

Ubuntu 22.04 (2022.April) Long Term Support (LTS) release.

Waikato Linux Users Group
Ian Stewart
27 Jun 2022

Latest Release

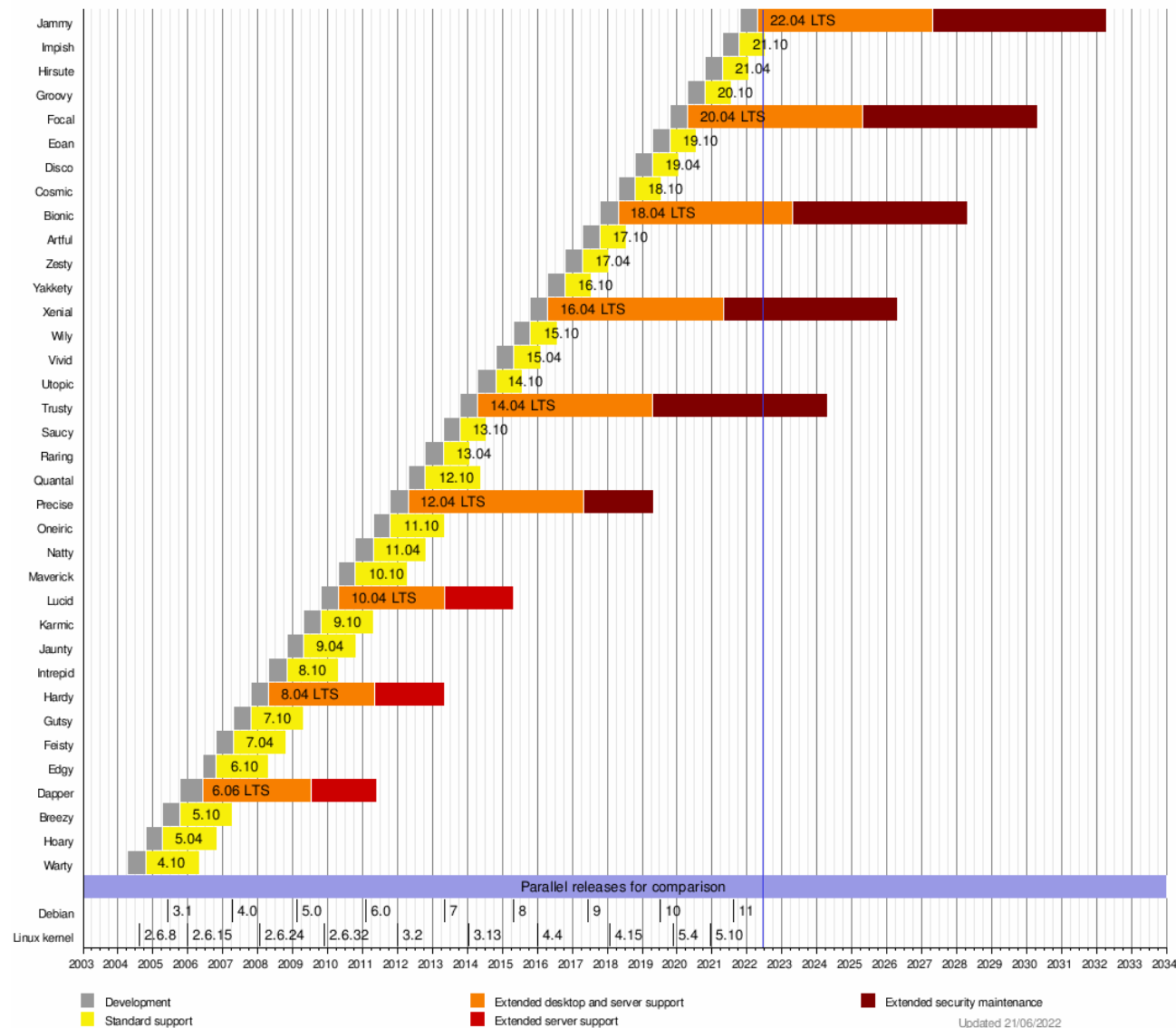
- Latest release: 21 April 2022
- Version: 22.04 (LTS)
- Code name: Jammy Jellyfish
- Platforms: x86-64, ARM64, RISC-V, ppc64le, s390x, ARMhf
- Kernel: Linux 5.15. Debian 11/bullseye.
- Default: Gnome Desktop. Server, IoT, Cloud.
- Flavours: Kubuntu, Lubuntu, Budgie, Kylin, MATE, Studio, Xubuntu.
- Website: <https://ubuntu.com>
- General support until: April 2027
- Security Support until: April 2032
- Package Format: Debian
- Package Managers: Advanced Package Tool (APT), Ubuntu Software (GUI)
- Developer: Canonical Ltd.
- Release notes: <https://discourse.ubuntu.com/t/jammy-jellyfish-release-notes/24668>

