

Unix 420-321-VA

Section: 00001

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Journal # 1

Git repository link : <https://github.com/DeadBwain/Unix-Final-Project.git>

The first week's goal was to create a GitHub repository, conduct online research, and attempt to produce a custom iso image. I uploaded the team's project proposals with revisions to the repository. We opted to use Ubuntu instead of Debian after doing some research. I am using the cubic software that comes with ubuntu to customize the iso image. Here are a few helpful sites I've found. It include tutorials for producing iso images as well as media industry applications.

**2022-04-15** Created a new virtual machine (Ubuntu) & First Trial using Cubic

<https://ostecnix.com/how-to-create-a-custom-ubuntu-live-iso-image-with-cubic/>

[https://linuxhint.com/customize\\_ubuntu\\_iso\\_create\\_spin/](https://linuxhint.com/customize_ubuntu_iso_create_spin/)

Step 1: Download Cubic

```
jiamin@jiamin-VirtualBox:~$ sudo apt-add-repository ppa:cubic-wizard/release
Repository: 'deb http://ppa.launchpad.net/cubic-wizard/release/ubuntu/ impish main'
Description:
PPA for Cubic release branch

  ///
  ///
  ///
  ///
  ///
  ///
  ///
  ///
  ///
  Custom Ubuntu ISO Creator

Cubic (Custom Ubuntu ISO Creator) is a GUI wizard to create a customized Ubuntu Live ISO image.

More info: https://launchpad.net/cubic
More info: https://launchpad.net/~cubic-wizard/+archive/ubuntu/release
Adding repository.
Press [ENTER] to continue or Ctrl-c to cancel.
Adding deb entry to /etc/apt/sources.list.d/cubic-wizard-ubuntu-release-impish.list
Adding disabled deb-src entry to /etc/apt/sources.list.d/cubic-wizard-ubuntu-release-impish.list
Adding key to /etc/apt/trusted.gpg.d/cubic-wizard-ubuntu-release.gpg with fingerprint B7579F80E494ED3406A59DF9081525E2B4F1283B
```

```
jiamin@jiamin-VirtualBox:~$ sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys B7579F80E494ED3406A59DF9081525E2B4F1283B
Warning: apt-key is deprecated. Manage keyring files in trusted.gpg.d instead (see apt-key(8)).
Executing: /tmp/apt-key-gpghome.tqIYk01rXl/gpg.1.sh --keyserver keyserver.ubuntu.com --recv-keys B7579F80E494ED3406A59DF9081525E2B4F1283B
gpg: key 081525E2B4F1283B: "Launchpad PPA for PJ Singh" not changed
gpg: Total number processed: 1
gpg: unchanged: 1
```

```
jiamin@jiamin-VirtualBox:~$ sudo apt update
Hit:1 http://security.ubuntu.com/ubuntu impish-security InRelease
Hit:2 http://ppa.launchpad.net/cubic-wizard/release/ubuntu impish InRelease
Hit:3 http://ir.archive.ubuntu.com/ubuntu impish InRelease
Hit:4 http://ir.archive.ubuntu.com/ubuntu impish-updates InRelease
Hit:5 http://ir.archive.ubuntu.com/ubuntu impish-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
```

```
jiamin@jiamin-VirtualBox:~$ sudo apt install cubic
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libfwupdplugin1
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  arj binutils binutils-common binutils-x86-64-linux-gnu binwalk blt cpu-checker cramfsswap fonts-lyx
  freeglut3 g++ g++-11 gcc gcc-11 ibverbs-providers ipxe-qemu ipxe-qemu-256k-compat-efi-roms isolinux
  javascript-common libaflib0v5 libaio1 libasan6 libatomic1 libbft01 libbinutils libblas3 libburn4
  libc-dev-bin libc-devtools libc6-dev libcacard0 libcc1-0 libcrypt-dev libctf-nobfd0 libctf0
  libdate-manip-perl libdaxctl1 libdouble-conversion3 libdwf2 libfdt1 libgcc-11-dev libgfortran5
  libibverbs1 libini-parser1 libiscsi7 libisoburn1 libisofs6 libitm1 libjs-jquery libjs-jquery-ui
  libjte2 liblapack3 liblbfgsb0 liblsan0 libnd4c0 libndctl6 libnsl-dev libnss-mymachines libpcr2-16-0
  libpnm1 libpnmobj1 libqt5core5a libqt5dbus5 libqt5designer5 libqt5gui5 libqt5help5 libqt5network5
  libqt5opengl5 libqt5printsupport5 libqt5sql5 libqt5sql5-sqlite libqt5svg5 libqt5test5 libqt5widgets5
  libqt5xml5 libquadmath0 librados2 librbd1 librdmacm1 libsd2-2.0-0 libslirp0 libspice-server1
```

