

# **KOOMPI OS**

## **PLAYBOOK**

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# Acknowledgment

First and foremost, we would like to thank the open source community that has been our source of inspiration since the beginning.

We would like to express our deep gratitude to all of our users, who are and always will be the core of our mission, for giving their support. By supporting KOOMPI, they do not only support a local technology development company but also the open source community as a whole.

This book would not have been possible without the invaluable contribution of KOOMPI members with their research, compiling, writing, editing, and designing.

Last and not least, we thank Mr. Rithy Thul, who offers neverending guidance to us throughout our projects and reminding us of the big picture behind everything we do.

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**Welcome to KOOMPI OS Playbook!**

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# KOOMPI OS Playbook

This manual offers essential information about KOOMPI OS and how you can get the best out of our products, both software and hardware.

Connect with us!

Code open to all at [github.com/koompi](https://github.com/koompi)

Online user manual at [koompi.org](https://koompi.org)

Latest products and specs at [koompi.com](https://koompi.com)

Users support and community at [t.me/koompicom](https://t.me/koompicom)

Facebook page at [facebook.com/koompi](https://facebook.com/koompi)

Instagram channel at [instagram.com/koompiofficial](https://instagram.com/koompiofficial)

Telegram channel at [t.me/koompi](https://t.me/koompi)

Medium blog at [medium.com/koompi](https://medium.com/koompi)

Official Youtube channel at [youtube.com/koompikosmos](https://youtube.com/koompikosmos)

Tutorials and lessons at [youtube.com/koompisteam](https://youtube.com/koompisteam)

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# Table of Contents

About KOOMPI.....	13
A little history .....	14
Our initiatives .....	16
What is an operating systems? .....	20
Introduction to Linux .....	25
Introduction to Arch Linux .....	30
Introduction to KOOMPI OS .....	30
KOOMPI OS Security .....	31
How to install KOOMPI OS .....	32
KOOMPI Desktop Environment .....	34
TASKBAR .....	36
PLANK .....	38
Search bar .....	38
System Settings .....	38
Keyboard Key Types .....	53
Introduction to Basic Commands.....	58
File Mangement on KOOMPI .....	62
Applications .....	64
Introduction to PIX .....	102
Introduction to WINE .....	105
System Monitor .....	108
System Maintenance & hardware care .....	110
Our Products .....	114

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# **ABOUT KOOMPI**

KOOMPI is a technology development company based in Cambodia that designs and builds solutions-oriented productivity tools for next-generation doers and for the innovators.

KOOMPI products are designed, assembled, and programmed with customized software developed in Cambodia, while certain key hardware components are outsourced from China due to our present lack of local production facilities.

We do not define KOOMPI as a computer company. Instead, it's a people-oriented technology and development project that keeps evolving. Though our notebook products are one of our proudest achievements, there is so much more we are striving to accomplish. Before we get into the "useful" part of the book, let us take a look at how KOOMPI came to be what it is today and what we are working on.

Chosen as a symbol of knowledge and self-empowerment, the word KOOMPI derives from the Khmer phrase, "books or source of knowledge."

In ancient times, young Cambodian boys would leave home to learn and develop into adulthood at a Buddhist monk monastery. All the books and learning- materials

given to these students were simply called KOOMPI. Today, students in developing nations struggle to find adequate lesson plans, books, resources, and of growing importance, an internet-enabled notebook for self-directed remote learning.

Only recently, modern-computer hardware and satellite networks have become advanced and flexible enough for the extreme remote learning conditions of remote Cambodian villages.

We design KOOMPI to be affordable, lightweight, reliable, and energy-efficient for low-power off-grid systems.

## A Little History

You probably used to wonder: Why would KOOMPI use its own operating system when there are already so many variants of Linux, Microsoft Windows or Apple macOS? Who are the people behind KOOMPI and how did the company materialize into what it is today? Did someone just wake up one day and think “I want to make a computer and I will”?

KOOMPI didn't start as a computer brand. It was purely a recycling project. It all began at SmallWorld's first old office, KOOMPI's parent company that deserves a book of itself to tell its story.

Around the end of 2012, we partnered with [recycles.org](http://recycles.org)

to gather old computers. Through email groups such as Yahoo Groups and Google Groups, we connected with and individuals who upgraded their computers and left the older ones unused. We made sure the hardware was still usable and refurbished them. We wiped out the old system that came with it and reloaded it with our own customized Linux based OS. Back then, the OS was called many random names. A few of which, what we can remember, was Meombao (pronounced Meh Ombao) OS or ButterflyOS.

After a few months of collection, two rooms of our office were full of old computers, both laptops and old CPUs. Not only that we were offered printers, monitors, phones, and all sorts of other electronics appliances. We were only interested in laptops and computers' parts. So we sorted the ones good enough to be used and were donated to high school students and freshmen.

One problem we had on top of the mountain of old computers was their incompatibility with Linux. At the time it took us three to four (full) days to get one laptop to work because the computers were initially built for Microsoft Windows.

After a year or so, we decided to research how we could make computer hardware along with its very own OS. We didn't have any academic credentials nor a million dollars.

Only years later, we made it. Though we have come a long way and some things have changed, two things haven't and those are:

**Our Mission** is to build tools, provide guidance and resources for the next generation of innovators.

**Our Vision** is to unlock people's unlimited capacity for self-directed learning by encouraging curiosity, flexibility, and creative imagination.

These two pillars are the Northern Star that guides our team in everyday work. They are what keeps our motivation strong and encourages us to contribute to any area of development in any way we can. In the next pages, you will get to know our initiatives and projects.

## **Our Initiatives**

As a contributor to the open-source community, KOOMPI values the limitless learning unlocked by open source technology and seeks to inspire others to become innovators. We do not identify as a social enterprise but we seek to be a company that actively gives back. We take pride in contributing to the growing educational and technological world. The following are some of our activities.

**a) One-School-One-Lab (OSOL)**

As technology is constantly moving forward, students of all ages need technology skills to be well-equipped before entering university and employment. We believe that functional computer labs are one of the steps toward this goal. OSOL seeks to support schools with the essential resources in implementing an efficient computer education for their students.

**b) One-Student-One-Notebook (OSON)**

Inspired by the original One Laptop Per Child (OLPC) program, which began during the late 1990s, we hope to give every child accessibility to technological education, more specifically one computer per student. This project also inspired our second notebook model, the KOOMPI E11, an 11.6-inch notebook that caters to young students' needs.

**c) KOOMPI Academy ([academy.koompi.com](http://academy.koompi.com))**

is a free-access digital platform where students and educators can find or host a variety of self-studying and self-empowerment resources. Lessons are sorted into 5 STEAM subjects: science, technology, engineering, art, and mathematics.

**d) Educators/Facilitators**

We assign a minimum of one KOOMPI Educator for every partner school that runs KOOMPI Linux

Lab. The role of the Educator is not to “teach” but to facilitate the students’ self-directed learning and communicate any issues to KOOMPI team. The schools are also supported by the KOOMPI to create their ICT curriculum to fit their students’ need.

#### **e) KOOMPI Wi-Fi**

Part of our Internet-For-All campaign, KOOMPI Wi-Fi is a fast fibre or 4G network infrastructure provided by KOOMPI to schools. Students and teachers would only need to pay around or less than 1\$ per month per device for unlimited data at between 60 Mbps - 300 Mbps depending on the number of devices connected. We also hope to extend this to remote villages, so their parents and everyone could access the internet as well.

#### **f) KOOMPI Apprenticeship**

KOOMPI Research Lab is open to all individuals who are interested in learning through hands-on experience. We encourage our apprentices to follow their subjects of interest and relevance so that their knowledge will be applicable. For the duration of the apprenticeship, they can contribute to projects at KOOMPI and receive guidance from senior members and staff.

Now that we know some fun facts about KOOMPI, we will discuss the types of available operating systems that computer users can choose from.



# **What is an operating system?**

**An operating system (OS)** is the program that manages all other application programs on the computer. Without an operating system, a computer is practically useless. In other words, a computer's OS (software) is the brain that runs the body (hardware). This does not mean that the computer's hardware is less important. However, a compatible OS will ensure that your computer reaches its optimal performance.

Outside of personal devices, OSes are everywhere. Embedded operating systems are built into larger systems such as cars, traffic lights, digital TVs, ATMs, aeroplanes, controls, digit cameras, GPS navigation systems, and even the elevators.

## **How does an OS work?**

Applications make requests to the OS through API's (Application programming interface) so that users can interact with the operating system by command line or graphical user interface, often with keyboard or mouse or by touch. Operating systems are developed with different features to meet specific needs for the device it runs on. For instance, LINUX works great on a large monitor but would be cramped on a smartphone.

# Types of operating systems

Most people use the OS that comes pre-installed with their computer, but it is possible to upgrade or even change to a different one. There are two types of software which are proprietary and non-proprietary.

- **Proprietary software**, also known as **non-free software**, or **closed-source software**, is computer software for which the software's publisher or another person retains intellectual property rights—usually copyright of the source code, but sometimes patent rights. The most well-known closed-source OS today is probably **Microsoft Windows** and **Apple's macOS**.
- **Non-proprietary software (also called open source software)** is a software that has **no patent or copyright** conditions associated with it. This type of software is publicly available software that can be **installed and used at no cost**. It also provides complete access to its source code. One popular example of this software is **Linux**.

Below is some brief information about the three most prestigious operating systems of both types.

## • Microsoft Windows

Microsoft created the **Windows** operating system in the mid-1980s. There have been many different versions of Windows, but the most recent ones are **Windows 10** (released in 2015), **Windows 8** (2012),

**Windows 7**(2009), and **Windows Vista** (2007).

Windows comes preloaded on most new PCs, which helps to make it the most popular operating system in the world.

#### **• macOS**

macOS (previously called OS X) is a line of operating systems created by Apple. macOS is run on all Macintosh computers or Macs by default. Some of the specific versions include **Mojave** (released in 2018), **High Sierra** (2017), and **Sierra** (2016).

#### **• Linux**

Linux (pronounced LINN-ux) is a family of open-source operating systems, which means they can be modified and distributed by anyone around the world. Linux is free and has many different distributions—or versions—you can choose from.

## **A Comparison**

macOS users account for less than 14% of global operating systems—much lower than the percentage of Windows users (Windows 10 – 39.22%, Windows 7 – 33.38%). One reason for this is that Apple computers tend to be more expensive. However, many people do prefer the look and feel of macOS over Windows. Linux users account for between 1.74% to 2.18% of global operating systems. However, most servers run Linux because it's relatively easy to customize.

# Why go open source?

**1. Accessibility:** With open-source software, users can dig deeper, customize, and modify software by themselves to see how it works.

**2. Affordable:** Since it's open-source, there is no need for expensive licenses.

**3. Security:** When there is a bug in the software, for example, any developer around the world can volunteer to maintain and fix it on time without needing any authorization.

As you may have known, KOOMPI OS is an open-source suite that is derived from Linux. If you are already familiar with using Linux, you may skip this section and dive right into the next chapter.

## Popular open-source operating systems

Some widely used programs, platforms, and languages which are considered open source are: Linux operating system, Android by Google, and Open Office. All free software is open source, but not all open source applications are free. As KOOMPI OS is derived from Arch Linux, we will choose to talk exclusively about Linux and its various distributions before going into details about KOOMPI OS.



# Introduction to Linux

Developed by **Linus Torvalds** in 1991, Linux Kernel is the heart of most open-source operating systems today. Being the platform of choice to run desktops, servers, and embedded systems across the globe, Linux is considered one of the most reliable, secure, and worry-free operating systems available.

Though you may not realize, Linux is everywhere; your phones, your thermostats, your cars, refrigerators, Roku devices, and televisions. It also runs most of the Internet, all of the world's top 500 supercomputers, and the world's stock exchanges. In fact, one of the most popular platforms on the planet, Android, is powered by Linux.

Linux has several different versions to suit any type of user. These versions are called distributions (or, in the short form, "distros"). Nearly every distribution of Linux can be downloaded for free, burned onto disk (or USB thumb drive), and installed (on as many machines as you like).

Popular Linux distributions are as follows:

- LINUX MINT 
- DEBIAN 
- UBUNTU 
- ANTERGOS 
- SOLUS 

- FEDORA 
- ELEMENTARY OS 
- OPENSUSE 
- ARCH LINUX 



# Introduction to Arch Linux

Arch Linux is an independently developed, x86-64 general-purpose GNU/Linux distribution versatile enough to suit any role. Development focuses on simplicity, minimalism, and code elegance. Arch Linux can be installed from a CD image, USB, or via an FTP server. Its core system is always up to date with the latest fixes and new features after users run command updates to execute it.

