
v.0.0.1

# itadOS

Guides

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# Contents

# Create itadOS ISO

Prerequisites:

- Computer or virtual machine with Debian operating system.
    - The following packages installed:
        - nvme-cli
        - lshw
        - dd (coreutils)
        - hdparm
        - rtcwake (util-linux)
        - mmc-utils
        - whiptail
        - shred (coreutils)
        - smartmontools
        - pciutils
        - fop
        - xsltrpoc
        - live-build
        - isolinux

**Helpful links for live-build:**
https://debian-install-notes.pages.dev/netinstall/live-build#3

https://manpages.debian.org/testing/live-build/lb_config.1.en.html

## Step 1 – Create a directory

- **Create a directory and change directory to it, as an in an example shown in figure 1.1.**

```
mkdir itadOS && cd itadOS
```

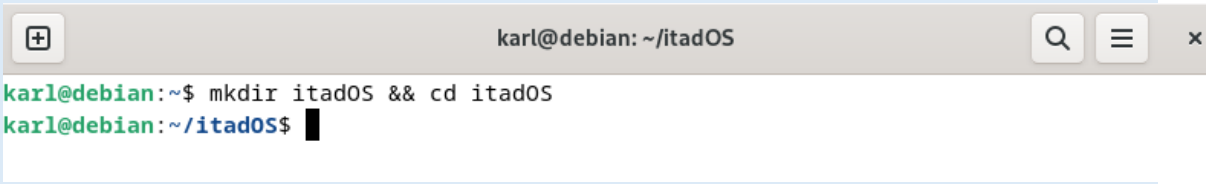


***Figure 1.1**. Directory created for live-build and directory changed to it.*

## Step 2 – Create live-build config directory

- **Enter the following command, as shown in figure 1.2:**

```
sudo lb config --distribution bookworm --architectures amd64 --archive-
areas "main contrib non-free non-free-firmware" --binary-images iso-
hybrid --bootloader grub-efi --debian-installer none --bootappend-live
"boot=live components username=root toram quiet splash"
```

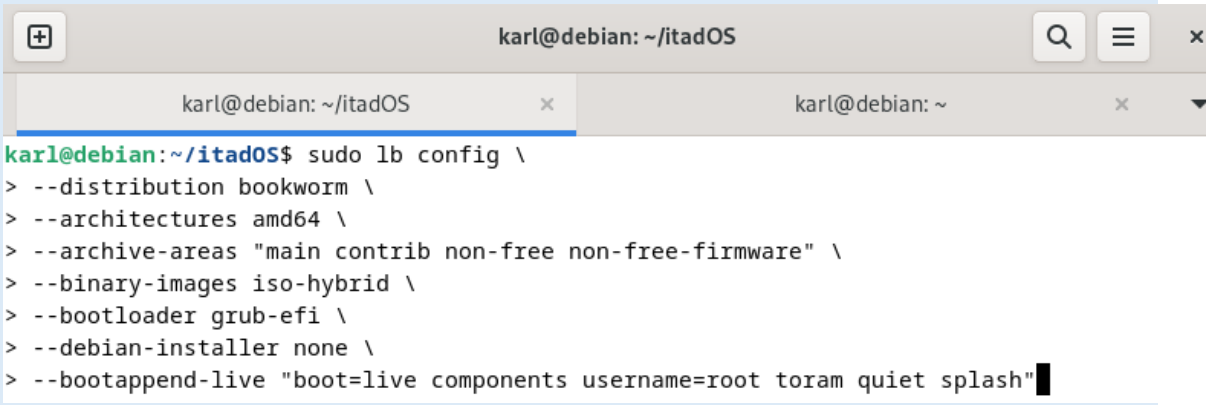


***Figure 1.2**. Live-build config command issued.*

## Step 3 – Insert itadOS into live-build

- **Insert itadOS to config/includes.chroot, as shown in figure 1.3.**

*(in this example itadOS was downloaded from github: https://github.com/karloismann/itadOS)*

```
sudo mkdir -p config/includes.chroot && sudo mv ~/Downloads/itadOS-
main/itadOSv.0.0.1/ config/includes.chroot
```

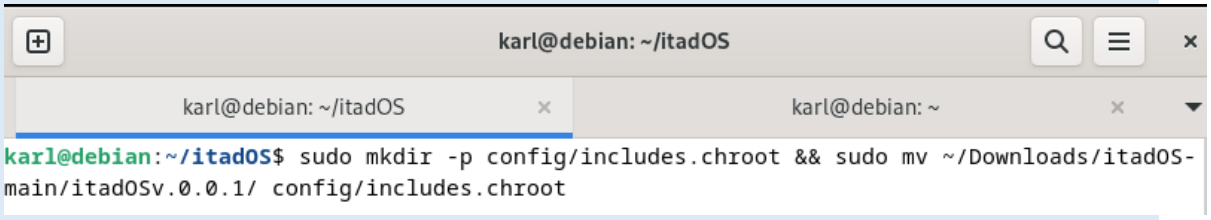


***Figure 1.3**. Directory made for itadOS and it is being moved into it.*

## Step 4 – Give itadOS execution permission

- **Issue chmod command, as shown in figure 1.4.**

```
sudo chmod +x config/includes.chroot/itadOSv.0.0.1/main.sh
```

