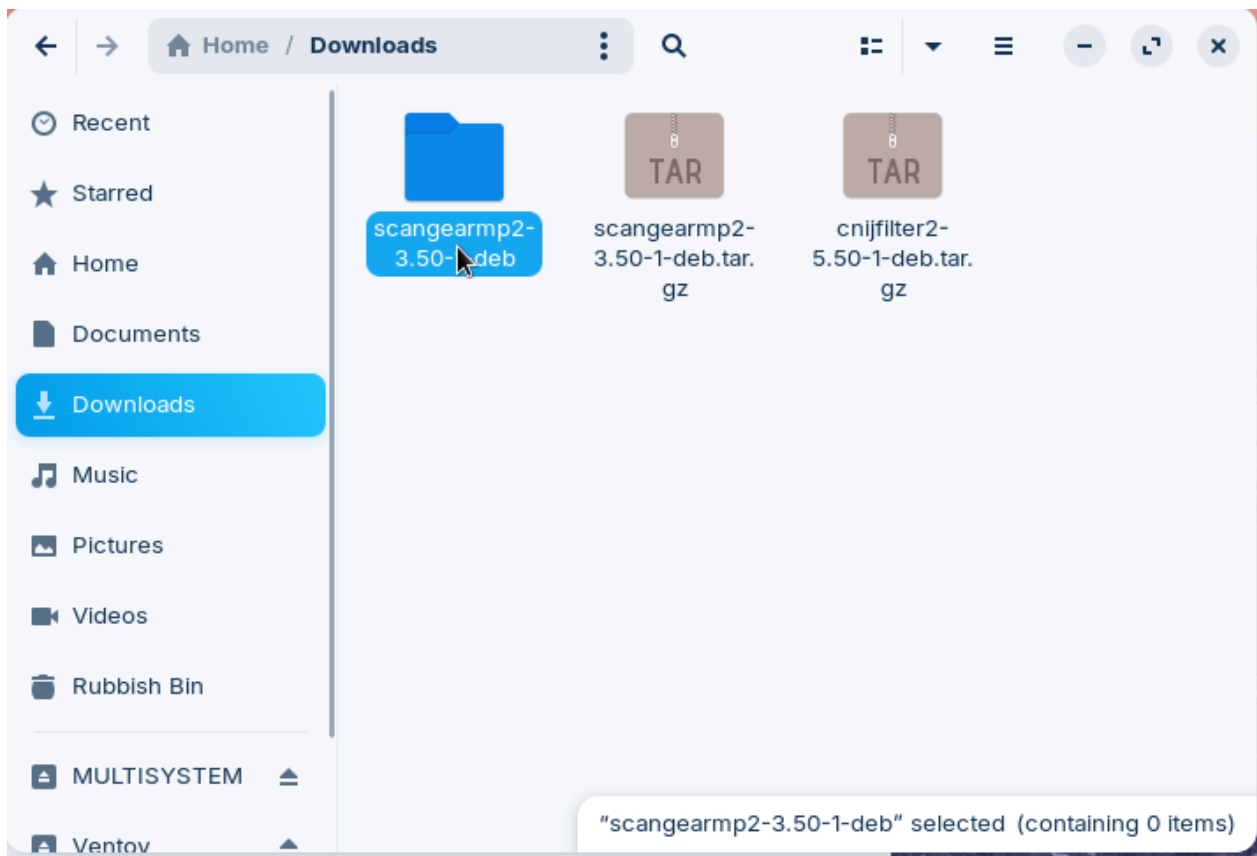
After installing Zorin 17 as a VM and trying to run Document Scanner I got this message:



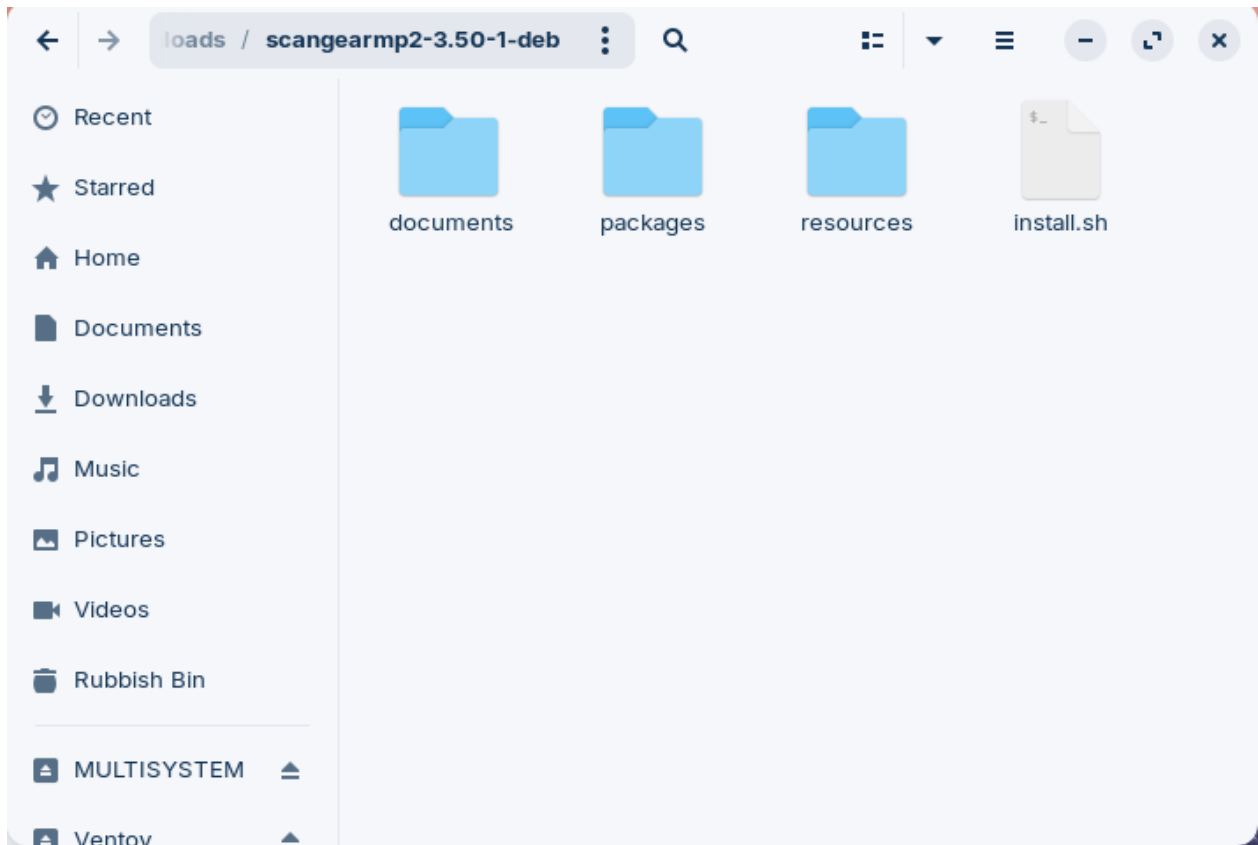
When you click on the link, it takes you to the SANE project page to 'backend' drivers. An easier option is to go to (if you have a Canon Scanner/All-in-One Printer) to the Canon website and download the scangearmp2-3.50-1-deb.tar.gz file:



Then extract the .tar.gz file within Downloads:

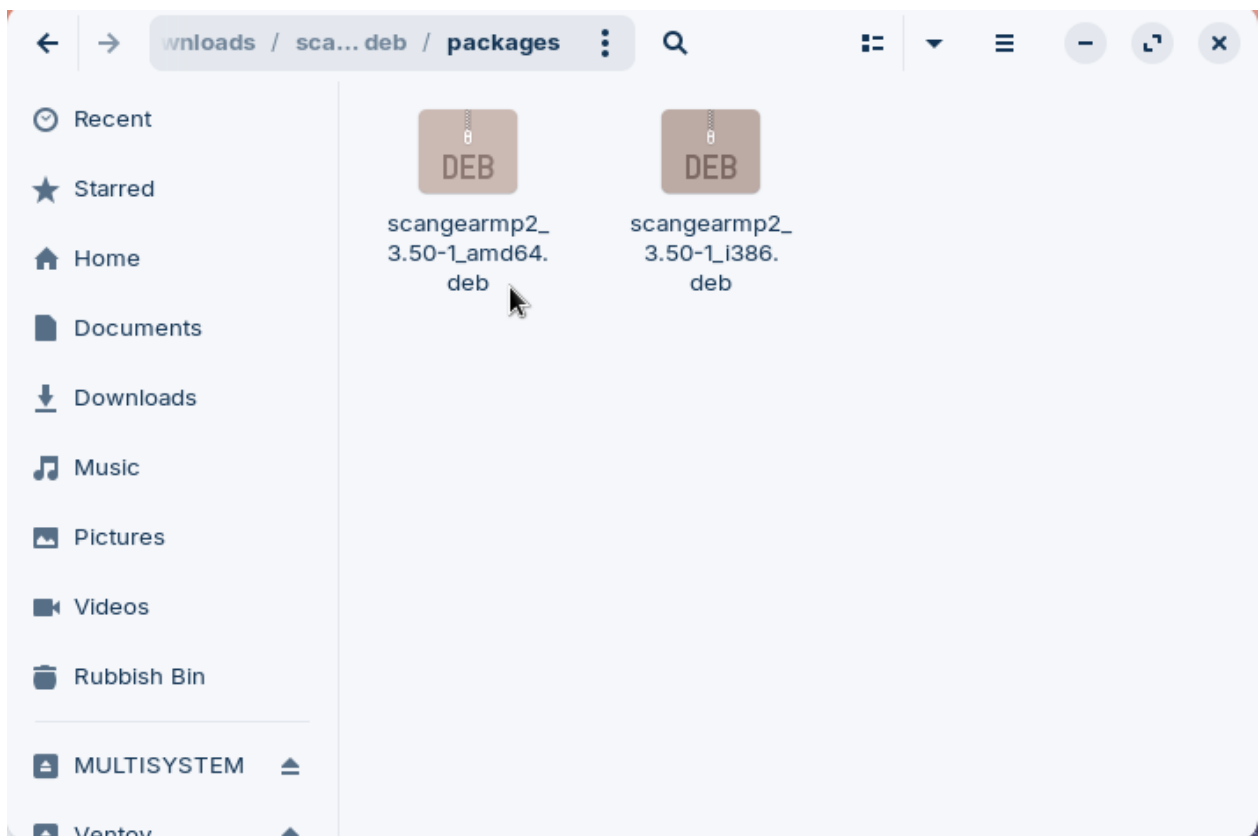


Open the extracted folder:

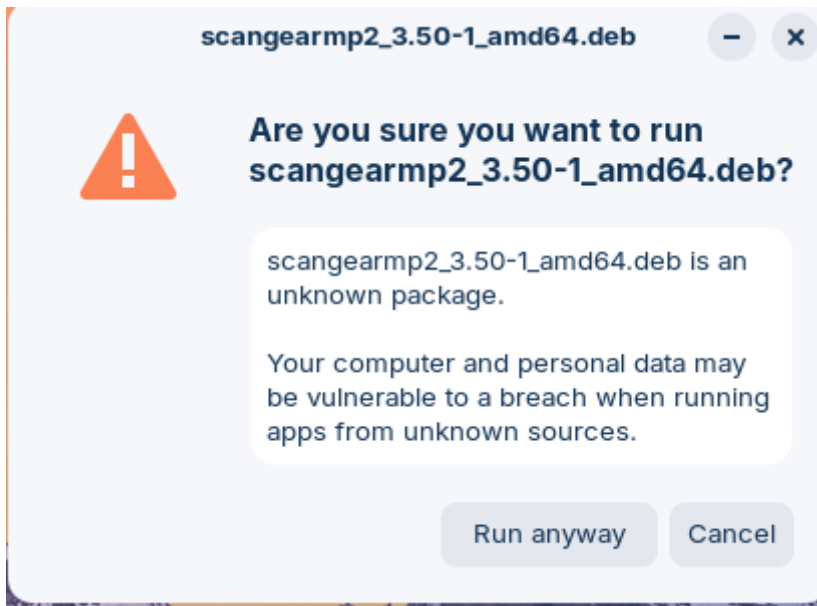


Next, open the subfolder, **packages**.

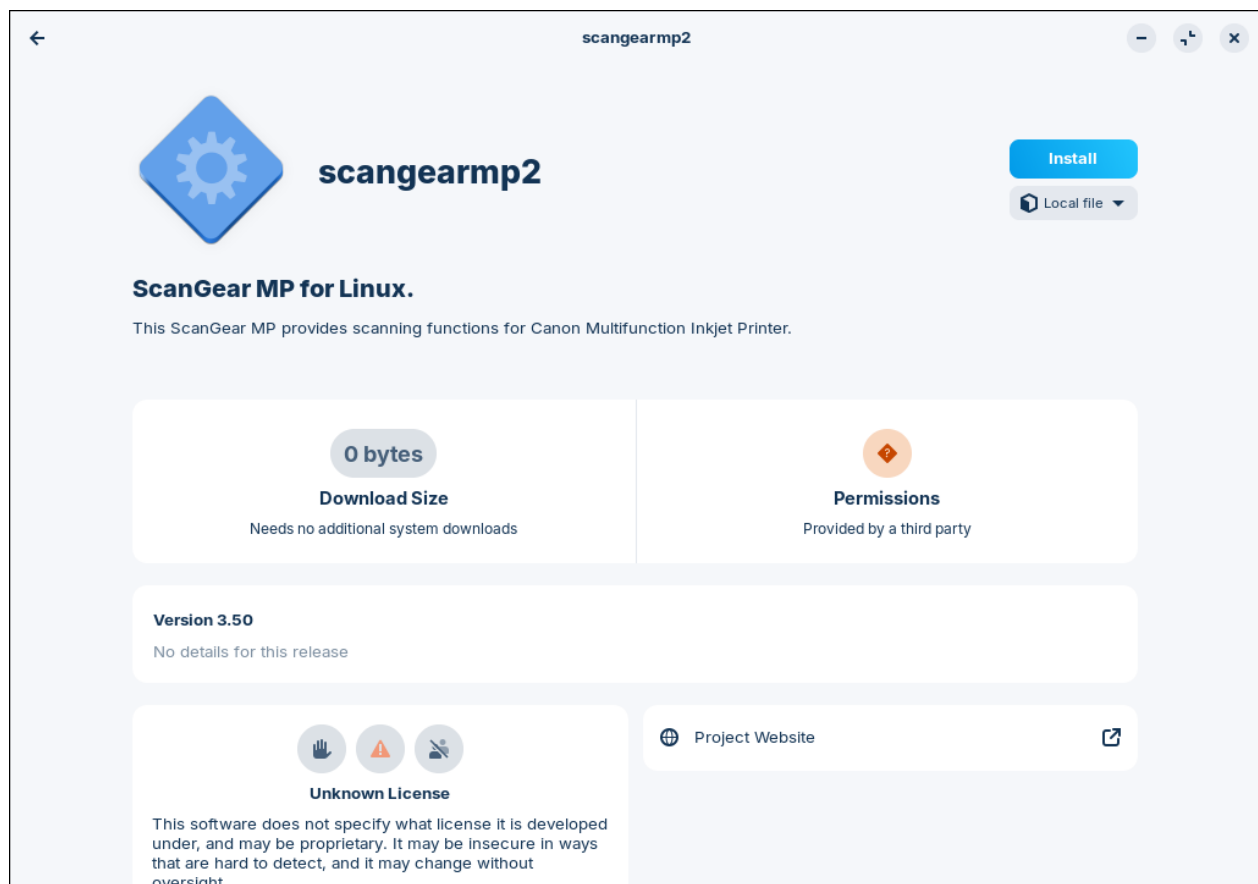
You need to install the amd64.deb package:



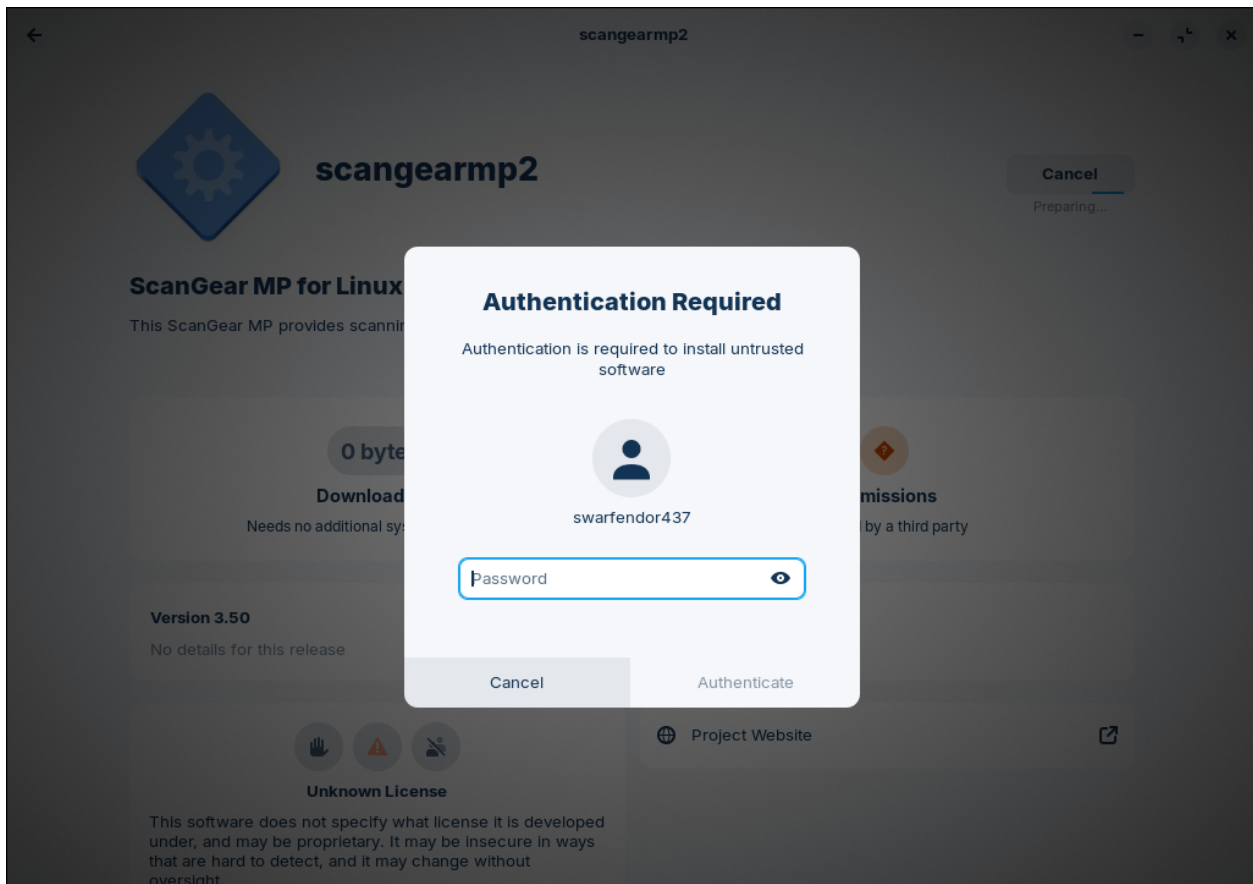
Right-click and choose the first option **Open With Install Linux Application** or if installed **gdebi** then select **Open With Other Application**.
When choosing the first option you will get this warning message:



Select **Run anyway** and this window opens, click on **Install** button:

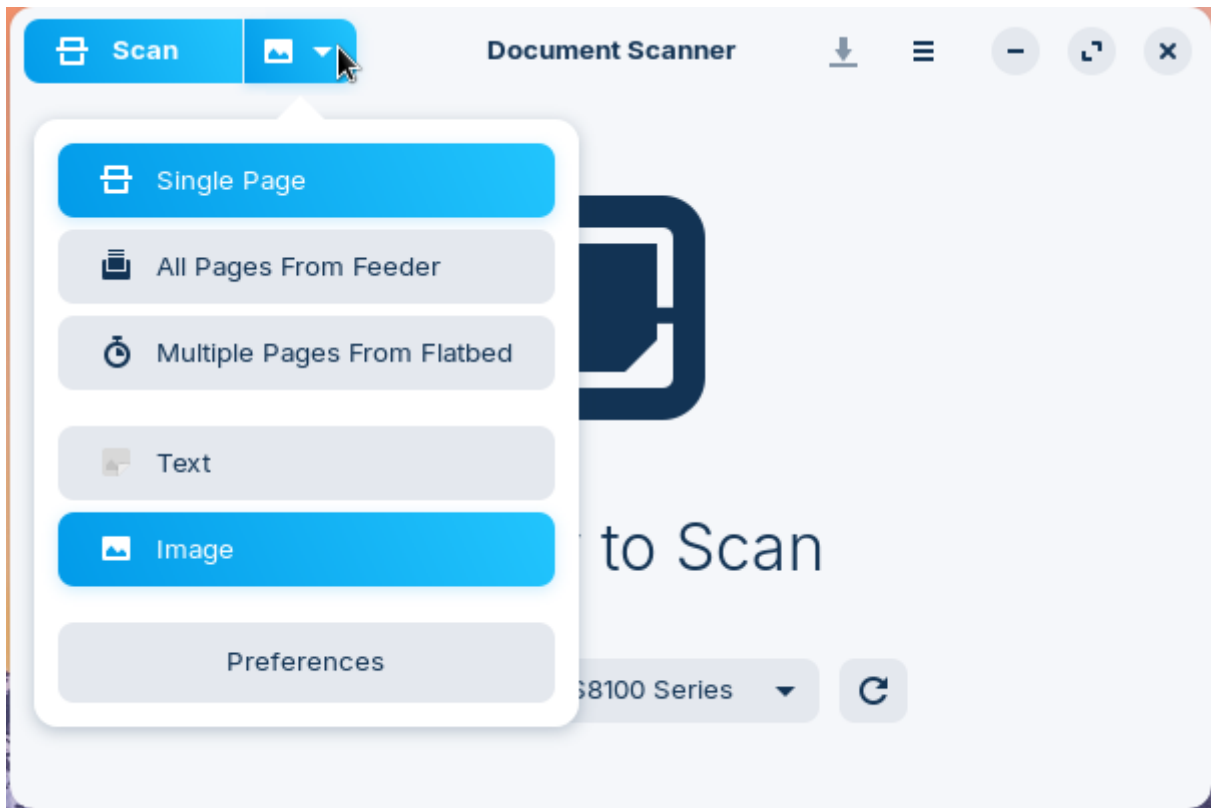


You will then be presented with the Authorisation window, which, depending on how you install Zorin will be your password if you are an Administrator, or the Administrator account password if you are a Standard user.

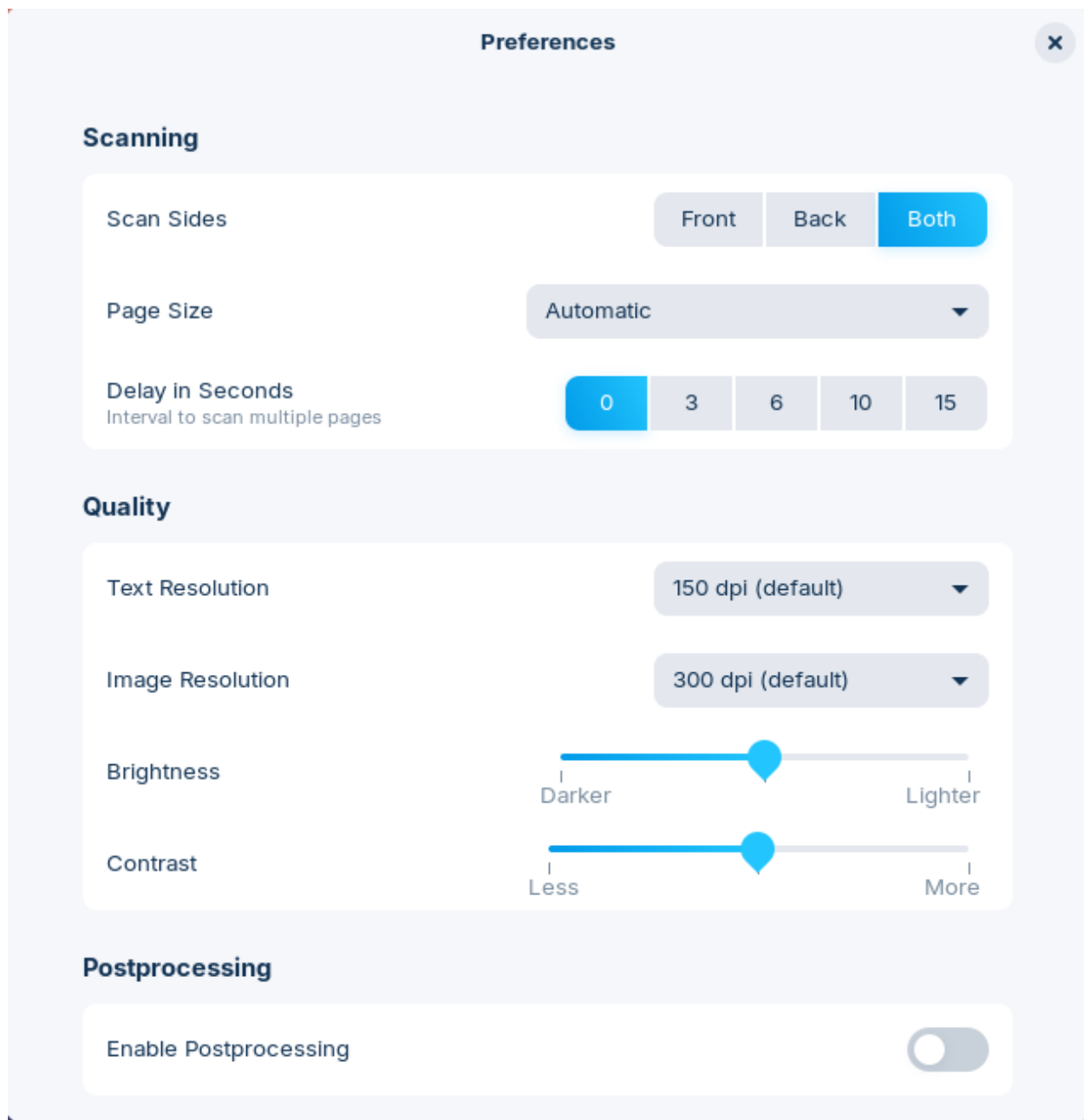


After installing, reboot your computer and launch Document Scanner. From the dropdown list you should choose **eSCL Canon TS8100 series (USB)** if connected to the computer. If an all-in-one device is on the network, then select the first option, **Canon PIXMA TS8100 Series**.

Selecting the drop-down arrow in the box next to the button with **Scan** on it, choose the method of scanning you need to deploy:

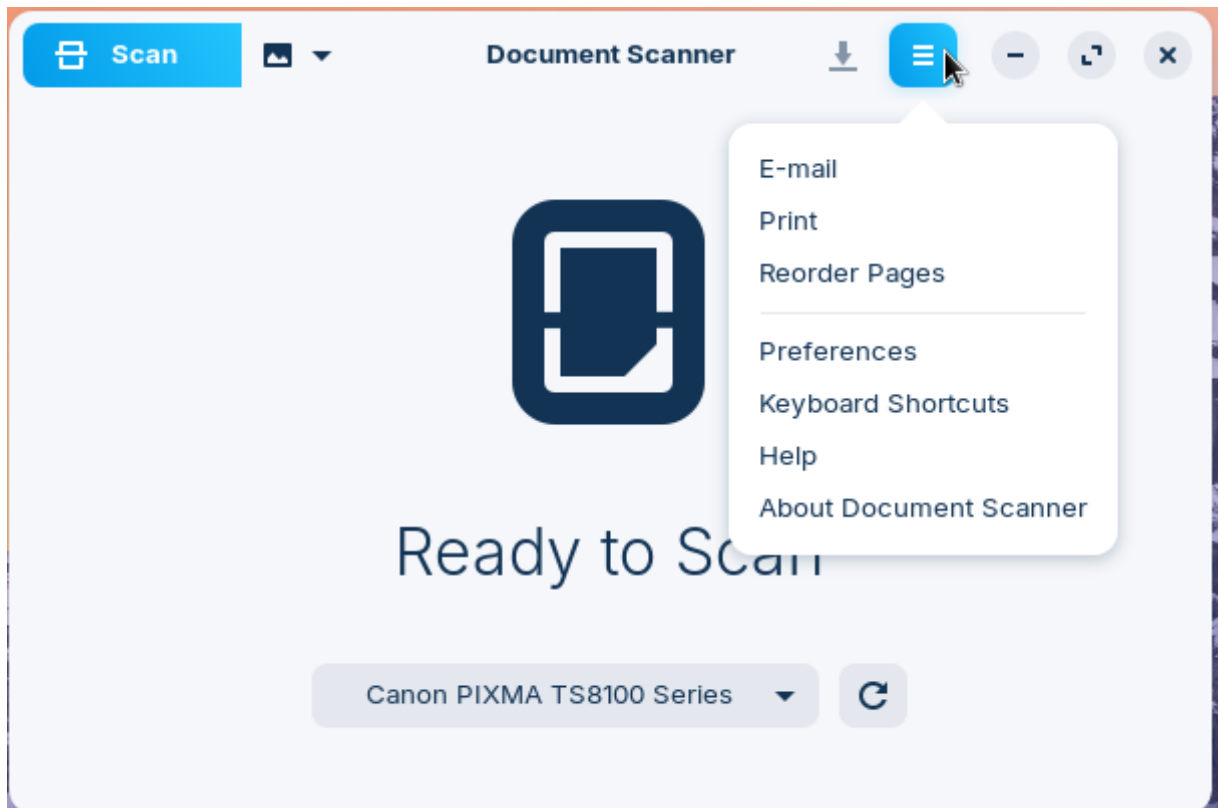


Selecting **Preferences** opens up this window:

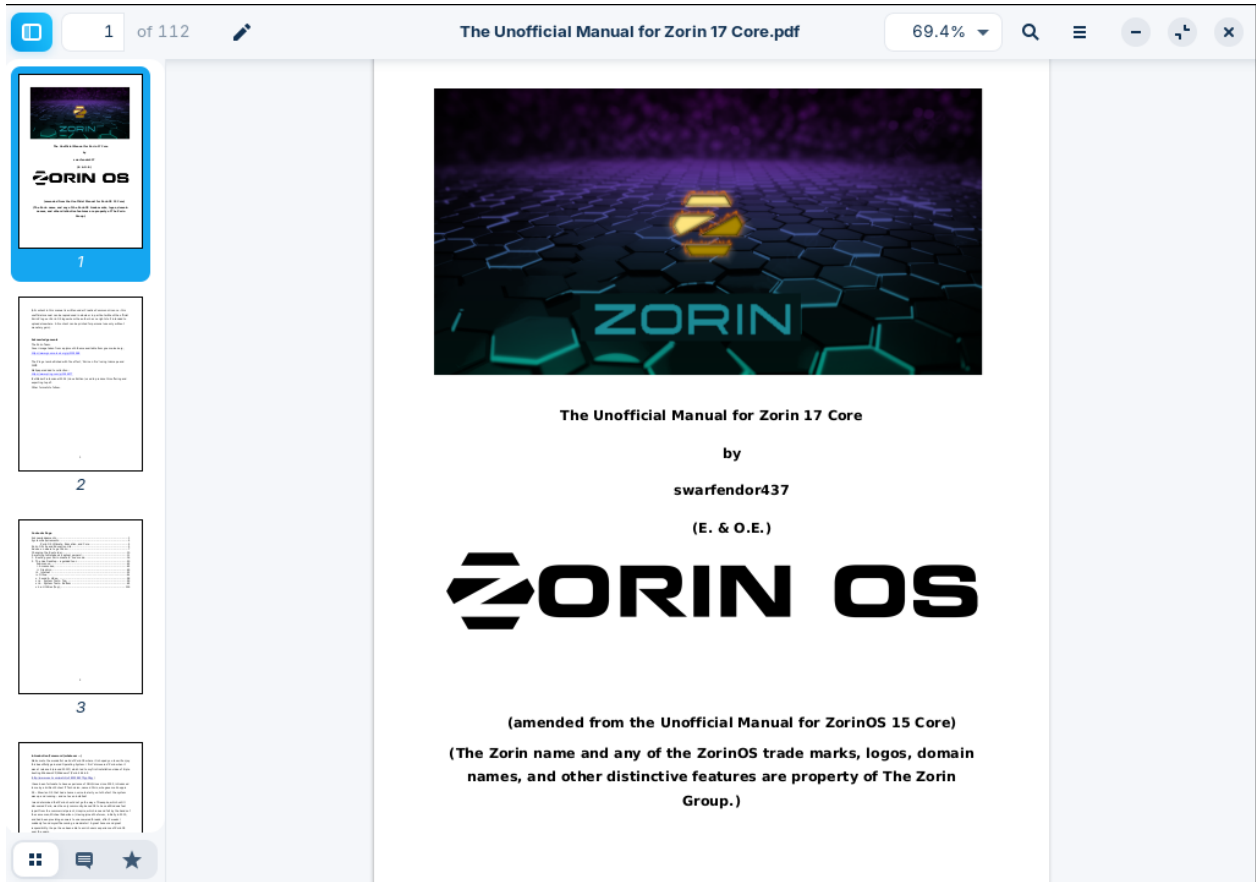


Once you are happy with your choices, select **Scan**.

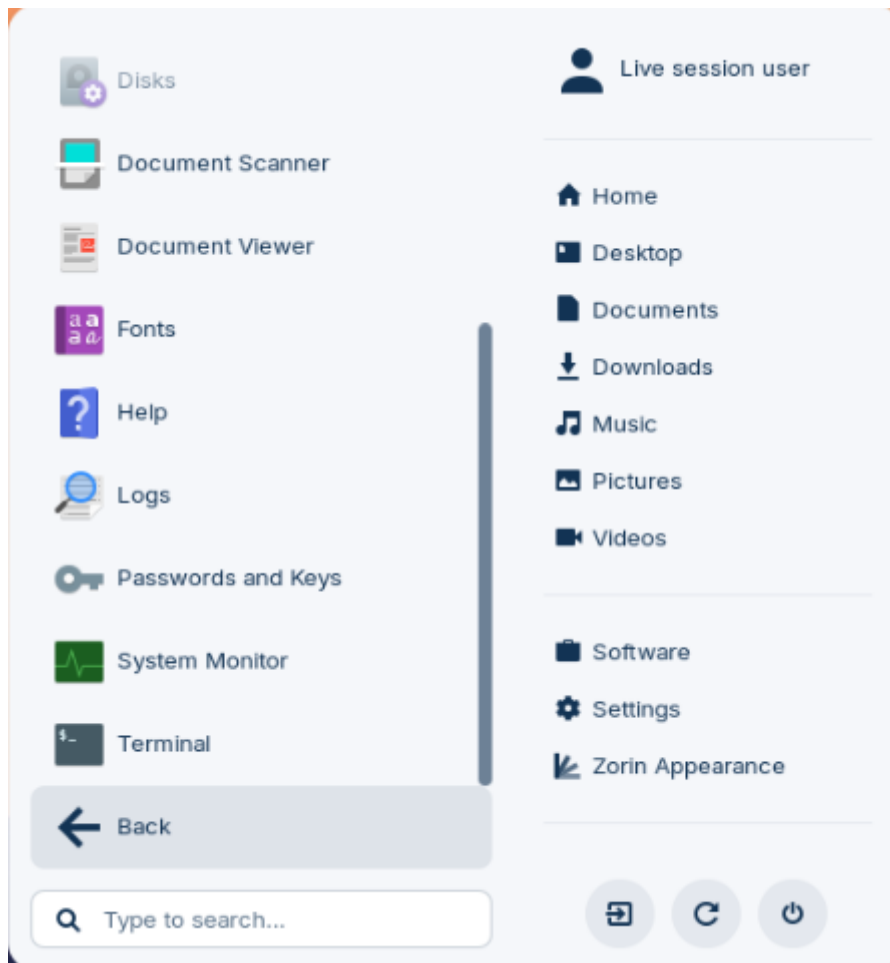
Other options in regard to what you want to do with your scanned documents is achieved via the 'hamburger' (3 horizontal bars) button on the right of the interface:



Document Viewer - Evince by any other name! Supports documents in PDF, PS, EPS, XPS, DjVu, TIFF, DVI (with SyncTex), and Comic Books archives (CBR, CBT, CBZ, CB7).

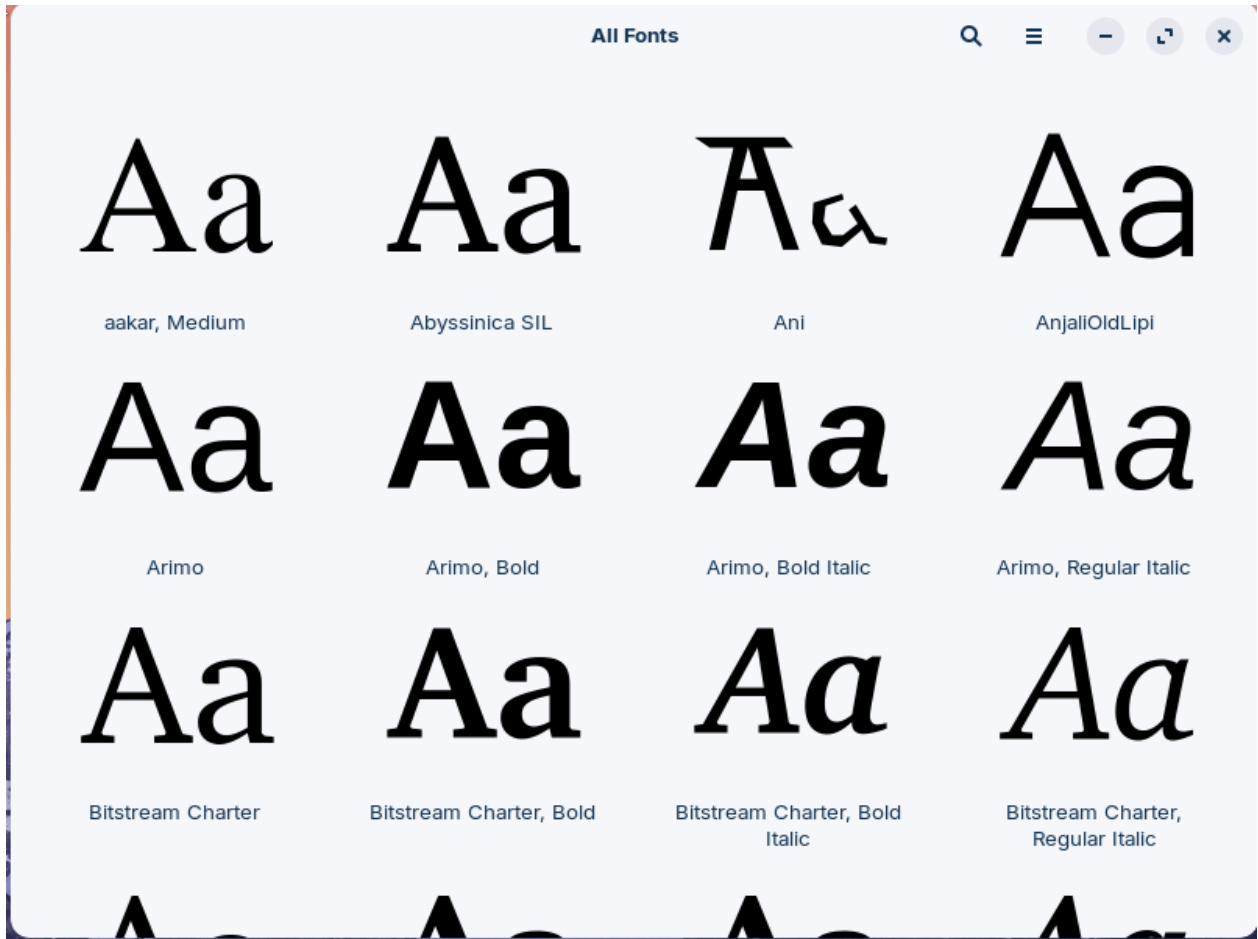


vii. b. Utilities (bottom)

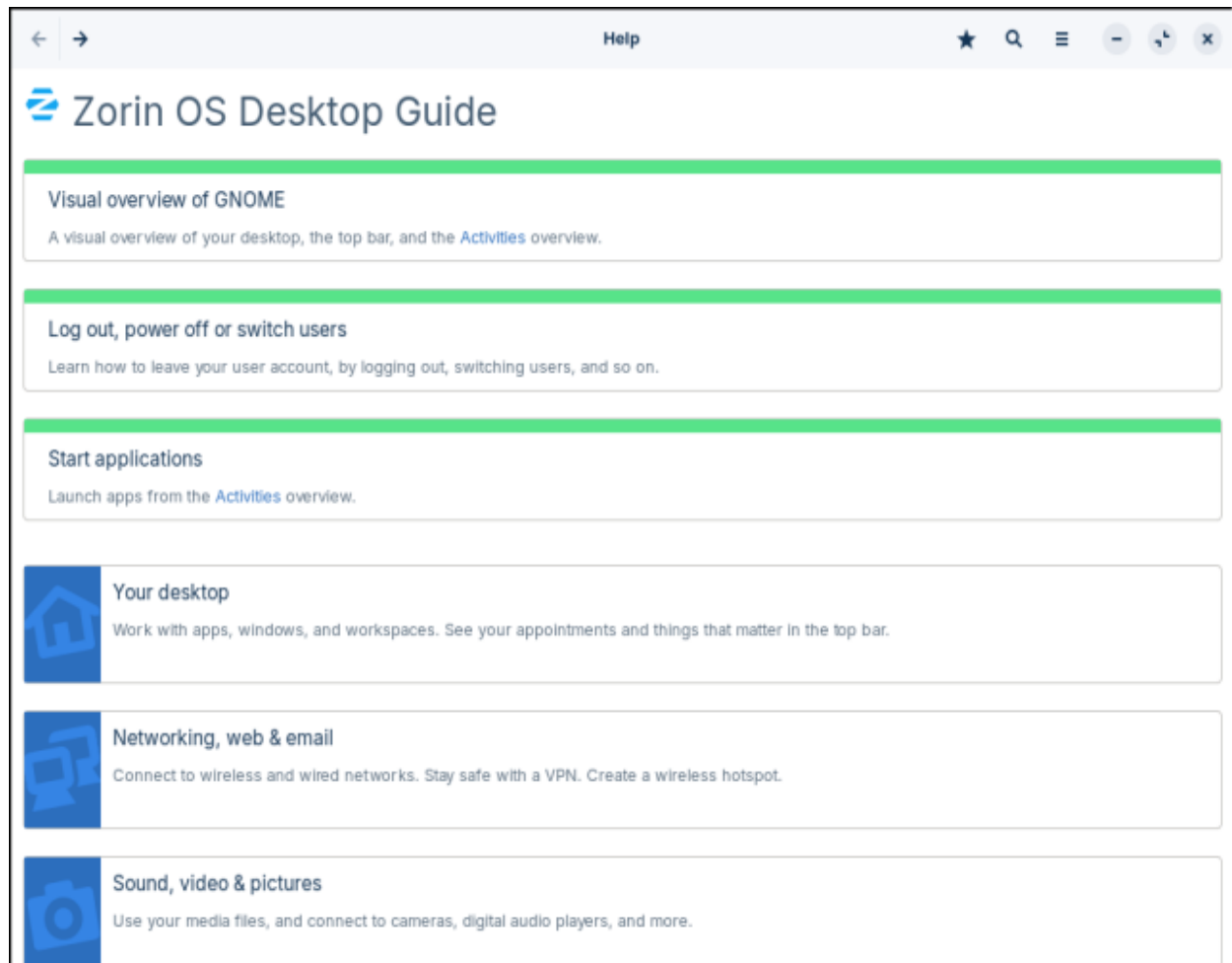


Here we have **Fonts** (font viewer), **Help**, **Logs**, **Password and Keys**, **System Monitor** (Task Manager), **Terminal** (Command prompt).

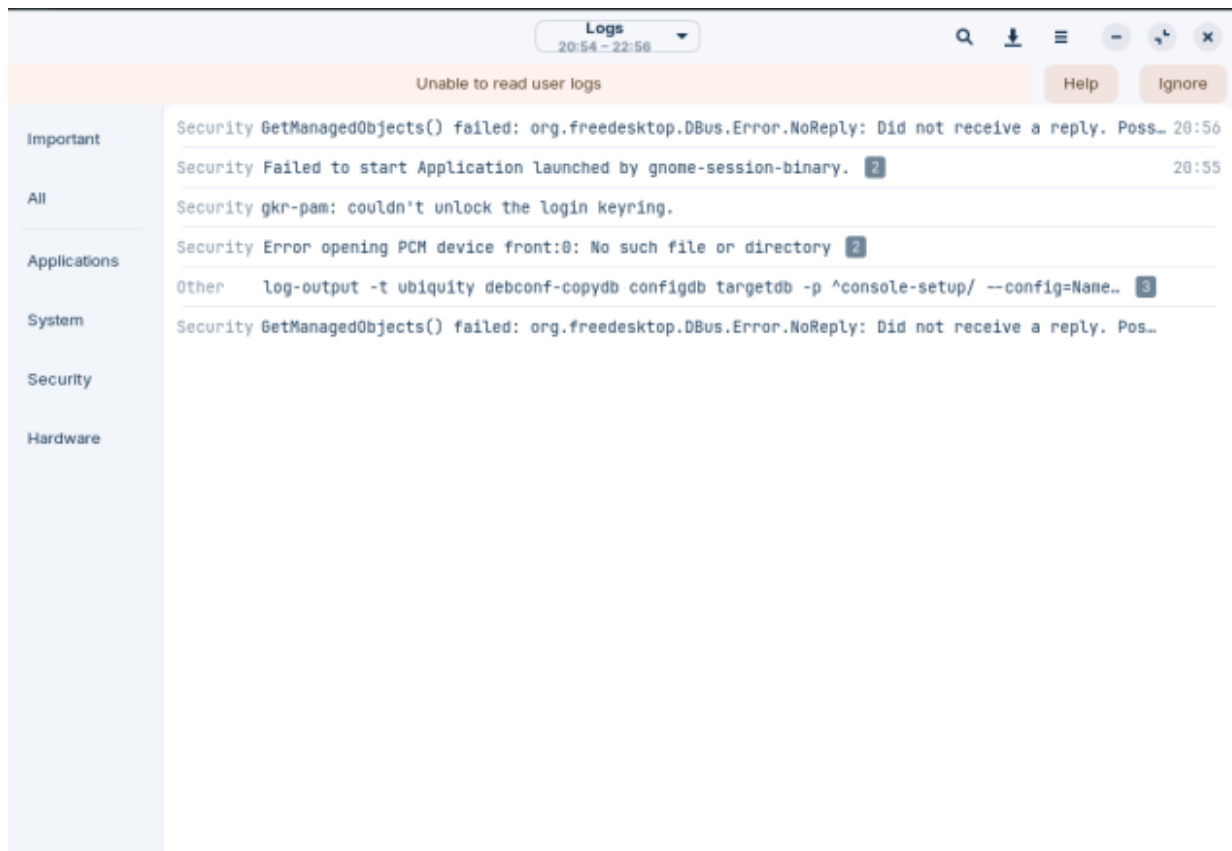
Fonts (Font viewer)



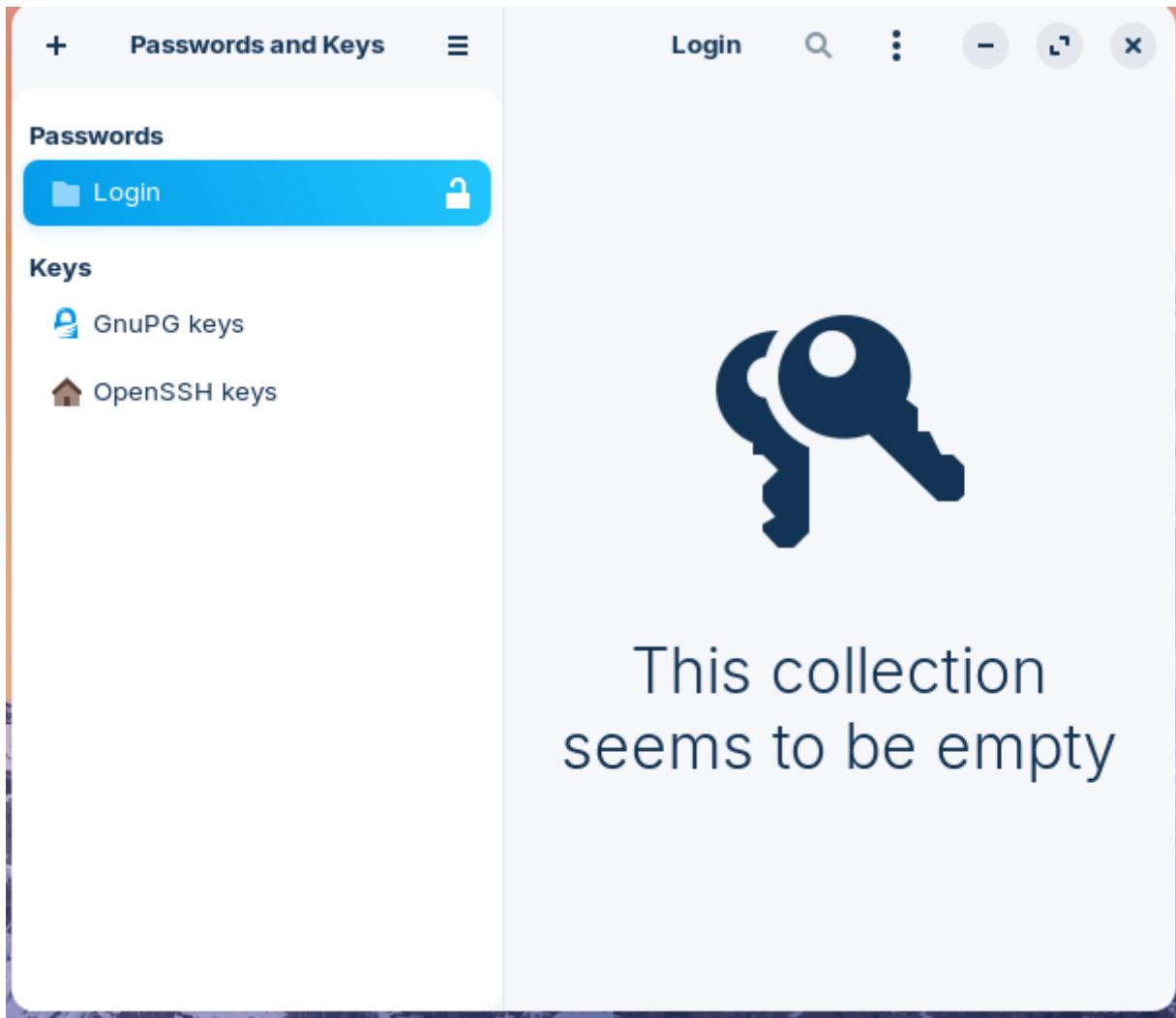
Help - This launches an interactive help guide. My only criticism is that it is basically a Gnome guide which does not reflect the Zorin Desktop Environment which is my only criticism - that is why I made the Unofficial Manuals for Zorin 12 and Zorin 15.

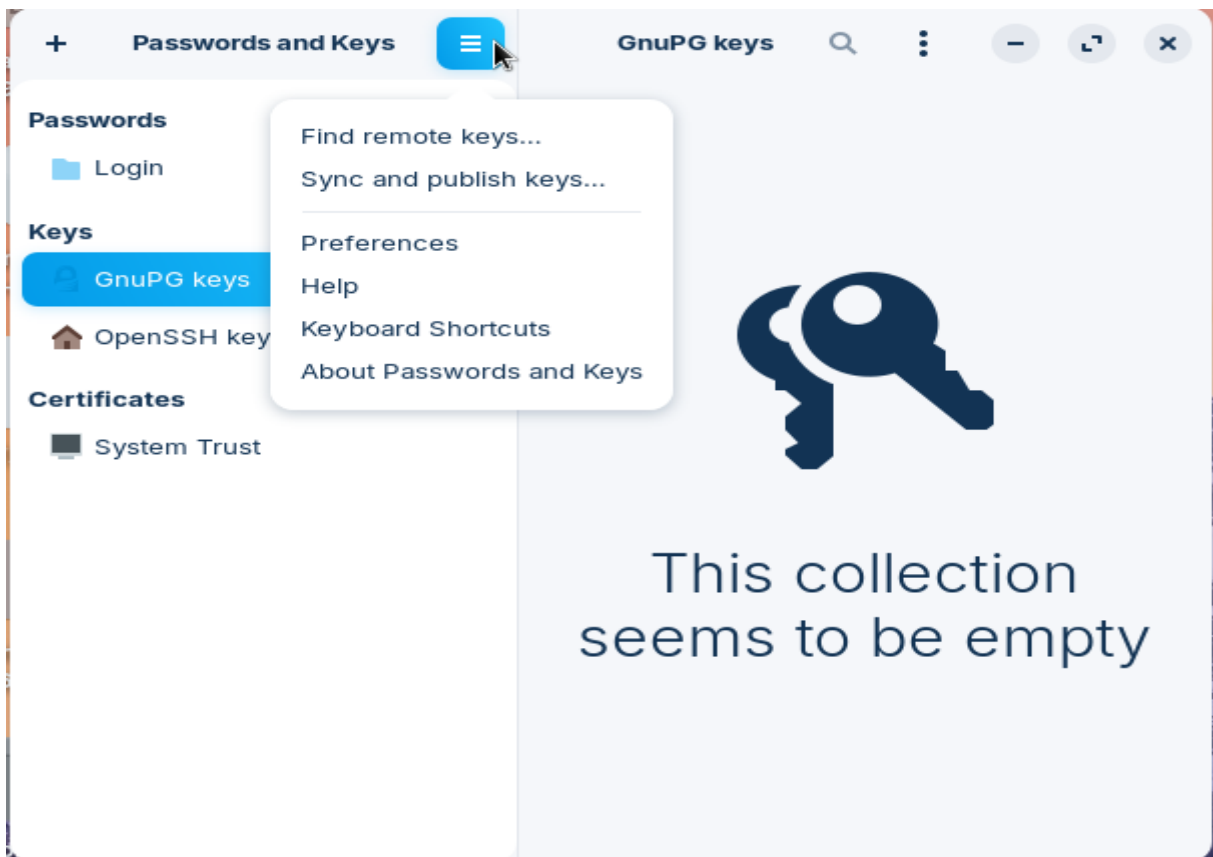
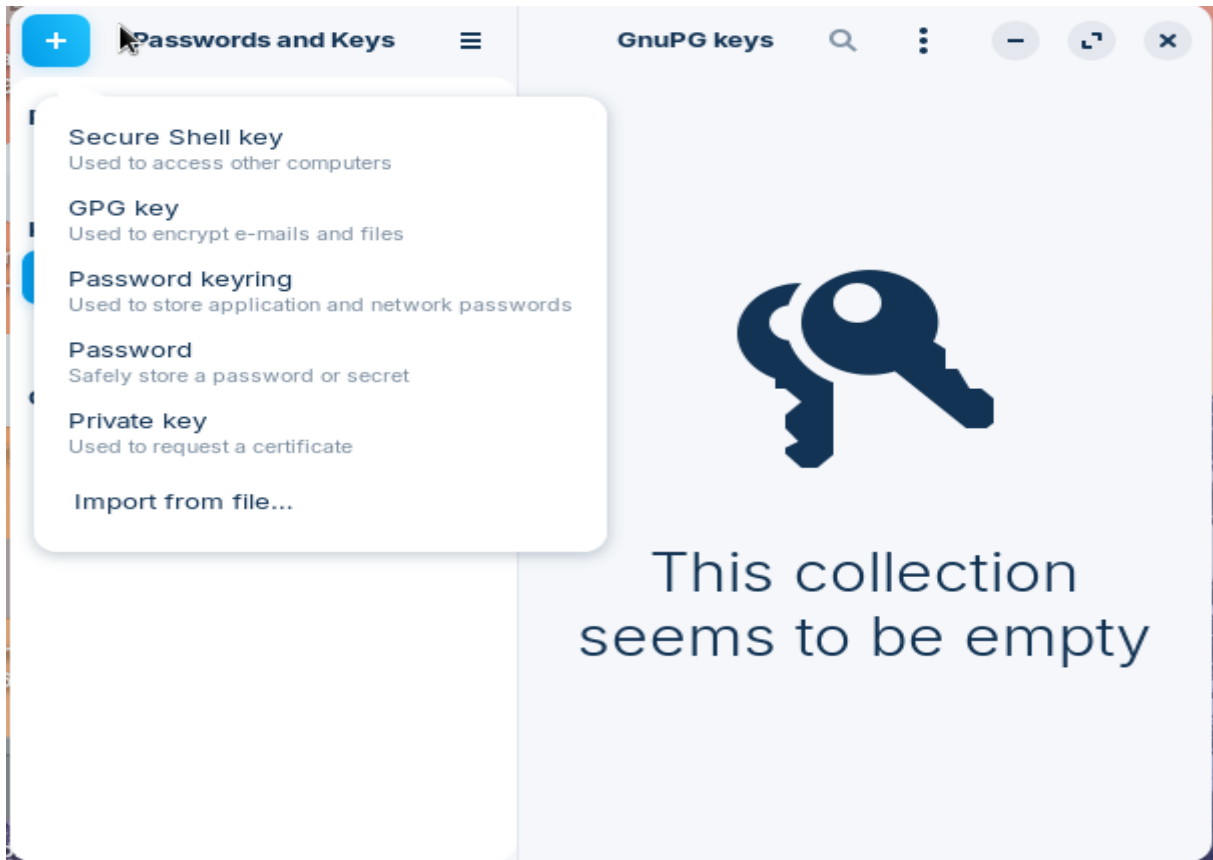


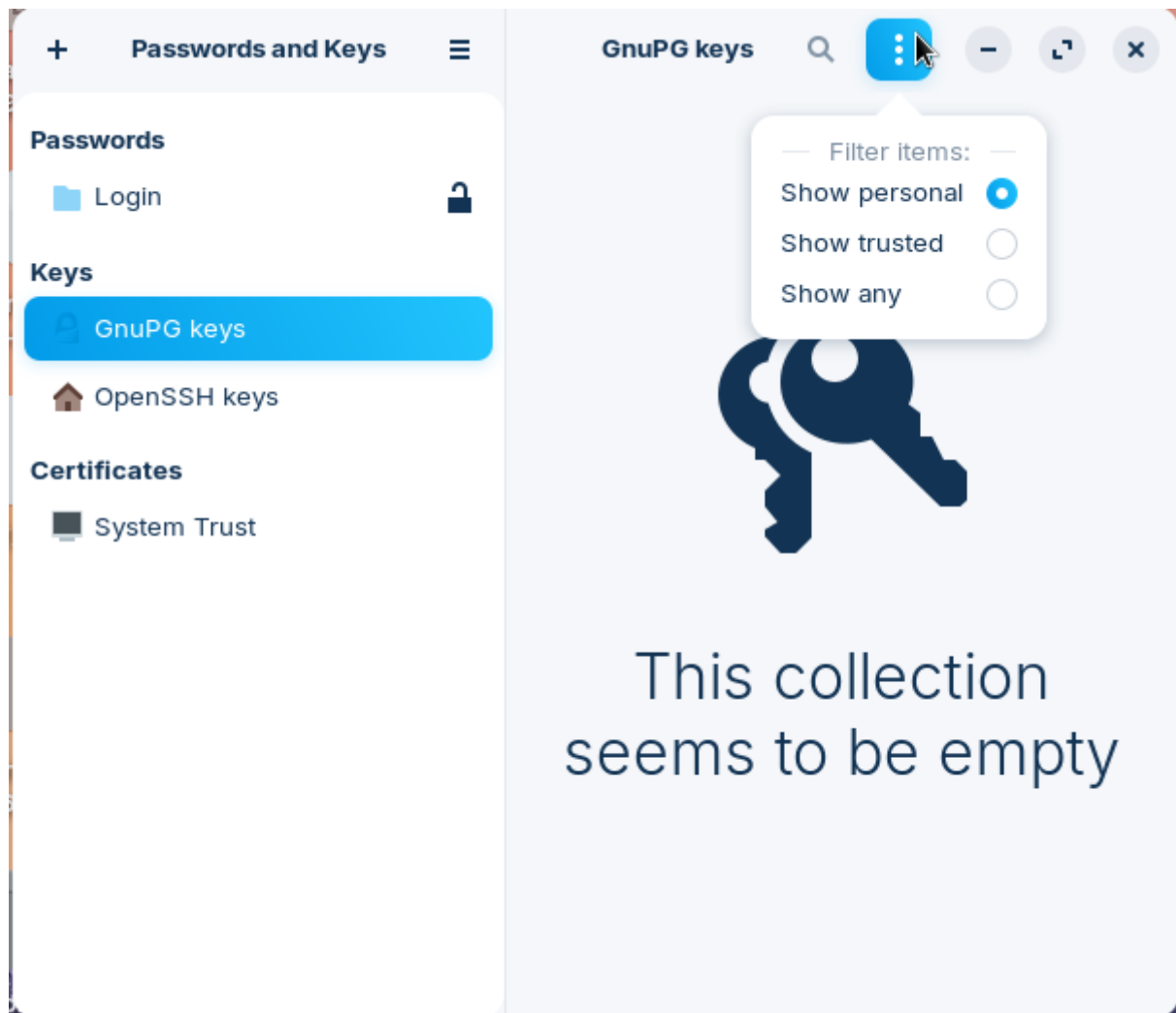
Logs - a useful utility, telling you of any errors that might be in the system.
Here is a screenshot from the VM I created in order to create this Manual:



Passwords and Keys - Seahorse by any other name! This utility is to help store your PGP keys and passwords. Never got my head round this!





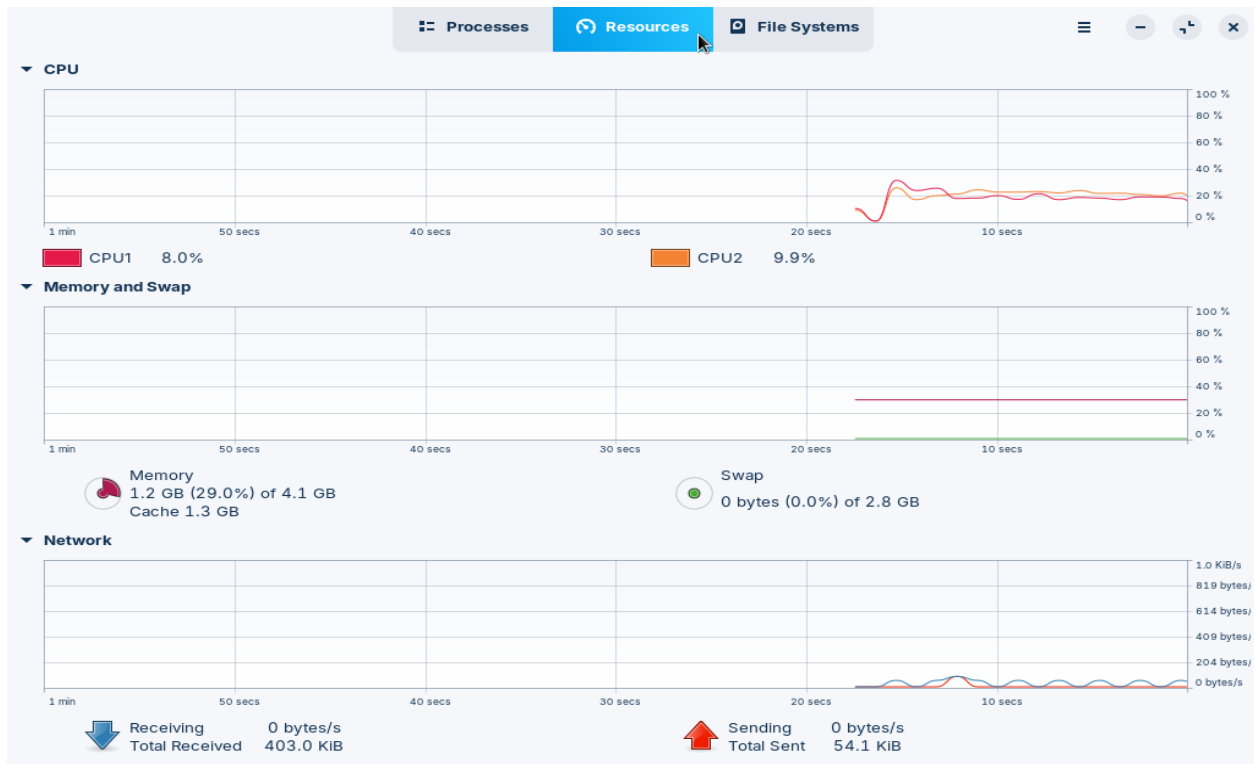


System Monitor - this is the GNU/Linux equivalent of Task Manager in that other OS!:

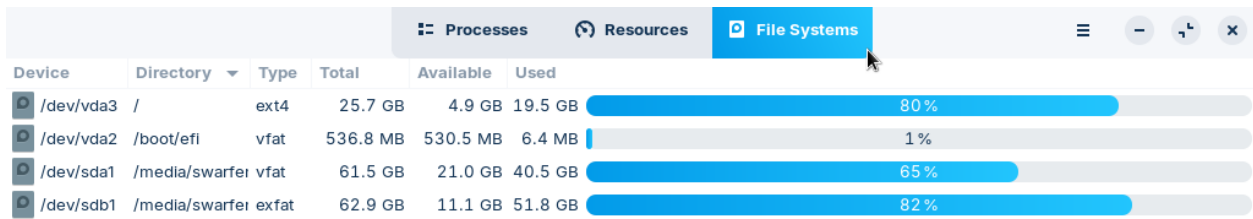
Processes:

Process Name	User	% CPU	ID	Memory	Disk read total	Disk write total
at-spi2-registryd	zorin	0.00	5153	786.4 kB	104.4 kB	
at-spi-bus-launcher	zorin	0.00	1351	917.5 kB	59.4 kB	
dbus-daemon	zorin	0.00	1271	1.8 MB	618.5 kB	
dbus-daemon	zorin	0.00	1363	524.3 kB	75.8 kB	
dconf-service	zorin	0.00	1288	655.4 kB	50.2 kB	
evolution-addressbook-factory	zorin	0.00	5123	9.8 MB	981.0 kB	
evolution-alarm-notify	zorin	0.00	5324	16.4 MB	536.6 kB	
evolution-calendar-factory	zorin	0.00	5112	10.0 MB	449.5 kB	
evolution-source-registry	zorin	0.00	5085	10.0 MB	5.5 MB	
flatpak-session-helper	zorin	0.00	6239	524.3 kB	179.2 kB	
gdm-x-session	zorin	0.00	4887	393.2 kB	93.2 kB	
gjs	zorin	0.00	5151	5.0 MB	17.4 kB	
gjs	zorin	0.00	5398	5.2 MB	17.4 kB	
gjs	zorin	0.00	5846	21.4 MB	2.4 MB	
gnome-clocks	zorin	0.00	5966	19.8 MB	3.3 MB	
gnome-keyring-daemon	zorin	0.00	1625	1.0 MB	512.0 kB	
gnome-session-binary	zorin	0.00	4895	1.8 MB	1.8 MB	
gnome-session-binary	zorin	0.00	5018	3.0 MB	1.1 MB	
gnome-session-ctl	zorin	0.00	4999	393.2 kB	15.4 kB	

Resources:

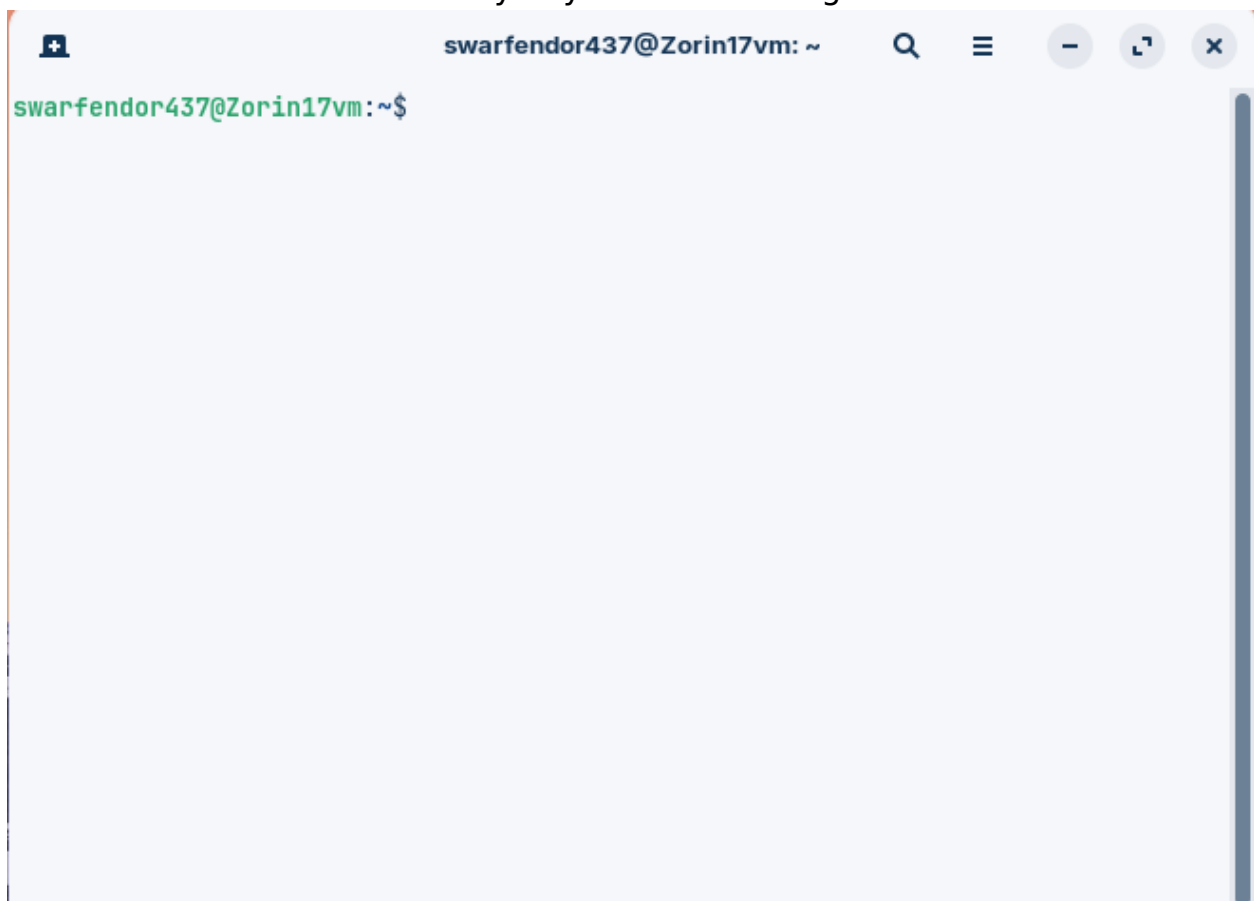


File Systems:



Device	Directory	Type	Total	Available	Used	Usage %
/dev/vda3	/	ext4	25.7 GB	4.9 GB	19.5 GB	80 %
/dev/vda2	/boot/efi	vfat	536.8 MB	530.5 MB	6.4 MB	1 %
/dev/sda1	/media/swarfe	vfat	61.5 GB	21.0 GB	40.5 GB	65 %
/dev/sdb1	/media/swarfe	exfat	62.9 GB	11.1 GB	51.8 GB	82 %

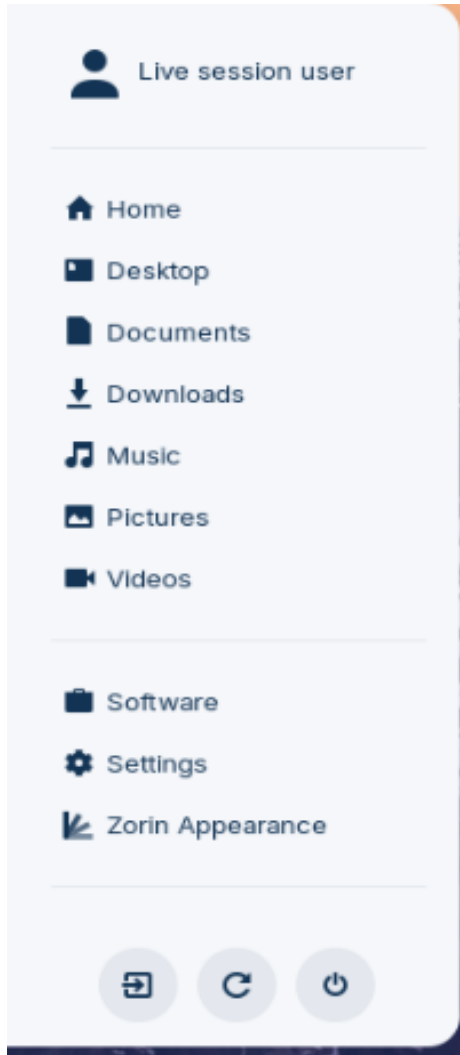
Terminal - The end of the line by any other name! I gest of course!