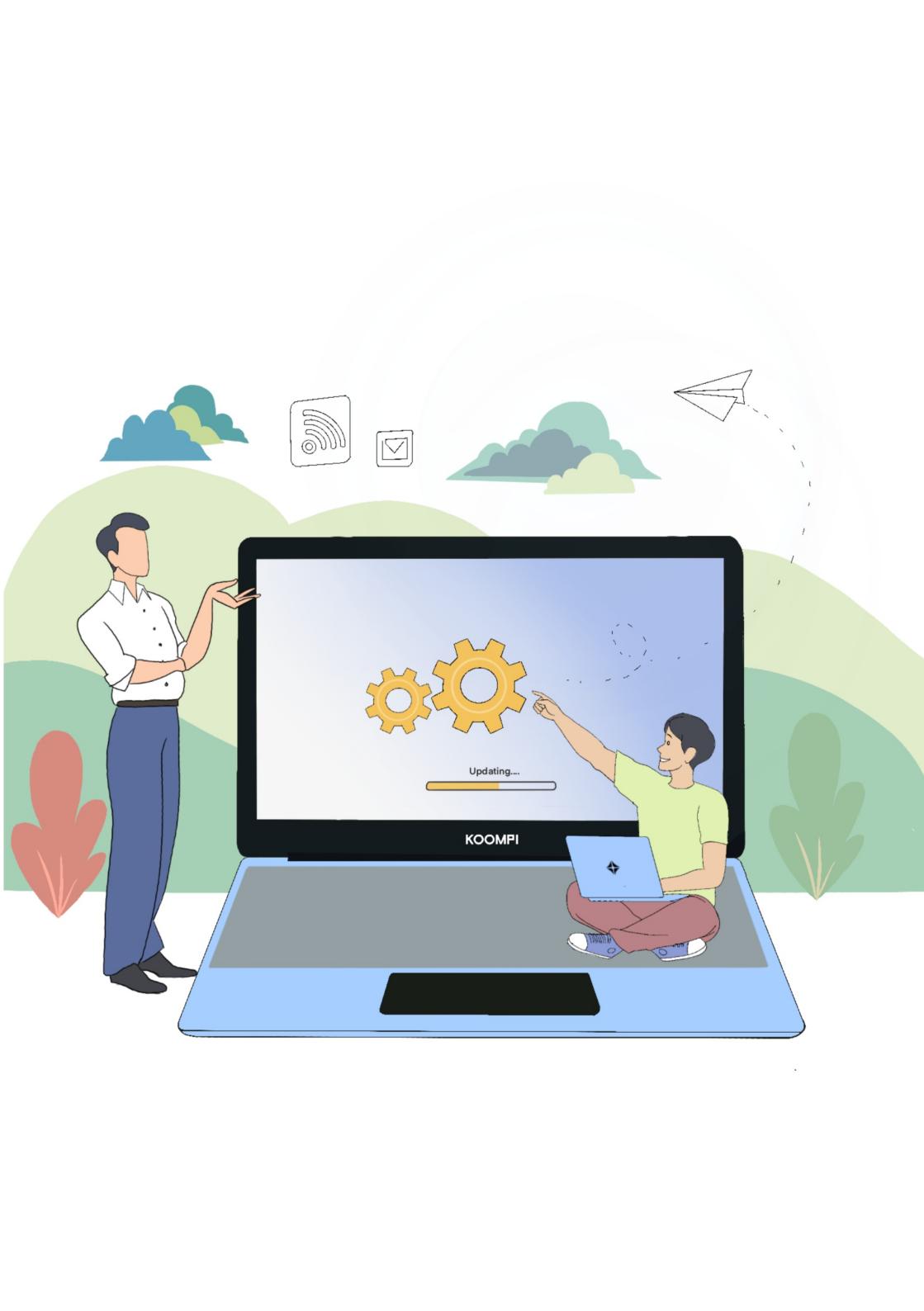
This OS may seem difficult at first but it is a completely flexible distro in which users can decide which modules to use. It is the perfect platform for anyone interested in understanding how open source works as it requires users to pay attention to documentation and recommended usage tips throughout its usage.

Arch Linux has a vast library of documentation called **Arch Wiki** that contains an overview of Arch Linux and a description of what to expect from it: FAQs and facts about it, an installation guide, post-installation tutorials, etc.

On the other hand, Arch Linux user repository (AUR), a collection of applications and tools that can be installed on the OS but not yet available in the official Arch repository – it is maintained by Arch Linux user community. **Pacman** is a command-line tool and the default package installer in Arch Linux.

Here are some Arch Linux distros:

- KOOMPI 
- Manjaro 
- EndeavourOS 
- ArcoLinux 
- Chakra 
- Archman Linux 
- Artix Linux 
- RebornOS 
- Anarch Installer 
- ArchLabs Installer 
- VeltOS 



KOOMPI

# Introduction to KOOMPI OS

**KOOMPI OS** is a lightweight, decentralized, crypto/security-oriented open-source operating system derived from Archlinux. It is built on a kernel and provides an environment for multiple applications and software to run simultaneously. It means that users are granted the special privilege that allows them to control everything on the system.

KOOMPI OS is compatible with other software solutions and is especially great for individuals in the IT field. It gives users free usage without the hassle of licenses and can be customized to meet individual needs.



# KOOMPI OS Security

The system itself leverages traditional OS security control to protect user data and system resources, protects device integrity against malware, and provides application isolation – application is separated from the rest of the running processes.

The robustness and security of the operating system is a result of the following aspects:

- **Architecture strengths:** structures are appropriated for the environment where it will run.
- **Solid development:** a result of strong developer teams' knowledge.
- **Fast bug detection:** consists of how quickly flaws and errors are detected.

# KOOMPI OS Security Threats

Certain characteristics could compromise security. For example, the OS can be malicious if it is modified to have different behaviour from what was originally intended, making application security mechanisms fail. This only occurs when the users install the integrity of code against a hash signature (official signature).

Last not least, KOOMPI OS is released under a license where others are allowed to study, change, as well as distribute the software to other people

# How can I install KOOMPI OS?

It can be installed on nearly any modern hardware and it also does not need as many hardware resources compared to other operating systems.

Here are two ways to install KOOMPI OS (on KOOMPI notebooks and other laptops):

## 1. First Step: Create a bootable USB

- Get a USB minimum of 4GB.
- Install the Etcher.
- Download the OS source through this link.
- Move those sources into the USB and start making it a bootable drive.

## 2. Second Step: Setup OS on the PC

- Plug the USB into your PC.
- Open the PC and move into the BIOS Boot (By press key Esc).
- Go to the Booting Menu.
- After that Select the booted USB.
- Then, your PC will run some process and after it is finished, your screen is going to show the Desktop.
- Connect to the Internet and click on "**installation software**"(like below) and follow the instructions given.



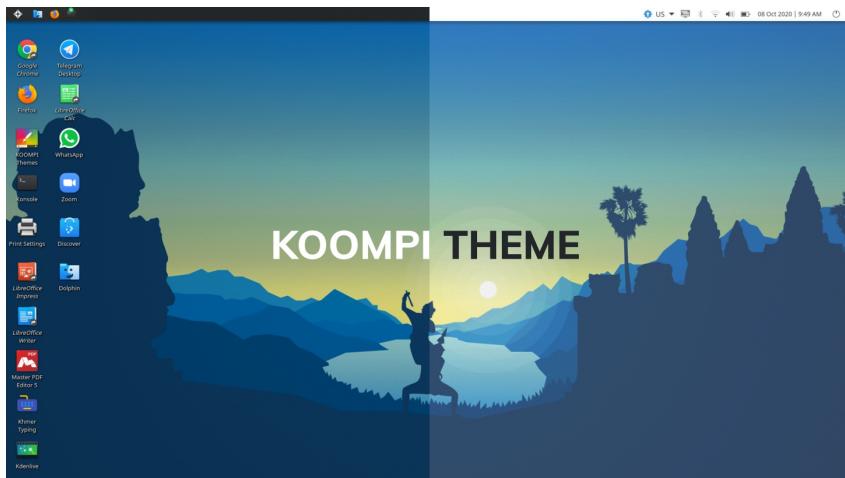


# KOOMPI Desktop Environment

Desktop Environment (DE) is the bundle of components that provide common graphical user interfaces (GUI) elements such as icons, toolbars, wallpapers, and desktop widgets. It shapes what the system looks like and how it interacts.

KOOMPI Desktop Environment is based on KDE – a highly customizable desktop with moderate usage of system resources. It has its own set of integrated applications and utilities. There are three main desktop environments and each of them has two core theme colours, **Dark** and **Light**.

**KOOMPI THEME:** The original theme of Koompi OS. It looks simple and clean. The taskbar is stationed at the top of the desktop.



**KOOMPI MOSX THEME:** It looks similar to the KOOMPI Theme but it has a new feature called PLANK which allows you to pin your favourite applications on it.



**KOOMPI WINX THEME:** This theme has a taskbar at the bottom of the desktop. If you click the bottom one, it shows a platform that allows you to search for applications.



You can set desktop environments through an application named **KOOMPI Themes**, located by default on the desktop screen. You can also search for it in the **Application List**. Although each of the themes has its unique look, most of the modules are still used similarly.

Below, we will discuss various components of the Koompi Desktop Environment.

## **TASKBAR**

The Task Bar is normally located on the upper border of the Desktop. The bar hosts many features as listed below:

### **Start Menu**

The Start Menu is located on the left corner of **Taskbar** and it can be accessed by the Koompi logo button. It displays all installed applications in the system in an organized manner by categorizing them into groups.

### **Timetable**

It is located near the right corner and it shows the time of the current location you have set. Clicking on it will enable you to see a drop-down of a calendar.

### **System Properties**

This section includes the hardware drivers such as Bluetooth, Audio Speaker, Micro Speaker, Battery, Night control,

Connectivity, and many more as you can see at the right corner right next to Current Timetable.

Info: For more information about those properties, right-click on each driver.

## **Power Management**

By clicking on the **Power Off Button** on the far-right corner of the Task Bar, future system actions such as Log Out, Restart, Shut Down, Hibernate, and Sleep will appear under the User's Name Session.

## **Others**

“Others” refers to the current running services or applications. As a general rule, running applications appear next to the **Start Menu**, and the service running the app appears next to the **System Properties**.

## **Widgets**

Widgets are small gadgets or mechanical features that you add to your home screen like a clock, dashboard, application launcher, and many more interesting and useful features. You can add which widgets you want for your home screen by **right-clicking** on your Taskbar and then click **Add Widgets**. It shows many features of the widget for you to choose.

Note: The Taskbar can be moved to every corner of the desktop. Check the Taskbar Configuration for more details.

## PLANK

Along the bottom side of the desktop is the additional bar called the Plank or Dork, a feature mainly used for quick access to applications and a general overview of the desktop. Normally, it automatically hides and reappears whenever or as soon as the mouse cursor moves into its area.

## SEARCH BAR

In the middle-top of the desktop is a search bar which is also called **KRunner Dialog**. It is the field that can be used as a quick search for installed applications. Sometimes it does not show, you open it by **Alt + Space**.

## SYSTEM SETTINGS

In every operating system, the System Settings is a centralized and convenient way to configure all settings on your desktop, which are:

- Appearance
- Workspace
- Personalization
- Network
- Hardware
- System Administration



Note: All the modules that make up the System Settings are in the following order to make it easier to locate the correct configuration modules.

## Location and Starting System Settings

The System Settings is also located in the Applications Menu List. It can be started in three different ways, which are:

- By searching and selecting **System Settings** in the **Applications Menu List**.
- Pressing **Ctrl + Fn + F2** or **Alt + Space**. It will bring up **Search Bar**, Type **Systemsettings5** and Enter.
- Typing **Systemsettings5** in Konsole or command emulator.

Note: All methods mentioned are equivalent, and produce the same result.

# **System Settings Categories and Modules**

Here is a brief overview of all the categories and modules.

## **Appearance**

Though there are only three Global themes, you can still do a lot more to your desktop. You can change your desktop using **plasma** styles, change the appearance of your **settings/tools**, and even the text display to any styles, sizes, and colours that is the most suitable for you.

Note: Using all the dialogues above will overwrite any settings on your Desktop.

## **Workspace**

KOOMPI Desktop environments include extensive support for workspaces, which does not only allow you to organize your open windows onto different desktops but also as tools and features to manage the entire platform for a wide range of users use.

## **Workspace Behavior**

Workspace Behavior is the module that configures the process of usage on the desktop environment. General Behavior is the setting that is relevant to common usages like showing notifications of feedback and tooltips,

animation speed, the setting of open files, and vertical scrolling.

**Desktop Effect** is a feature that helps users to configure how to activate the effect on the desktop.

Just like every OS, the users can switch screens by using the keyboard, which is **Alt +TAB** on KOOMPI OS.

There is a unique feature on KOOMPI OS called **Screen Edge**, a feature that allows you to set an option in **eight corners** to switch the screen.

Though KOOMPI PCs are not touch-screen, there is still **Screen Touch Setting** that is applicable for touch-screen devices.

Another feature is **Screen Locking** which allows users to set time to lock or unlock the screen. The users can also set the appearance of the lock screen.

**Virtual Desktop** is the only setting that allows users to create a new Desktop on the computer. **Activities** is a feature that keeps records of your actions and is also where you can clear the history of those activities.

# Window Management

If you are looking for more advanced settings for configuring your Workspace Behavior, Window Management will be the best option. You can use Task Switcher and KWin scripts to navigate, minimize and restore, and synchronize screens after switching it.

## Shortcuts

Shortcuts are the methods that allow you to quickly access your tasks and components.

## Startup and shut down

The various ways to start and turn off the system are located in this menu:

- **Login Screen (SDDM):** Set the desktop display to whatever you like and access more advanced settings for automatic login, commands for turn off or restart, and setting synchronization that allows you to transfer the following plasma setting to SDDM.
- **AutoStart:** A feature to enable or disable applications of choice whenever the system starts.
- **Background Services:** Similar to AutoStart Feature (Enable or Disable service) but only works on system properties, not applications.
- **Desktop Session:** Users can set settings for logout and login.

- **General:** Enable/Disable confirmation after clicking Power Off Button.
  - **Default Leave:** Enable/Disable confirmation for ending service first or restart or just shut down immediately.
  - **On Login:** Enable/Disable to confirm that you want the same services running like last time before turned off or according to you manually save or with empty (NO SERVICES RUNNING).
  - **UEFI:** Enable/Disable for entering UEFI setup on the next restart.
- **Splash Screen:** The screen that pops up after the user logs in to the computer.

## Search

This is the configuration of file searching that quickly locates your files based on content. KRunner is a configuration of a search bar that allows you to set the range of your search.

## Personalization

### Account Details

Account Details shows you all general information of the account, for example, the status of the user and the username. Password changes can also be done here. It is also a user management tool where more users can be added.

## **Regional Settings**

In Regional Settings, you will find Desktop Language Configuration, System Setting Language Formats, Language Spell Check, Date & Time Configuration, and Keyboard Language Configuration.

## **Accessibility**

KOOMPI OS has already come with built-in default accessibility options, which you can access in the System Setting. Accessibility is the module that allows users to use their PC freely depending on their preferences. For example, you can change the speed of mouse navigation, enable screen readers that help people with visual impairments, and much more.

## **Applications**

To set a default app, all you need to do is set and apply. You can also check information about the extensions of apps and files in the system.

## **Online Accounts**

Enter your login details to give system-wide access to your online account such as Google. Doing this will allow software and extensions to access it without each of them asking for your permission. You can also control and manage all the services used.

Note: There is a limit to the number of applications that can be used.

## **User Feedback**

As our Desktop Environment is based on KDE, this section is where you can give feedback to help us improve KDE. If you want to contribute, click on the link that has been provided below to provide anonymous feedback. Your personal data will not be breached.

Here is the Link: <https://kde.org/privacypolicy-apps.php>

## **Network Connections**

This is the setting that controls the connection in the system such as WiFi (Wireless Fidelity) and cellular networks near you. You can also view the details of the WiFi and a history log of all WiFi connections you have used before.

Info: Make sure your device is in the range of the WiFi or cellular network.

## **Settings**

These are the modules that you use for access to the network.