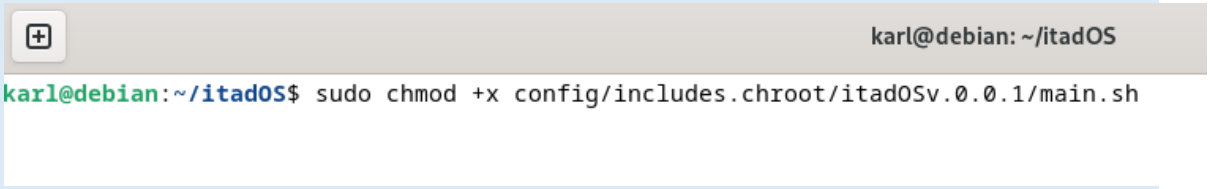


***Figure 1.4**. ItadOS given execution permissions using chmod command.*

## Step 5 – Add the dependencies

- **Create a file, as shown in figure 1.5.**

```
sudo nano config/package-lists/my.list.chroot
```

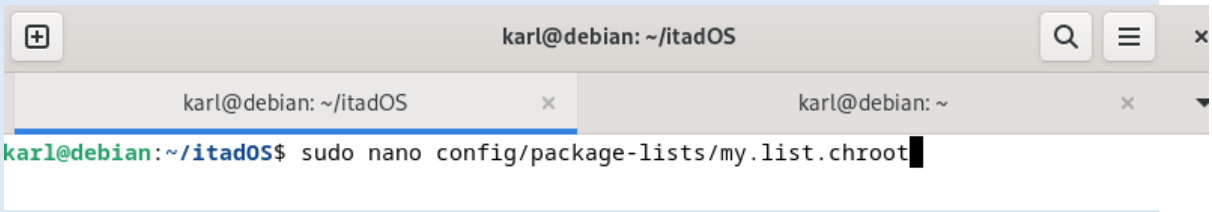


***Figure 1.5**. File for packages is created.*

- **Insert the following to my.list.chroot, as shown in figure 1.6:**

```
nvme-cli
lshw
hdparm
mmc-utils
fop
xsltproc
smartmontools
pciutils
```

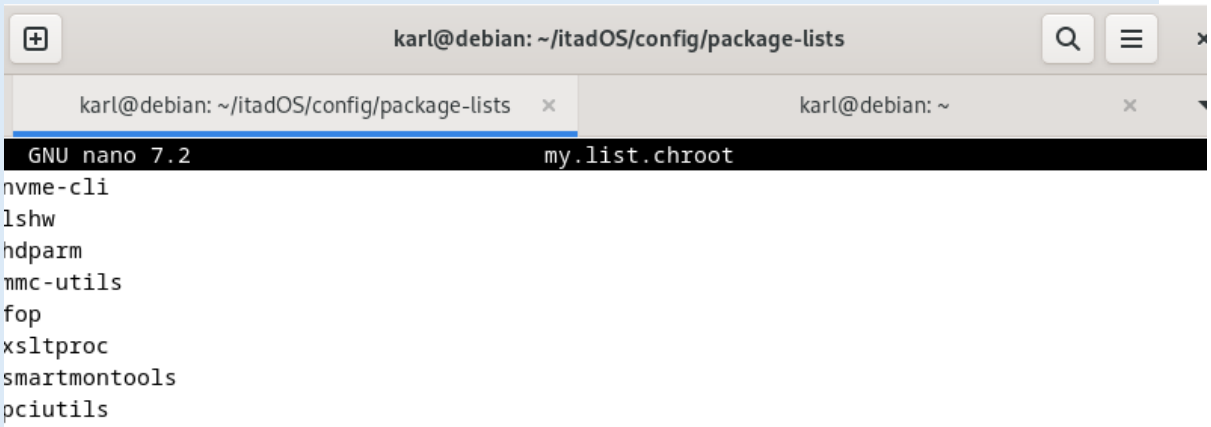


***Figure 1.5**. my.list.chroot filled with required packages.*

## Step 6 – Start itadOS on boot

- **Create path and file '.bashrc' and start editing it, as shown in figure 1.6.**

```
sudo mkdir -p config/includes.chroot/root/ && sudo nano .bashrc
```

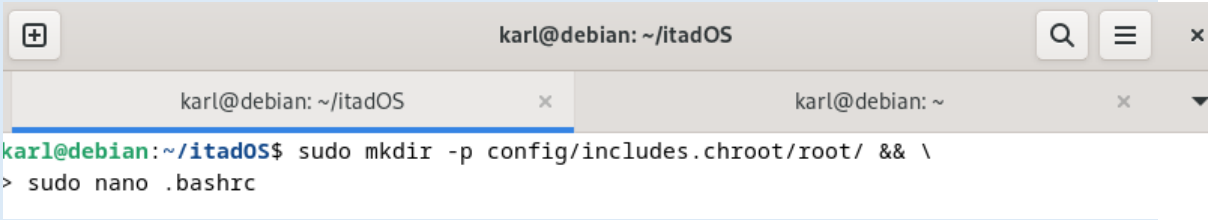


***Figure 1.6**. Path for .bashrc created and nano command issued.*

- **Insert the following line into .bashrc, as shown in figure 1.7:**

```
/itadOSv.0.0.1/main.sh
```

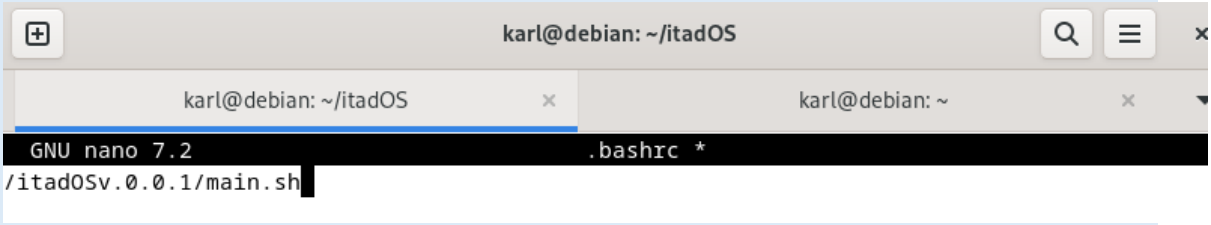


***Figure 1.7**. Bashrc contents.*

## Step 7 – Allow laptop lid to be closed

- **Create path and file 'logind.conf' and start editing it, as shown in figure 1.8.**

```
Sudo mkdir -p config/includes.chroot/etc/system && sudo nano
config/includes.chroot/etc/systemd/logind.conf
```