History

- 4.10 (2004, October) Initial Release. 17 years ago.
- LTS every two years, Interim releases every 6 months.
- LTS likely to have 5+ point releases. Initial then, .1 to .4
- 22.04 is the 36th release (six months) 9th LTS release (2 years).
- 8 July 2005, Mark Shuttleworth and Canonical Ltd. announced the creation of the Ubuntu Foundation.
- Ubuntu is currently funded by Canonical Ltd.

Ubuntu release timeline

History



Download image.

- Download 22.04 image.
- <https://ubuntu.com/download>
- FSMG mirror: <https://mirror.fsmg.org.nz/ubuntu-releases/> 20Gps
- <https://fsmg.org.nz/pages/statistics.html>
- <https://fsmg.org.nz/pages/sponsors.html>
- REANNZ provide FSMG with rackspace and connectivity in two data centres.
- Wellington and Hamilton mirror sites.
- ISO or Torrent.

Minimum system requirements for Ubuntu 22.04

Desktop:

- Dual Core Processor (2 Ghz)
- 4 GB Physical RAM
- 25 GB or more Disk Space
- Bootable Media

Server:

- 1 GHz CPU
- 1 GiB RAM (system memory)
- 2.5 GB hard drive
- Bootable Media

22.04 Features:

- Best suited for enterprise-class-deployments.
- It can be installed and run on all major architectures like x86-64, ARM v7, ARM64, POWER8, POWER9, IBM s390x (LinuxONE) and RISC-V
- Long Term Kernel 5.15
- Updated:
 - OpenSSL 3.0
 - QEMU (v6.2)
 - libvirt (v8.0)
 - PHP (v8.1)
 - Ruby (v3.0)
 - GCC (V11.2)
 - Python (v3.10.1)
 - MySQL (v8.0.28)
 - OpenLDAP (v.2.5.11)
 - Samba 4.15.

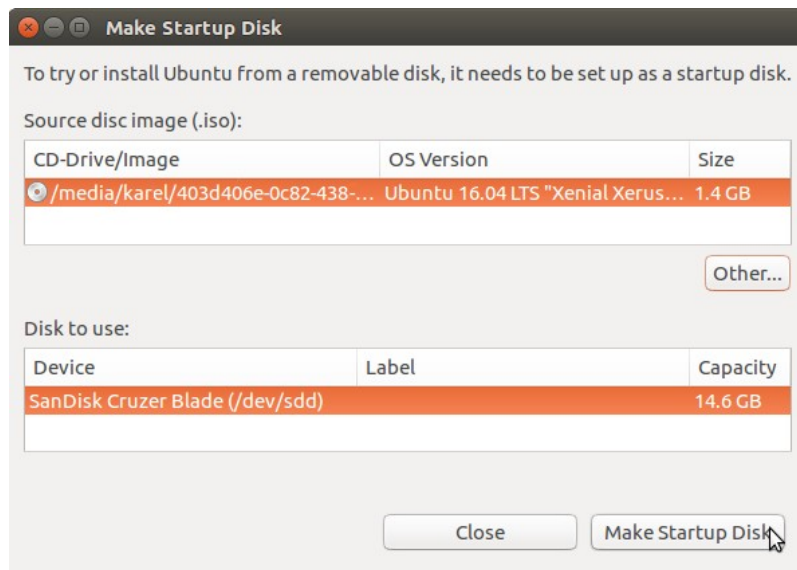
Burn to USB. Try Live.