- **Proxy:** This gateway allows you to send and get the information while connecting to the network.  
Connection Preference: It is the configuration that allows you to set the timeout of your gateway.
- **SSL Preference:** An integral part of the website security layer.
- **Cache:** The section allows you to set how much data to save on your network. You can also set the size of the data you want to keep. If you have downloaded the data before and you want to download it again, it will download faster because your network is familiar with the data already.
- **Cookie:** Allow/ Deny Cookies -- Cookies are put on your computer by websites so that they can track your activities. Your computer will save your configuration for some websites, for example, Facebook.
- **Browser Identification:** Your public browser identity is exposed to the network. However, users can configure their browser identity without compromising personal information.
- **Windows Shares:** It is a private network created by Windows that allows users to have remote access to every disk volume on a network-connected system.

## Bluetooth

Bluetooth is a technology that exchanges data between one device to other devices at a short distance through frequency using short-wavelength.

There are three main sections in this part:

- 1) Devices:** You can connect, block, or set a limit to the device and all the details about devices (IP Address, Name...etc.).
- 2) Adapters:** The configuration on a device that transmits and receives through Bluetooth.
- 3) Advance Settings:** It is the extension option in Bluetooth for users to set the location of files when they receive it.

## **Hardware**

Hardware refers to the physical particles of computers and related devices. Hardware has two types which are internal hardware and external hardware.

- Internal hardware includes motherboards, hard drives, and RAM (Random-access memory).
- External hardware includes monitors, keyboards, mouses, printers, scanners, and more.

## **Input Devices**

Input Devices here refers to the configuration of external hardware down below:

- Keyboard
- Mouse
- Game Controller
- Touchpad

## Display Monitor

- **Display Configuration:** It is where you can configure the Desktop Display setting such as the resolution (set automatically depending on the computer). You can also set a limit on your refresh rate and how you want to display your desktop.
- **Compositor:** The module that gives each window a buffer to render to. Each buffer is put into one final image that the compositor outputs to the display.  
Note: Each frame of the running application goes through the compositor.
- **Gamma:** It refers to the brightness of a monitor or computer display.
- **Night Color:** Your brightness on your PC is automatically changed to accommodate your eyes.

## Audio

Audio configuration allows us to quickly and easily manage audio on the computer. You can configure it in several ways, such as using the keyboard (**F3= Turn Volume Off, F4= Turn Volume Down, F5= Turn Volume Up**), clicking on the audio icon on the taskbar, and here, which is more advanced in configuring.

## Power Management

Aside from reducing energy costs, Power Management involves changing the setting on electronics and optimizing

power so that they consume less energy. Its benefits are long battery run times, improved power factor (which enhances active-mode efficiency), and limitation on the app's access to device resources.

## **Printers**

Printers is an external device. After your computer connects to a new printer, click “Add a new printer”. You will see the name of the printer.

## **Removable Storage**

Removable storage is a drive used for storing and transporting data from one computer to another. It will allow users to read (Open), write (Editing), copy, add, and delete files while it is connected to a computer through a USB port.

## **Storage Devices**

In Storage Devices, it will show you the partition of the hard disk. All the capacities that have been used and free capacities will be specifically described in detail here.

## **Thunderbolt**

Thunderbolt is a subsystem and device management, but it is not available on KOOMPI OS yet.

## **System Administration**

Whenever you run or perform tasks, the system will monitor and scan both hardware and software and then show a short description of the result of your system.

## **System Information**

You can see the version of KDE you're using. You can also view your basic hardware specifications here.

Tip: Use the searching field at the top left in All Settings view to find all modules for a given keyword. Start typing a keyword opens a list of keywords and only the matching modules are enabled.

## **System Settings Modules**

The System Settings organizes modules into six categories as described above. Below each category are the following buttons, presented with the options of the module in the main window.

### **Help**

This button will provide help specific to the current module. Clicking the button will open KHelpCenter in a new window providing detailed information on the module.

## **Default**

Clicking this button will restore this module to its default values. You must click Apply to save the options.

## **Reset**

This button will reset the module to the previous settings.

## **Apply**

Clicking this button saves all the changes. If you have changed anything, clicking Apply will cause the change to take effect.

## **Discard**

Use this button if you wish not to save all the changes.

## **Cancel**

Cancel if you do not want to Apply or Discard. In short, you will be taken back to where you were.

Note: You must either '**Reset**' or '**Apply**' the changes before changing to another module. If you try to change without saving or resetting your options, you will be asked if you want to save your changes or discard them.



# KEYBOARD KEY TYPES

The keyboard is one of the computer's primary input and output devices and is similar to an electric typewriter. It is composed of buttons that create letters, numbers, and symbols, as well as other functions. There are **86 keys** on this keyboard.



Each type of key will be listed down in detail below.

## Alphabet Keys

Twenty-six alphabet keys which are presented on a keyboard from **A** to **Z**. These keys are for text writers, mostly on the words processing program. They are located in the middle of the keyboard and are not in order because they have been made by following the **QWERTY RULE**.



## Number Keys

These keys are used for typing numbers and symbols. They are present above the top row of the alphabet keys.



## Special keys

These keys are used for typing numbers and symbols. They are present above the top row of the alphabet keys.

- **Space bar key:** Enters space between words during typing.
- **Backspace key:** Deletes the preceding character.
- **Delete:** Discards the character ahead.
- **Enter key:** Go down to the next line.
- **Tab key:** Enter space to its next tab stop.
- **Prt Scr:** Prints Screen. Screenshots of the desktop.
- **Fn key:** Only applicable when combined with others.
- **Shift keys:** Shift and other keys enable capitalization. For example, Character “a” to “A”
- **Caps Lock:** Enable whole-keyboard capitalization. It can only be disabled when it’s typed again.
- **Pause key:** It no longer has a well-defined purpose.
- **Ctrl/Alt keys:** Access additional symbols for keys that have more than symbols printed.
- **Escape key:** Go back or cancel.
- **Insert key:** Inputs a character at its current position.
- **Poweroff key:** Open or power off the computer.

- **Menu key:** Shows menu list. Note: This key only works on some parts of the system.
  - **Symbol keys:** Special characters/symbols.



## Function Keys

At the topmost row of the keyboard, you will see twelve function keys (**F1-F12**). Each key performs a specific task as described below.

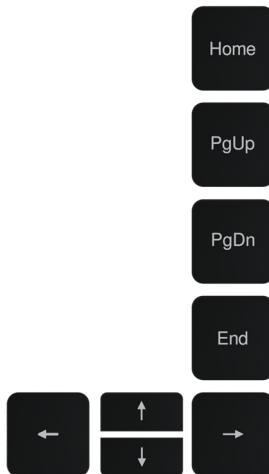


- |             |                  |             |                       |
|-------------|------------------|-------------|-----------------------|
| <b>F1:</b>  | Enter Sleep mode | <b>F2:</b>  | Turn on/off LCD       |
| <b>F3:</b>  | Turn off audio   | <b>F4:</b>  | Lower audio           |
| <b>F5:</b>  | Upper audio      | <b>F6:</b>  | Lower brightness      |
| <b>F7:</b>  | Upper brightness | <b>F8:</b>  | Turn on/off a network |
| <b>F9:</b>  | Rewind video     | <b>F10:</b> | Pause/play video      |
| <b>F11:</b> | Speed up video   | <b>F12:</b> | Switch screen         |

## Navigation Keys

Every keyboard has some special navigation keys used for screen navigation. These keys are positioned at the far right of your keyboard under the **Start/Shut Off** button.

- **Arrow Keys:** Four keys used for moving in a specified direction (up, down, right, and left)
- **PgUp/PgDn:** Scroll the page up and down
- **End:** Takes you to the end of the line
- **Home:** It returns to the beginning of the line



Note: All usage of each key above works by default after installing KOOMPI OS. It might be different on another OS. You can change some keys' functions to your preference in the System Setting.

# **Introduction to Basic Commands**

# Introduction to Basic Commands

Even though some people prefer to use graphic user interfaces (GUI), we encourage you to use command lines. Below, we talk about how it works.

## What is Konsole?

Konsole is the default **terminal emulator** of the KDE Desktop environment. It runs a **command shell**, an application that executes the commands you type in.

On KOOMPI OS, you can access it through the **applications list** or using the shortcut **Ctrl + Alt + T** for instant access.

This shortcut combination might be different on different operating systems.

## File view and editing

These are some commands that you can use for checking or editing your files.

- **nano:** view and edit with nano.
- **vim:** view and edit with vim.
- **cat:** view file.
  - **cat > {file\_name}:** create a new file.
  - **cat {file\_1} > {file\_2}:** copy file 1 to file 2.
  - **cat {file\_1} >> {file\_2}:** append file 1 content to file 2.

- **grep {keyword} {file\_name}**: search through all the text in a given file.
- **head**: view the first 10 lines of any text file.
  - **head -n 5 {file\_name}**: display first 5 lines of the file
- **tail**: view the last 10 lines of any text file.
  - **tail -n 5 {file\_name}**: display last 5 lines of the file

## System Commands

System commands are commands that pass execution to the operating system.

- **sudo**: SuperUser Do, enables to perform any task that requires administrative or root permissions
- **command1; command2; command3**: run multiple commands.
- **command1 && command2 && command3**: run the next commands after the first one is successful.
- **useradd {username}**: add a new user.
- **userdel**: delete a user.
- **passwd {password}** : set the password.
- **history**: review the commands you've entered before.
- **clear**: clean out the terminal (konsole).

## Keyboard Shortcut

Here are some shortcuts for using in the Konsole:

- **ctrl + c**: safe kill (end the process safely).

- **ctrl + z:** stop a small process that is still running in the background.
- **ctrl + a:** move to the beginning of the line.
- **ctrl + e:** move to the end of the line.
- **ctrl + shift + c:** copy selected command.
- **ctrl + shift + v:** paste command.

Info: All functions of each shortcut here only works in the Konsole.

## Manual guide

If you want to get more details about the each command, you can use the following methods below:

- **man:** display full guide of a command.  
Syntax: man <a command>
- **--help:** display a short guide of a command.  
Syntax: <a command> --help

**How do you manage your files on  
KOOMPI OS?**

# How do you manage your files on KOOMPI OS?

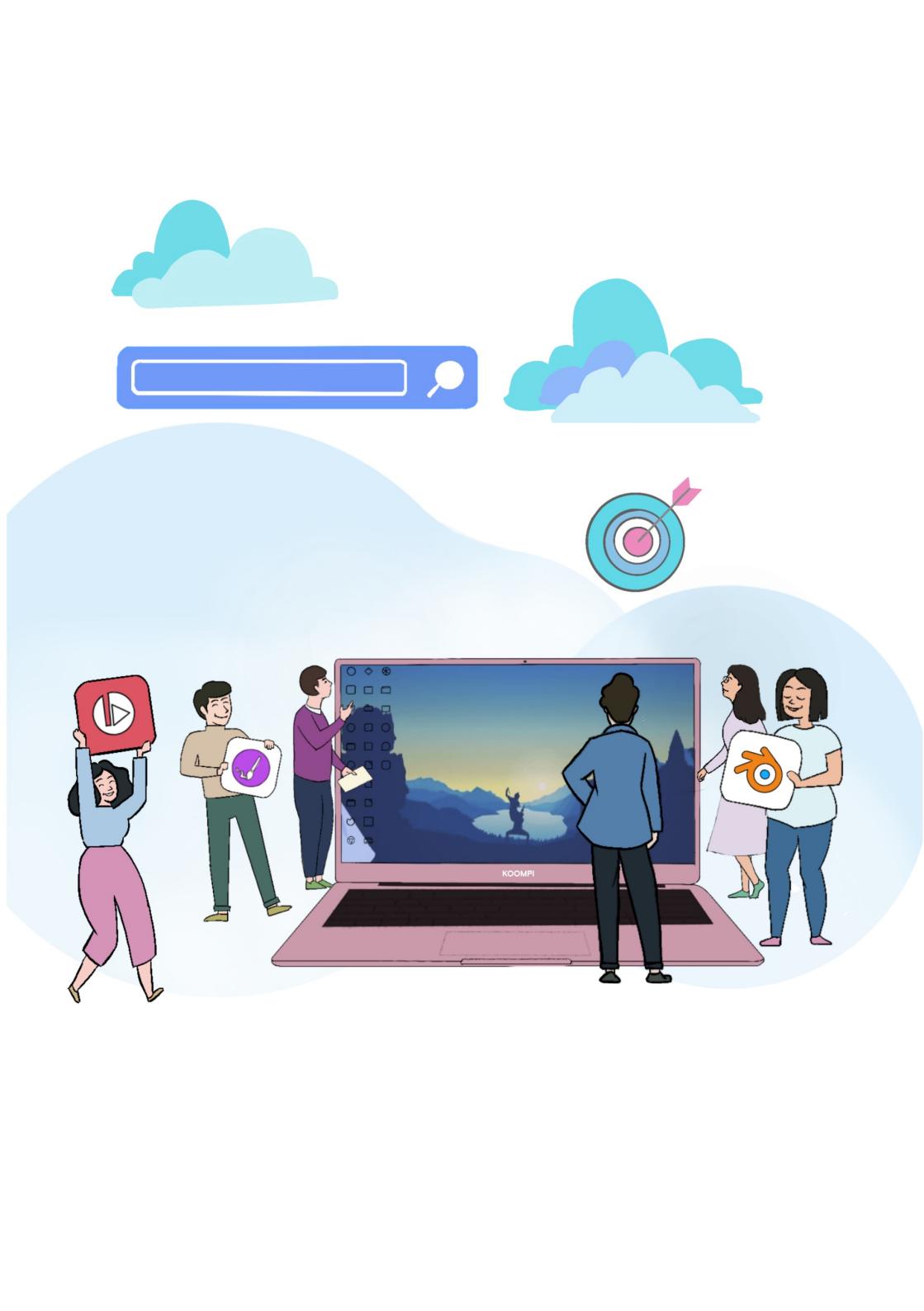
**Dolphin**, the default and main file manager of KDE Plasma Desktop Environment, is a full-featured lightweight file manager that allows you to manage your files.

Here are some features:

- Navigation bar for URLs, which allows you to navigate quickly through file hierarchy.
- View properties are remembered for each folder.
- Split of views is supported
- Network transparency and Undo/Redo functionality.
- Renaming of a variable number of selected items in one step and much more.

For more info about it: [www.linux-databook.info/downloads/Dolphin\\_guide.pdf](http://www.linux-databook.info/downloads/Dolphin_guide.pdf)

Below, we list down some essential applications that are built-in with KOOMPI OS.