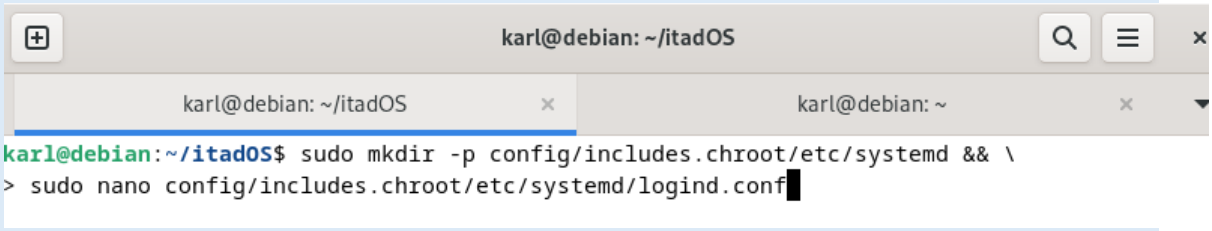


***Figure 1.8**. Path for logind.conf created and nano command issued.*

- **Add the following to logind.conf, as shown in figure 1.9:**

```
[Login]
HandleLidSwitch=ignore
HandleLidSwitchDocked=ignore
HandleLidSwitchExternalPower=ignore
```

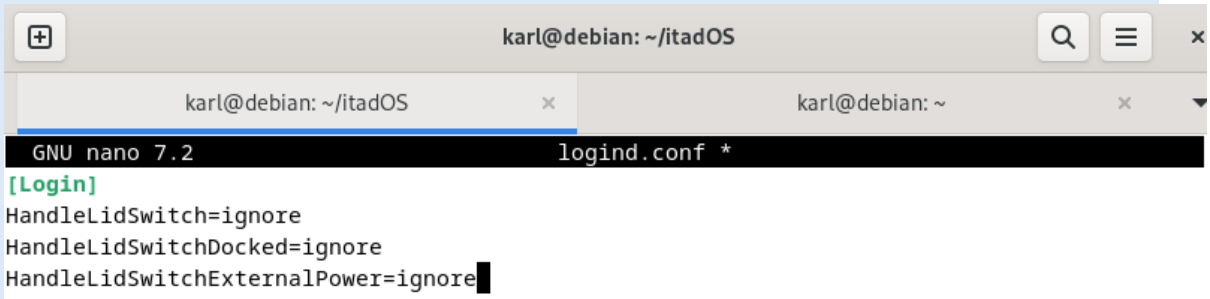


***Figure 1.9**. Logind.conf contents.*

## Step 8 – Legacy boot support

- **Create path and file, as shown in figure 1.10:**

```
sudo mkdir -p config/includes.chroot/isolinux && sudo nano
config/includes.chroot/isolinux/isolinux.cfg
```

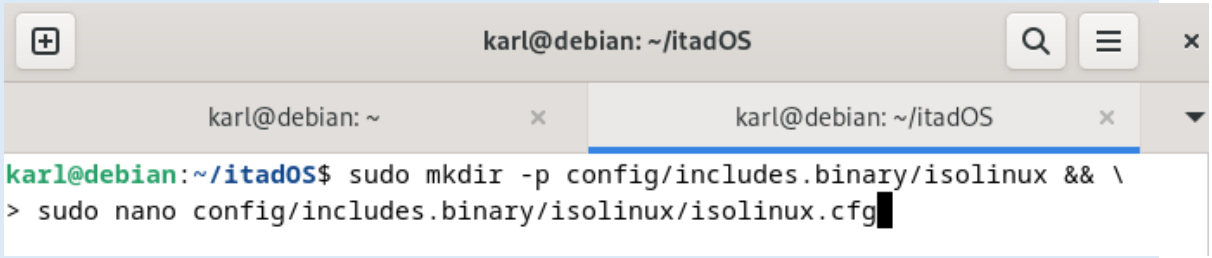


***Figure 1.10**. Path for isolinux.cfg created and nano command issued.*

- **Insert the following to isolinux.cfg, as shown in figure 1.11:**

```
UI vesamenu.c32
PROMPT 0
MENU TITLE itadOS Boot Menu
TIMEOUT 50
DEFAULT live

LABEL live
  MENU LABEL Boot itadOS (Live)
  KERNEL /live/vmlinuz-6.1.0-37-amd64
  APPEND initrd=/live/initrd.img-6.1.0-37-amd64 boot=live components
username=root toram quiet splash
```

