How to install SARTrack on a Linux computer

This document describes how to install SARTrack on a Linux **Ubuntu** computer. There is no reason SARTrack cannot also be installed on another Linux distribution, but Ubuntu is the most common distribution for a Desktop environment.
Switching to Linux will get rid of the problems with Windows 10, it's endless Updates which requires huge downloads and lengthy reboots (just when you need to start a SAR Operation) and its overloading of older computers with limited memory.
Using Linux you can start re-using older laptops, which will suddenly work perfectly again. And its free.

I have installed and tested the installation on Ubuntu 22.4, which was current at the time of writing (July 2022). This document is intended for people who are new to Linux.

Requirements:

- A PC / Laptop with at least 2 Gb of memory
- An empty USB stick

Using a Windows PC, download the Ubuntu Desktop installation and save.
Download the latest version of Rufus and save.
Insert an empty USB stick (if will be wiped during the process).
Install Rufus, and run.
Using Rufus, select the Ubuntu ISO file, and select your USB stick. I suggest using the default settings in Rufus, but do check the option to "Add fixes for old BIOSes.." which may be required depending on your target PC.
Rufus will make a bootable Ubuntu installation on the USB stick.
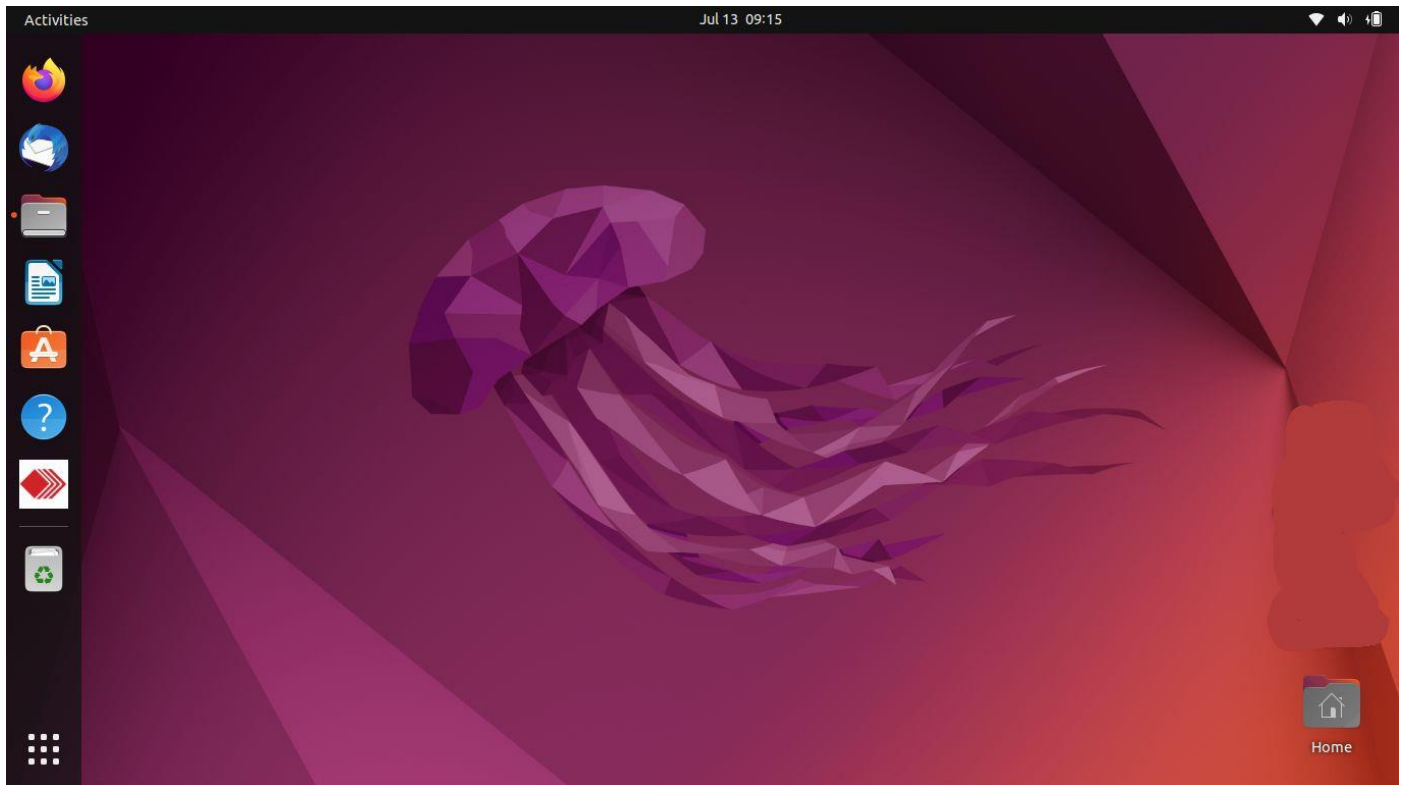
Now insert your USB bootable into the target PC.
Reboot the PC. At this point, you must force the PC to boot from the USB stick, instead of the internal drive. Depending on the type of PC, you should be able to get into the internal BIOS by pressing the F2 key, or F12 key or sometimes the ESC key, many times during initial power-up. If in doubt, Google for information on this for your computer. In the BIOS, Select UEFI if possible. Disable 'Secure Boot' if possible. Enable 'Legacy boot' if possible. Move the USB boot to the top. Read the Rufus documentation if any issues.