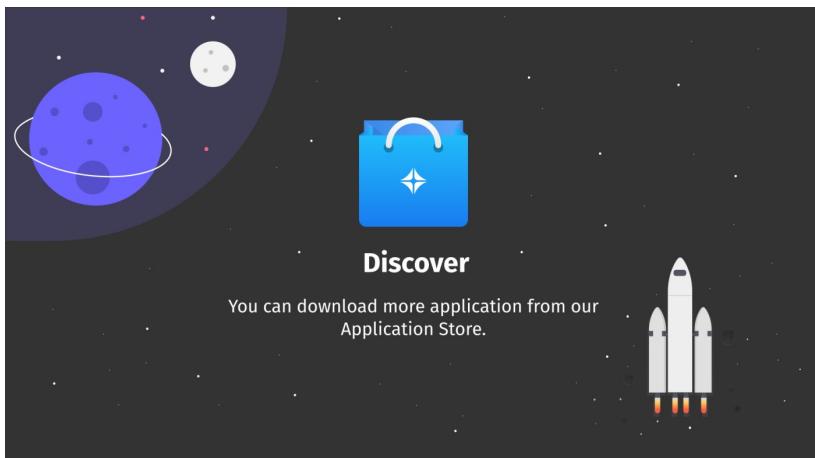


# Applications

Pre-Installed Applications			
Basic Computing	Internet & Communication	Study & Work	Graphic & Multimedia
Dolphin (File Manager)	Firefox (Default Web Browser)	KOOMPI Academy (Online Learning Platform)	Inkscape (Vector Graphic Design)
Konsole (Terminal Emulator)	Google Chrome (Popular Web Browser)	LibreOffice Writer (Word Document)	GIMP (Photo Editing Tool)
System Settings (Control System Behavior)	Brave (Privacy Web Browser)	LibreOffice Calc (Spreadsheet Document)	Krita (Draw Digital Art)
Discover (Application Store)	Telegram (Encrypted Messaging Platform)	LibreOffice Impress (Presentation Document)	Kdenlive (Video Editor)
KSysGuard (Process Manager)	OBS Studio (Record and Live Video)	Free Mind (Mind Mapping Tool)	Darktable (Photo Color Correction)
TeamViewer (Remote Desktop Tools)	Xtreme Download Manager (The fastest downloader)	Master PDF Editor (View and Edit PDF)	Blender (3D Video Animation)
	Zoom (Video Call Conferencing)		Bom! (Video Player)
	qBittorrent (Torrent Client Downloader)		

## How to Install/Uninstall an application on KOOMPI OS?

You can use **Discover** and **KOOMPI App Store** (available in the next version of KOOMPI OS) to install applications. Users can also install apps with **baserunning** (Command-Lines).



KOOMPI encourages users to use command-lines in Konsole to install and remove because we believe that learning software from the foundation adds more to users' understanding of technology. On this operating system, pi (pacman) is one of our system's primary commands. It is a powerful tool at the centre of the system that allows you to maintain, expand, and update the system.

## List of Applications

This section will cover applications on the Koompi OS. Most of them are pre-installed.

### LIBREOFFICE

LibreOffice is a freely available, fully-featured office productivity suite. Its native file format is Open Document Format (ODF), an open standard format that is being adopted by governments worldwide as a required file format for publishing and accepting documents. They have clean interfaces (Dark & Light) and are rich in features and tools to let you create and produce your work.

Name	Alternative
LibreOffice Writer	MS Office Word
LibreOffice Calc	MS Office Excel
LibreOffice Impress	MS Office Powerpoint
LibreOffice Draw	MS Office Visio
LibreOffice Math	MS Office Mathematics
LibreOffice Base	MS Office Access

**Installation Keywords:** Dark = libreoffice-fresh  
Light = libreoffice-still

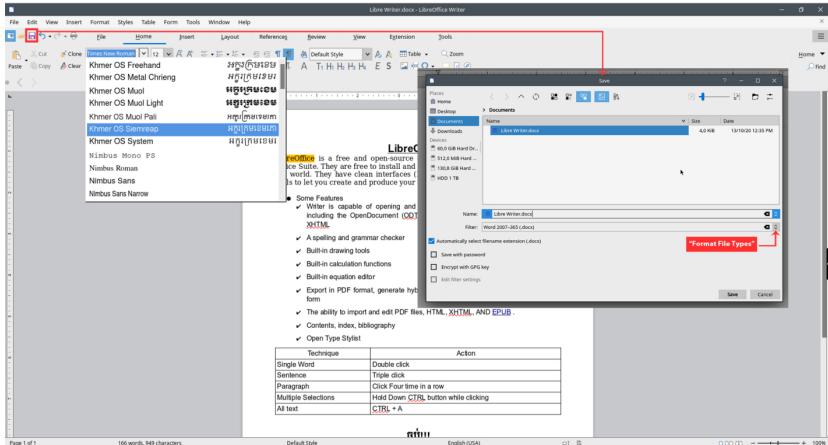
## LibreOffice Writer

Writer is a full-featured word processing and desktop publishing tool. It's simple enough for a quick memo, but powerful enough to create complete books with contents, diagrams, indexes, and more.

### LibreOffice Writer Actions:

- Creates a new document with several formatting styles (bold, italic, etc.)
- Supports many languages in the document including Khmer
- It can be used with large documents and can be also used as PDF, HTML, and XHTML Editor.
- An automation environment (Shortcut & Selecting) is compatible
- Spell Checking and Autocomplete tools

- Can be used with hyperlink and table content and even insert a picture.
- Most importantly, you can save it in many file formats, such as MS Word DOCS, DOCX, PDF, HTML.



## LibreOffice Calc

The alternative of Microsoft Office Excel allows you to organize, analyze, and store data in tabular form. You can manipulate data to produce certain results on the spreadsheet.

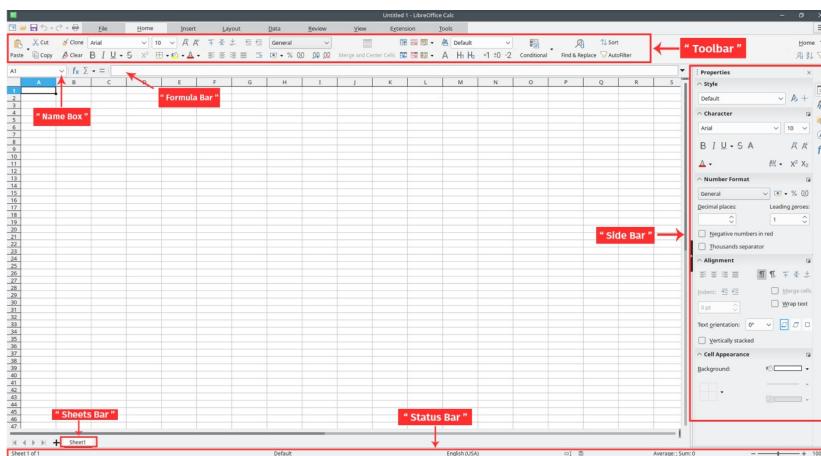
### LibreOffice Calc Actions:

Other features provided by Libre Calc includes:

- Functional with the calculation formula including statistical and banking functions.
- Dynamic chart -- the data will be updated automatically when there is a change.

- Spreadsheets can be saved in many file formats.
- It can create multiple sheets and interact with each other. It can also be used to interact with LibreOffice Writer (Import data source).

The main window of LibreOffice Calc will appear like the image below. In the middle, it is the main section that displays the cells in the form of a grid. There are many other sections, like the toolbar (tools section), formula bar where it shows the formula and content of cells sidebar (properties section), a status bar showing your type of Sheet, and sheet bar (identify your number sheet).



## LibreOffice Draw

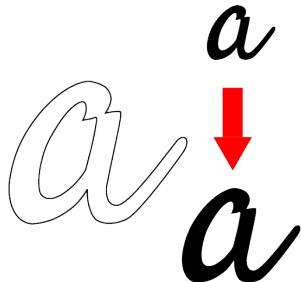


LibreOffice Draw is a vector graphic drawing program. It can also perform some operations on raster graphics (pixels). Using Draw, you can quickly create a wide variety of graphics and images.

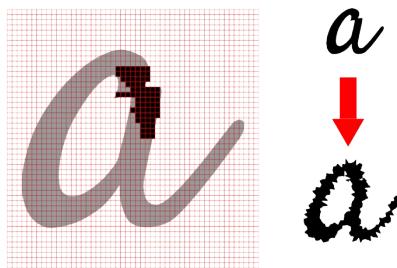
## LibreOffice Draw Actions:

It can create basic shapes, edit drawing objects, glue points (Connector). You can even create a flow chart, a floor plan, and vector arts. There is also a feature that lets you combine and group multiple objects.

VECTOR GRAPHICS



BITMAPPED (RASTER) GRAPHICS



The large area in the centre of the workspace is where you can draw and insert all drawing objects (shapes, text boxes, images). On the left side, there is a section for drawing tools. A page pane gives an overview of the pages that you have created in your drawing.

Note: Each drawing contains at least one page which takes the workspace area.

## LibreOffice Impress



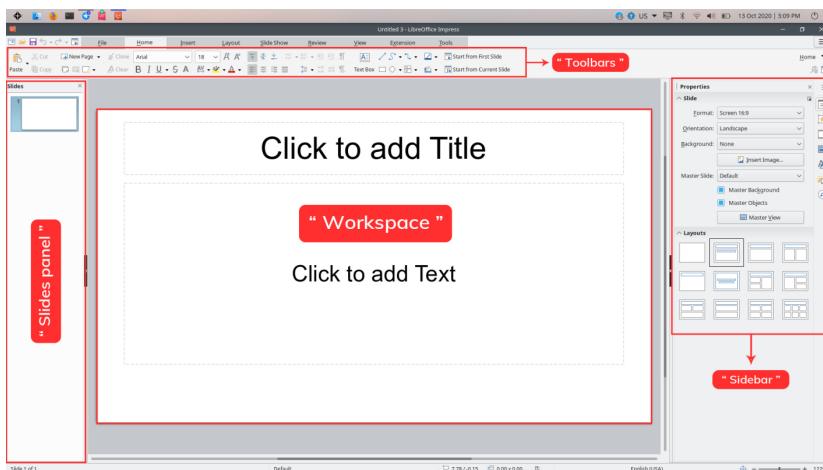
Impress is a presentation (slide show) program by LibreOffice. It is alternating to MS PowerPoint. On Impress, you can create slides using many different elements,

including text, bulleted and numbered lists, tables, charts, and a wide range of graphic objects such as clipart, drawings, and photographs.

## LibreOffice Impress Interface:

On Impress's main window, there are four main parts.

- The left is where you can find the Slides pane, an overview/thumbnails of the slides in your own presentation.
- The top is where the toolbars and menu bars are located.
- The middle is the current slide you are working on.
- The right is the properties layout section.



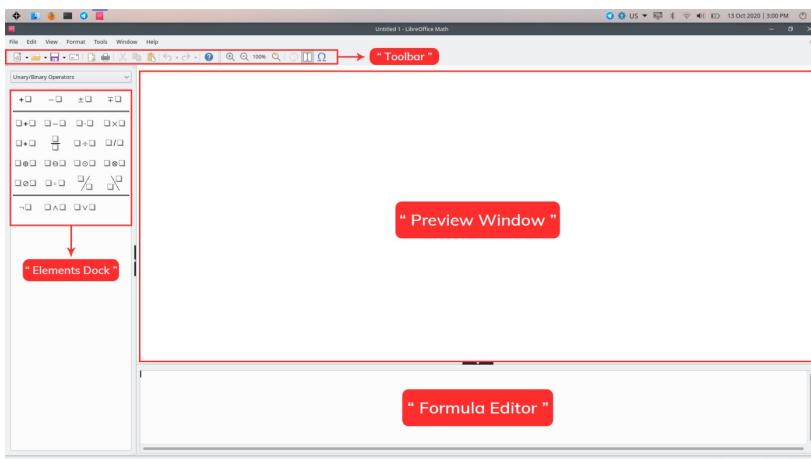
## LibreOffice Math



LibreOffice Math is a formula editor used to create or edit formulas (equations) in a symbolic form. You can use Math

within LibreOffice documents or as a standalone application.

Math does not carry out any actual calculation, it's just a tool to help you in typing and formatting complex math formulas. The Formula Editor in Math uses a markup language to represent formulas (like HTML). This markup language is designed to be easily read wherever possible, for example,  $a$  over  $b$  produces  $\frac{a}{b}$  the fraction when used in a formula.



## LibreOffice Base

LibreOffice Base is a database software, similar to MS Access, which provides a graphical interface for working with databases.

Besides, Base contains a version of its own database management system (HSQLDB) that can be used to create small, self-contained databases, and single-user database applications. Furthermore, Base can connect to a variety of

external database systems such as MySQL or simply to a file data source (spreadsheet or text file). In short, the front end can be tied into the actual database.

Databases in LibreOffice Base are composed of four objects:

- Tables
- Queries
- Forms
- Reports

Together, these objects allow you to enter, store, analyze, and compile data however you want.

## MASTER PDF



If you are looking for apps used to view Document files, Master PDF is the only proprietary software that supports all features for editing, creating, encryption, and signing PDF documents. However, there is a limitation when you use it with LibreOffice.

A screenshot of the Master PDF Editor application window. The title bar reads "Master PDF Editor 5" and "KOOMPI.pdf - Master PDF Editor (NOT REGISTERED)". The menu bar includes File, Edit, View, Insert, Comments, Forms, Document, Tools, Help. The toolbar has various icons for file operations like Open, Save, Print, and zoom. The main workspace displays a PDF page with the title "ABOUT KOOMPI". The page content discusses the history of KOOMPI, mentioning its Cambodian origin and how it evolved from a computer club into a company. It highlights the company's focus on education and remote learning. The footer of the page includes a "Little History" section and copyright information. The status bar at the bottom shows "Page 2/2" and other system details.

On this operating system, there are two Master PDF platforms you can install.