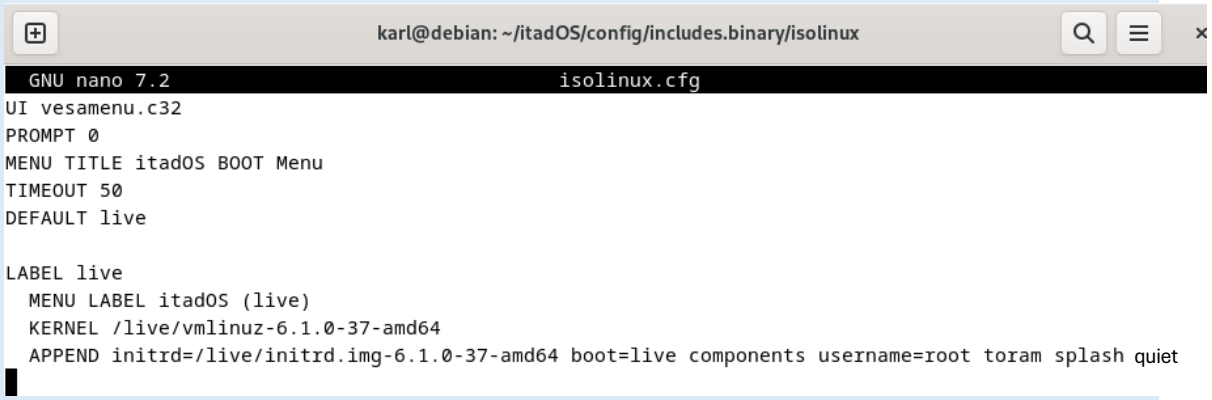


***Figure 1.11**. Isolinux.cfg contents.*

- **Also add required binaries from syslinux, as shown in figure 1.12:**

```
cp /usr/lib/syslinux/modules/bios/*.c32
config/includes.binary/isolinux/
```

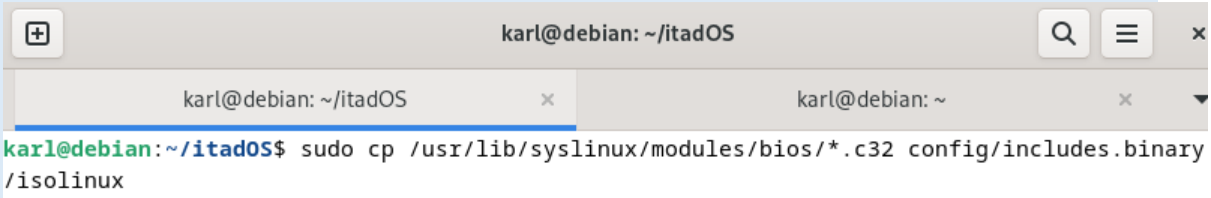


***Figure 1.12**. COM32 modules copied to the destination.*

## Step 9 – UEFI boot support

- **Create path and file, as shown in figure 1.13:**

```
sudo mkdir -p config/includes.binary/boot/grub && sudo nano
config/includes.binary/boot/grub/grub.cfg
```

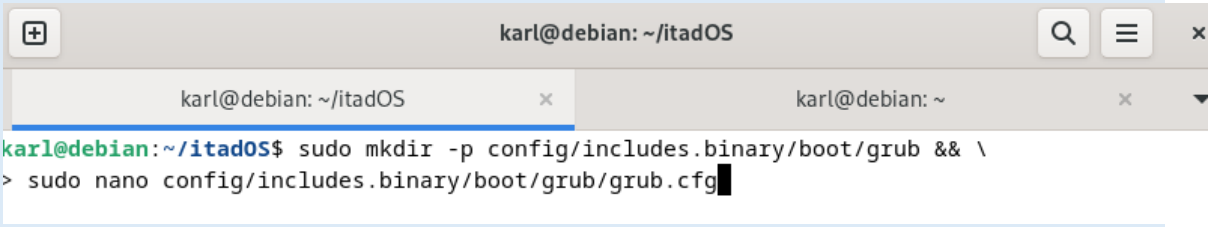


***Figure 1.13**. Path for grub.cfg created and nano command issued.*

- **Insert the following to grub.cfg, as shown in figure 1.14:**

```
set default=0
set timeout=5

menuentry "itadOS (Live)" {
    linux /live/vmlinuz-6.1.0-37-amd64 boot=live components
username=root toram quiet splash
    initrd /live/Initrd.img-6.1.0-37-amd64
}
```

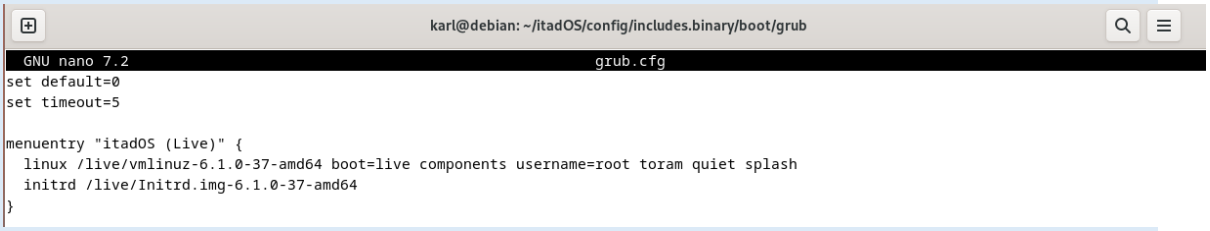


***Figure 1.14**. grub.cfg contents.*

## Step 10 – Build ISO

- **Enter the following command, as shown in figure 1.15:**

```
sudo lb build
```

