***A beginner guide for “TeLiSc OS”***

1.1

What is TeLiSc OS?

Telisc is a free Arch Linux based distribution for scientific purpose. TeLiSc stands for Terminal based Light-weight and Scientific.

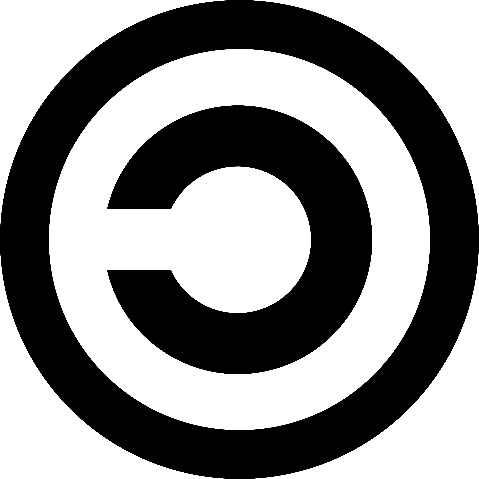
TeliSc is a versatile Operating system. It supports a wide range of packages such as GCC, Python 2/3, yaourt, shell, vim, rofi. It is rolling-release operating system. Telisc is freely distributed by the terms of the GNU General Public License v3.0 also known as GPL. What is GPL? We will discuss about GPL in section 1.2.

New users of Telisc or Linux may be a bit intimidate by the apparent complexity of the default window manager i.e. i3 window manager of TeLiSc OS. But there is no need to worry this book will help telisc users for all levels of expertise ranging from novoice to expert.

1.2

About TeLiSc’s copyleft

TeLiSc is copyleft! Yeah copylefted because it is copyrighted under the GNU General Public License v3.0 also called the GPL. This copylefted license offers users the right to freely distribute, reproduce, adapt main copy with the accompanying requirement that any resulting copies or adaptions are also bounded by the same licensing agreement which is opposite of copyright and that’s why it is called copyleft. This copyleft license was written by Richard Stallman author of Free Software Foundation (FSF).



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1.3

Hardware Requirement

For a beginner to learn Linux operating system first we have to install a Linux distro. In this case, I am thinking to install arch based Linux, the TeLiSc OS. As I am not an expert in using Linux so I have to depend on other OS like MAC/Windows as my primary operating system. So I decide to use TeLiSc along with windows.

**How to download:**

At first, I have to download an arch based Linux version. For me, I chose TeLiSc because it is terminal based light-weight & also scientific.

You can download “TeLiSc OS” from this site <https://sourceforge.net/projects/telisc-os/files/latest/download>

**Preliminary steps of installation:**

Until complete the download, I want to share that during my installation I face a lot of problems. Probably I succeeded to install TeLiSc in my 3rd attempt. In my 1st attempt, I failed because of broken partition table. For install, Linux MS-DOS partition table may cause trouble. Experts prefer GPT partition table mode for Linux. After solving this problem I took my 2nd attempt for installing TeLiSc. But failed again. Grub does not work properly in dual mode. Frist, I thought Windows 10 is not suitable for Linux because in Windows 8 there is such a no problem like that. But at last, I discover the solution to this particular problem. For installing TeLiSc along with Windows 10 we have to turn off two option,

1. Turn on fast startup(recommended), for turn off this option you have to go power option.
2. Turn off Secure Boot. For turn off this option, you have to go BIOS setting.

These are some preliminary problem to install Linux.

