
IT 1100 : Introduction to Operating Systems

Linux GUI

The Linux OS GUI

Two types of Linux OS installations:

GUI - graphical user interface.

Command Line or Headless - text based interface, meaning without a GUI interface or GUI overhead.

In the beginning Linux was all command line. GUI was an afterthought. In the old days you would install command line then afterwards manually install the packages required for desktop environment. The front-end GUI now comes as a complete package and auto-installs for you. But changing your front end is still possible with the many different interfaces.

Some of the main types of Graphical interfaces - **UNITY, KDE and Gnome**. Ubuntu comes with Unity by default. Each front-end GUI, called a `flavor`, comes with a different suite of programs and provides a different look and feel.

[Linux Desktop Environments](#)

[Ubuntu Flavors](#)

Watch the following video to see the some of the Linux options in action

[The 5 Linux Distros To Watch in 2020](#)

The command for installing software - in both GUI and CLI requires administrative privileges. It doesn't matter if you click the button or type the command. You must be an admin user.

In Linux this is called `sudo` power. You must be in the sudoers list to have administrative powers.

The command for installing software via command line is three part. It starts with `apt` (aka apt-get) followed by what you want apt to do and then the application-name. And naturally it is a sudo command.

`sudo apt command application`

sudo apt update - updates the list of possible applications to install

sudo apt install vim - installs the `vim` package (application)

For those of you curious to try other interfaces. The following work well with the limited space on our VM's. It is recommended you try only one at a time due to the limited VM resources. Open a terminal and type:

```
- sudo apt update
- sudo apt install xubuntu-desktop
- sudo apt install mate-desktop-environment
- sudo apt install ubuntu-gnome-desktop
```

When asked to choose a display manager - either one is fine - lightdm is the default for Ubuntu. Gdm comes with gnome desktop.

After the installs are complete - log out and click the Ubuntu icon next to your login name to select a different flavor.

VNC Viewers

VNC Viewers allow us to have remote access to Virtual Machines with a GUI Based interface. It is like plugging in a monitor to a remote machine.

So if we VNC into a gui-based install we will see a gui interface and if we VNC into a text-based installation we will only see a text-based interface.

Since a VNC Viewers is just like a monitor - that means we can close our VNC connection and our computer keeps running. We can begin an install or open programs and files, close our VNC Viewer (turn off the monitor) and when we come back everything is just like we left it (except we hope the install is finished!)

For this same reason - it is important to log off or lock the screen when we exit the viewer. Otherwise someone else could open a VNC viewer, connect to our machine and make changes while we are gone.

These are some available VNC Viewers:

- TightVNC - Windows, Linux, Mac
- Chicken - Mac
- GTK VNC Viewer / Vinagre - Linux

The VNC connect pages in Canvas and the assignment videos will show you how to use the VNC Viewer to connect to your VM from any computer.

Textbook Time

There is no Textbook reading for the section