### **Installation Keywords:**

Master PDF4 (free) = masterpdfeditor-free

Master PDF5 = masterpdfeditor

(certain features need to be paid for in Master PDF5)

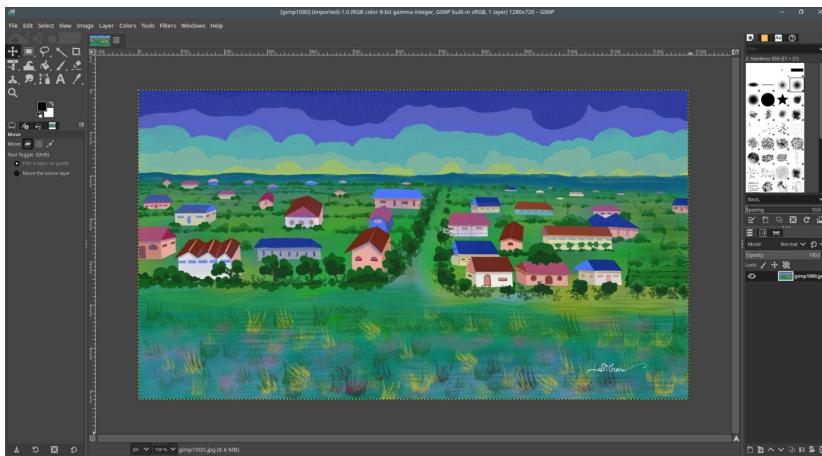
### **GIMP**

GIMP (the GNU Image Manipulation Program) is a free photo editor alternative to Photoshop. It comes with a huge array of professional-quality functions for fine-tuning snaps and creating your own artwork from scratch.

#### **Installation Keyword:** gimp

#### **GIMP Actions:**

GIMP lets users create layers and contains tools such as highly customizable brushes, filters, and automatic image-enhancement tools. The application supports numeral plugins (some pre-installed, and others available to download separately). GIMP is small in size to download and the processing is also light. In terms of portability, GIMP files can be run directly from USB sticks or devices such as MS Xbox with ease.



## Krita

Krita is a painting and image editing application for all software (Linux, Mac, and Window) that can be comparable to **Photoshop**.

**Installation Keyword:** krita

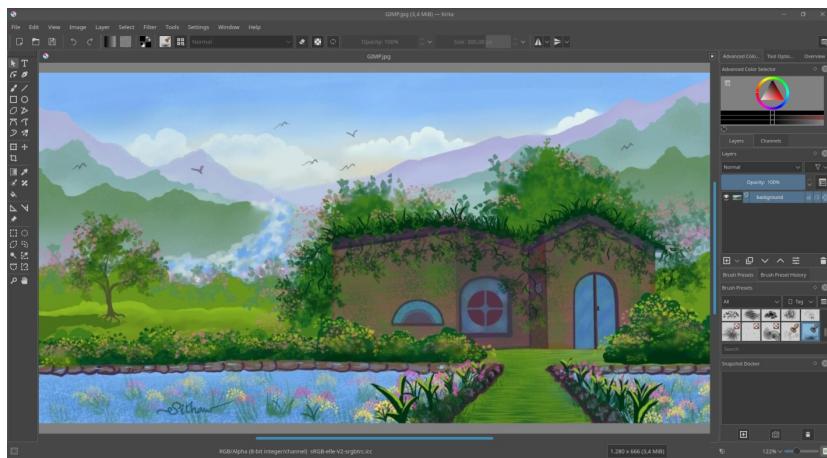
### Krita Actions:

Krita is free but it can do many things like paid-apps. When you first launch Krita and create a document, the first thing you should try is the brush and stylus pressure support. Another interesting feature is the ability to create shapes using paths. Another feature some would use a lot is the ability to add transparency masks to layers.

## Tool & Function:



## Real Result:



# INKSCAPE

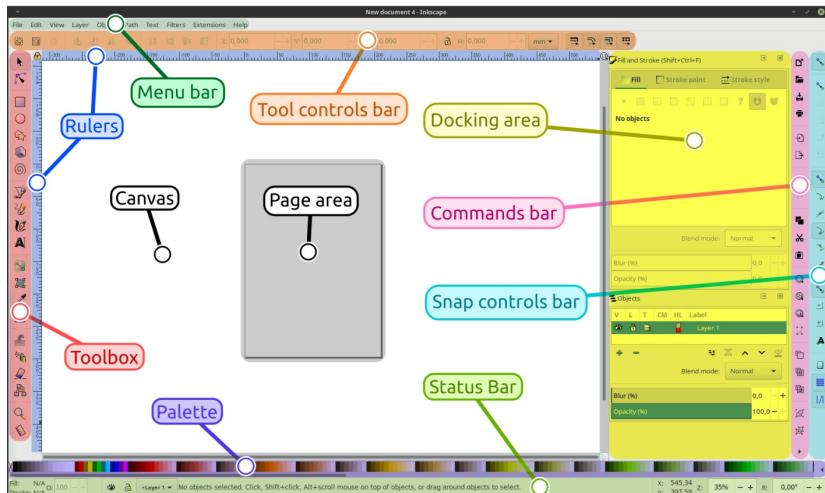


Inkscape is a drawing/painting tool and professional vector graphics editor similar to **Adobe Illustrator** but with features, new tools, and its unique interface. It emphasizes the W3C standard Scalable Vector Graphics (SVG) file format but it can read and write a wealth of other formats including PDF. This makes it a complementary app to your other graphics and desktop tools.

Inkscape can also be a photo editor like **Photoshop**, which enables you to edit your photographs with filters, different effects, and other features.

**Installation Keyword:** inkscape

**Inkscape Interface:**



Here is the overview and usage of each component in the Inkscape:

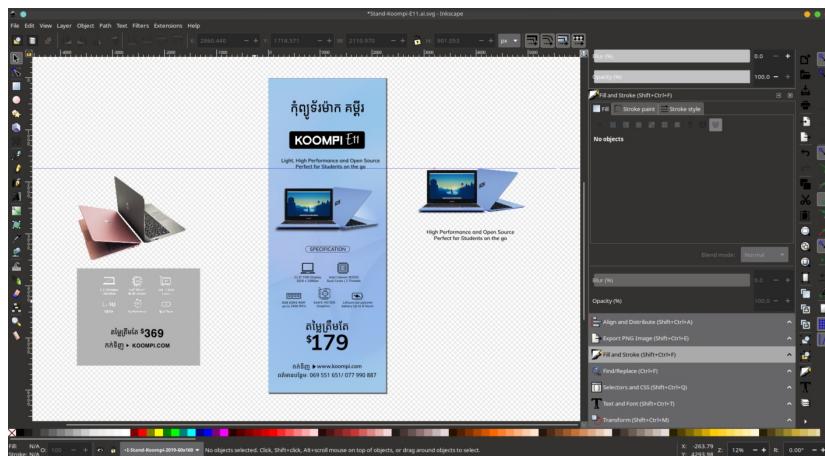
- The application **menu bar** at the top provides general menu options like Save.
- The **tool controls bar** displays the tool's options.
- **Toolbar** contains the main drawing tools. Note: You can select one tool at a time.
- The large black area where the image is edited is called **Canvas**.
- The black outline represents the visible **page area**.
- **Commands bar** gives you quick access to common commands.
- **Snap controls bar**, Note: release by official page:  
Please **Deactivate it by pressing the topmost button in the bar**.
- **Scroll bars**: It is for moving around on the **Canvas**.
- **Color Palette**: It is basically used for changing the fill colour of the object.
- Dialogues for specific functions are available by default to appear attached to the right of the canvas, in the **docking area**.
- **Status bar**: It functions like normal on every app showing the information.

### **Inkscape Actions:**

Inkscape has lots of features for object creation and manipulation: fill, stroke, rendering, text editing, and operation path. There are multiple drawing tools (pencil,

pen, calligraphy tool), shape tools, text tools, and object manipulation tools (transformations, grouping objects, layers). You will also find a colour selector and picker tool, colour editor, gradient editor, node editing, fully anti-aliased display, creation of vector art from bitmaps, sprites, and icons, and more.

## Real Result:



## SCRIBUS

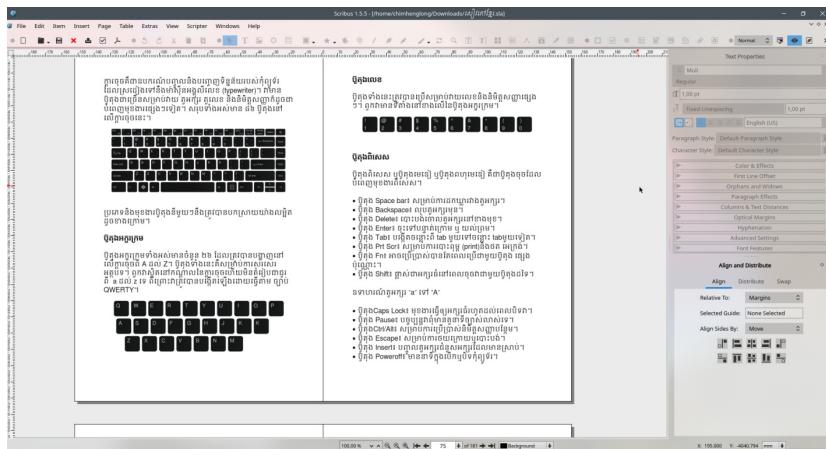
Scribus is a desktop publishing program that can be used to write newspapers, brochures, newsletters, posters, and also books. Scribus is available for all major operating systems and it is based on Qt toolkit.

**Installation Keyword:** scribus

## Scribus Actions:

Scribus has been used for creating state-of-the-art ISO standard PDF/X-3 conforming high-quality press-ready PDF files. It is also used for creating fully scripted and interactive PDF documents, which include external links, such as Web links and interactive PDF documents, which include external links, such as Web links and presentation PDFs MS PowerPoint or OpenOffice's Impress. You also can create calculated fields and send user-entered form data to a Web site.

Scribus uses Python which is a uniquely powerful and platform-neutral scripting language. Scribus supports Unicode and **19 languages**, most recently added: Czech, Russian and Indonesian.



# SHOTCUT

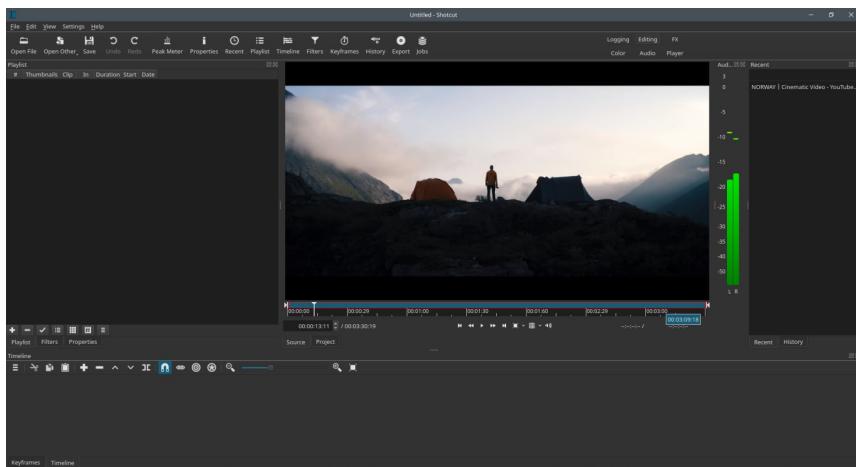


Shotcut is a free, open-source, cross-platform video editor for Windows, Mac and Linux. It can serve as the best replacement for Adobe Premiere Pro. It supports a wide range of formats and does not require any import (native timeline editing); Blackmagic Design support for input and preview monitoring; and resolution support to 4k.

**Installation Keyword:** shotcut

## Shotcut Actions:

Shotcut is compatible with JACK Audio and melted Server technology, and offers an experimental GPU processing feature. It can test MLT XXML files and Several Language options are available. Users can create and share new translations. It can also use with Webcam, audio capture, and EDL (CMX3600 Edit Decision List) export.

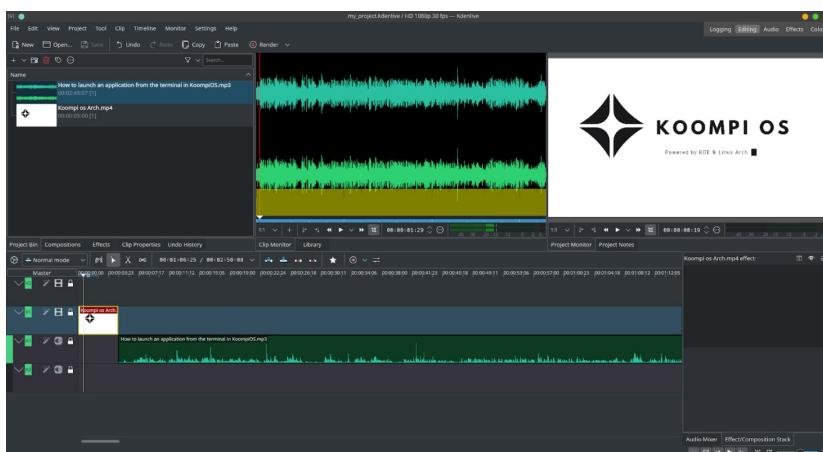


Kdenlive is a video editing software based on the MLT Framework, KDE, and Qt. It can be used to serve basic to intermediate video editing needs. It is an alternative to Adobe Premiere Pro.

**Installation Keyword:** kdenlive

### Kdenlive Actions:

Kdenlive supports any source, including DV, AVCHD, and other pro-level capture formats. It allows you to import raw material from your DV camera, as long as you have devgrab installed. It can read many video files including XDCAM-HD™ streams, IMX™ (D10) streams, DVCAM (D10), DVCAM, DVCPRO™, DVCPRO50™ streams, and DNxHD™ streams. You can create a project that combines DV, AVCHD, FLV, h264, Xvid, and mpeg1 video files. Slicing and dicing the video is also one of its keys.



# Synfig

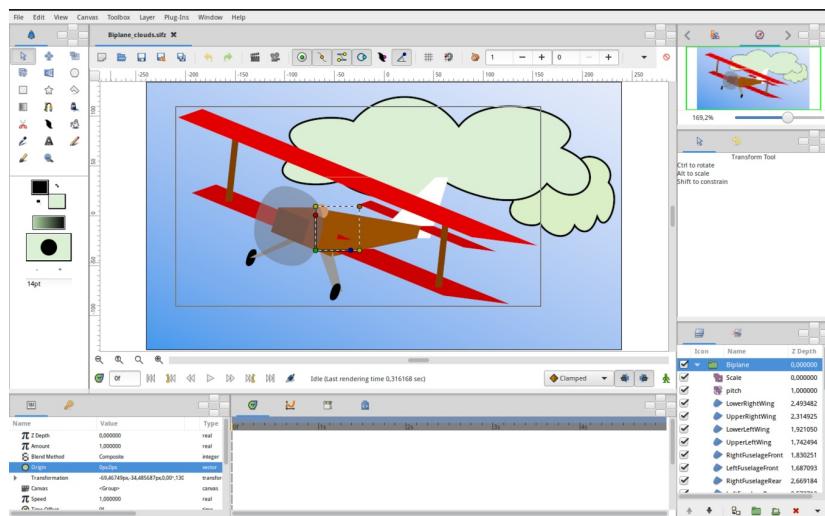


An open-source 2D vector graphics and timeline-based animation platform for animation designing and rendering. The application aims to provide quality animation with fewer resources and manual tweening.