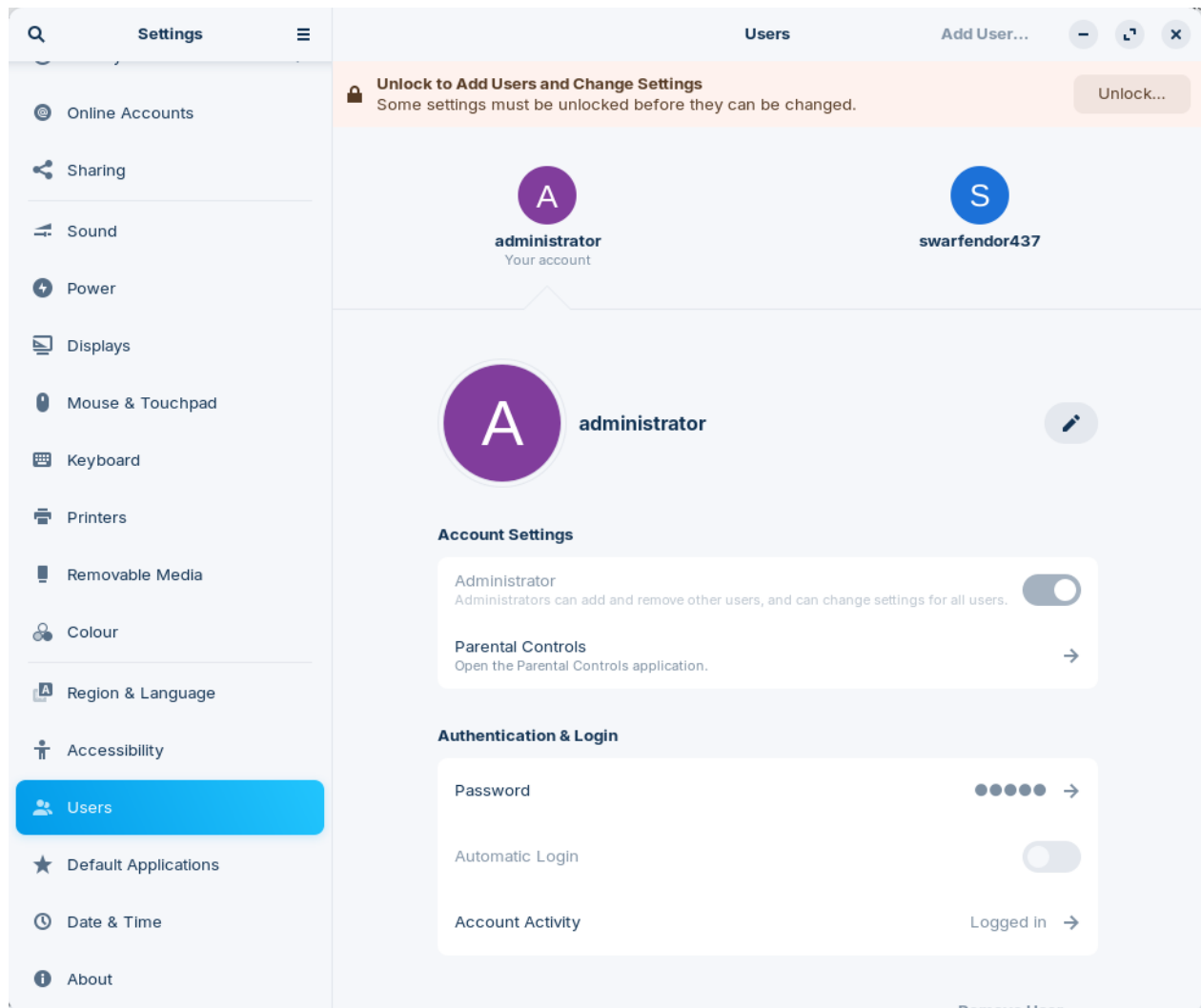
```
swarfendor437@Zorin17vm: ~$
```

4. Live session user.

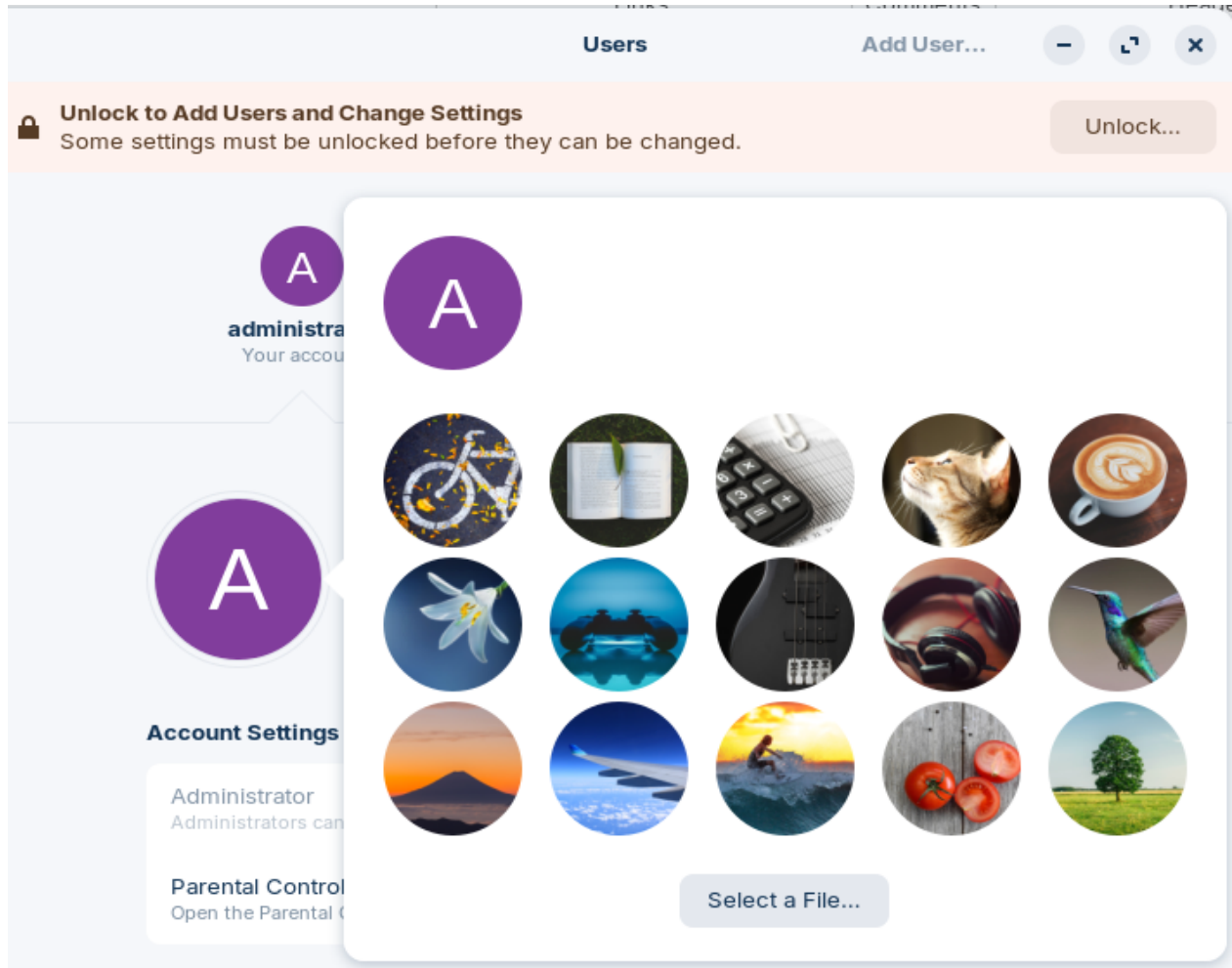
If you run Zorin 17 in Live Mode, then it will show your user name as '**Live session user**'.



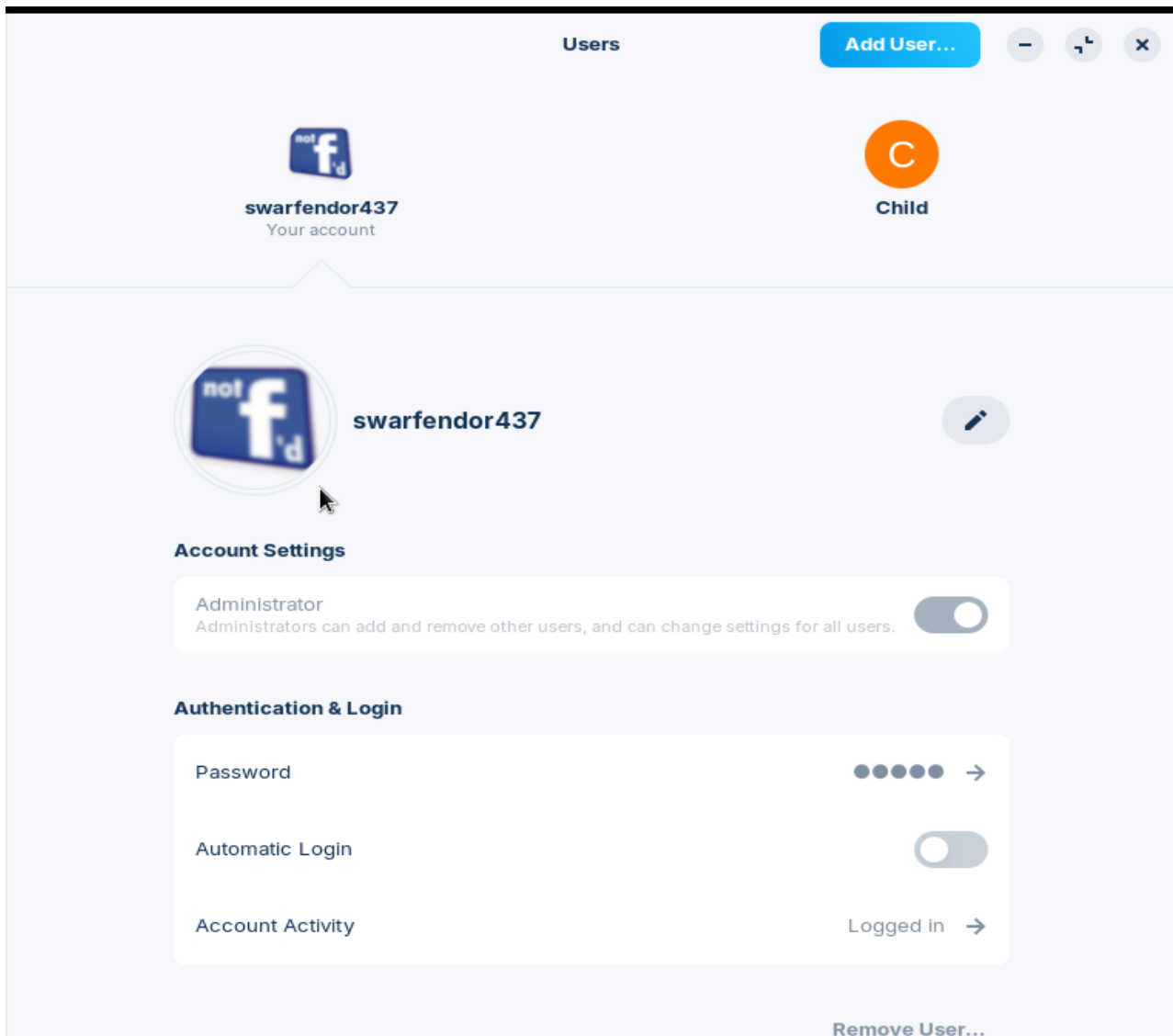
If you left click the **User** part of the menu, this opens up the **Users** section of **Settings**. In live mode it will show no users found, but on an installed version it shows all the Users of the system:



If you click on the account's avatar, you have an option to change the one automatically created, which shows the first letter of the User in a circle to something else, either ones supplied by Zorin, or use of a file from you computer (click on the 'Select a File ...' button):



Here's mine:



If you select the 'pen/cil' icon to the right of the name, an editable box appears around the name to enable you to change the user name, but you will need to unlock **Users** by supplying the password for that user. If you have setup a separate **Administrator** account as I have done, you may need to enter that password if, as I have done, set myself up to be a **Standard** user.

Below the User Avatar and name is **Account Settings** - this is where you decide on whether the user is to have the power of an **Administrator** or **Standard** user. For increased security, when you are installing Zorin OS it is better to setup the **Administrator** account first before creating your own user which should be set as a **Standard** user. Always make sure you have two different passwords for **Administrator** and **Standard** user or having a separate administrator account is pointless!

Below the account user's status is:

Authentication & Login

The first field is **Password**. Here you can change your password to a new one.

Below it is:

Automatic Login

This is for lazy people and can create issues when trying to update the system. Having said that, it should not be a problem if you have an **Administrator** account that needs to login, and you have a **Standard** user who doesn't need to login. If you just have one user for the System and have autologin enabled, problems will occur when you need to update the system and applications which usually require the password of the account with **Administrator** privileges. The other aspect of this is that you are reducing the security of your computer by allowing anyone to access your personal data.

Account Activity

This lets you see who is logged in. Left clicking **Account Activity** shows a log of account activity, showing Dates and Times when a Session Started and when a Session Ended.

Remove User

To be used with caution - you don't want to remove someone in error!

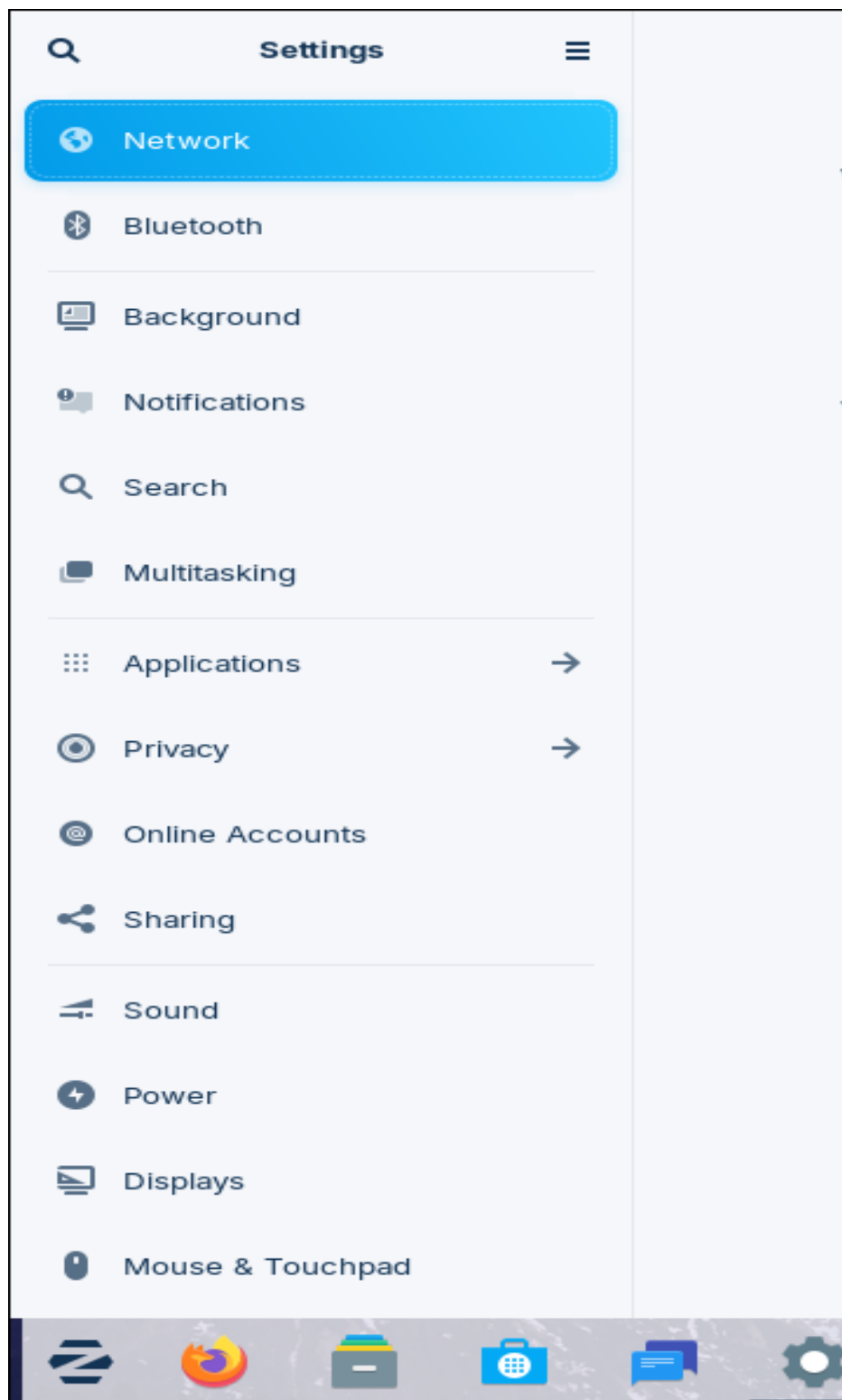
Software - This has already been covered (see Page [26](#))

5. Settings:

This is where you are able to make a host of settings, related to **hardware** such as **Network, Bluetooth** (if present), **Sound, Displays** (Monitors), **Printers, Removable Media**.

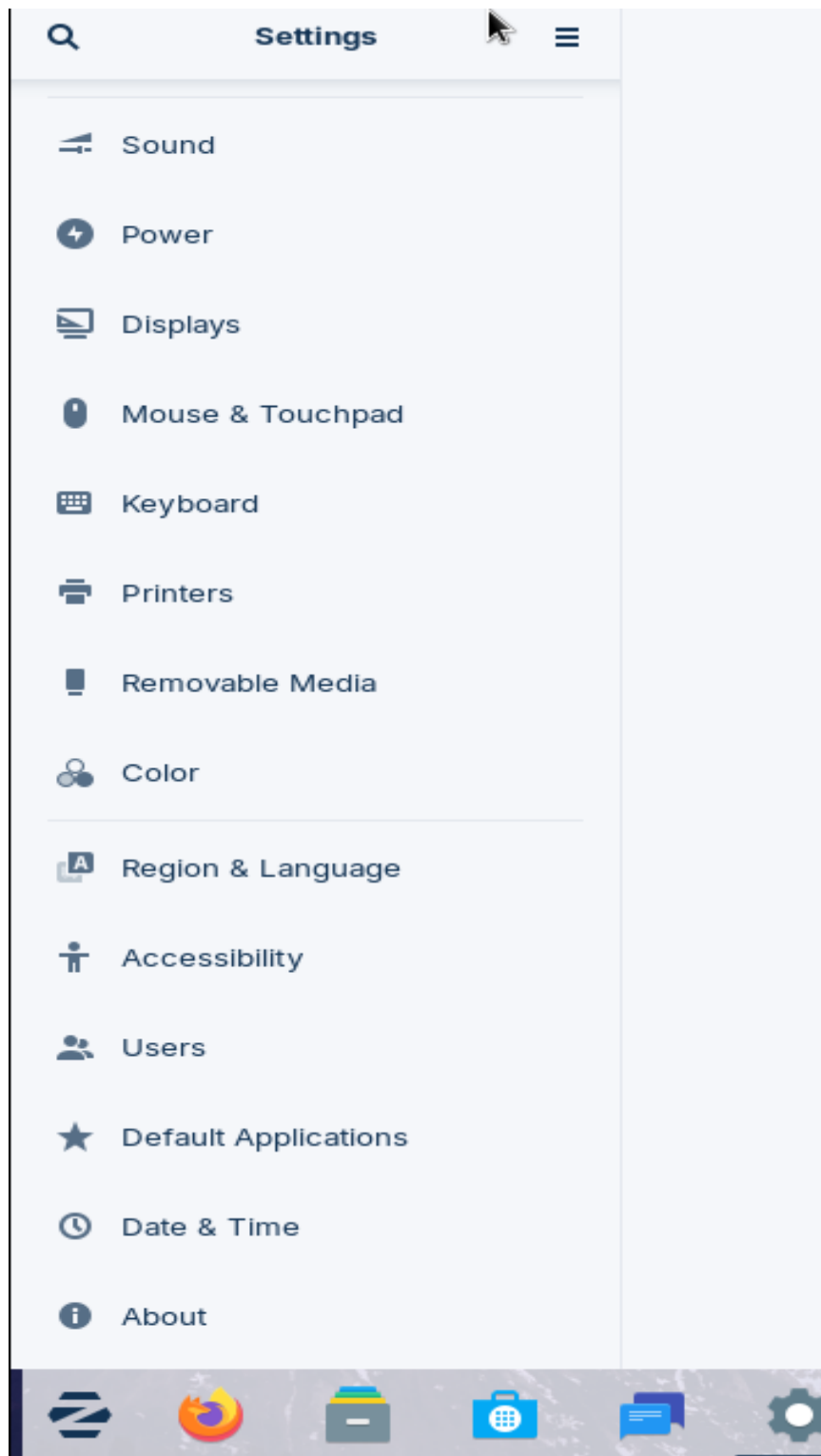
Software elements include **Background** (Desktop Wallpaper/Solid Colours/Picture choice from Pictures folder), **Notifications** (/Do not disturb), **Search** (function/criteria - what to include, what not to), **Multitasking** (seeing what applications you have open (**Activities overview** options, if you wish to have it), **Applications** (Integration of the application that uses system features is by default turned on, i.e., **Notifications**, can either be on or off for each application) and below it you are notified of what the **Default handlers** are, i.e., Types of files and links that the application opens.

So let's start with a screenshot of **Settings** (top half):



I have just taken a screenshot of the left pane for ease of reading, more detail of each section to follow. Next the bottom-half of **Settings**.

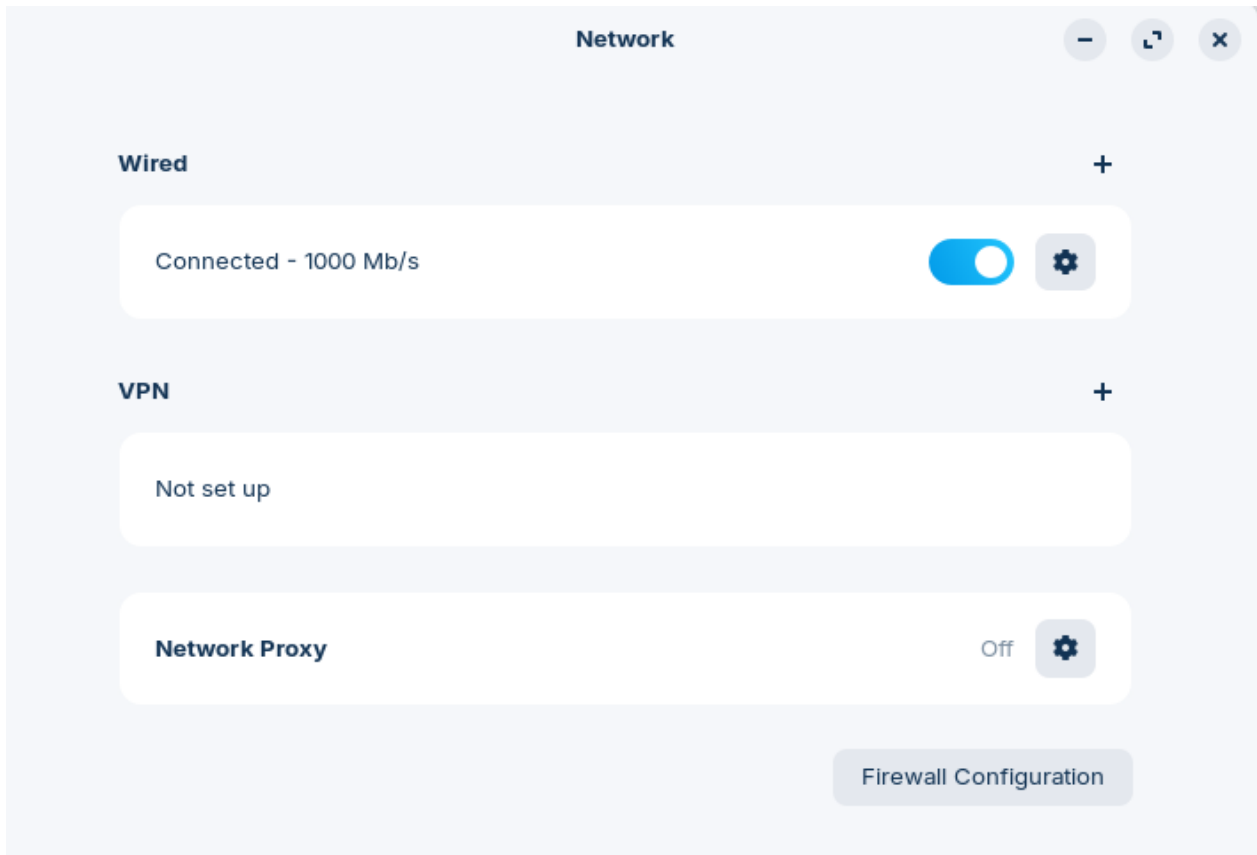
Settings (bottom half)



Now for each section of **Settings**.

Network

This is the section that should autopopulate, depending on your current Network configuration, whether it is via Ethernet, WiFi or other connection method.



By default my system (and the VM that this screenshot was taken from) is via Ethernet. Clicking on the switch to disconnect is useful if you wish to search for items on an external storage device to prevent ransomware attack, or when backing up data or your system to an external device. The cog next to it shows connection details to the network/Internet, as shown on the following pages:

Details tab:

The screenshot shows the 'Details' tab of the 'Wired' network settings window. At the top, there are 'Cancel' and 'Apply' buttons. Below the title bar, there are tabs for 'Details', 'Identity', 'IPv4', 'IPv6', and 'Security'. The 'Details' tab is selected. The settings are as follows:

- IPv4 Address: 192.168.1.1
- IPv6 Address: fe80::1
- Hardware Address: 52:54:00:12:34:56
- Default Route: 192.168.1.1
- DNS: 192.168.1.1

There are three checkboxes:

- Connect automatically
- Make available to other users
- Metered connection: has data limits or can incur charges
Software updates and other large downloads will not be started automatically.

A red button labeled 'Remove Connection Profile' is located at the bottom right.

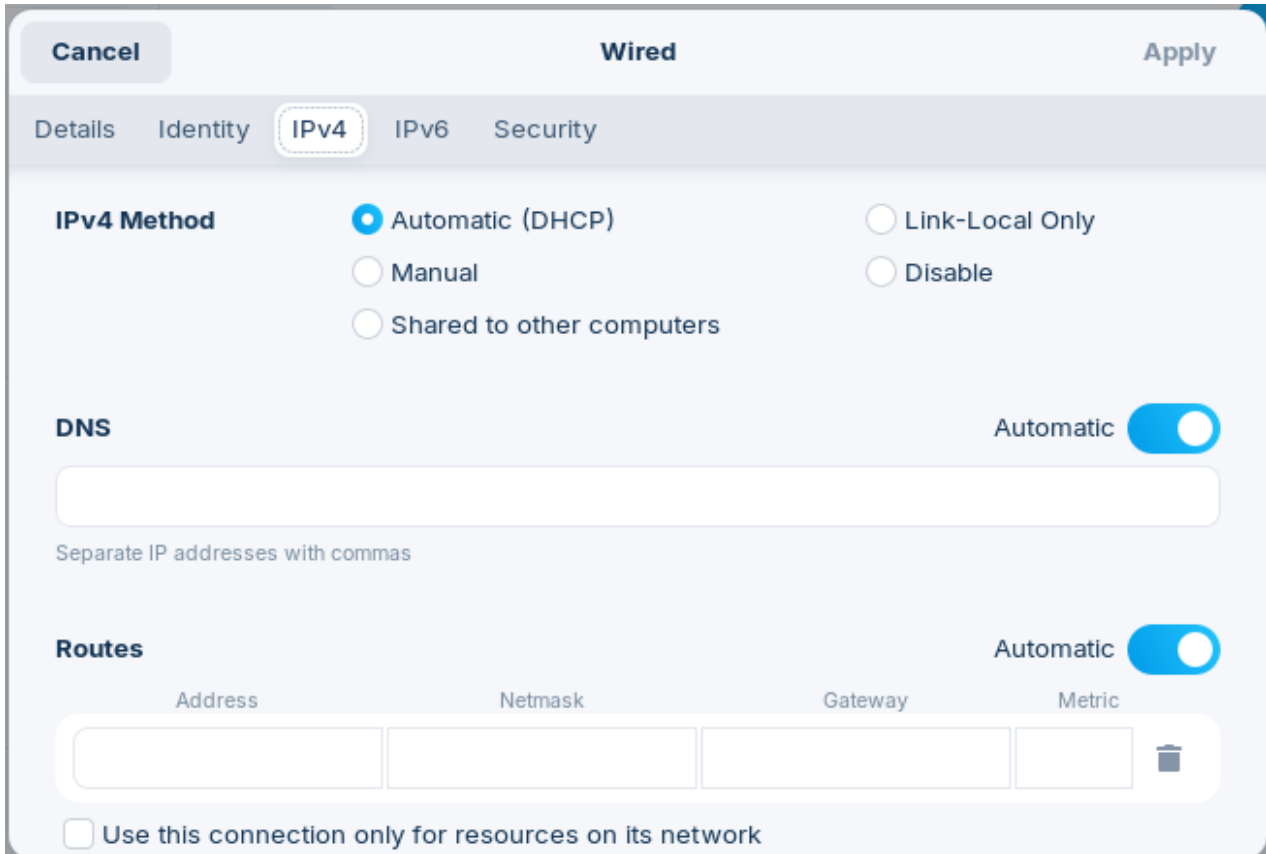
Identity tab:

The screenshot shows the 'Identity' tab of the 'Wired' network settings window. At the top, there are 'Cancel' and 'Apply' buttons. Below the title bar, there are tabs for 'Details', 'Identity', 'IPv4', 'IPv6', and 'Security'. The 'Identity' tab is selected. The settings are as follows:

- Name: Wired connection 1
- MAC Address: [Empty field]
- Cloned Address: [Empty field]
- MTU: automatic

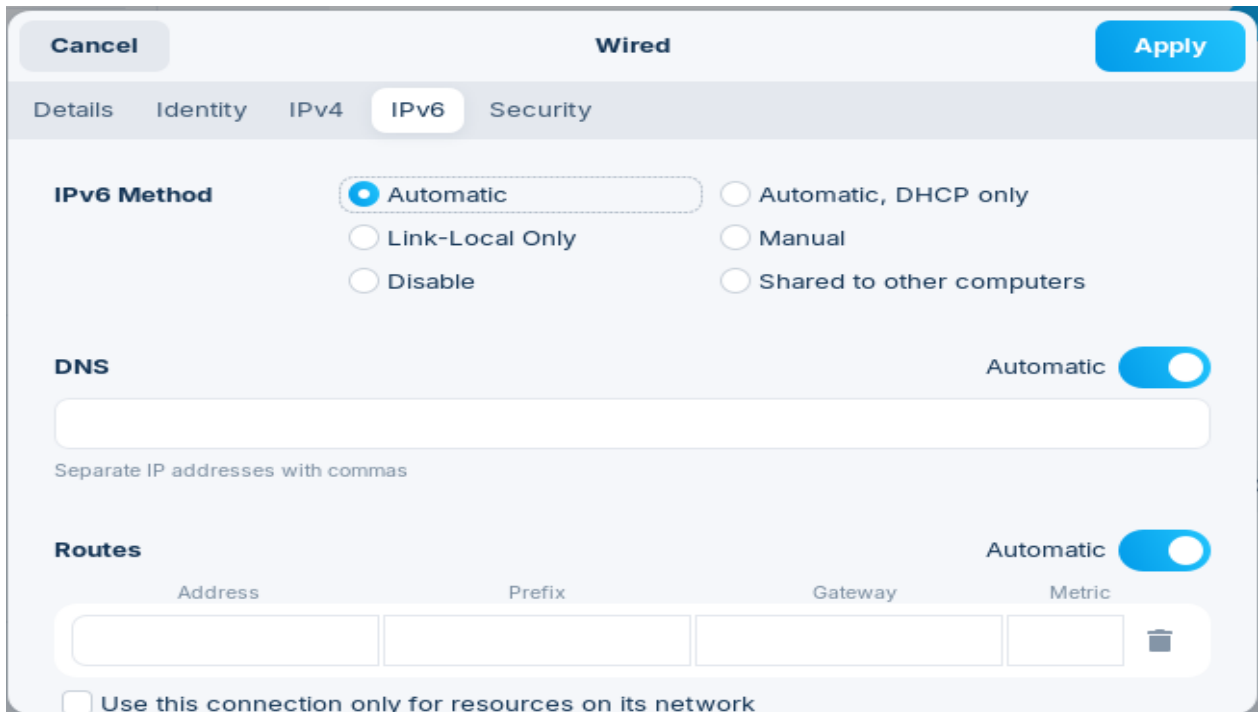
The MTU field has minus and plus buttons for adjustment.

IPv4 tab:



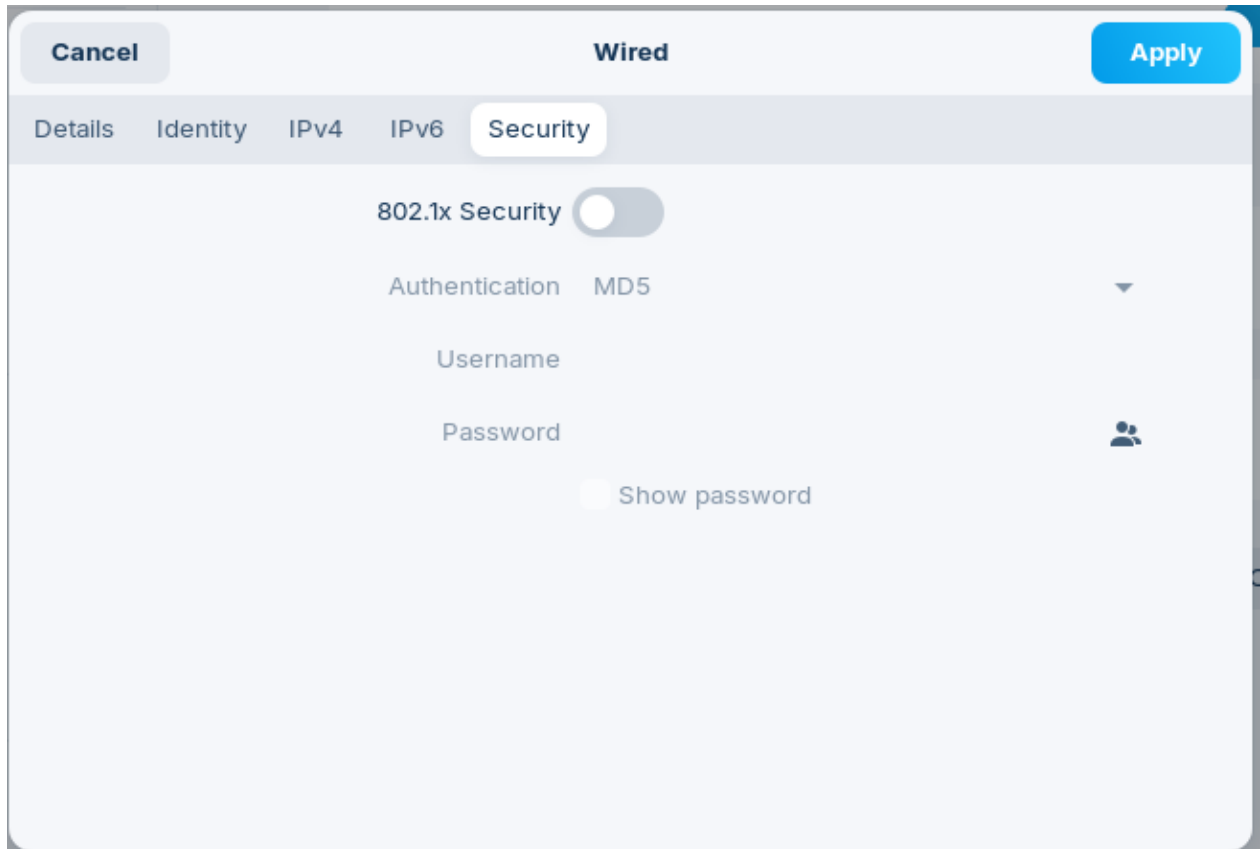
IPv6 tab:

Note under the IPv6 tab, this is set to automatic, if like me, you ISP (Internet Service Provider) does not support IPv6 and you are having issues connecting to the internet, select **Disable** and click on the **Apply** button.

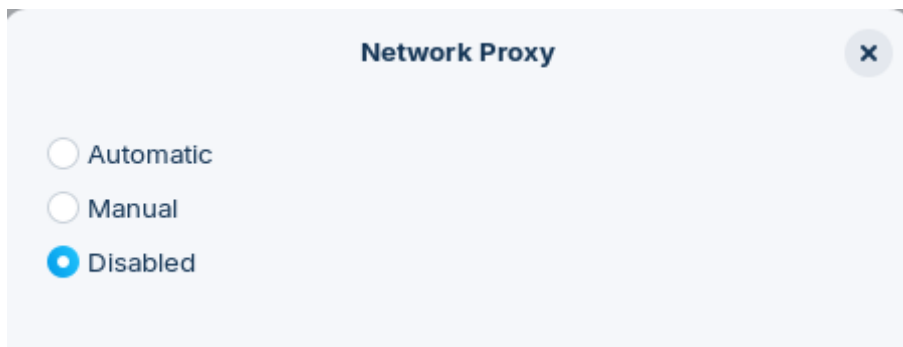


Security tab:

The security tab and **802.1x Security** option is there for systems connected to a Corporate Server, so should not be turned on.



Network Proxy setting. Clicking on the cog reveals:

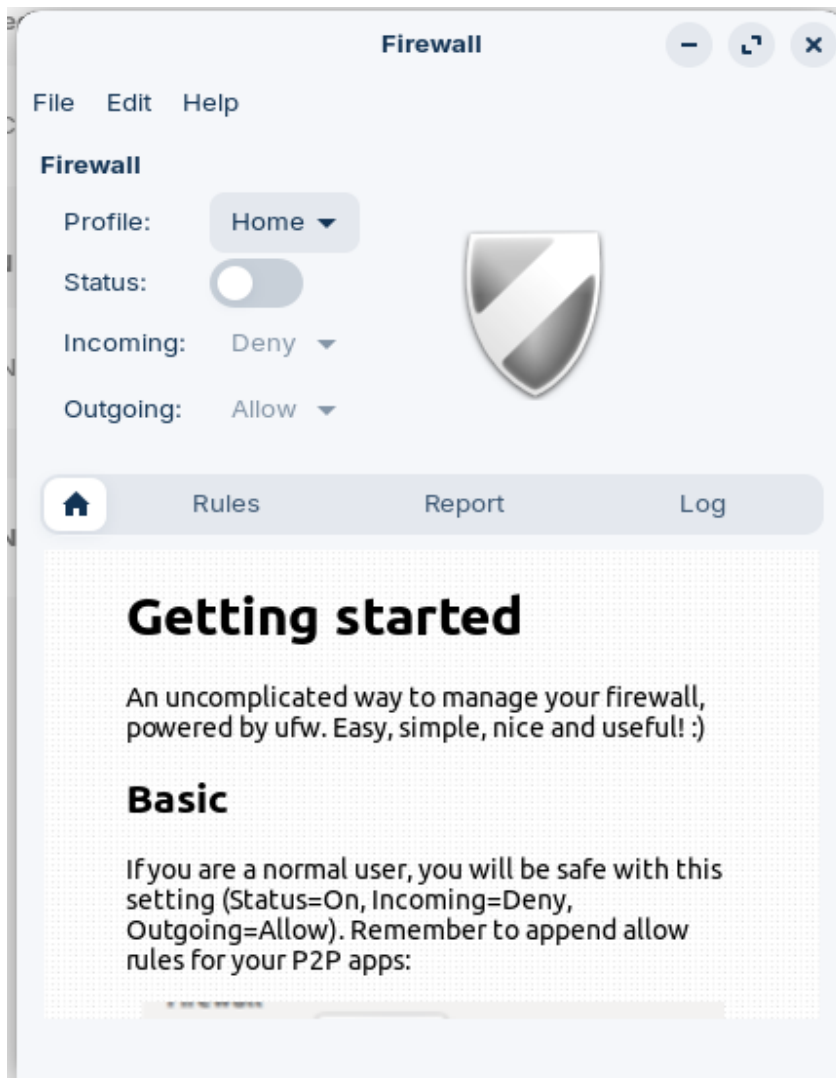


Disabled is the default setting for **Network Proxy**, and should not cause any issues unless of course you do use a **Network Proxy**.

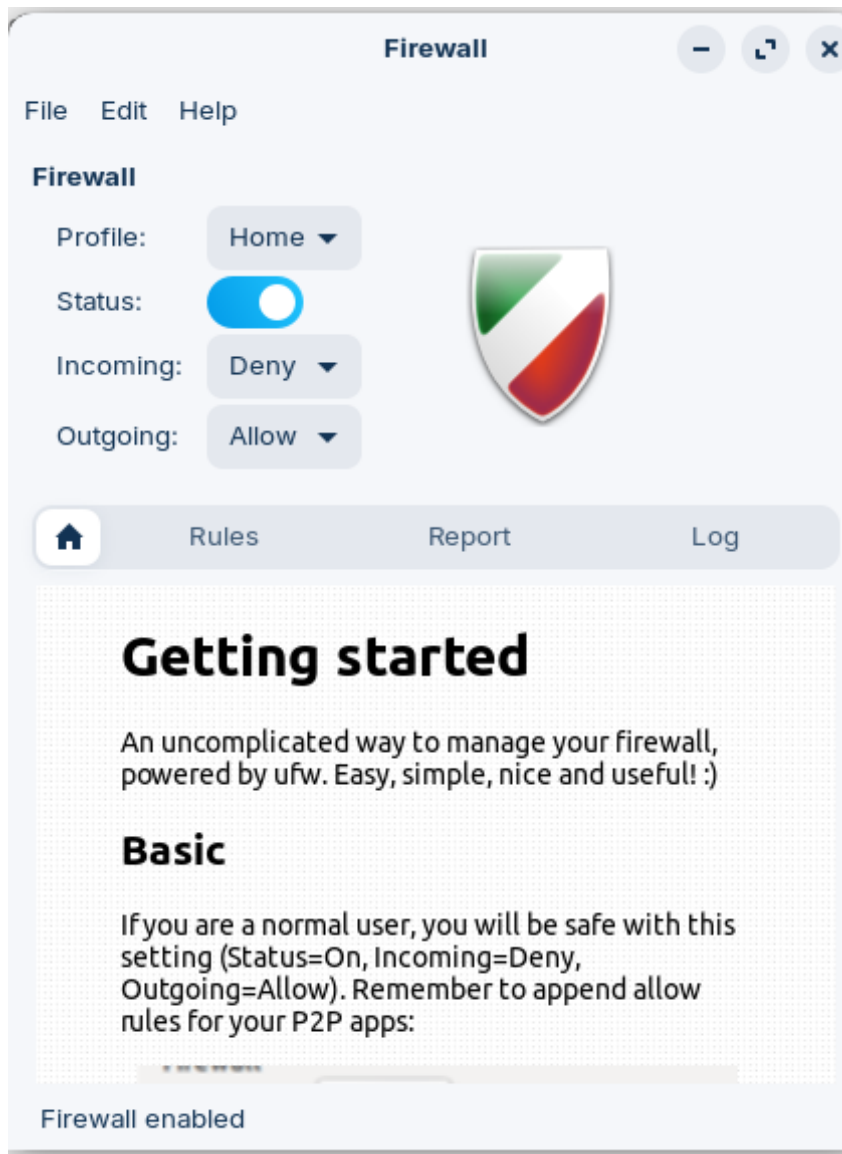
Firewall Configuration

This launches the Gnome Uncomplicated Firewall (Gufw) application. By default it is off - Turn it on!

Firewall is off in this image. Select the **Status:** switch to turn it on.



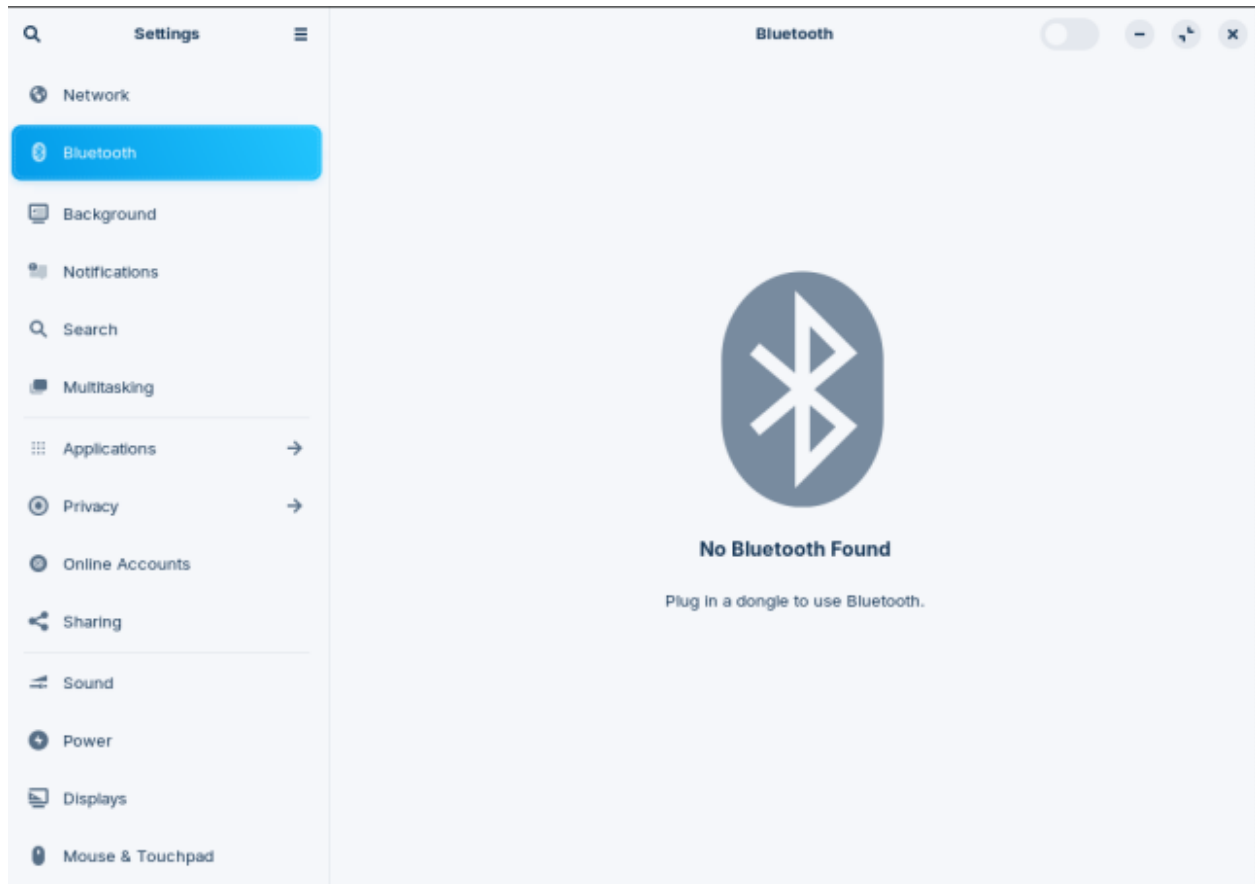
Firewall is on in this screenshot:



The **Profile:** options available are **Home**, **Office**, and **Public**. Obviously, personal users should just leave the Profile set to Home. However, if using a notebook in an internet cafe, you may need to change this to Public, but not a good idea for security. Better to be safe and Tether your smartphone for security reasons.

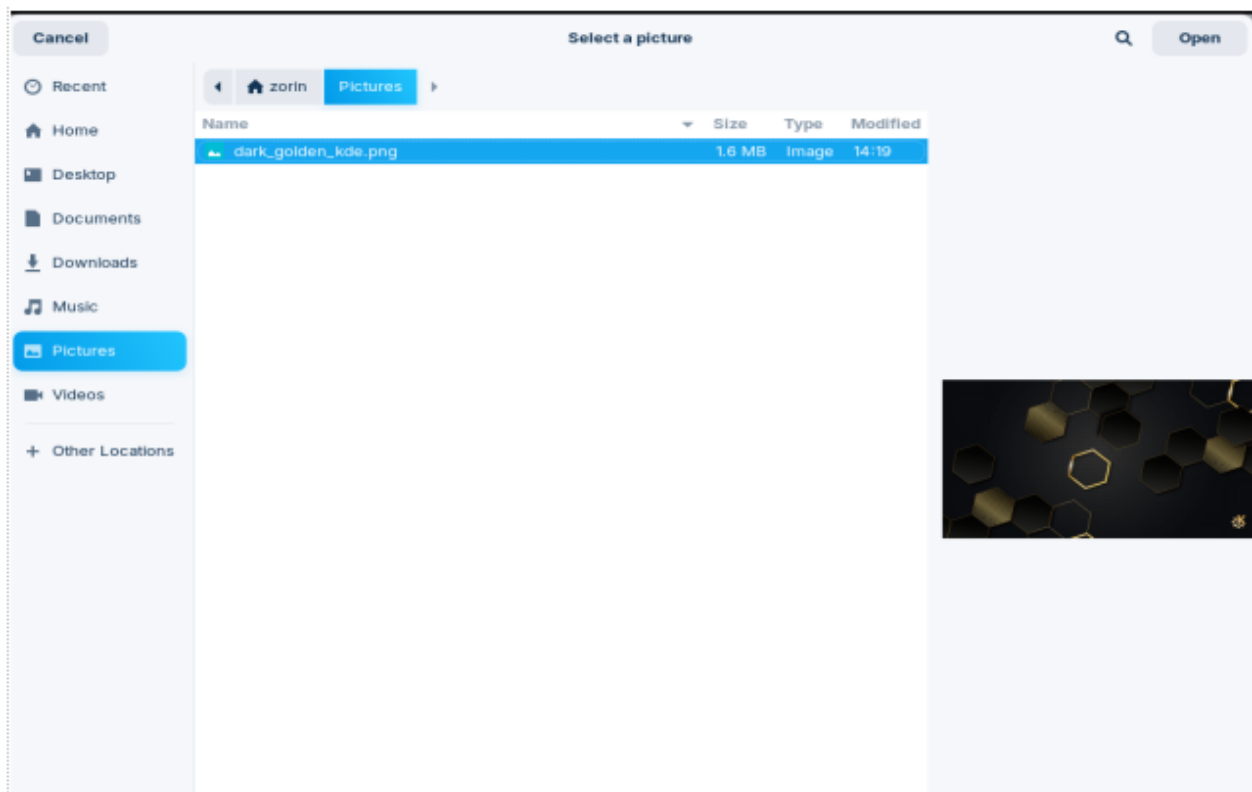
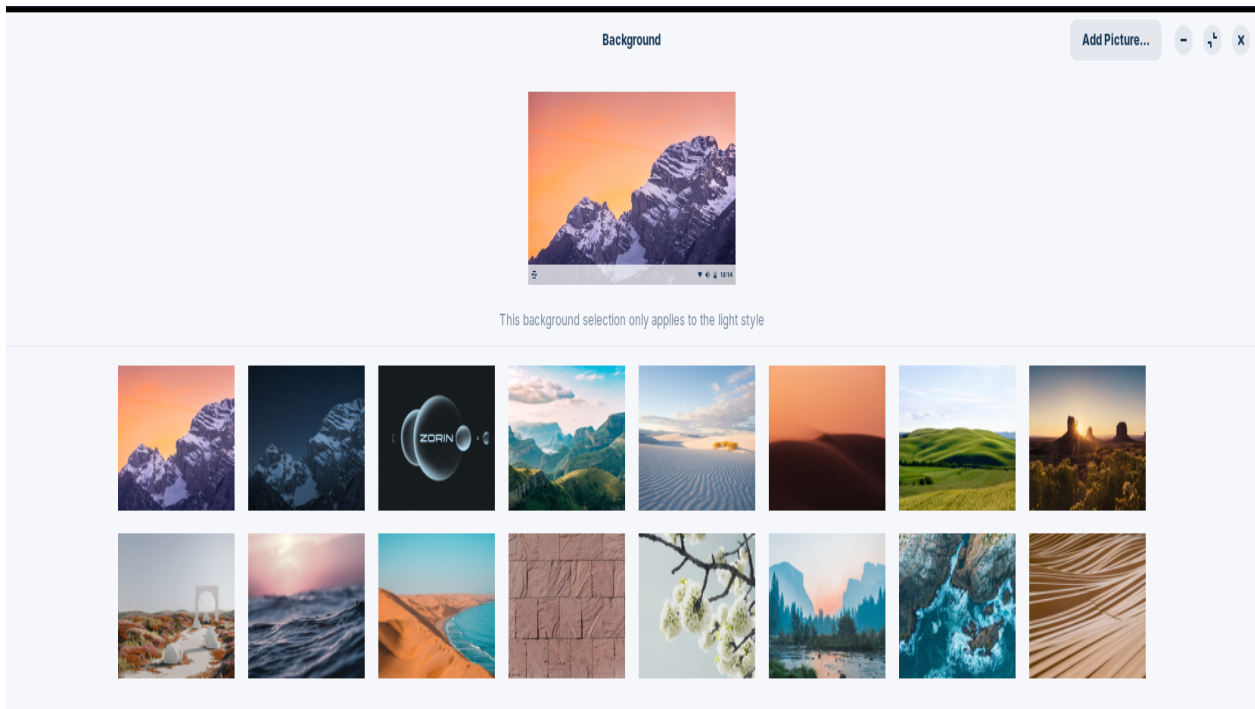
Bluetooth

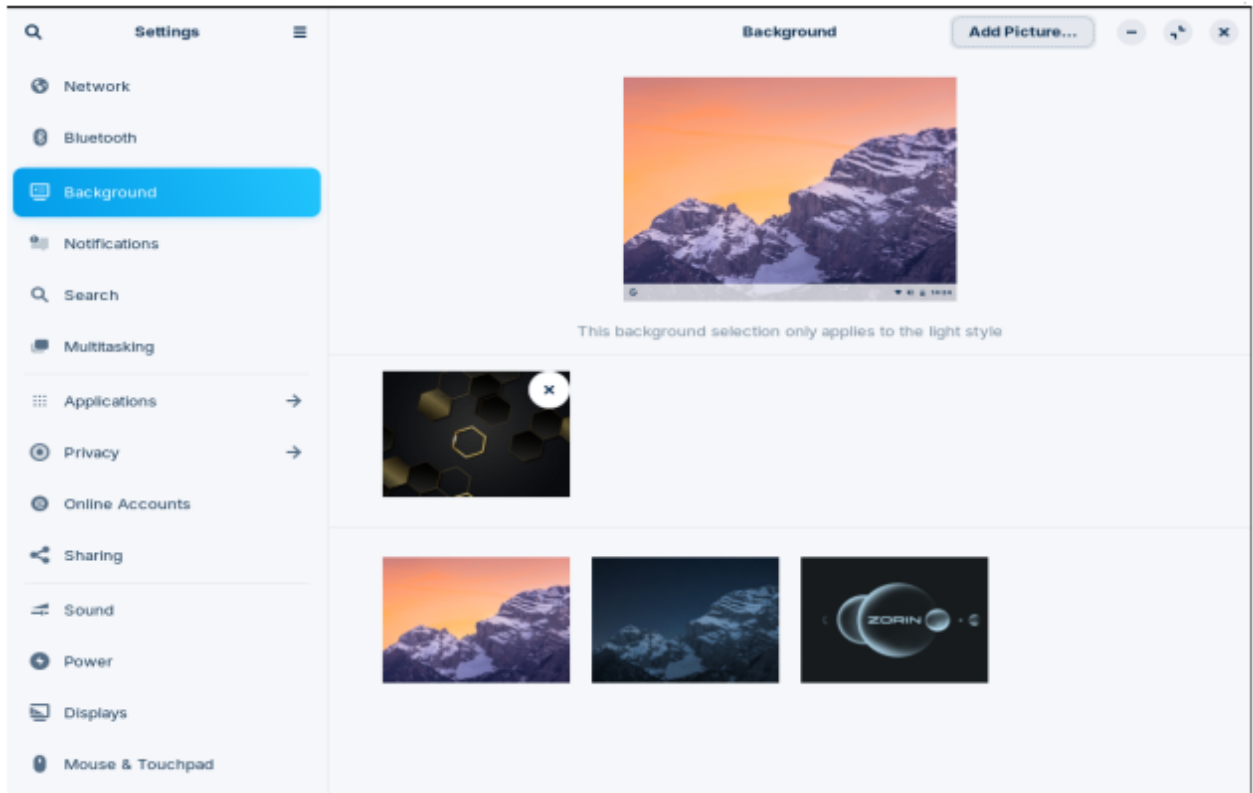
This should list available/connected Bluetooth devices, if any.



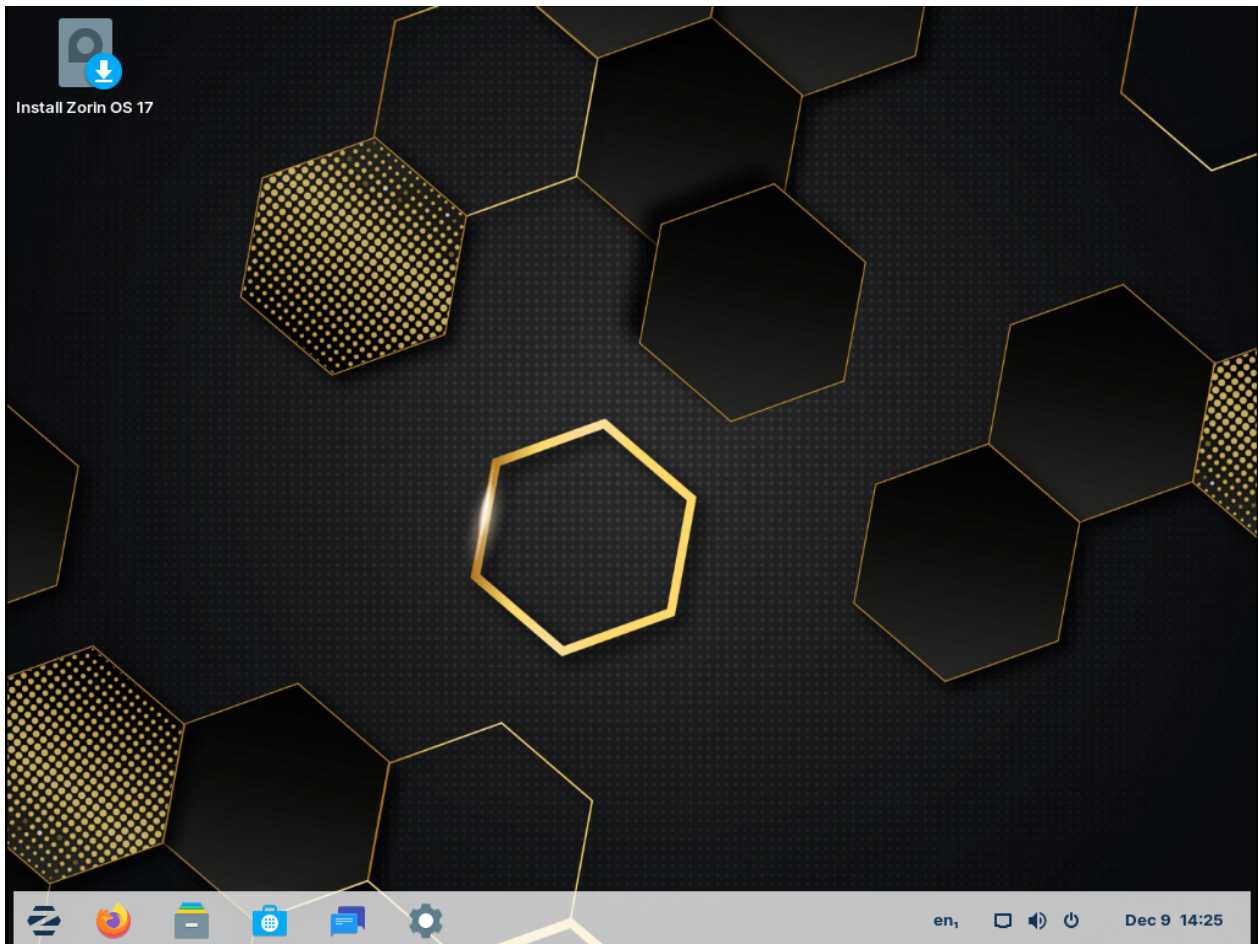
Background

This is where you can choose your desktop wallpaper and if you don't fancy what is on offer you can choose a picture from your Pictures folder by clicking on **Add Picture ...**:



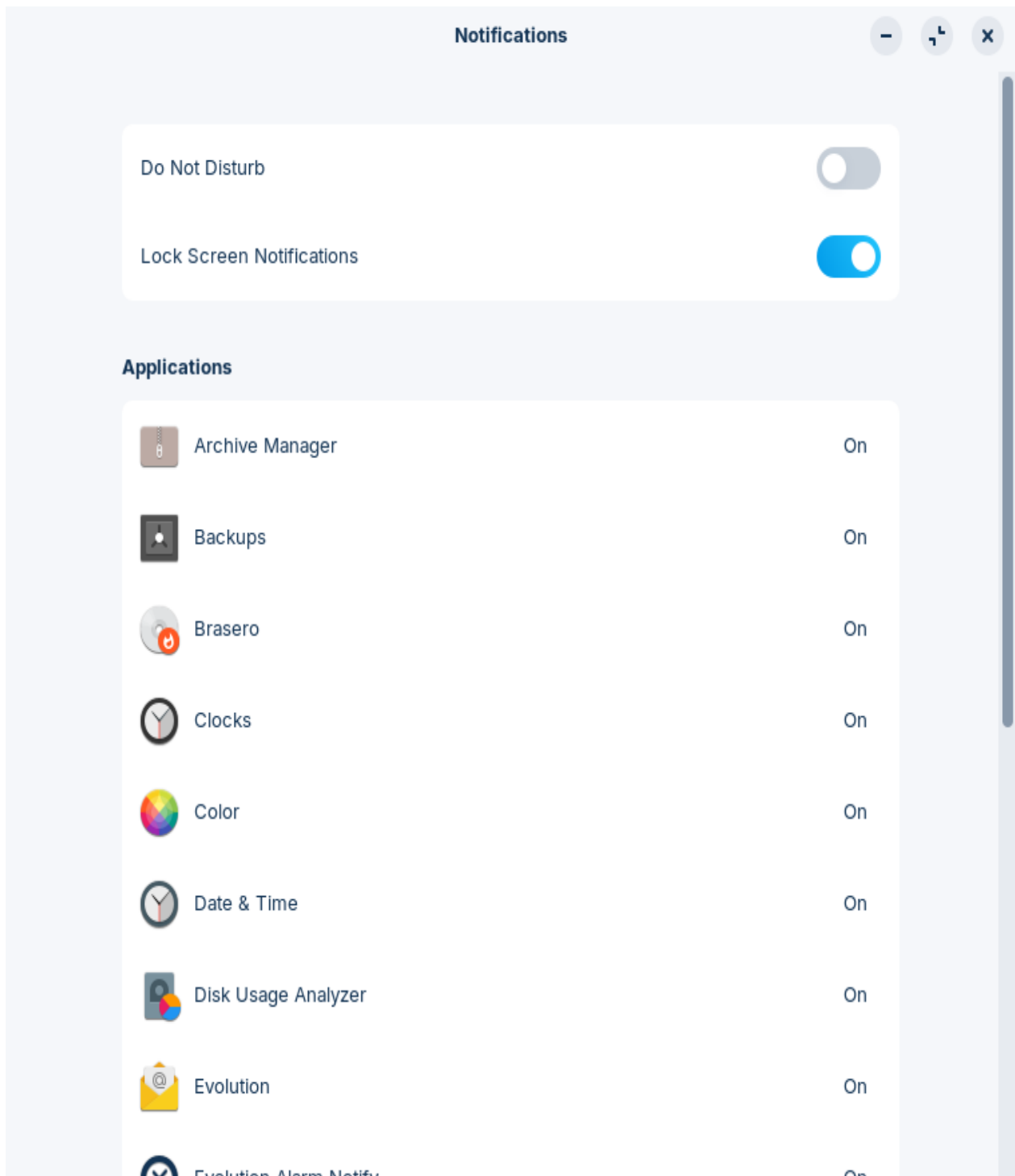


Selecting a picture changes the Desktop Background/Wallpaper instantly:



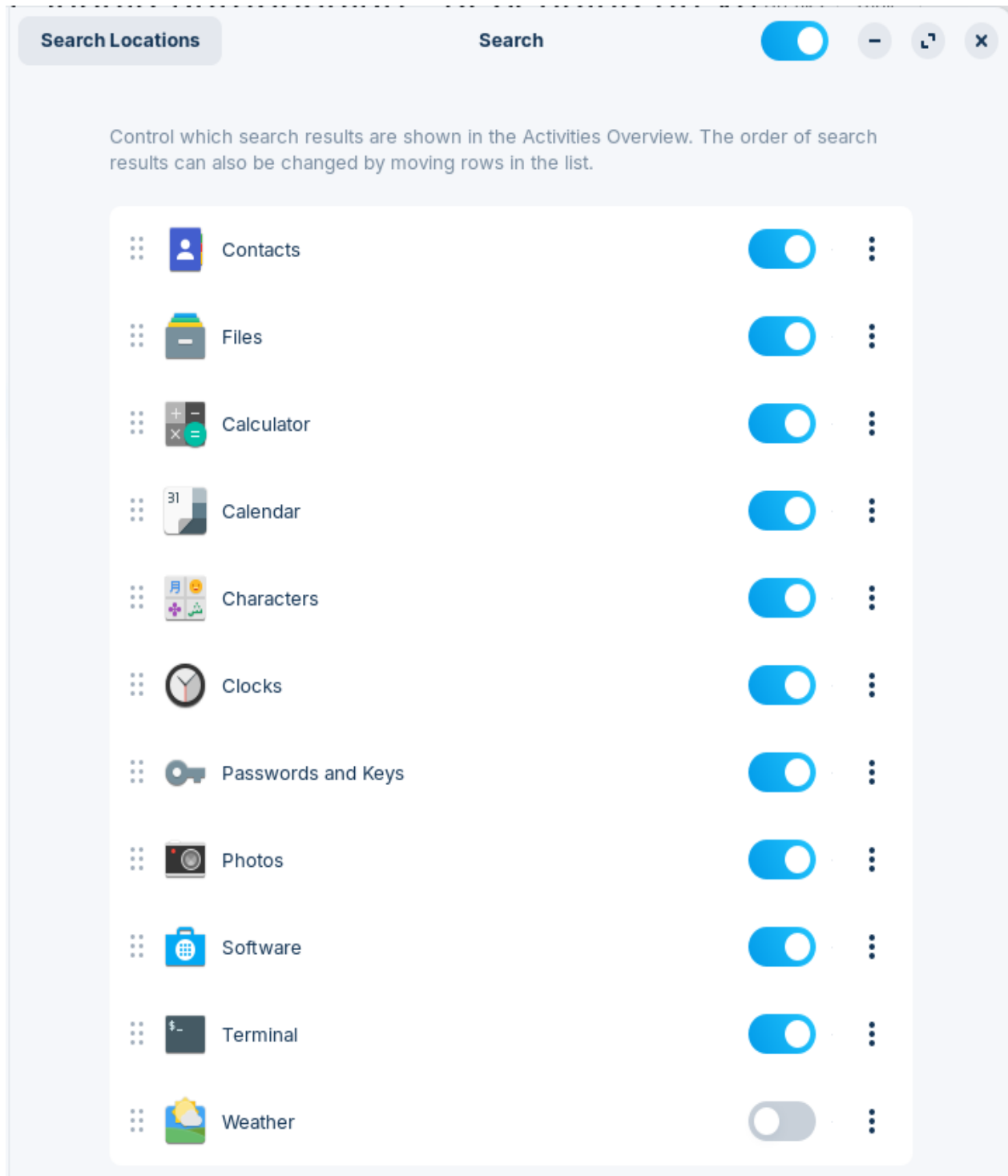
Notifications

This section lists all the applications that are capable of using the system feature of notifications being enabled. If you want some time to concentrate on producing the next best version of ZorinOS, switch on 'Do Not Disturb' - just like your smartphone!



Search

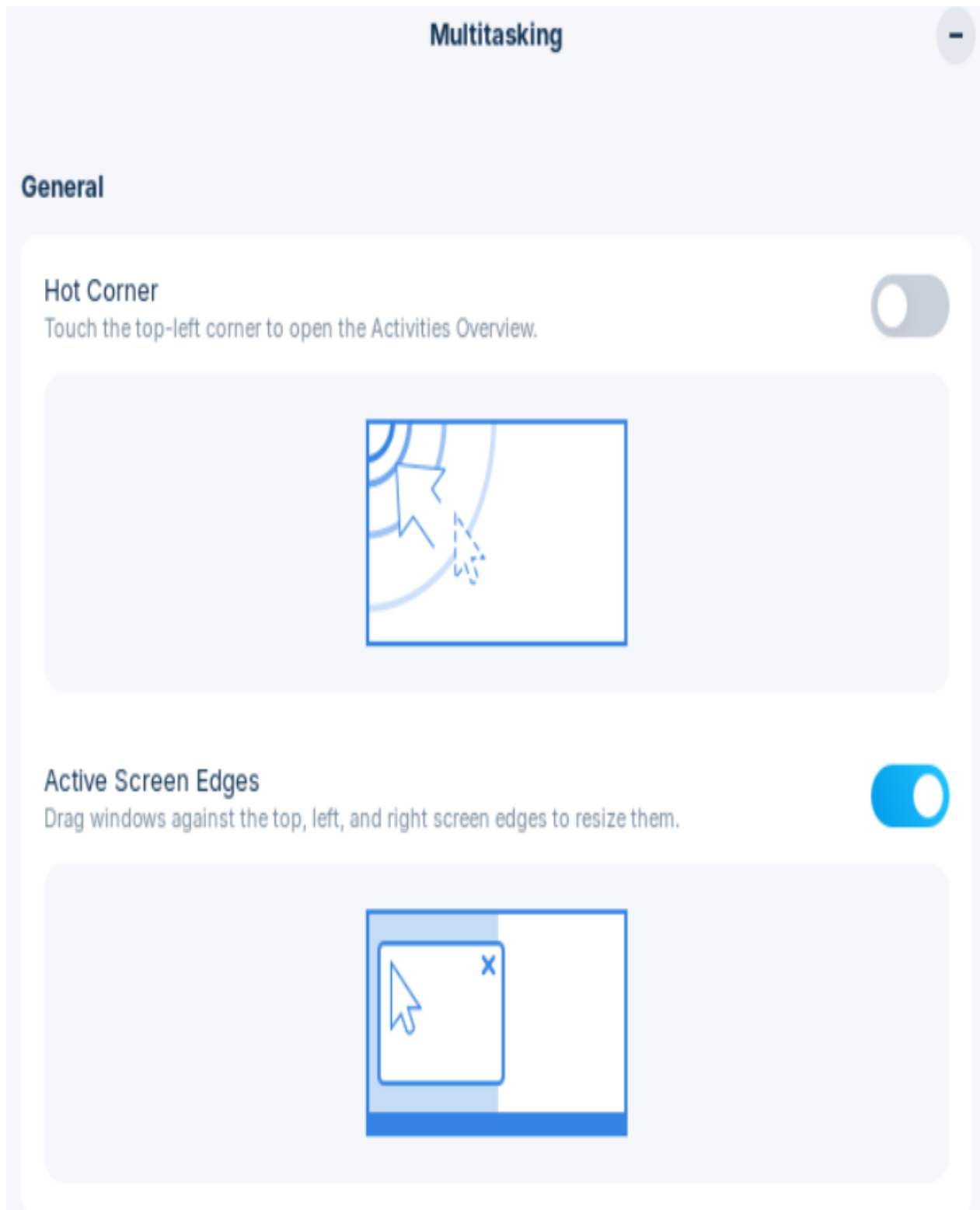
Control which search results are shown in the **Activities Overview**. The order of search results can also be changed by moving rows in this list.