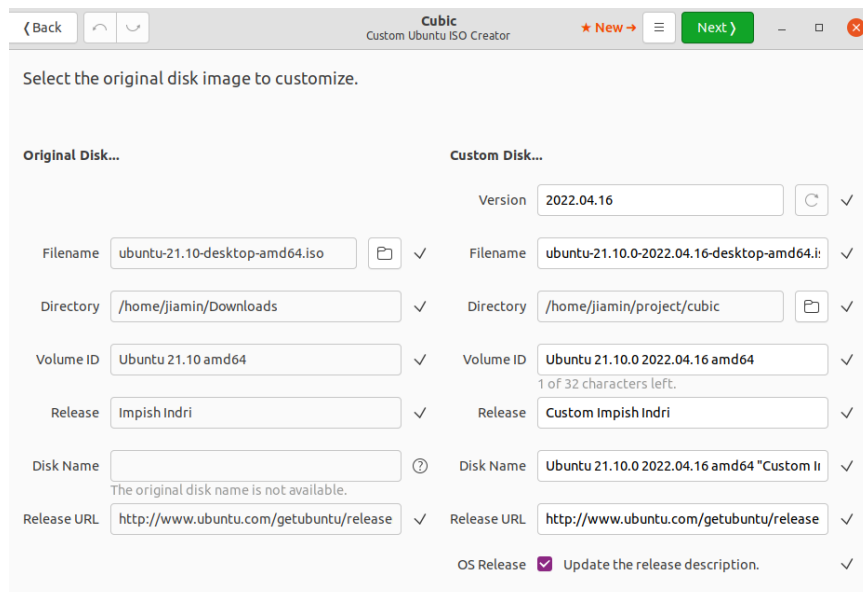
Step 2: Open Cubic. Pic1 is the default initial interface after a successful installation of Cubic.

Choose a directory to store the custom iso image. I make a new directory to store it in.

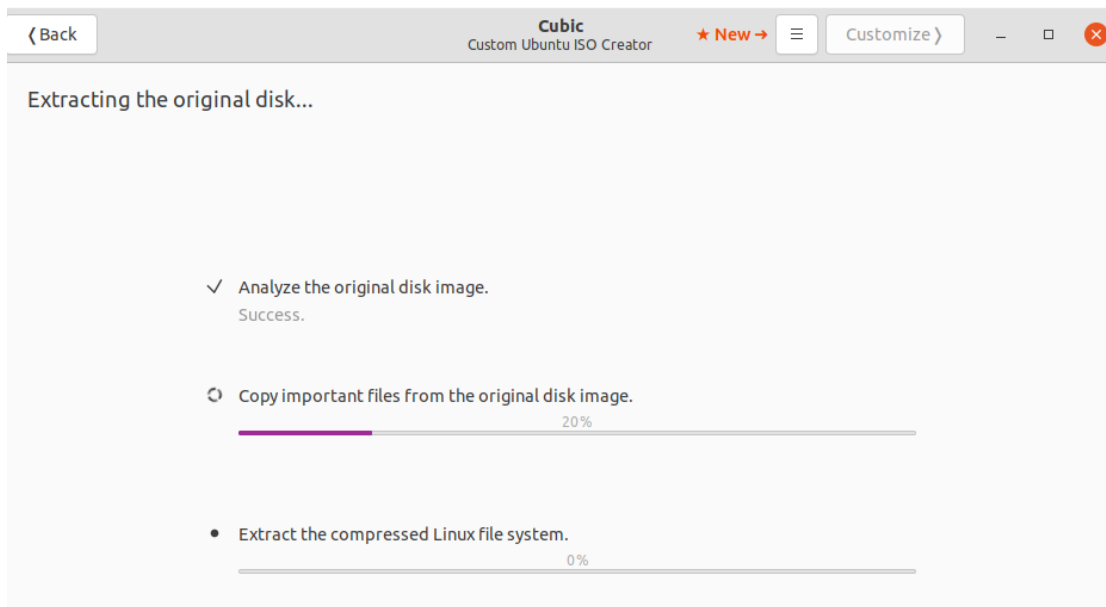
(/home/jiamin/project/cubic)