**Installation Keyword:** synfig

**Synfig Actions:**

Synfig can simulate soft-shading using curved gradients and provides a wide variety of real-time effects that can be applied to layers or groups of layers. You can control and animate the width of lines at their control points and link any related data from one object to another.



# DARKTABLE

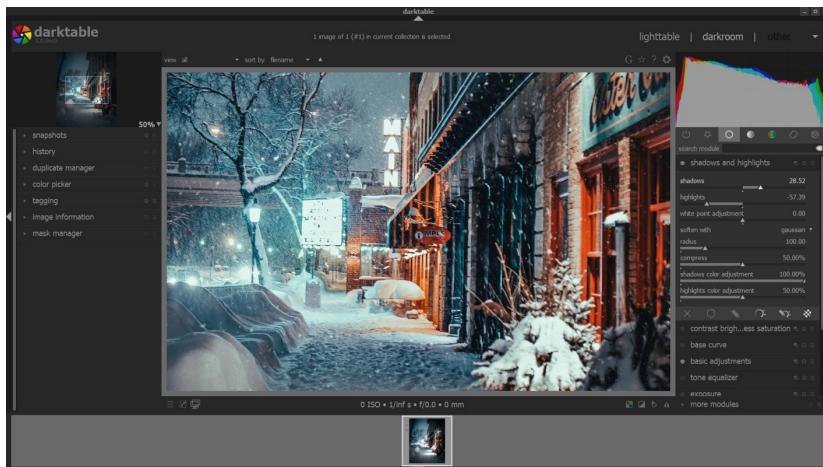


Darktable is a photography workflow application and raw developer that manages digital negatives or RAW images, lets you view them, and allows you to enhance them.

**Installation Keyword:** darktable

## Darktable Actions:

Darktable gives basic image operations: crop and rotation, highlight reconstruction, white balance, inverse operation, exposure control, the level adjustments, changing lightness, recreating contrast for HDR images for quality of images. The corrections modules help you manage sharpening of details, noise level, spot removal, chromatic aberration, and more.

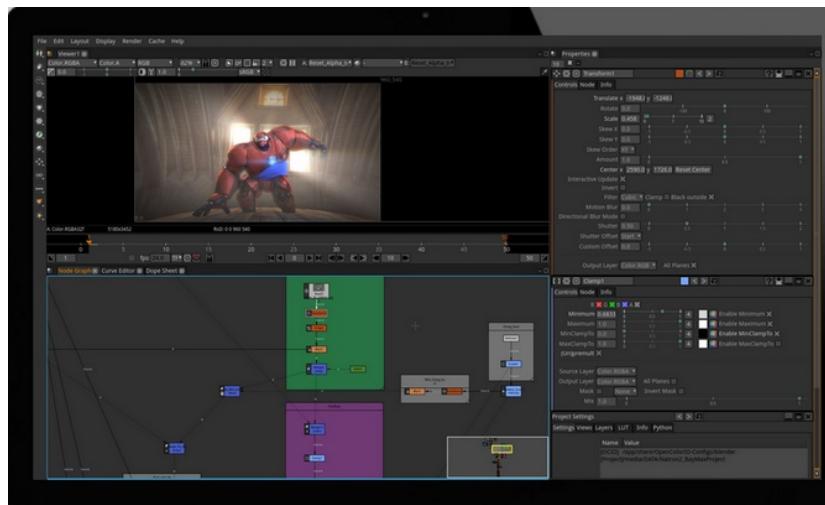


Natron is a visual effect and motion graphics application used for filmmaking and television production.

**Installation Keyword:** natron

**Natron Actions:**

Natron provides well motion editing plus multi-view workflow. With a spontaneous user interface and a quick rendering, you can work with keyframes using a very accurate editor. It supports smooth zooming and panning for large images, and includes a full-featured dope sheet that lets users quickly edit clips and frameworks in space-time.



Ardour is a digital audio workstation for editing and mixing audio contents. It is a cross-platform application.

**Installation Keyword:** ardour

### Ardour Actions:

- **Unlimited Multichannel tracks:** Ardour can be used with unlimited multichannel tracks, busses, plugins, inserts, or sends.
- **Flexible Recording:** It has flexible input monitoring and allows you any combination of the master recording and individual track at any time. No prior setup is needed.
- **Editing:** All editing is in-window (no switching to Piano Roll).
- **Soundtracks:** Users can import a single video and optically extract the soundtrack from it. It displays frame by frame. They can also export the video or cut, start, end, and add blank frames.

### • Mixing:

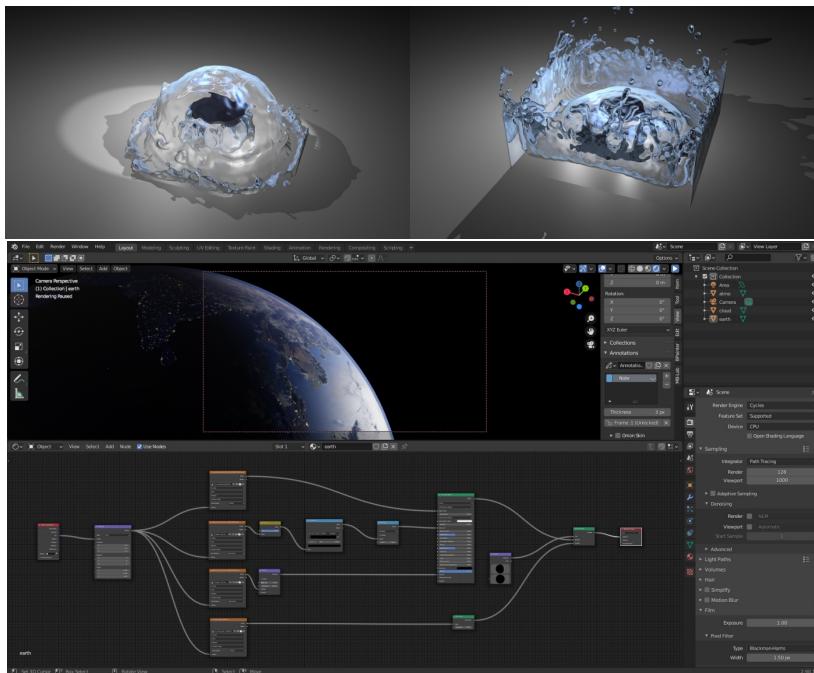


The 3D illustration shown in the gallery is made using Blender, a free and open-source 3D computer graphics suite built with the combined efforts of artists, scientists, students, visual effects experts, animators, game artists, and other professionals around the world.

**Installation Keyword:** blender

**Blender Actions:**

Blender is rich in intuitive features that allow users to achieve ultra-realistic rendering, creating 3D Games, film animation, and visual effects features.



# WEB BROWSERS



A browser is a software that is used to access the internet. You can visit websites and do activities within them like login, view multimedia, link from one site to another, visit one page from another, print, send and receive an email, among many other activities. Popular browsers are Firefox and Google Chrome. On KOOMPI OS, we recommend Firefox for the best experience.

Name	Installation Key
Firefox	firefox
Google Chrome	google-chrome
Vivaldi	vivaldi

## Example:

The screenshot shows a product page for the KOOMPI E11 laptop. At the top, there's a navigation bar with links for KOOMPI E11, KOOMPI E13, AMA, KOOMPI OS, KOOMPI ACADEMY, and a shopping cart icon. Below the navigation, there's a small menu with 'Overview' and 'Specifications' options, followed by a blue 'Order Now' button. The main content area features the text 'KOOMPI E11' in large, bold letters, followed by a brief description: 'Built for students, the KOOMPI E11 is your starting point for computing. As compact as the E13, but lighter. No compromise on open-source performance. Perfect for students on the go.' Below the text is a price of '\$178.99'. At the bottom of the page, there's a large image of the KOOMPI E11 laptop, which is silver and open, displaying its screen.

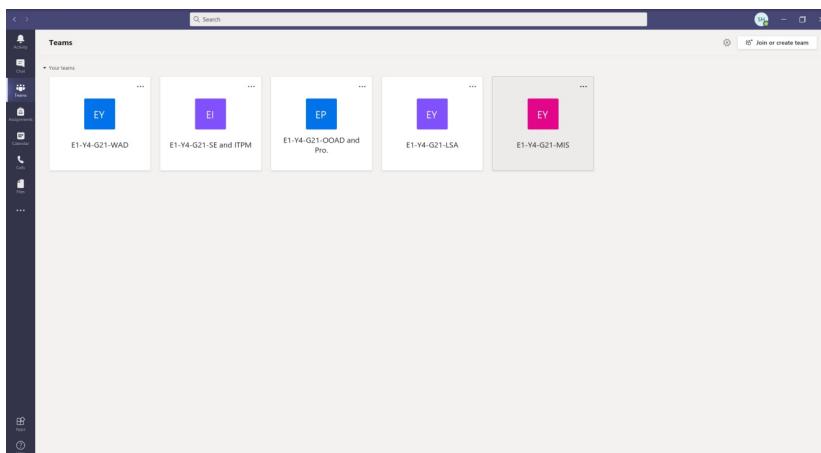
# TEAMS



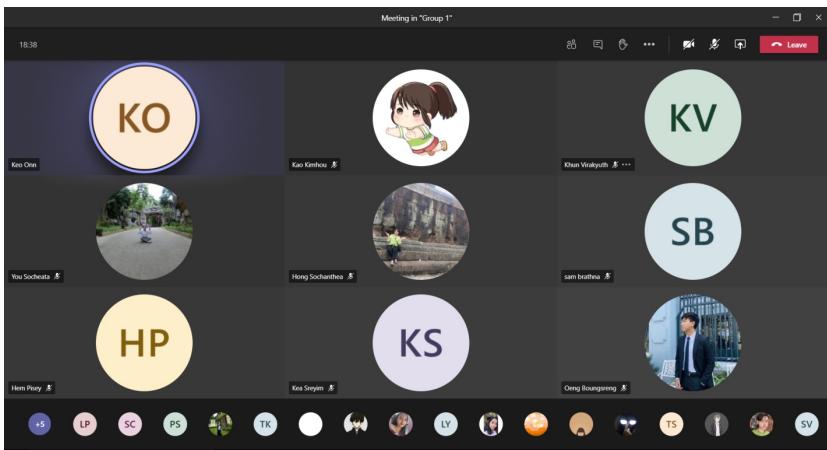
Teams is a chat-based collaboration tool for global, remote, and dispersed teams to work together and share information via a common space. You can utilize cool features like document collaboration, one-on-one chat, team chat, and more. Microsoft Teams is also fully integrated with many other services including PowerPoint, Word, Excel, and Planner.

**Installation Keyword:** teams

**Teams Interfaces:**



**Video conferences**



## Snapshot of Teams video call conference



Zoom is a video conferencing tool. Anyone who has a meeting room link or code can join the Zoom call with one click. Zoom is popular due to its convenient usage and call quality. You can also customize certain features based on your preference.

Installation Keyword: zoom

**Zoom log-in screen**



## Snapshot of Zoom video call conference

### OBS STUDIO

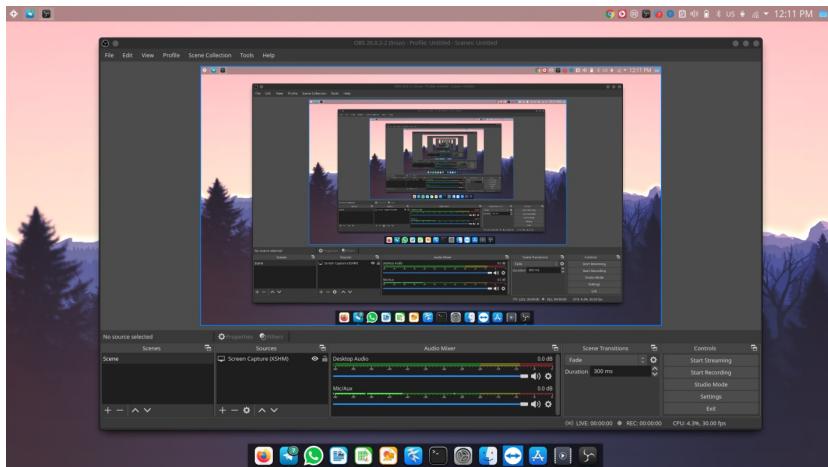
OBS Studio is an open broadcaster software suite for recording your desktop, game recording, and live streaming. OBS can be a bit intimidating at first since it has more advanced features compared to SimpleScreenRecorder. It supports real-time source/device capture and audio manipulation.

**Installation Keyword:** obs-studio

### Obs Actions:

Obs studio makes it easy to tinker with different recording and live streaming settings to find the best possible options.

The application also allows you to add text and logo to the live videos with an intuitive audio mixer, multiple video source filters, multiple themes, streamlined setting panel, and real-time audio/video capturing and mixing.



## NIMBUS CAPTURE

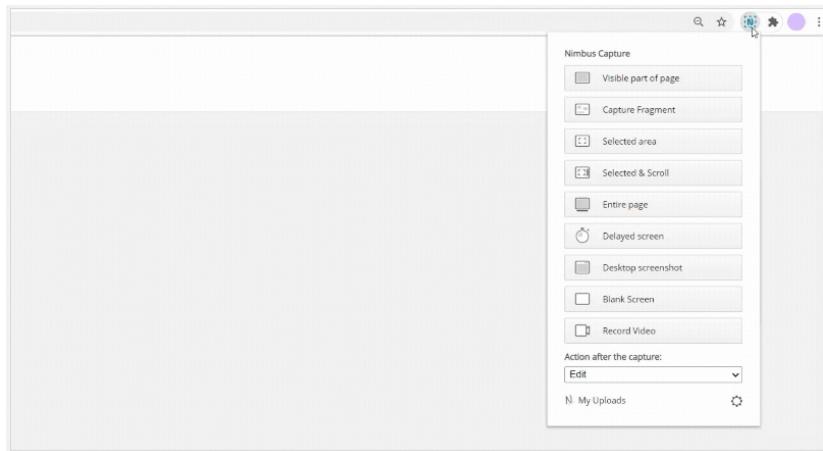
Nimbus, an extension on Google chrome for capturing part or the whole browser window. It has a user-friendly interface and can be a good replacement for other screenshot capture and annotate apps.