When you get your PC to boot from the Ubuntu USB stick, you will see the option 'Install Ubuntu'. Select this option. Select 'Full installation'.
At this point I would recommend that you use the entire hard-disk for installation, that is, delete the previous MS-Windows installation. However, it is possible to turn the PC into a double-boot one, which will allow you to boot either Ubuntu or MS-Windows. This may take a lot of time, as the Ubuntu installation system must move data around to make room for itself on the disk.

During the installation, there is a checkbox asking if you want to install 3th party drivers. Do select this option, else you may find your WIFI (and other systems) may not work.Make sure to write down the Login and Password you are required to supply! This Password you need to enter every time you are giving some commands or are installing new software.

Once the installation is finished, and you have rebooted your new Ubuntu PC, you will see a screen something like this:

A quick explanation:

- Bottom-left corner: Shows all installed applications.
- Top-left corner "Activities": When clicked, shows all applications currently running, so you can select and switch.
- Top-right corner: The wee 'battery' Icon opens a list of Options, including WIFI, Power and Settings.
- Left-Mid: The icon with the 'A' in it is the Ubuntu Software place, where you can select and install additional software.

We now have to install the "WINE" system, which will allow running MS-Windows applications directly from the Ubuntu Linux Desktop.
Click on the Ubuntu Software Icon "A".
In the top-left corner of the new window is the Search button. Enter "Wine" and wait until the system has downloaded the list of all available applications from the Internet. This may take some time.

You should now see "Wine" and "WineTricks".
First select Wine and wait until this is installed. This may take quite some time depending how fast your Internet connection is.
Once the installation is finished, you will have to give some additional commands via the 'Terminal', which is the Linux 'Command prompt'.

Click on the bottom-left Icon, and select 'Terminal'.
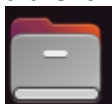In the Terminal enter the following commands (copy and paste):

- sudo dpkg --add-architecture i386
- winecfg   (This will initialize the WINE system and open a Window. Just Close this window with OK)
- sudo ln -s /usr/share/doc/wine/examples/wine.desktop /usr/share/applications/

The last command was required during the Ubuntu 22.4 and latest WINE installation, as the script called "Wine Windows Program Loader" was not installed in the right location.
This is a script which must be available in the "/usr/share/applications/" directory, else you cannot select it when trying to start a MS-Windows .exe program.

Now go back into the 'Ubuntu Software' window, and also install 'WineTricks'. This is not directly required to run SARTrack, but it includes a powerful "Explorer" program, similar to Windows Explorer, which allows you to browse the virtual Windows 'C:\' directory tree and copy files across. More on that later.

Open the Firefox web browser, and download the SARTrack Client from https://sartrack.nz/Downloads/.
This should end up in the Downloads directory.

Click on which opens the "Files" window. In the Downloads directory, right-click on the SARTrack_Inst.exe, then select "Open with Other Application". In that list you should now see "Wine Windows Program Loader".
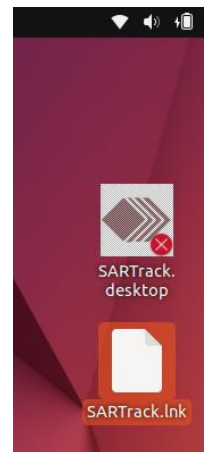If this is missing, you have a problem. See comments below.

Once you have selected this, the normal SARTrack installation window should appear.
After installation, you should see two new icons on the right-hand side of the Desktop.

The icon "SARTrack Desktop" is invalid, and you should delete it (right-click, Move to Trash).
The icon SARTrack.lnk is the shortcut.

However, I recommend copying the SARTrack icon into the 'Favorites' on the left: Click on the bottom-left icon, and locate the SARTrack icon. Right-click on it and select 'Add to Favorites'.

You can now start SARTrack by simply clicking on the icon.

It is now also possible to install a SARTrack Server on Ubuntu, in the same way as the Client.

The **WineTricks** program.