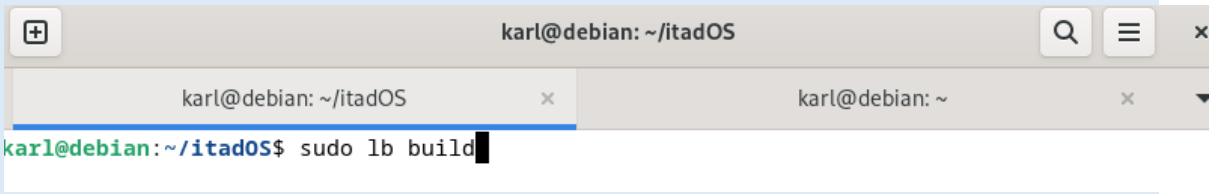


***Figure 1.15**. Sudo lb build command issued.*

- **ISO file is now created as shown in figure 1.16.**

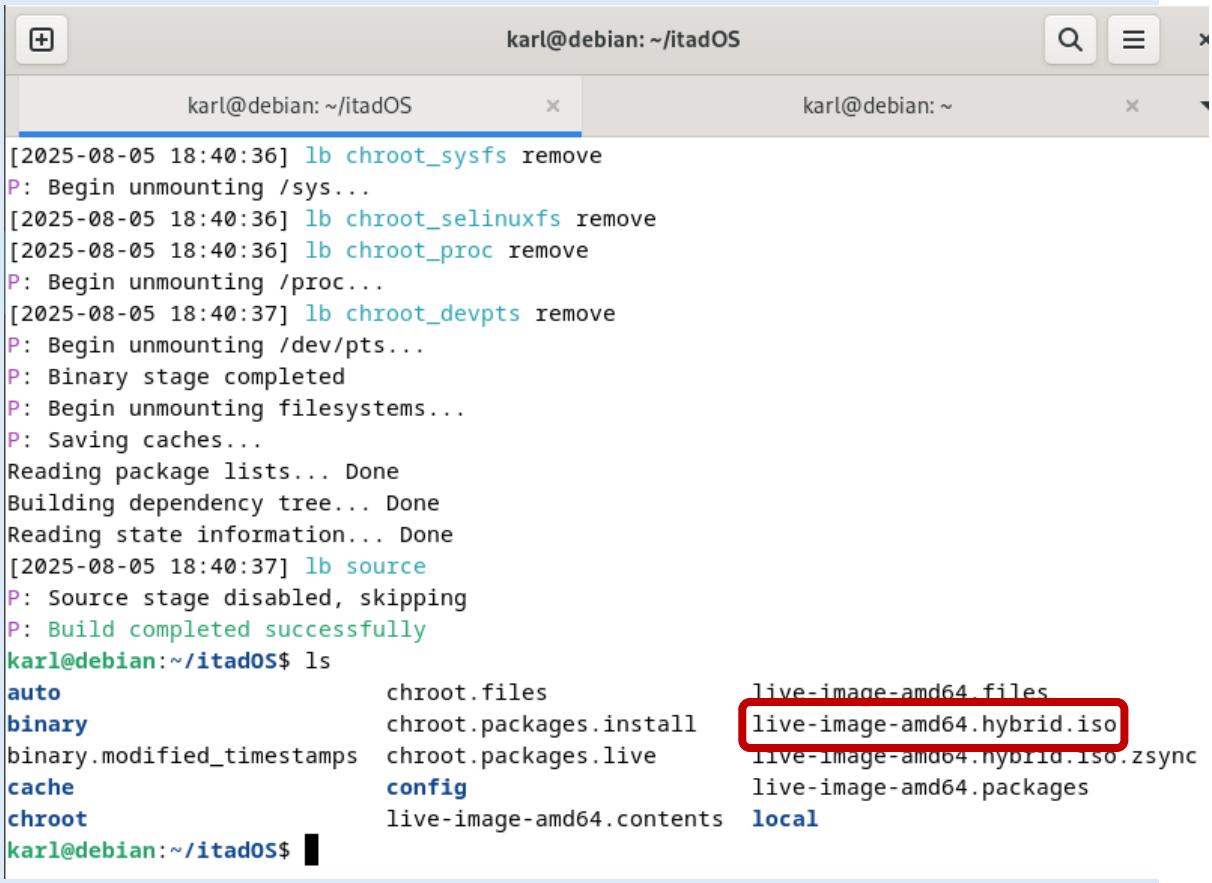


***Figure 1.16**. ItadOS ISO file is highlighted.*

# Modify itadOS

‼️ **Must complete '*Create ISO file*' before continuing.** ‼️

## Step 1 – Clean config

- **Go into the directory created *here* and insert the following command, as shown in figure 2.1:**

```
sudo lb clean --purge
```

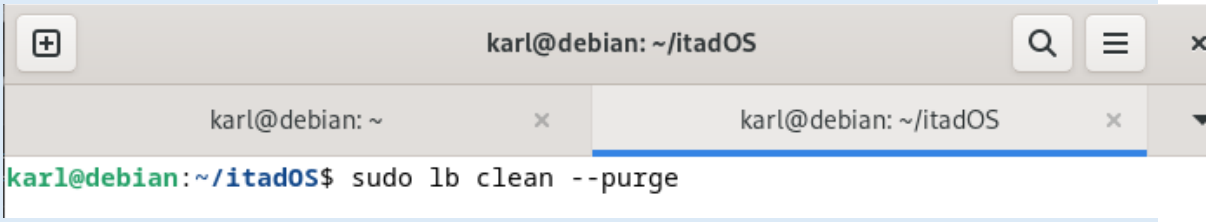


***Figure 1.2**. sudo lb clean –purge command issued.*

Step 2 – Modify itadOS settings

- **Modify settings in config.sh, as shown in figure 2.2.**

```
sudo nano config/includes.chroot/itadOSv.0.0.1/config.sh
```

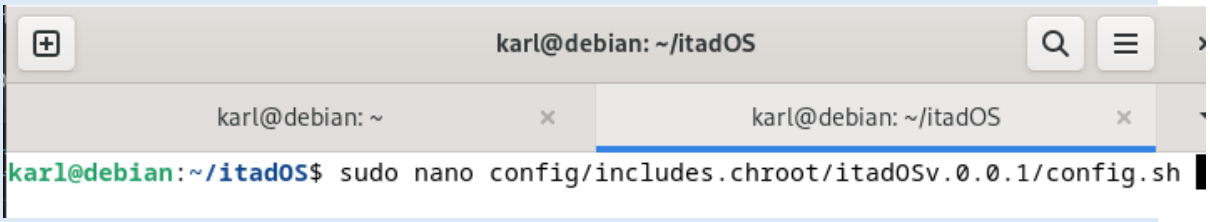


***Figure 2.2**. Nano command issued for config.sh*

- **In this example, I am setting default technician's name to 'Karl', as shown in figure 2.3.**