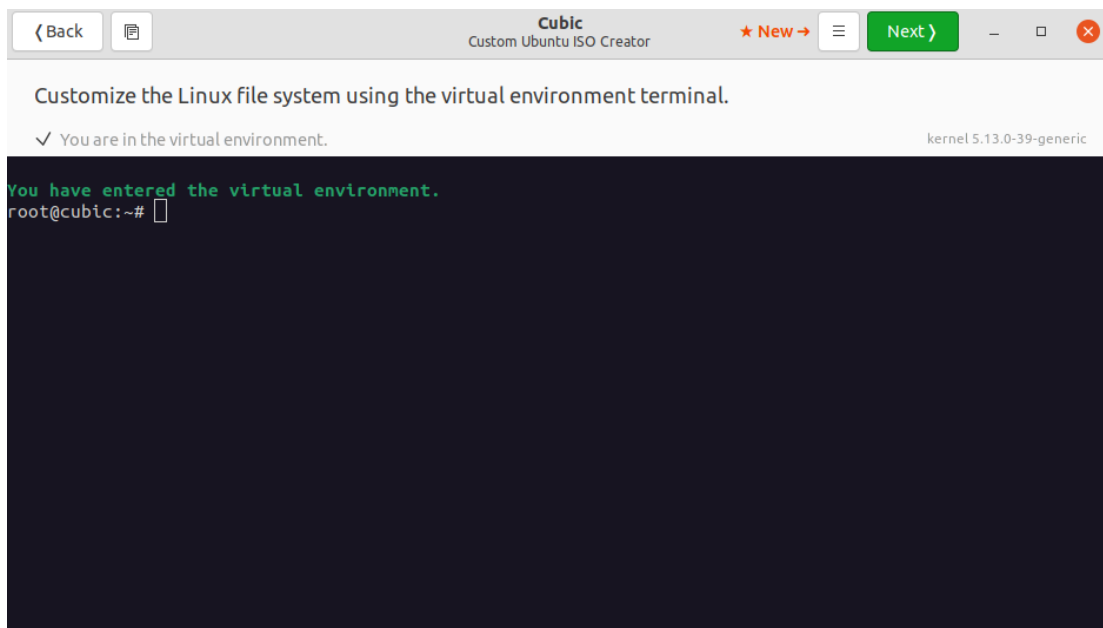
Step 3: Download the original iso image from Ubuntu official website. To add the downloaded original iso image, click the file icon next to the File Name column. All remaining information is automatically filled in.



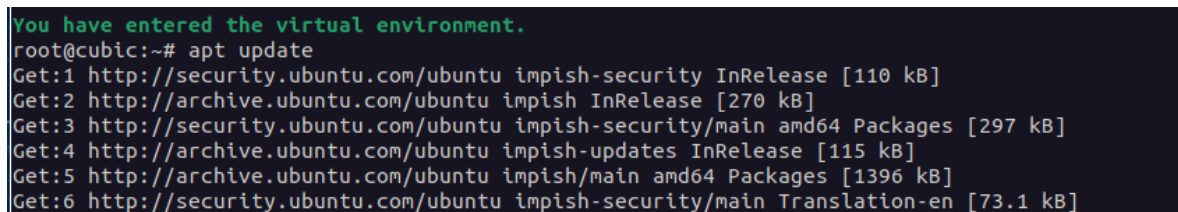
Step 4: It takes a few minutes to create an environment.



Step 5: Enter the virtual environment terminal.



Step 6: It can start configuring the desired action. I began by upgrading the downloaded packages to the most recent version.



```

root@cubic:~# apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer required:
  libfwupdplugin1
Use 'apt autoremove' to remove it.
The following NEW packages will be installed:
  libfwupdplugin5 libopengl0 linux-headers-5.13.0-39 linux-headers-5.13.0-39-generic
  linux-image-5.13.0-39-generic linux-modules-5.13.0-39-generic linux-modules-extra-5.13.0-39-generic
The following packages will be upgraded:
  accountsservice alsa-ucm-conf apport apport-gtk bind9-dnsutils bind9-host bind9-libs bluez
  bluez-cups bluez-obexd bsdxtrautils bsduutils busybox-initramfs busybox-static command-not-found
  cryptsetup cryptsetup-bin cryptsetup-initramfs cryptsetup-run distro-info-data eject
  evolution-data-server evolution-data-server-common fdisk fonts-opensymbol fwupd fwupd-signed

```

## Step 7: Installing customize packages (Having error!)

I was trying to install gimp, it always “repository missing release file”. I did some research; the problem is still not resolved.