Multitasking

This is the place where you can get an overview of the applications you currently have open on your Desktop so you can quickly switch to the one you need access to. The settings covered under **Multitasking** are:

General - Hot Corner, Active Screen Edges.



Workspaces - Dynamic, or fixed number of workspaces.

Workspaces

Dynamic workspaces
Automatically removes empty workspaces.


Fixed number of workspaces
Specify a number of permanent workspaces.

Number of Workspaces 4 - +


Multi-Monitor - Workspaces on primary monitor or on all monitors.

Multi-Monitor

Workspaces on primary display only



Workspaces on all displays



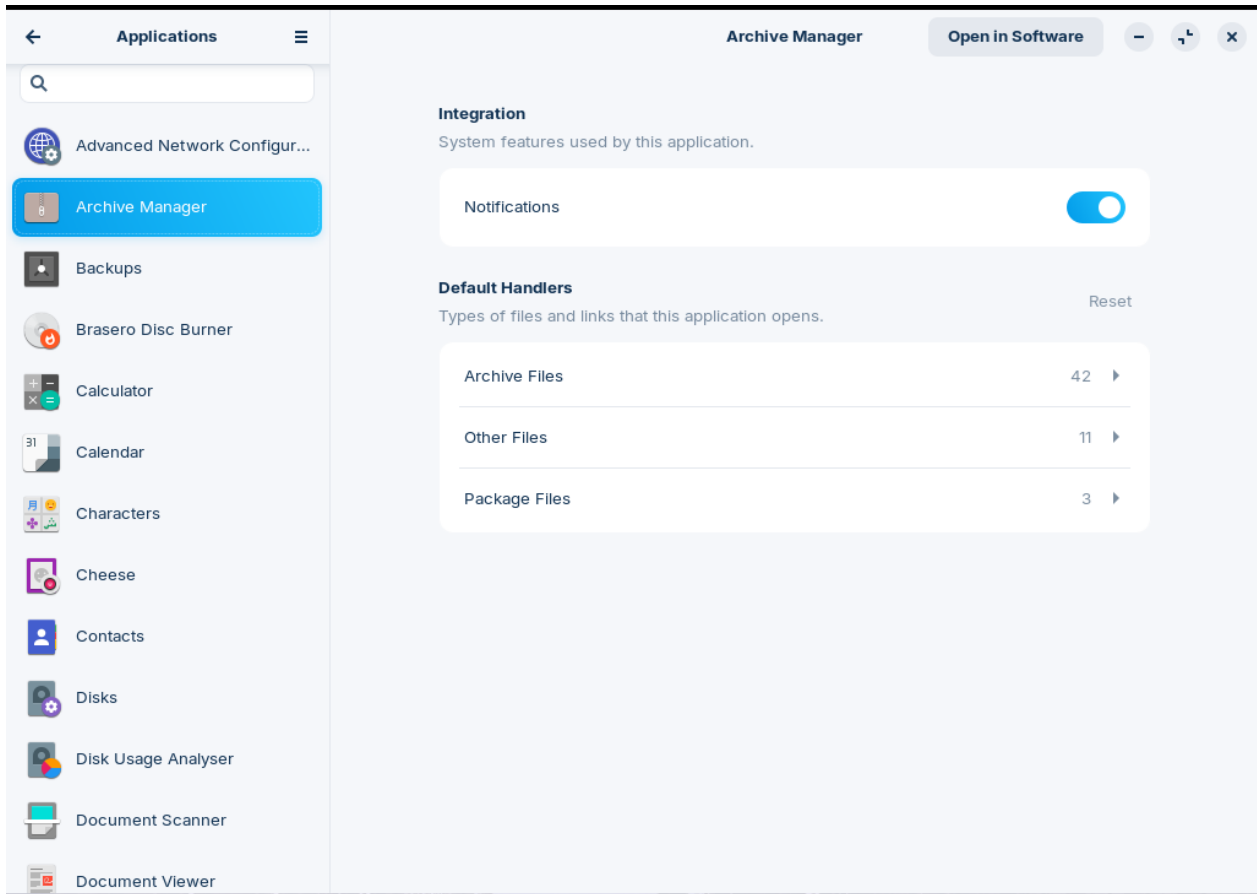
Application Switching:

Application Switching

- Include applications from all workspaces
- Include applications from the current workspace only

- Include applications from all monitors
- Include applications from each monitor only

Applications



This lists the Applications present on the system and how they are integrated with System features used by the application. Common to all is **Notifications**. This function can be turned off if you want to for each one. The other information provided are the **Default Handlers**. Basically the types of files that these applications are capable of opening etc.

Privacy

This is split into five sections, **Connectivity**, **Location Services**, **Thunderbolt**, **File History & Trash**, and **Screen**.

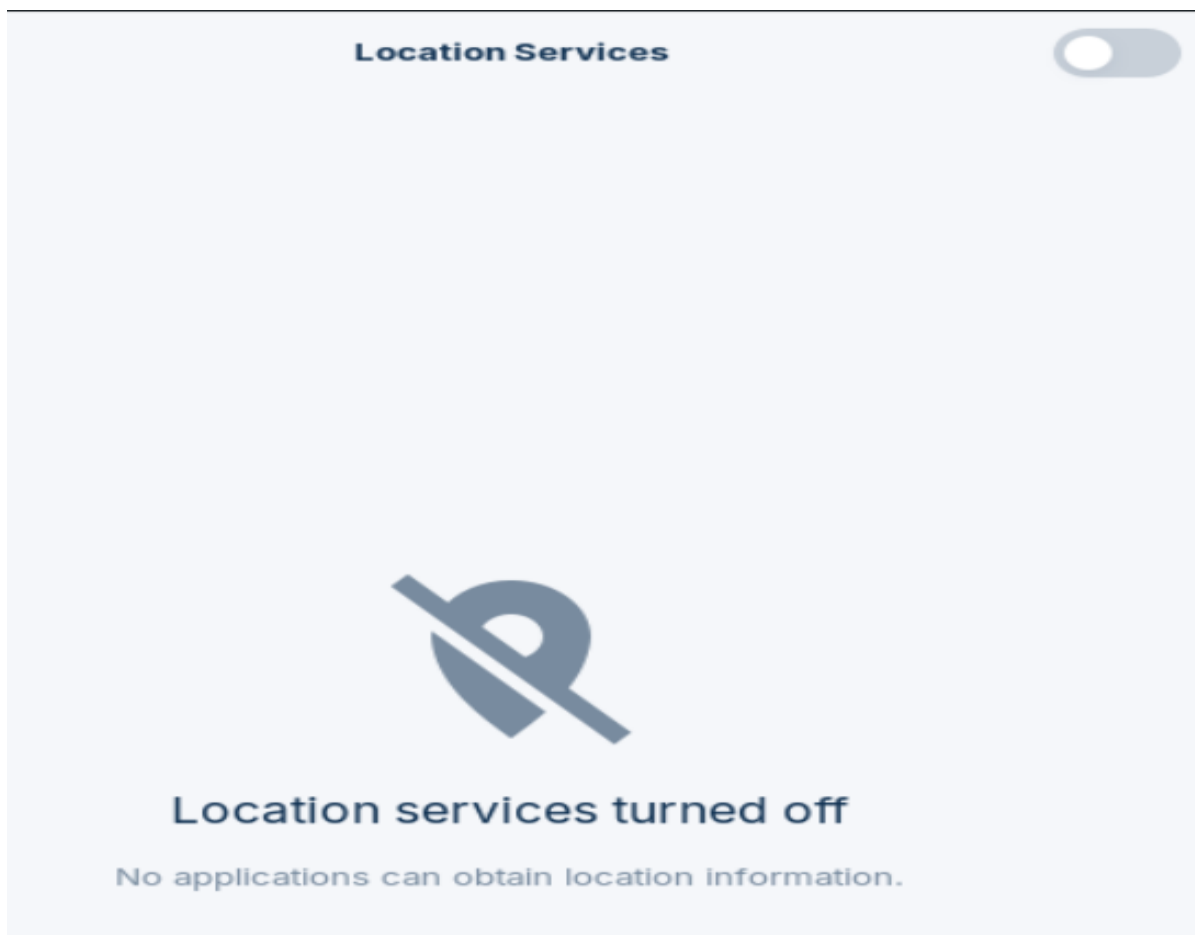
Connectivity

Connectivity checking is used to detect connection issues and helps you to stay online. If your network communications are being monitored, it could be used to gather technical information about this computer.

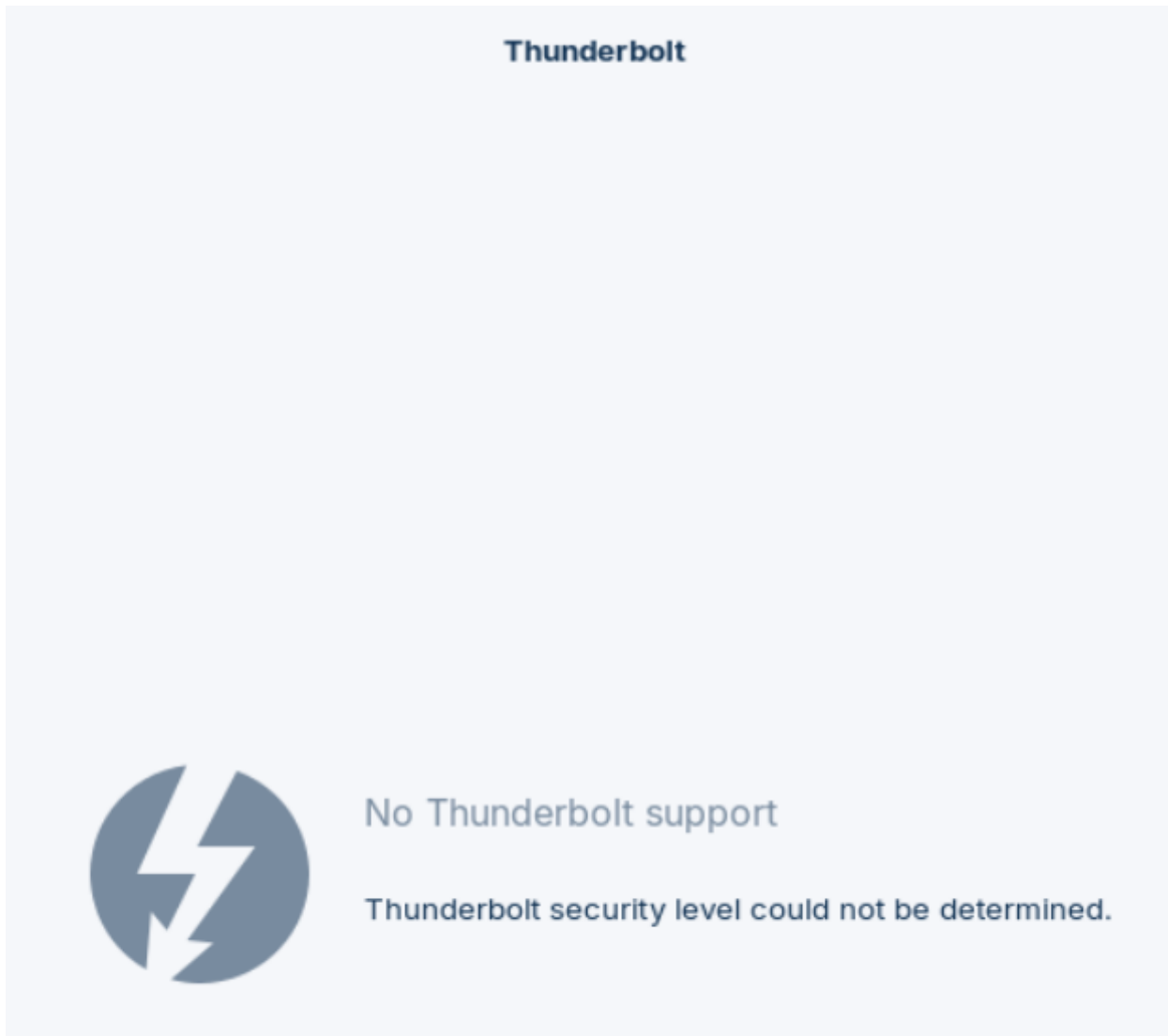
Connectivity Checking



Location Services - default setting is off.



Thunderbolt



Personally, I don't have such ports, but if I did, I would probably disable them!
<https://www.slashgear.com/809436/new-thunderbolt-hack-exposes-your-files-how-to-check-if-youre-safe-updated/>

File History & Trash

File History & Trash

File History

File history keeps a record of files that you have used. This information is shared between applications, and makes it easier to find files that you might want to use.

File History

File History Duration Forever ▾

Clear History...

Trash & Temporary Files

Trash and temporary files can sometimes include personal or sensitive information. Automatically deleting them can help to protect privacy.

Automatically Delete Trash Content

Automatically Delete Temporary Files

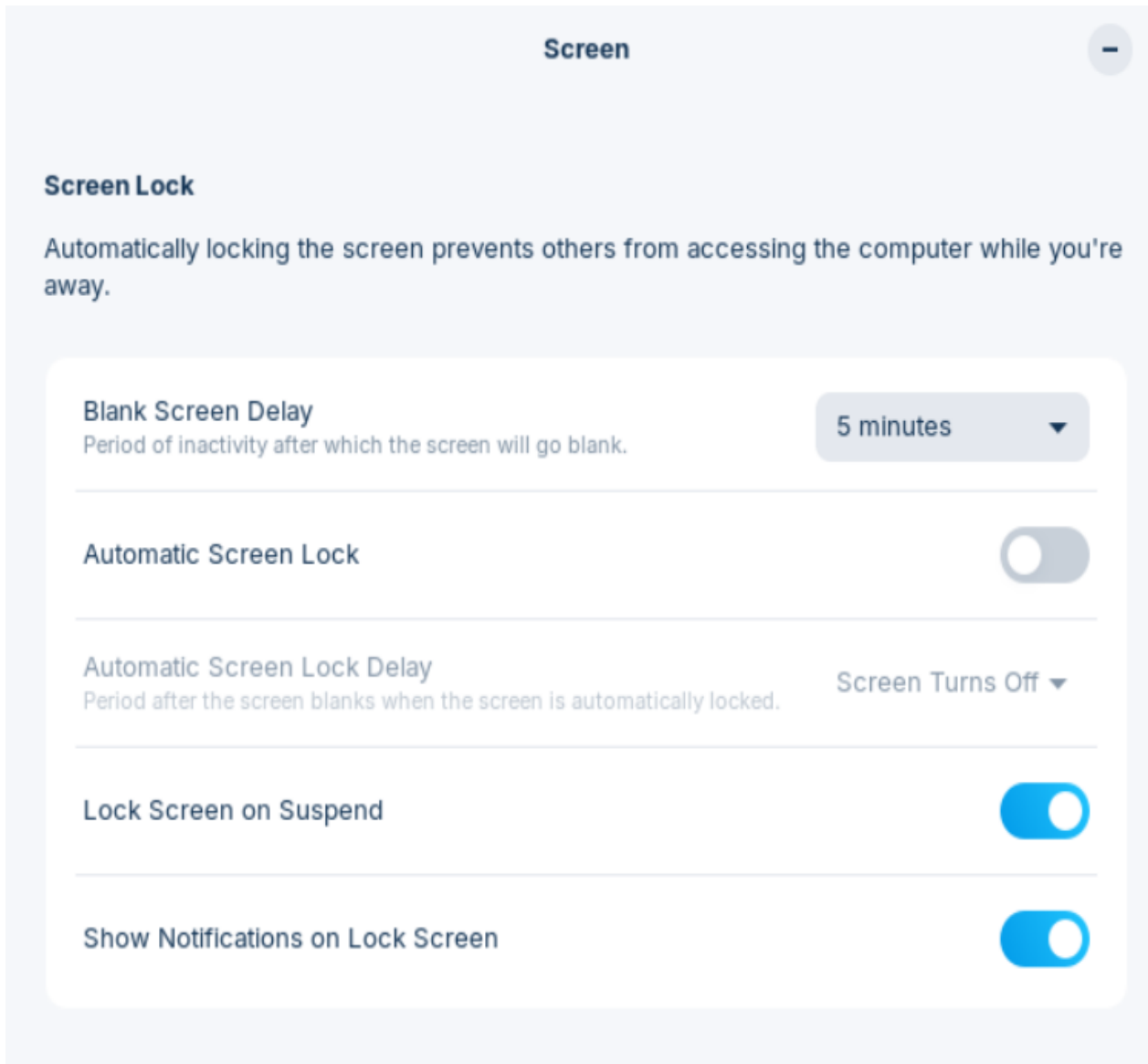
Automatically Delete Period 30 days ▾

Empty Trash... Delete Temporary Files...

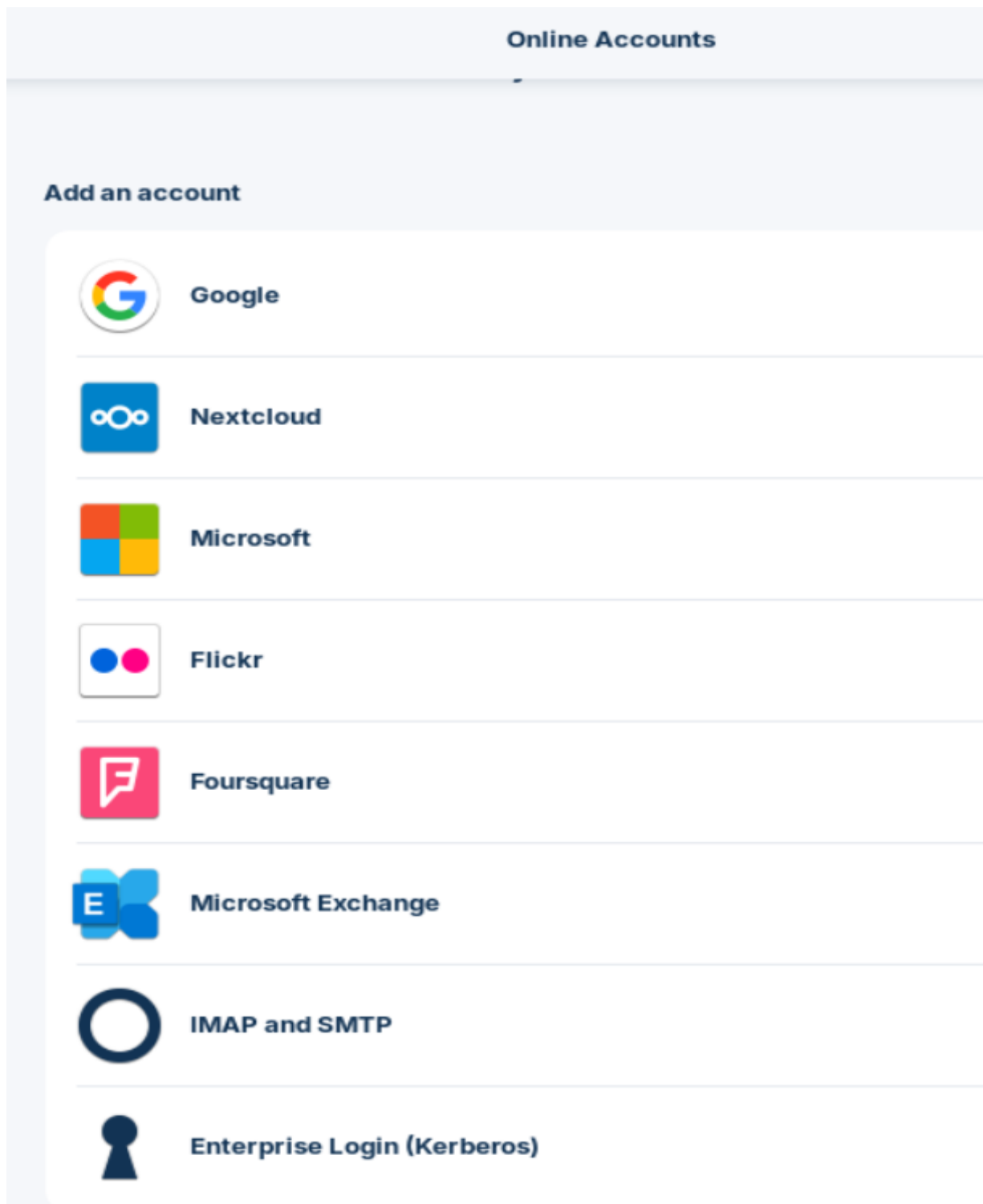
Always good to clear out your Temporary Files and File History as needed.

Screen

This is all to do with the Screen Lock settings. Remember Zorin has inherited Gnome Settings, so my comment is aimed at Gnome Devs - why not label the primary title of this section Screen Lock? (It could also be argued that Gnome Devs don't know how to use the alphabet! Notice how the different sections in Settings are not in Alphabetical Order? Also notice that they don't split items into different sections like you would get on other Desktop Environments!)



Online Accounts - Connect to your data in the cloud. The following services are available (Facebook is not listed because the Gnome Developers have never addressed the issue for over 7 years! That said, perhaps Facebook is not GNU/Linux friendly! I've never used Facebook, nor have any intention to do so in the future!)



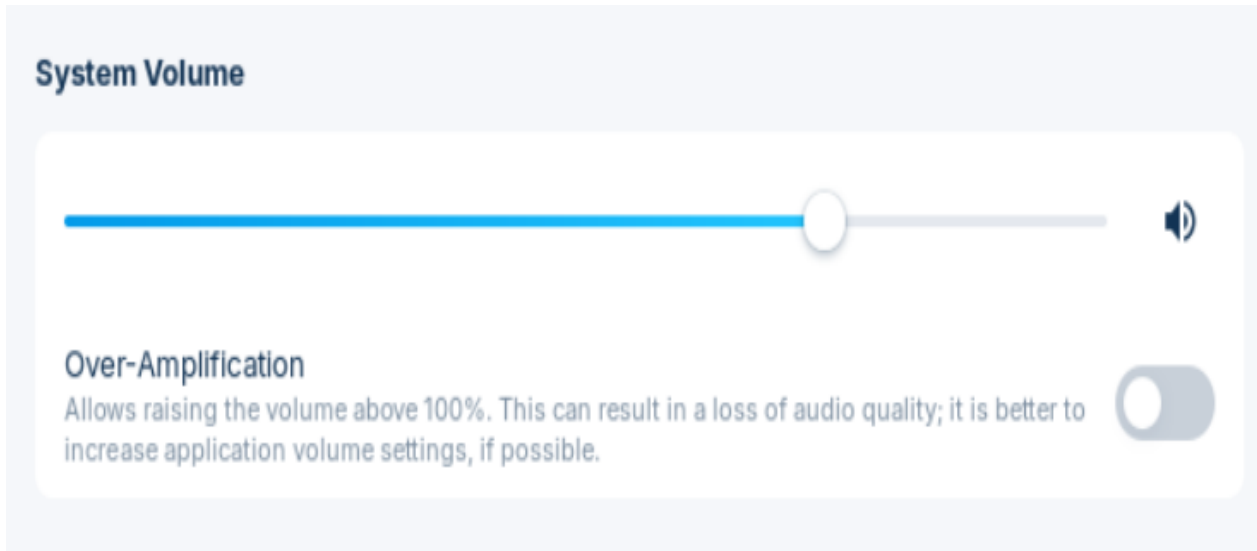
Sharing - let's you choose whether to share your Desktop remotely, or share your Media. The default setting is 'Off':



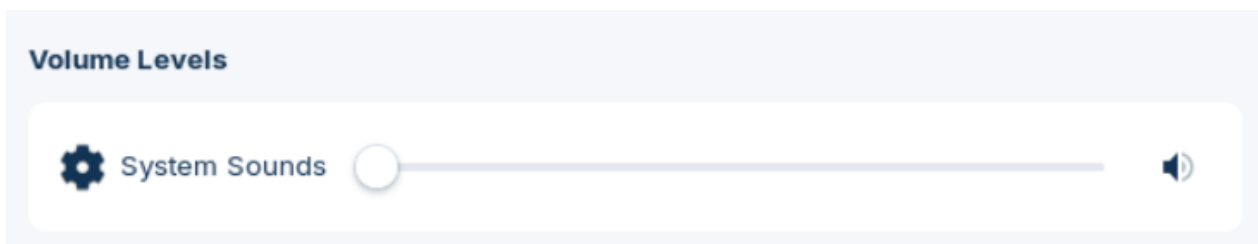
Sound

This item is split into 5 subcategories:

System Volume - This is basically the 'Global' settings of your Sound Volume.



Volume Levels - this is with regard to System Sounds, default is muted.



Output - this indicates the source of your Audio, whether it be on-board sound that comes with your motherboard, or a Sound Card, such as a Sound Blaster Audigy 5Rx which is what I have but the screenshot is from a VM so it is using a passthrough from the Sound Card. You can also adjust the Balance between the speakers.



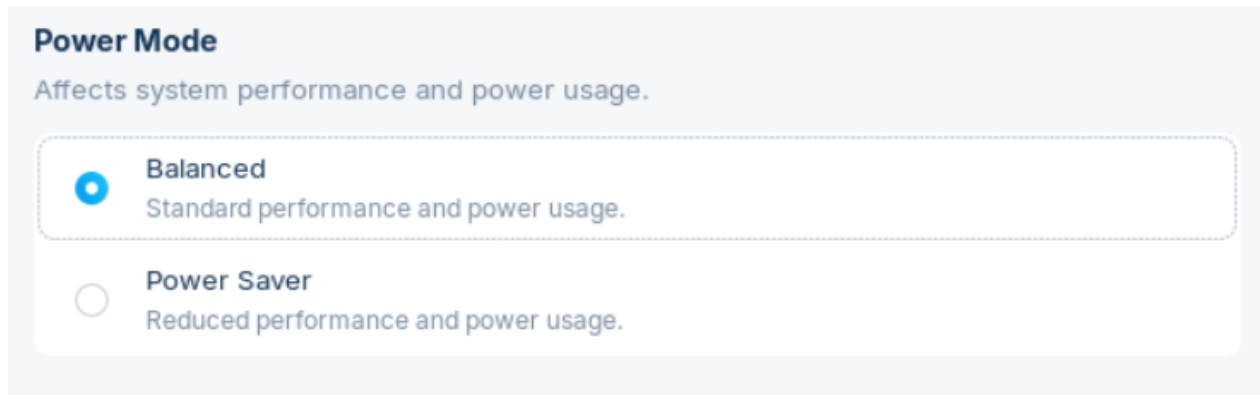
Input - The usual default device will be a Microphone, either attached to the jack port of your onboard, or if you have a webcam attached, the drop-down arrow would reveal that.



Power

This is split into two sections, **Power Mode** and **Power Saving Options**.

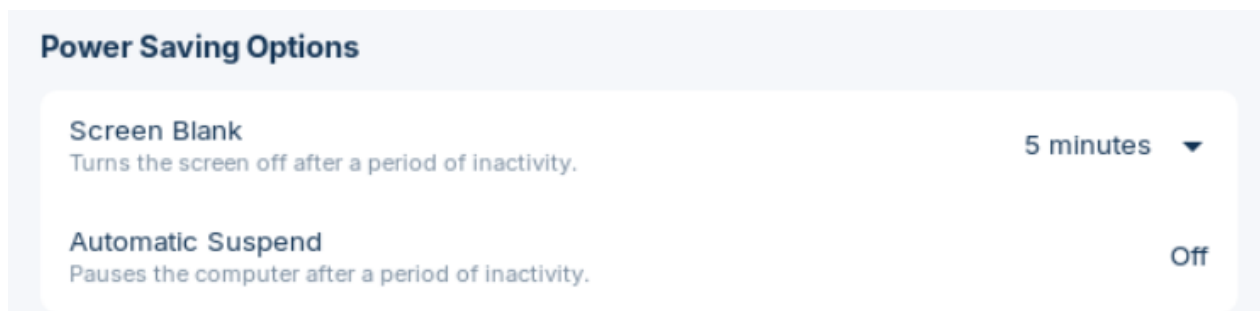
Power Mode:



Power Mode
Affects system performance and power usage.

- Balanced**
Standard performance and power usage.
- Power Saver**
Reduced performance and power usage.

Power Saving Options:

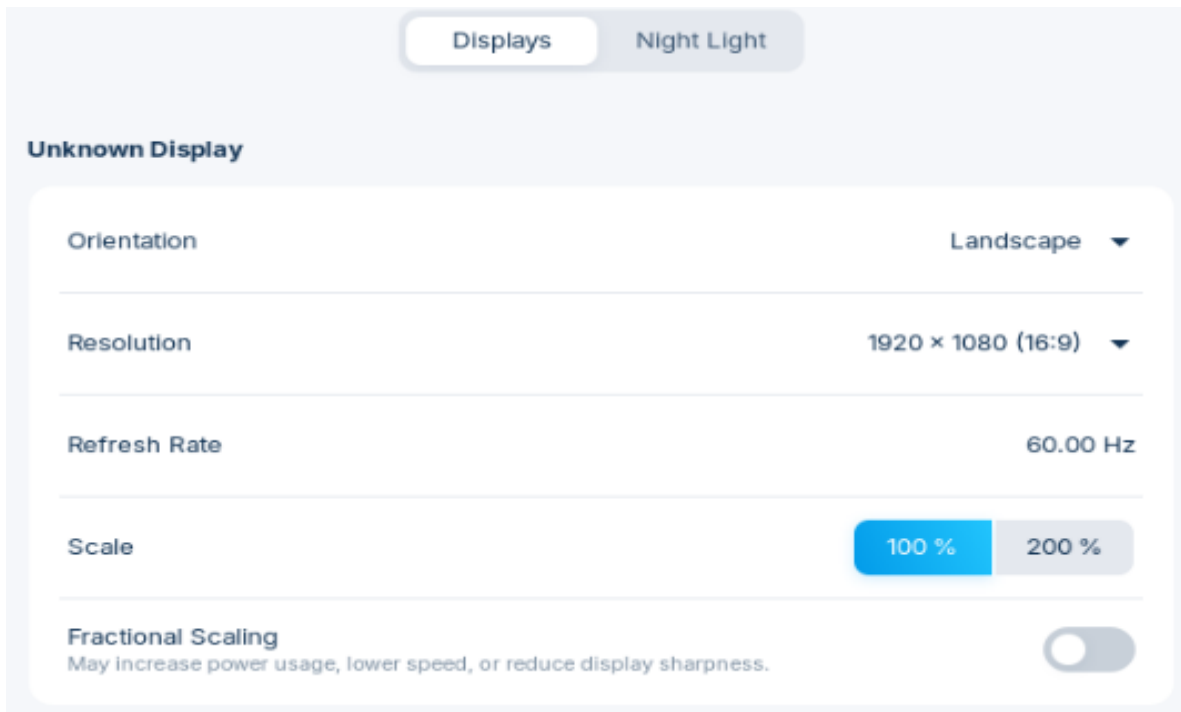


Power Saving Options

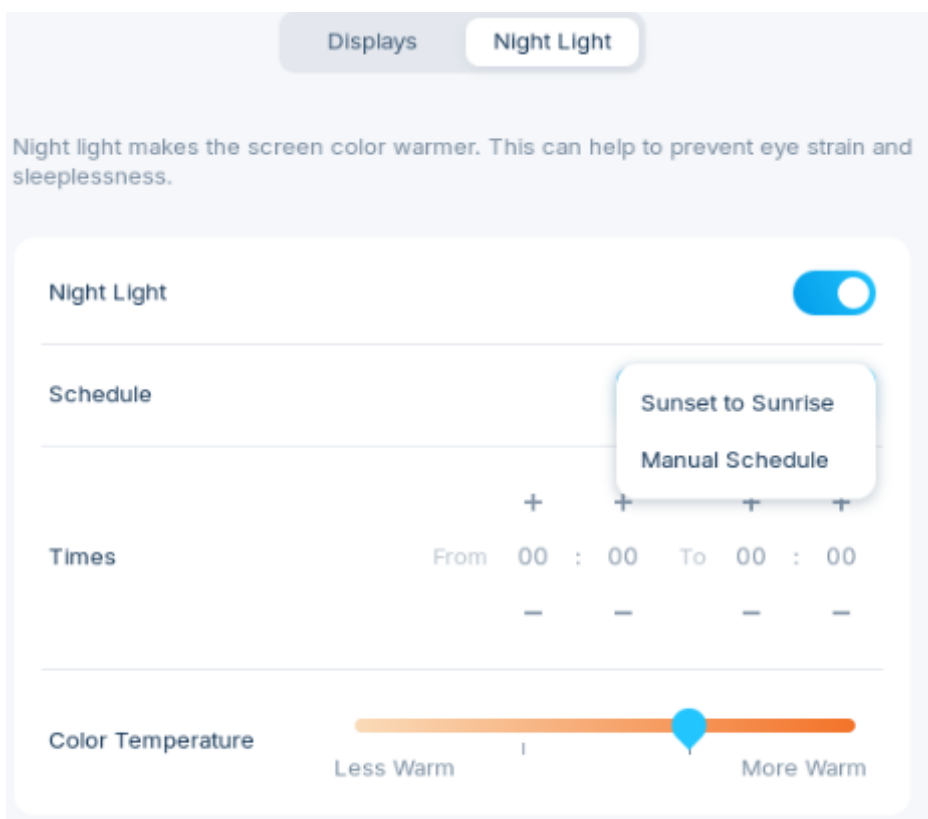
- Screen Blank**
Turns the screen off after a period of inactivity. 5 minutes ▼
- Automatic Suspend**
Pauses the computer after a period of inactivity. Off

Screen Blank - the default is set for the display (monitor) to go Blank after 5 minutes. Other options are for 1, 2, 3, 4, 8, 10, 12, 15 minutes, or Never.

Displays - This section concerns information about your monitor. As the screenshot is from a VM of Zorin 17 Beta, running inside of Zorin 17 Beta, it reports that the Display (make) is unknown.



Night Light requires you to either use Location Services so that the screen changes from a blue hue to a warmer red one, or you can set the time manually to your preferences.



Mouse & Touchpad

Mouse & Touchpad

Test Your Settings

General

Primary Button
Sets the order of physical buttons on mice and touchpads. Left Right

Mouse

Mouse Speed —————○—————

Mouse Acceleration

Natural Scrolling
Scrolling moves the content, not the view.

You can make adjustments and then **Test Your Settings**:

Mouse & Touchpad

Test Your Settings

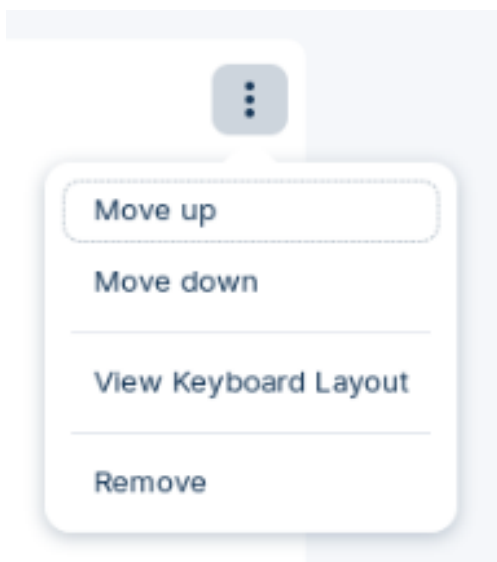
Try clicking, double clicking, scrolling

Keyboard - This section has four sub categories, **Input Sources**, **Input Source Switching**, **Special Character Entry**, and **Keyboard Shortcuts**.

Input Sources: The default options are shown.



Clicking on the '+' button allows you to add the Locale of your choice. Clicking on the three vertical buttons to the far right of each locale brings up the following options:



Printers

Before looking at printer installation we need to disable 'autodiscovery', otherwise you will end up with multiple instances of your printer!

So first off, open a Terminal (Ctrl+ Alt+ T or Menu | Utilities | Terminal) and enter:

```
sudo systemctl stop cups-browsed
```

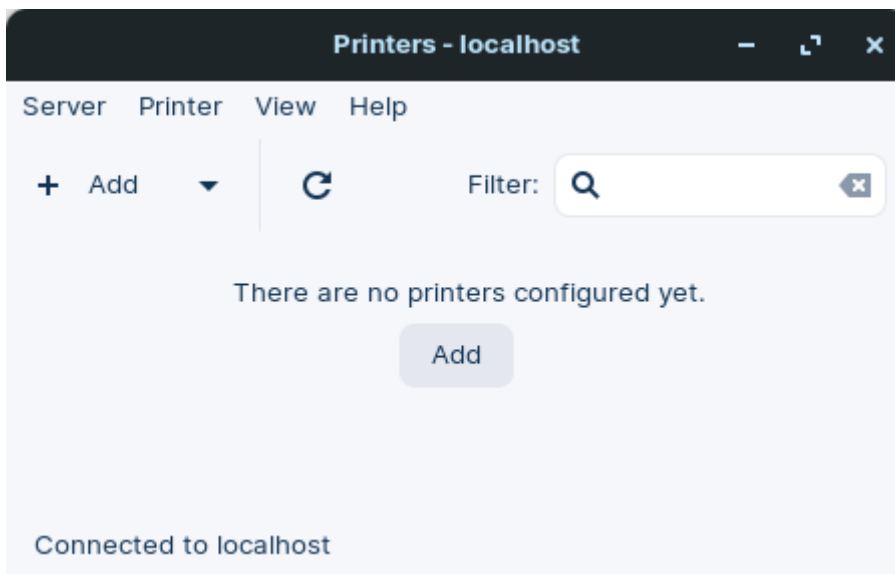
Followed by:

```
sudo systemctl disable cups-browsed
```

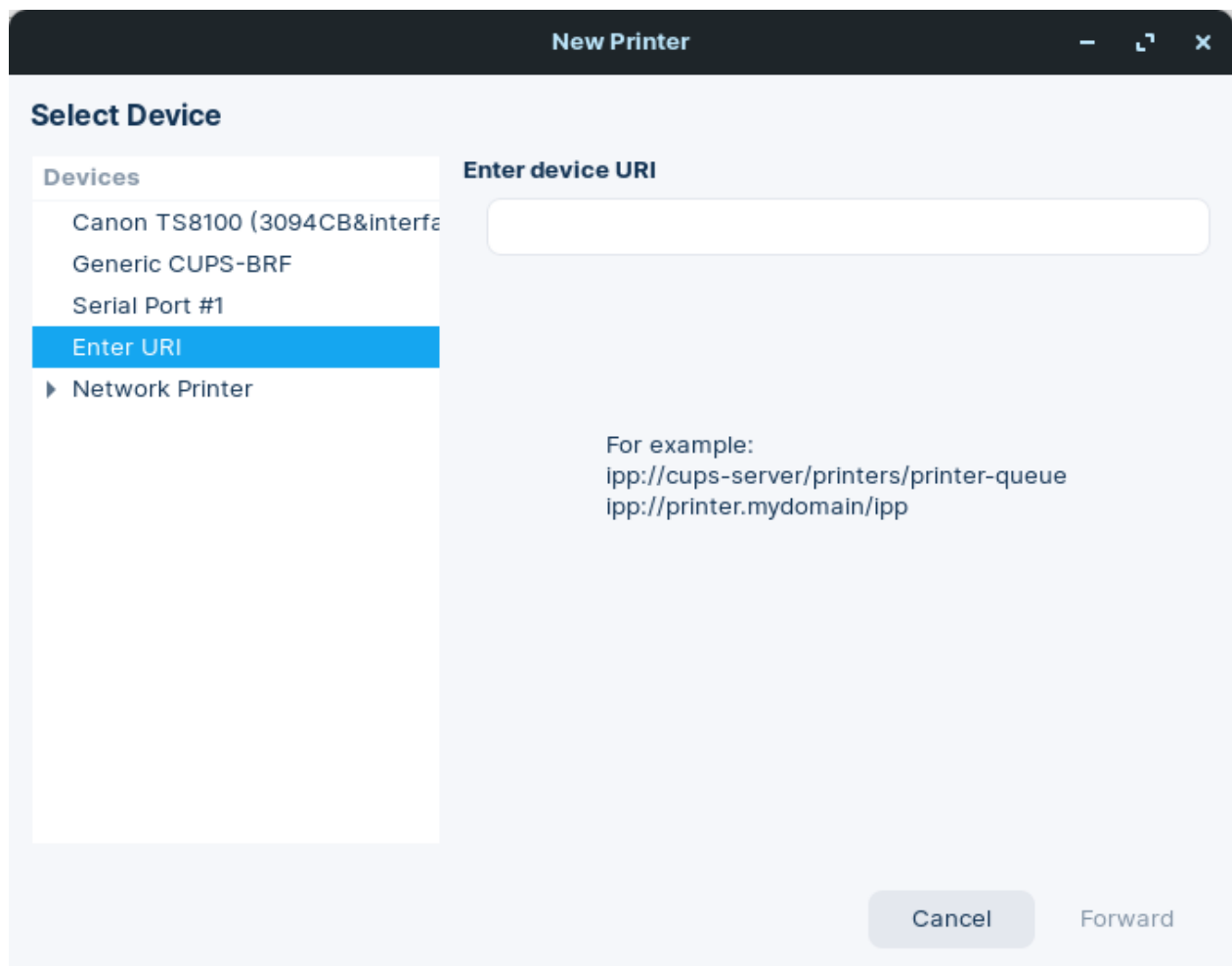
Once you have done this enter:

```
sudo system-config-printer
```

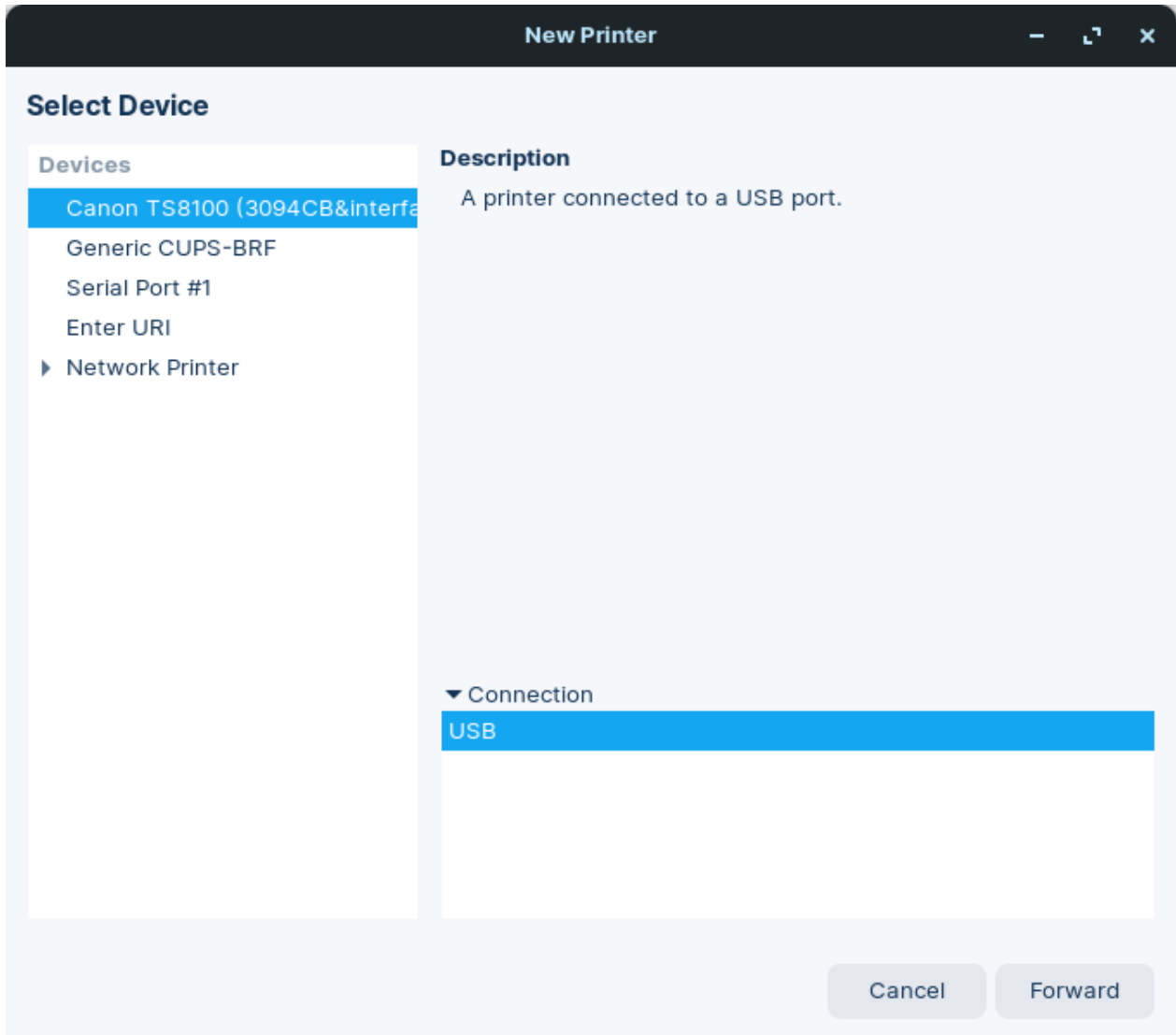
This brings up the following interface and as you have launched it with 'root' privileges (sudo command) it will be better for install. You will need to provide your user password, or the **administrator** password if you have setup a separate admin user, with yourself as a standard user like me.



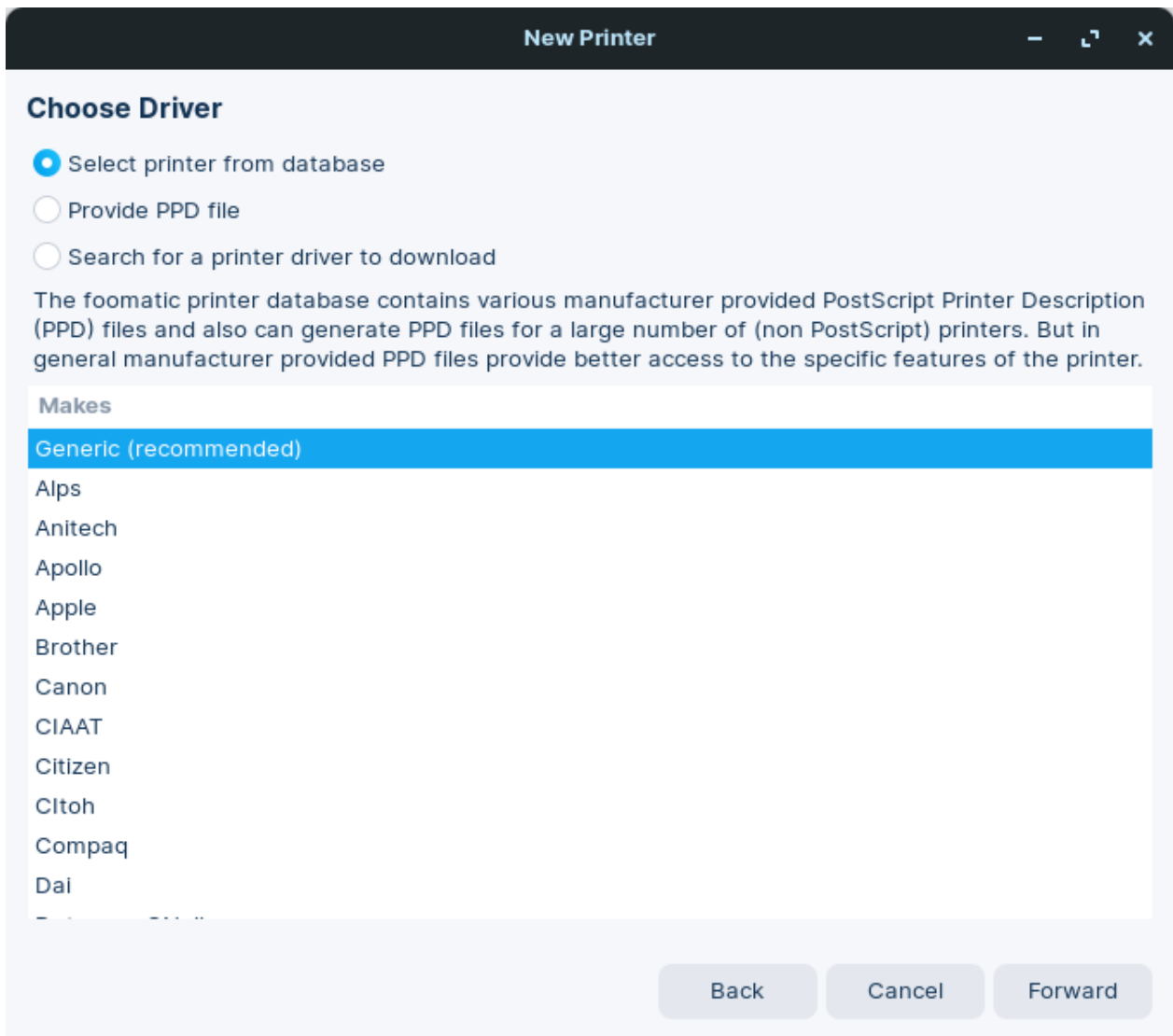
Click on **Add** and the following interface appears:



If you see something like the top entry here, you may think Printers application has detected the printer is connected via USB, but it is **driverless**:

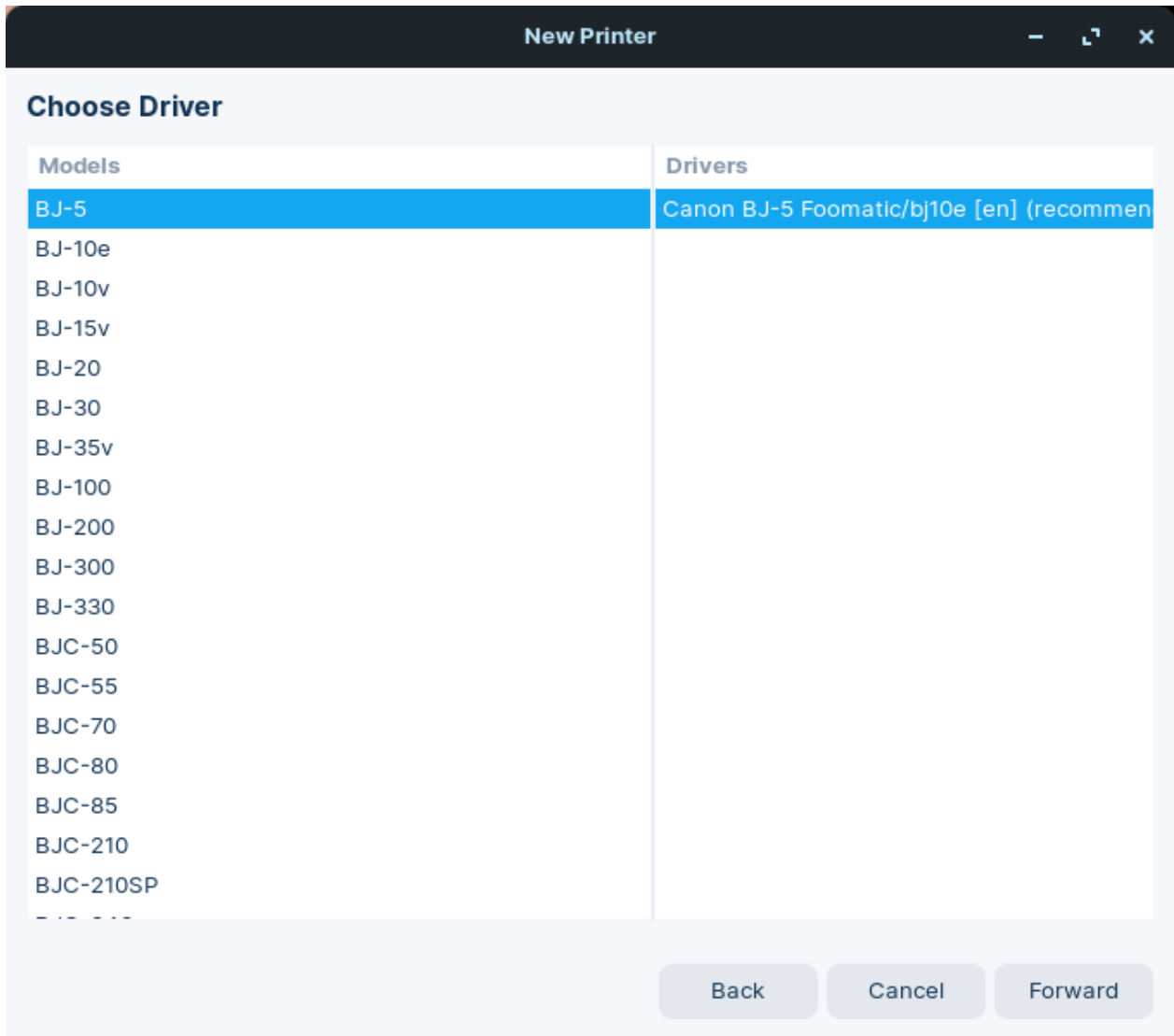


Then select the Forward Button and a new window appears with **Choose Driver** as shown on the next page.

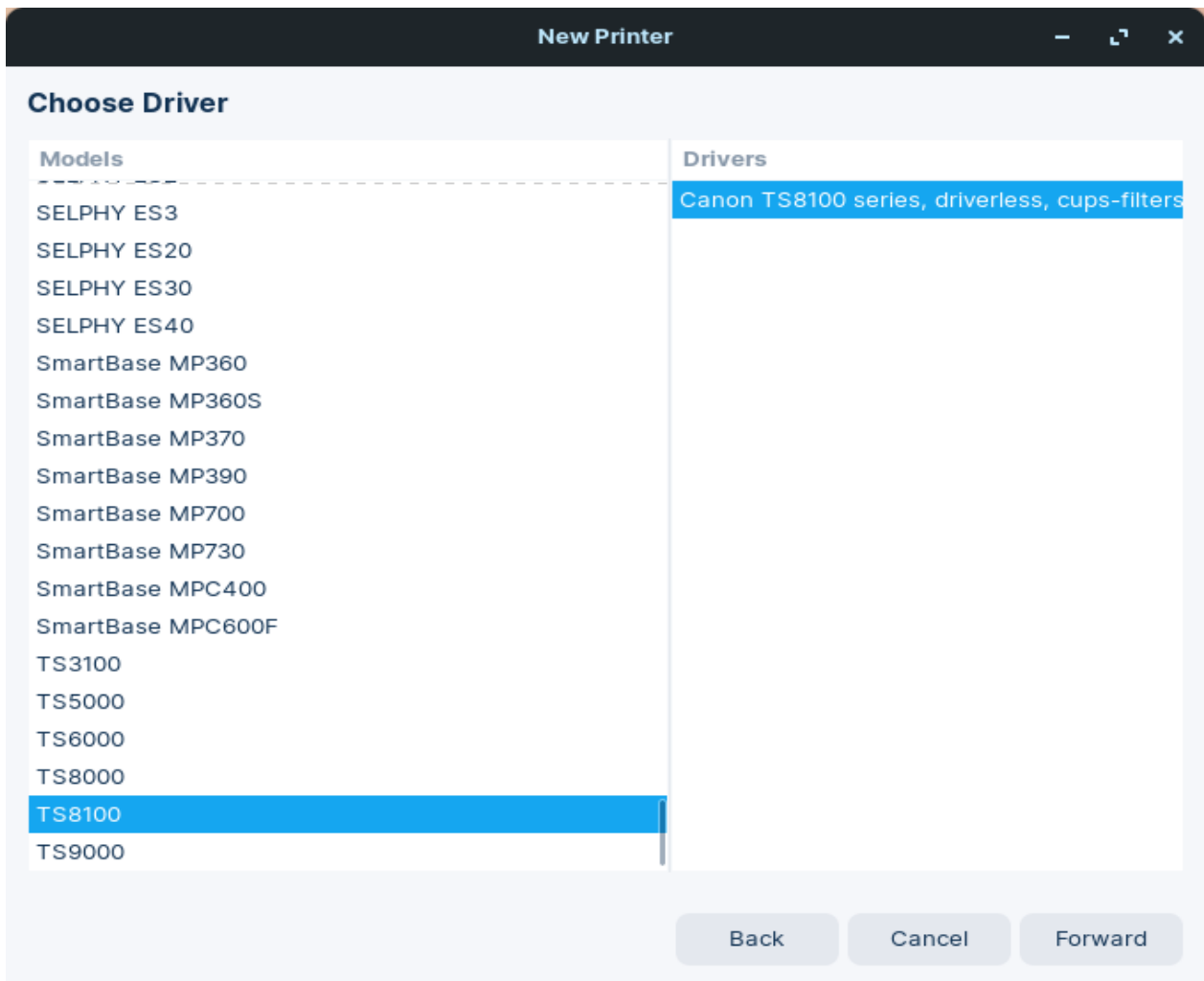


You will need to scroll down until you see the manufacturer's name of your printer. In my case it is Canon. And once we have found the correct name, select **Forward** bottom right of the window.

A window now appears with numerous models made by the manufacturer of your printer, scroll down until you find it:



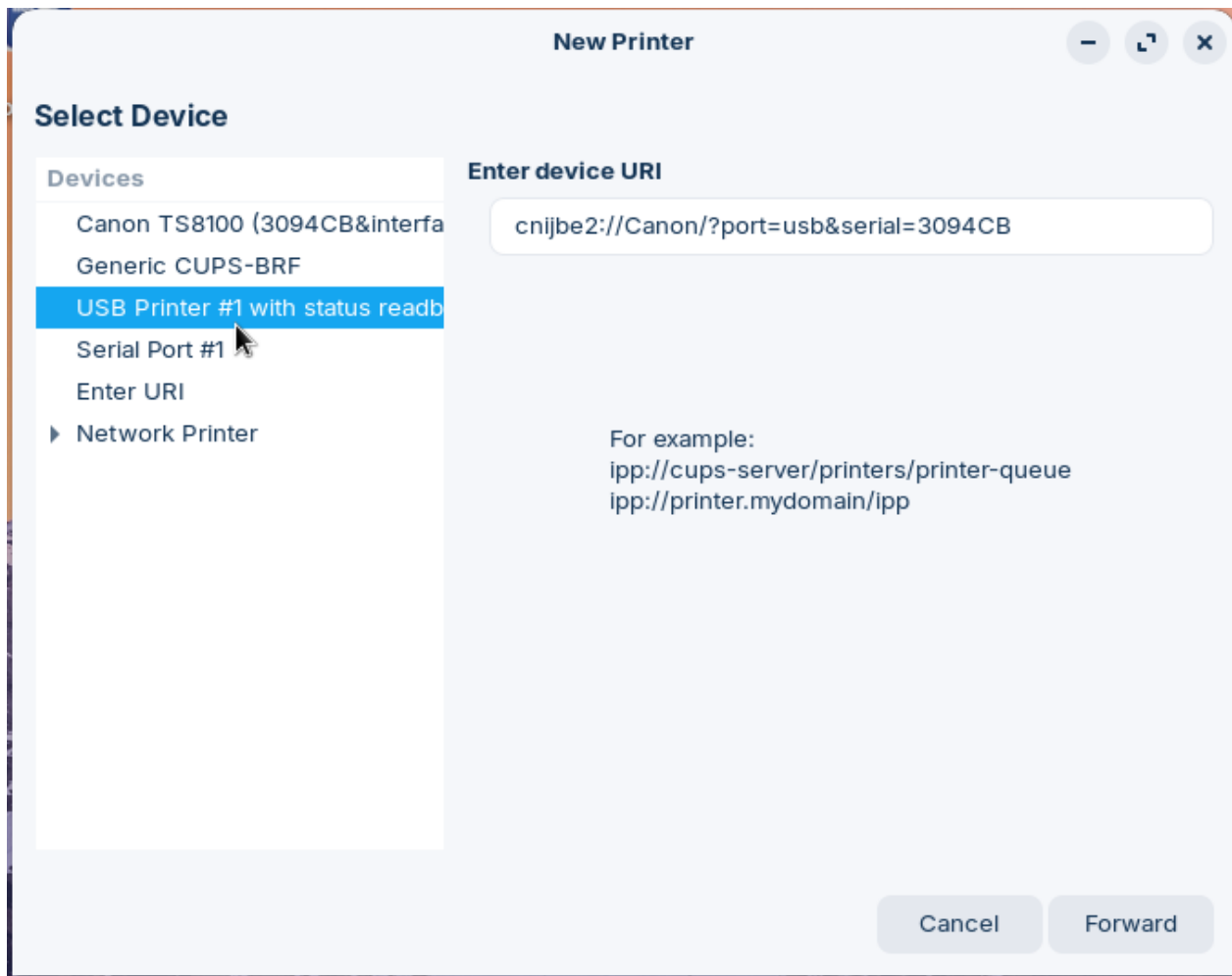
In my case, for my Pixma TS-8151 printer I need to choose the TS8100 series driver.



However, note what it says in the Drivers pane ... **driverless** ... which means we are going to have to visit Canon support page to download the Linux driver which is this one:

Just as we did for the Scanner driver we need to extract the tarball and install the amd64.deb file from **packages**.

Launching via command line again things have changed!



A new entry has appeared, and if we click on forward:

New Printer [- [[x]

Describe Printer

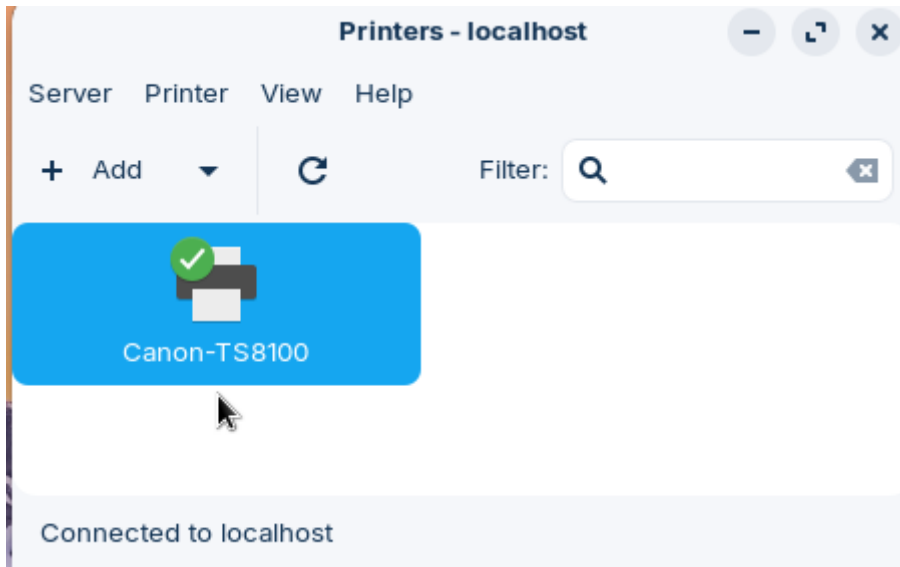
Printer Name
Short name for this printer such as "laserjet"

Description (optional)
Human-readable description such as "HP LaserJet with Duplexer"

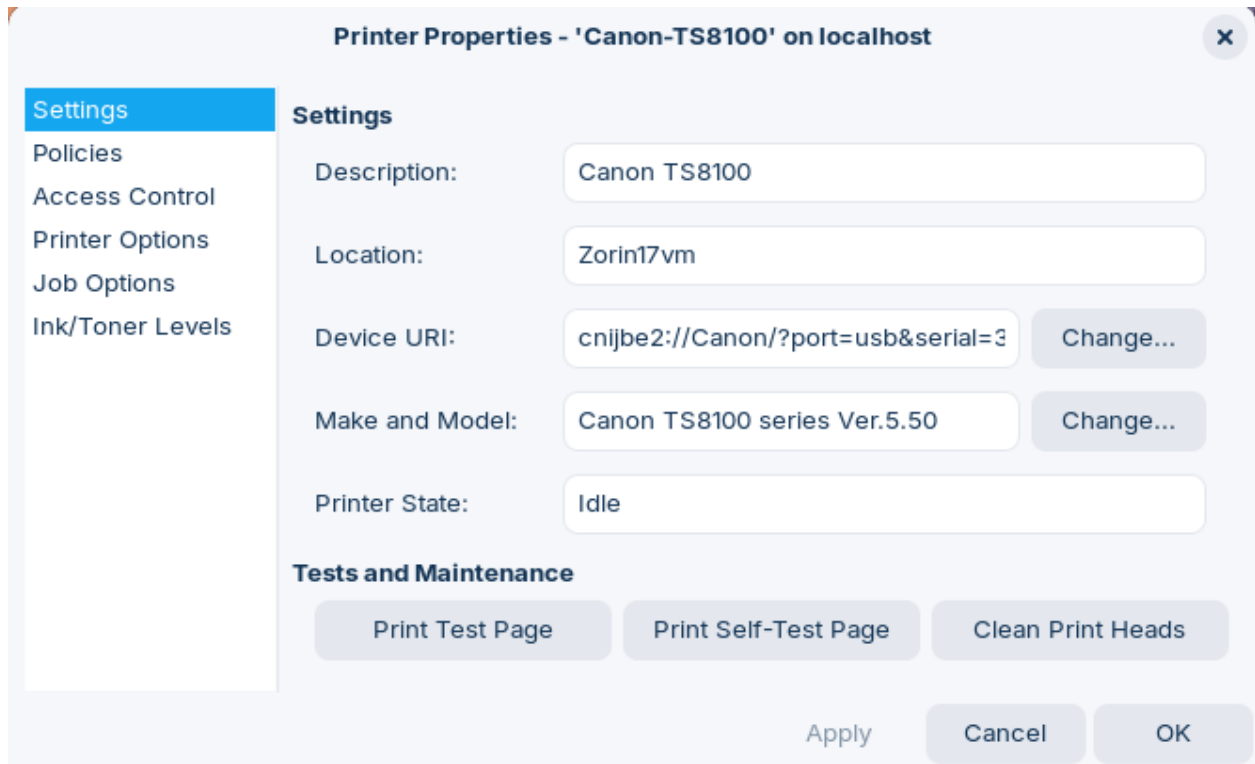
Location (optional)
Human-readable location such as "Lab 1"

[Back] [Cancel] [Apply]

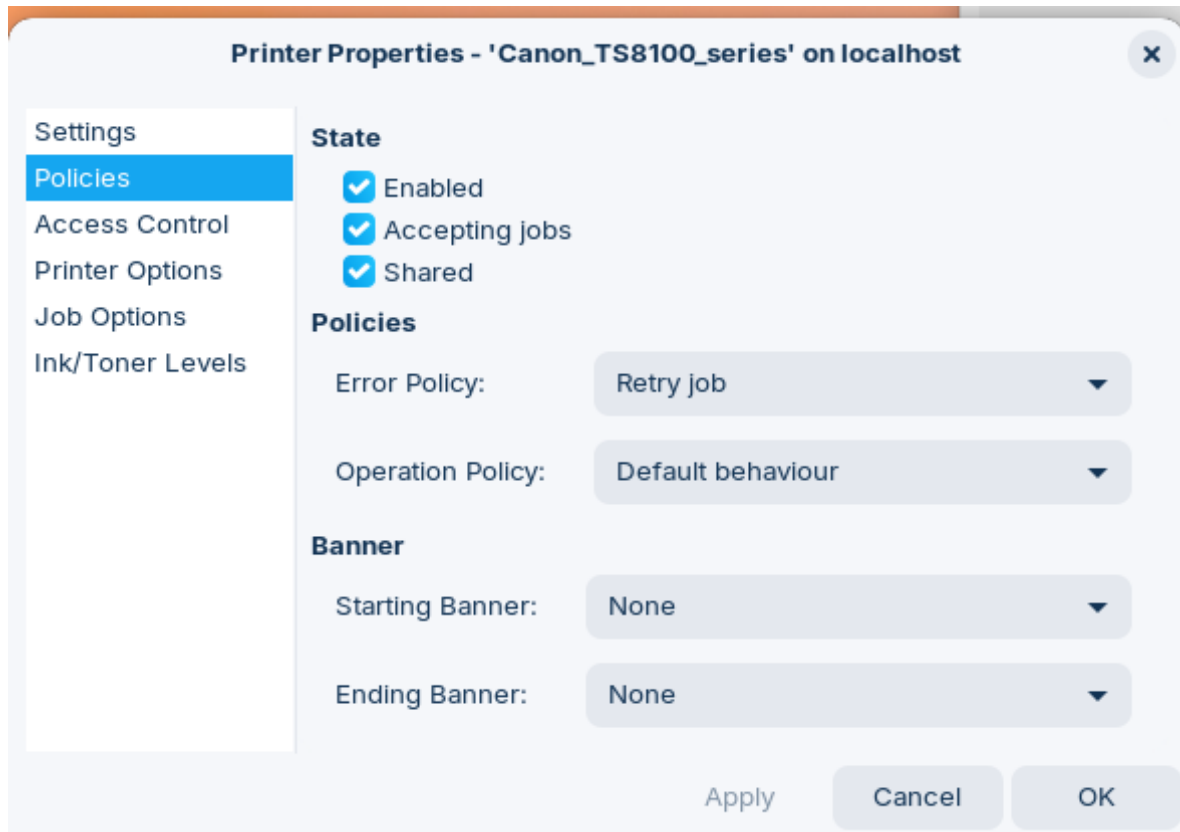
and then **Apply**:



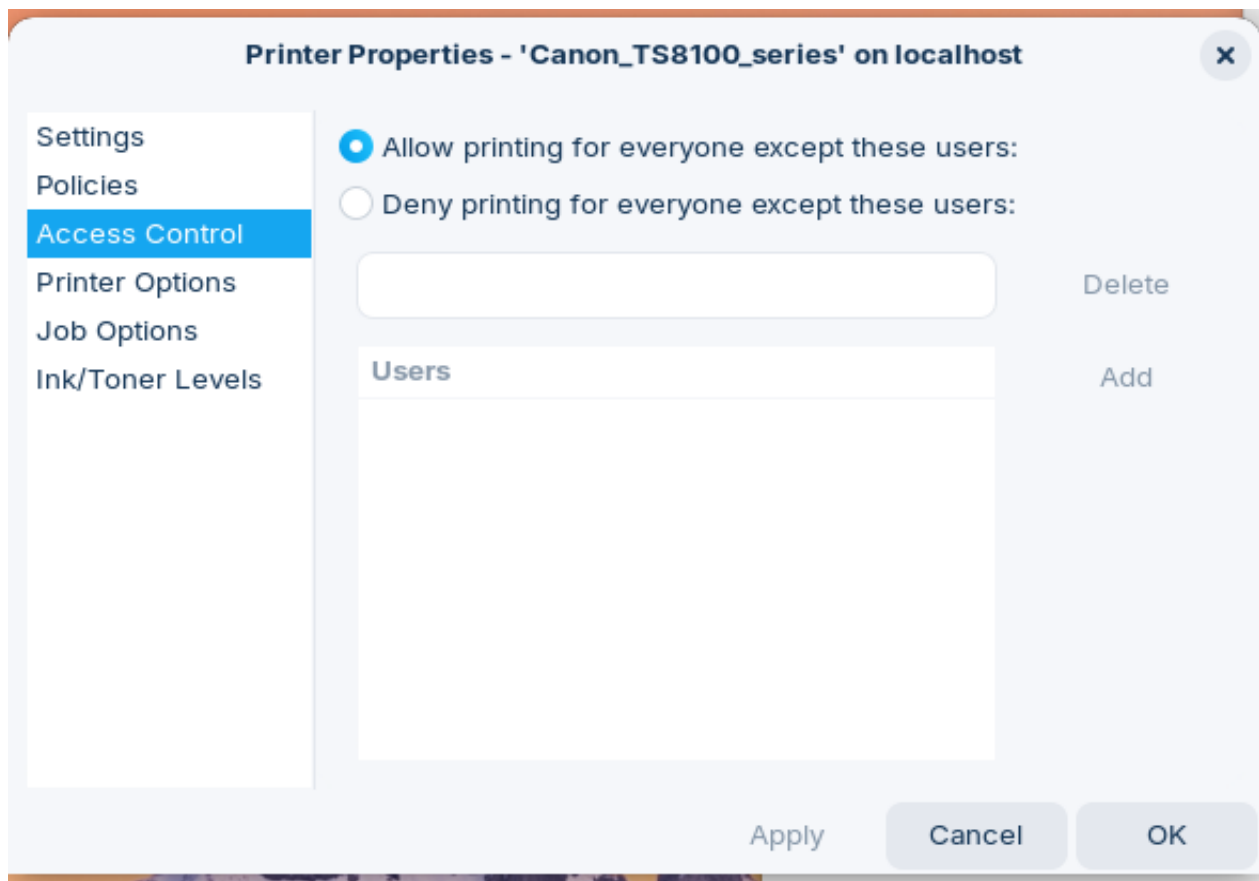
Then right-clicking the printer icon and selecting **Properties** we can see that the Canon 5.50 driver is in use under **Settings**:



The next item is **Policies:**



Access Control (Decide who has printing rights and who hasn't if any):



Printer Options:

Printer Properties - 'Canon_TS8100_series' on localhost ✕

- Settings
- Policies
- Access Control
- Printer Options**
- Job Options
- Ink/Toner Levels

General

Media Size: A4 ▼

Media source: Main ▼

Media Type: Stationery ▼

Print Color Mode: Monochrome ▼

2-Sided Printing: Off ▼

Output Tray: Face Up ▼

Print Quality: Normal ▼

Print Scaling: Automatic ▼

Apply Cancel OK

Job Options:

Printer Properties - 'Canon_TS8100_series' on localhost

Specify the default job options for this printer. Jobs arriving at this print server will have these options added if they are not already set by the application.

