

NOTE: This guide uses S2VNA as an example. The file names for other VNA software versions will be RVNA, TRVNA, S4VNA respectively.

First Running

To run a VNA software for Linux:

- Download Appimage file from [Download Free VNA Software | Copper Mountain Technologies](#)
- By default it is under: /home/Downloads/
- Navigate to the Downloads folder in a terminal
- Make downloaded VNA software executable:

```
sudo chmod a+x CMT_S2VNA_x86_64.appimage
```

(The appimage file name might be slightly different)

- Change VNA software name and move it to desktop for easy access:

```
mv CMT_S2VNA_x86_64.appimage ~/Desktop/S2VNA
```

- Run the software:

```
./S2VNA
```

(Running the software for the first time might require user password. Also, make sure no VNA is connected when the software is run for the first time. After running it for the first time, the software can be run by double clicking)

User's Data Files Location

All data, for example state files, relevant to the VNA software is contained in a hidden directory created when the software is run for the first time. The Linux application is not able to see any files before drive_C directory:

```
/home/.vna-portable/drive_c/users/<user name>/Application\ Data/S2VNA/
```

If the VNA is automated by a program or script, the default folder VNA software uses when looking for state files is /S2VNA/State/ folder. Thus, users should put saved state files in there. If there is no /State/ folder under /S2VNA/, create one and then put state files inside.

Running More Than One Device on a PC

You can use up to 16 environment configurations of application. It's allowed to store individual settings for different devices without copy application. Use command:

```
./S2VNA -conf=1  
./S2VNA -conf=2
```

Separate folders will be created by above commands and they are located:

```
/home/.vna-portable/drive_c/users/<user name>/Application\ Data/S2VNA.1/  
/home/.vna-portable/drive_c/users/<user name>/Application\ Data/S2VNA.2/
```

Troubleshooting for VNA Not Connecting to the Software through USB

A file named vna-portable.rules under /etc/udev/rules.d/ is necessary for the USB connection with a VNA.

Navigate to this directory and check for a file named vna-portable.rules. It should only contain four lines of code:

```
SUBSYSTEM=="usb", ATTRS{idVendor}=="2226", MODE="0666"  
SUBSYSTEM=="usb_device", ATTRS{idVendor}=="2226", MODE="0666"  
SUBSYSTEM=="usb", ATTRS{idVendor}=="0547", MODE="0666"  
SUBSYSTEM=="usb_device", ATTRS{idVendor}=="0547", MODE="0666"
```

If this is not the case, manually edit it with the above four lines. (Note: Need to sudo)

After saving the file, to reload the udev rules, run:

```
sudo udevadm control --reload-rules && udevadm trigger
```

If this fix does not work, delete the vna-portable.rules file completely and run the appimage file again using sudo. Make sure no VNA is connected to the computer when the appimage file is run.

Fix for Compatibility Issue with Linux 20 Versions

Linux 20 versions use a new font package which is not compatible with CMT's Linux VNA software. Thus the font package needs to be rolled back to run the VNA software. To do this:

Download the v12 font package from: <https://packages.ubuntu.com/bionic/all/fontconfig-config/download>

On this page, select a favorite server to download the .deb file.

Then install it by running:

```
sudo dpkg --install ~/Downloads/fontconfig-config_2.12.6-0ubuntu2_all.deb
```

Execute the following commands line by line:

```
cp -L -r /etc/fonts/conf.d /tmp/etc-fonts-conf.d
```

```
sudo apt install --fix-broken
```

```
sudo cp -L -r /tmp/etc-fonts-conf.d/* /etc/fonts/conf.d/
```

Go to /etc/fonts/fonts.conf and delete the lines at the top of the file that start with tags <its:> or <description>

Add this line to /home/<user name>/.bashrc:

```
export TERM=xterm
```

.bashrc is a hidden file which can be visible using command: ls -a

Finally, restart the terminal for the changes to take effect.