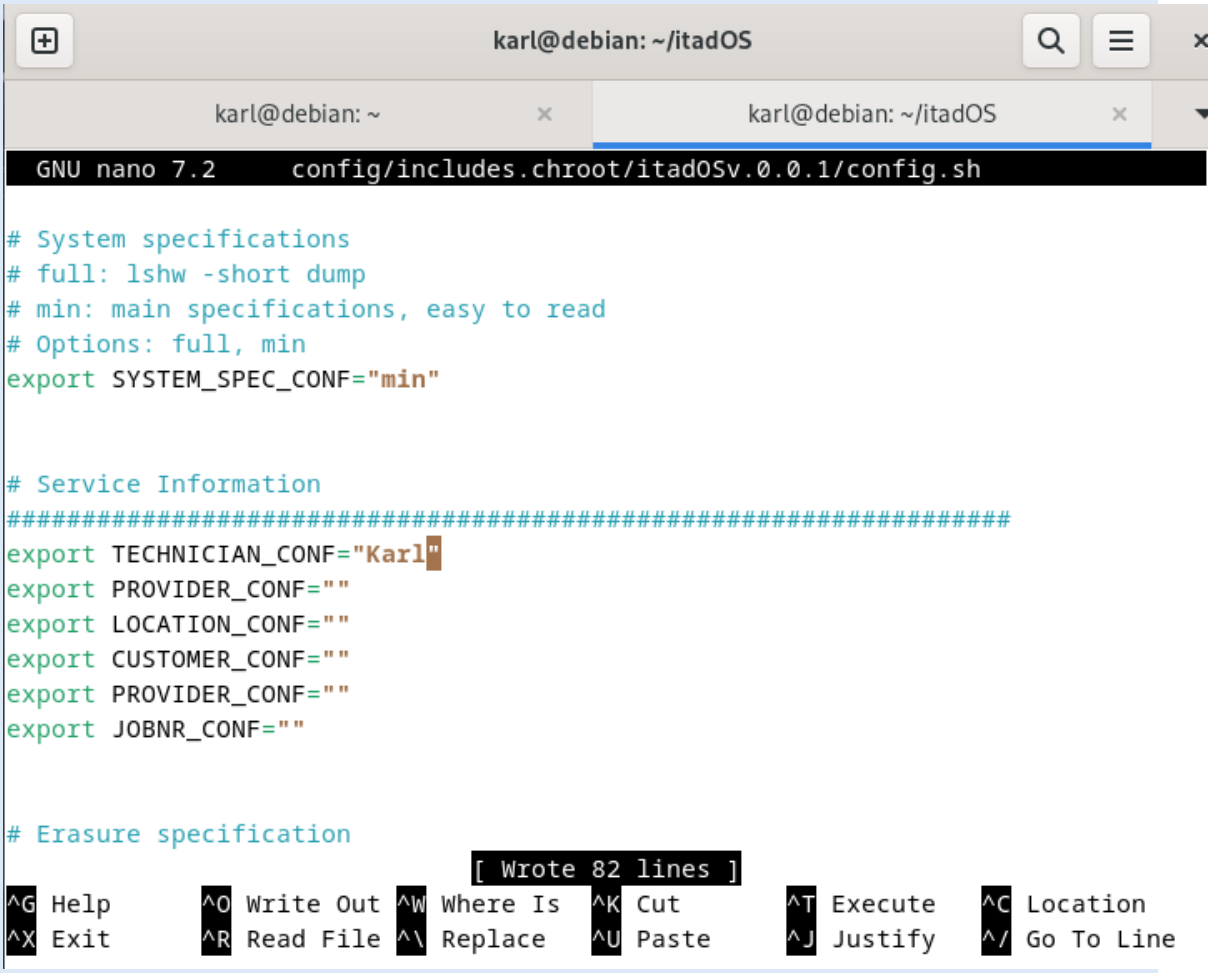


***Figure 2.3**. ItadOS default technician changed to 'Karl'.*

## Step 3 – Issue config command

- **Enter the following command, as shown in figure 2.4:**

```
sudo lb config --distribution bookworm --architectures amd64 --archive-
areas "main contrib non-free non-free-firmware" --binary-images iso-
hybrid --bootloader grub-efi --debian-installer none --bootappend-live
"boot=live components username=root toram quiet splash"
```

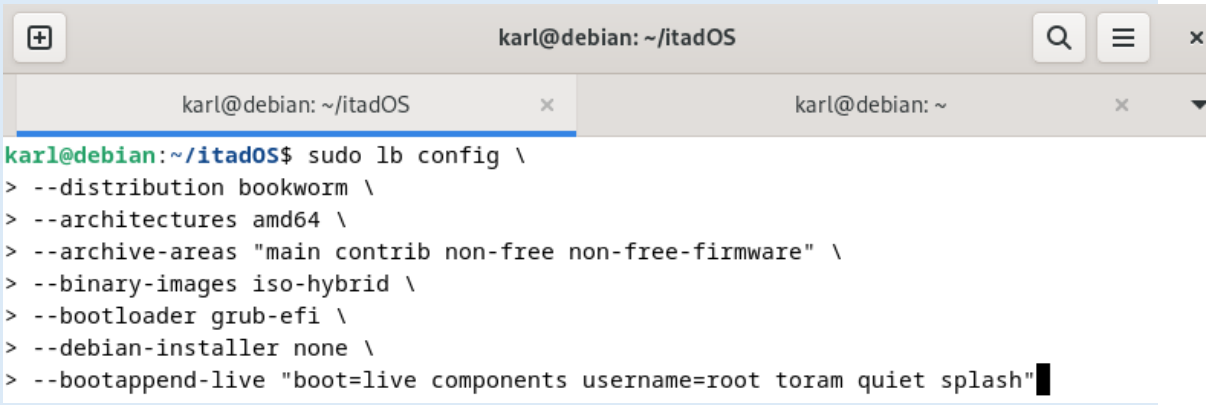


***Figure 2.4**. Live-build config command issued.*

## Step 4 – Build ISO

- **Enter the following command, as shown in figure 2.5:**

```
sudo lb build
```