Common Options

Copies: - +

Orientation: ▾

Scale to fit

Pages per side: ▾

▶ More

Image Options

Mirror

Scaling: - + %

▶ More

Text Options

Characters per inch: - +

Lines per inch: - +

Left margin: - + points

Right margin: - + points

Top margin: - + points

Bottom margin: - + points

▶ More

Other Options (Advanced)

cups-browsed: ▾ -

job-cancel-after: - + -

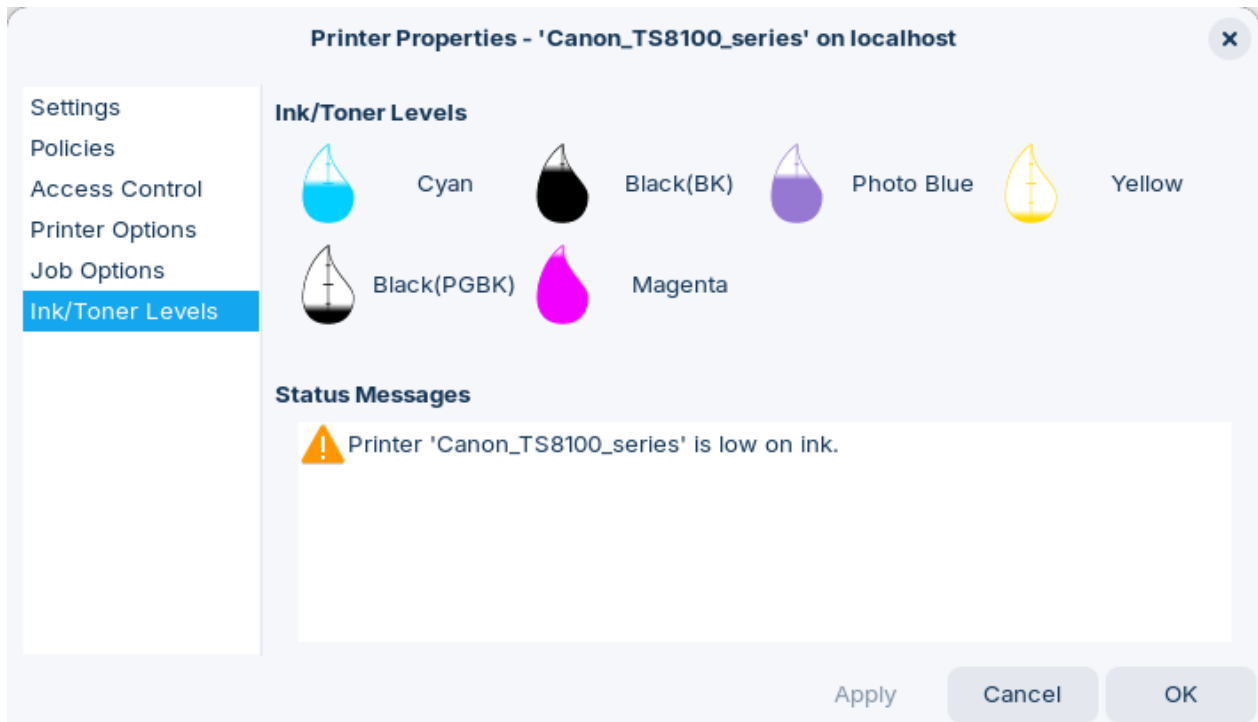
print-color-mode: ▾ -

To add a new option, enter its name in the box below and click to add.

Ink/Toner Levels:

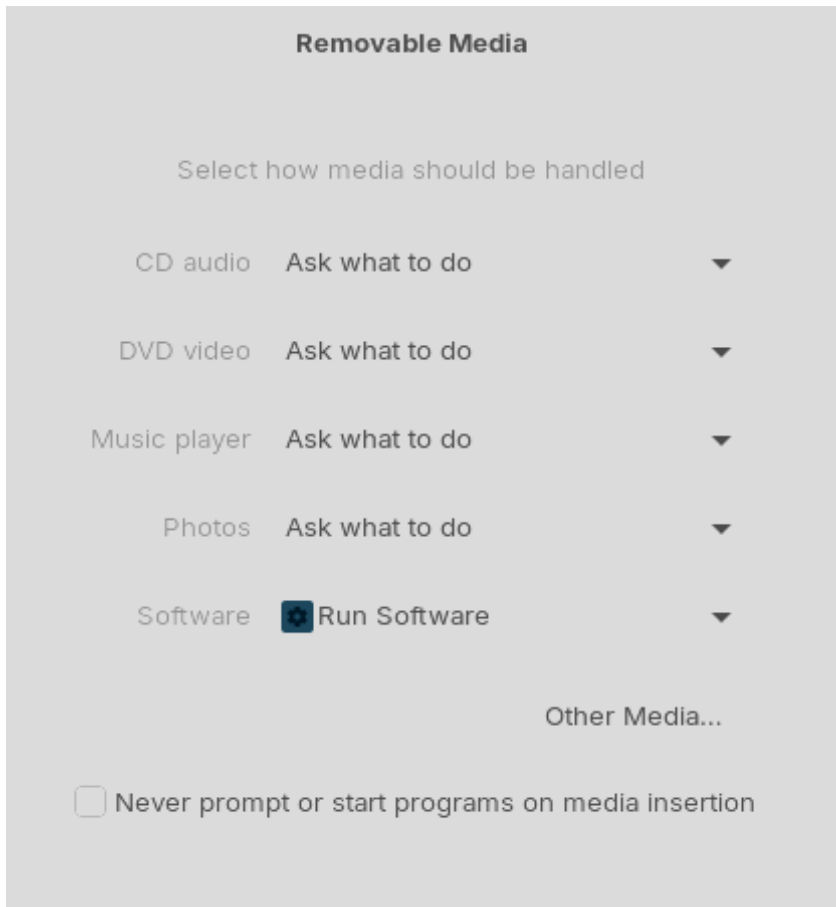
This will be blank until you have printed a **Test Page**.

In my case the Icon of the Printer has now changed to include an orange triangle with a white exclamation mark - this indicates that one of the ink cartridges is getting low/empty. So when we now check the **Ink/Toner Levels** section we get an accurate reflection of what the Printer LCD screen reports:

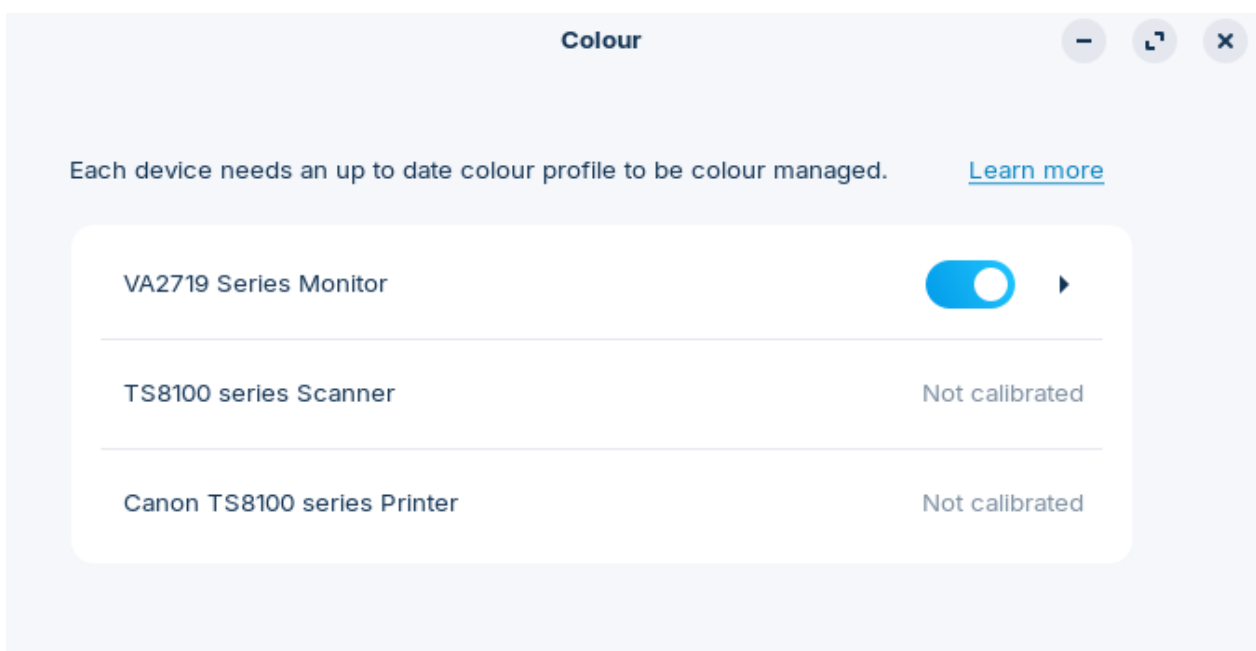


Removable Media:

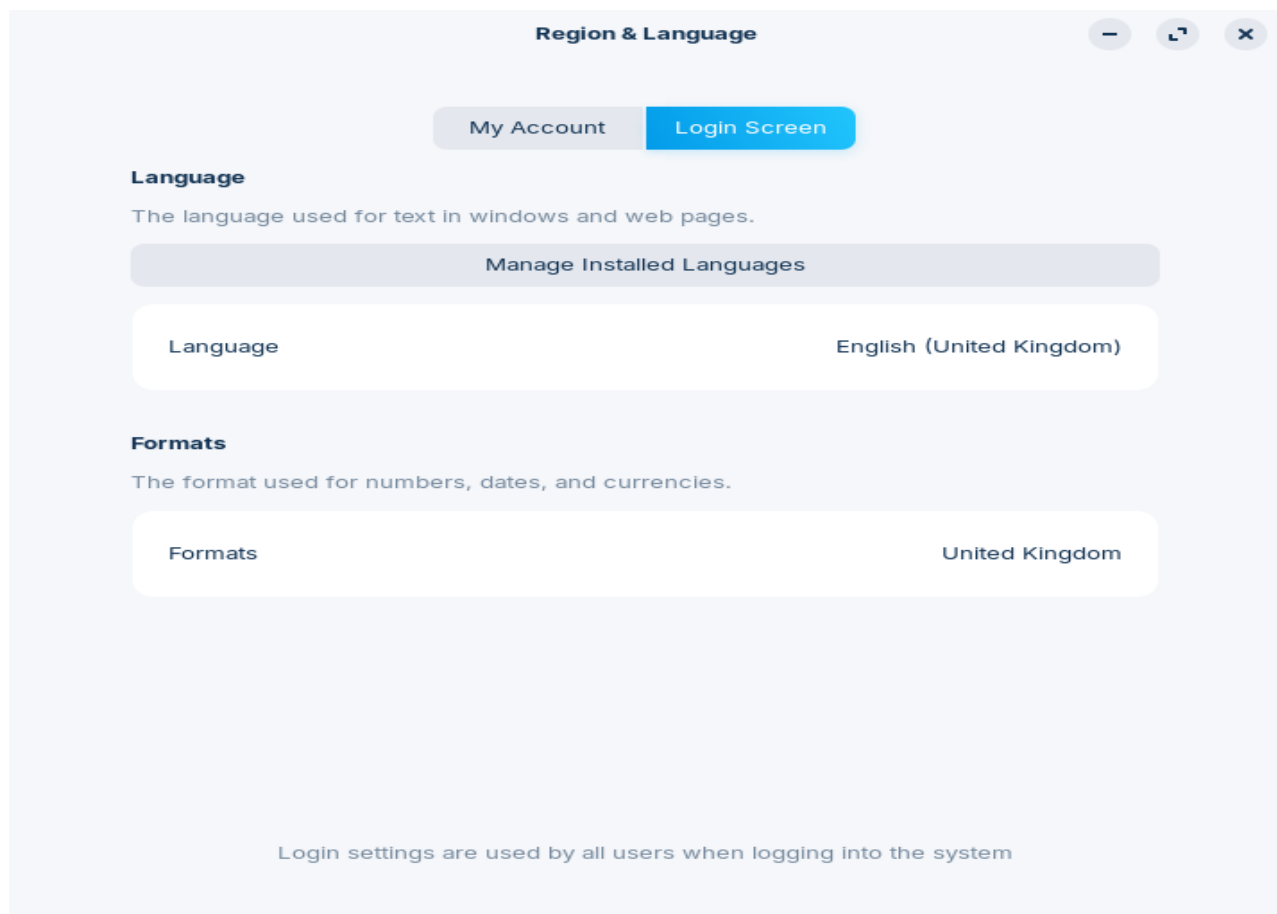
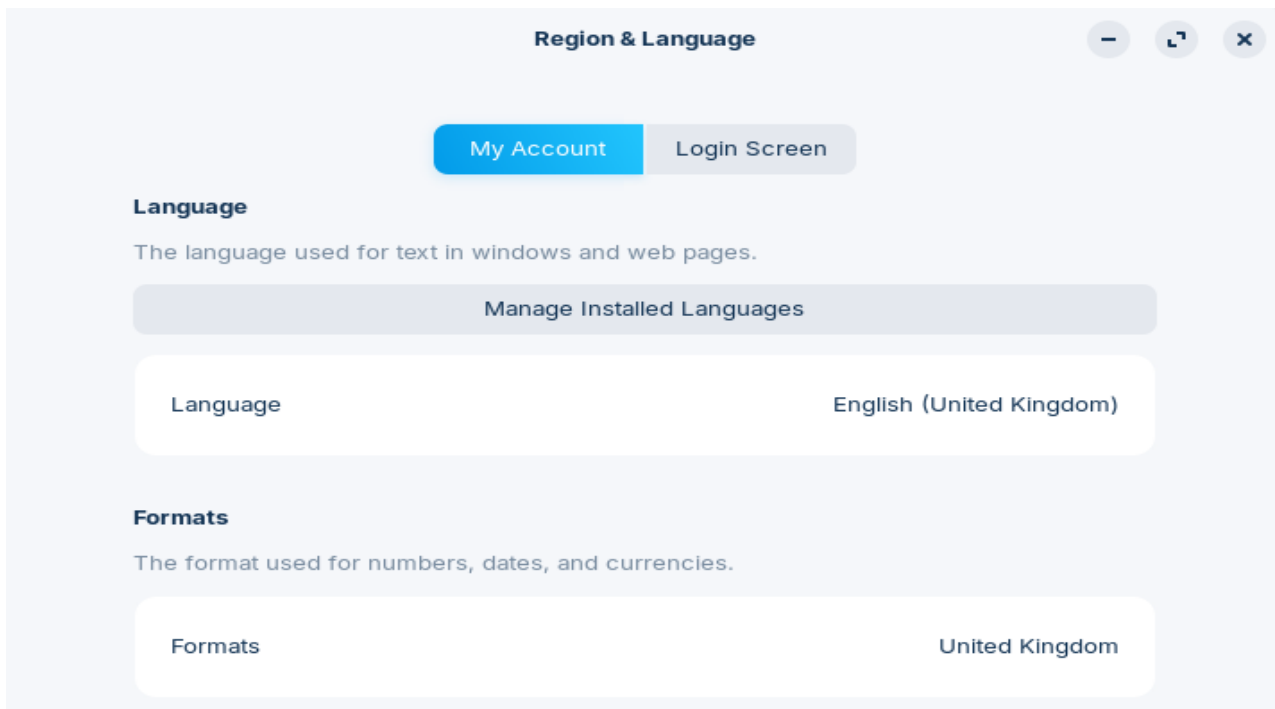
This section of **Settings** has settings on how different media should be handled, **Ask what to do**, **Do nothing**, **Open folder**.



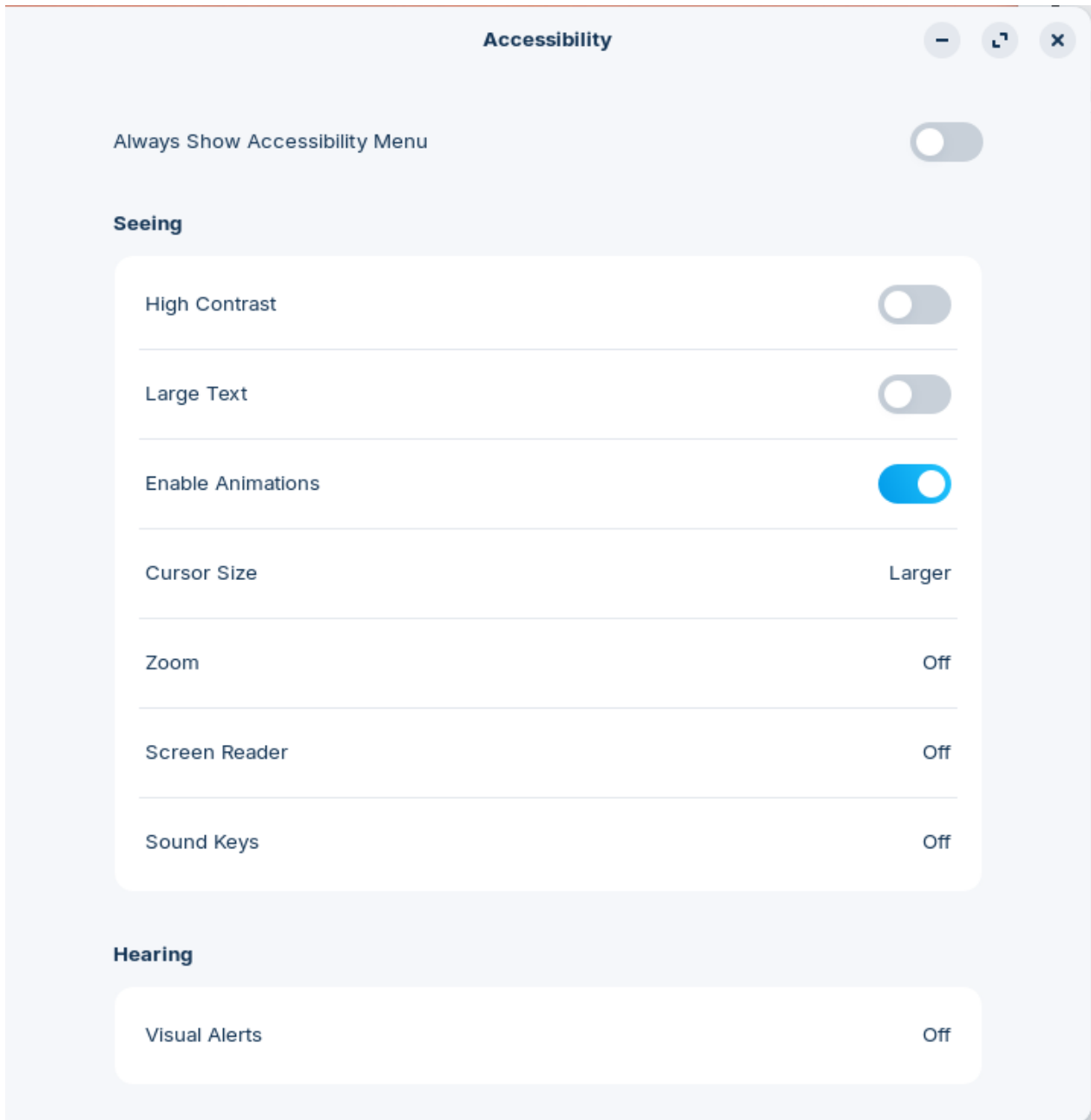
Colour - Each device needs an up to date colour profile to be colour managed.



Region & Language - There are two items, **My Account** and **Login Screen**, Only just discovered that during install I selected English United Kingdom and it has only changed **My Account**! Had to change **Login Screen** from English United States to English United Kingdom!

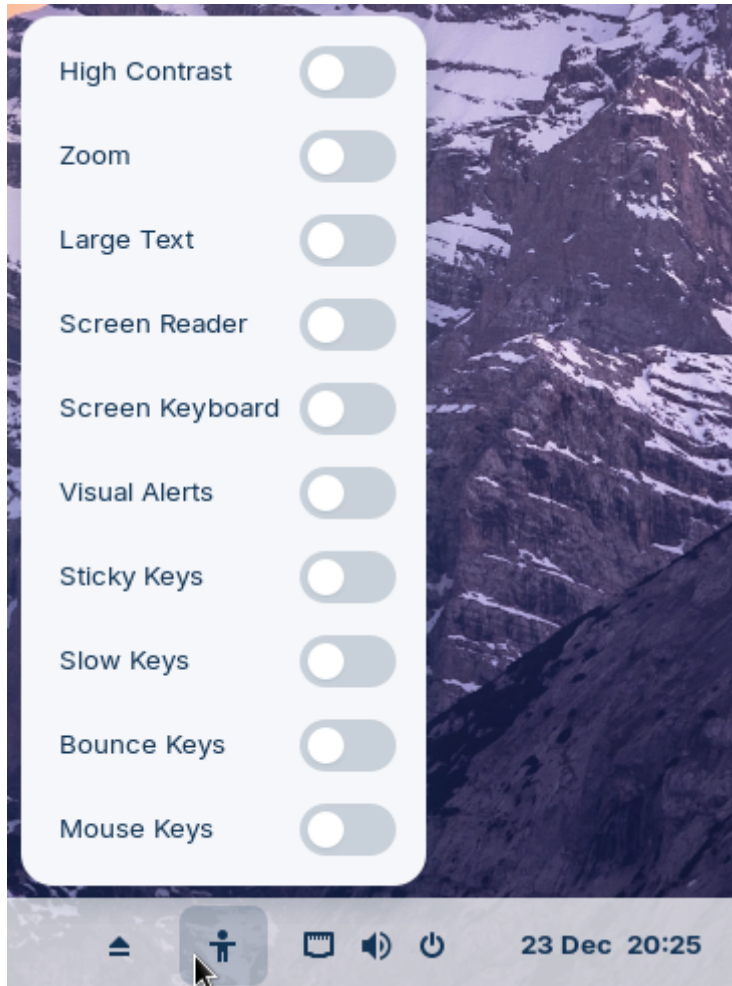


Accessibility (top half)

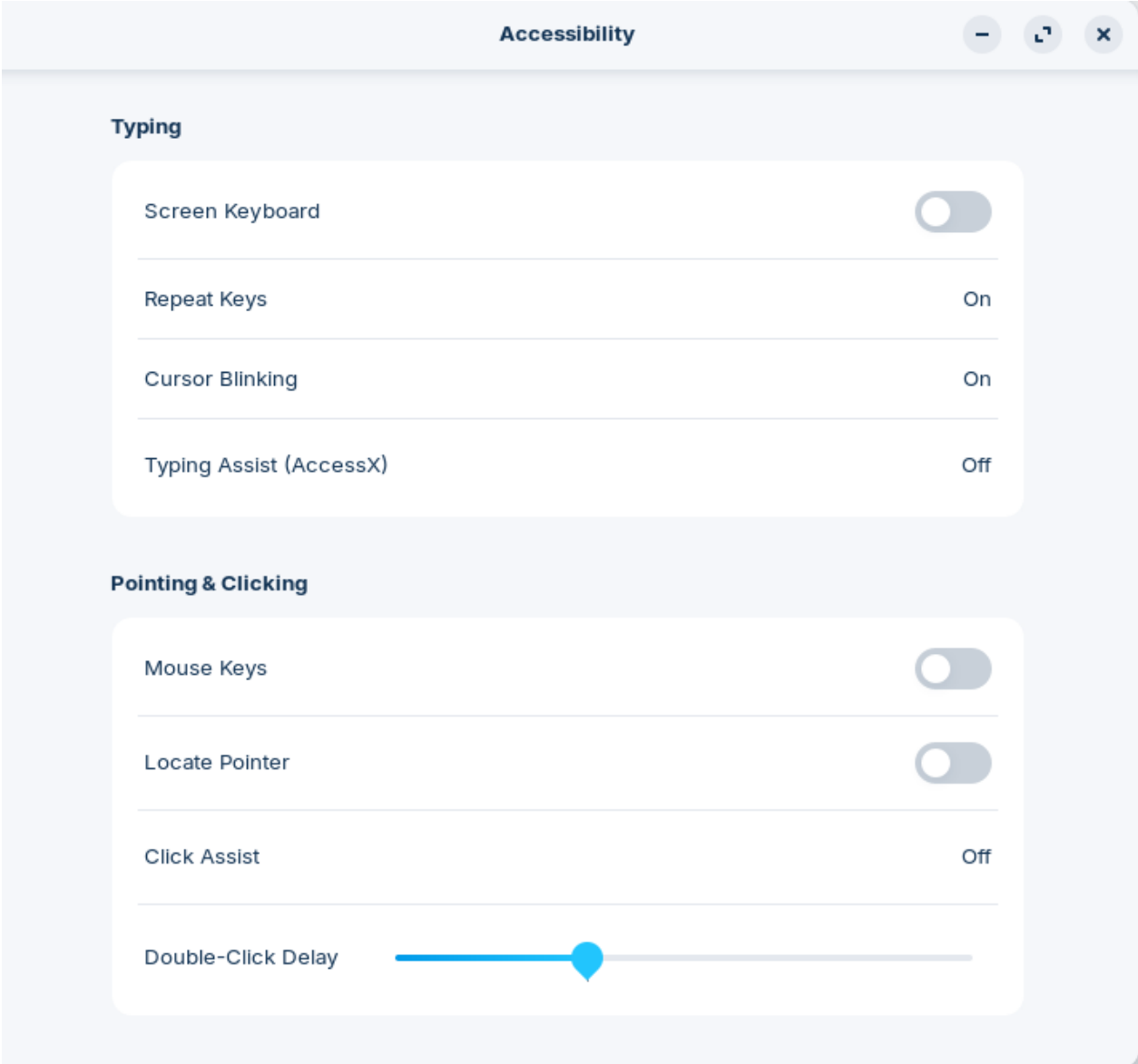


Note that I have **Enable Animations** enabled - this should only be use in relation to **Pointer Location** for low-vision users, no other animations should be enabled.

If **Always Show Accessibility Menu** is turned on, this will appear in the System Tray area of the **Dash**.



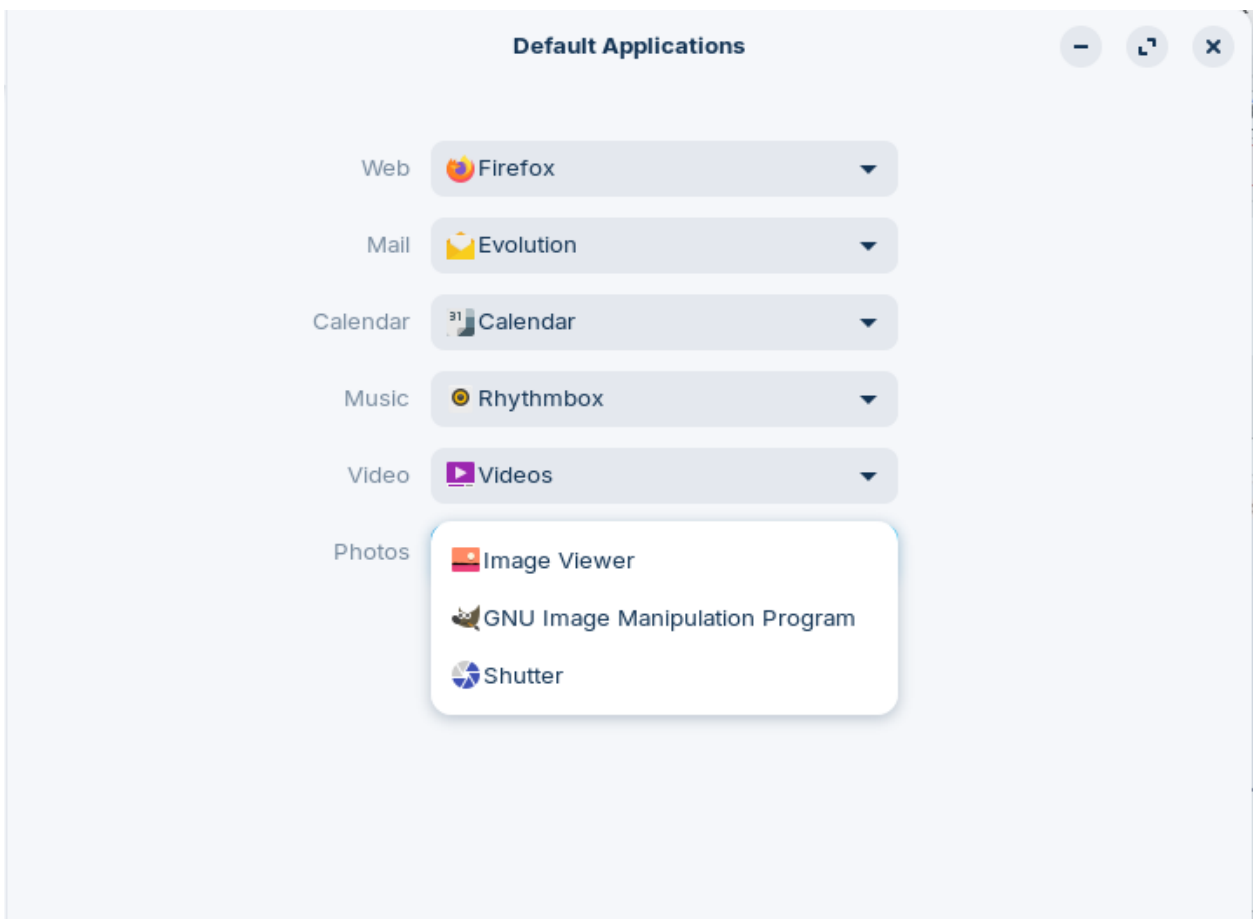
Accessibility (bottom half)



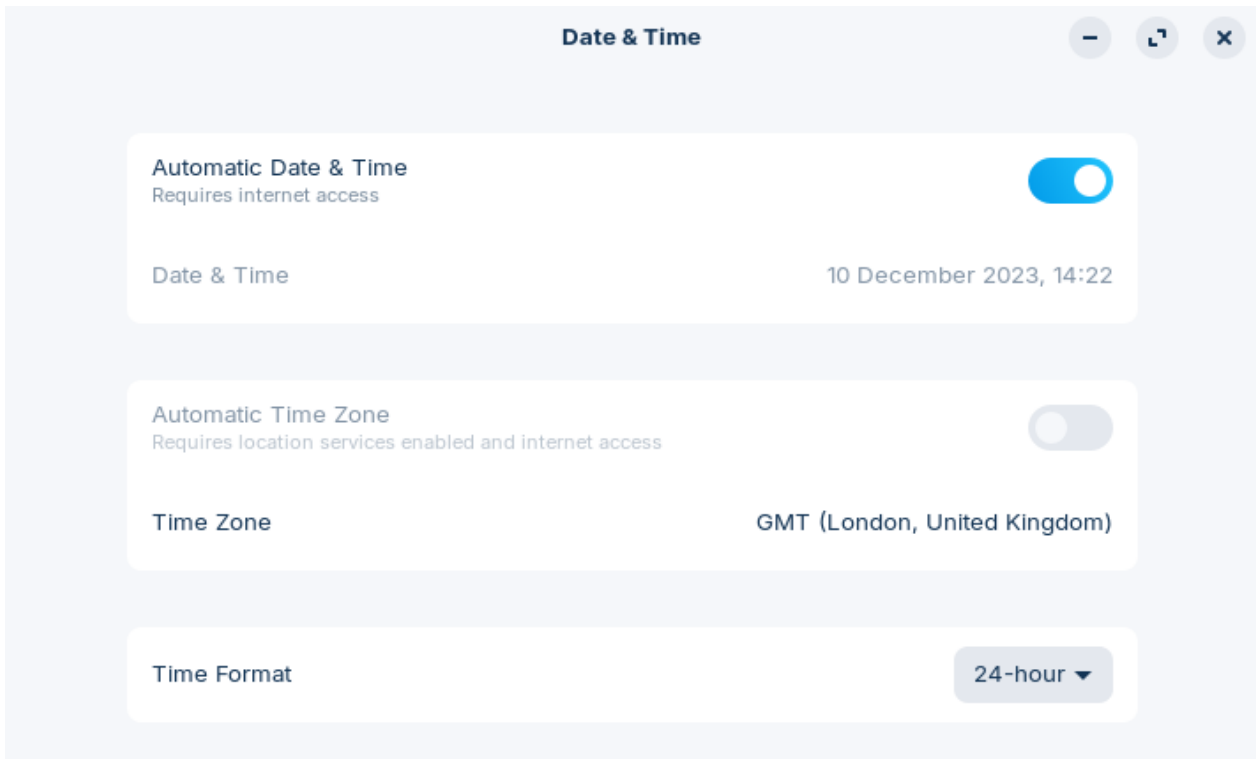
Users - this has already been covered (see page [132](#))

Default Applications - This section indicates which applications will launch by default in respect of **Web, Mail, Calendar, Music, Video, Photos**.

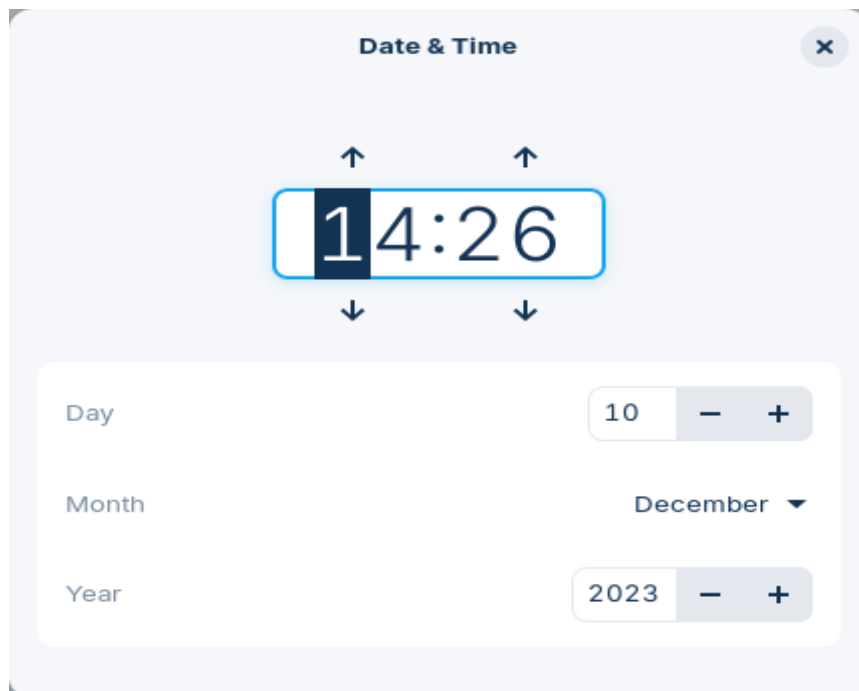
You can change the default applications to your preferred one. For example, the default Mail Client is Evolution that comes with Zorin. You would need to install an alternative Mail Client, fill out your email account details in the alternative client, start it running then come back to this section and use the Drop-down arrow to see the installed alternatives. In the example below, I have installed GIMP and Shutter which I could select for viewing Photos:



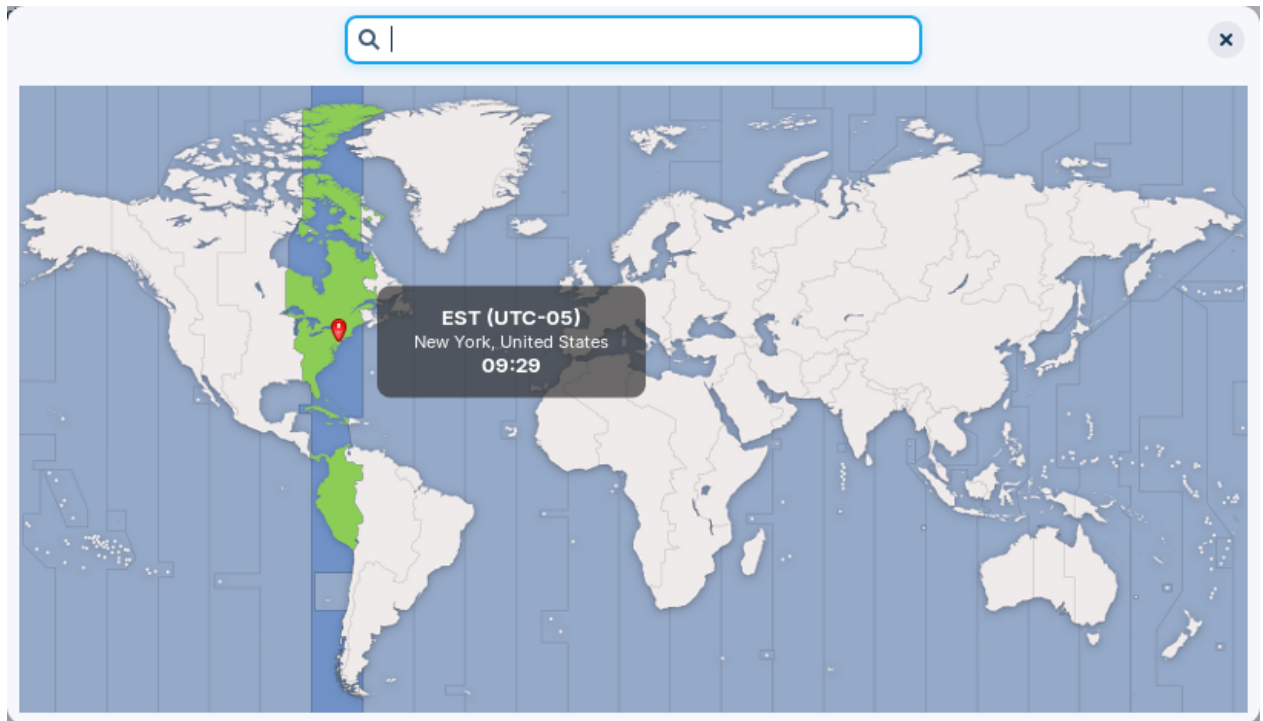
Date & Time - in this section of **Settings**, **Date & Time** is set to **Automatic Date & Time**, which gets its settings from the Internet.



Turning the switch to off for **Automatic Date & Time** off means time will be coming from the BIOS which will be reliant on the CMOS battery on the motherboard being operational. To manually change the **Date & Time**, click on **Date & Time** below **Automatic Date & Time** and the following interface appears:



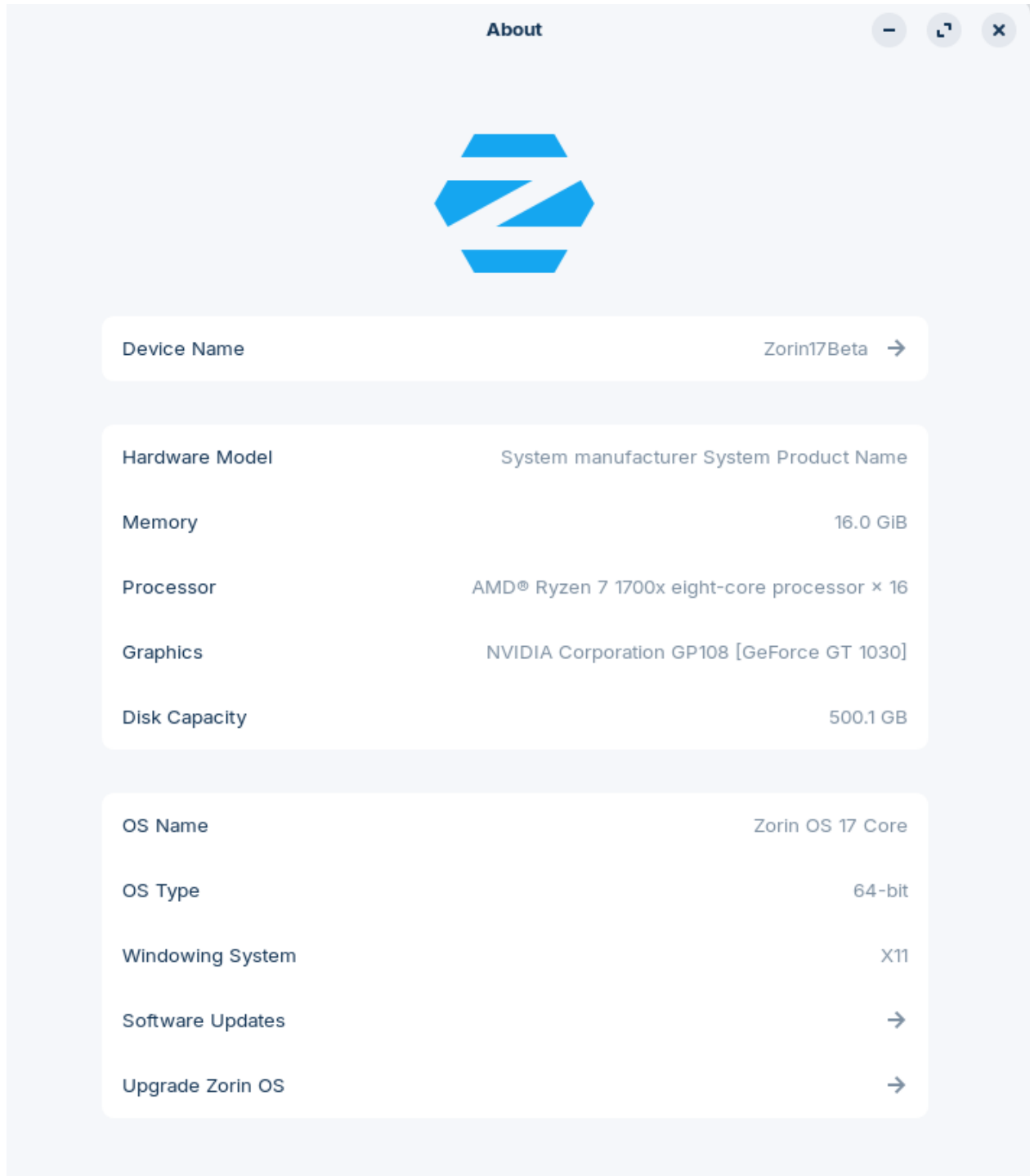
Should you wish to change the **Time Zone** to a different one, click on **Time Zone** and a World Map appears. Type in a City in the Box above the Map and it will take you there:



In the example above I have moved from GMT (Greenwich Mean Time) to New York, United States EST (UTC-05)

Time Format - set to 24-hour - use the drop-down arrow to change to AM/PM.

About - this section provides the **Device Name** (Computer name you gave it at point of Install), **Hardware** details and **Operating System** details.



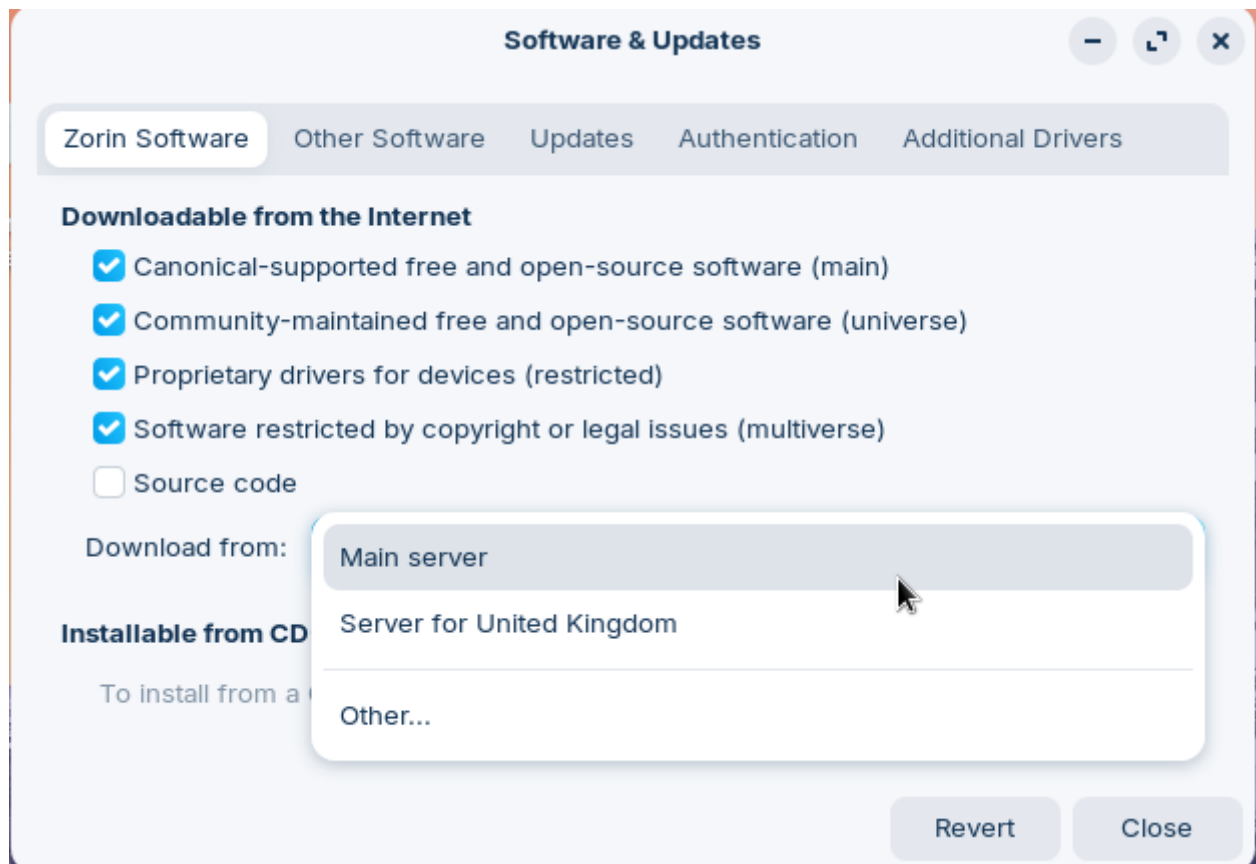
Zorin Appearance - this has been covered earlier (see page [71](#))

[This section contains elements from the Unofficial Manual for Zorin 15 Core]

First things to do after installation.

a. Change Software Sources first, then Update the system.

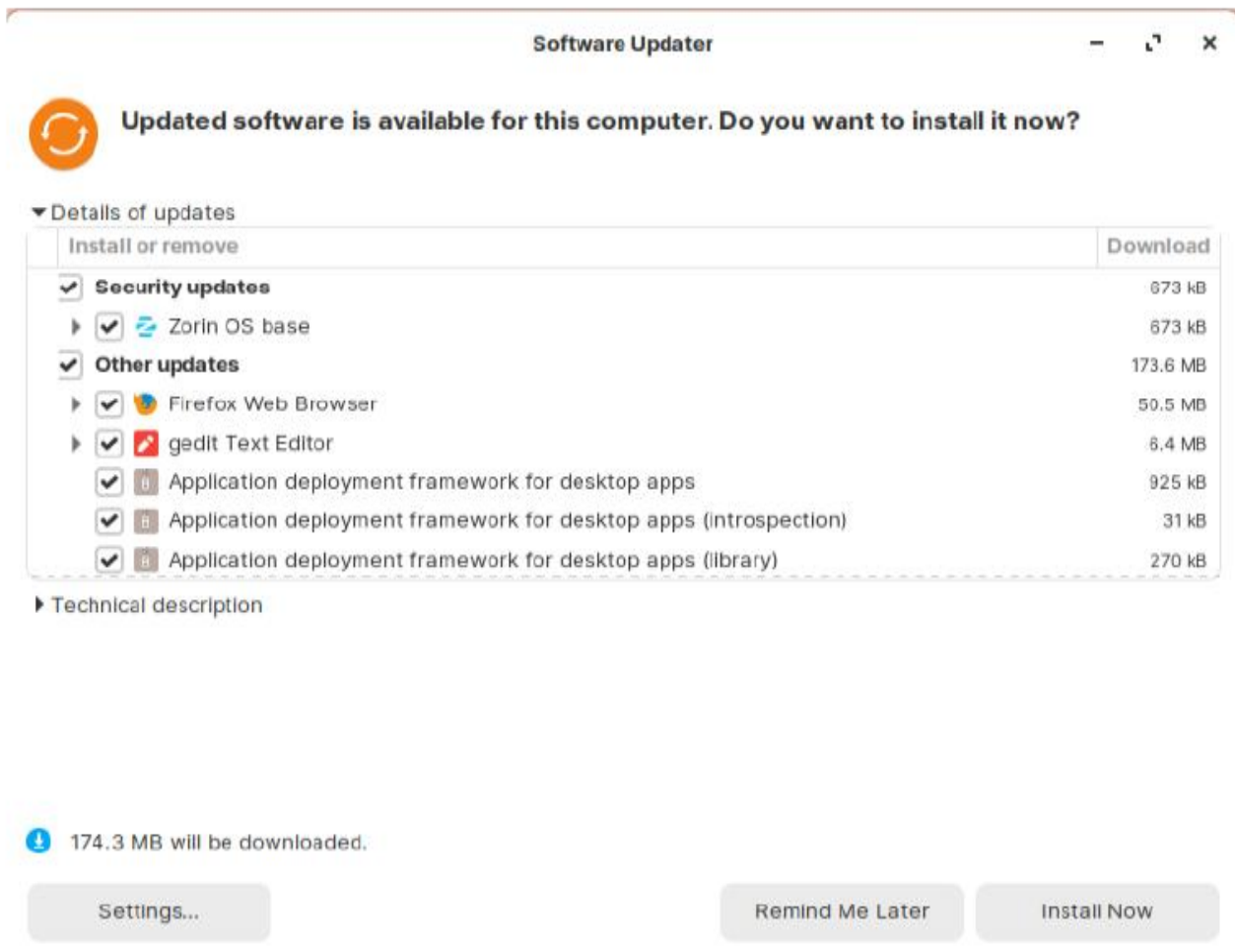
First open Menu | System Tools | Software Updater and click on the **Stop** button, then select the **Settings** button to change your download location sources from your country's server to Main Server – this will ensure you get all the correct updates to kernels and security updates. You will still receive ZorinOS specific updates when changing to this server and it will update your browsers without direct links to the Zorin Google search page that comes by default.



When you select 'Download from:' you will be asked for your login password of your account to elevate your user status to 'root' (Administrator) in order to do this.

b. Update the System: Menu | System Tools | Software Updater

You will be asked for your login password to elevate you to 'root' (administrator) before being allowed to apply the updates.



Notice the 'arrowhead' / triangle to the left of 'Zorin OS base' - left clicking on the 'arrowhead' expands the information as seen in the picture on the next page.

Clicking on the 'arrowhead' to the left of 'Technical description' opens up a bottom pane with more detailed information as to the changes it makes, also shown in the image on the next page.

The bottom pane has two tabs: 'Changes' and 'Description'.

Here the Changes section explains what changes will be made and why they are being made, usually fixes to problems with earlier releases.

The screenshot shows the 'Software Updater' window with the title 'Updated software is available for this computer. Do you want to install it now?'. Below the title is a section for 'Details of updates' which contains a table of updates. The table has two columns: 'Install or remove' and 'Download'. The selected update is 'Berkeley v5.3 Database Libraries [runtime]' with a download size of 673 kB. Below the table is a 'Technical description' section with two tabs: 'Changes' and 'Description'. The 'Changes' tab is active and shows the following text: 'Changes for libdb5.3 versions: Installed version: 5.3.28-13.1ubuntu1 Available version: 5.3.28-13.1ubuntu1'. Below this is a section for 'Version 5.3.28-13.1ubuntu1:' which contains a security update notice: '* SECURITY UPDATE: Heap out-of-bounds read - debian/patches/CVE-2019-8457.patch: enhance the rtree function in lang/sql/sqlite/ext/rtree/rtree.c.' At the bottom of the window, there is a status bar indicating '174.3 MB will be downloaded.' and three buttons: 'Settings...', 'Remind Me Later', and 'Install Now'.

Install or remove	Download
<input checked="" type="checkbox"/> Security updates	673 kB
<input checked="" type="checkbox"/> Zorin OS base	673 kB
<input checked="" type="checkbox"/> Berkeley v5.3 Database Libraries [runtime]	673 kB
<input checked="" type="checkbox"/> Other updates	173.6 MB
<input checked="" type="checkbox"/> Firefox Web Browser	50.5 MB
<input checked="" type="checkbox"/> gedit Text Editor	6.4 MB
<input checked="" type="checkbox"/> Application deployment framework for desktop apps	925 kB
<input checked="" type="checkbox"/> Application deployment framework for desktop apps (Introspection)	31 kB

Technical description

Changes

Changes for libdb5.3 versions:
Installed version: 5.3.28-13.1ubuntu1
Available version: 5.3.28-13.1ubuntu1

Version 5.3.28-13.1ubuntu1:

* SECURITY UPDATE: Heap out-of-bounds read
- debian/patches/CVE-2019-8457.patch: enhance the rtree function in lang/sql/sqlite/ext/rtree/rtree.c.

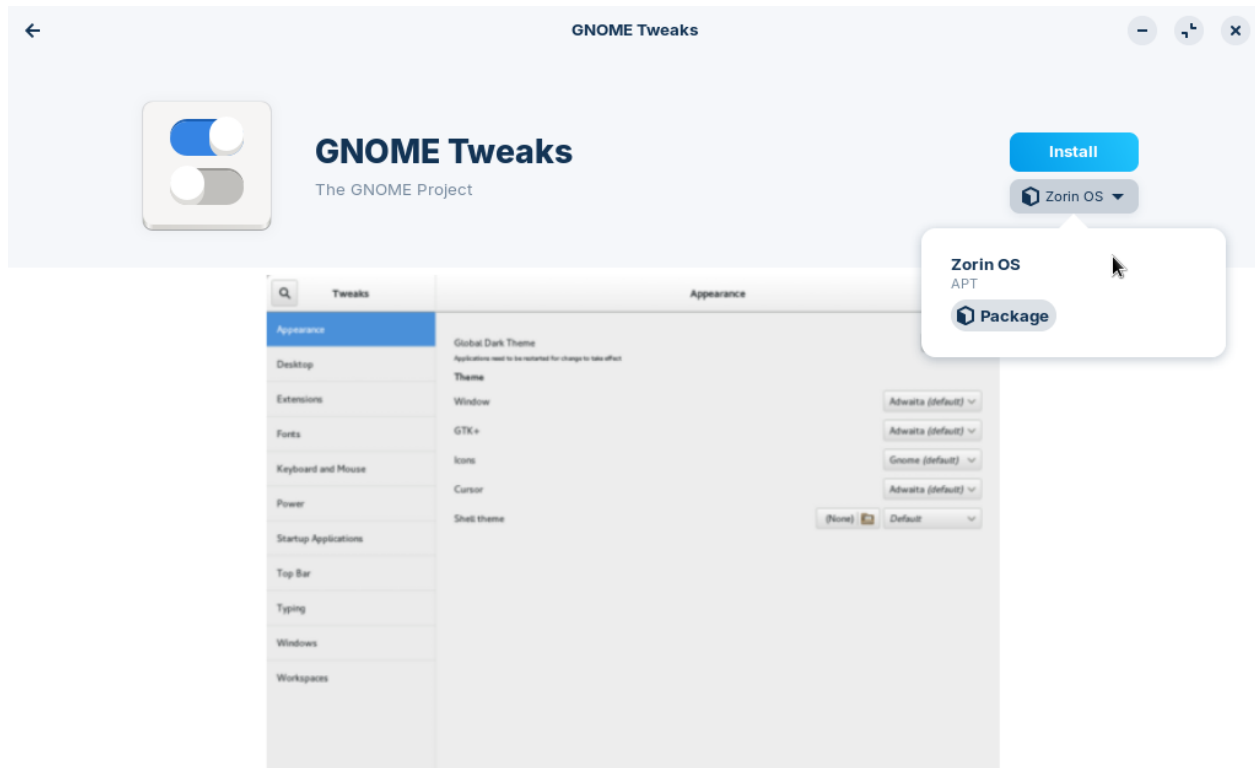
174.3 MB will be downloaded.

Settings... Remind Me Later Install Now

c. GNOME Tweaks (gnome-tweaks) –[formerly gnome-tweak-tool]

Since Zorin 12, Zorin has used the Gnome Shell Desktop Environment. Whilst Gnome Shell works reasonably well, as in all things there can be room for improvement.

Software entry:

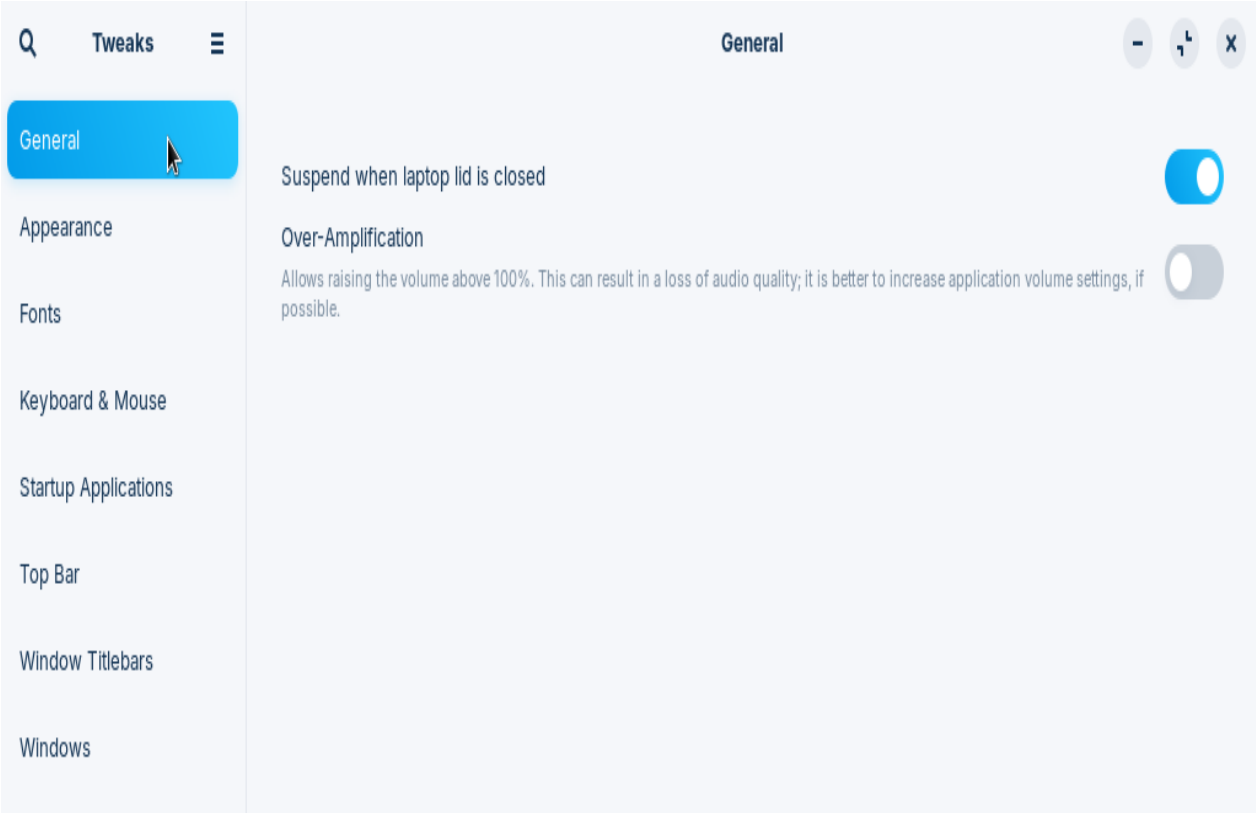


Tweak advanced GNOME 3 settings

GNOME Tweaks allows adjusting advanced GNOME options.

Tweaks interface:

General (this was not present in earlier versions)

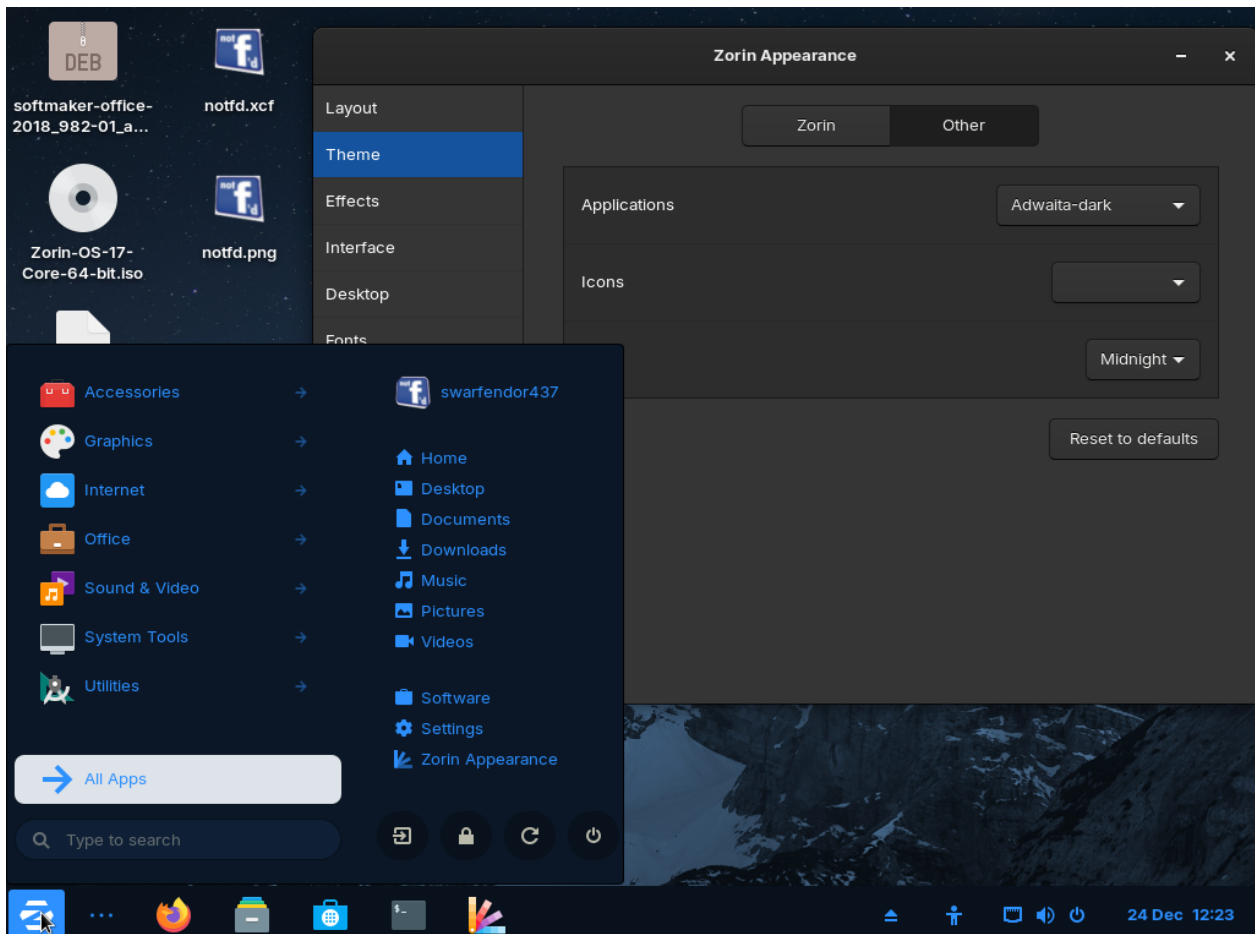


Appearance

The screenshot shows the 'Appearance' settings window. On the left is a sidebar with a search icon, the word 'Tweaks', and a hamburger menu icon. Below these are several category buttons: 'General', 'Appearance' (highlighted in blue), 'Fonts', 'Keyboard & Mouse', 'Startup Applications', 'Top Bar', 'Window Titlebars', and 'Windows'. The main area is titled 'Appearance' and has window control buttons (minimize, maximize, close) in the top right. It is organized into sections: 'Themes' with five dropdown menus (ZorinBlue-Light, Adwaita (default), ZorinBlue-Light, (None) with an upload icon, and Zorin); 'Background' with an 'Image' field showing 'Zorin.jpg' and an upload icon, and a 'Zoom' dropdown; and 'Lock Screen' with an 'Image' field showing '(None)' and an upload icon, and a 'Zoom' dropdown.

If like me you prefer something Darker, then the following themes from <https://www.opendesktop.org> are, in no particular order:

1. Neon_Knights_Blue (<https://www.gnome-look.org/p/1320471>)
2. Delorean Dark Themes (<https://www.deviantart.com/killhelloworld/art/Delorean-dark-3-12-5-08242014-476093824>)
3. Midnight-GnomeShell-Blue (<https://www.pling.com/p/1273210/>)



Only Midnight Shell theme worked, Neon Knights did not show up even after manually placing in the correct folder having 'chown'd the relevant folder. Delorean Dark worked with the style of Windows but in doing so, background images broke and all borders around context menus became a list like a minimalist GNU/Linux distro!

Fonts

Q Tweaks ☰

Fonts

Interface Text Inter Regular 10

Document Text Sans Regular 10

Monospace Text JetBrains Mono Regular 10

Legacy Window Titles Inter Bold 10

Hinting Full Medium Slight None

Antialiasing Subpixel (for LCD screens) Standard (greyscale) None

Scaling Factor 1.00 - +

Keyboard & Mouse:

The screenshot shows the 'Keyboard & Mouse' settings window. The left sidebar contains a search bar and a list of categories: General, Appearance, Fonts, Keyboard & Mouse (highlighted), Startup Applications, Top Bar, Window Titlebars, and Windows. The main content area is titled 'Keyboard & Mouse' and is divided into several sections:

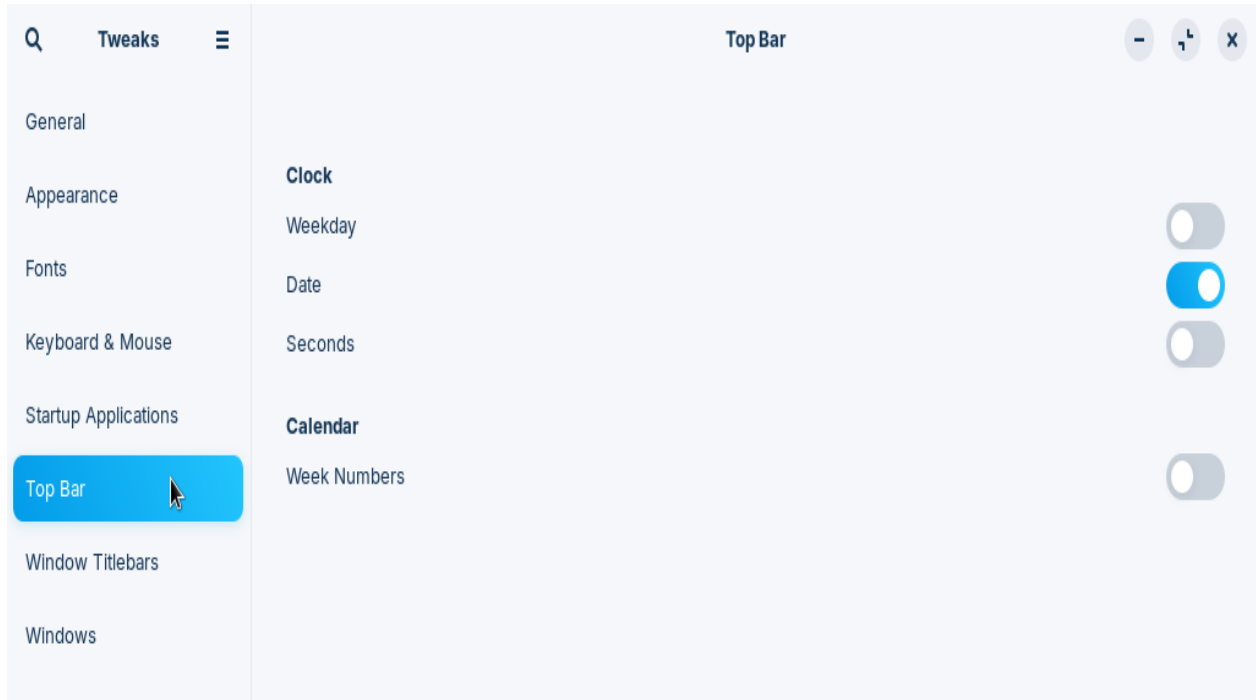
- Keyboard**
 - Show Extended Input Sources**: A toggle switch that is currently turned off. Description: Increases the choice of input sources in the Settings application.
 - Emacs Input**: A toggle switch that is currently turned off. Description: Overrides shortcuts to use keybindings from the Emacs editor.
 - Overview Shortcut**: A button with 'Left Super' selected and 'Right Super' as an alternative. Below it is a button for 'Additional Layout Options'.
- Mouse**
 - Acceleration Profile**: A dropdown menu set to 'Default'.
 - Pointer Location**: A toggle switch that is currently turned off. Description: Press the Ctrl key to highlight the pointer.
 - Middle Click Paste**: A toggle switch that is currently turned on.
- Touchpad**
 - Disable While Typing**: A toggle switch that is currently turned on.
- Mouse Click Emulation**
 - Fingers**: A checked option with a checkmark. Description: Click the touchpad with two fingers for right-click and three fingers for middle-click.
 - Area**: An unchecked option. Description: Click the bottom right of the touchpad for right-click and the bottom middle for middle-click.
 - Disabled**: An unchecked option. Description: Don't use mouse click emulation.