There is really only one reason to use this, and that is the 'Explorer' program which is included in this. It is a bit of a hassle to open it though (at least on my version). Click on the Application icon in the bottom-left, and locate and click WineTricks.
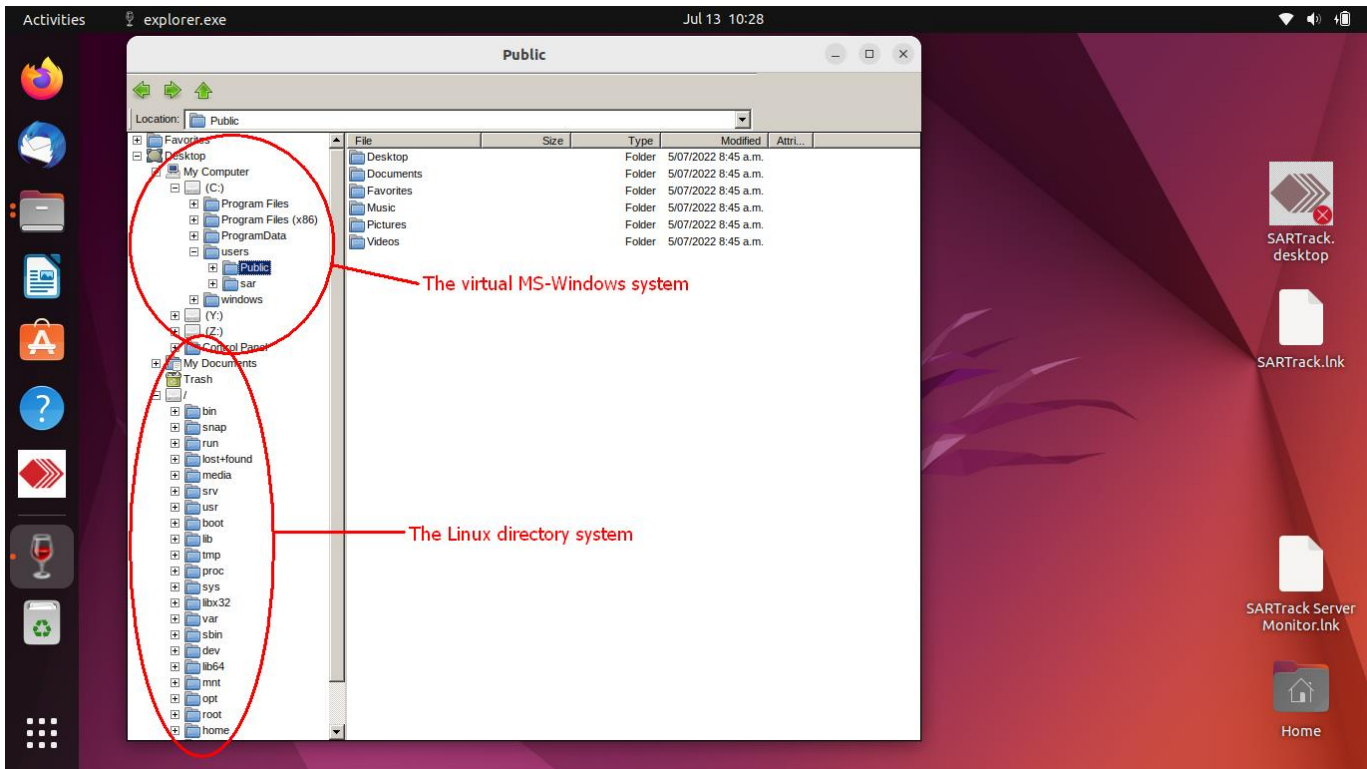**Ignore** any warnings about 64bit or 32bit, close that window.
Then simply click on OK in the next window. Don't change anything there.
In the last window, select 'Explorer' and click OK. Explorer will open, but the other windows will come back behind. Just get rid of these now by clicking Cancel a few times.

The power of the Explorer window is that you can now browse the virtual MS-Windows environment, and the Linux directory tree. And be able to move files across between the two systems.

Note that 'copy and paste' is not possible between the Linux 'Files' program and Desktop on one side, and the Explorer on the other side, but only within the Explorer window itself.
See how it looks like below.

Finally:

"Wine Windows Program Loader" missing?

If this is not available in the list of 'Open with...' you cannot start any MS-Windows programs.
It should be available in this Linux directory: "/usr/share/applications/wine.desktop"
The script is installed with WINE, but not at the right location (in my version).
If it is NOT installed at this location: "/usr/share/doc/wine/examples/wine.desktop /" then it was installed somewhere else, and you will have to do a search for "wine.desktop" in your system. There are tools for this.

I am very interested in feedback on all this, if you have problems, or find better ways to do things, or if things have changed since I wrote this document, please email me and let me know.

Below a screenshot on how it looks when all finished.

Thanks,

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SARTrack

A | - | X

- Maps
- Google
- Stations
- Objects
- Messages
- Operations
- Setup
- Tools
- Replay
- Help
- Debug

Operations

- Open/Close Ops
- Forms
- People Arrival
- Team Equipm.
- Team Setup
- Operation Log
- Team Status
- Time Line
- Manage Menu

Manage

- People
- Equipment
- Tasks
- DTB Users
- Logistics

Map: World Topographic

0 | 1 | □

Line | Area | Dist | Jump | Google | Map Type | Local Maps

Options | OSM Bulk | Mouse Coords | ? | ZL4FOX-10

ON-LINE

Timaru

Dunedin

60 KiloMeters

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COLOR INFO: | ACTIVE STATION | TIMED OUT | LAST KNOWN POSITION | PRIORITY | ACTIVE OBJECT | TRACKER OBJECT

| Lat/Long: 45°15.7895S , 169°18.0934E | Goog: E 18846563 N -5663046 | ZoomLevel: [8] | OSM: Queued=0 Failed=0 TC=0 | Local Map: No Map |

SARTrack.lnk

SARTrack Server Monitor.lnk

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