Using dd

- \$ cd Downloads
- \$ dd if=ubuntu-22.04-desktop-amd64.iso of=/dev/sdX bs=4M status=progress && sync

Using Startup Disk creator

- Control Centre --> Startup Disk Creator



<https://askubuntu.com/questions/287064/how-do-i-make-a-bootable-ubuntu-usb>

Online upgrade

- 22.04. Initial “.0” release 23 April 2022. No on-line upgrade.
- Upon release of 22.04.1 On-line upgrade prompting begins.
- Example: 20.04.1 released. 8 Aug 2020. (3 months after “.0”).
- Intervention: Password, Confirm proceed, ... Confirm reboot.

Example of Point releases:

- 20.04.4 released Feb 2022.
- 5th consolidation of updates release.

No Point release tracking for Jammy Jellyfish at this stage. E.g.

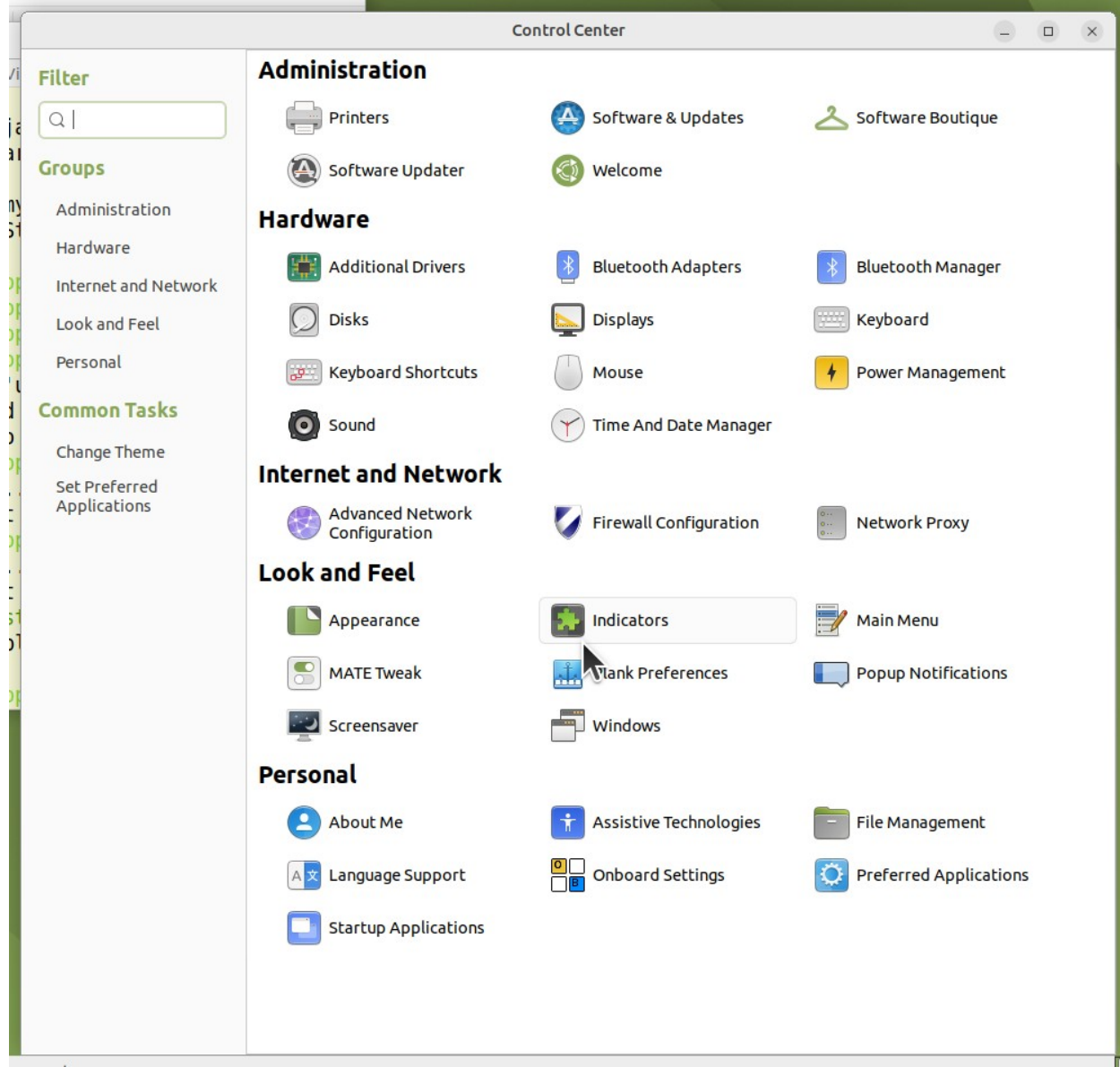
- <https://discourse.ubuntu.com/t/focal-fossa-20-04-1-lts-point-release-status-tracking/17604>