Startup Applications:

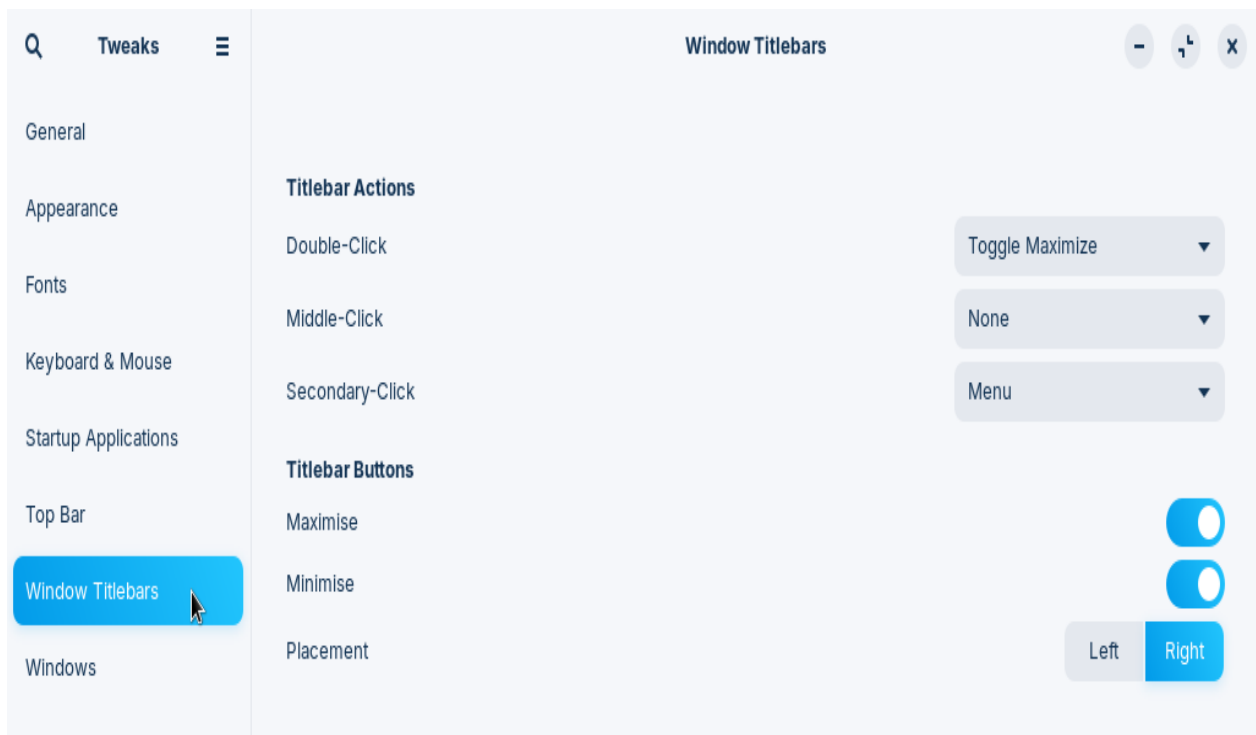
The screenshot shows the 'Startup Applications' settings window. The left sidebar contains a search bar and a list of categories: General, Appearance, Fonts, Keyboard & Mouse, Startup Applications (highlighted), Top Bar, Window Titlebars, and Windows. The main content area is titled 'Startup Applications' and contains the following elements:

- A text box stating: 'Startup applications are automatically started when you log in.'
- A list of applications, currently containing one: 'Remmina Applet' with a green circular icon and a 'Remove' button to its right.
- A large grey button with a plus sign (+) in the center, used to add new applications.

Top Bar:



Window Titlebars:



Windows:

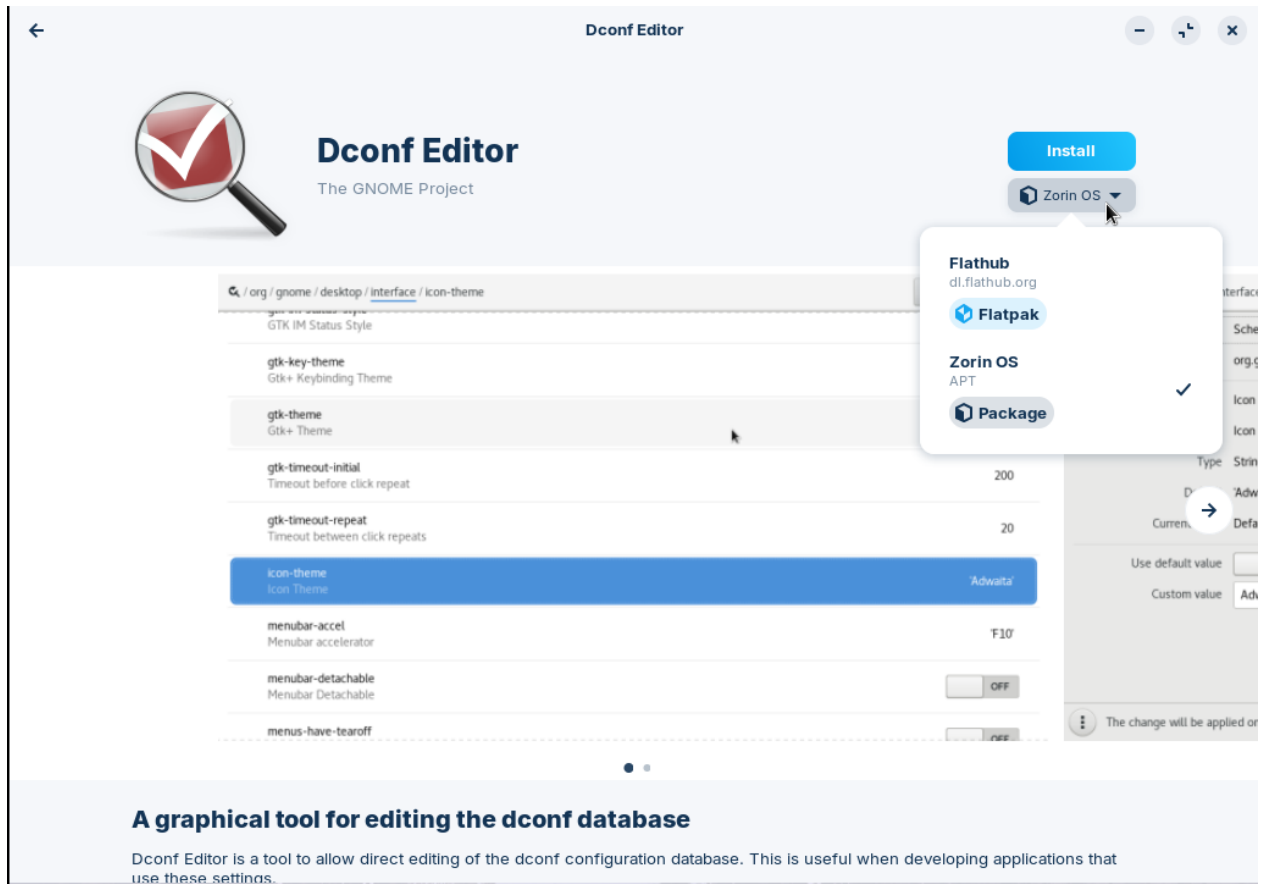
The image shows a settings window titled "Windows" with a sidebar on the left containing various categories: General, Appearance, Fonts, Keyboard & Mouse, Startup Applications, Top Bar, Window Titlebars, and Windows (which is highlighted in blue). The main area contains several settings:

- Attach Modal Dialogues**: A toggle switch that is turned on. Description: "When on, modal dialogue windows are attached to their parent windows, and cannot be moved."
- Centre New Windows**: A toggle switch that is turned off.
- Resize with Secondary-Click**: A toggle switch that is turned on.
- Window Action Key**: A dropdown menu currently set to "Super".
- Window Focus**: A section containing three sub-settings:
 - Click to Focus**: A toggle switch that is turned on. Description: "Windows are focused when they are clicked." A checkmark is visible to the right.
 - Focus on Hover**: A toggle switch that is turned on. Description: "Window is focused when hovered with the pointer. Windows remain focused when the desktop is hovered."
 - Secondary-Click**: A toggle switch that is turned on. Description: "Window is focused when hovered with the pointer. Hovering the desktop removes focus from the previous window."
- Raise Windows When Focused**: A toggle switch that is turned off.

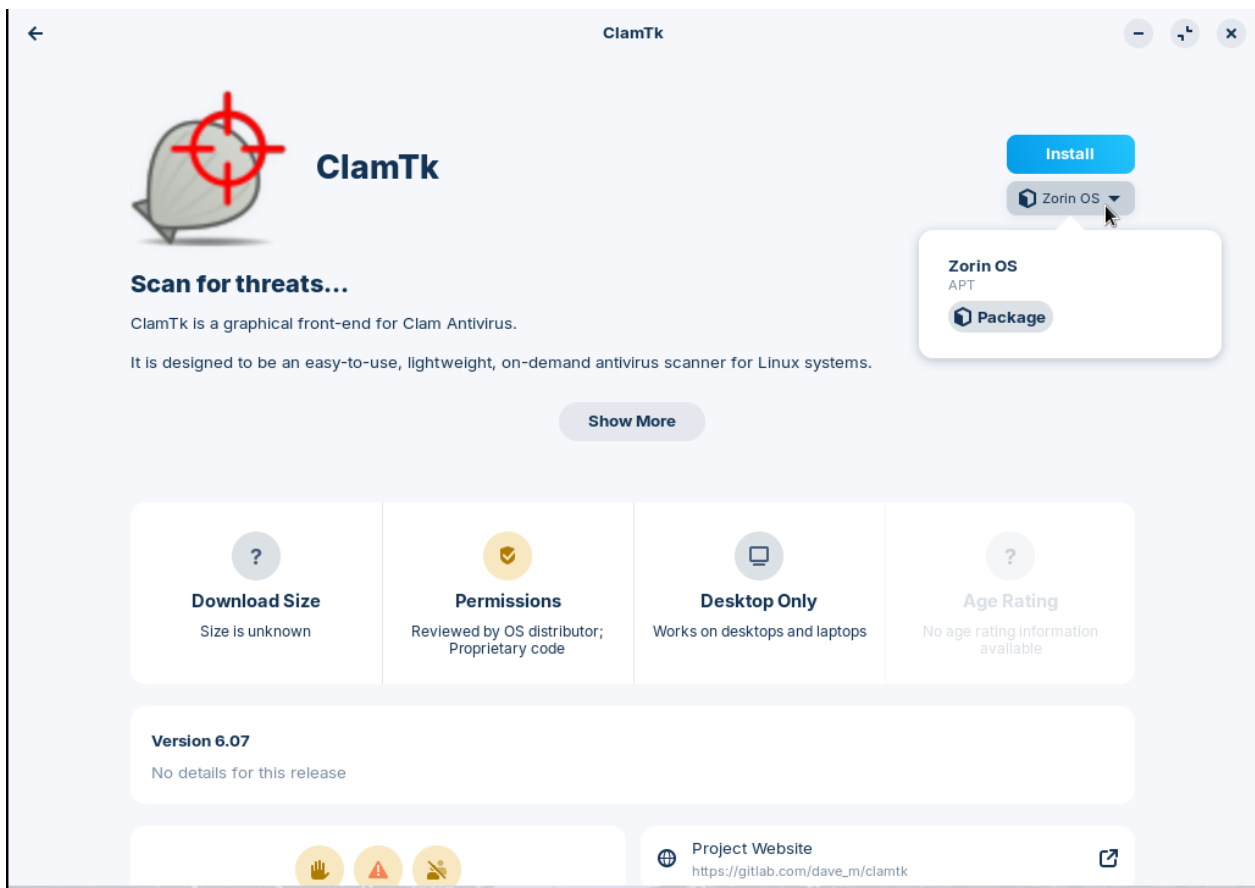
d. Dconf Editor

This is particularly useful for changing desktop settings. It's layout reminds me of a registry editor, but it is in no way shape or form a registry editor. You are warned that messing with settings in 'dconf Editor' could make the system unstable so be careful what you do with it.

Entry in Software Channel.

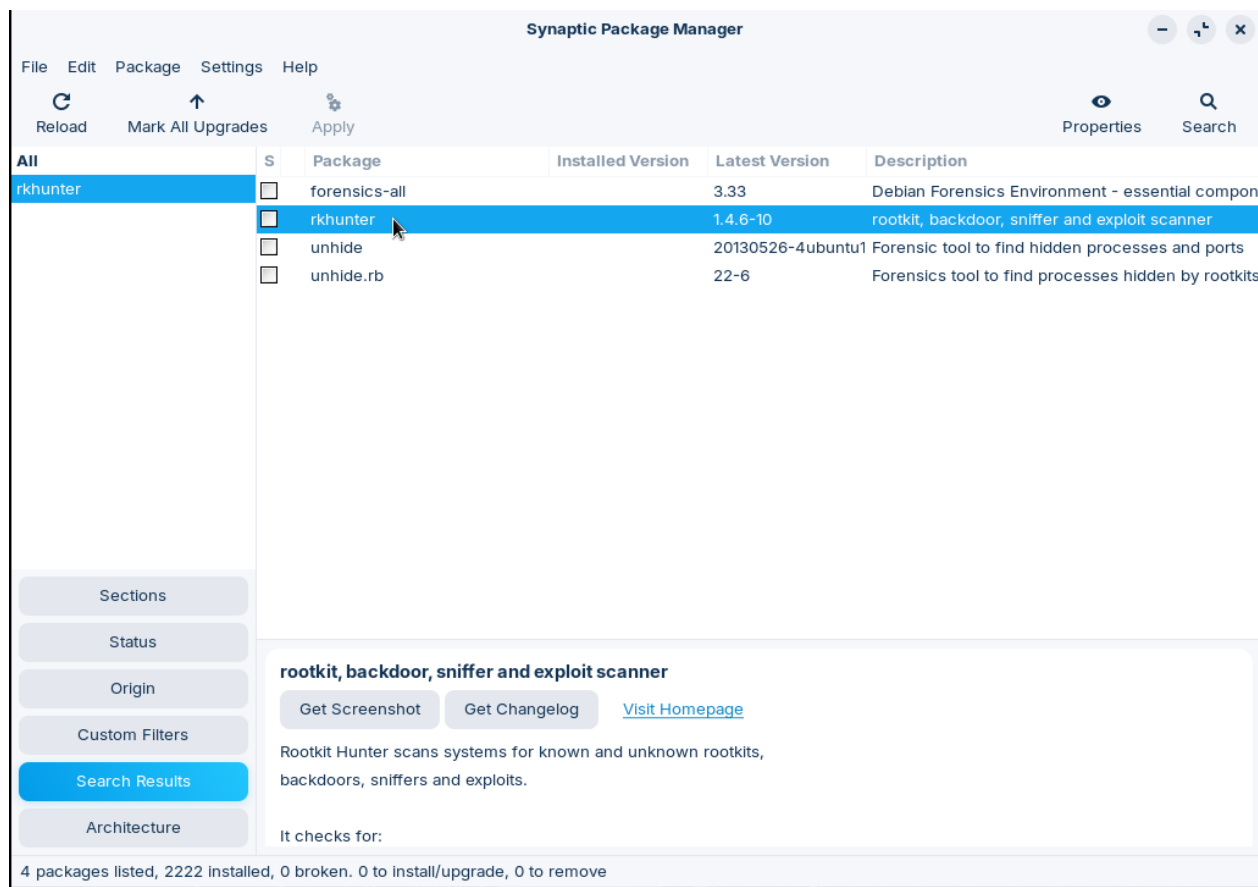


e. ClamTk:



This is the AV software for GNU/Linux – installing ClamTk not only installs the back-end of Clam AV but also its graphical front-end shown in screen shot – you can schedule updates to be done automatically. There are two entries in Software channel - choose the second one as the top one is from flathub.

f. rkhunter (root-kit hunter):



This has to be installed via Synaptic Package Manager, it is not available in the Software Channel. This has to be run via the Terminal but is easy enough to do. Be advised that you may get some error reporting about some changes – rkhunter looks at what the system looked like when it was installed and uses that as the base-line, so when kernels and other security updates get installed it compares the system with the earlier installs and will give a false-positive. You will just need to update it's baseline accordingly. Here is a link to the website for download information and important README:

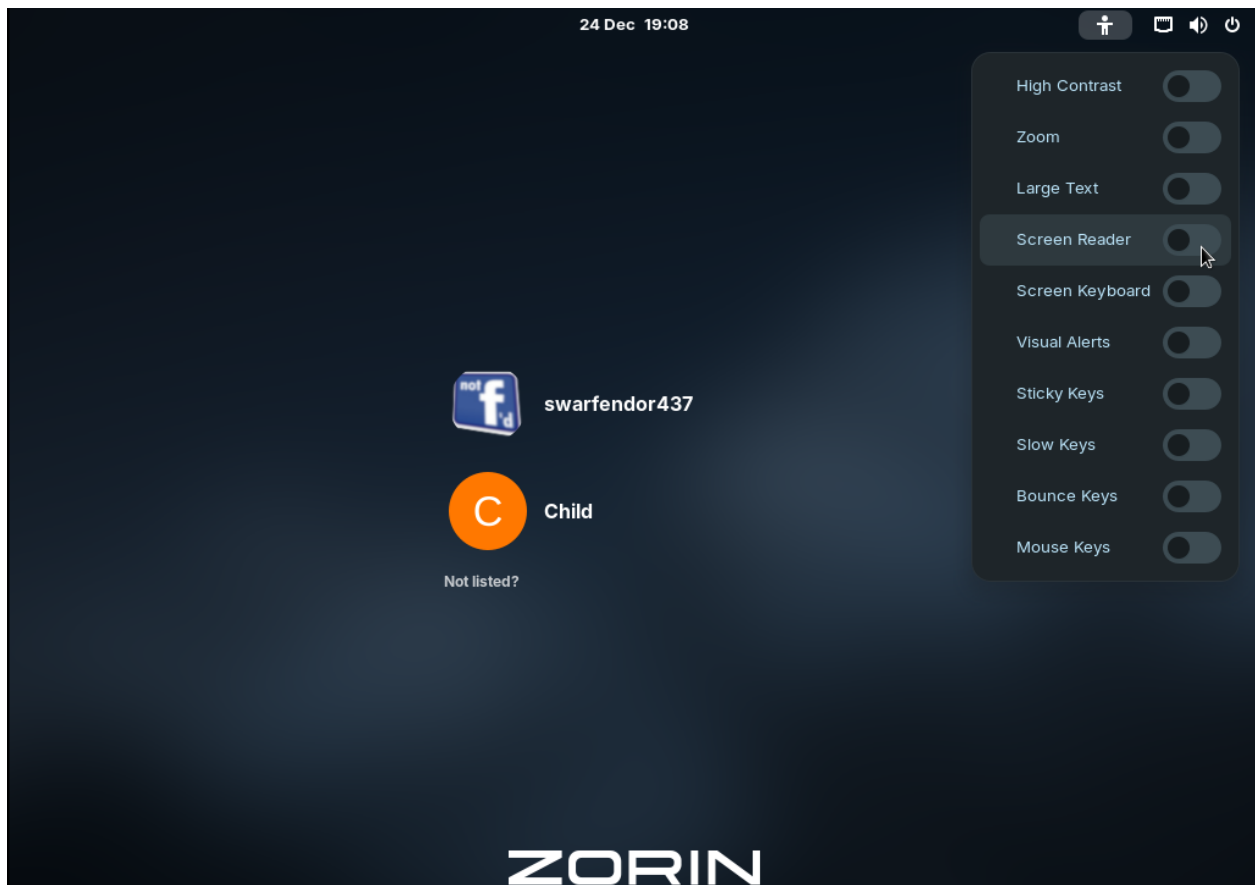
<http://rkhunter.sourceforge.net/>

and why you should install it:

<http://resources.infosecinstitute.com/need-know-linux-rootkits/>

6. Accessibility:

One of the great things about Zorin is that its Accessibility options are available at the login screen. (“OK”, I can hear you say, “that has always been the case with Windows 7!”). That is true but how many operating systems come with a free fully functional screen reader built into the OS at no cost to the end user? The options are shown in the screenshot below:



All the options available are currently switched off in the picture above: High Contrast (Top/First option), Zoom, Large Text, Screen Reader, Screen Keyboard, Visual Alerts, Sticky Keys, Slow Keys, Bounce Keys, Mouse Keys. To turn a function on, simply press the space bar. At present I cannot discover if the ‘menu’ or ‘right-mouse key’ key will activate the accessibility menu as I am using a gaming keyboard which has a ‘backlight’ key where normally a ‘right-mouse button’ key would reside. However, using Alt+ Super+ S will start the screen reader function.

Full details here:

<https://help.gnome.org/users/gnome-help/stable/a11y.html.en>

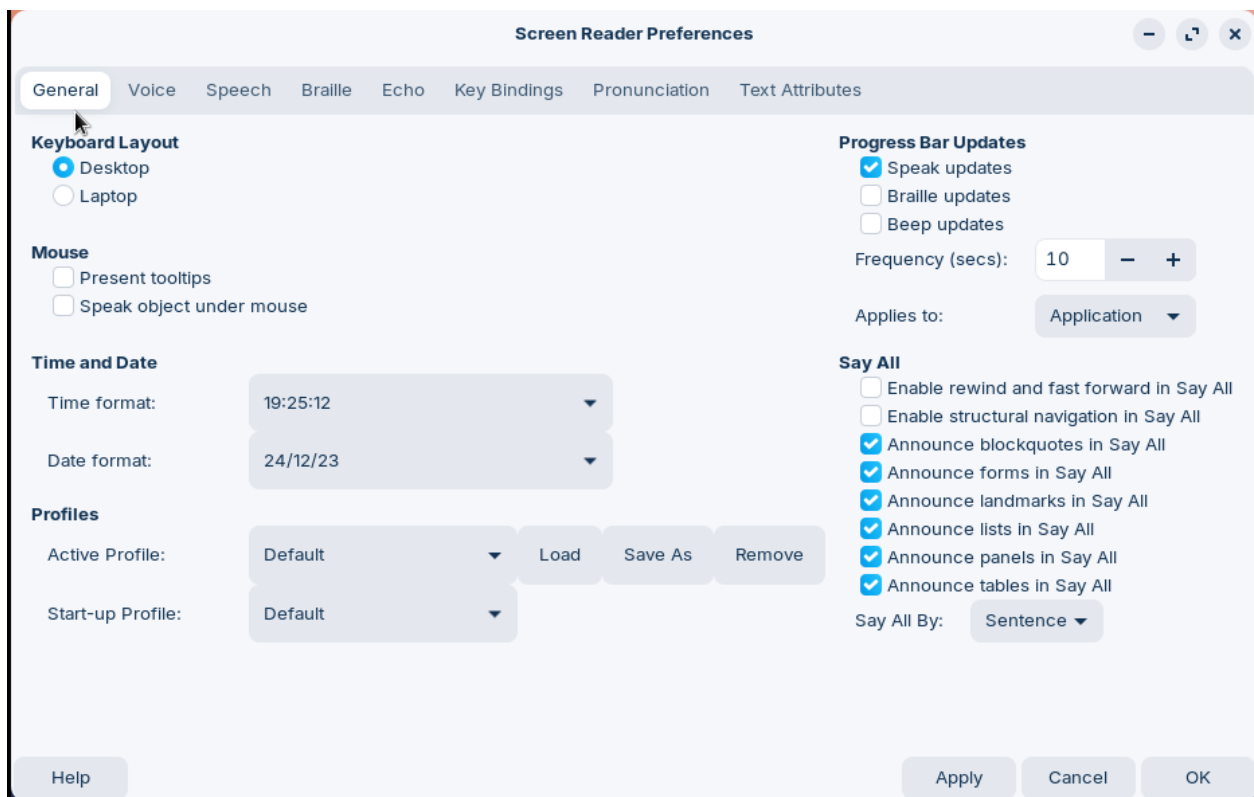
Screen Reader (Orca):

N.B. 'Super' key equals 'Meta' or 'Windows' key.

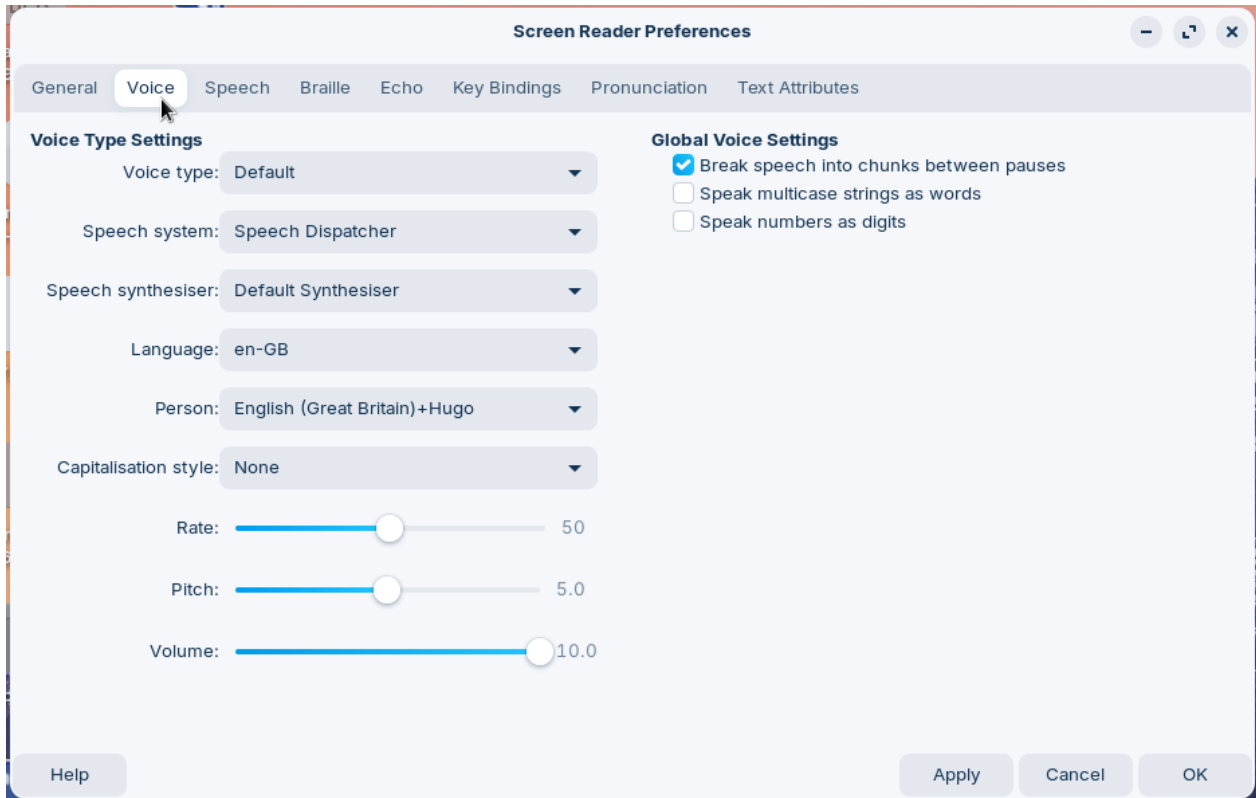
The keyboard command to turn on the screen reader is a combination of Alt+ Super+ S – the same key combination also turns it off.

To access preferences, the default key bindings are Insert+ Space (if this does not work, press Alt+ F2 and enter 'orca --setup' without the quotes):

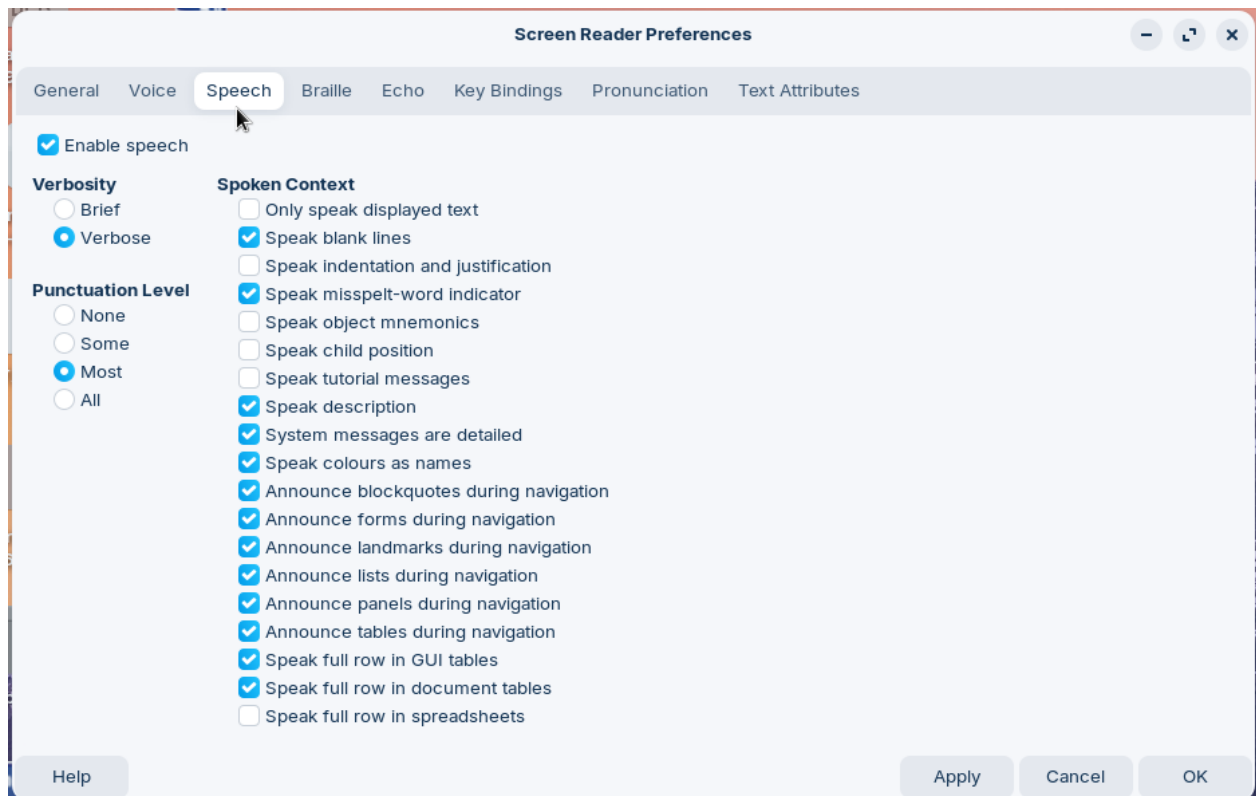
General: Keyboard Layout, Mouse, Time and Date, Profiles, Progress Bar Updates, Say All



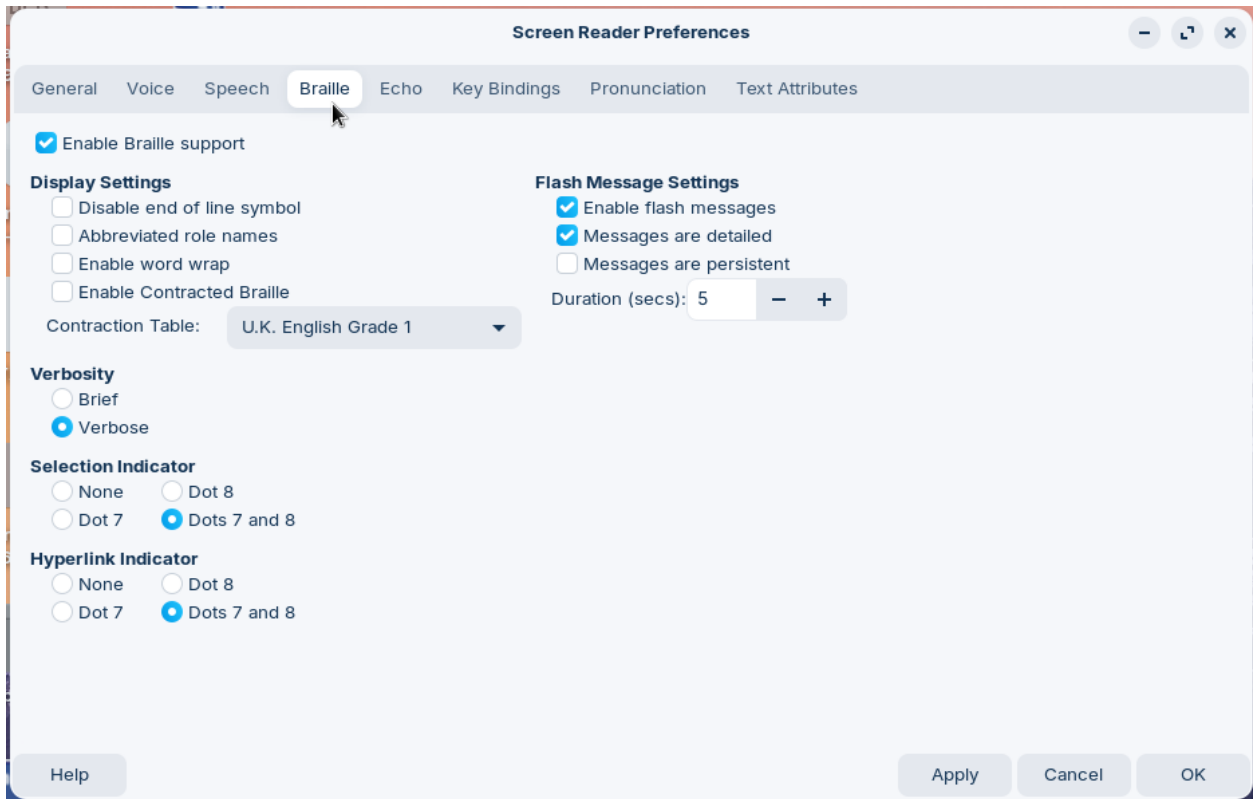
Choice of Voice: Voice Type Settings, Global Voice Settings



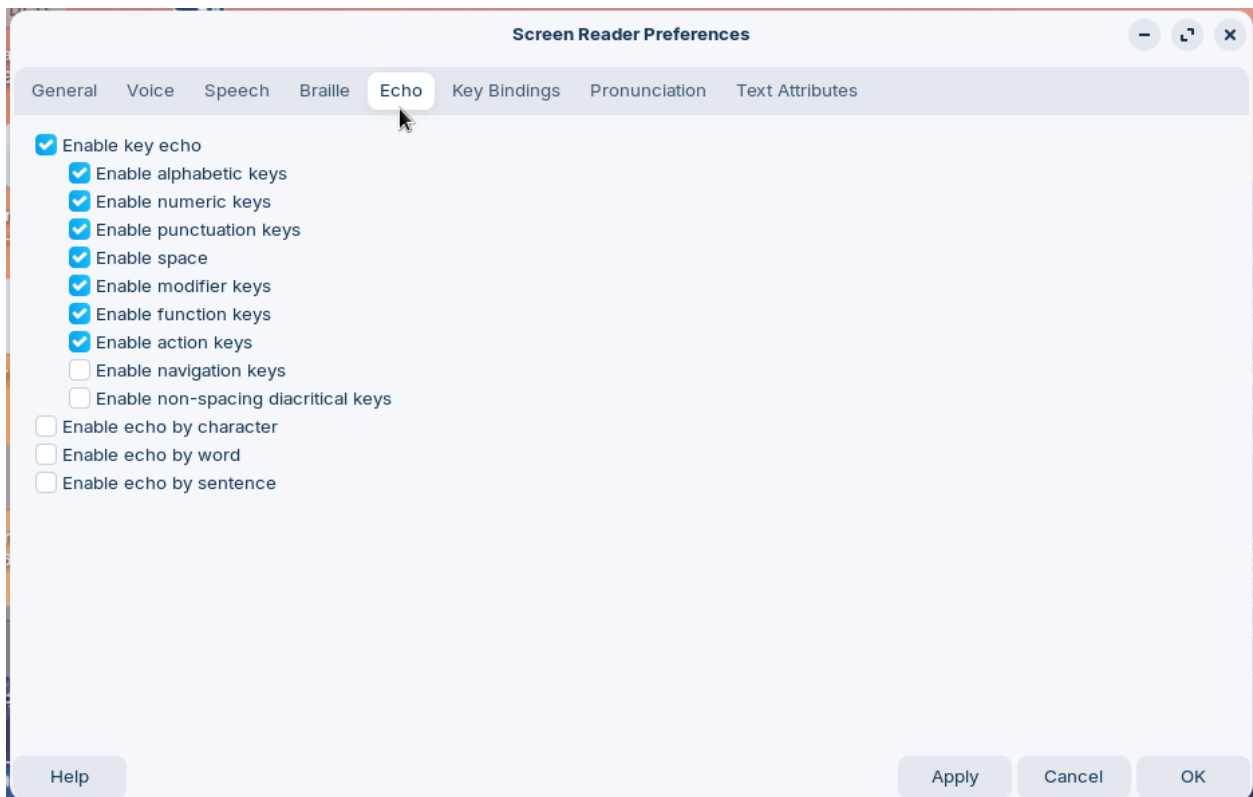
Speech Settings: Verbosity, Punctuation Level, Spoken Context.



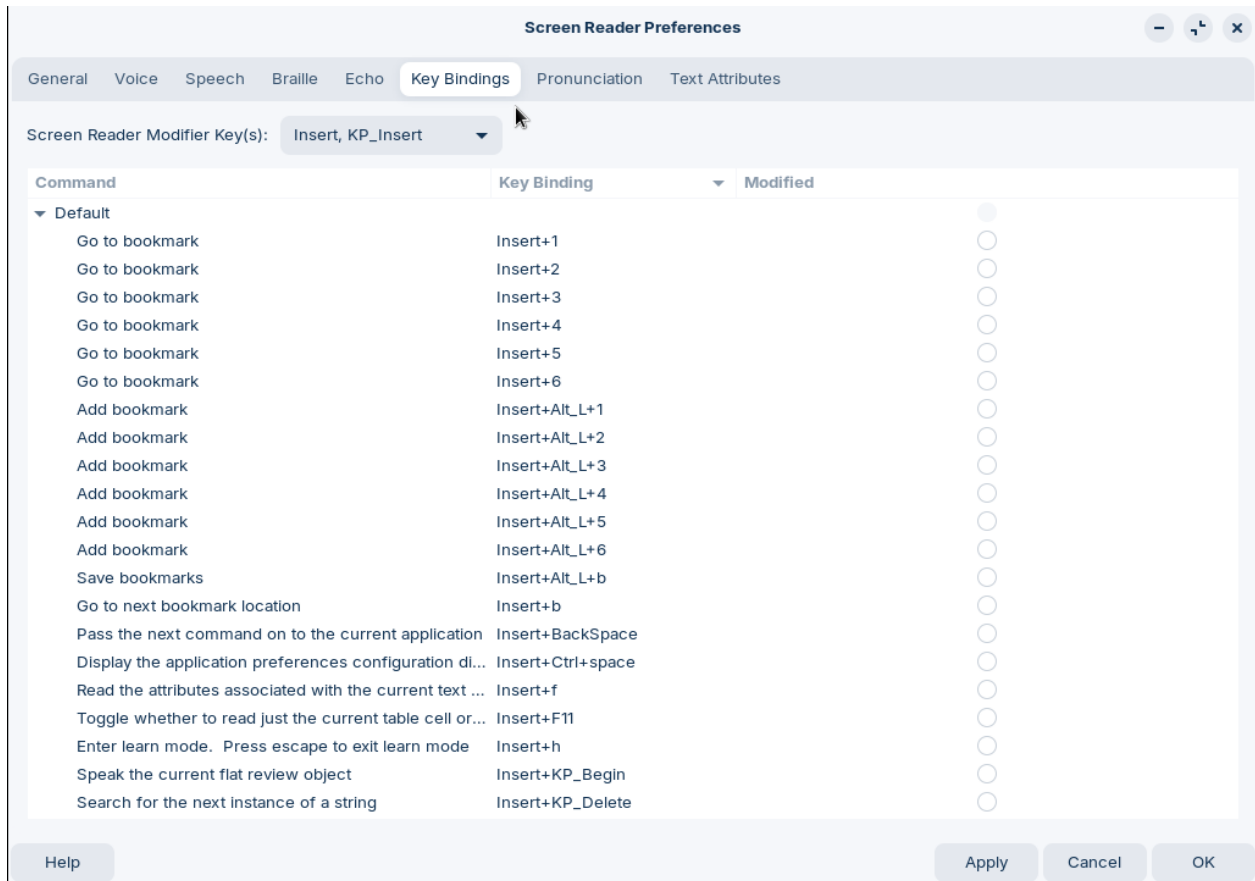
Braille Settings: Display Settings, Verbosity, Selection Indicator, Hyperlink Indicator, Flash Message Settings.



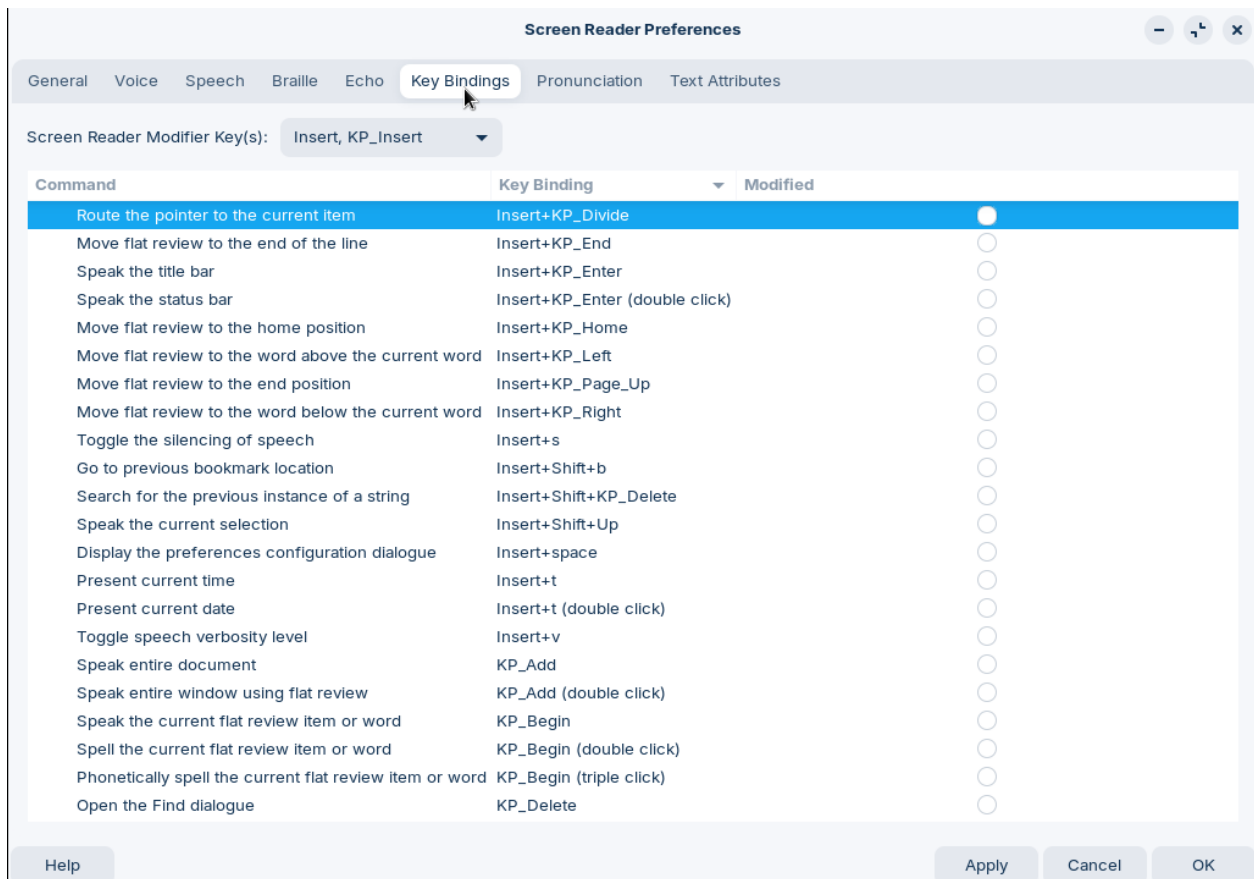
Echo Settings:



Key Bindings (Default 1)



Key Bindings (Default 2):



Key Bindings (Default 3):

Perform left click on current flat review item	KP_Divide	<input type="radio"/>
Speak the current flat review character	KP_Down	<input type="radio"/>
Phonetically speak the current flat review character	KP_Down (double click)	<input type="radio"/>
Speak unicode value of the current flat review char...	KP_Down (triple click)	<input type="radio"/>
Move flat review to the previous character	KP_End	<input checked="" type="radio"/>
Perform the basic Where Am I operation	KP_Enter	<input type="radio"/>
Perform the detailed Where Am I operation	KP_Enter (double click)	<input type="radio"/>
Move flat review to the beginning of the previous line	KP_Home	<input type="radio"/>
Move flat review to the previous item or word	KP_Left	<input type="radio"/>
Perform right click on current flat review item	KP_Multiply	<input type="radio"/>
Move flat review to the next character	KP_Page_Down	<input type="radio"/>
Move flat review to the beginning of the next line	KP_Page_Up	<input type="radio"/>
Move flat review to the next item or word	KP_Right	<input type="radio"/>
Enter and exit flat review mode	KP_Subtract	<input type="radio"/>
Speak the current flat review line	KP_Up	<input type="radio"/>
Spell the current flat review line	KP_Up (double click)	<input type="radio"/>
Phonetically spell the current flat review line	KP_Up (triple click)	<input type="radio"/>

Help Apply Cancel OK

Key Bindings (Unbound 1):

Screen Reader Preferences

General Voice Speech Braille Echo Key Bindings Pronunciation Text Attributes

Screen Reader Modifier Key(s): Insert, KP_Insert

Command	Key Binding	Modified
Unbound		
Cycle to the next settings profile		<input type="radio"/>
Cycle to the next capitalisation style		<input type="radio"/>
Cycle the debug level at run time		<input type="radio"/>
Decrease the speech rate		<input type="radio"/>
Increase the speech rate		<input type="radio"/>
Decrease the speech pitch		<input type="radio"/>
Increase the speech pitch		<input type="radio"/>
Increase the speech volume		<input type="radio"/>
Decrease the speech volume		<input type="radio"/>
Pan the braille display to the left		<input type="radio"/>
Pan the braille display to the right		<input type="radio"/>
Toggle mouse review mode		<input type="radio"/>
Toggle the speaking of indentation and justification		<input type="radio"/>
Cycle to the next speaking of punctuation level		<input type="radio"/>
Cycle to the next key echo level		<input type="radio"/>
Change spoken number style		<input type="radio"/>
Present last notification message		<input type="radio"/>
Present previous notification message		<input type="radio"/>
Present notification messages list		<input type="radio"/>
Copy the contents under flat review to the clipboard		<input type="radio"/>
Append the contents under flat review to the clipbo...		<input type="radio"/>

Help Apply Cancel OK

Key Bindings (Unbound 2):

Quit the screen reader



Speak link details



Present size and location of current object



Key Bindings (Braille Bindings):

▼ Braille Bindings

Pan the braille display to the left	Line Left
Pan the braille display to the left	Line Left
Pan the braille display to the left	Line Left
Pan the braille display to the right	Line Right
Pan the braille display to the right	Line Right
Pan the braille display to the right	Line Right
Move flat review to the word above the current word	Line Up
Move flat review to the word below the current word	Line Down
Enter and exit flat review mode	Freeze
Move flat review to the home position	Top Left
Move flat review to the bottom left	Bottom Left
Return to object with keyboard focus	Cursor Position
Turn contracted braille on and off	Six Dots
Process a cursor routing key	Cursor Routing
Mark the beginning of a text selection	Cut Begin
Mark the end of a text selection	Cut Line



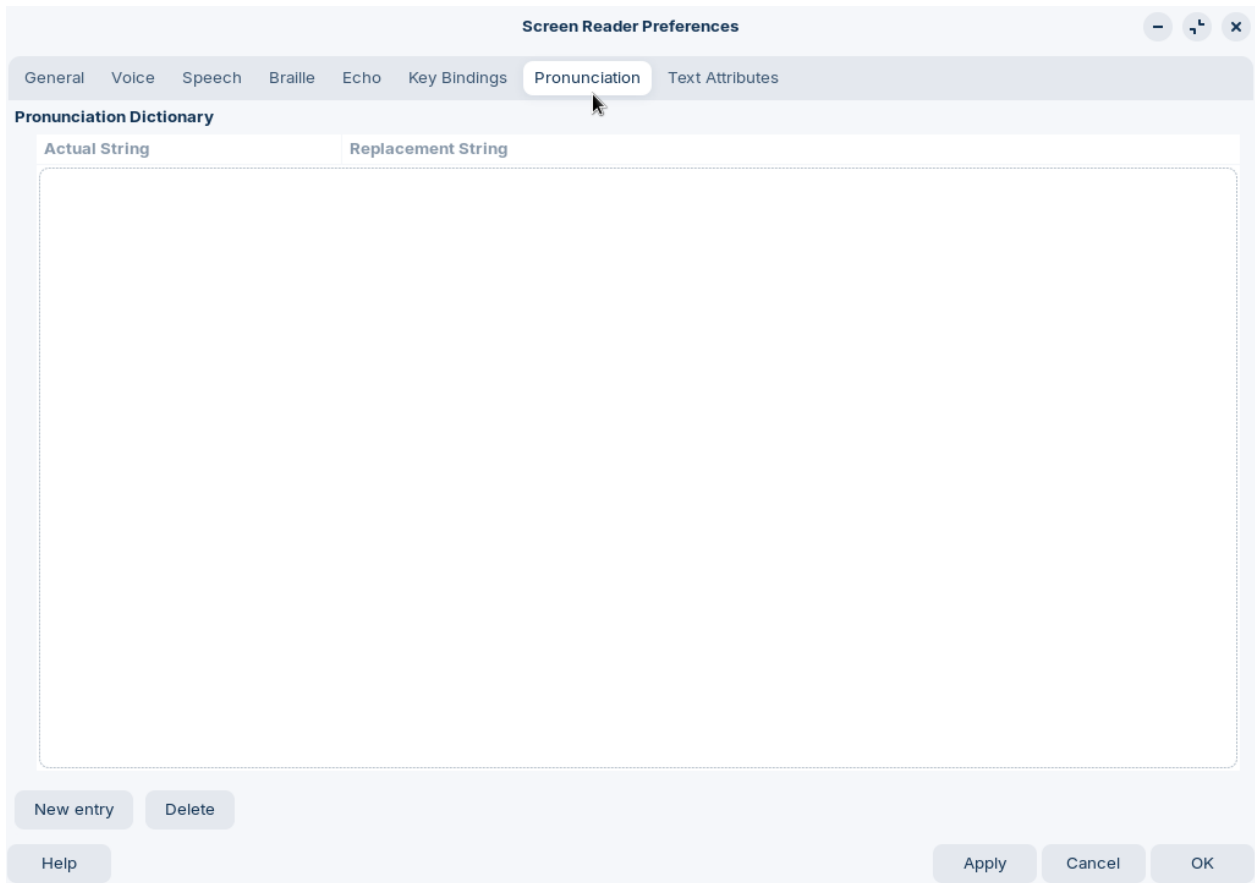
Help

Apply

Cancel

OK

Pronunciation:



Text Attributes (top):

Screen Reader Preferences

General Voice Speech Braille Echo Key Bindings Pronunciation **Text Attributes**

Text attributes

Attribute Name	Speak	Mark in braille	Present Unless
size	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
family name	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
weight	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	400
indent	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0
underline	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	none
strike through	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	false
justification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	left
style	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	normal
paragraph style	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
spelling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	none
foreground colour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
background colour	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
background full height	<input type="checkbox"/>	<input type="checkbox"/>	
background stipple	<input type="checkbox"/>	<input type="checkbox"/>	
direction	<input type="checkbox"/>	<input type="checkbox"/>	
editable	<input type="checkbox"/>	<input type="checkbox"/>	
foreground stipple	<input type="checkbox"/>	<input type="checkbox"/>	
font effect	<input type="checkbox"/>	<input type="checkbox"/>	none
invisible	<input type="checkbox"/>	<input type="checkbox"/>	
language	<input type="checkbox"/>	<input type="checkbox"/>	
left margin	<input type="checkbox"/>	<input type="checkbox"/>	
line height	<input type="checkbox"/>	<input type="checkbox"/>	100%

Reset

Help

Apply Cancel OK

Adjust selected attribute

Move to top

Move up one

Move down one

Move to bottom

Braille Indicator

None

Dot 7

Dot 8

Dots 7 and 8

Text Attributes (bottom):

Screen Reader Preferences

General Voice Speech Braille Echo Key Bindings Pronunciation **Text Attributes**

Text attributes

Attribute Name	Speak	Mark in braille	Present Unless
direction	<input type="checkbox"/>	<input type="checkbox"/>	
editable	<input type="checkbox"/>	<input type="checkbox"/>	
foreground stipple	<input type="checkbox"/>	<input type="checkbox"/>	
font effect	<input type="checkbox"/>	<input type="checkbox"/>	none
invisible	<input type="checkbox"/>	<input type="checkbox"/>	
language	<input type="checkbox"/>	<input type="checkbox"/>	
left margin	<input type="checkbox"/>	<input type="checkbox"/>	
line height	<input type="checkbox"/>	<input type="checkbox"/>	100%
pixels above lines	<input type="checkbox"/>	<input type="checkbox"/>	
pixels below lines	<input type="checkbox"/>	<input type="checkbox"/>	
pixels inside wrap	<input type="checkbox"/>	<input type="checkbox"/>	
right margin	<input type="checkbox"/>	<input type="checkbox"/>	
rise	<input type="checkbox"/>	<input type="checkbox"/>	
scale	<input type="checkbox"/>	<input type="checkbox"/>	
stretch	<input type="checkbox"/>	<input type="checkbox"/>	
text decoration	<input type="checkbox"/>	<input type="checkbox"/>	none
text rotation	<input type="checkbox"/>	<input type="checkbox"/>	0
text shadow	<input type="checkbox"/>	<input type="checkbox"/>	none
variant	<input type="checkbox"/>	<input type="checkbox"/>	
vertical align	<input type="checkbox"/>	<input type="checkbox"/>	baseline
wrap mode	<input type="checkbox"/>	<input type="checkbox"/>	
writing mode	<input type="checkbox"/>	<input type="checkbox"/>	lr-tb

Reset

Help

Apply Cancel OK

Adjust selected attribute

Move to top

Move up one

Move down one

Move to bottom

Braille Indicator

None

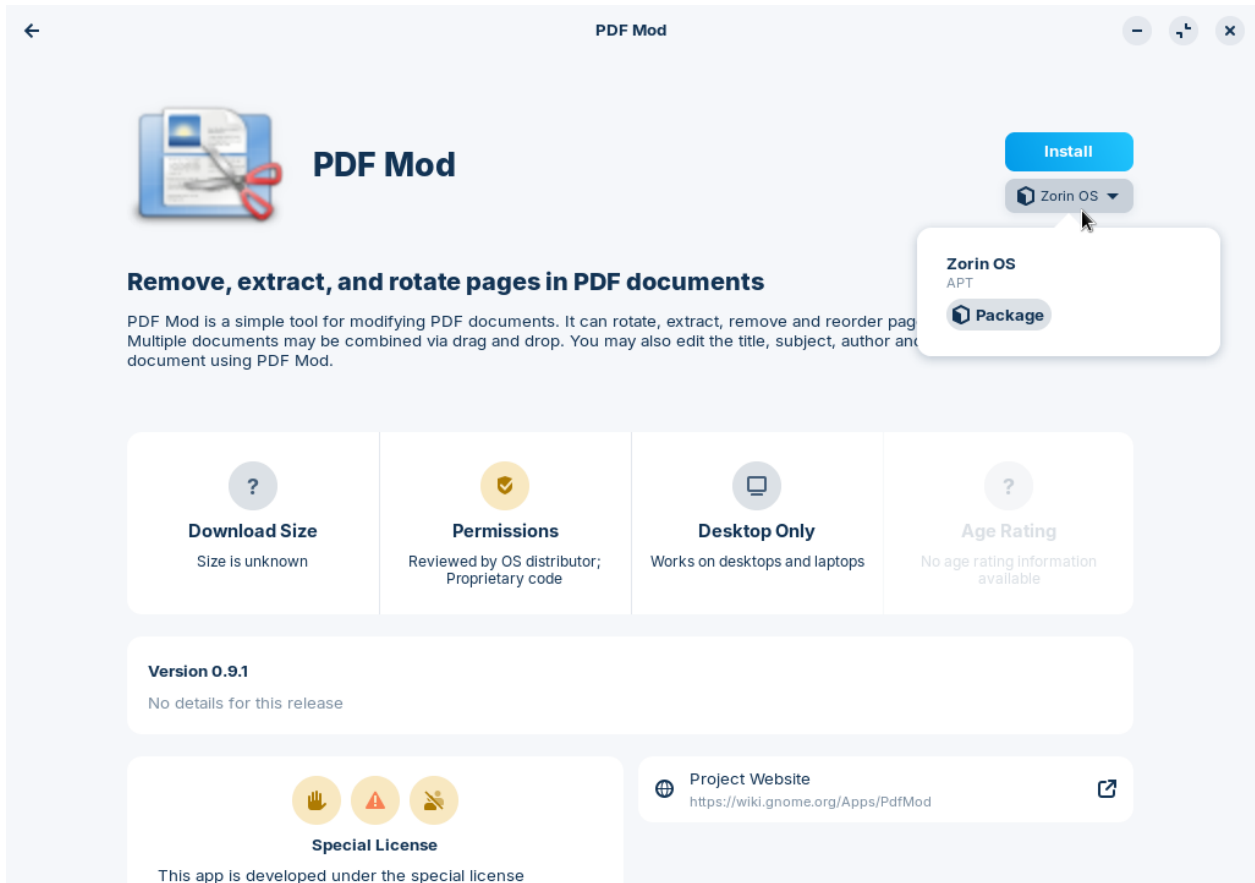
Dot 7

Dot 8

Dots 7 and 8

7. Recommended Applications:

a. **PDF Mod** (by Novell, the makers of Open SuSE): Available from 'Software' or via Synaptic.



The screenshot shows a software center window for the application 'PDF Mod'. The window title is 'PDF Mod'. At the top left is a back arrow, and at the top right are window control buttons (minimize, maximize, close). The main content area features the application icon (a blue folder with a red scissors icon) and the title 'PDF Mod'. Below the icon is a description: 'Remove, extract, and rotate pages in PDF documents'. A paragraph of text follows: 'PDF Mod is a simple tool for modifying PDF documents. It can rotate, extract, remove and reorder pages. Multiple documents may be combined via drag and drop. You may also edit the title, subject, author and document using PDF Mod.' To the right of the description is an 'Install' button. Below the 'Install' button is a dropdown menu showing 'Zorin OS' with a downward arrow. A tooltip is visible over the dropdown, showing 'Zorin OS APT' and a 'Package' button. Below the description are four information cards: 'Download Size' (Size is unknown), 'Permissions' (Reviewed by OS distributor; Proprietary code), 'Desktop Only' (Works on desktops and laptops), and 'Age Rating' (No age rating information available). Below these cards is a 'Version 0.9.1' section with the text 'No details for this release'. At the bottom left is a 'Special License' section with three icons (hand, warning, and a crossed-out icon) and the text 'This app is developed under the special license'. At the bottom right is a 'Project Website' section with a globe icon, the text 'Project Website', the URL 'https://wiki.gnome.org/Apps/PdfMod', and an external link icon.

b. Shutter:

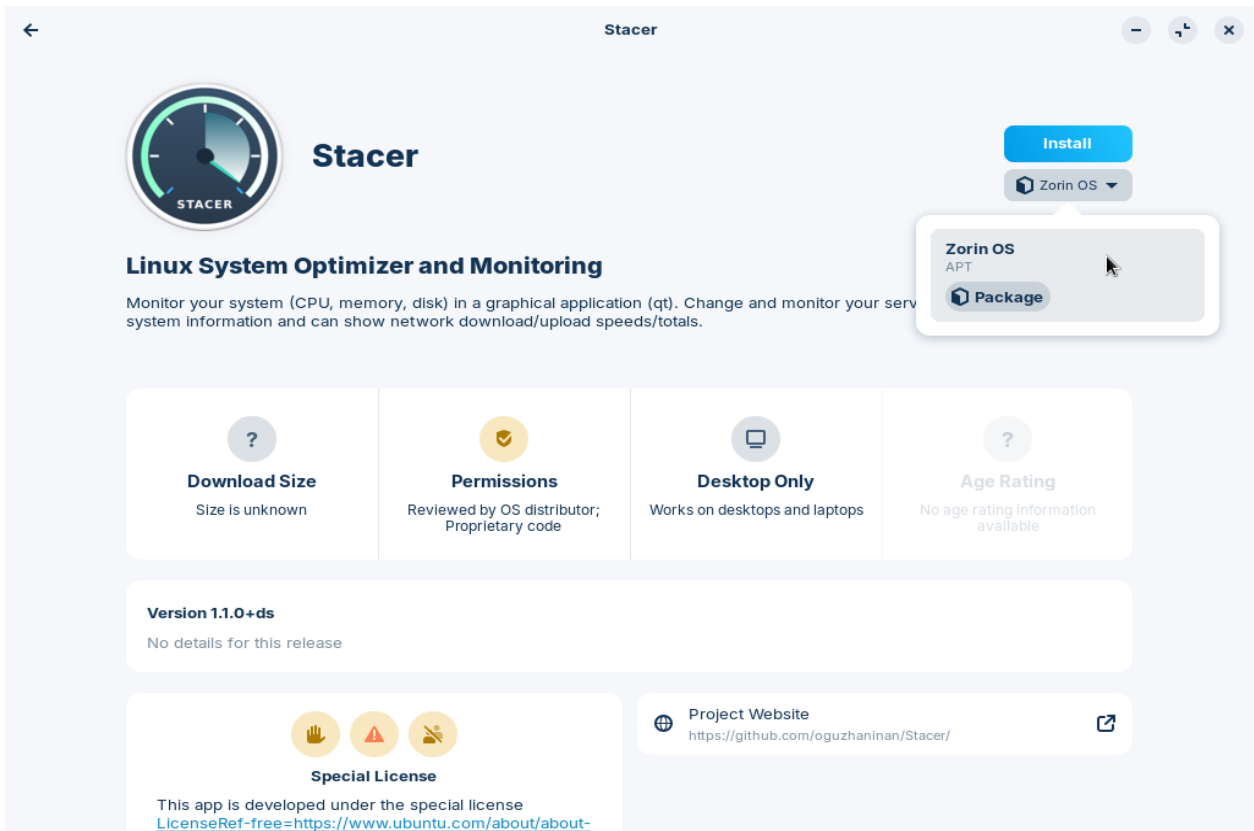
More versatile than the bundled 'Screenshot'. Can be installed from Software Channel or via Synaptic.