<https://itsfoss.com/repository-does-not-have-release-file-error-ubuntu/>

<https://www.maketecheasier.com/fix-repository-does-not-have-release-file-error/>

I had no problems downloading gimp using the same command on Ubuntu's terminal. However, it continues to display an error in Cubic's virtual environment terminal.

```

More info: https://launchpad.net/~otto-kesselgulasch/+archive/ubuntu/gimp
Adding repository.
Press [ENTER] to continue or Ctrl-c to cancel.
Found existing deb entry in /etc/apt/sources.list.d/otto-kesselgulasch-ubuntu-gimp-impish.list
Adding deb entry to /etc/apt/sources.list.d/otto-kesselgulasch-ubuntu-gimp-impish.list
Found existing deb-src entry in /etc/apt/sources.list.d/otto-kesselgulasch-ubuntu-gimp-impish.list
Adding disabled deb-src entry to /etc/apt/sources.list.d/otto-kesselgulasch-ubuntu-gimp-impish.list
gpg: Warning: using insecure memory!
gpg: Warning: using insecure memory!
Adding key to /etc/apt/trusted.gpg.d/otto-kesselgulasch-ubuntu-gimp.gpg with fingerprint FB97E9C3A97F85C
095AEA7903BDAA08614C4B38
gpg: Warning: using insecure memory!
Hit:1 http://security.ubuntu.com/ubuntu impish-security InRelease
Hit:2 http://ppa.launchpad.net/kritalime/ppa/ubuntu impish InRelease
Hit:3 http://archive.ubuntu.com/ubuntu impish InRelease
Hit:4 http://archive.ubuntu.com/ubuntu impish-updates InRelease
Ign:5 http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish InRelease
Err:6 http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish Release
      404 Not Found [IP: 91.189.95.85 80]
Reading package lists... Done
E: The repository 'http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish Release' does not have
  a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.

```

```

root@cubic:~# apt update
Hit:1 http://archive.ubuntu.com/ubuntu impish InRelease
Hit:2 http://archive.ubuntu.com/ubuntu impish-updates InRelease
Hit:3 http://ppa.launchpad.net/kritalime/ppa/ubuntu impish InRelease
Hit:4 http://security.ubuntu.com/ubuntu impish-security InRelease
Ign:5 http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish InRelease
Err:6 http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish Release
      404 Not Found [IP: 91.189.95.85 80]
Reading package lists... Done
E: The repository 'http://ppa.launchpad.net/otto-kesselgulasch/gimp/ubuntu impish Release' does not have
  a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.

```

I removed Cubic and tried the same procedure again, but the package download still fails. I followed the instructions in the tutorial linked above. I'm not sure if it's because the iso image I downloaded isn't the same as theirs (theirs is the LTS version). I will try it again tomorrow.

## Ubuntu 20.04.4 LTS

Download the latest LTS version of Ubuntu, for desktop PCs and laptops. LTS stands for long-term support — which means five years, until April 2025, of free security and maintenance updates, guaranteed.

[Ubuntu 20.04 LTS release notes](#)

Recommended system requirements:

- 2 GHz dual core processor or better
- 4 GB system memory
- 25 GB of free hard drive space
- Internet access is helpful
- Either a DVD drive or a USB port for the installer media

[Download](#)

For other versions of Ubuntu Desktop including torrents, the network installer, a list of local mirrors, and past releases [see our alternative downloads](#).

## Ubuntu 21.10

The latest version of the Ubuntu operating system for desktop PCs and laptops, Ubuntu 21.10 comes with nine months, until July 2022, of security and maintenance updates.


Recommended system requirements are the same as for Ubuntu 20.04.4 LTS.

[Ubuntu 21.10 release notes](#)


[Download](#)

[Alternative downloads and torrents >](#)


**2022-04-16** Second Trial: My laptop displays a low memory warning. The virtual machine is stuck at a black screen after many efforts to open it. To free up memory on my computer, I rearranged the files and software. I re-created an Ubuntu virtual machine. Because in Cubic, producing an iso image requires first selecting the original iso image and then modifying it based on it. I just created a second Ubuntu virtual machine and need to re-download the iso image. This is a particularly long procedure, and it eventually indicates that the download has failed.