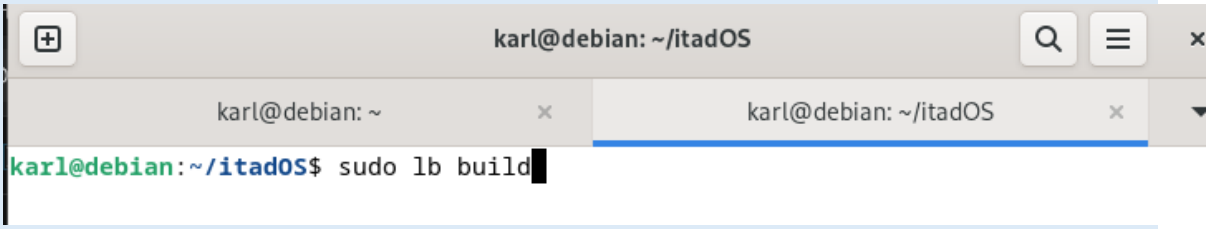


***Figure 2.5**. Sudo lb build command issued.*

- **ISO file is now created as shown in figure 2.6.**

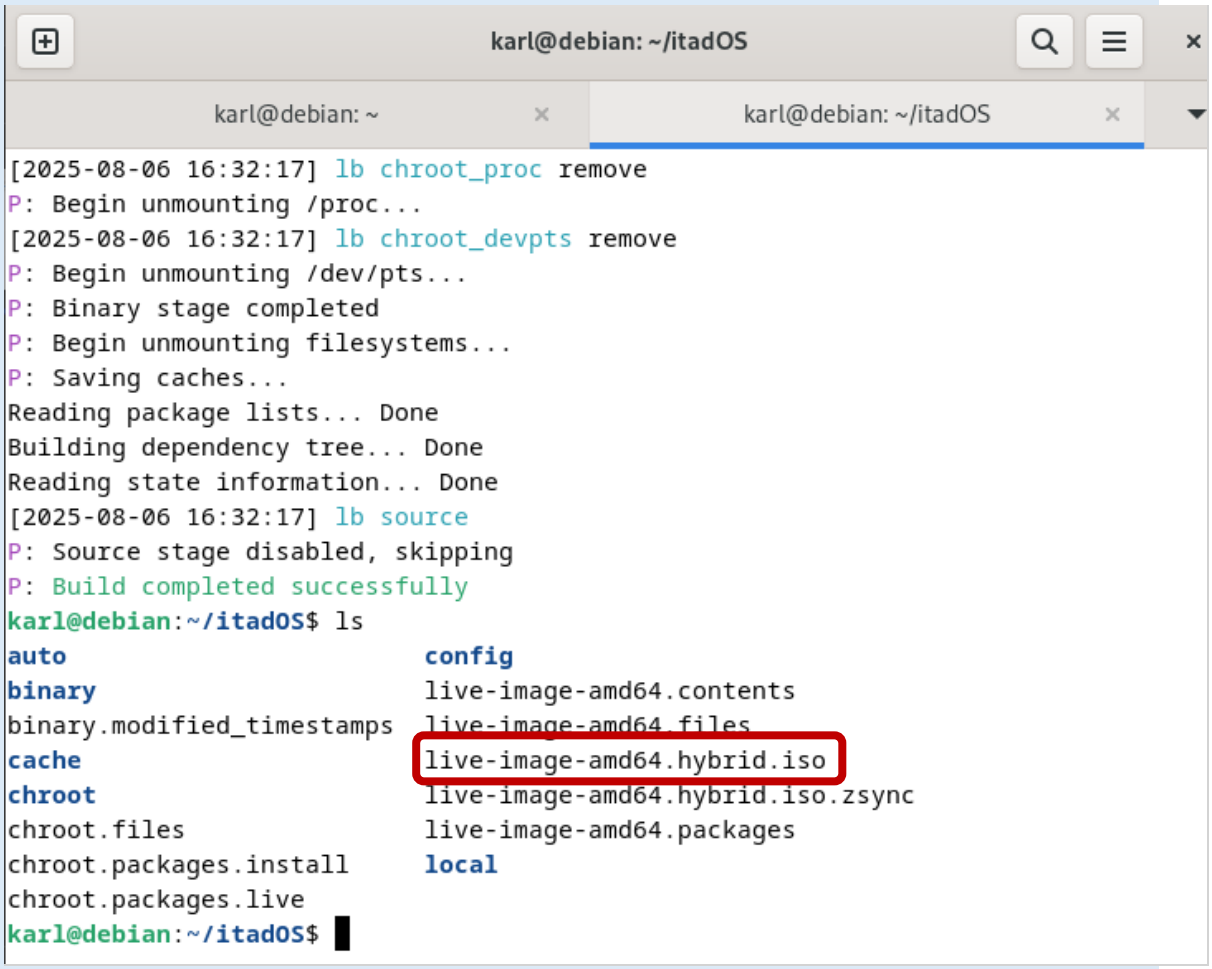


***Figure 1.16**. ItadOS ISO file is highlighted.*

# Create itadOS USB disk

**This guide is utilising rufus on Windows PC.**

## Step 1 – Get flashing utility.

- **Install Rufus (windows) or other alternative software.**

Rufus : https://rufus.ie/en/

## Step 2 – Get itadOS ISO

- **Download itadOS ISO from *here* OR create ISO *here*.**

## Step 3 – Flash USB disk with itadOS

- **Insert the USB drive into the PC and choose it from the list highlighted in figure 3.1.**