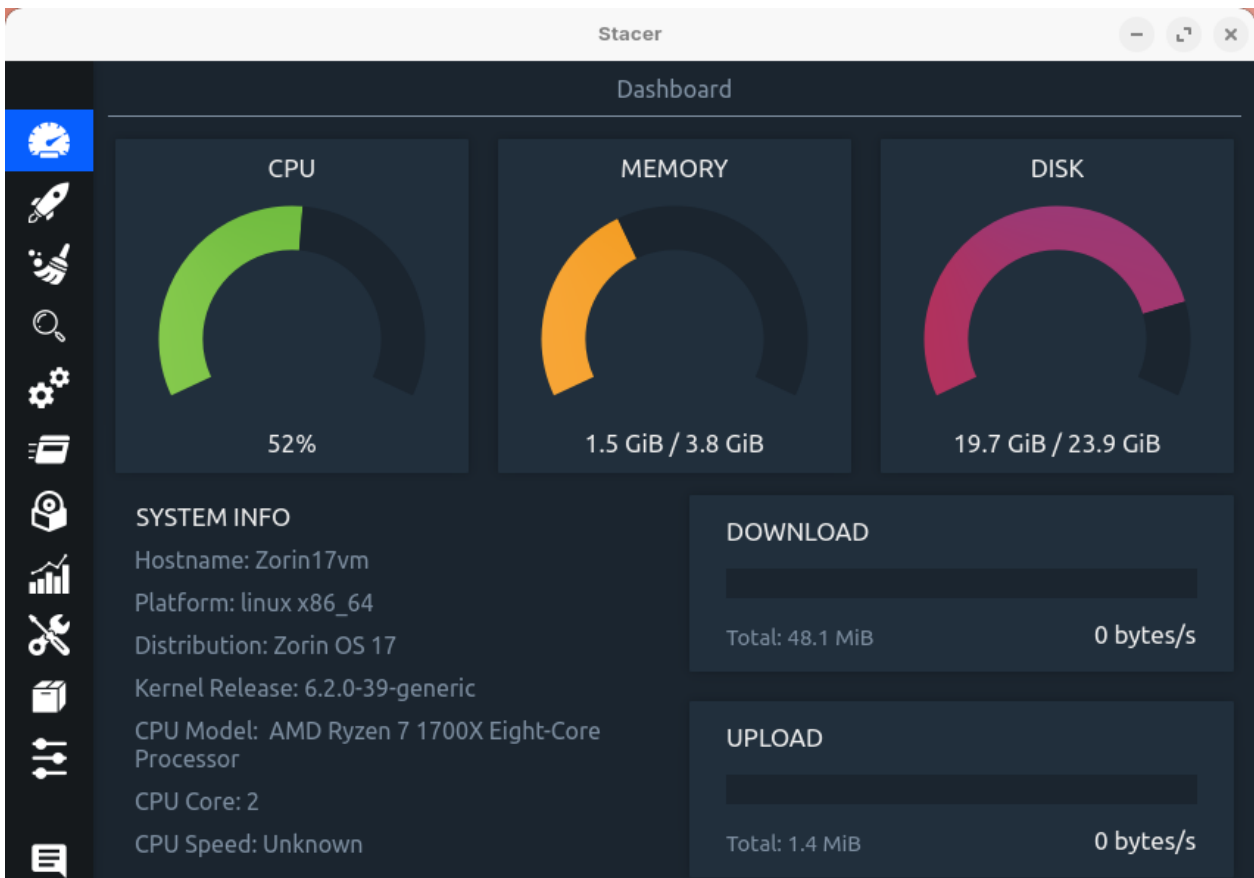
Capture, edit and share screenshots

Shutter is a feature-rich screenshot program. You can take a screenshot of a specific area, window, your whole screen, or even of a website - apply different effects to it, draw on it to highlight points, and then upload to an image hosting site, all within one

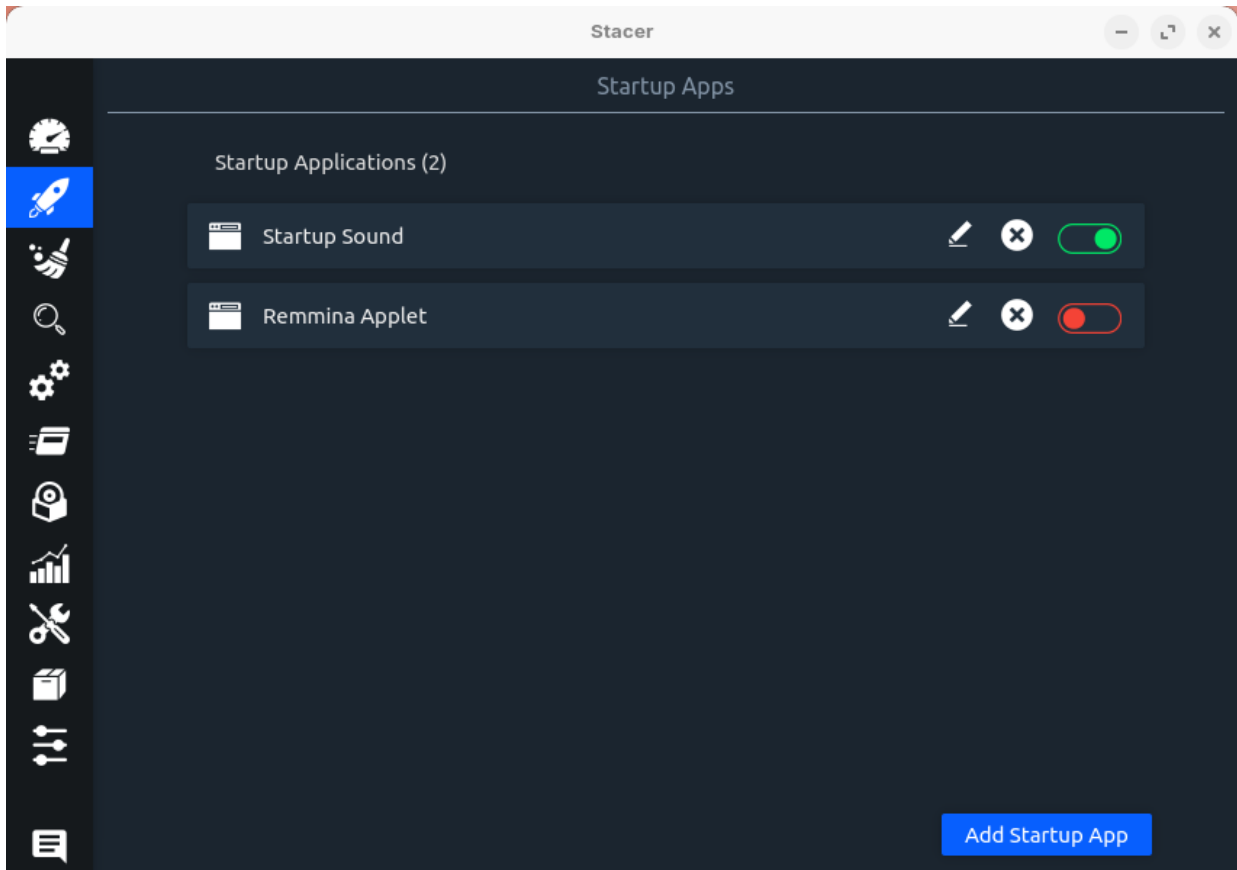
c. **Stacer:** - available in the Software Channel:



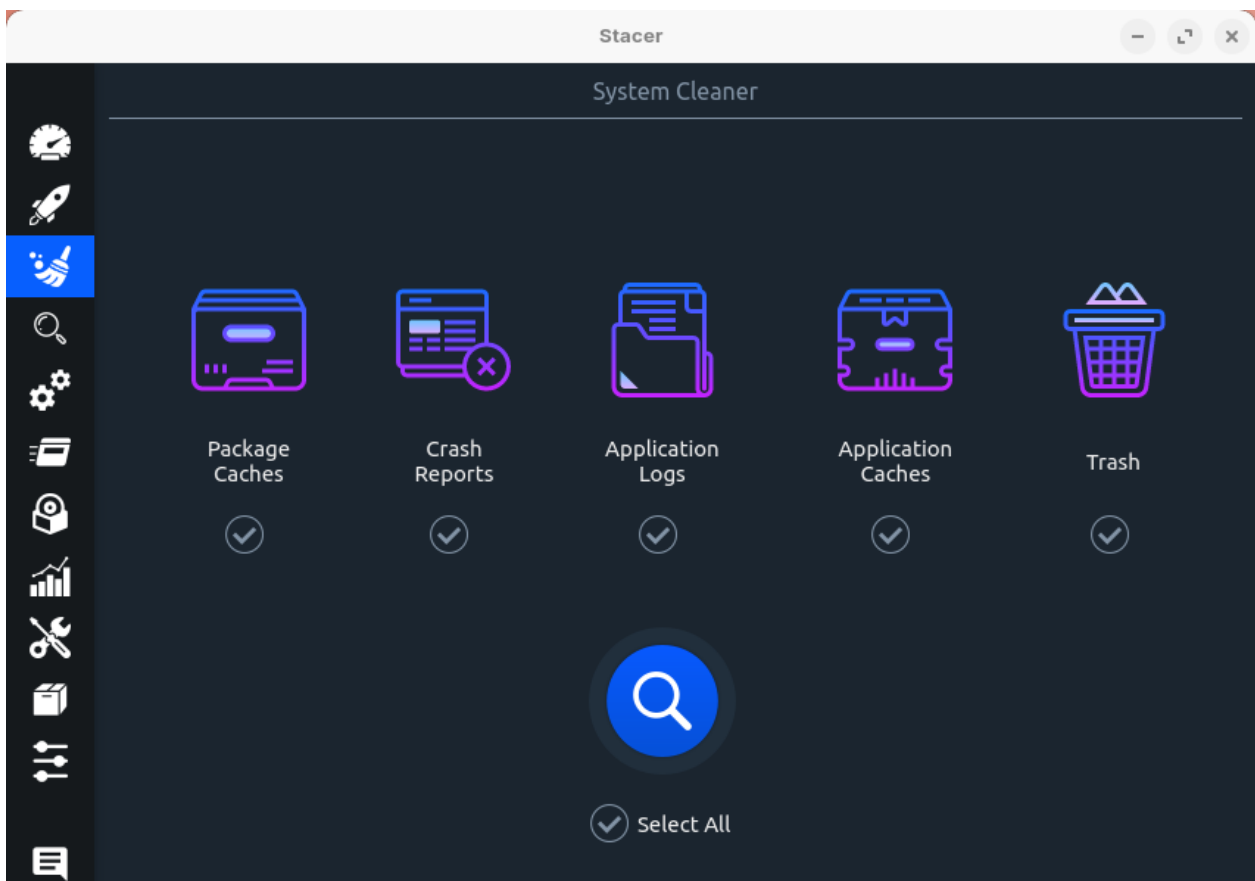
Dashboard:



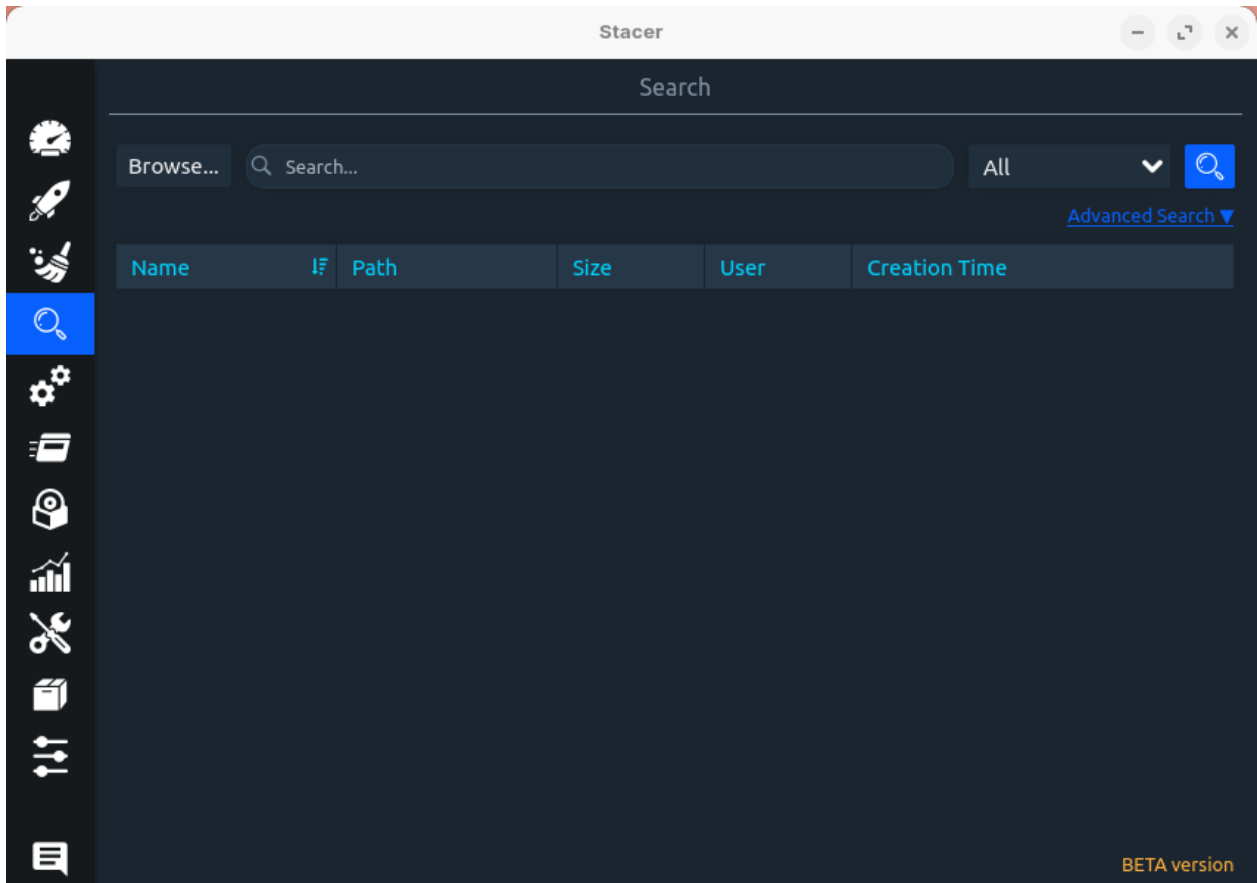
Startup Applications:



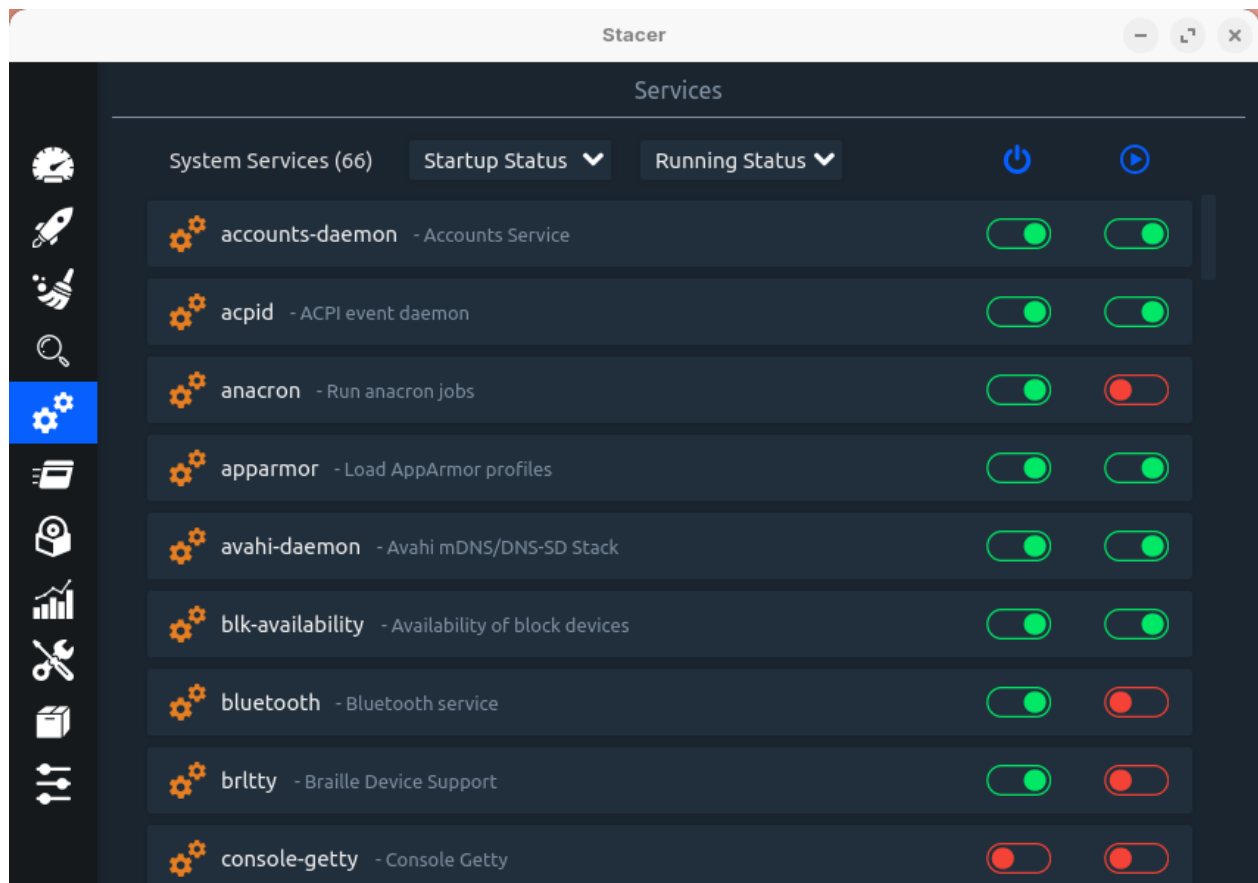
System Cleaner:



Search (Beta):



Services:



Processes:

PID	Resident Mem	%Memory	User	%CPU	Process
7415	152.7 MiB	3.9	swarf...or437	9.4	stacer
1324	438.7 MiB	11.2	swarf...or437	2.5	/usr/bin/gnome-shell
1685	514.5 MiB	13.1	swarf...or437	1.1	/usr/bin/gnome-software --gapplication-...
1212	22.5 MiB	0.5	swarf...or437	0.2	/usr/bin/pulseaudi...emonize=no --log-...
1336	6.4 MiB	0.1	swarf...or437	0.2	/usr/bin/dbus-daemo...-config-file=/usr/...
3319	12.8 MiB	0.3	swarf...or437	0.2	/usr/bin/speech-dispatcher -s -t 0
5884	147.0 MiB	3.7	swarf...or437	0.2	gnome-control-center
5261	76.9 MiB	1.9	swarf...or437	0.1	gjs /usr/share/gnome-shell/extensions/...
1202	10.4 MiB	0.2	swarf...or437	0	/lib/systemd/systemd --user
1203	5.6 MiB	0.1	swarf...or437	0	(sd-pam)
1210	5.0 MiB	0.1	swarf...or437	0	/usr/bin/pipewire
1211	4.8 MiB	0.1	swarf...or437	0	/usr/bin/pipewire-media-session
1218	7.0 MiB	0.1	swarf...or437	0	/usr/bin/gnome-keyring-daemon --...
1220	5.9 MiB	0.1	swarf...or437	0	/usr/bin/dbus-daemon --session --...

Uninstaller:

Package	Snap Packages
accountsservice	0
acl	0
acpi-support	0
acpid	0
adduser	0
adwaita-icon-theme	0
adwaita-icon-theme-full	0
alacarte	0
alsa-base	0

Resources:

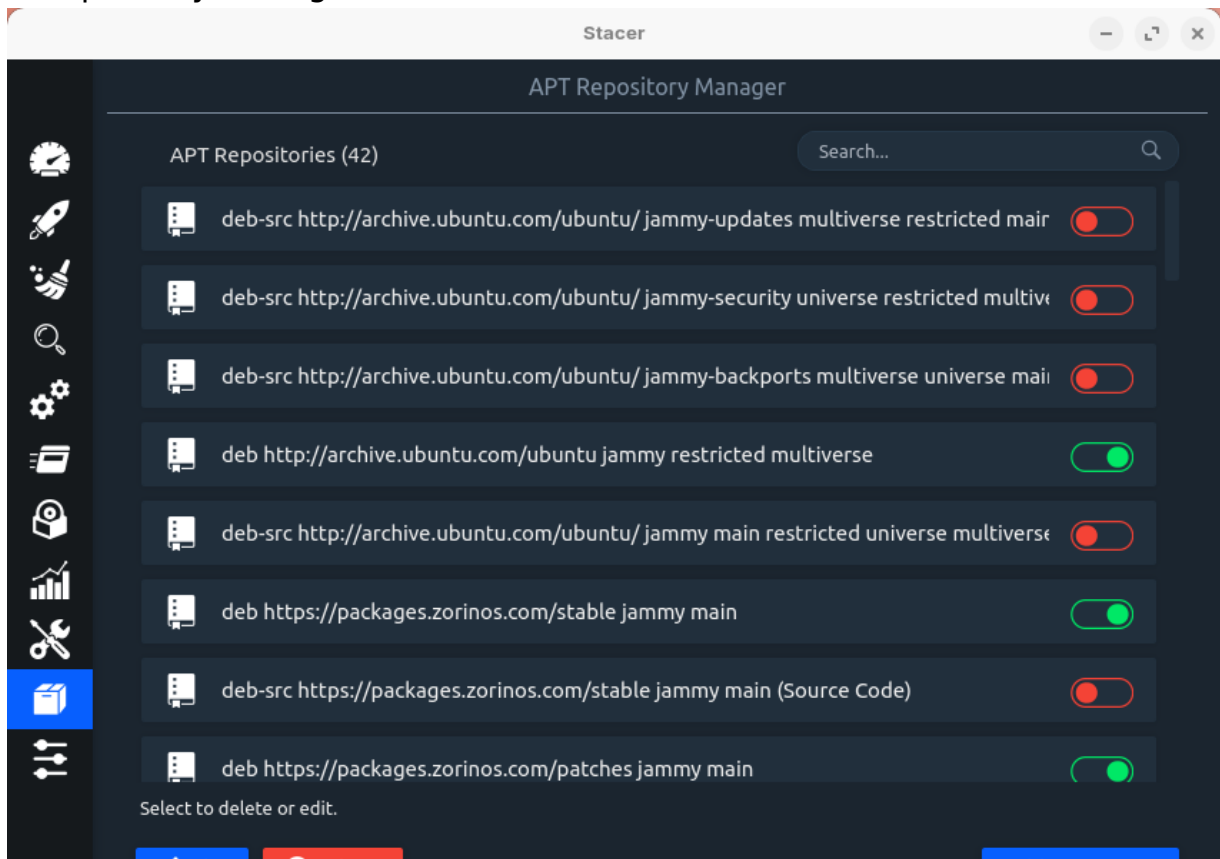


Helpers:

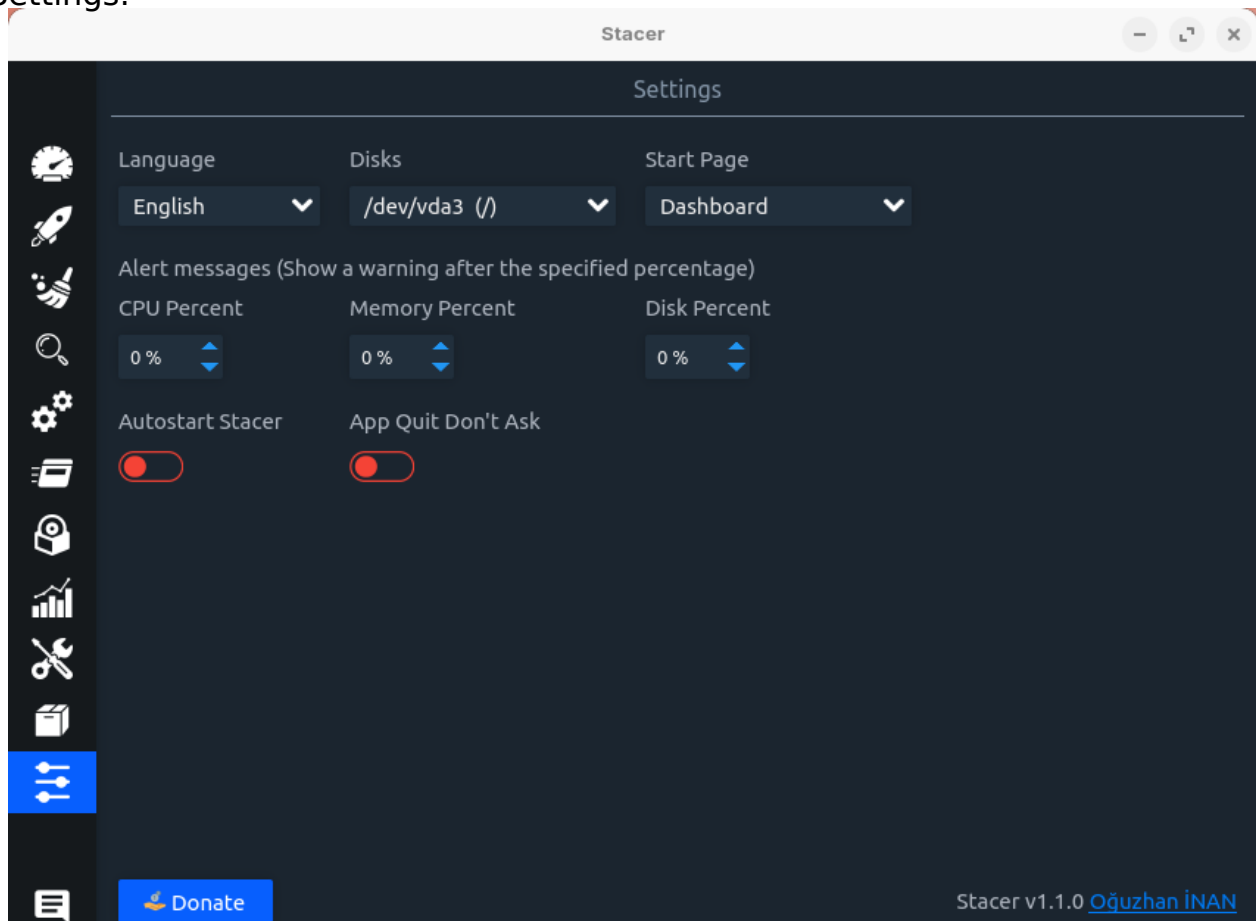
The screenshot shows the Stacer application window with the 'Helpers' tab selected. The 'Host Manage' section is active, showing a list of 7 hosts. A 'New Host' link is visible in the top right corner.

IP Address	IF	Full Qualified	Aliases
127.0.0.1		localhost	
127.0.1.1		Zorin17vm	
::1		ip6-localhost	ip6-loopback
fe00::0		ip6-localnet	
ff00::0		ip6-mcastprefix	
ff02::1		ip6-allnodes	
ff02::2		ip6-allrouters	

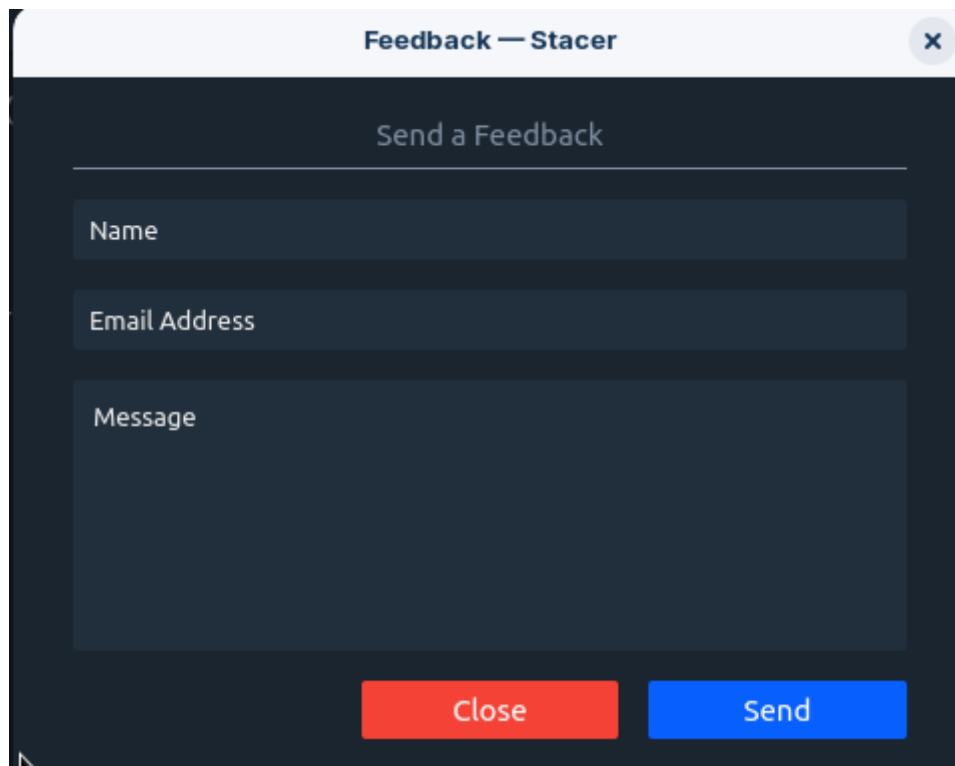
APT Repository Manager:



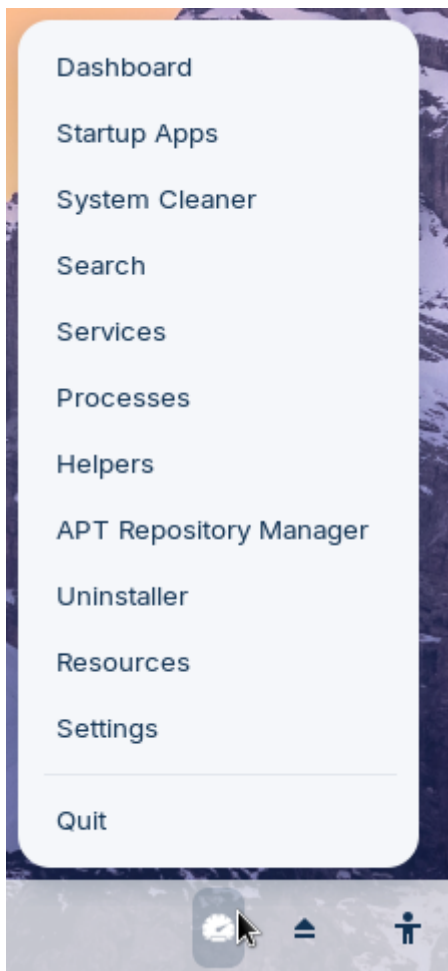
Settings:



Feedback:



If you decide to 'Close' Stacer you have the option of minimising it to the tray and access any of its features from the system tray icon:

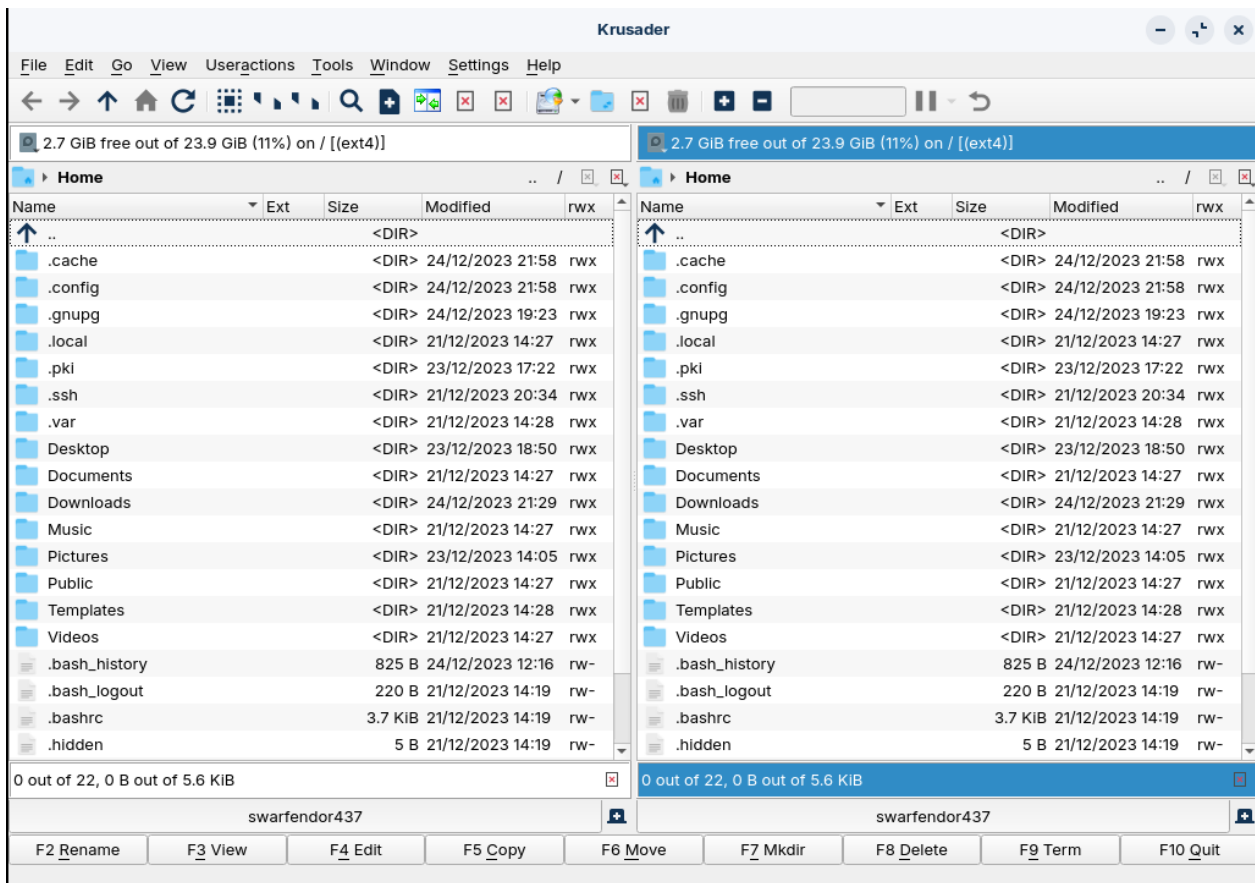


d. Alternative File Manager: Krusader (File Manager/Explorer):

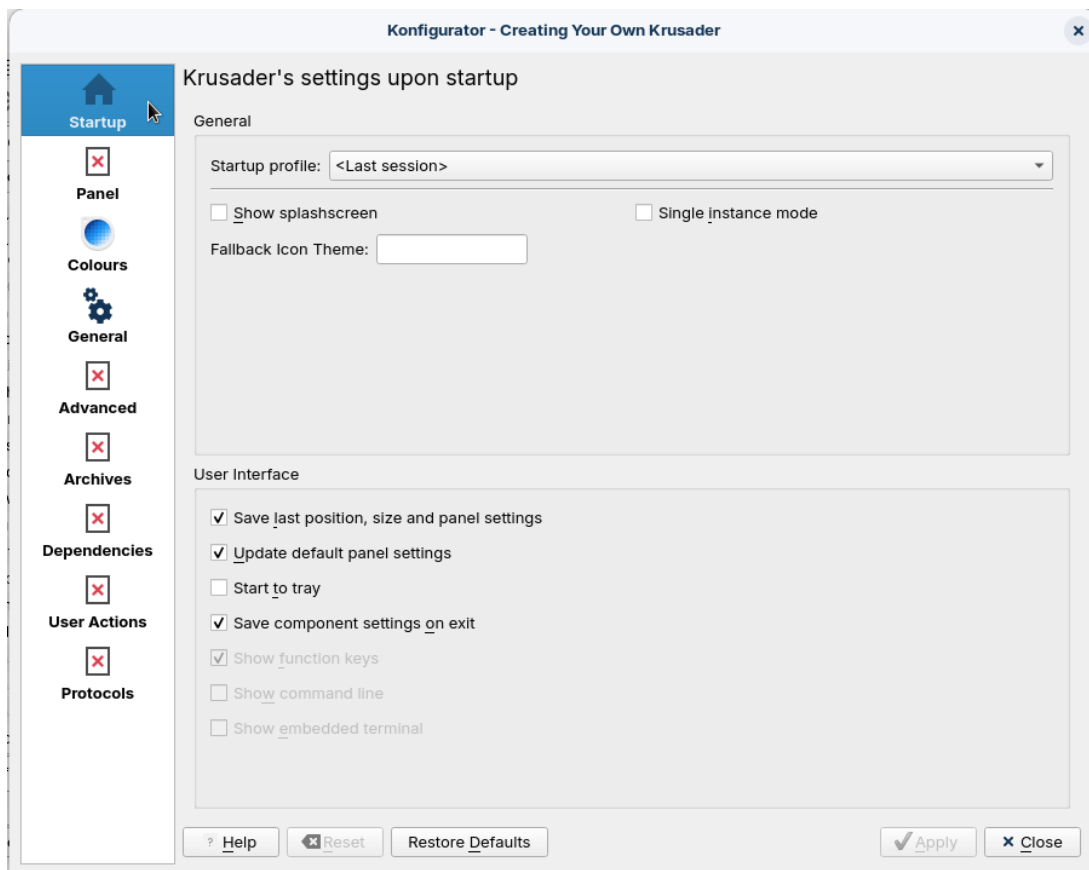
Available in 'Software'.



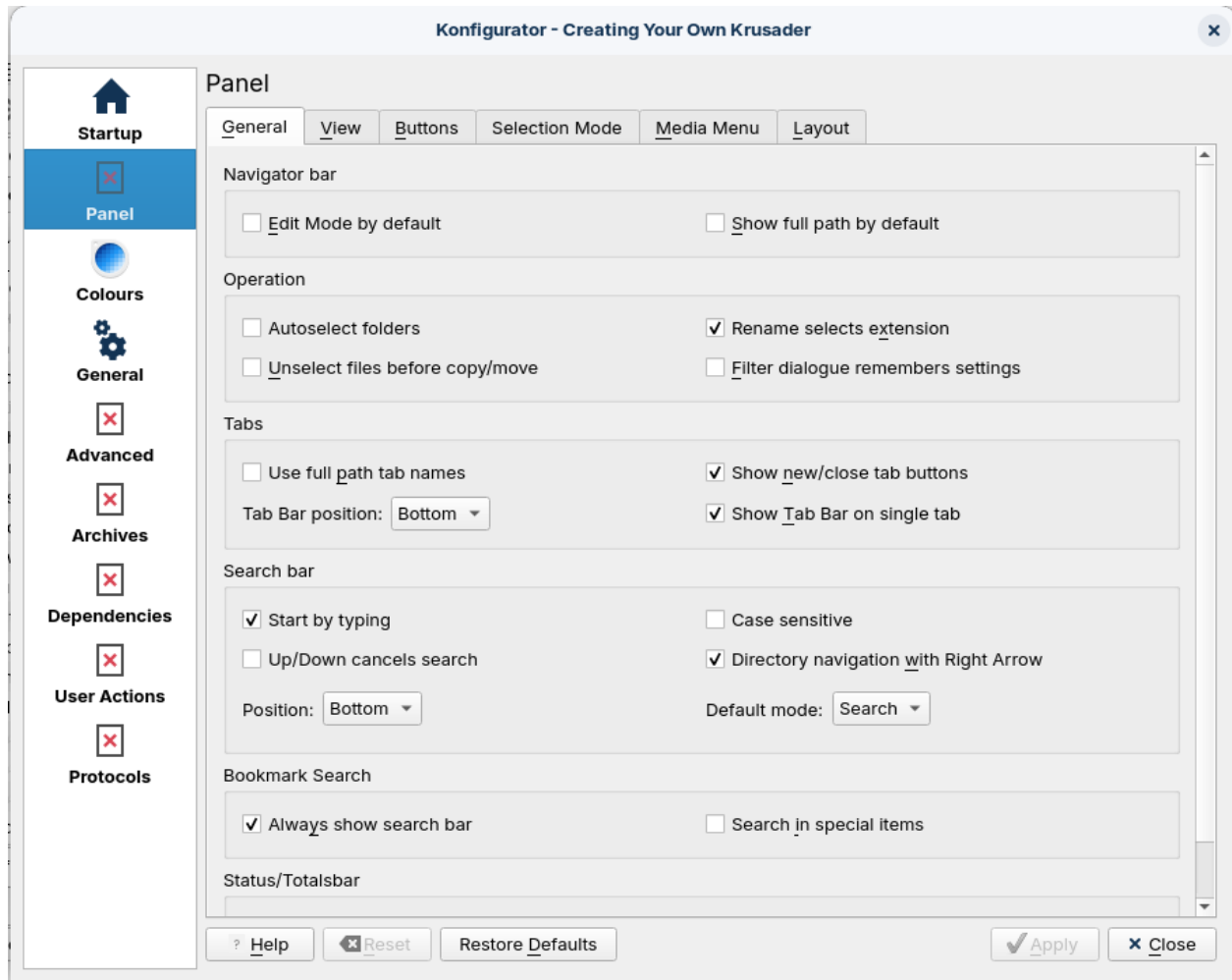
Krusader has changed quite a lot so after install you will get screens of advice should you need elements that require additional items/packages/settings. Unfortunately after removing and reinstalling I can no longer replicate the 'warning/advisories' - there will be two screens so make sure you inspect them carefully and make any adjustments. There are further tweaks available after installation – In respect of a needed text editor, because Krusader was aimed at the KDE (Kool) desktop it will need 'Kate' (Kool Text Editor) if Text Editing is required using Krusader. (You may wish to use this instead of the default **Files** which you should leave on the system – removing it [**Files**] also removes Rhythmbox and a host of other functions needed for the OS to work smoothly! Screenshot of general interface on next page - after installing Kate it works but be sure to choose the APT version of Kate as the first option in Software is snap which baulked!:



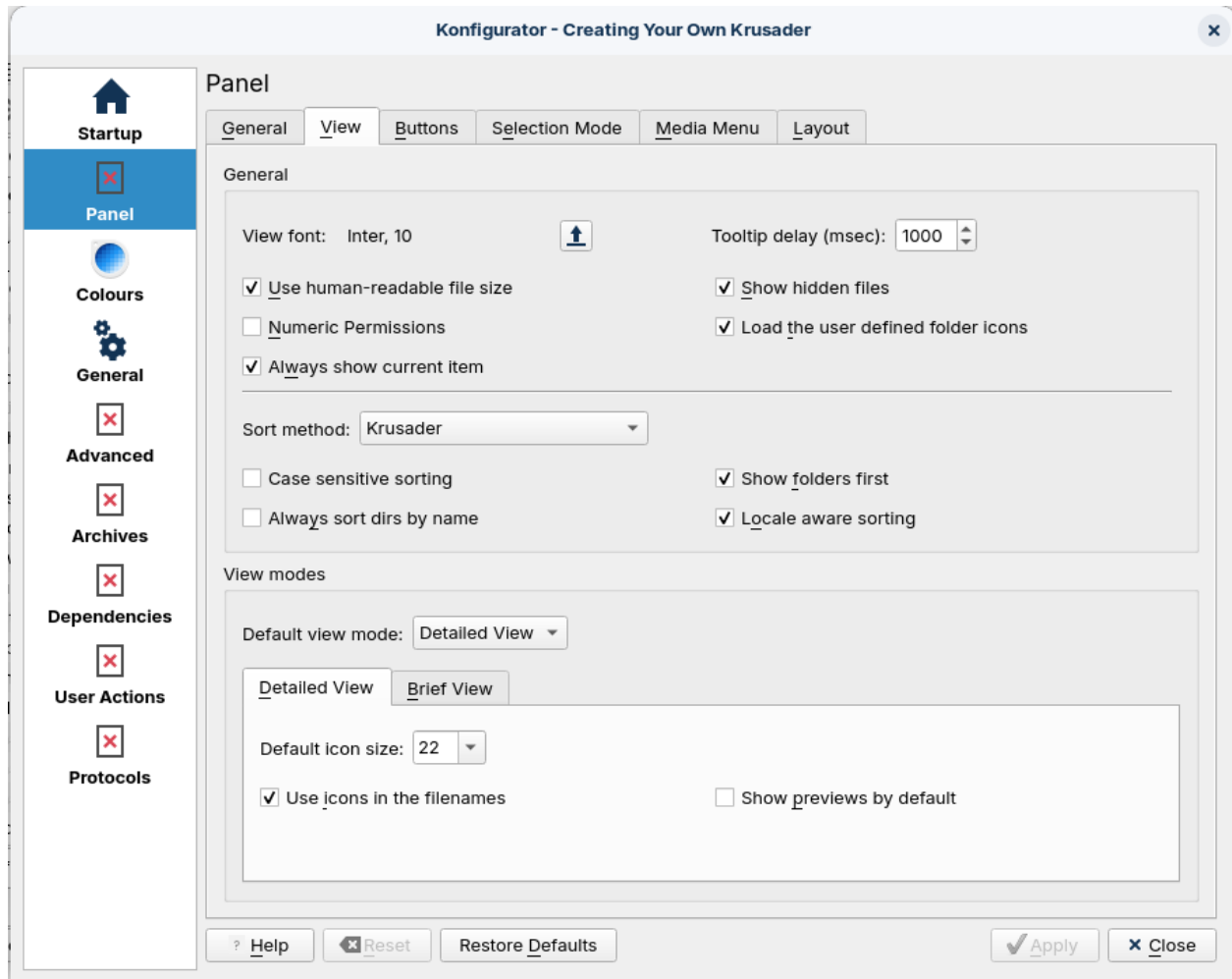
Configure crusader (from Settings on Menu bar): Configure startup of App.



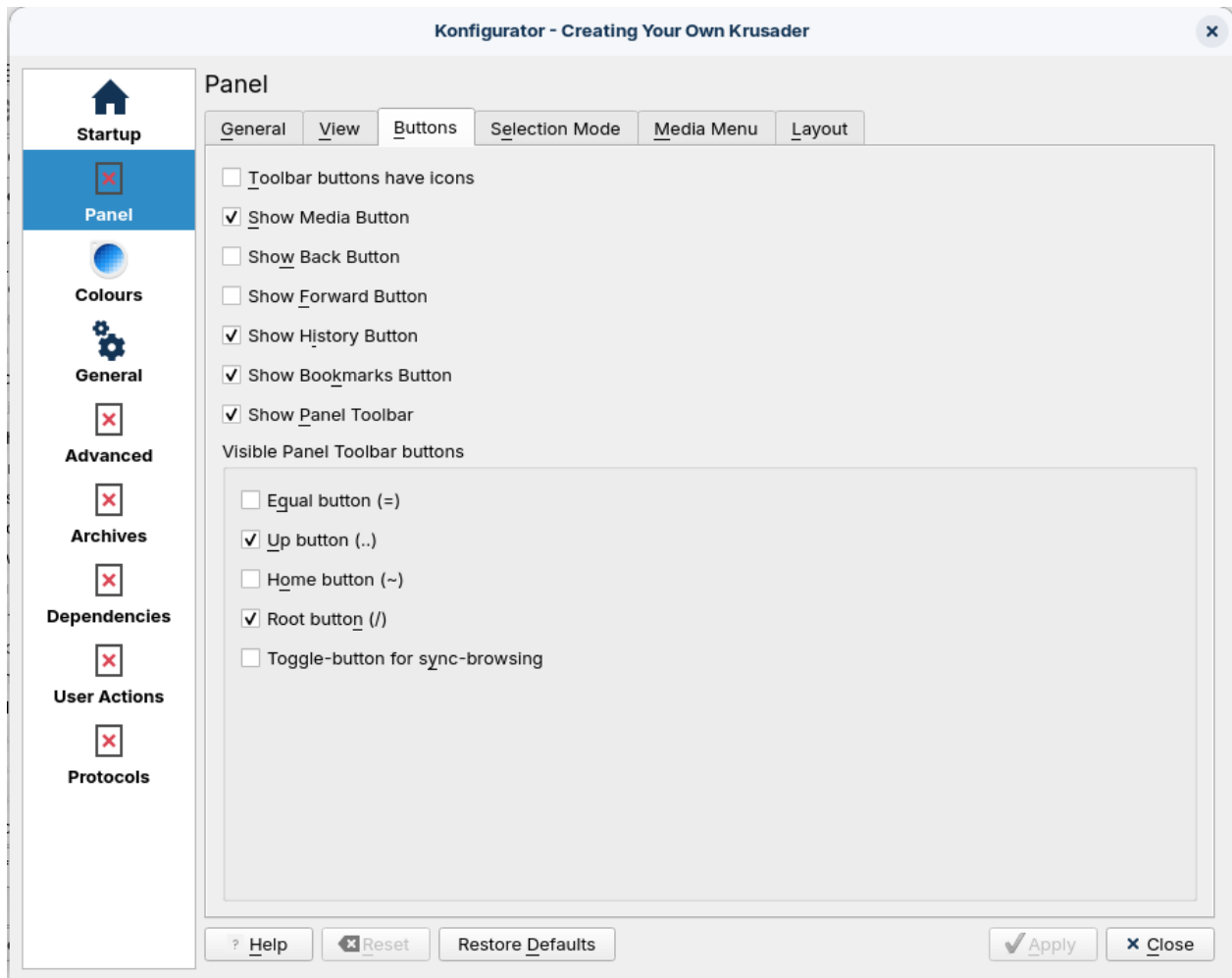
Panel - General Tab:



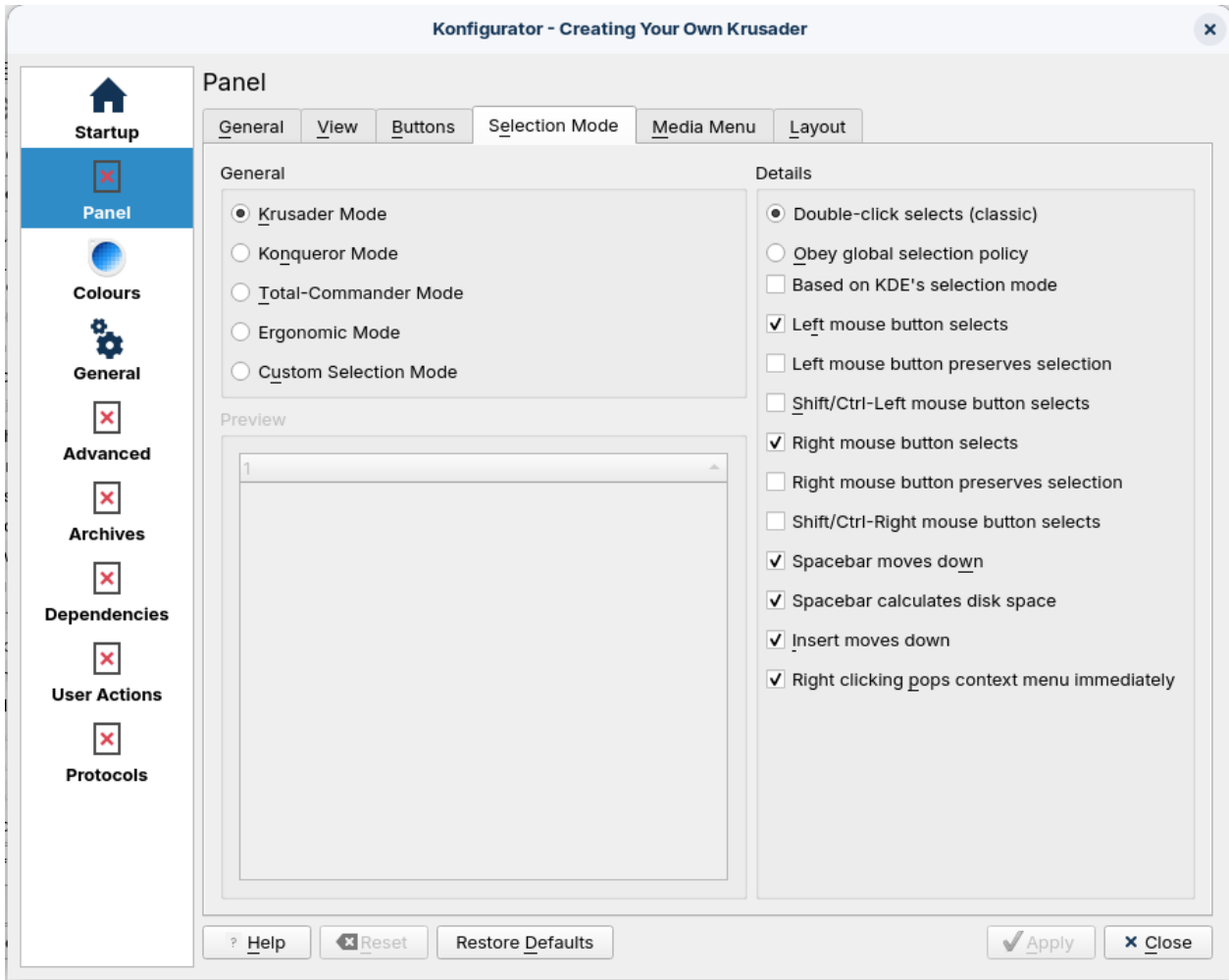
Panel - View Tab:



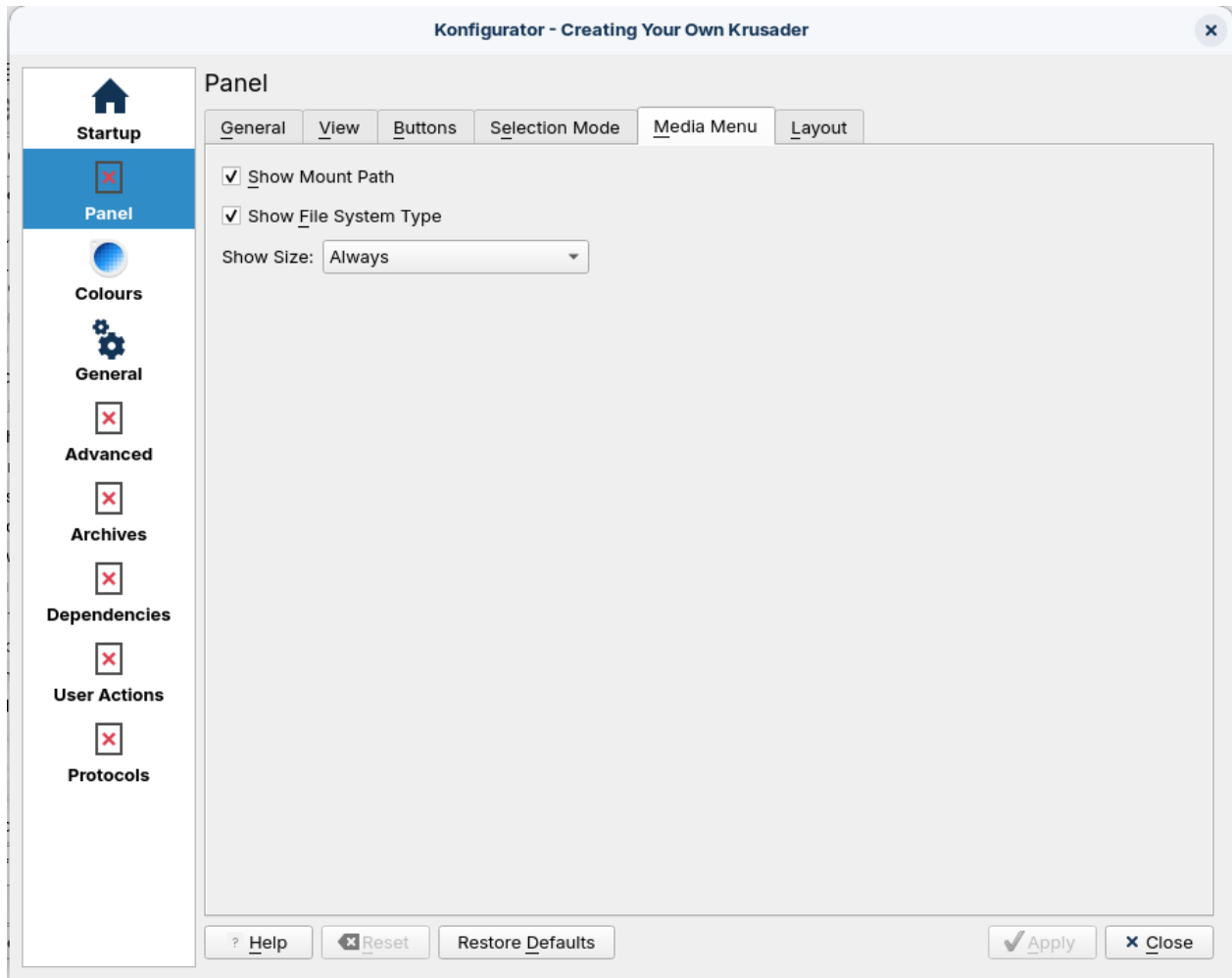
Panel - Buttons Tab:



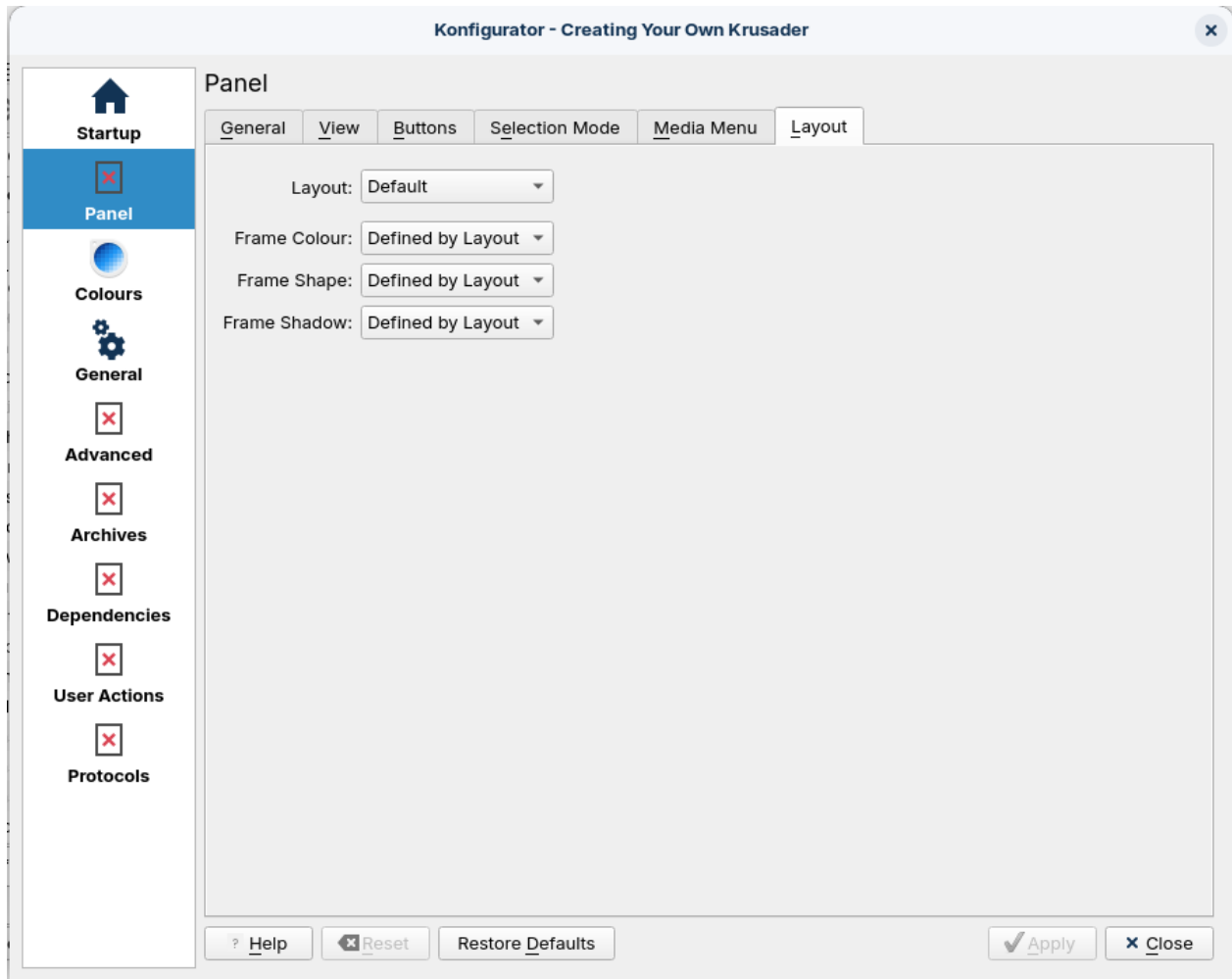
Panel - Selection Mode tab:



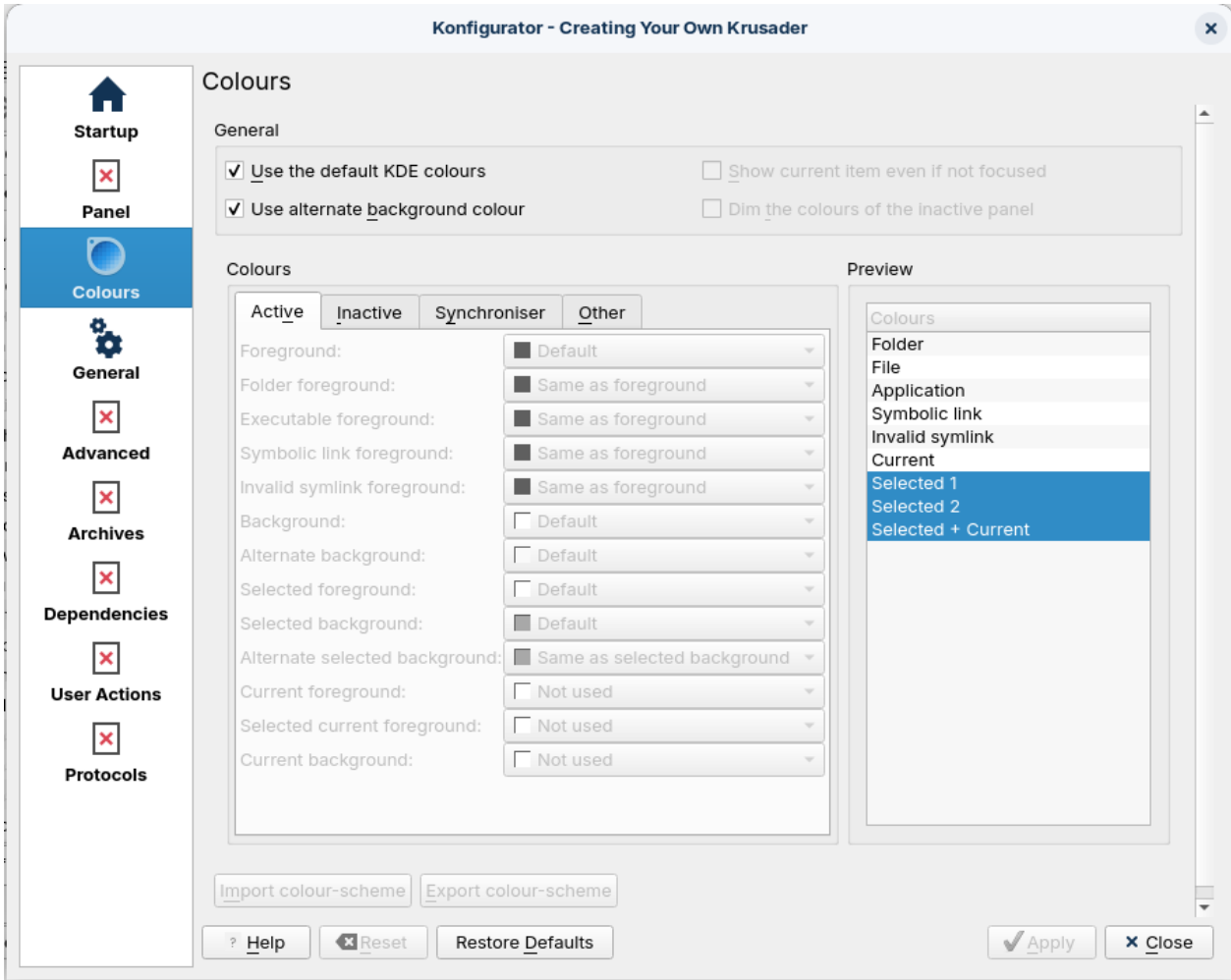
Panel Media Menu tab:



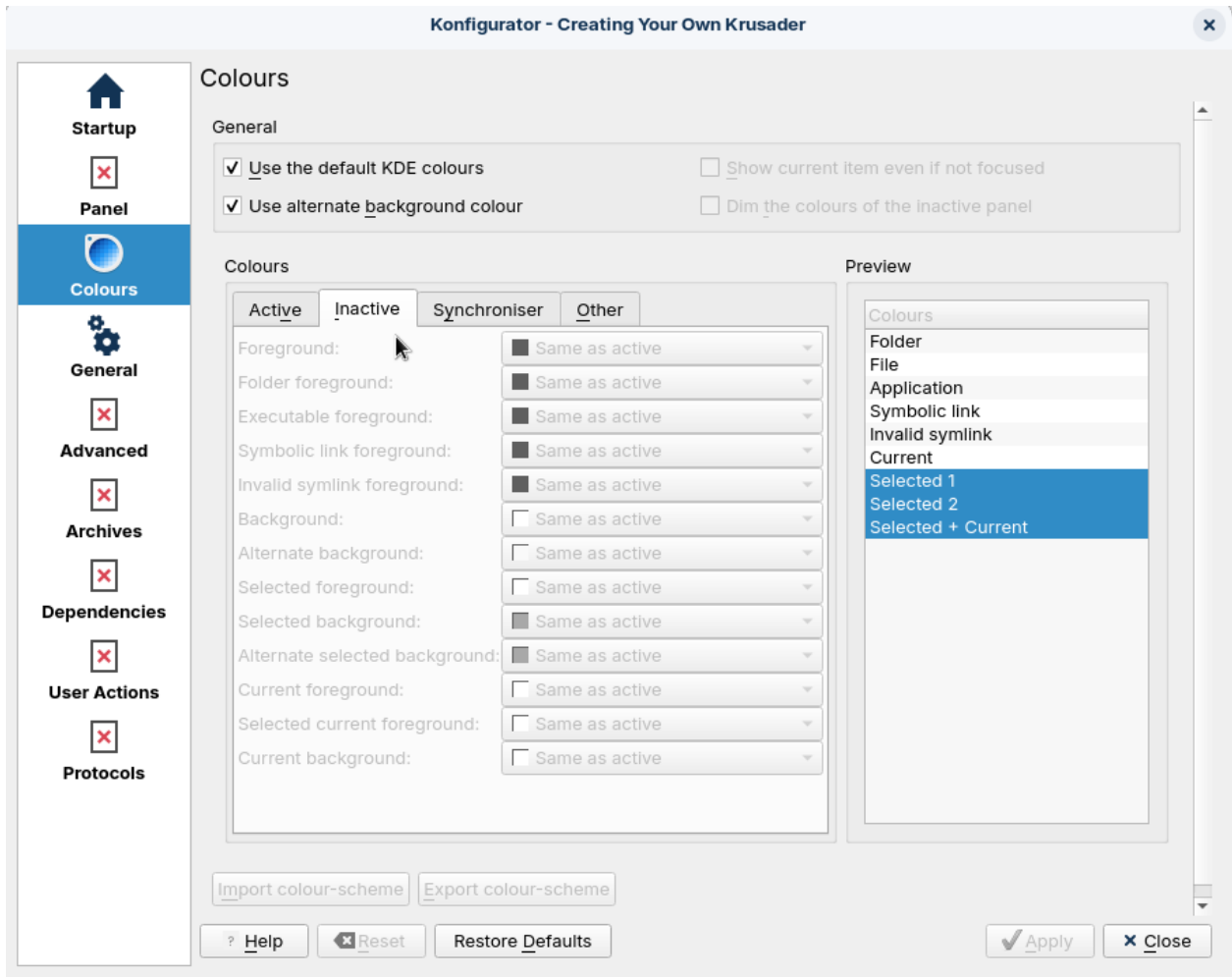
Panel - Layout tab:



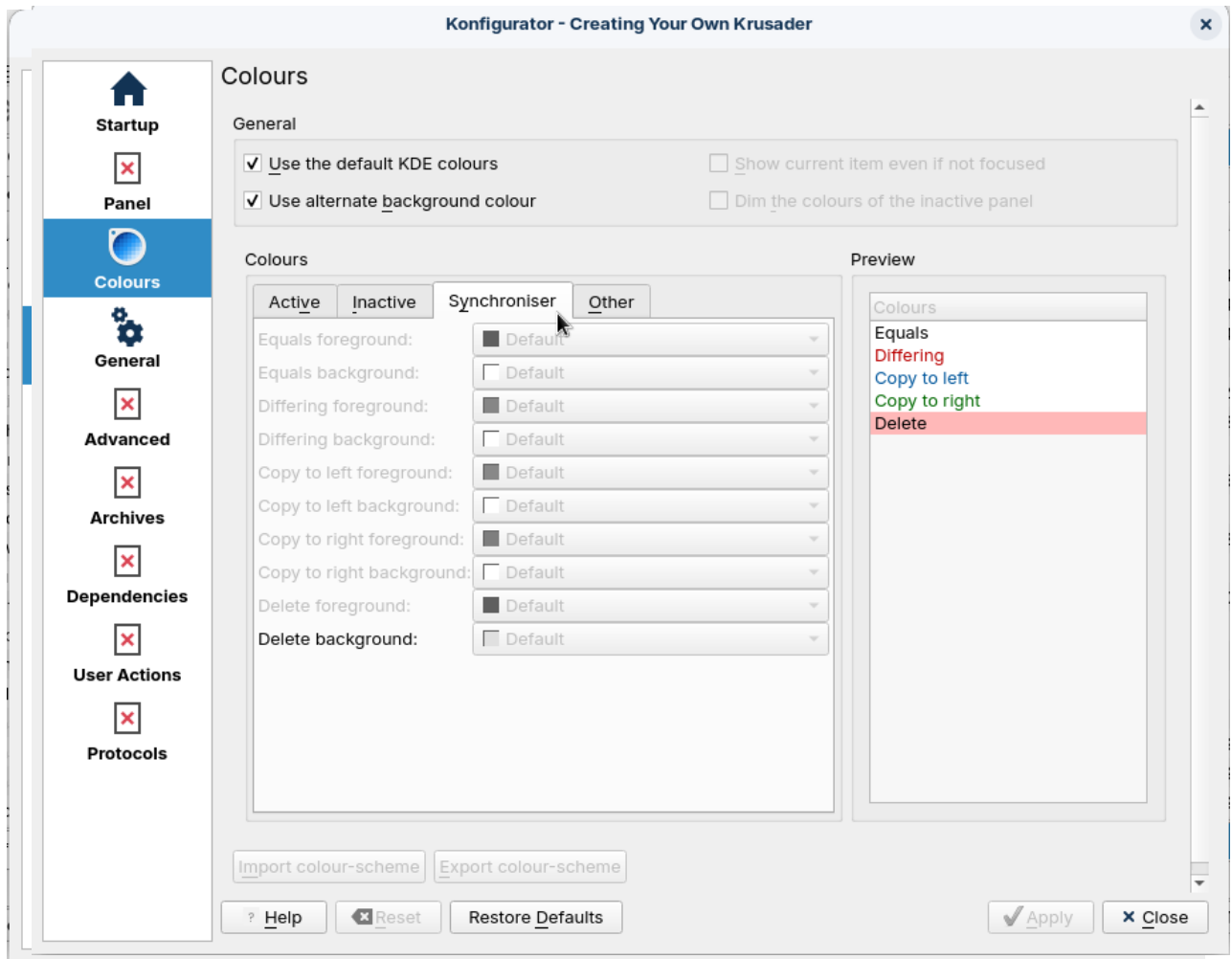
Colours - Active tab



Colours - Inactive tab



Colours - Synchroniser tab



Colours - Other tab

The screenshot shows the 'Konfigurator - Creating Your Own Krusader' window. The left sidebar contains navigation icons for Startup, Panel, Colours (selected), General, Advanced, Archives, Dependencies, User Actions, and Protocols. The main area is titled 'Colours' and is divided into 'General' and 'Colours' sections.