ubuntu-20.04.4-desktop-amd64.iso part



ubuntu-20.04.4-desktop-amd64.iso



ubuntu-21.10-desktop-amd64.iso

Cancel

Cubic - Select ISO Disk Image

Search

Select

Recent

Home

Documents

Downloads

Music

Pictures

Videos

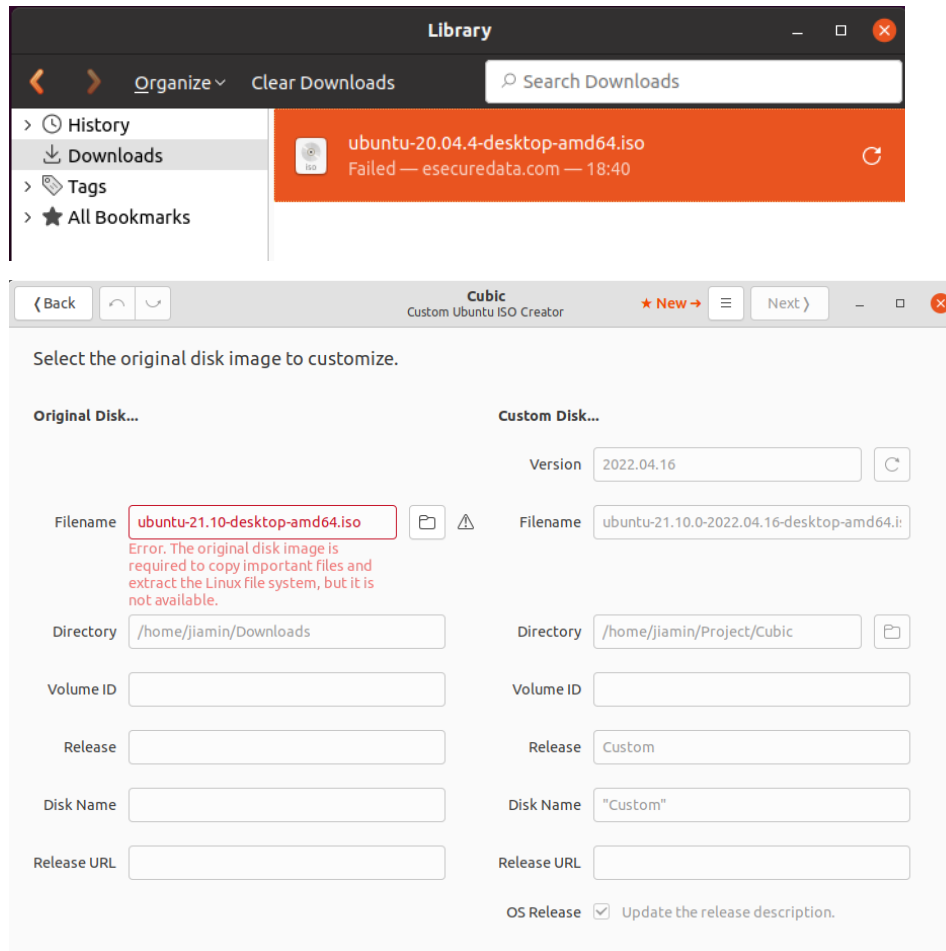
cubic

+ Other Locations

< jiamin Downloads >

Name	Size	Type	Modified
firefox.tmp			16:31
ubuntu-21.10-desktop-amd64.iso	5.3 kB	raw CD image	13:23

The two downloads on the left are incomplete. The one on the far right is finished, but Cubic reports an issue when I choose it. I redownloaded it several times and got the same outcome each time. Either the LTS or normal versions are available. This is what it looks like after 2 hours of downloading:



This is what I tried to solve according to the method on the Internet, but it didn't work.

 Cubic PPA (cubic-wizard) said on 2021-12-06:

This probably means that you have already mounted the original ISO somewhere else, and Cubic is not able to mount it.

If you have accidentally clicked (or double clicked) on the \*.iso file, Nautilus will automatically mount it. In your file manager, locate the mounted ISO (in the left panel) and click on the unmount icon next to it.

To double check, you can see if the file is mounted using the `mount` command in a terminal.

Once you are sure the file is not mounted, start Cubic and select the \*.iso file.

(If this doesn't work, make sure your \*.iso file is not corrupt by performing a checksum on it).

```
jiamin@jiamin-VirtualBox:~/Downloads$ mount ubuntu-21.10-desktop-amd64.iso
mount: /home/jiamin/Downloads/ubuntu-21.10-desktop-amd64.iso: not mounted.
```

Summary: At the moment, I'm having some difficulties with the procedures involved in making an ISO image. I'll give it another shot. I've spoken with Jonathan about the situation. Wait till he's finished with this experiment to see how he's going about it.

The following website is a reference for some media industry software that Ubuntu can use:

Audio Editing: [https://linuxhint.com/audio\\_editing\\_music\\_making\\_software\\_linux/](https://linuxhint.com/audio_editing_music_making_software_linux/)

Video Editing: <https://itsfoss.com/best-video-editing-software-linux/>

Photoshop Alternatives: <https://sourcedigit.com/24367-photoshop-alternative-for-ubuntu-linux/>

Paint Alternative: <https://www.makeuseof.com/best-paint-alternatives-for-linux/>