**How to install TeLiSc OS:**

Now if you complete your download we should go next step. For installing TeLiSc you have to follow these steps:

You will get all the info about installation of TeLiSc OS on this site that given below-

<https://sourceforge.net/p/telisc-os/wiki/Installation/>

**Top things to do after installing TeLiSc OS:**

1. Enable Network Manager: For this write the following command in your terminal-

$ systemctl start NetworkManager.service

$systemctl enable NetworkManager.service

Now we can connect or configure our network settings with the GUI of network manager by typing-

$ nmtui

1. Update Pacman repository and upgrade the system generate Pacman key: Do this by commanding-

$pacman –Syu

1. Install Bangla font: Installation of two fonts will solve the Bengali font problem in TeLiSc. We can install these two fonts by the following commands-

$ pacman –S ttf-freebanglafont ttf-indic-otf

**Basic commands:**

|  |  |
| --- | --- |
| Commands | for what |
| $ mod+enter | Open terminal |
| $ mod+h | Open terminal horizontally |
| $ mod+v | Open terminal vertically |
| $ mod+w | Open terminal in Tab mode |
| $ mod+s | Open terminal in Stacking mode |
| $ mod+e | Open terminal in tiling mode |
| $mod+shift+space | Floating mode |
| $ mod+arrow key(or j,k,l,;) | Focus among the terminals |
| $ mod+shift+q | Close terminal |
| $ mod+shifte | Exit with confirmation |
| $ mod+r | Resize windows |
| $ mod+d | Open D menu/open application |
| $ mod+num(0-9) | Open new workspace |
| $ mod+shift+num | Move any terminal in a new workspace |
| $ mod+ |  |
| J,k,l, ; | Work like arrow keys |
| $ mod+k(l) | Switch between two terminals |
| $ mod+f | Full screen |
| $ mod+shift+r | Restart i3 windows manager |
|  |  |

**Mount/umount:**

1. How to mount a partition: For mounting a partition you have to choose which partition you want to mount. For this run this command

$ lsblk

Here you get a list of partitions named sdXY. Where X=a or b and Y=1,2,3…

Then make a directory by commanding

$ mkdir data

Here I made a directory in my home directory named “data”

Now mount your expected partition sdXY by commanding this command written below

$ mount /dev/sdXY data

This sdXY partition is now mounted temporarily. If you want to mount this partition permanently you have to run this command-

$ genfstab / > /etc/fstab

**File Manager:**

**How to blance sound manually in TeLiSc :** first open sound system control pannel by this command $ alsamixer select sound card by pressing F6 key and go to HDA Intel PAC then adjust sound as your expected level.

**How to install apps in TeLiSc:** $ pacman -S appname

**Screenshot/snapshot:** For this, we have to install a software named SCROT. It’s in the officially arch repository. It is very lightweight and powerful.

To install it using pacman type-

$ pacman –S scrot

Using SCROT:

$ scrot first.jpg

* Screenshot of a specific window: $scrot -s window.jpg

Just this command and click on a specific window you want to take a screenshot.

* Screenshot after a specific time/time delay: $ scrot -d 10 delay.jpg

Here 10 is the time of delay in seconds.

* Delayed screenshot with countdown: $ scrot -c -d 10 countdown.jpg
* For controling image quality use –q flag

**How to code in TeLiSc OS:** For coding TeLiSc OS is superb. There is hundreds of library for C, C++, Python and so on. Popular programming language libraries are available here. And TeLiSc OS environment is suitable for coding also. That’s why it is called scientific. Generally, there is no need to extra software like code block or anything else for coding.

For coding follow these steps:

1. Open vim
2. Go to insert mode and write your code.
3. Exit from insert mode and save your code with proper extension (for example: if you write C programming code you have to save this file with .c extension)
4. Compile your code with gcc command. (like this $ gcc filename with extension. Ex: gcc code.c)
5. After completing compile it makes an executable file with an extension .out named a.out .
6. Run this executable file to get your output.(ex: ./a.out)
7. If you want to get your executable file in your expected file name write this command using compiling with gcc compiler

$ gcc code.c -o code.out

Here, code.c was my expected file that I want to compile and code.out was my expected executable file.

That’s it. Happy coding in TeLiSc OS.

**Security:**

1. For changing password in TeLiSc OS we have to run this command

$ passwd

Then enter your new password & confirm your password. That’s it!