General

- Use the default KDE colours
- Show current item even if not focused
- Use alternate background colour
- Dim the colours of the inactive panel

Colours

Active Inactive Synchroniser **Other**

Quicksearch, match foreground:	Default
Quicksearch, match background:	Default
Quicksearch, non-match foreground:	Default
Quicksearch, non-match background:	Default
Statusbar, active foreground:	Default
Statusbar, active background:	Default
Statusbar, inactive foreground:	Default
Statusbar, inactive background:	Default

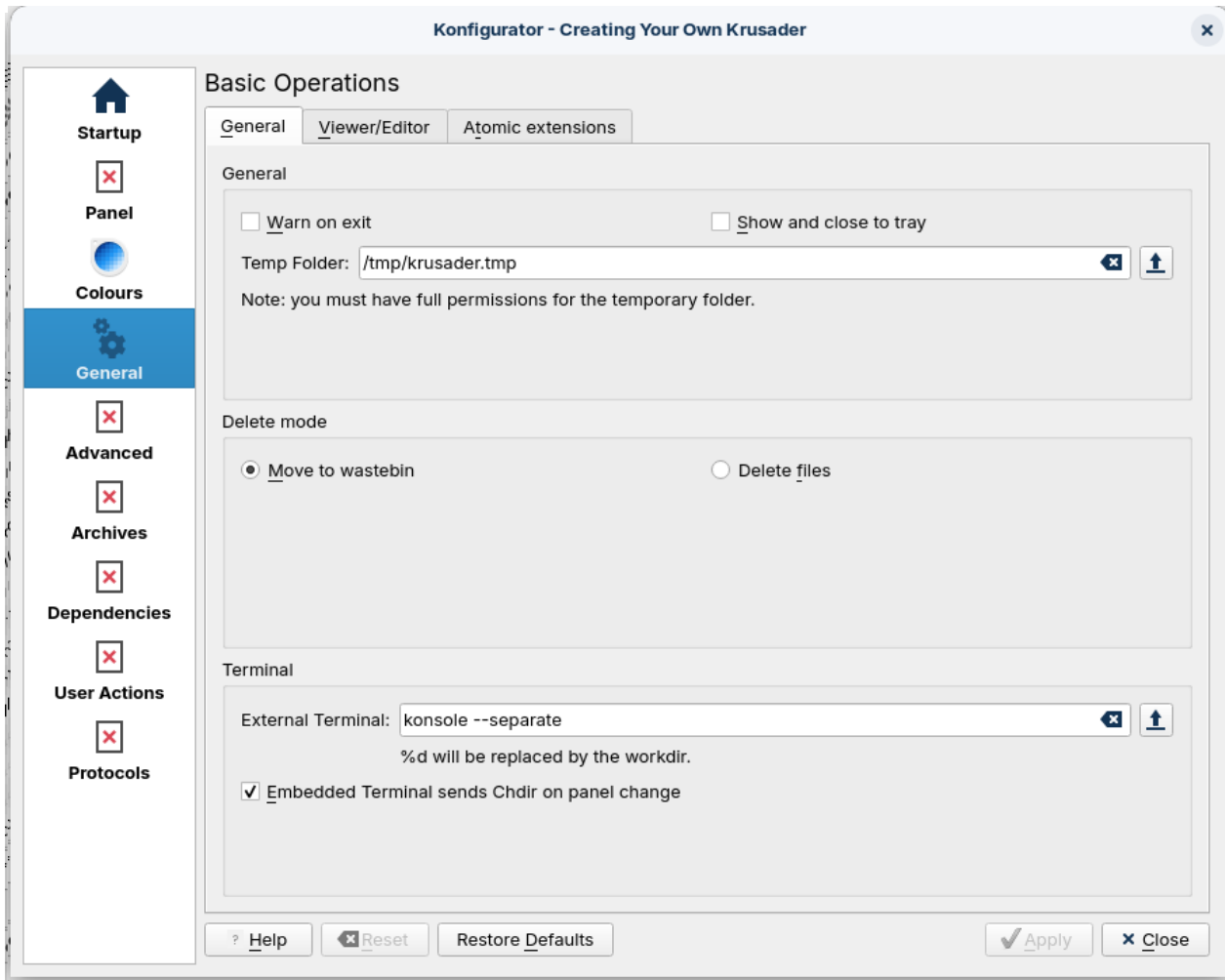
Preview

Colours

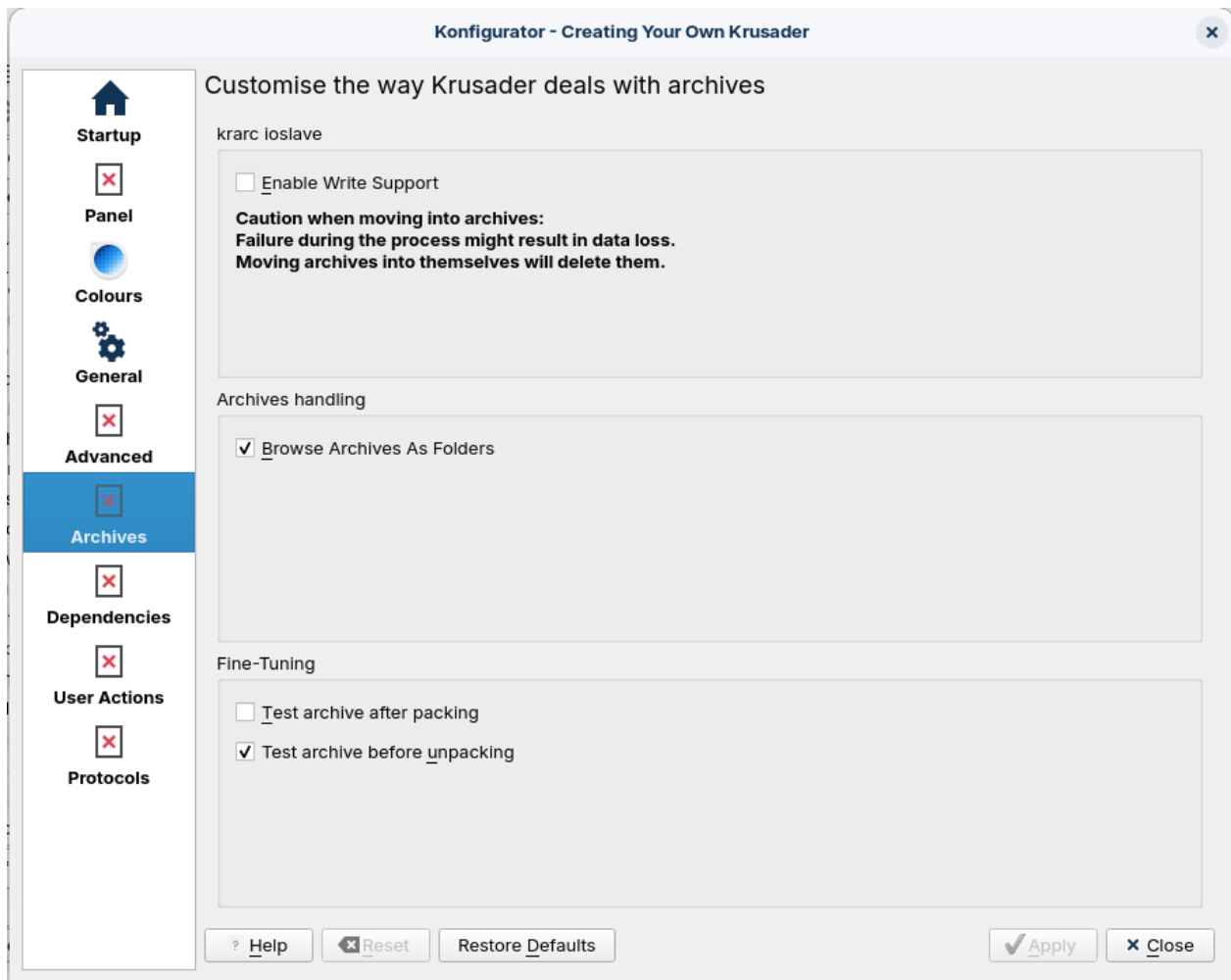
- Statusbar inactive
- Statusbar active
- Quicksearch match
- Quicksearch non-match

Buttons: Import colour-scheme, Export colour-scheme, ? Help, Reset, Restore Defaults, Apply, Close

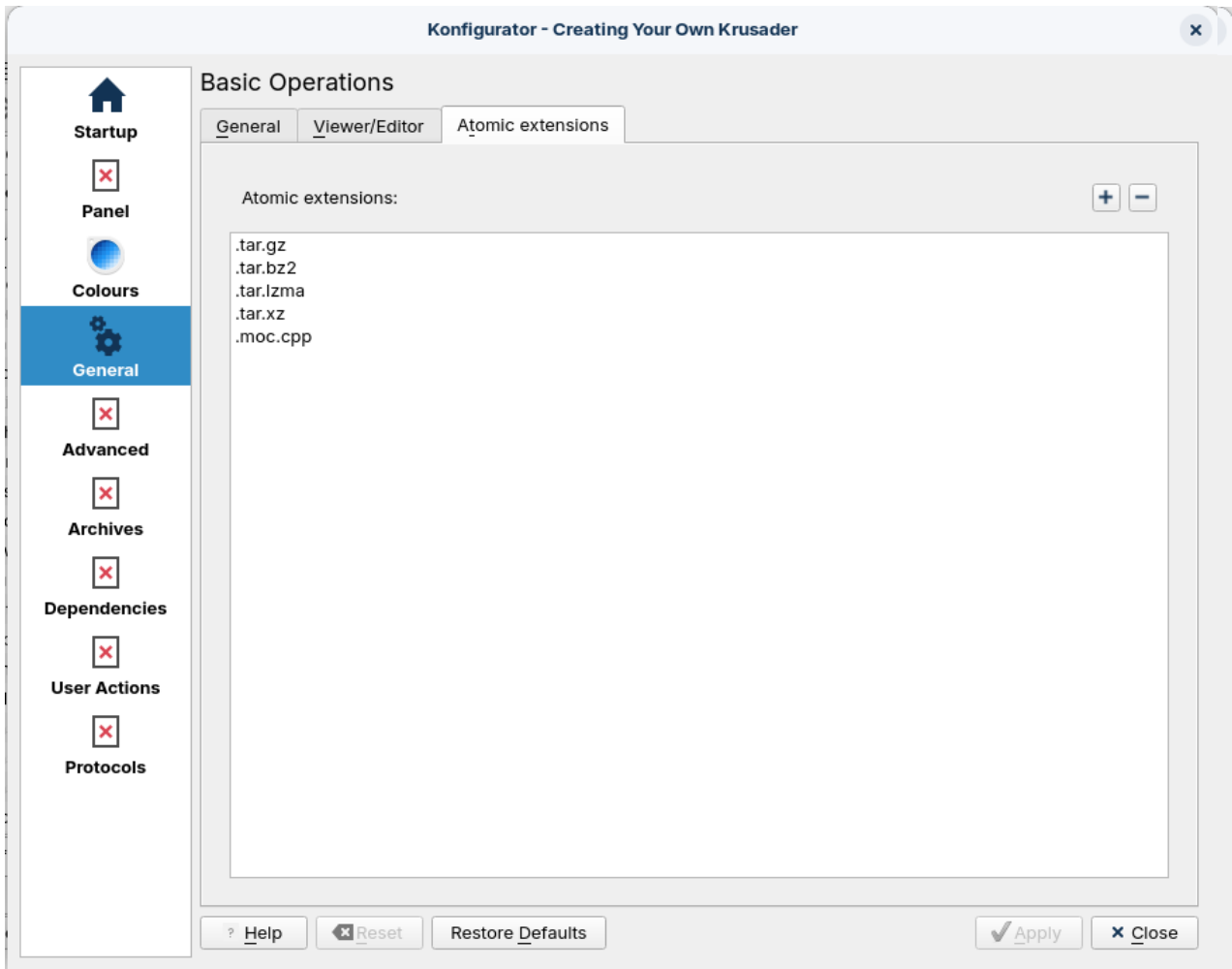
Basic Operations - General tab:



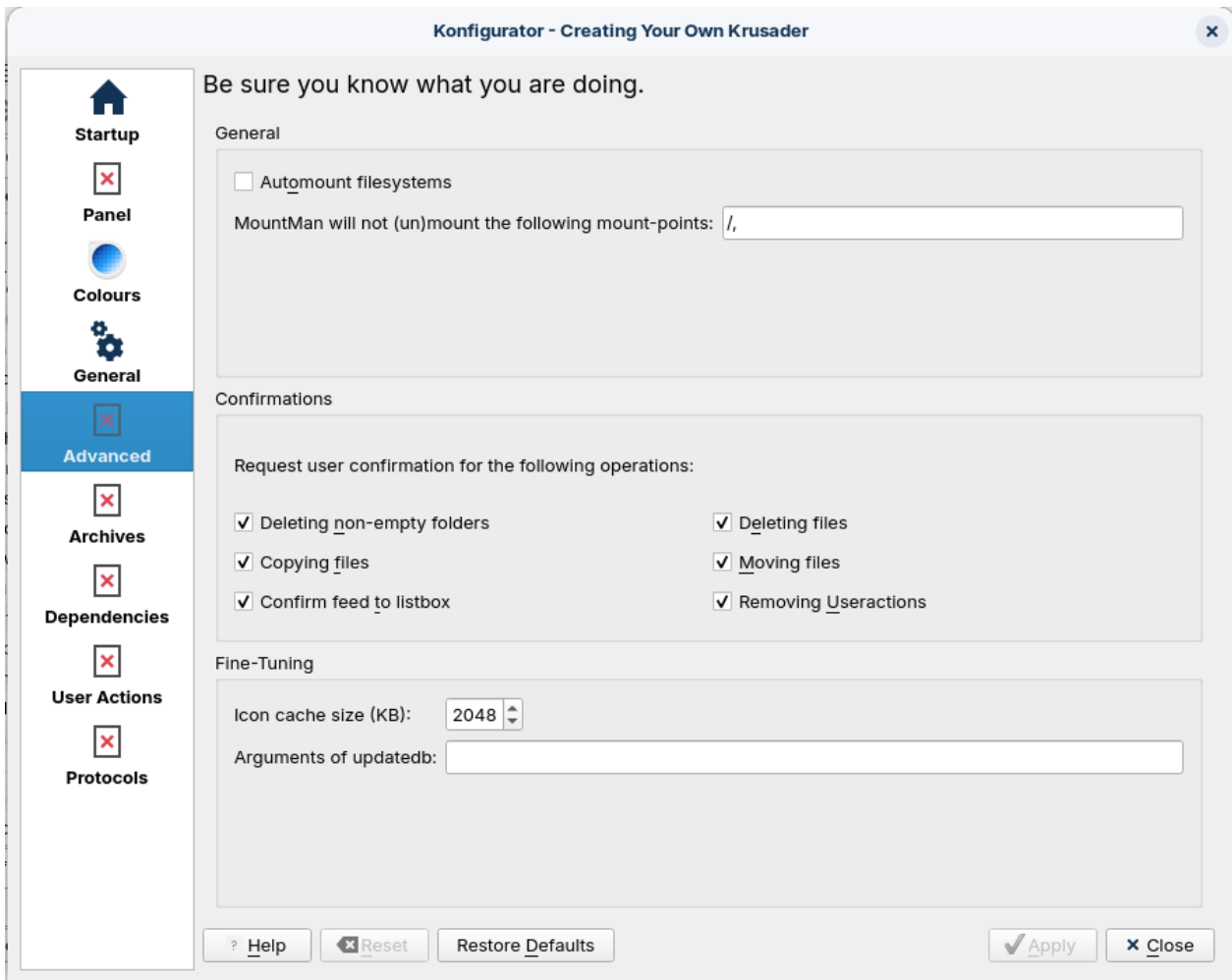
Basic Operations - Viewer/Editor tab:



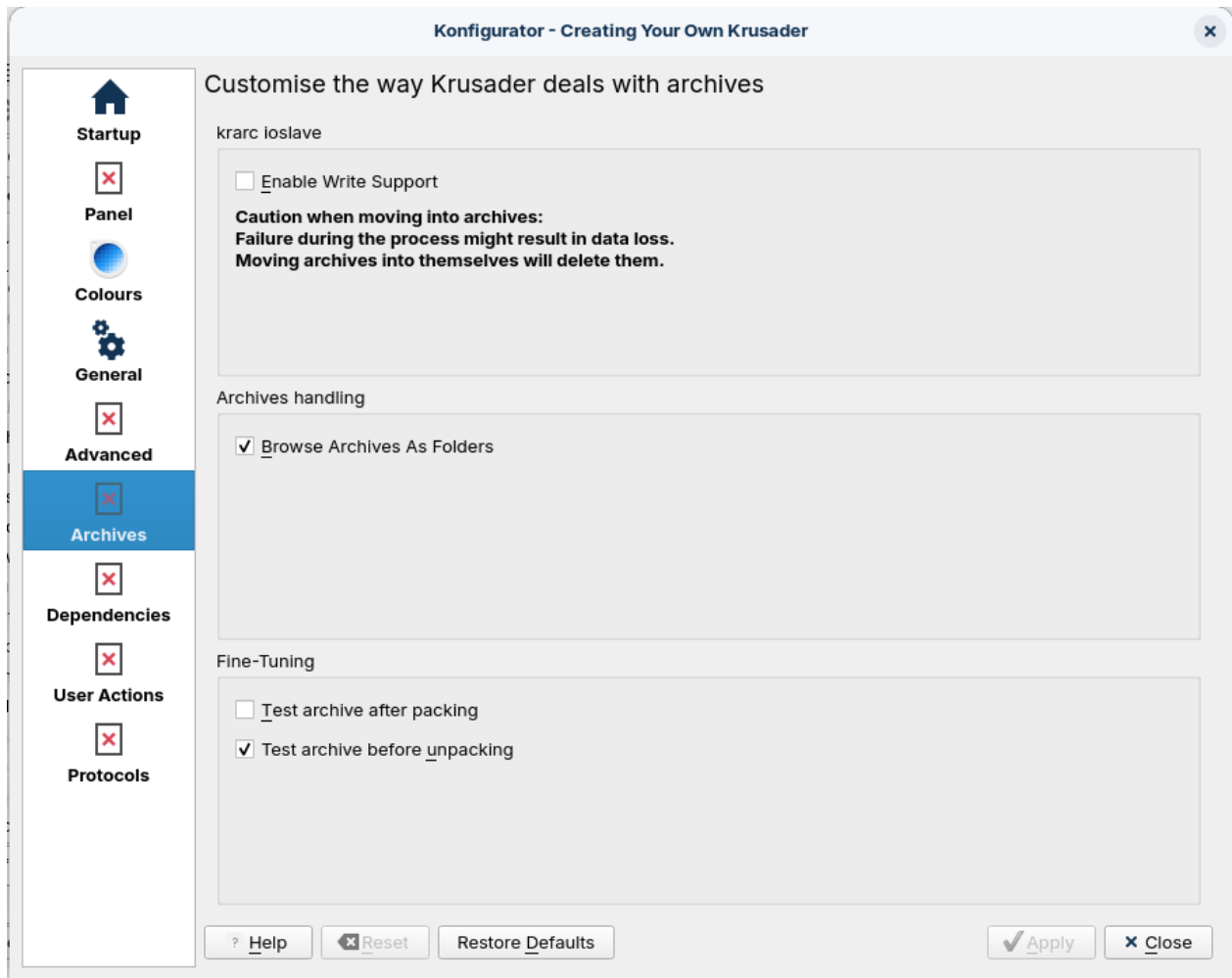
Basic Operations - Atomic extensions tab:



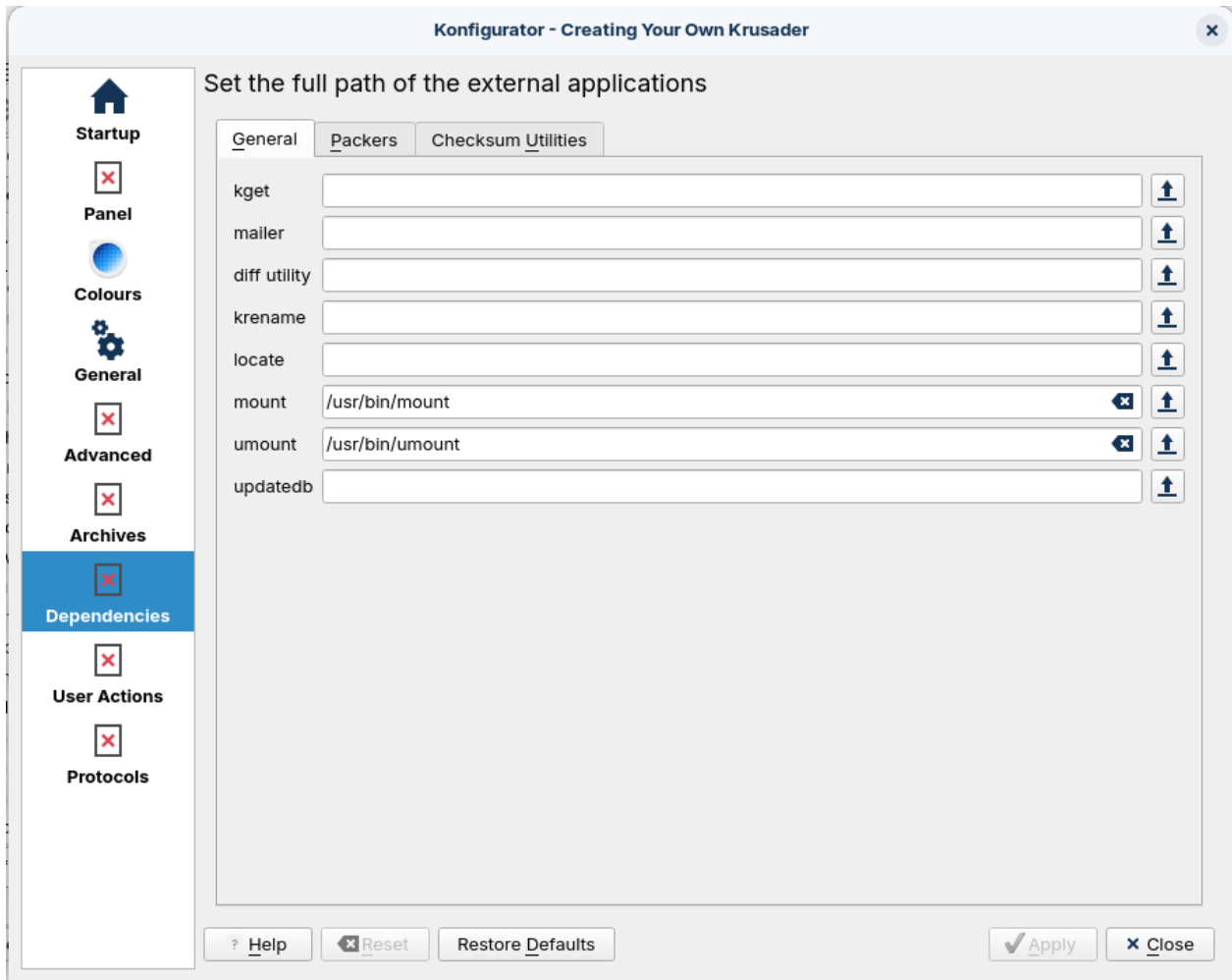
Advanced:



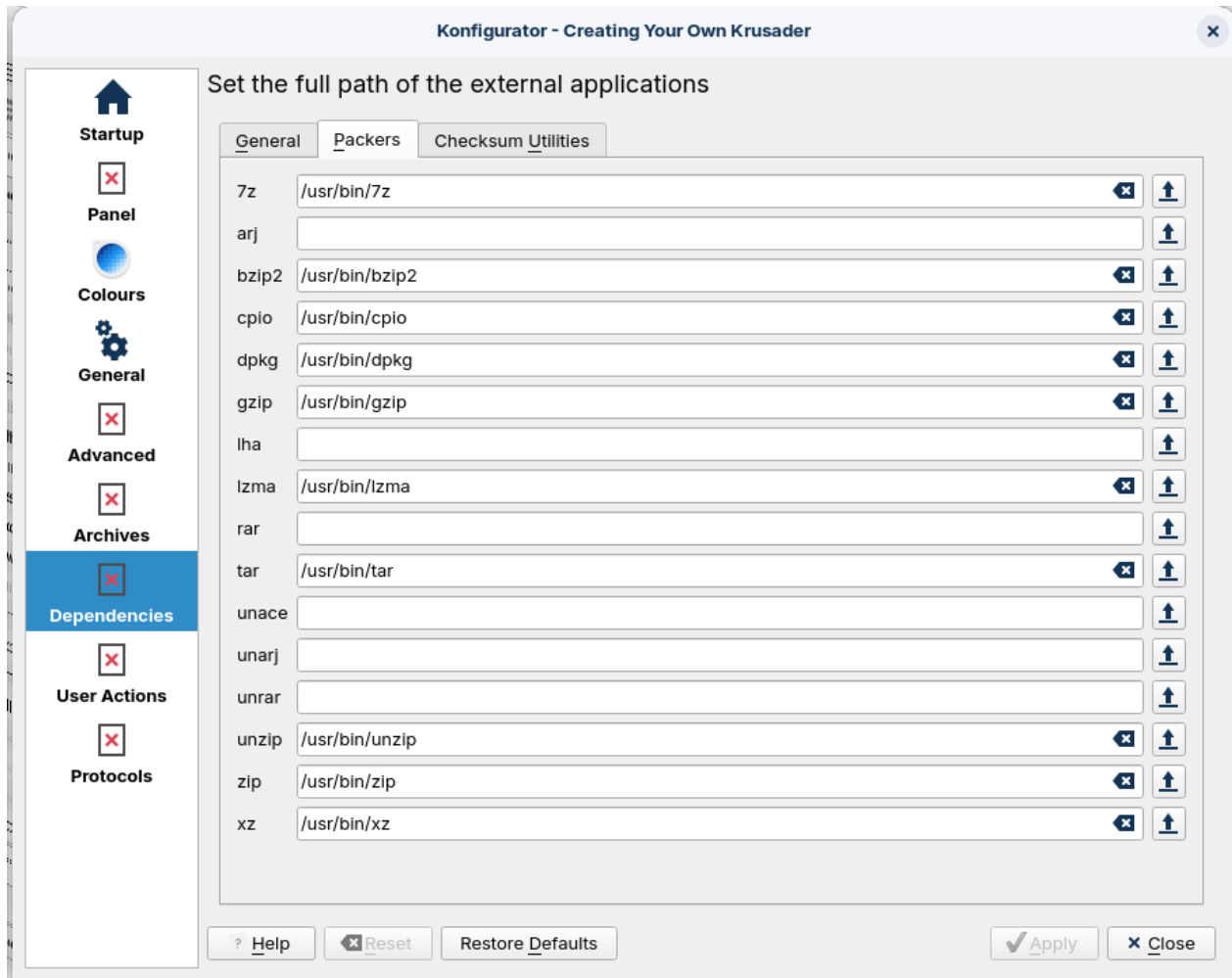
Archives:



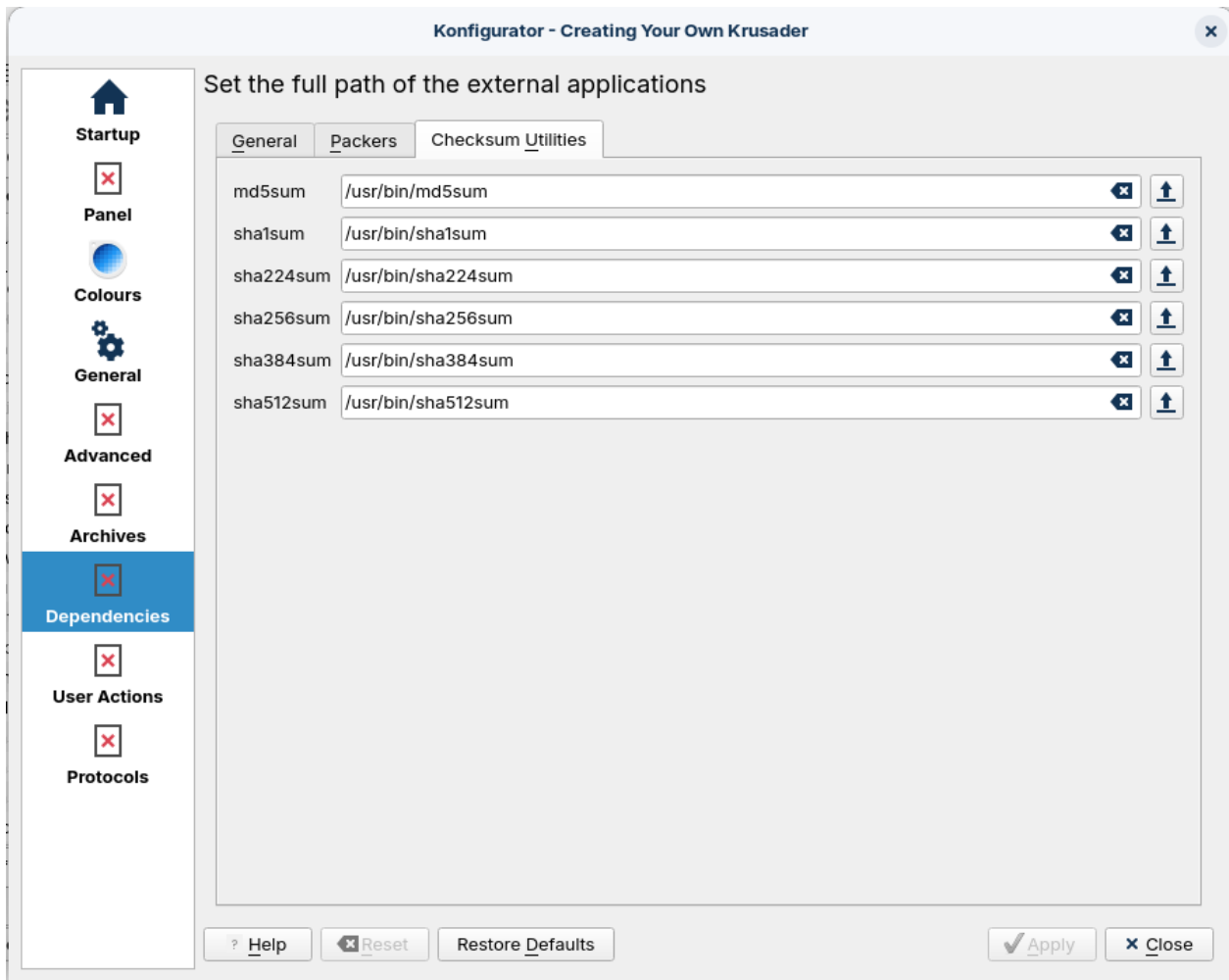
Dependencies - General tab:



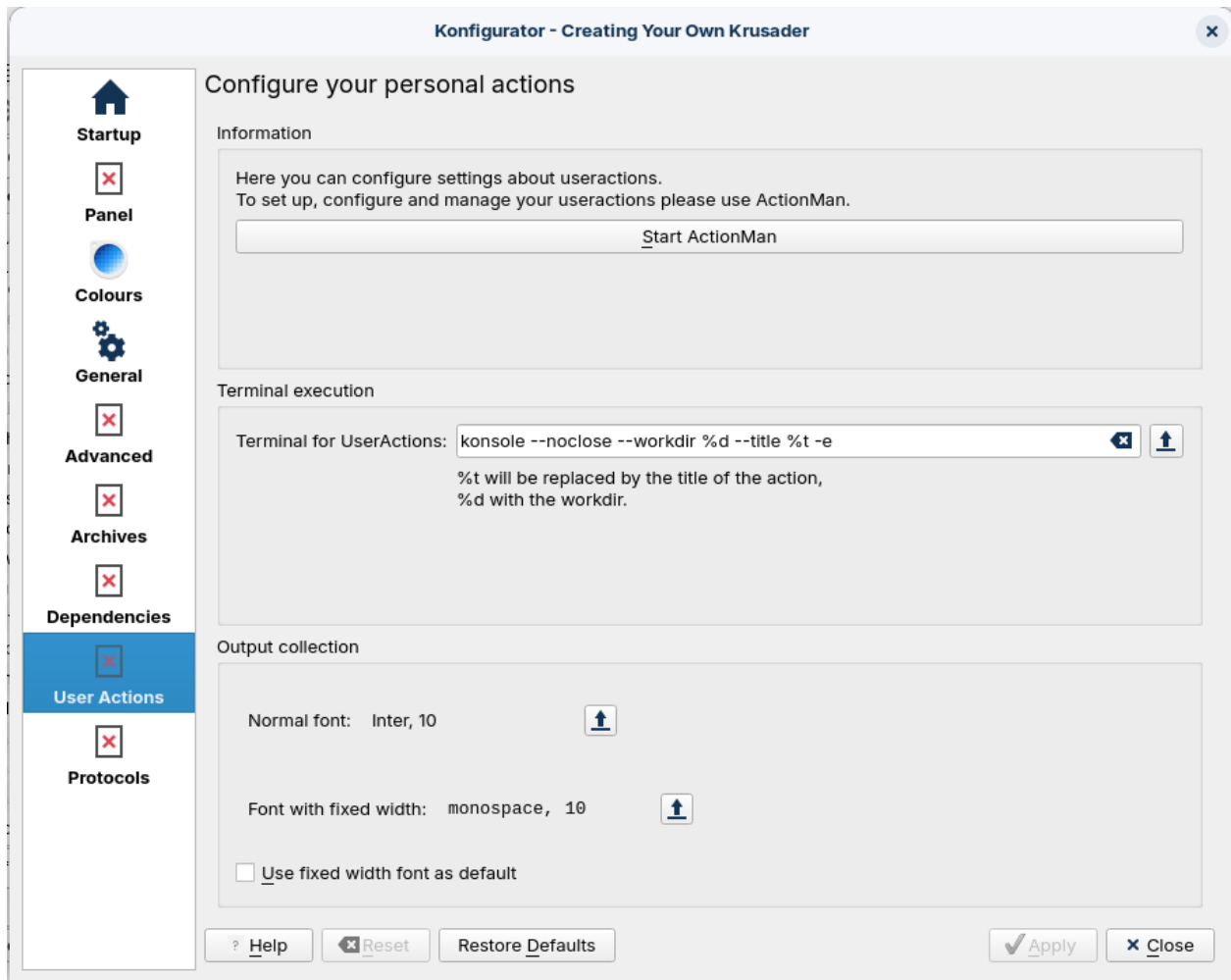
Dependencies - Packers tab:



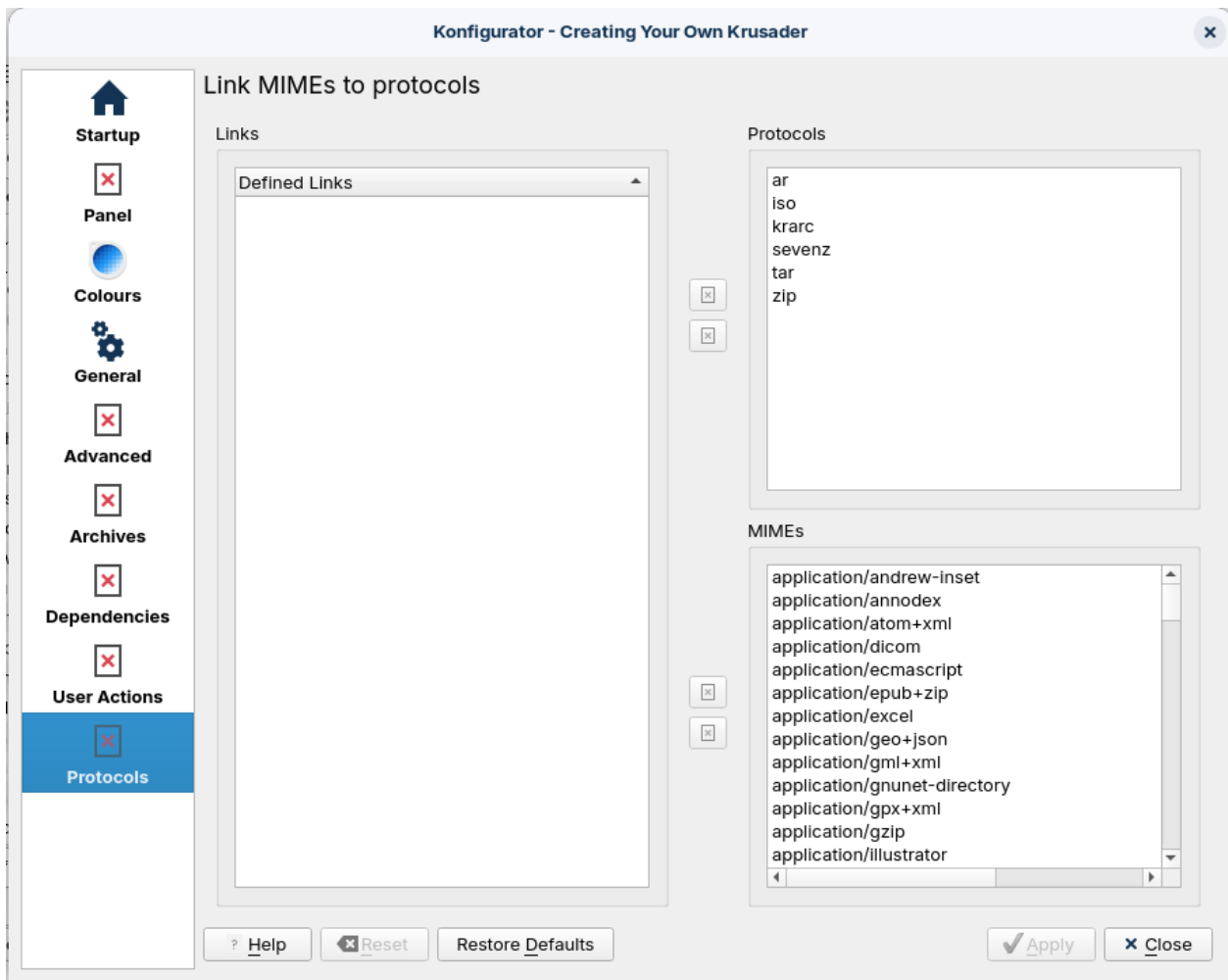
Dependencies - Checksum Utilities tab:



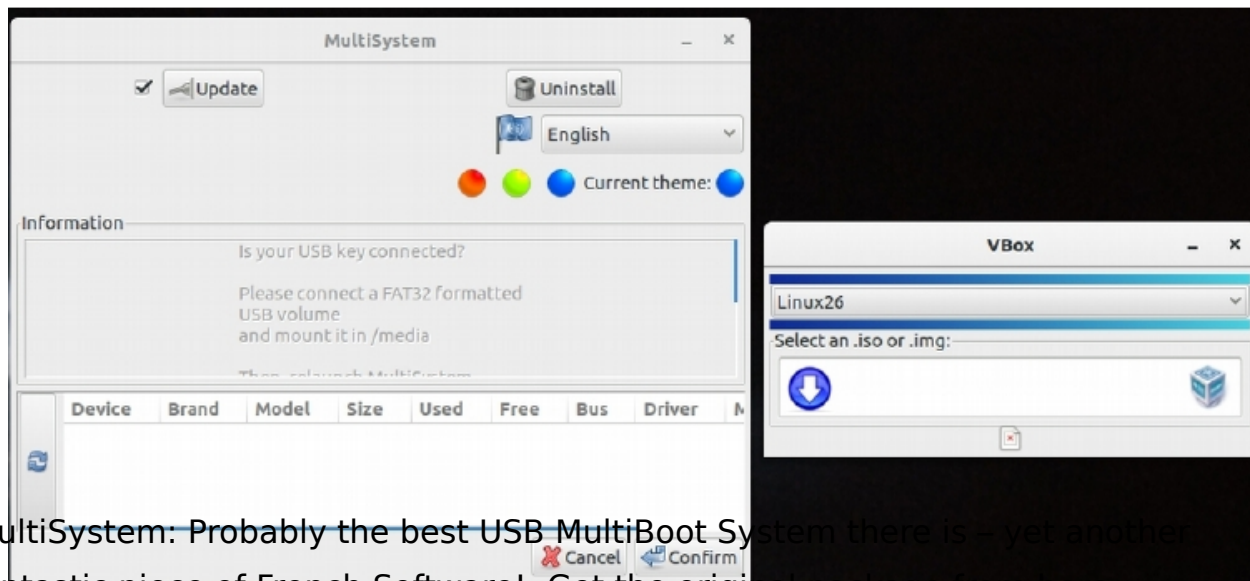
User Actions:



Protocols:



e. MultiSystem:



MultiSystem: Probably the best USB MultiBoot System there is – yet another fantastic piece of French Software! Get the original package from here.

<https://zoringroup.com/forum/viewtopic.php?f=4&t=8933&hilit=+Multisystem.tar.gz#p43425>

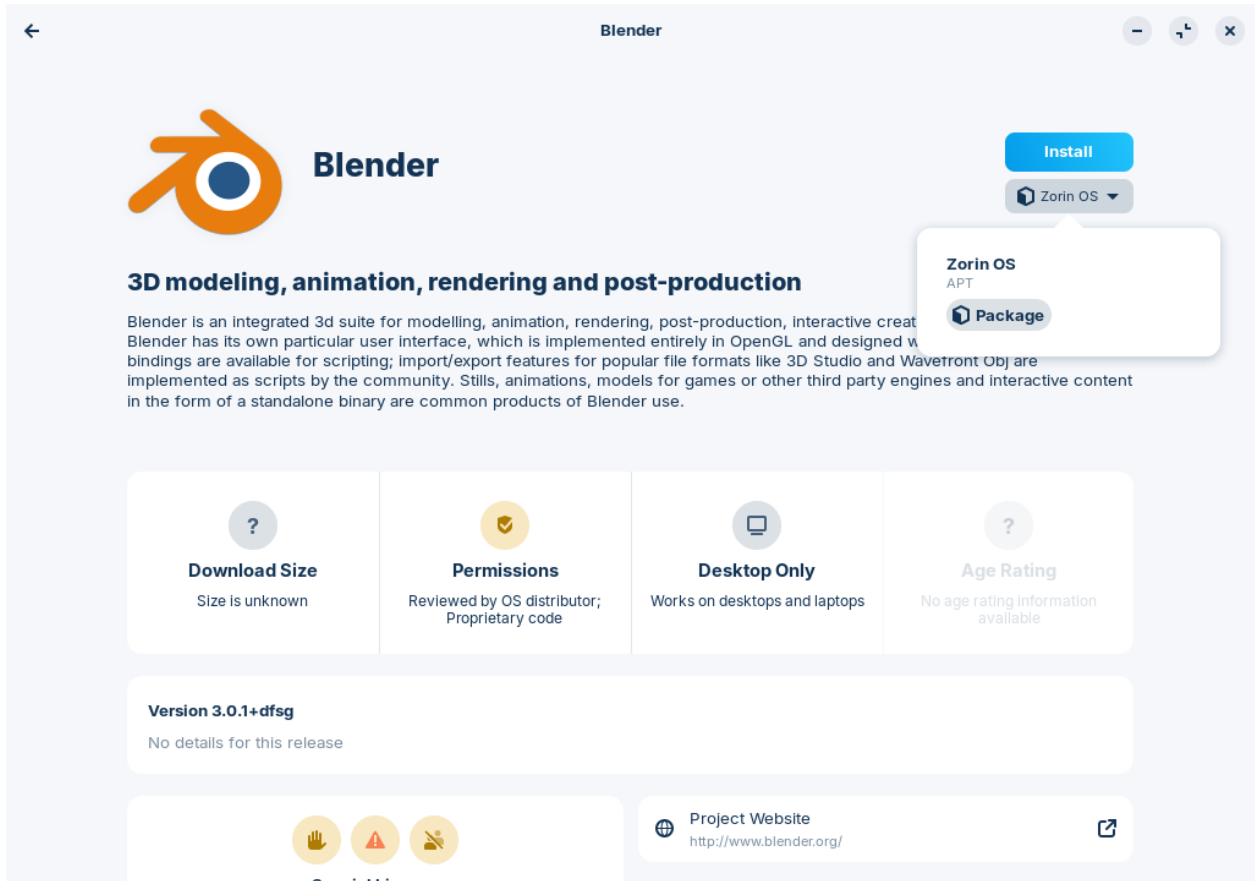
and update after installing!

(Update - doesn't update now as based on Ubuntu16.04 but generally still works!)

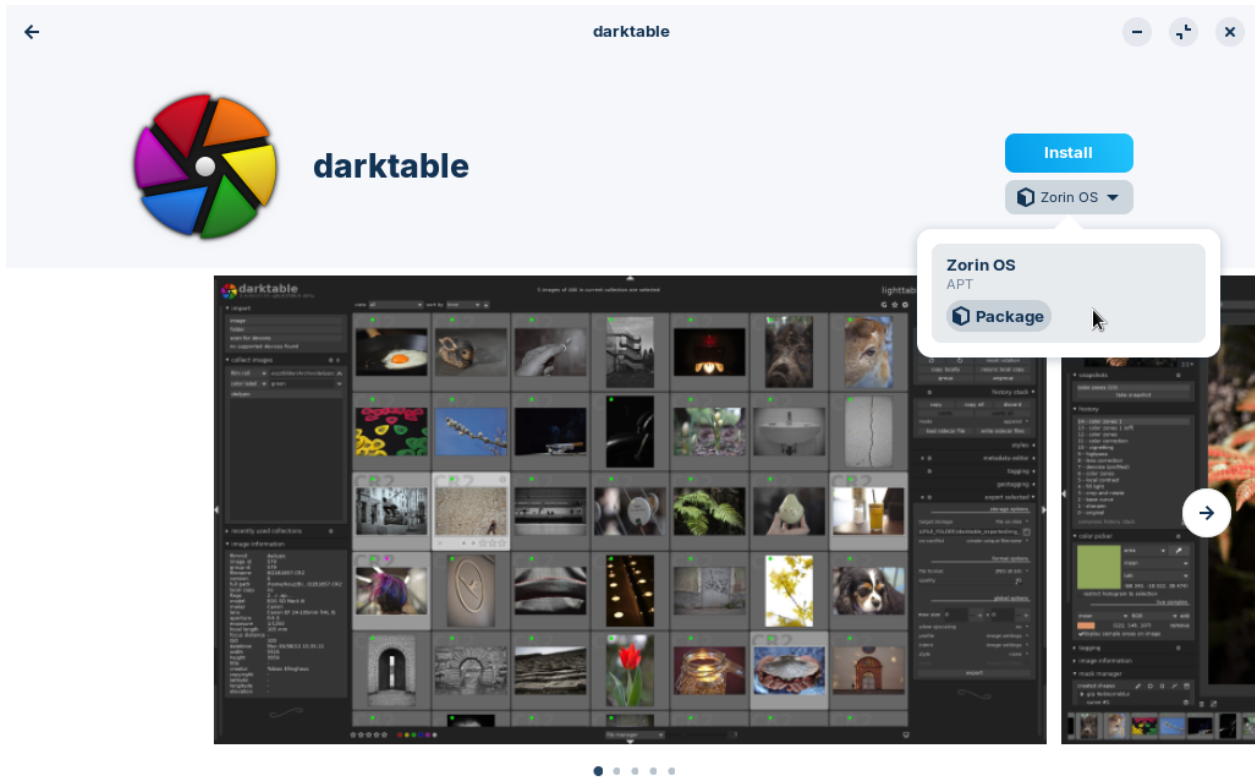
Tutorial video here:

<https://vimeo.com/104187694?share=copy>

g. Graphics Packages/3d Modelling:
Blender: available from the 'Software' channel.



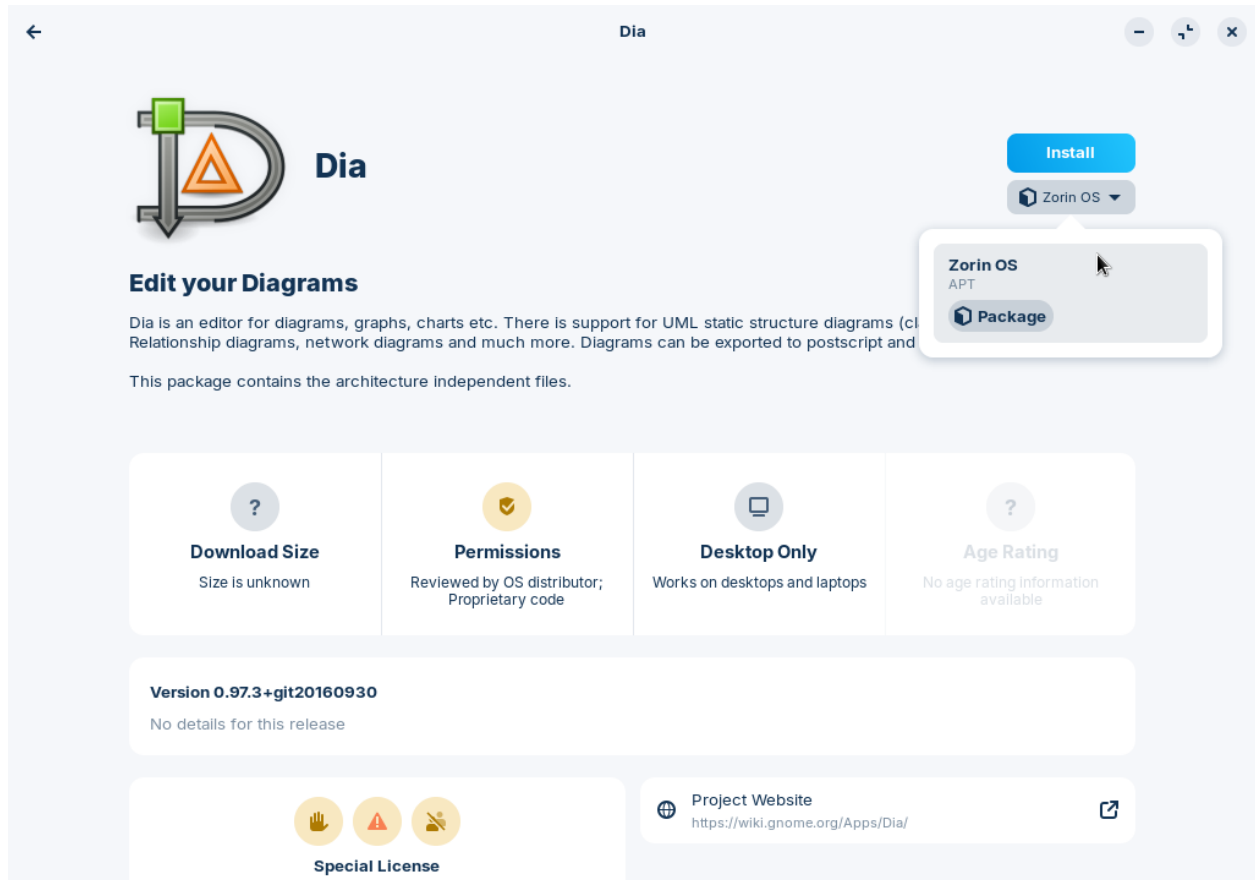
darktable: available from the 'Software' channel.



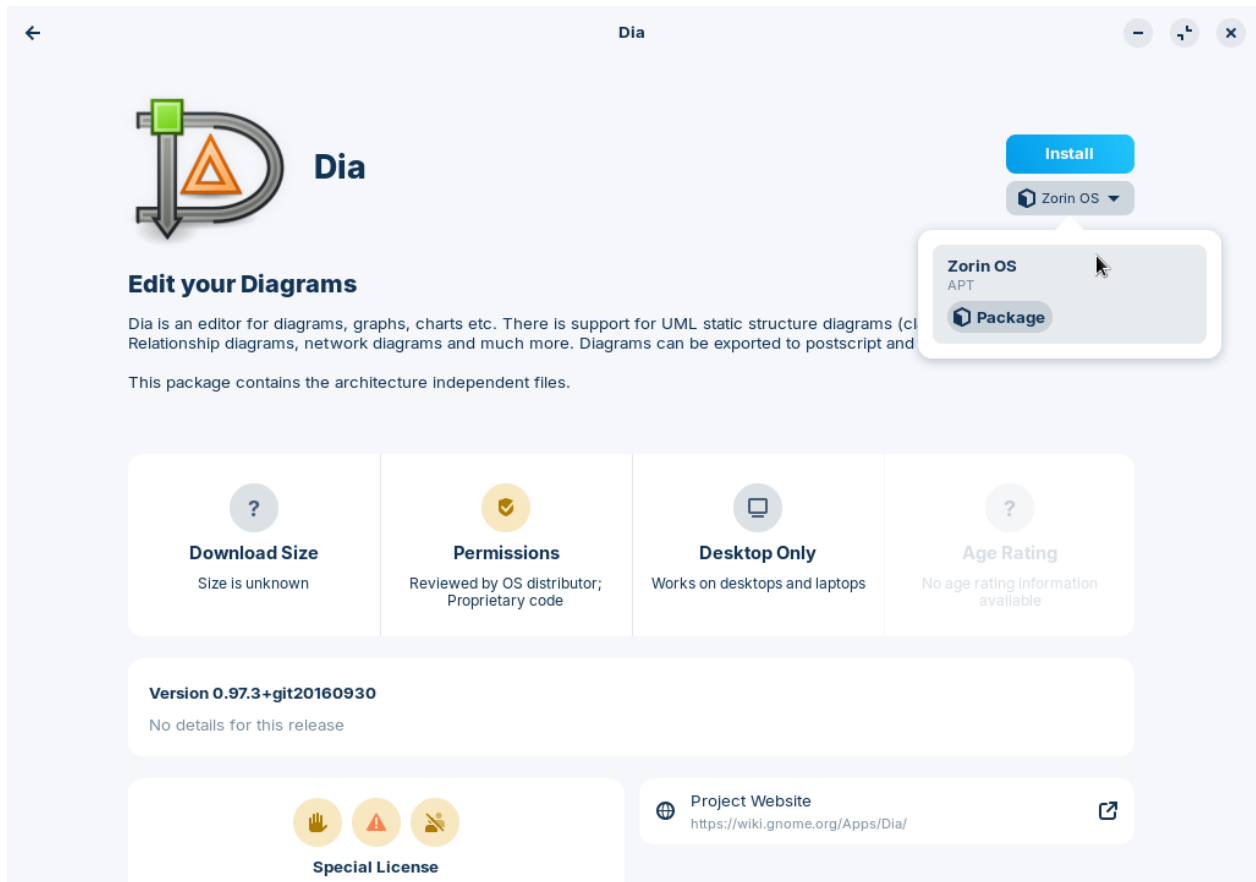
Organize and develop images from digital cameras

darktable manages your digital negatives in a database and lets you view them through a lighttable. It also enables you to develop raw images and enhance them in a darkroom.

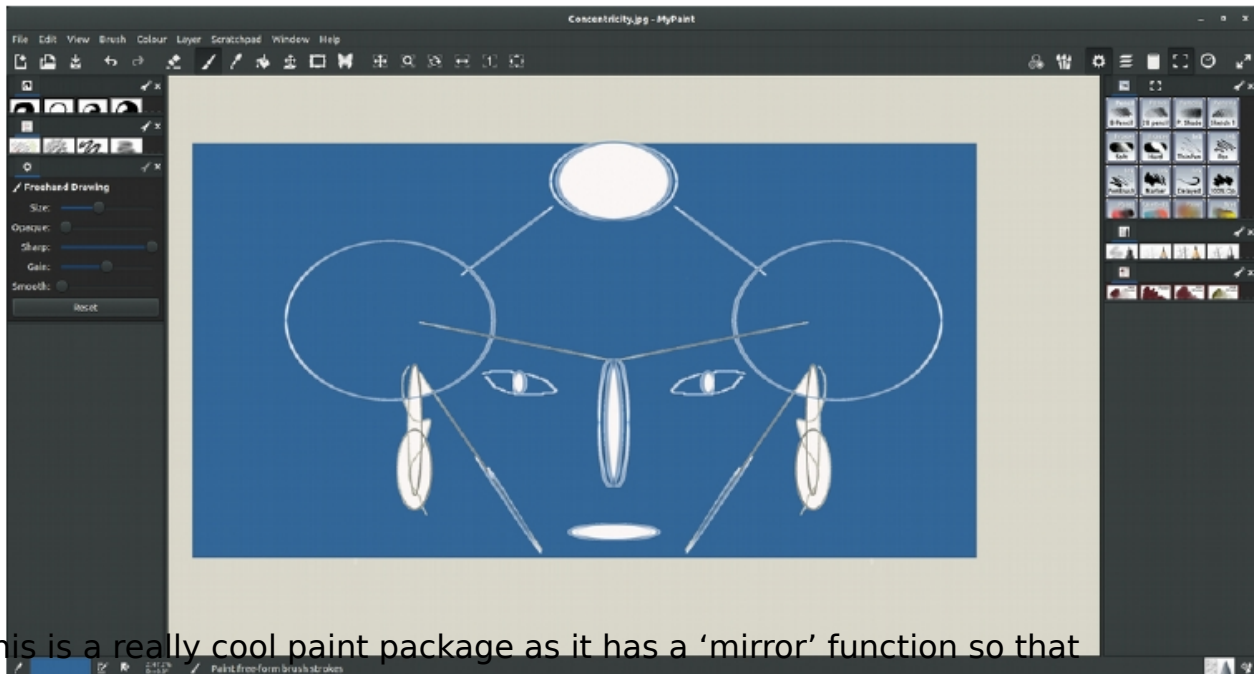
Dia: For a whole host of Diagram/flowchart/circuits etc with plugins available for additional 'sheets' from the website, such as chemsistry. Available from the 'Software' channel.



Inkscape: available from the 'Software' channel (always choose APT!).

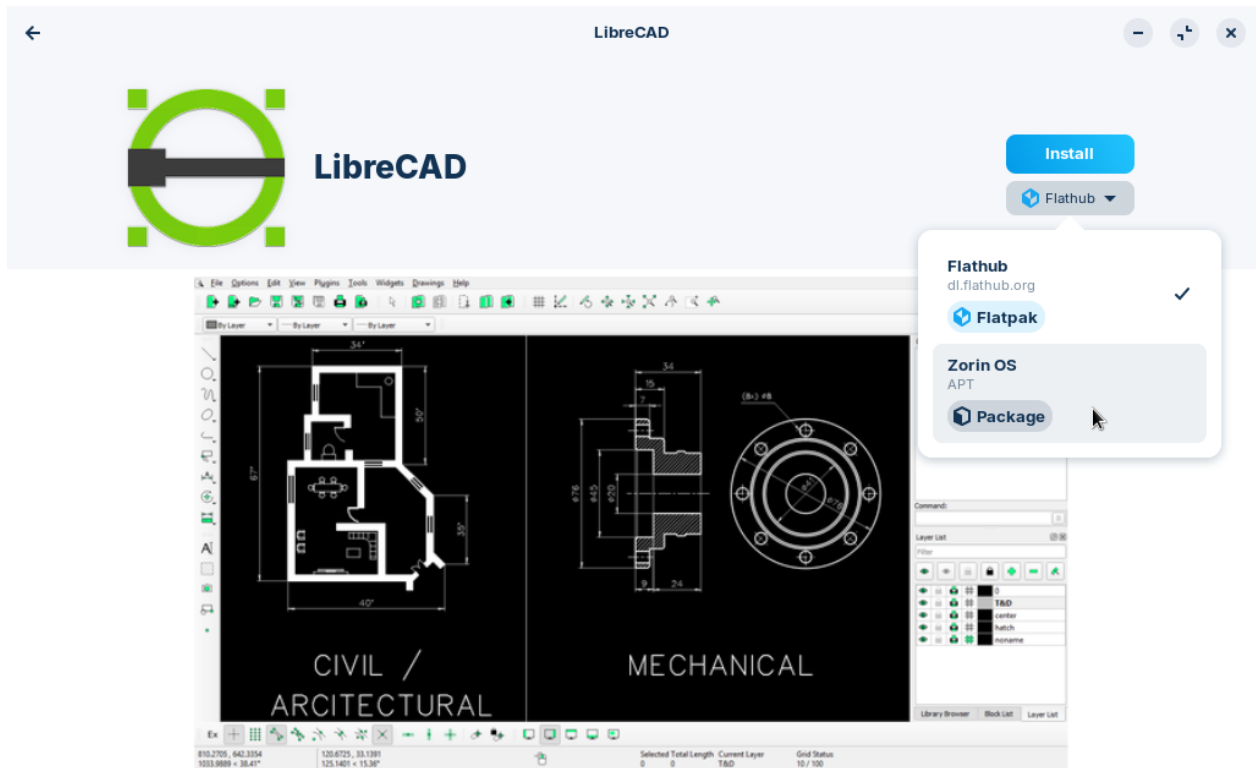


My Paint: get it from <https://mypaint.org/downloads/>



This is a really cool paint package as it has a 'mirror' function so that everything you draw on one side of the canvas is replicated exactly on the opposing side which is what I used to create the above wallpaper.

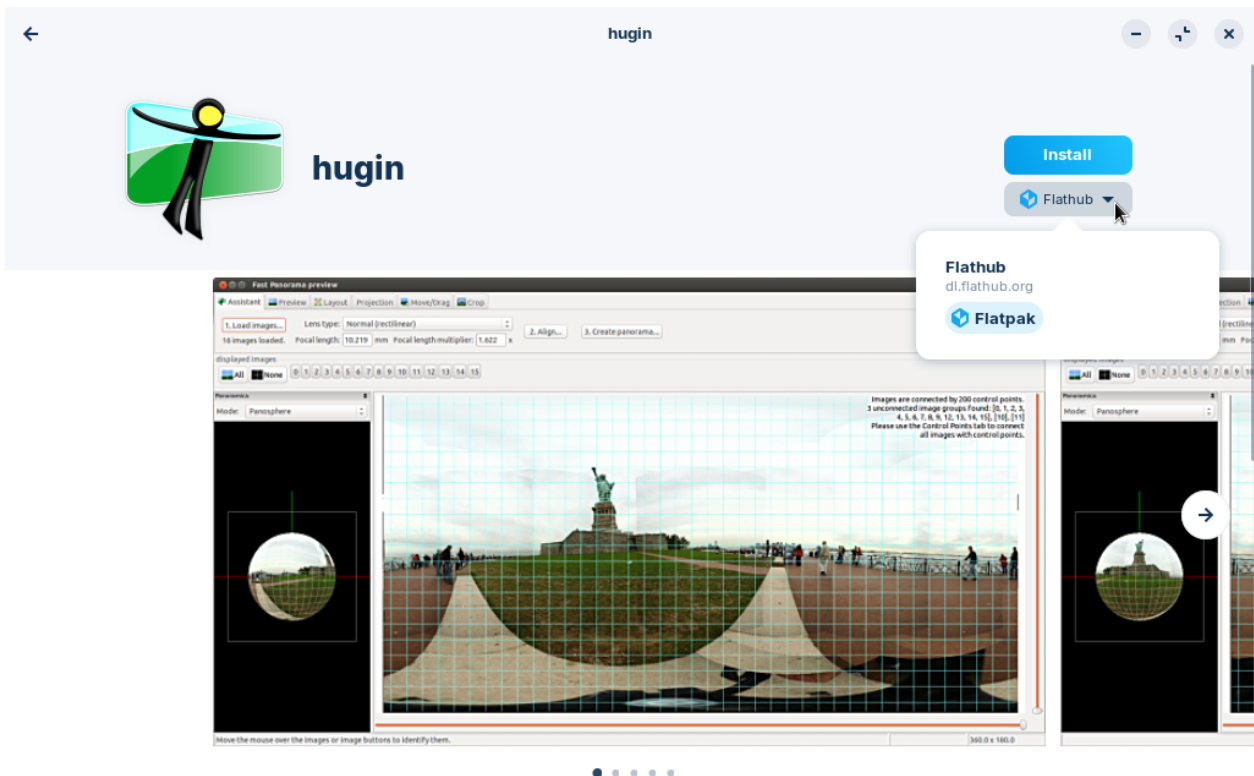
LibreCAD: Available from the 'Software' channel.



2D Computer Aided Design (CAD)

LibreCAD is a 2D Computer Aided Design (CAD) application for creating plans and designs on your computer. It can be used to make accurate 2D representations of floorplans, part designs and just about anything that can be represented as a flat 2D plan.

Hugin Panorama Stitcher: Available from the 'Software' Channel.
(Only available as a flatpak application).



A panoramic photo stitcher and more

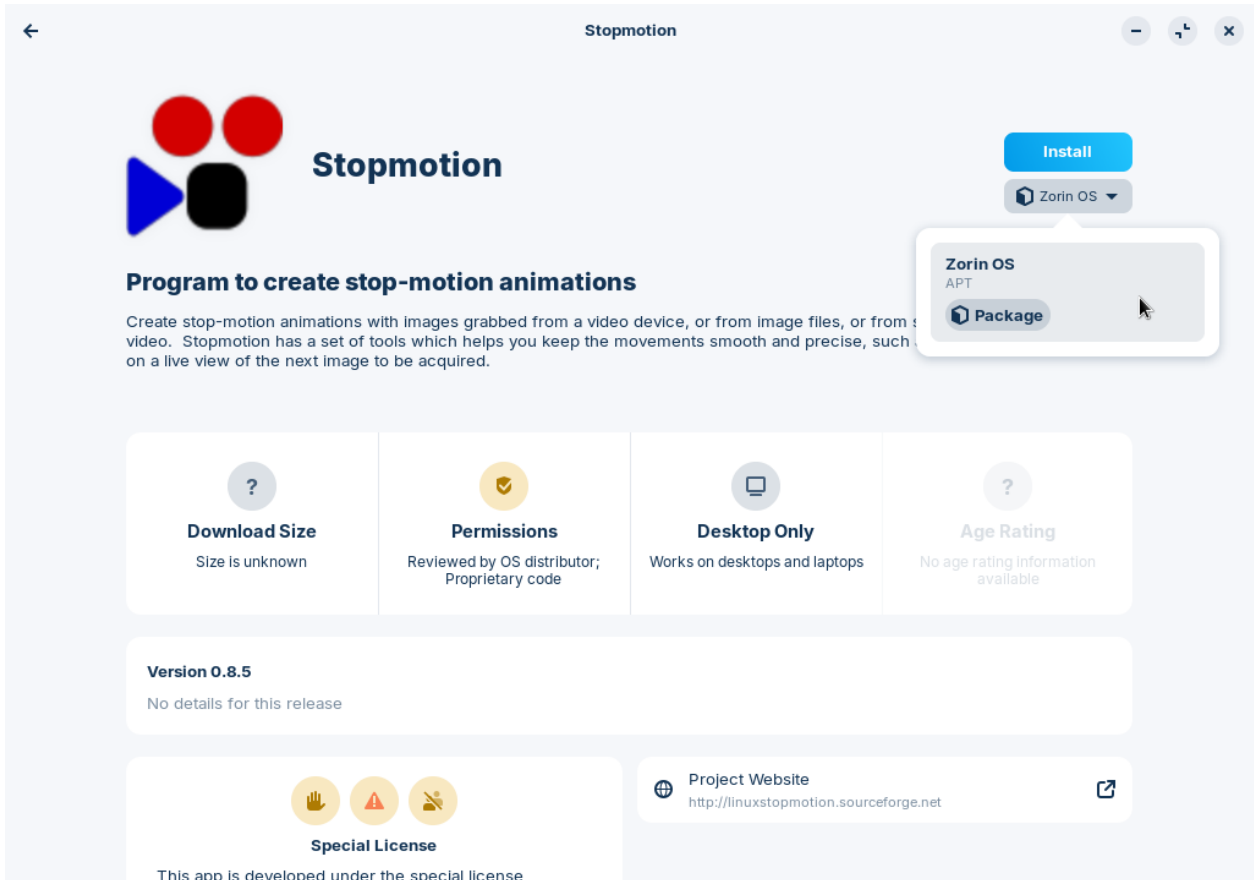
hugin can be used to stitch multiple images together. The resulting image can span 360 degrees. Another common use is the creation of very high resolution pictures by combining multiple images. It uses the Panorama Tools as back-end to create high

Stop animation:

qstopmotion: available via Software.

The screenshot shows a software center window titled "qStopMotion". At the top left is a back arrow, and at the top right are window control buttons (minimize, maximize, close). The main header features the qStopMotion logo (a black camera with two red circles) and the text "qStopMotion". Below the logo is the title "Program to create stop-motion animations" and a short description: "The users will be able to create stop-motions from pictures imported from a camera or from the hard animation to different video formats such as mpeg or avi." In the top right corner, there is a blue "Install" button and a "Zorin OS" dropdown menu. A tooltip is visible over the dropdown, showing "Zorin OS APT" and a "Package" button. Below the description are four feature cards: "Download Size" (Size is unknown), "Permissions" (Reviewed by OS distributor; Proprietary code), "Desktop Only" (Works on desktops and laptops), and "Age Rating" (No age rating information available). A "Version 2.5.2" section indicates "No details for this release". At the bottom left, there is a "Special License" section with three icons (hand, warning, crossed-out) and text: "This app is developed under the special license LicenseRef-free=https://www.ubuntu.com/about/about-". At the bottom right, there is a "Project Website" link to "http://www.qstopmotion.org" with an external link icon.

Stopmotion: Available from Software channel:



Stopmotion

Program to create stop-motion animations

Create stop-motion animations with images grabbed from a video device, or from Image files, or from video. Stopmotion has a set of tools which helps you keep the movements smooth and precise, such as on a live view of the next image to be acquired.

Download Size
Size is unknown

Permissions
Reviewed by OS distributor;
Proprietary code

Desktop Only
Works on desktops and laptops

Age Rating
No age rating information available

Version 0.8.5
No details for this release

Special License
This app is developed under the special license

Project Website
<http://linuxstopmotion.sourceforge.net>

Install
Zorin OS
Zorin OS APT
Package

h. DeskTopPublishing – Scribus:

Available from the Software channel.

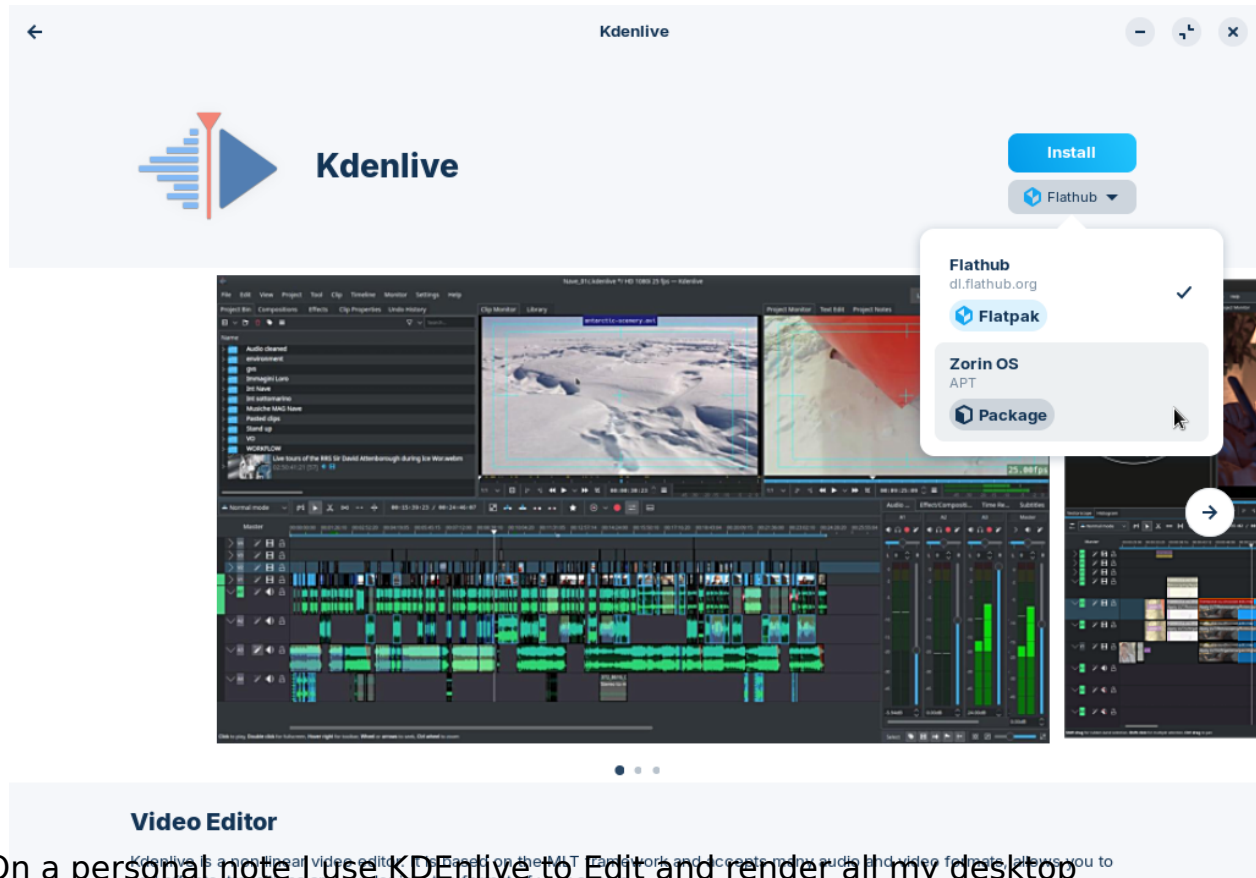


Open Source Page Layout and Desktop Publishing (DTP)

Scribus is an open source page layout program which produces commercial grade output in PDF and Postscript, primarily, though not exclusively, for Linux.

i. Video Editing:

KDElive: available in the Software channel.



Video Editor

On a personal note, I use KDElive to Edit and render all my desktop screencasts to my Vimeo account.

Tutorial video by Nixie Pixel here: <https://youtu.be/1eHEAfNFJ0k?feature=shared>

k. Screencast software.

Vokoscreen-ng: Screencast application in Software channel.



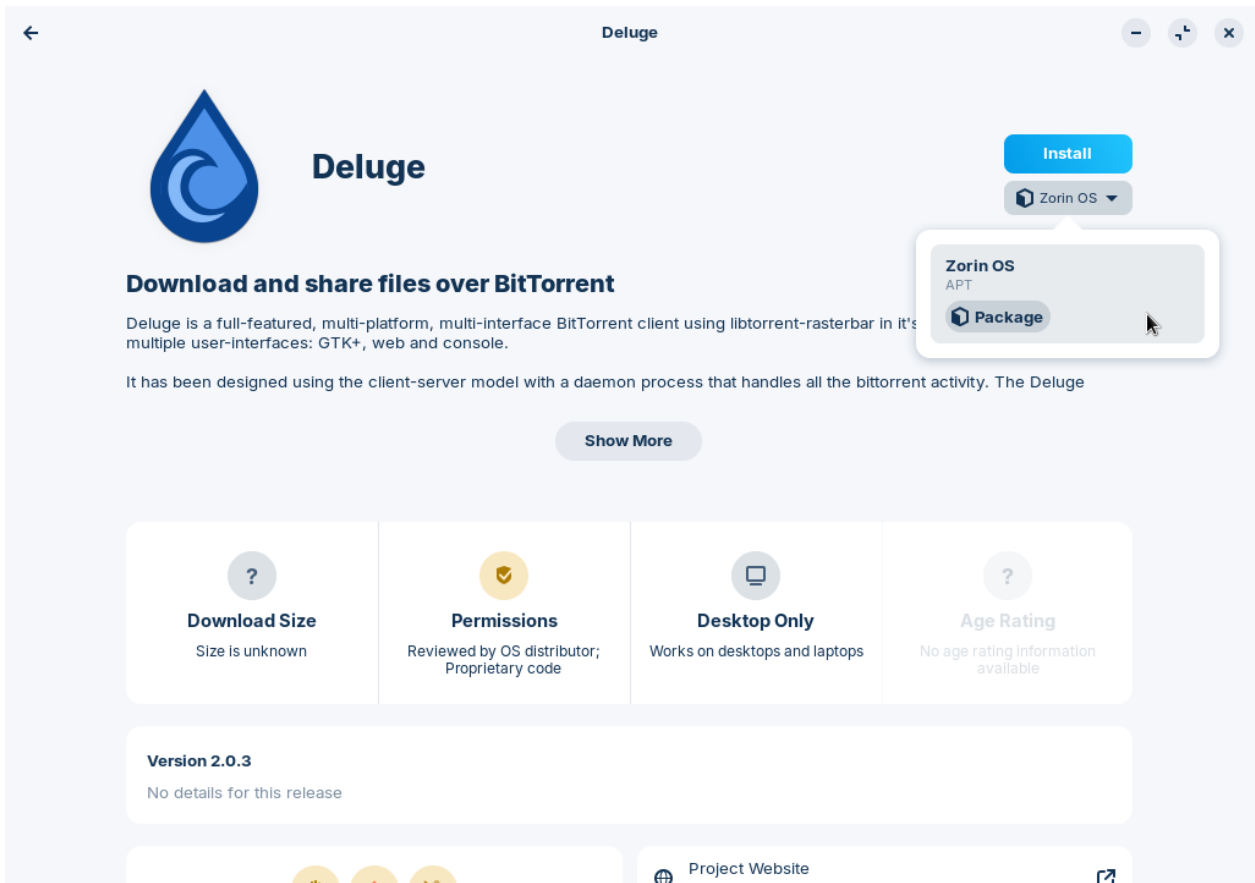
Easy to use screencast creator

This is my preferred application for capturing the desktop for my Vimeo videos.

VokoscreenNG can be used to record videos from computer's screen, webcams, external cameras, etc. This graphical tool can produce educational videos, live recordings of browser navigation, tutorials of installations, record videoconferences, etc. You

I. Internet packages:

Deluge (for Torrents): Available in the Software channel.



IceCat (formerly Iceweasel): for Secure internet browsing:



Available from: <https://www.gnu.org/software/gnuzilla/>

m. CD Emulation.

GCDEmu <https://sourceforge.net/projects/cdemu/files/?source=navbar>

This has proven very useful for creating and storing virtual CD Drives for Windows games as an example. Here is what you need to do:

1. Go to this page: <https://www.unixmen.com/cdemu-virtual-cddvd-drive-linux/>
After you have followed the instructions to install, it places it in the startup applications folder but does not check mark it so do that before proceeding.
2. Next find your favourite game, pop it in the Optical Drive and 'Open' it to view all files.
3. Go to your Menu, then Wine then 'Browse C Drive'.
4. Create a new folder in C and name it exactly the same as the game CD.
5. In the game CD window select all files and copy to the newly created folder in the fake C drive.
6. right-click the 'setup.exe' file, select properties, then the permissions tab and check mark the last item of allowing it to run as a program – this should now install the game to your fake C: Drive.
7. Some games won't run without the CD present – this is where gCDEmu comes into play. Open Brasero and from the list of options, select 'Copy disc'.
8. Now copy to 'image file' from the drop-down selection instead of original optical drive – this places a .toc and .toc.bin file in your /home folder.
9. Launch gCDEmu from the panel and select device #00 (Empty)/
10. Load the file with the suffix .toc.bin and you should see the same icon appear on your desktop as you would if you were placing it in the optical drive.
11. Go to your wine menu and select the correct launcher for the game to run.

n. Accountancy Application

There can only be one decent Accountancy Application and that is **GnuCash** – find it in the Software Channel or Synaptic Package Manager.