**Installation Keyword:** None

### **Nimbus Capture Actions:**

Nimbus can capture screenshots of the whole web pages, the site fragment, and create drawings or models from

scratch. Not only that, it can record screencasts, edit screenshots, and share screencasts.



## VISUAL STUDIO CODE

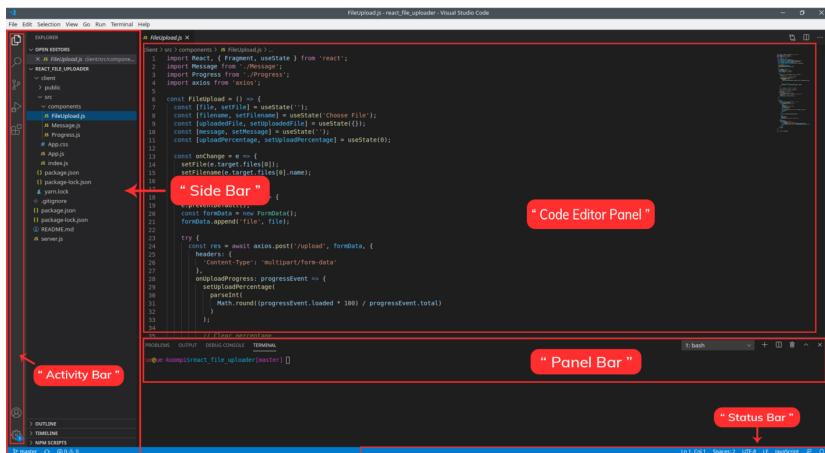
Visual Studio Code (VSCode) is a cross-platform code editor that is available for many platforms. It comes with built-in support for git control, syntax highlight, code completion, and also combines simplicity and speed for any developer looking to make great applications across different platforms. VSCode goes beyond syntax highlighting and autocomplete, which provides smart completions based on variable types, function definitions, and imported modules.

**Installation Keyword:** visual-studio-code-bin

## Visual Studio Code Interface:

Vs Code comes with a simple and intuitive layout that optimizes the space provided while leaving ample room to browse and access the full context of the folders or projects. The UI is divided into five areas:

- **Editor** -- The main area to edit and write your code in the file. You can open as many editors as you like: side by side, or vertically and horizontally.
- **SideBar** -- Contains different views like the Explorer to assist you while working on your project.
- **Status Bar** -- Information of opening project.
- **Activity Bar** -- On the left side, you can switch between views and additional context-specific indicators.
- **Panels** -- Used for running, outputting, and debugging.



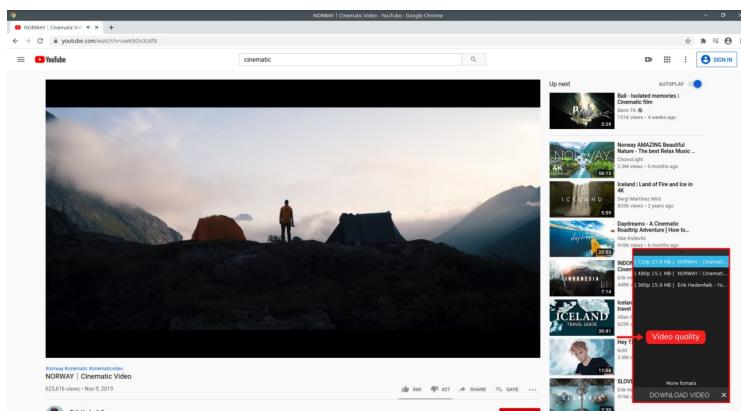
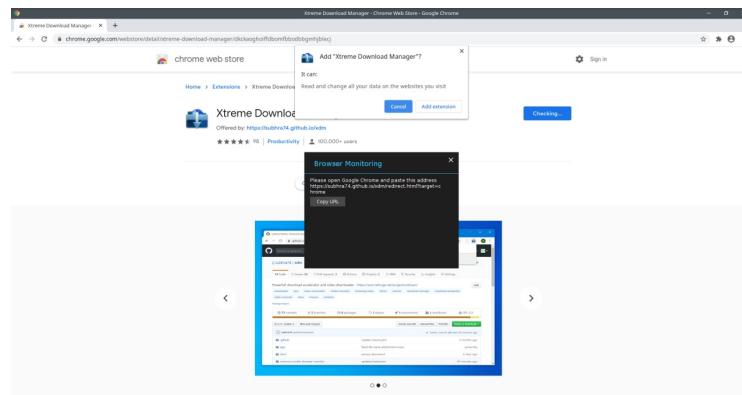
# XTREME DOWNLOAD MANAGER



Xtreme Download Manager, also known as XDM or XDMAN, is a download manager. It is compatible with all major web browsers such as Chrome, Firefox, Safari, enabling you to download directly for XDM. XDM is particularly useful when you have slow/limited network connectivity.

**Installation Keyword:** xdman

**Xtream Actions:**



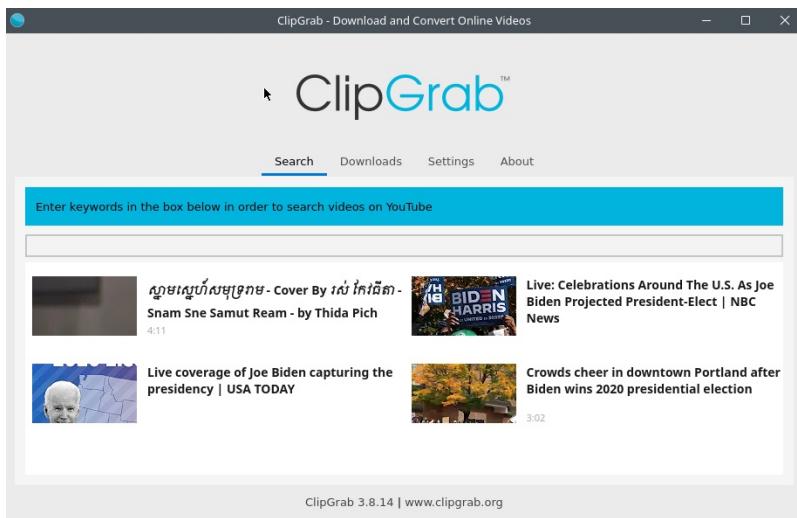


ClipGrab is a desktop program that allows you to download videos from YouTube, Vimeo, Dailymotion, and other video streaming services.

**Installation Keyword:** clipgrab

### **Clipgrab Actions:**

To download the video, all you need to do is paste the video's URL or ClipGrab and it will immediately load the video to your computer. It also has a built-in search engine where you can search for YouTube videos to download. You can store these videos in various visual formats and resolutions.

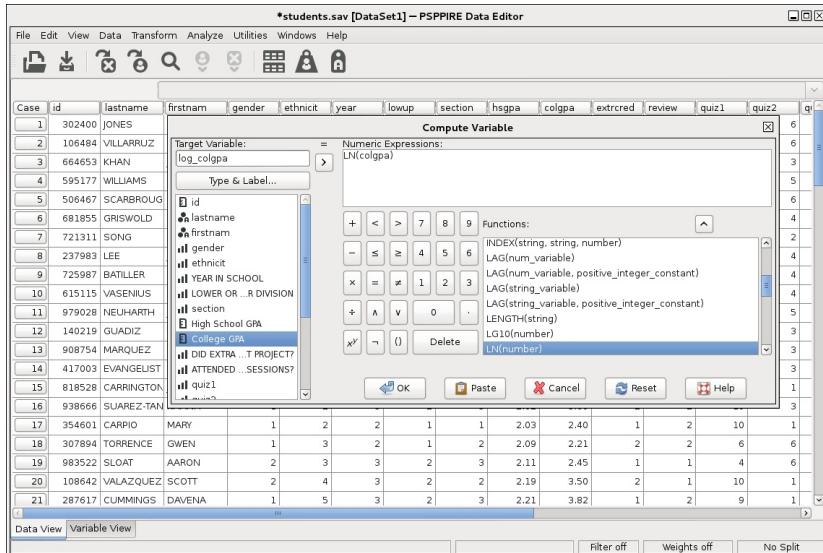


PSPP is a program for statistical analysis of sampled data. It is a free alternative to the proprietary program SPSS. Despite some differences from SPSS, PSPP is a stable and reliable application.

**Installation Keyword:** pspp

## PSPP Actions:

It can perform descriptive statistics, T-tests, ANOVA, linear and logistic regression, measures of association, cluster analysis, reliability and factor analysis, non-parametric tests, and more.

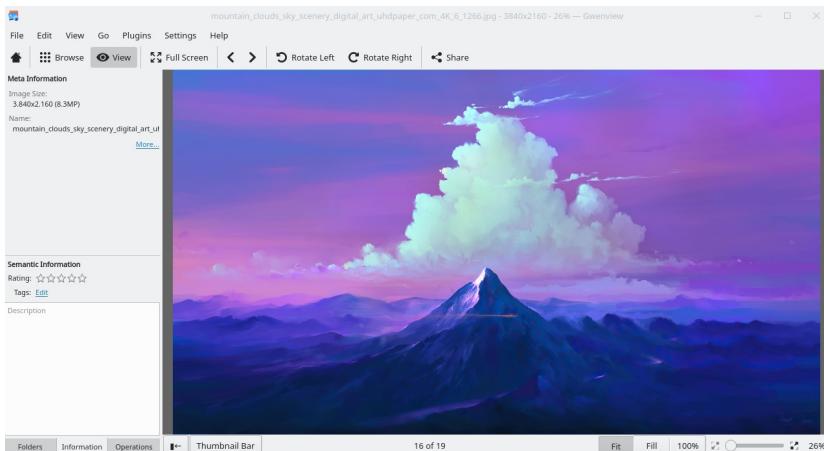


The screenshot shows the PSPP Data Editor interface with the title bar "students.sav [DataSet1] - PSPPIRE Data Editor". The menu bar includes File, Edit, View, Data, Transform, Analyze, Utilities, Windows, and Help. The toolbar contains icons for opening, saving, zooming, and other file operations. The main window displays a data grid with 21 rows of student records and various columns like id, lastname, firstnam, gender, etc. A "Compute Variable" dialog box is open over the data grid. The dialog has fields for "Target Variable" set to "log\_colgpa" and "Numeric Expressions" set to "LN(colgpa)". Below these are sections for "Type & Label..." and "Functions:". The "Functions:" section lists mathematical operators (+, -, \*, /, etc.) and statistical functions like INDEX(string, string, number), LAG(num\_variable), and LENGTH(string). Buttons for OK, Paste, Cancel, and Reset are at the bottom of the dialog. At the bottom of the main window, there are tabs for "Data View" and "Variable View".

## **GWENVIEW**

Gwenview is a fast and easy-to-use image viewer run by KDE, ideal for browsing and displaying a collection of images. The app supports simple image manipulations (rotate, mirror, flip, and resize) and basic file management actions (copy, move, delete, and others).

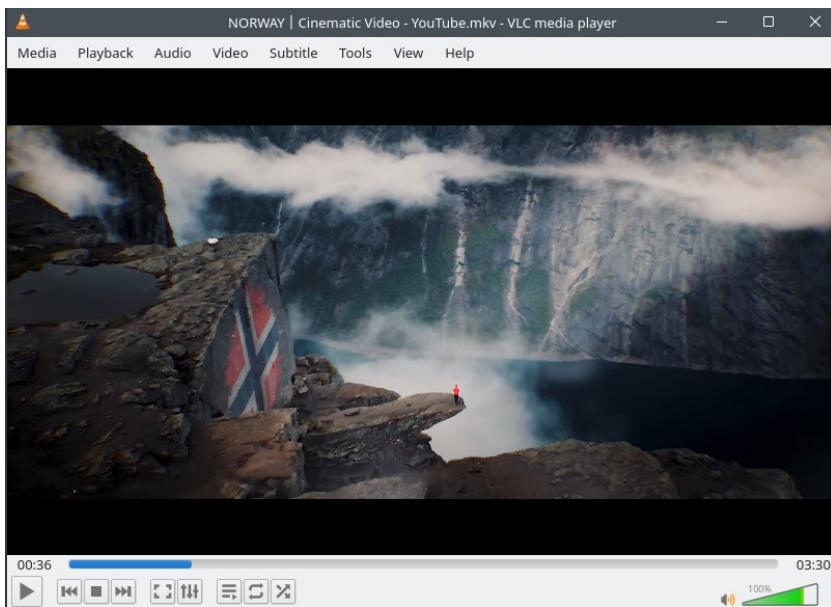
### **Installation Keyword:** gwenview



## **VIDEO MEDIA PLAYER**

VLC is probably one of the best media players out there for all platforms. It can run almost all types of media files without any issue.

### **Installation Keyword:** vlc

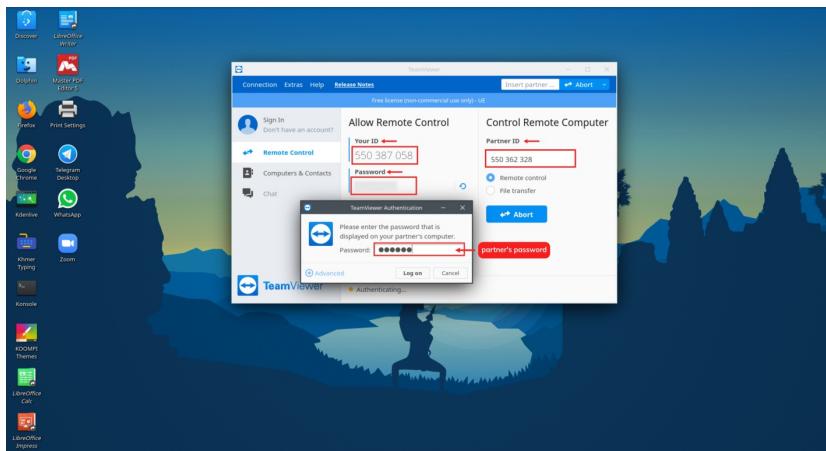


**TEAMVIEWER** 

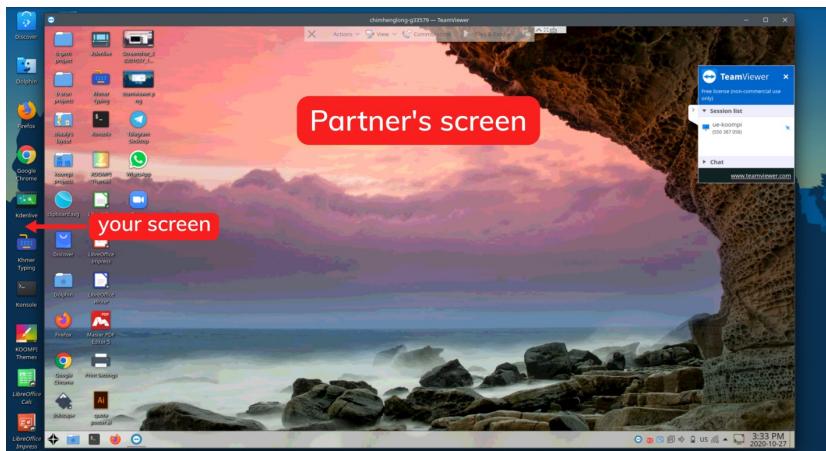
TeamViewer is a customizable and scalable remote-management application that helps you increase the efficiency of your IT processes.