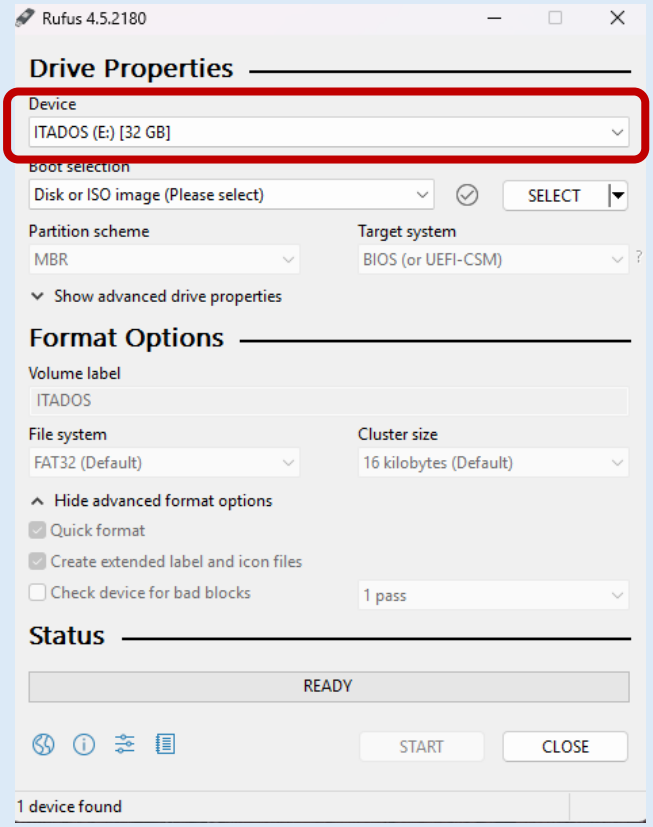


***Figure 3.1**. Rufus' USB drive list highlighted.*

- **Click on the highlighted button in figure 3.2 and select itadOS ISO.**

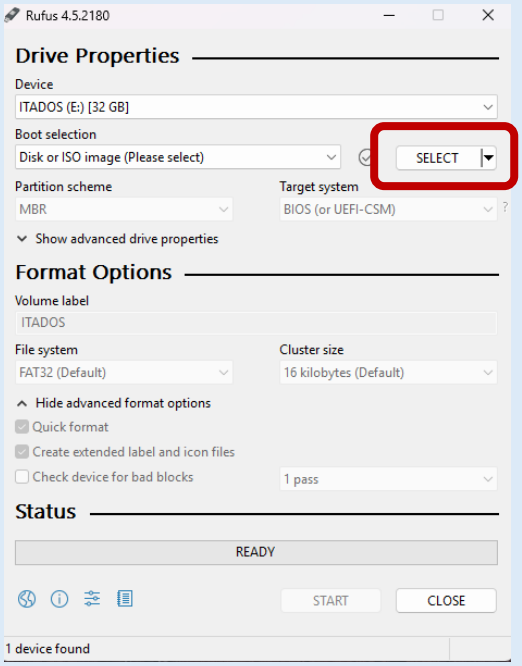


***Figure 3.2**. ISO selection button in Rufus.*

- **Name the volume label as 'ITADOS' as highlighted in figure 3.3, and press 'START'.**
  - **This helps itadOS to identify boot disk.**

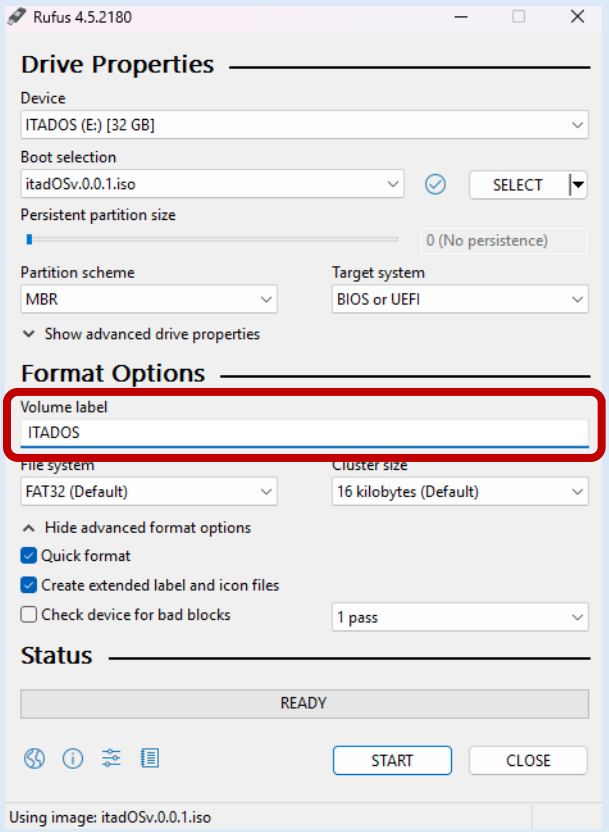


***Figure 3.3**. Volume label named as 'ITADOS' in Rufus.*