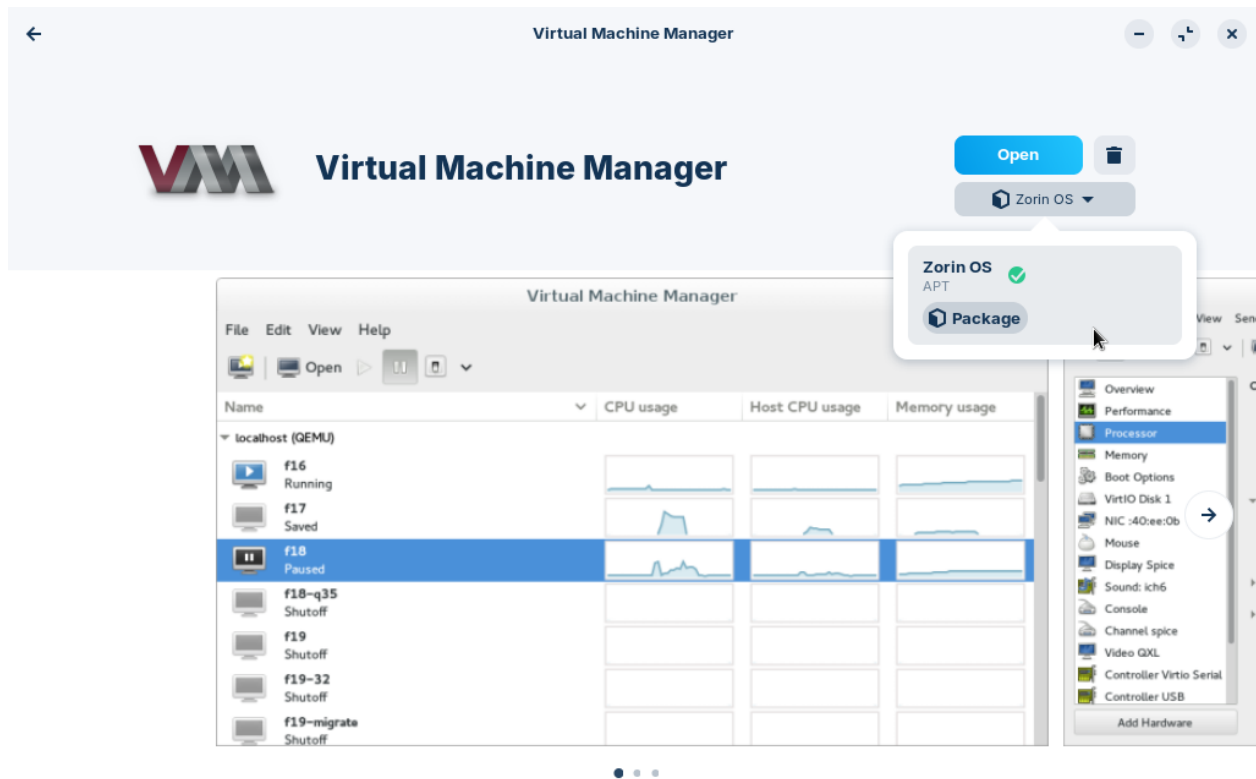


Manage your finances, accounts, and investments

GnuCash is a program for personal and small-business financial-accounting.

o. Virtual Machine Software

At one time I would have recommended Virtual Box, but not anymore. **virt-manager** stands head and shoulders above Virtual Box any day. Get it from the Software channel.

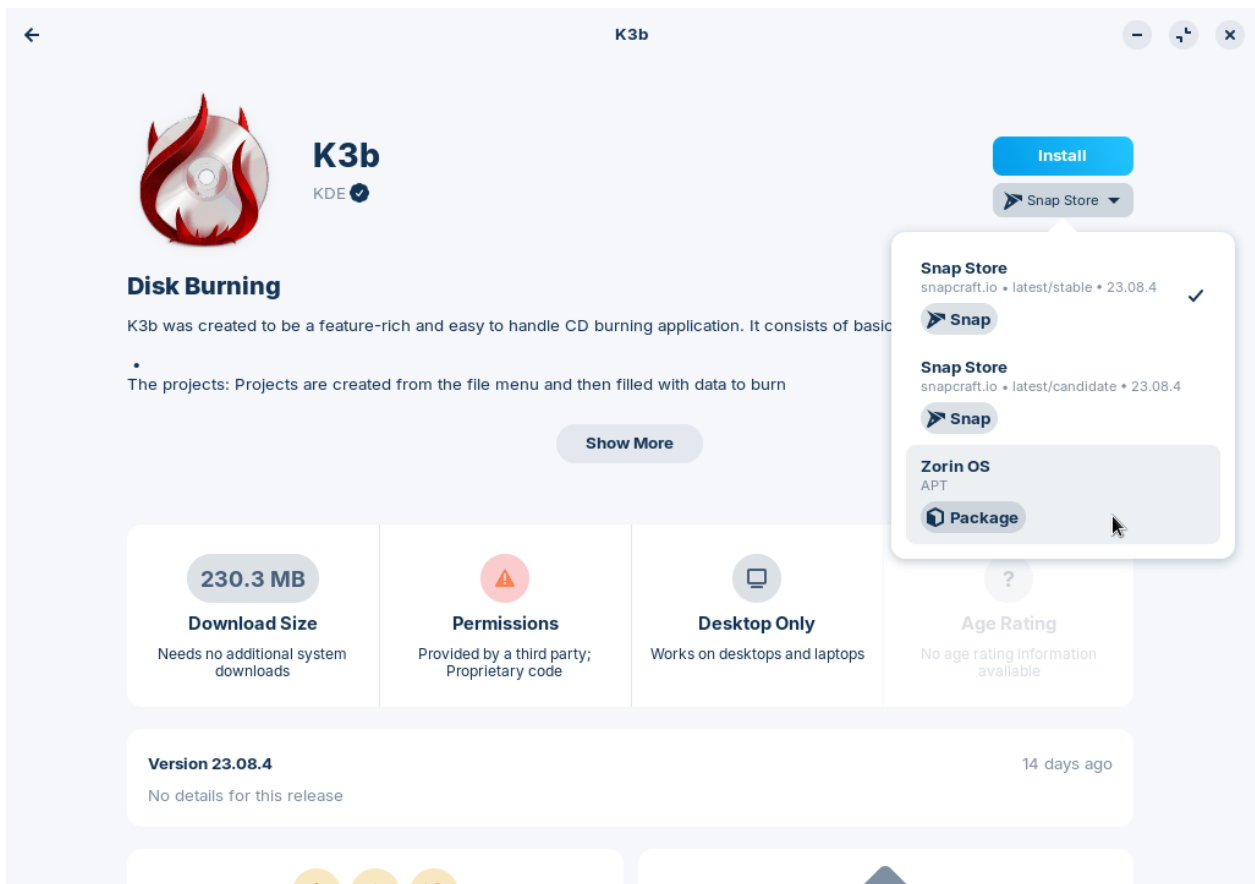


Manage virtual machines

Virtual Machine Manager provides a graphical tool for administering virtual machines for KVM, Xen, and LXC. Start, stop, add or remove virtual devices, connect to a graphical or serial console, and see resource usage statistics for existing VMs on local or

p. K3b

This is an alternative to Brasero, the default Zorin CD/DVD Burning Software. I prefer to use it when creating Creative Commons Licenced music I have collected for it is better at duplicating with Track Titles than Brasero – it also has a built in md5 checksum utility to verify the validity of downloaded .iso's. Get it from the Software channel.



q. System Restore utility: Timeshift

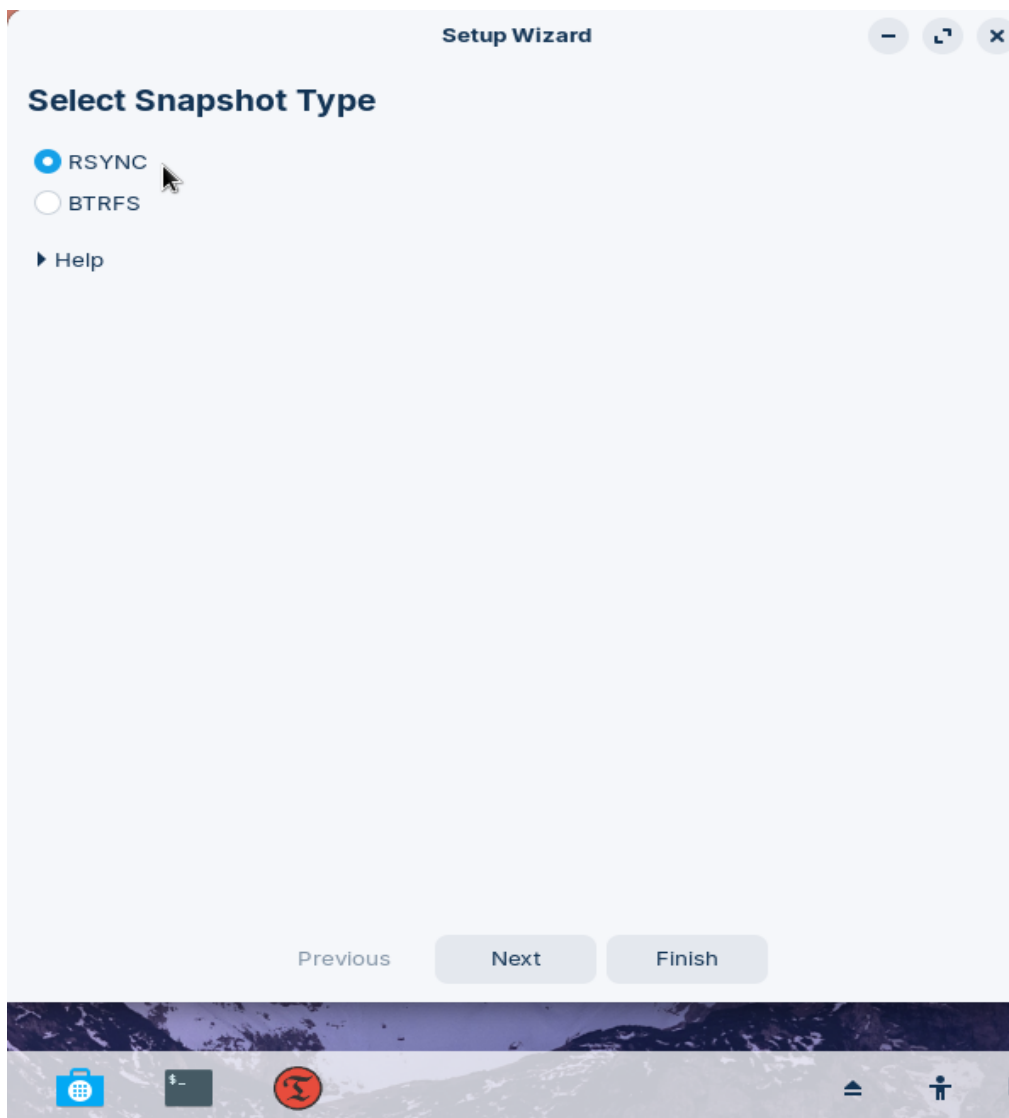
Full how-to here:

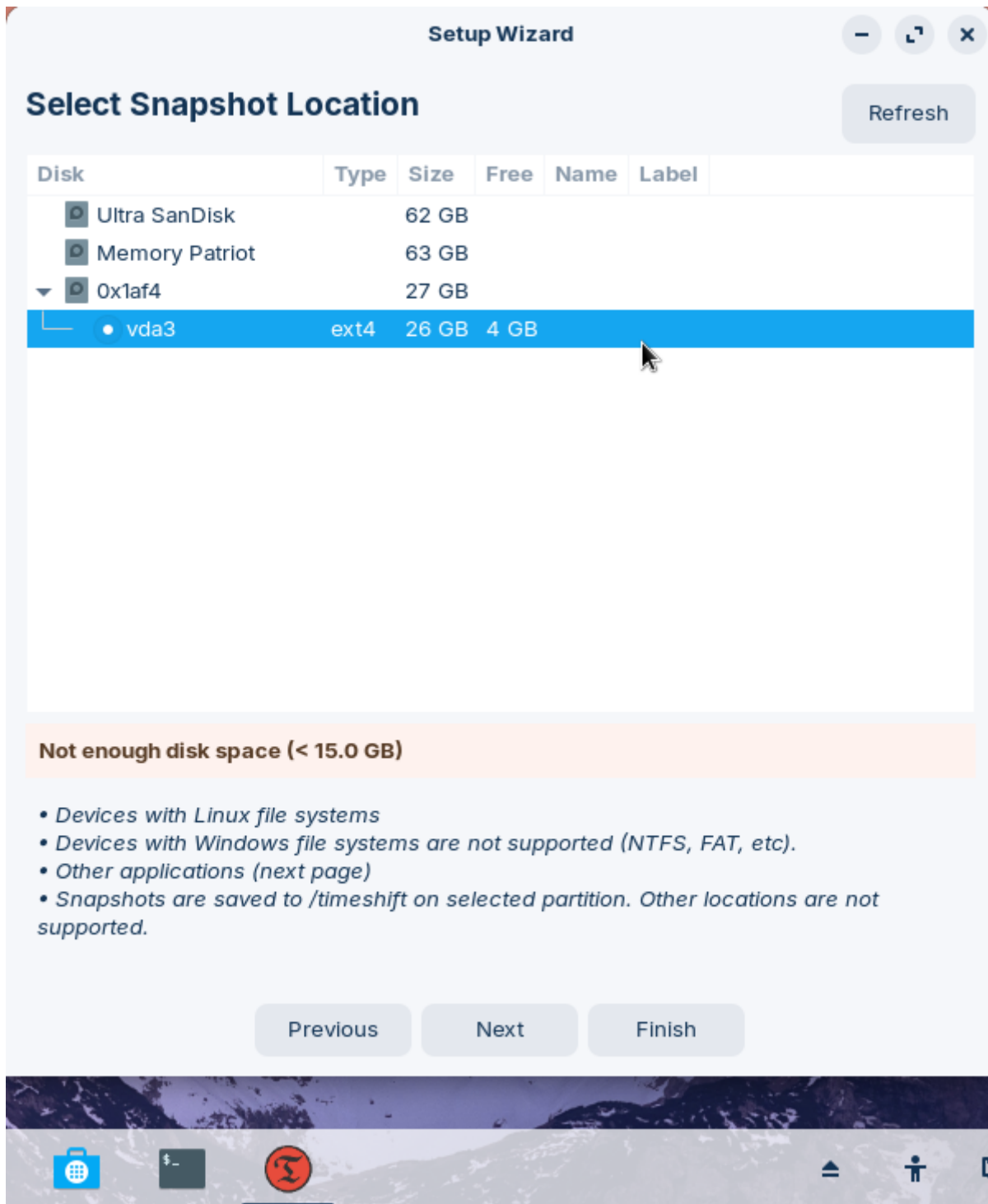
<https://itsfoss.com/backup-restore-linux-timeshift/>

If you ever run into difficulties at login time and you need to start the terminal in Advanced | Safe Recovery mode, the terminal commands to restore an image for Timeshift is:







```
timeshift -restore
```



Then follow the prompts that appear. If saving snapshots to an external device make sure the drive is formatted to the same filesystem as the one chosen for the Zorin installation.






Timeshift

 Create
 Restore
 Delete
 Browse
 Settings
 Wizard

 Donate
 Menu

Snapshot	System	Tags	Comments (click to edit)



Not enough disk space (< 15.0 GB)

Select another device or free up some space

0 **4.2 GB**

Snapshots Available

rsync */dev/vda3*

Troubleshooting tips:

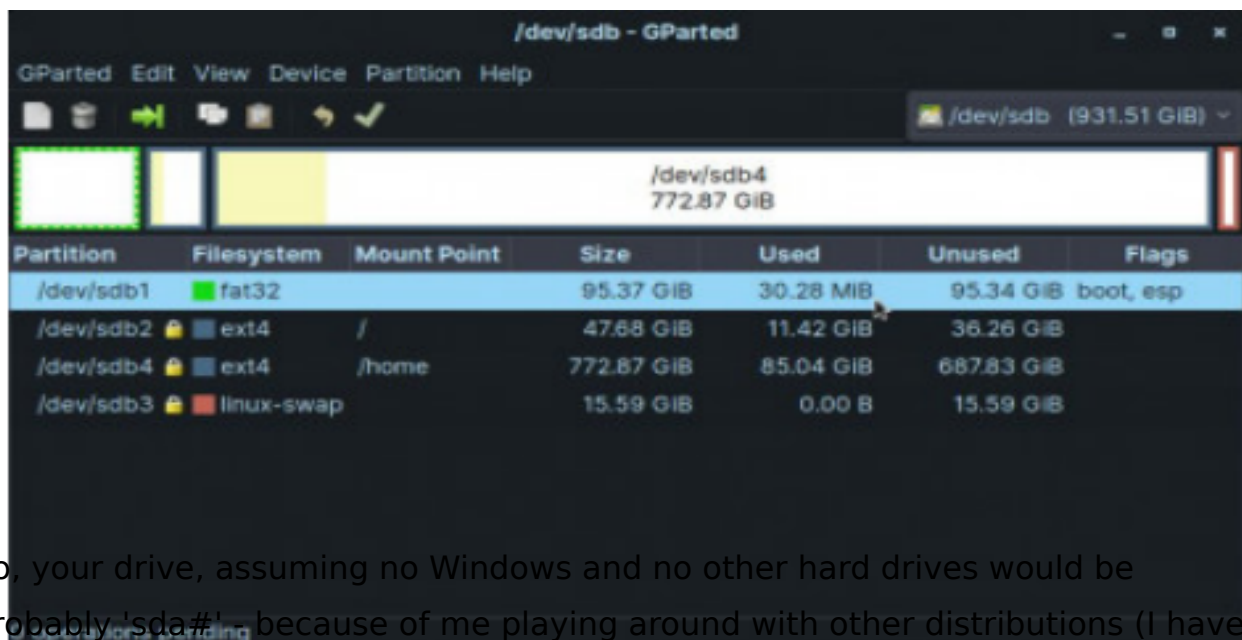
1. Installation:

On newer machines from about 5 years ago, M\$ introduced the Secure Boot System. Over time Fedora and Ubuntu released 'shims' to solve this issue and fell into disrepute with the Free Software Foundation. History lesson aside, this is how it should be done for Zorin 15.

First a handy explanatory article:

<https://askubuntu.com/questions/659588/what-is-the-efi-esp-partition>

Here is mine gone wrong! (By that my choice of 100 Mb appears to have turned into 100 Gb!:



So, your drive, assuming no Windows and no other hard drives would be probably 'sda#' - because of me playing around with other distributions (I have a choice of 5 at boot time!) and various reinstalls of Zorin it has become 'sdb#'. So when you get to the something else part of install and GParted, (Gnome Partition editor) comes on screen, if you have any existing partitions, (extended ones will need to be 'unmounted' before you can delete anything inside it), delete all of them unless you are intending to dual-boot with Windows. This tutorial is purely made for the purpose of installing Zorin/GNU/Linux of your choice with EFI support.

1. Create a partition of 512 Mb. Format this partition to FAT32 and mark it as boot/efi using the 'flags' manager.
2. Next create your 'root' file system, make this 80 Gb in size. Format to Ext4 and mark it as '/',
3. Next up at the end of the free space after '/' partition create your swap area- make it double the size of your installed RAM.
4. Finally, the space left in between should be formatted to Ext4 and marked as '/home'

Next proceed with the installation, remembering to ensure that you have told the installer to install the bootloader to 'sda' and then click on continue.

2. The Login Loop – You try to login but after you enter your password you are back to where you started!

[UPDATE 20.01.2020 - Have found another potential cause to this problem - corrupt files. I booted a recent install of Zorin Education 15.1 on works Notebook and had login loop. Started in Advanced | Safe mode and ran FSCK - it could not run automatically, stated it would need to run manually. So at the prompt you type:

```
[code]fsck /dev/sda1[/code]
```

This is assuming there is only one hard drive in the machine - you would of course put the device label according to which drive Zorin is on.

fsck runs and reports file errors in inodes and asks if you want to repair - well yes, you do obviously! Enter 'y' for any other prompts - it will tell you when you have finished. On completion of the task you will be returned to the safe mode options menu - don't select 'RESUME' - turn off the machine and power up - problem solved! :D]

The 'de facto' solution...

Is usually is to boot into advanced | recovery mode then from the recovery memory launch 'root' (terminal) then enter:

```
[code]mount -n -o remount,rw /[/code] then press Enter.
```

```
[code]passwd your_username[/code] then enter new password, shutdown and reboot.
```

If this does not work, and if you have Timeshift installed then boot from live DVD/memory stick and point to where the snapshots are held and see if that works. If it doesn't try one of the following 3 options (acknowledgements to <https://www.linuxslaves.com/2016/05/3-ways-fix-ubuntu-gets-stuck-login-loop.html?>)

"Method #1 Fix Ubuntu login screen loop

The first is quite simple. The file is located under the current user's home directory. All you will have to do is change the owner of .Xauthority file.

Step 1 - At login time, use Ctrl+Alt+F3 to switch and access the command line interface mode.

Step 2 - Login into the shell using your username and your password. In this case, username will be your username you set when you installed Ubuntu.

Step 3 - Once logged in, now run `ls -lah` to view list directory contents. Look for the line that ends with .Xauthority

```
[code]# ls -lah
-rw----- 1 root root 53 Nov 29 10:19 .Xauthority
[/code]
```

Step 4 - You need to do `chown`. Type and run the following command :

```
[code] ['sudo' if not currently 'root'] chown username:username
.Xauthority[/code]
```

Now reboot and see if you can log in - if not:

Step 5 - If it does not work, try renaming.

```
[code]mv .Xauthority .Xauthority.bak[/code]
```

Now reboot and try re-logging in.

Method #2 How to Fix Ubuntu login screen loop

Step 1 - Run `ls -ld /tmp`. Check for the first 10 letters in the left: they should read exactly so: `drwxrwxrwt`

```
[code]# ls -ld /tmp
drwxrwxrwt 15 root root 4096 Nov 30 04:17 /tmp[/code]
```

Step 2 - You may need to changing permission. Run the command below :

```
[code]sudo chmod a+wt /tmp[/code]
```

Method #3 How to Fix Ubuntu login screen loop

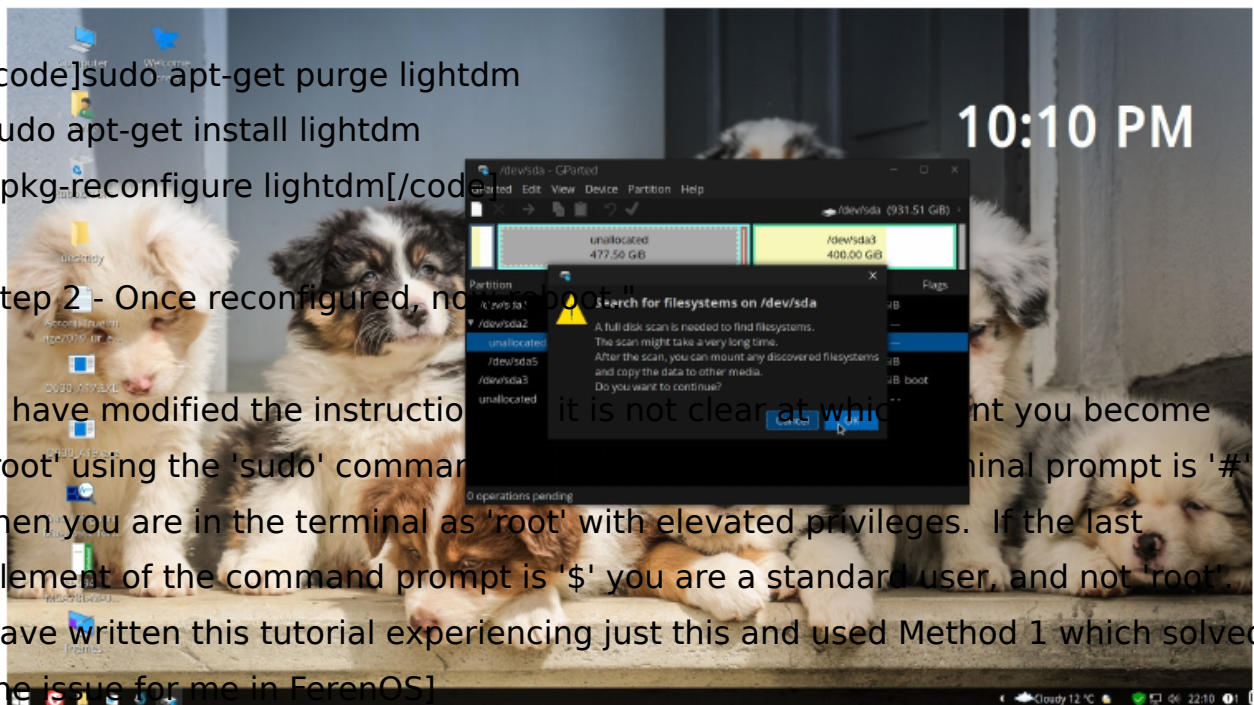
If even both did not work for you, try the last one! Please make sure you are connected to active internet. Check this out!

Step 1 - Uninstall and reinstall Ubuntu lightdm. Run the following :

```
[code]sudo apt-get purge lightdm
sudo apt-get install lightdm
dpkg-reconfigure lightdm[/code]
```

Step 2 - Once reconfigured, no boot

[I have modified the instruction it is not clear at which point you become 'root' using the 'sudo' command. The terminal prompt is '#', then you are in the terminal as 'root' with elevated privileges. If the last element of the command prompt is '\$' you are a standard user, and not 'root'. I have written this tutorial experiencing just this and used Method 1 which solved the issue for me in FerenOS]



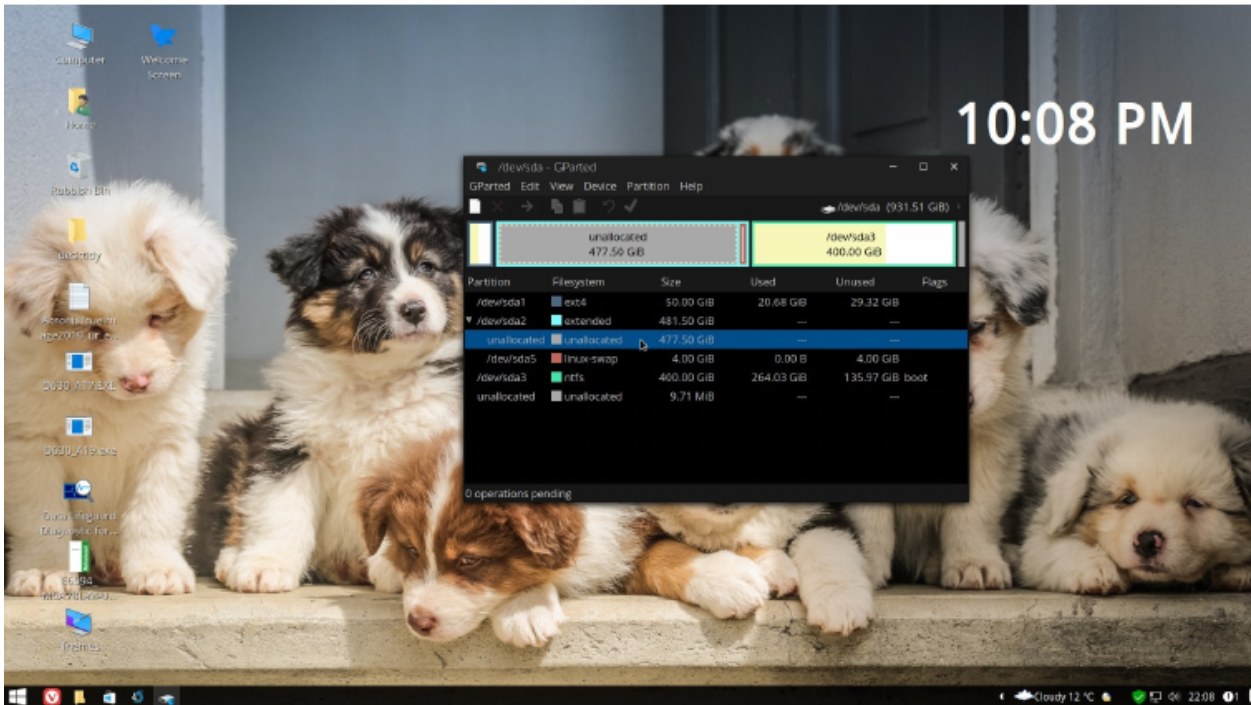
3. How to recover a '/home' partition marked as unallocated.

OK, new motherboard, old drive, /home (of Zorin Lite 12.4) marked / identified as 'unallocated' space in GParted! Scratched head and remembered reading somewhere that Gparted comes with Test Disk (this might be the live version, not sure) so I began looking at the options. Before going any further you may well need a live version of GParted if you don't have another drive with another GNU/Linux installed on it. The scenario I am sharing is a drive with Feren OS which has GParted installed, but I discovered when first attempting to check for filesystems on the drive affected there was a package missing, 'gpart' - you may need to install this. I did it through the terminal:

```
[code]sudo apt-get install gpart[/code]
```

Now read on:

1.



Here you can see the drive that contains:

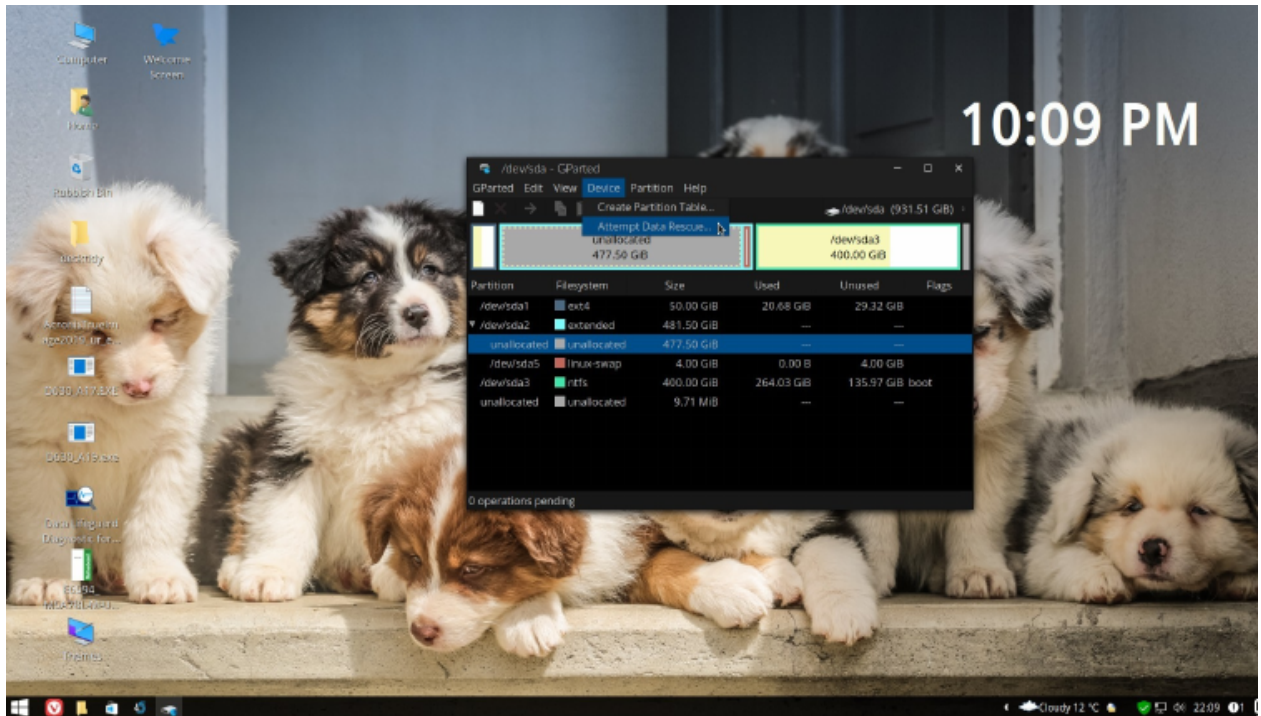
sda1 - '/' root partition

sda2 - 'unallocated' (actually '/home' - so potentially a partition table error/something else/failing drive.)

sda 3 - ntfs data share partition - I also backed this up - just in case - using the data recovery through GParted.

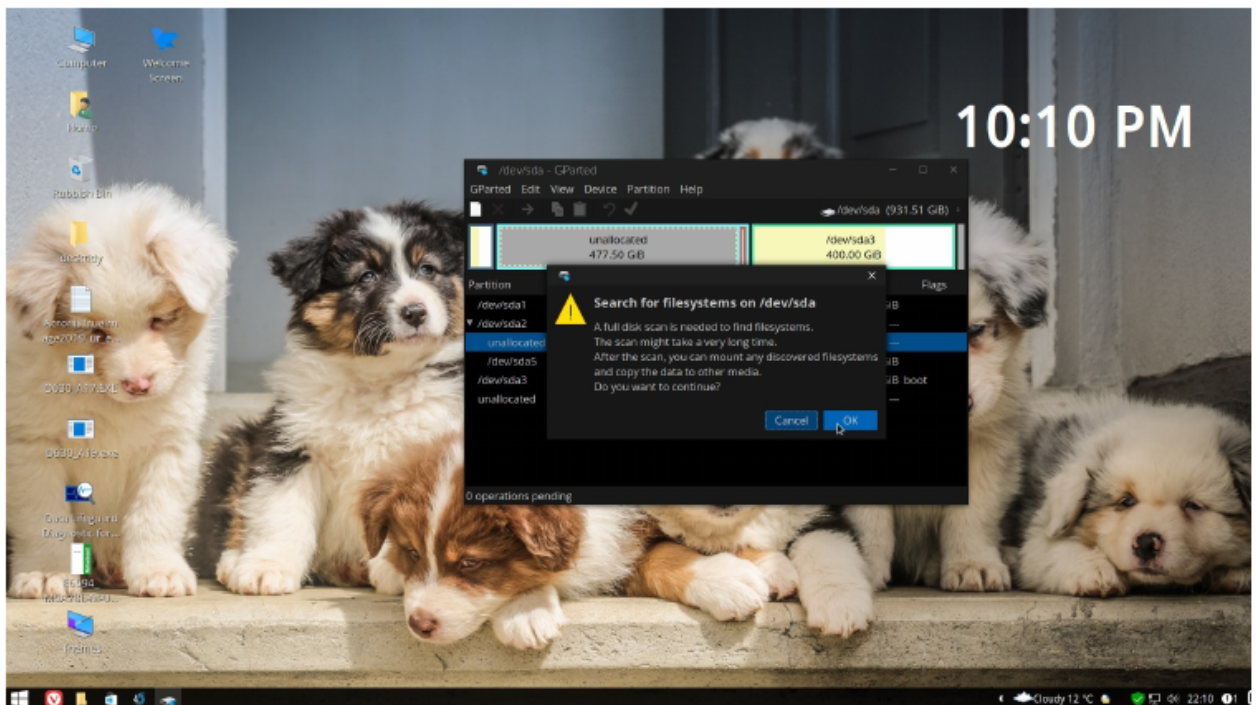
Next we go to the 'Device' heading in the menu bar of GParted and select 'Attempt Data Rescue ...' shown below. (Next page)

2.



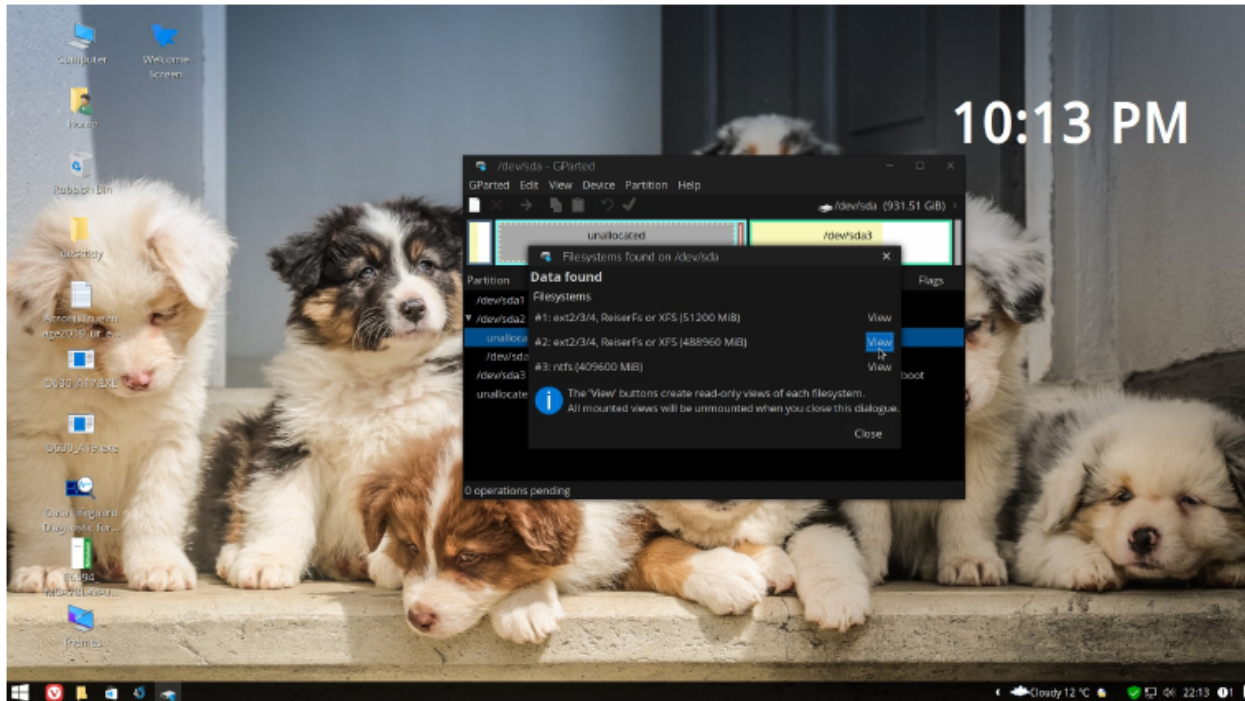
You will receive this notification:

3.



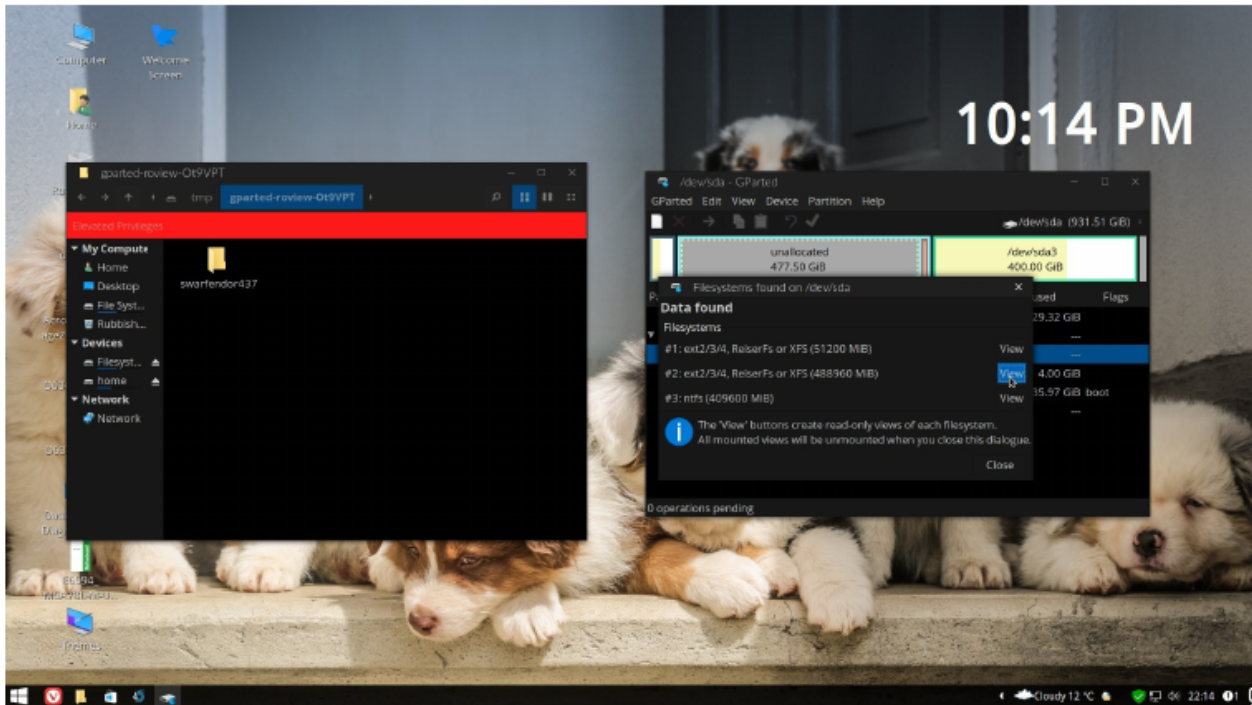
You are advised it may take some time but for me was very quick because of the new rig (Ryzen 7 with 16 Gb RAM).

4.



In this scenario, you cannot view the 'root' filesystem (#1) as it is protected file system being 'root' and we need to recover the '/home' partition, which is #2 ...

5.



I then simply dragged the 'swarfendor437' folder onto my external drive so I am now safe in the knowledge I can reinstall Zorin (hopefully!) and to play extra safe, filesystem #3 was the NTFS system partition for Data Sharing I created a tutorial video for before installing any GNU/Linux so you can access data both from GNU/Linux and your Windows machines (or smartphone using Obmin installed in Zorin).

[Footnote: having looked at the images supplied I spotted an instant error - my NTFS data share partition is marked as Bootable - changed the Zorin '/' partition to be marked as bootable and on booting get the Windows 'Missing Operating System' - this is what comes when you don't follow your own advice (I could cry like Alice in Wonderland - but won't! :lol:) of disconnecting drives you are not working on!]

Addendum - more useful software.

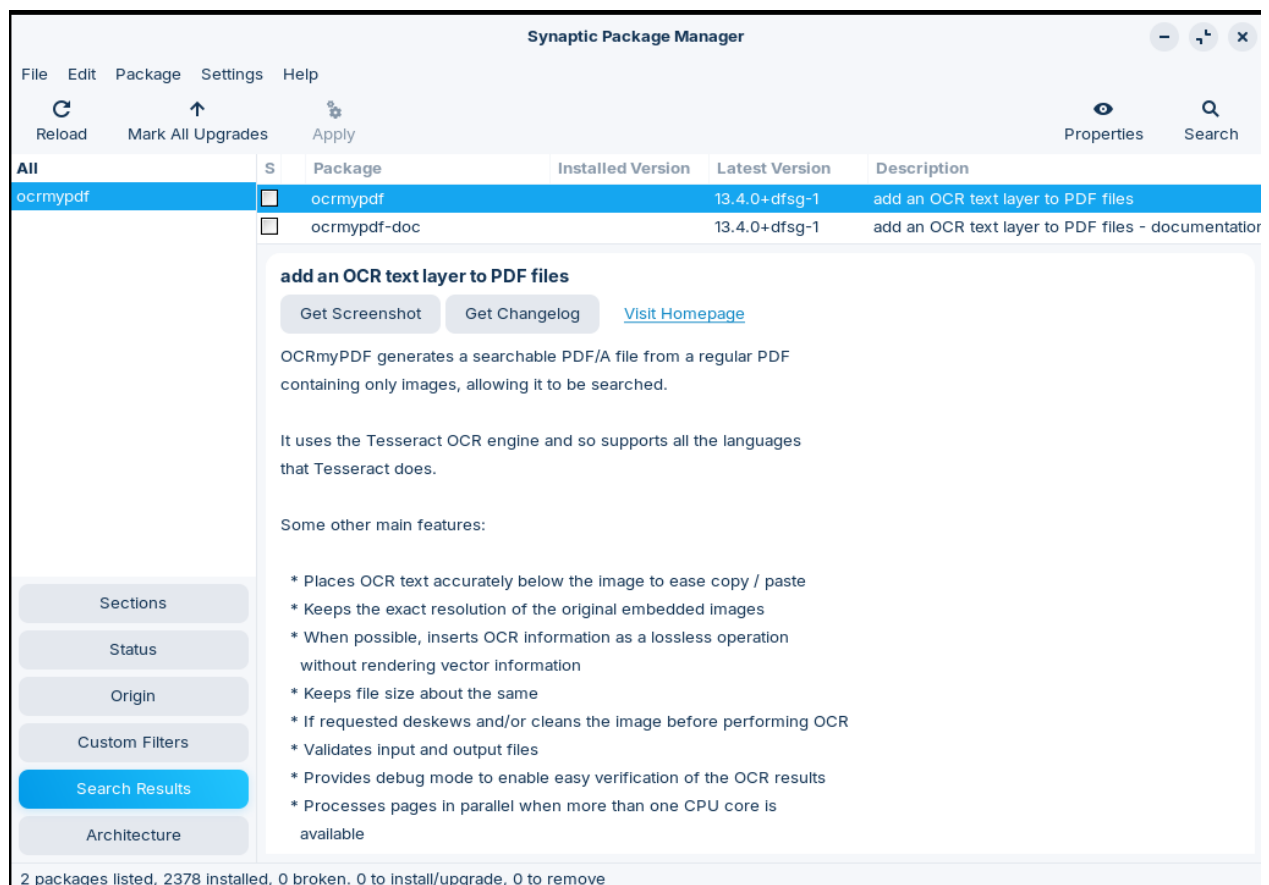
Another useful utility, a video and audio file converter,
Winff.



OCR and pdf Software

Linux applications for modifying/extracting text from pdfs. This information is prepared on the understanding that the applications have been installed/exist in the distribution being used.

1. ocrmypdf. (Available via Synaptic Package Manager)



This is a command line utility (there is no front end) and provided user is confident of navigating inside a terminal there should be no issues. One thing to bear in mind when `cd ..` ing to a different directory. To open a Terminal, either (depending on the DE - Desktop Environment) `Ctrl+ Alt+ T` launches the terminal. Alternatively `Alt+ F2` brings up quick search/launch bar - just enter Terminal (Gnome DE), Xterm (xfce DE), Konsole (KDE/Plasma DE). Once in the terminal you will be in the base part of your `/home`

directory of you (user). So first off we need to change directory (cd .. command, just like windows) and move to 'Documents' - be aware that Linux terminal navigation is case sensitive so 'cd .. documents' would get you nowhere.

If a folder has a lengthy name e.g., Staff Mandarin Class we would have to, once in documents, cd .. \Staff \Mandarin \Class. If we know the name of the pdf e.g., Mandarin.pdf that contains 'images' of text we then enter:

```
ocrmypdf Mandarin.pdf output_pdf.
```

After a few seconds of whirring, it will report what it has done including any concerns about potential orientation. It reports usually that it has transformed into a type 2A pdf as expected. I have found this to be invaluable recently whilst searching for a potential solution for another VI forum member, I stumbled upon it, and glad that I did!

2. Okular. (Available in the Software channel).



This was designed for the KDE/Plasma DE (as an aside KDE/Plasma DE can be applied to Windows but it will not mean you can take advantage of the inbuilt screen reading capability of Okular that is found in the Linux version. The Windows version is in the Windows Store or the nightly stable build can be acquired from here:

https://binary-factory.kde.org/job/Okular_Nightly_win64/lastStableBuild/

To launch Okular, use Alt+ F2 to get the launch bar and enter the application name - on entering Ok... it should autofill to read Okular as there are not many apps starting with Ok!, then press enter to launch Okular.

To open a file (Ctrl+ O). As selection tools tend to be visually orientated for someone reliant on a screenreader, I would export as a

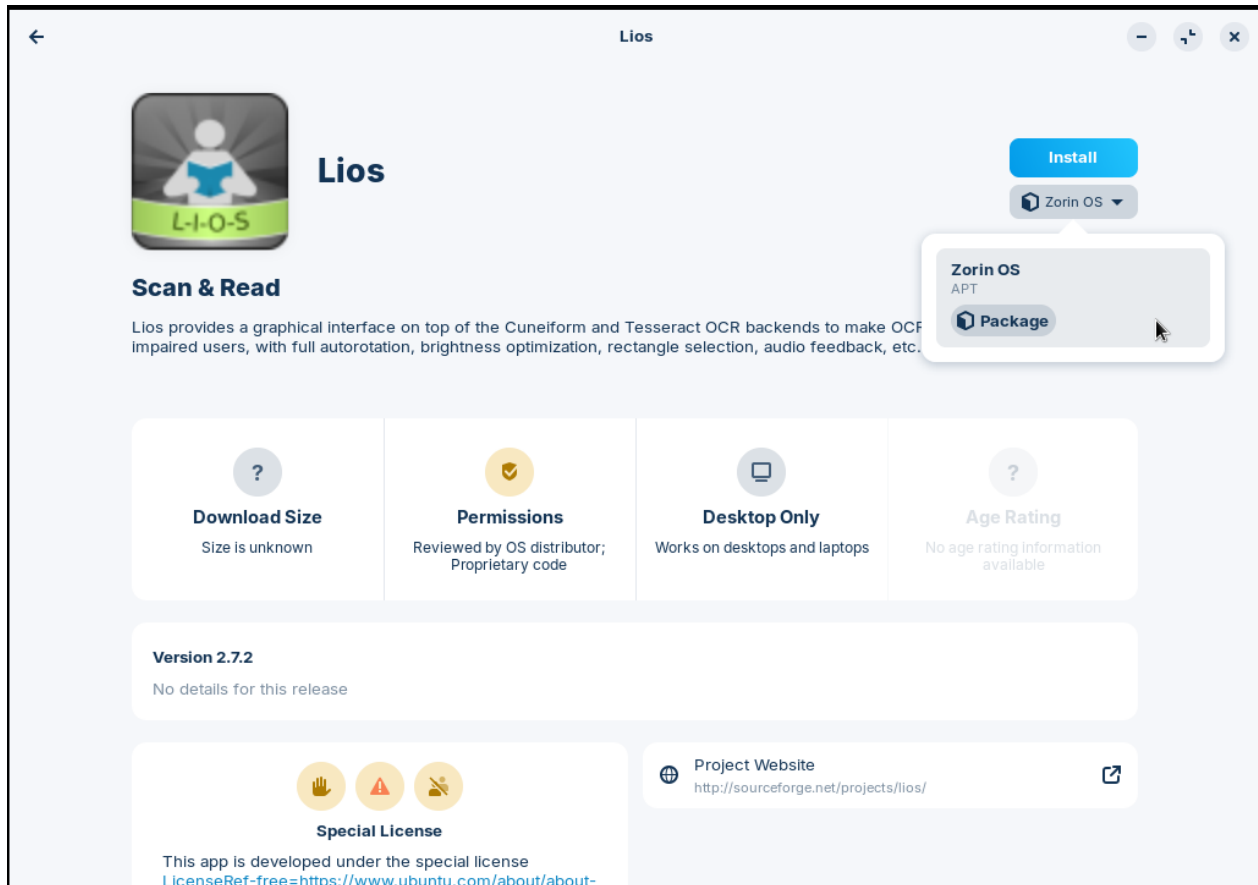
'text' file - this is the 13th option under File menu (Alt+ F) then scroll down until you hear 'Export as' announced. then right arrow to select 'plain text'. What this actually does is create its own version of a pdf which does not show up under Open files - you need to use the drop down option in the interface box to open it up again in Okular by choosing 'All Files'.

Once opened, to choose the text selection tool by entering the key combination of Ctrl+ 4. Next use Ctrl+ A to select the entire document, then Ctrl+ C to copy to Clipboard, open up your preferred Text Processor, then Ctrl+ V. Be aware that when a text document pdf is created it does not move any images across - it purely extracts the text from the document.

Okular handbook:

<https://docs.kde.org/stable5/en/kdegraphics/okular//>

3. L.I.O.S (Linux Intelligent OCR Solution). (Available in Software.)



This is another application useful for extracting text. It does a reasonable job, but fancy Capital T's can usually end up having a single speech mark to the left of it but it can be removed in the Edit window. Now I am not too sure how good it works with Commands for non-sighted use. What is slightly annoying is it accumulates page numbers at the top of each image, even from ones worked on before so the image window of the application needs to be entered to delete the first line. That aside it is a pleasant application to work with from a sighted modifiers perspective as unlike Abbyy FineReader and other OCR applications for Windows, font styles are not embedded, it is just pure text so, so long as the Text Processor you are working with is set to the correct Font and Font size you only need to go to Home | Font and select 'Set as Default' for current document only, and then when pasting from LIOS it

transforms into the correct size and typeface required.

From the Help file:

Linux-Intelligent-OCR-Solution

*** What is Lios ***

Lios is a free and open source software for converting print in to text using either scanner or a camera, It can also produce text out of scanned images from other sources such as Pdf, Image, Folder containing Images or screenshot. Program is given total accessibility for visually impaired. Lios is written in python3, and we release it under GPL-3 license. There are great many possibilities for this program, Feedback is the key to it.

Report your feedback through :

<https://groups.google.com/forum/#!forum/lios>

*** Features of Lios ***

1. Import images from Scanner, PDFs, Folder, or Webcam,
2. Take and Recognize Screenshot,
3. Recognize Selected Areas(Rectangle selection),
4. Support two OCR Engines (Cuneiform,Tesseract),
5. 24 Language support (Given at the end), 30 more languages can be installed in Tesseract,
6. Full Auto Rotation for any Language(If aspell installed for the language, Eg : "sudo apt-get install aspell-hi" for Hindi,
7. Side by side view of image and output
8. Advanced Scanner Brightness optimizer,
9. Text Reader for low vision with Highlighting, With user selected

Color, Font, and Background Color,

10. Audio converter(espeak),

11. Spell-checker(aspell),

12. Export as pdf (text/images),

13. Dictionary Support for English(Artha)

14. Options for save, load and reset settings,

15. Other options - Find, Find-and-Replace, Go-To-Page, Go-To-Line,

Append file, Punch File, Selection of starting page number, page numbering mode and number of pages to scan, Selection of Scan area, brightness, resolution and time between repeated scanning, Output Insert position, image rotation and zoom options, etc

*** Opening and Closing ***

For opening Lios launch Application menu > Graphics > Lios. Or one can search in dash board and start Lios from there.

Open with image items or PDF

One can select required images to be imported from the file browser and open the context menu using right click or application key and select open with Lios

Closing

Select Quit from File menu or press Ctrl+Q

*** Importing images from various sources ***

Importing image

At first choose the import-image from the file menu of Lios. This will cause a file chooser dialogue to appear. One can select a particular image or multiple images files. The images will appear on image list of Lios.

Importing images from PDF

At first select import-PDF item from file menu. A file chooser dialogue will appear, here you can select the PDF file to be extracted.

Importing all images in a folder

At first choose the import-folder from the file menu of Lios. This will cause a file chooser dialogue to appear. One can select the folder containing images files. The images will appear on image list of Lios.

Importing image from scanner

Before scanning make sure that scan menu is available and select the scanner from the Lios main interface if multiple scanners are connected. You should press Update-Scanner-List when a scanner is connected or removed.

The pages and their brightness may be different. So it is important to select apt resolution, brightness and scan area while scanning book. One can change these settings from scanning page of Lios preferences. Increasing or decreasing resolution can be done by

clicking on '+ - 'button or pressing up and down arrow from the resolution spin button. (Default 300)

increasing or decreasing brightness can also be done in the same way. However It's better to use the brightness optimizer to set the exact brightness value for a particular book. (Default 50)

The scan area can be selected using the scan-area combobox. It can be quarter, half or three quarter. (Default - Full)

One can make scan using scan-image(F8) button from the scan menu

Import image from scanner repeatedly

One can set the number of pages to be scanned repeatedly from scanning page of preferences also the time between the two scanning can be changed. One can start scanning repeatedly using scan-repeatedly(Ctrl+F8) item from scan menu. If you want to stop repeated scanning using stop-all-process(Ctrl+F4) item in the scan menu.

Take Screenshot

One can take screenshot and recognize that using this features.

There are two modes the first one is capture entire screen and the second one is capture by selecting an area. Both of this options are placed in scan menu. The second option is more preferred. This feature can be used for recognizing text from videos.

Capture image using Webcam

One can start capturing by selecting Scan-Using-Webcam from scan menu. Then adjust the webcam and click on take button to capture the image. After capturing enough images close the window and

select image from icon view on left side of lios and process it.

*** Manipulation of imported Images ***

Image manipulation options are available in Image Menu of Lios.

Invert List

This is used to change the order of images

Reposition of image items

one can click and drag image to any position among other images in the list.

Rotate selected Images

One can rotate bunch of images that are not in exact rotation.

Delete selected Images

One can delete all images or selected images from the list.

Save Images

Used to save all images or selected images to a folder.

Save images as PDF

One can save all images as pdf or save selected images as pdf.

OCR images without rotating

Before running ocr on images we can set OCR engine, language and insert position.

These options are in recognition page of Lios preferences. The selection of engine will affect the supported languages combobox.

One can decide the place in which 'output text' is added. It can be at the starting position end position or wherever the cursor blinks.

After setting this, one can ocr images without rotation using ocr-selected-images-without-rotating item from the ocr menu. Or selecting the images from the image list and using the same option from the properties menu(Right click)

OCR images with rotation

The mode rotation can be selected from the recognition page of Lios preferences. The options available are Full automatic, Partial automatic and Manual.

Full automatic – The Lios will automatically select the apt rotation. The detection may take several seconds. Partial automatic- In partial automatic mode first scanned orientation is the model for the rest. Manual – In this you can give any orientation you like for each and every image, The rotation should be set in the recognition page of Lios preferences.

OCR Rectangle selections

One can select the region of interest from an image by drawing rectangles in the image using mouse. After selecting the regions one can OCR the items using Recognize-Selected-Areas Button shown left side of image view. For each entry in the list there will be starting X,Y, width and height. The overlap won't be allowed.

*** Scan and OCR directly ***

One can do scan and ocr directly using scan-and-ocr(F9) button from scan menu. This will first make a scan and add image to the list then ocr the image with respect to the rotation policy.

Scan-and-ocr-repeatedly(Ctrl+F9) will scan and recognize images repeatedly. The process can be stopped using stop-all-process(Ctrl+F4) button.

*** Manipulation of OCR Output ***

New

One can start a new book or clear the entire text by selecting new(Ctrl+N) from the File menu. This will ask confirmation if text is not saved.

Open

To open a file in Lios, select the Open(Ctrl+O) button in File menu. This will cause the Open dialog to appear. Use your mouse or keyboard to select the file that you wish to open, and then click Open. The file that you've selected will open.

Save/Save As

To save a file in Lios, select the Save(Ctrl+S) button from the file menu.

If you are saving a new file, the Save As dialog will appear, and you can select a name for the file, as well as the directory where you would like the file to be saved.

*** Other Basic Options ***

This includes all text manipulation tools like cut, copy, paste, and delete text.

Punch

This is used to open text on a file and paste that text in the current cursor position. This will cause the open dialog to appear, and there you can select the file to be punched.

Append

Same as punch but the text will be added at the end of the current text.

Find

This can be used for finding out the word in text. Finding the word in Lios can be done via Opening the find tool by Choosing Find(Ctrl+F) item from Edit menu. Enter the text that you wish to search into the Find word field. To find the next match, click Next. To find the previous match, click Previous. One can see the context for current match above the Previous and Next buttons. Also the matched word will be highlighted.

Find and Replace

Editing text can be time consuming. To save time, Lios includes a Replace function that helps you to find and replace portions of text. In order to replace select Find-and-Replace(Ctrl+R) from Edit menu. Enter the text that you wish to replace into the word field. Enter the new replacement text into the Replace word field. To find the next match, click Next. To find the previous match, click Previous. One

can see the context for current match below the Previous and Next buttons. To replace only the current match, click Replace. To replace all occurrences of the searched-for text, click Replace All.

Spell checker

One can manually check the spelling of a text selection or the entire document.

To check the spelling of a text, the appropriate dictionaries must be installed. The spell check starts at the current cursor position, or at the beginning of the text selection. Click in the document, or select the text that you want to check. Choose Spell-Check(Ctrl+F7) from the Tools menu. When a possible spelling error is encountered, the Spell check dialog opens and Lios offers some suggested corrections. Do one of the following:

To accept a correction, click the suggestion, and then click change. Edit the sentence in the upper text box, and then click change. Or to add the unknown word to a user-defined dictionary, click Add to user dict.

*** Readability ***

Font and Color : - General page includes options for changing Font, Color and Background colour and same options for highlighting. This can increase the readability of text.

Go-to-line

Select Go-to-line(Ctrl+L) from Edit menu. The go-to-line dialogue box will appear with current line number. Now type the line number and press Enter.

Go-to-page

Select Go-to-Page(Ctrl+L) from Edit menu. The Go-to-Page dialogue box will appear, type the page number and press Enter.

Text Reader

One can Read the output text using TTS via setting the cursor and activating the Start-Reader(F5) item from tools menu. One can change the speed, rate, voice and reading volume from general page of Lios preferences. One can increase or decrease the speech rate while reading using Increase-Reader-Speed (Ctrl+PageUp) and Decrease-Reader-Speed (Ctrl+PageDown) buttons on the same menu.

*** Utilities ***

Brightness Optimizer

One can find the apt brightness for a book using the brightness optimizer

brightness checker is one of the major utilities of Lios. different books demands different brightness level depending on the quality of the paper. ocr process results best on the brightness level set. It can be done using the brightness spin button in the recognition page in the Lios preferences.

If one is not familiar with determining the brightness of a book, can use the brightness optimizer in the scan menu. To start optimizer select Optimize-Scanner-Brightness from scan menu. Then Lios will ask you to set the following parameters.

Note that if mode of rotation in preferences is Full-Automatic or Partial-Automatic then lios will try to detect the rotation using a

single scan and pop-up Optimize Scanner-Brightness dialog. In optimize dialog the first one is angle-to-be-rotated of rotation for optimizing, The second one Current-Value that is existing brightness(default value is 50), The third parameter is Start, it means, the value from which the brightness check starts(default start is 10). the forth one is distance, that is, difference between brightness level set for each consecutive scanning(default distance is 10). The forth parameter is End, it means, the value from which the brightness check Ends (default end is 90). If one does not change any value and click the optimize button.

The program will scan from 10 to 90 with a gap of 10. After each scanning, the total number of words detected will be announced. After ten scanning, one can opt for further accuracy in brightness changing the values or just click Optimize button to follow the changed default values. In the end click the apply button and ocr process will be done on the brightness level set. It is highly recommended that at the beginning of a new Book, this utility may be used. Also note that a typical page that represents the quality of the book may be selected and no movement of the page kept in the scanner may be made till the process is over.

Audio converter

One can use audio converter to change the text into small pieces of audio and save it as WAV Files. You can decide the speed, pitch, split time (to decide length of each WAV files) and volume before conversion.

Artha

One can find out the meaning of any word using artha. Select the word and Press Alt+Ctrl+W to get the meaning, synonyms, antonyms, derivatives, word related to them, and words similar to them.

Saving and Loading Preferences

Lios Preferences dialogue box contains three pages, General, Recognition and Scanning. One can save and load preferences for each book. Also one can reset the preferences using Restore item in Preferences menu.

*** Scanner Trouble Shooting ***

These options can be changed from scanning page of Lios Preferences.

Changing the driver

The next item for selecting driver. If one driver is not working one can select the other one.

Change to Lineart or binary

Lineart and binary are two modes which allow user to scan directly as black and white image. This is more appropriate for recognition. One can disable this but color scanning will take more time than lineart.

Cache Calibration

By enabling Cache Calibration one can avoid heating scanner lamp each time.

*** Disclaimer ***

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modification, are permitted provided that the following license
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You should have received a copy of the GNU General Public License
along with this program. If not, see
<<http://www.gnu.org/licenses/>>.

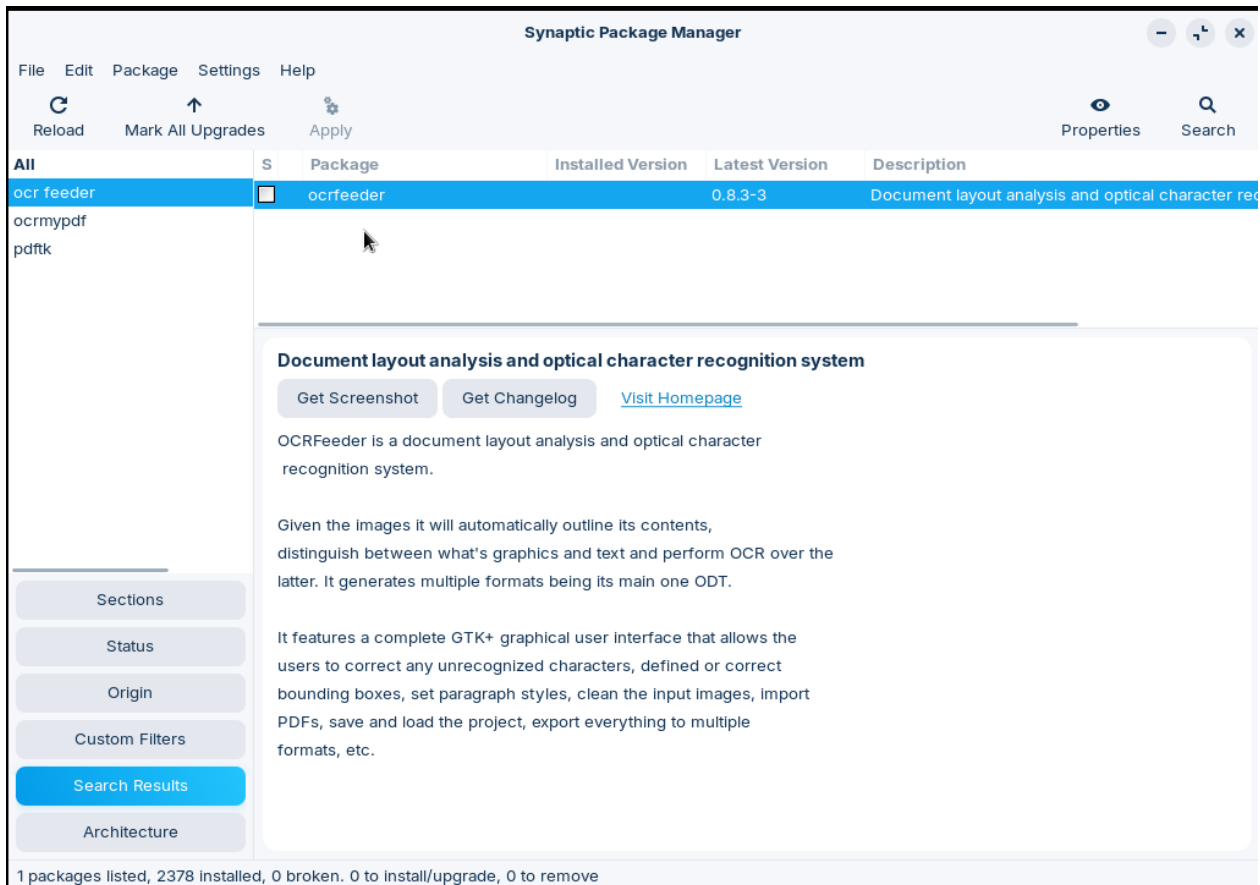
.

On Debian systems, the complete text of the GNU General Public
License

version 3 can be found in ``/usr/share/common-licenses/GPL-3'`.

FREE SOFTWARE FREE SOCIETY

4. OCRFeeder. Only available via Synaptic Package Manager.



Where Okular uses the 'de facto' Tesseract engine, OCR Feeder offers the user 3 additional OCR engines - Cuneiform, GOCR, and Ocrad. Details of each one (and more) here:

<https://help.ubuntu.com/community/OCR>

Open a file (Ctrl+ O)

Import page from Scanner (Shift+ Ctrl+ I)

Export (Shift Ctrl+ E) - options - default is ODT (LibreOffice Template), HTML,

PDF, Text to simples.

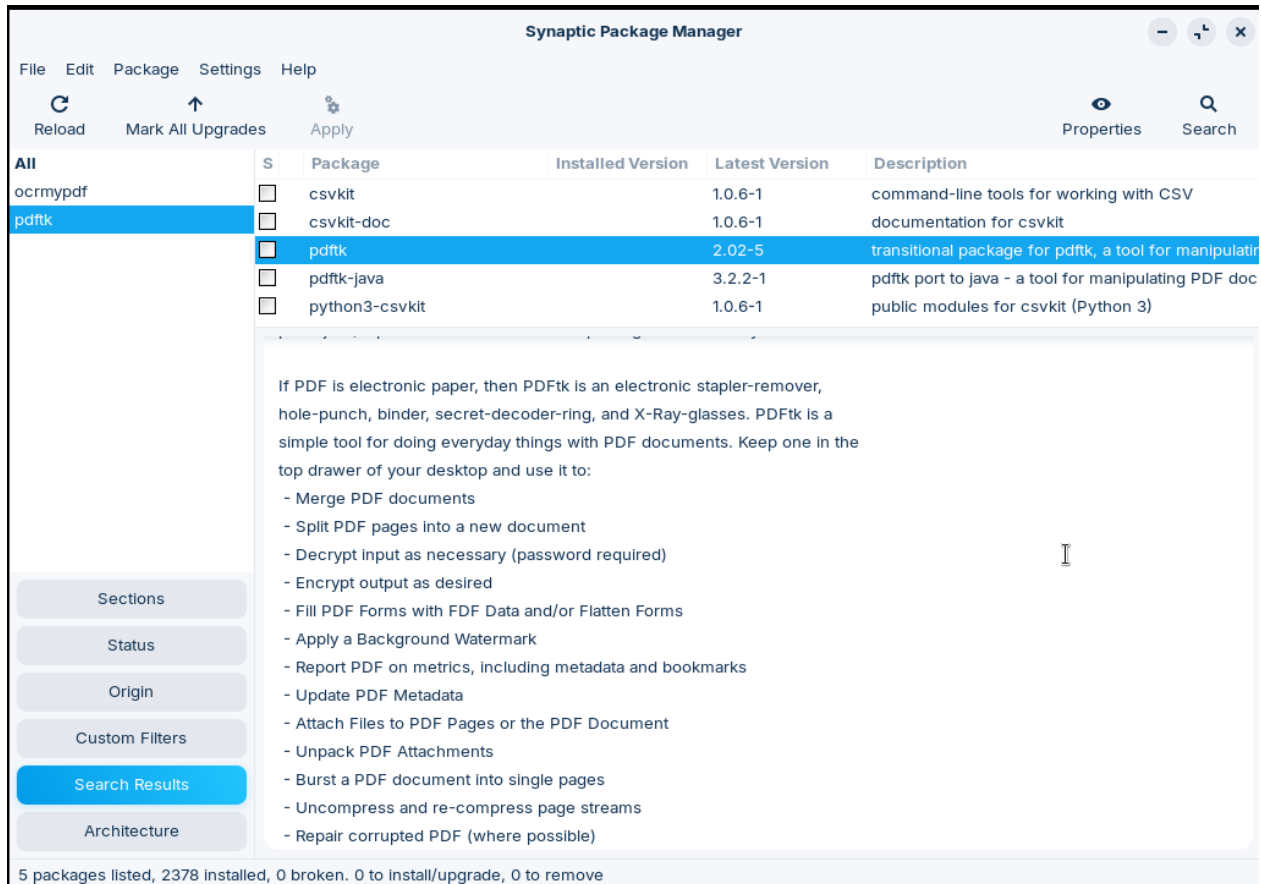
Recognize document (Shift+ Ctrl+ D)

Recognize page (Shift+ Ctrl+G)

Website: <https://wiki.gnome.org/Apps/OCRFeeder>

5. pdftk (pdf tool kit) - to fix corrupt pdfs and more.

Available via Synaptic Package Manager only.



Open a terminal or Konsole and once you have cd .. 'd to the directory where the faulty pdf is enter:

```
pdftk broken.pdf output fixed.pdf
```

This was a life saver for me when I had a failing hard drive which corrupted an A-Level Physics Paper I was working on!

6. pdf Arranger. (Available in the Software channel.)

The screenshot displays the PDF Arranger application window. At the top left is a back arrow and the title "PDF Arranger". Below the title is a logo consisting of three overlapping colored rectangles (purple, green, blue) with a white document icon. To the right of the logo is the text "PDF Arranger". In the top right corner, there are window control buttons (minimize, maximize, close) and an "Install" button. Below the "Install" button is a "Flathub" dropdown menu. The main area of the application shows a grid of PDF pages from a document titled "gimp-help-2.10-en.pdf". The pages are numbered 31 through 40. The page titled "gimp-help-2.10-en page 40" is highlighted with a blue border. Below the grid, there is a section titled "PDF Merging, Rearranging, Splitting, Rotating and Cropping" with a brief description: "PDF Arranger is a small application, which helps the user to merge or split pdf documents and rotate, crop and rearrange their pages using an interactive and intuitive graphical interface". On the right side, a white panel lists installation options: "Flathub" (dl.flathub.org) with a "Flatpak" button and a checkmark; "Snap Store" (snapcraft.io) with three entries for different versions (latest/stable, latest/candidate, latest/beta) and "Beta" labels; and "Zorin OS" (APT) with a "Package" button.