**Installation Keyword:** teamviewer

## Teamviewer Interfaces:



Before you are remoting your partner's notebook.

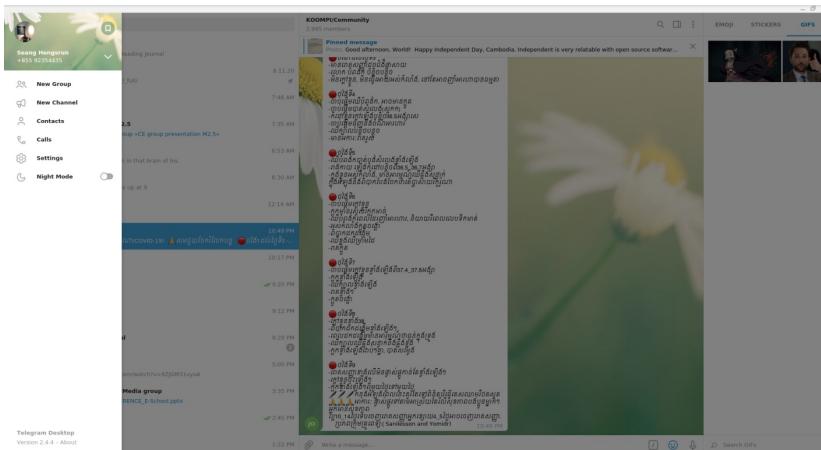


While you are remoting your partner's notebook



Telegram is popular for its instant messaging and video calling. Users can also create private or public channels, which makes it a great app for both personal communication and larger scale media sharing.

**Installation Keyword:** telegram-desktop



# **Introduction to PIX**

# Introduction to PIX

You might wonder if it is possible to use Windows applications on KOOMPI OS.

Here are two ways users can do so.

**Installing Windows on a separate HDD partition:** It means you have to dual-boot KOOMPI OS and Window OS.

Installing Windows as a virtual machine on current OS.

Though both of the solutions above work, they might affect your computer heavily. This is why we'd like to introduce you to pix, a sub primary command to pi for installing Windows applications and software on KOOMPI OS.

Pix uses Wine to run cross-platform applications. Pix is not only built to make window applications run but to improve the applications that are not running smoothly in pi.

Info: If you want to request applications for KOOMPI OS, you can email us at os@koompi.org with “application” and keyword “request” in the subject line.

Down here are some applications for the current pix version:

Name	Detail
aSc TimeTables	School scheduling / timetabling software
Andriod-nomal	Mobile supporting tool
Android-google	Mobile supporting tool (playstore)
Chinese Support	Language supporting tool
Flutter	Code editor
IOS Support	Apple supporting tool
Itunes	Apple supporting tool
Jp-supports	Language supporting tool
Khmer Typing	Typing Tool
KOOMPI Academy	Educational platform
KOOMPI THEMES	Theme Tool
Master PDF Editor 5	Document viewer
Pi	Command
Viber	Messaging software
Wedo	LEGO application

# **Introduction to WINE**

# Introduction to WINE

Wine (“Wine Is Not Emulator”) does not run as a virtual machine (simulating internal Windows logic). Wine translates Windows logic to native UNIX/POSIX-compliant logic. In other words, Wine converts internal Windows commands to commands your system can natively understand.

There are a large number of Windows applications that are currently fully supported by Wine and will run without any hassle.

New Windows applications are being developed every day.

Though many of them would not function as well as we want on Wine at the moment, the development pace of Wine is also rapid. This means that new applications are added very often on wine.

There is a dedicated database for keeping track of them. There are almost 24,000 applications rated with different status depending on how well they run on Wine.

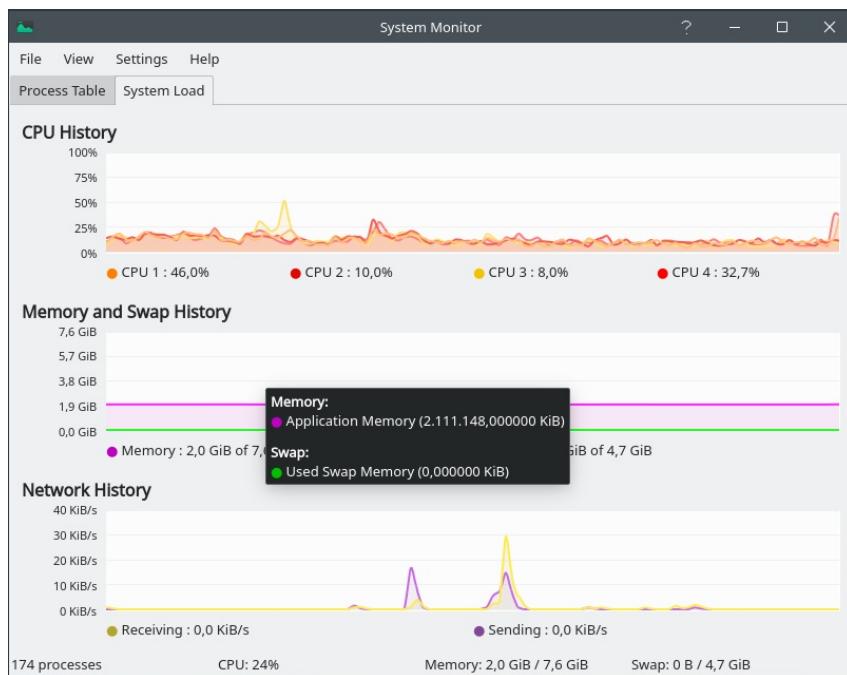
Status	Description
<b>Platinum</b>	These applications install and run flawlessly in our-of-the-box Wine.
<b>Gold</b>	These applications work flawlessly with some special configuration.
<b>Silver</b>	Applications with minor issues are tagged as Silver.
<b>Bronze</b>	These have major issues that seriously affect usage.
<b>Garbage</b>	These simply won't run on Wine.

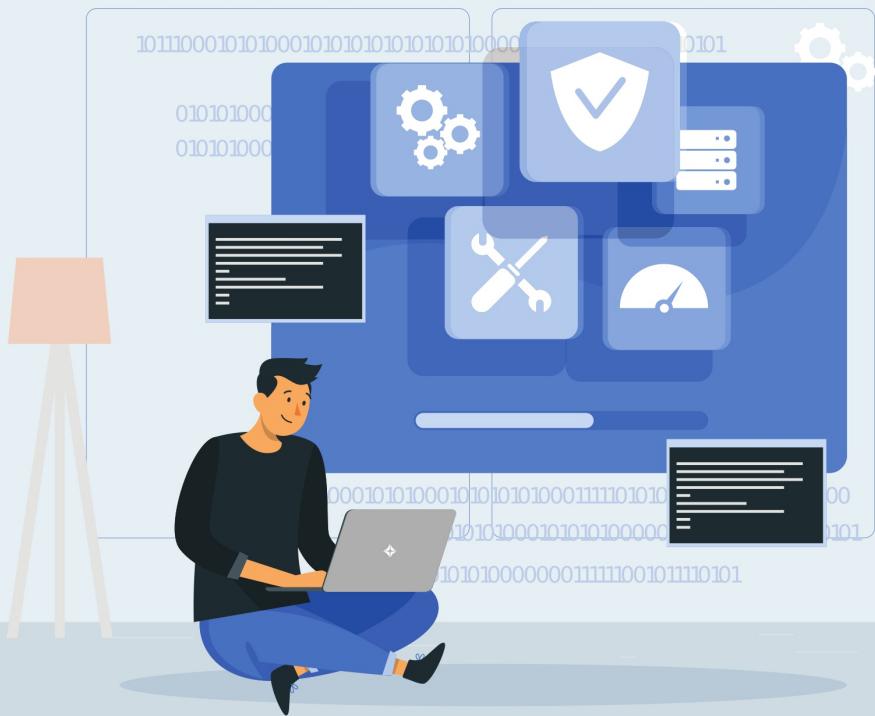
You can install Wine using "**Konsole**" and the **Installation Keyword Wine**.

# **System Monitor**

# System Monitor

**KSyuGuard** is a system and performance monitoring utility allowing one to monitor the CPU usage, memory usage, network transfer rate, operating system performance, the status and the resource usage of running processes, file system performance, USB performance, disk space usage, disk read/write activity for individual logical disks or all physical disks installed in the computer. In this, you can end the process of the application by **right-clicking** on it (an app you want to close) and choose **end process**.





# System Maintenance

Regular system maintenance is necessary for the proper function of your system in the long run. Below are some actions you can take.



## Upgrading the System:

It is recommended for you to perform full system upgrades regularly via **Upgrading packages** to enjoy both the latest bug fixes and security updates, and to avoid having to deal with too many package upgrades that require manual intervention at once.

Note: When you are requesting support from the community, it will usually be assumed that your system is up to date.

You may view all commands for the following actions at the end of the section.

## **Alerts during an Upgrade:**

When upgrading the system, be sure to pay attention to the alert notices provided by the system. If any additional actions are required, be sure to do them right away.

## **Restart/Reboot after Upgrades:**

Upgrades are typically not applied to existing processes. You must restart processes to fully apply the upgrade.

## **Checking for Orphans/Dropped Packages:**

After upgrading you may have packages that are no longer needed or that are no longer in the official server.

Those packages will be shown as messages at the end of your system updating. If new packages are needed, it is recommended to install them. Otherwise, if they are no longer needed, they can be removed by removing the command.

## **Be Careful with Unofficial Packages:**

To simplify maintenance, limit the number of unofficial packages and make sure you only install packages of applications and software through commands that have been provided by Archlinux.

## **Update the Mirrorlist:**

Update system mirrors, as the quality of mirrors, can vary over time, and some might go offline or their download rate might degrade.

## **Clean the Filesystem:**

It is important to remove unwanted packages from your system.

## **Refreshing Key Ring/Signature:**

If you might face errors with keyring and key signature while updating, just refresh it.

The commands you need to know well to maintain your system:

Name	Commands
Updating	<b>pi -Syu</b>
Remove Package	<b>pi -R &lt;package keyword&gt;</b>
Refresh Mirror	<b>Editing File “etc/pacman.d/mirrorlist”</b>
Clean Filesystem	<b>pi -Scc</b>
Refresh Key Signature	<b>sudo pacman-key --refresh-keys</b>
Refresh Keyring	<b>sudo pacman -S archlinux-keyring</b>

# Hardware Care

1. **DO NOT** place on uneven or unstable work surfaces.  
Seek servicing if the casing has been damaged.
2. **DO NOT** place or drop objects on top of the PC.
3. **DO NOT** expose to dirty or dusty environments.  
**DO NOT** operate during a gas leak.
4. **DO NOT** expose strong magnetic or electrical fields.
5. **DO NOT** press or touch the display panel or place together with small items that may scratch or enter the PC.
6. **DO NOT** expose to or use near liquids, rain, or even the electrical storms.
7. **DO NOT** leave the PC on your lap or any part of the body to prevent discomfort or any injury from heat exposure.
8. **Battery safety warning:** **DO NOT** throw the battery in fire or disassemble the battery.
9. **SAFE TEMP:** This PC should only be used in environments with ambient temperatures between 5°C and 35°C.
10. **DO NOT** carry or cover a PC that is powered ON.
11. **DO NOT** Throw the PC in municipal waste. This product has been designed to enable proper recycling. The symbol of the crossed-out wheeled bin indicates that the product(electrical equipment ) should not be placed in municipal waste.



# Our Products

As of now, KOOMPI has released two compact notebooks operating on KOOMPI OS, an operating system derived from Arch Linux. Both notebooks are steps toward our One-Student-One-Notebook mission, to make tools accessible and affordable for all students in Cambodia (and everywhere).

**KOOMPI E13**, our first release, comes in two colours: Space Grey and Rose Gold. KOOMPI 13 provides users with all essential applications for school and office work. In the Cambodian market, KOOMPI E11 is the first computer made by a local brand. Though KOOMPI E13 is not being manufactured in the country yet, we provide warranty and free technical support for all users without a deadline.

In 2020, we launched **KOOMPI E11**, a smaller sky-blue notebook. For the first time, we produce our notebooks in-house. KOOMPI E11 weighs lighter than its predecessor and was created for a younger demographic. KOOMPI E11 is a great choice for schools and parents who want to invest in an age-appropriate educational tool at an affordable price for young children.

On the next page, you may view our **products' specifications**.

## KOOMPI E13



Rose Gold



Space Grey

<b>Processor</b>	Intel Celeron N4100
<b>RAM</b>	8 GB
<b>ROM</b>	128 GB / 256 GB
<b>Display</b>	13.3" 1920*1080 IPS
<b>Wi-Fi Networking</b>	IEEE 802.11 b/g/n
<b>Audio Output</b>	Built-in 1W Stereo Speaker
<b>USB Host</b>	Type C x1, A x2
<b>HDMI</b>	Micro HDMI
<b>Bluetooth</b>	4.0
<b>Camera</b>	0.3MP
<b>Power</b>	8 hours

## KOOMPI E11



<b>Processor</b>	INTEL APL3350
<b>RAM</b>	4 GB
<b>ROM</b>	128 GB / 256 GB
<b>Display</b>	11.6" 1920*1080 IPS
<b>Wi-Fi Networking</b>	IEEE 802.11 b/g/n
<b>Audio Output</b>	3.5mm headphone
<b>USB Host</b>	2xUSB3.0
<b>HDMI</b>	MINI HDMI x1
<b>Bluetooth</b>	4.0
<b>Camera</b>	0.3MP
<b>Power</b>	8 hours
<b>Speaker</b>	2x0.8W speakers