Switch presentations to Part 2, for 22.04 installation examples.

MATE Aside

Control Centre

Anything missing?



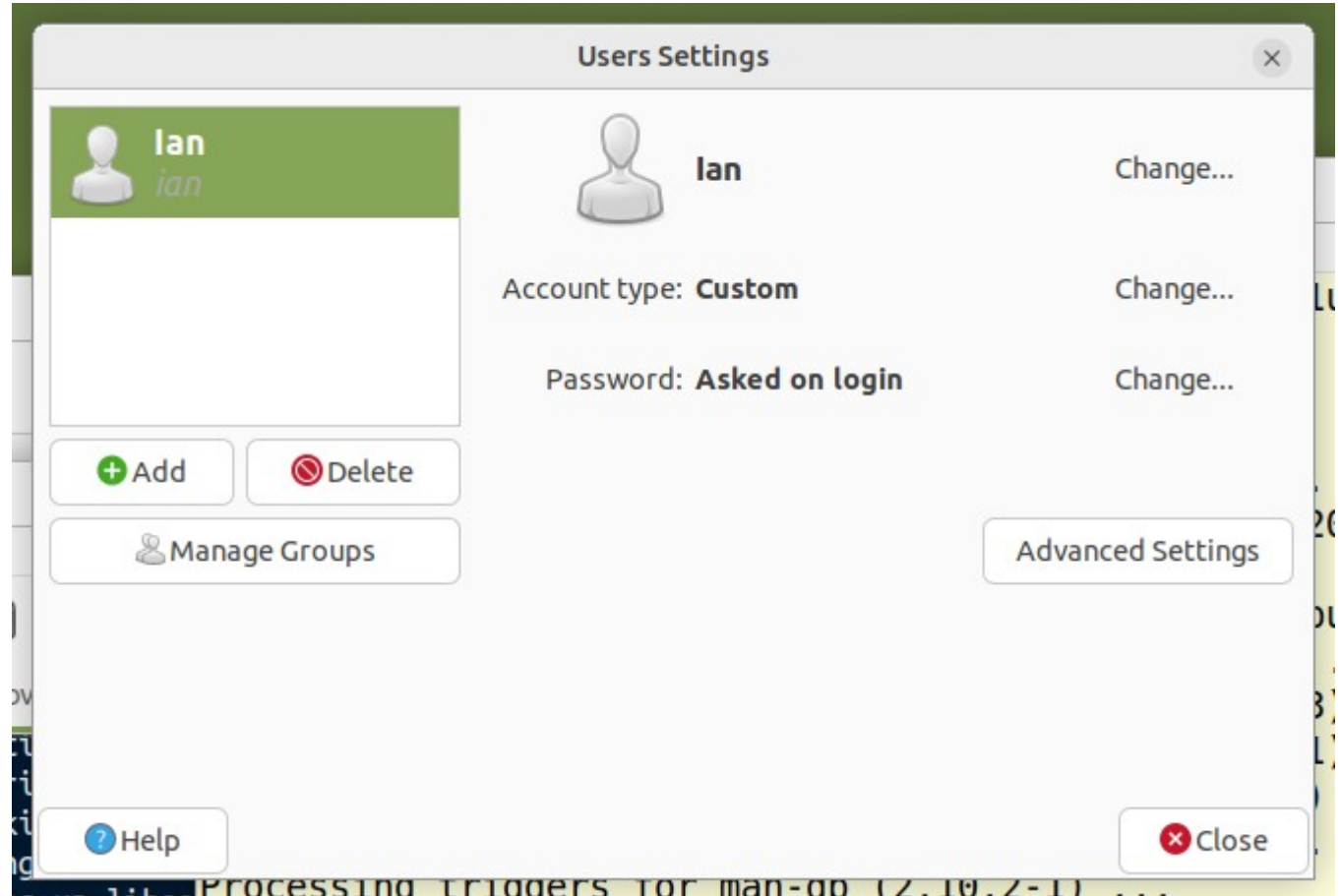
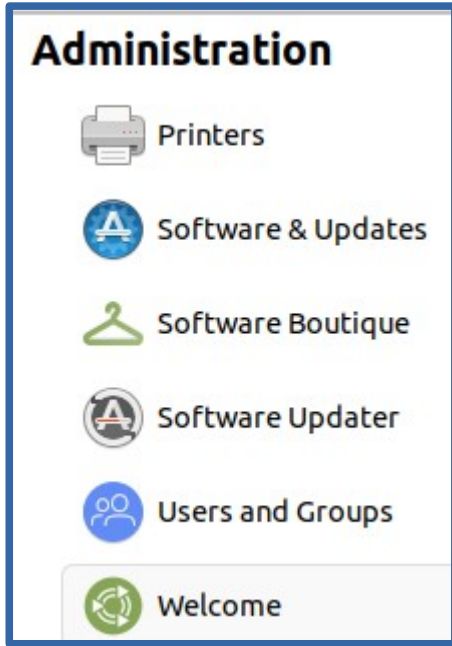
Add gnome-system-tools for users-admin application

```
ian@laptop:~$ user
useradd      userdel      usermod      users
```

```
ian@laptop:~$ sudo apt install gnome-system-tools
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  liboobs-1-5 system-tools-backends
Suggested packages:
  ntp
The following NEW packages will be installed:
  gnome-system-tools liboobs-1-5 system-tools-backends
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 3,826 kB of archives.
After this operation, 10.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
ian@laptop:~$ user
useradd      userdel      usermod      users      users-admin
```

Control Centre now has “Users and Groups”
Note: No “Guest” account, ...but it has returned.



Remove “Guest” account.

```
$ cat /etc/lightdm/lightdm.conf.d/91-arctica-greeter-guest-session.conf
```

```
[LightDM]
```

```
# Override default guest-account script by Arctica Greeters guest  
# account script.
```

```
guest-account-script=arctica-greeter-guest-account-script
```

```
[Seat:*
```

```
# disable guest sessions (a guest session requires a valid default  
# user-session parameter, see below)
```

```
allow-guest=true
```

```
# Change to disable guest - Ian 2022-06-27
```

```
#greeter-allow-guest=true
```

```
greeter-allow-guest=false
```

Additional Note on Control Centre: No “Startup Disk Creator”.

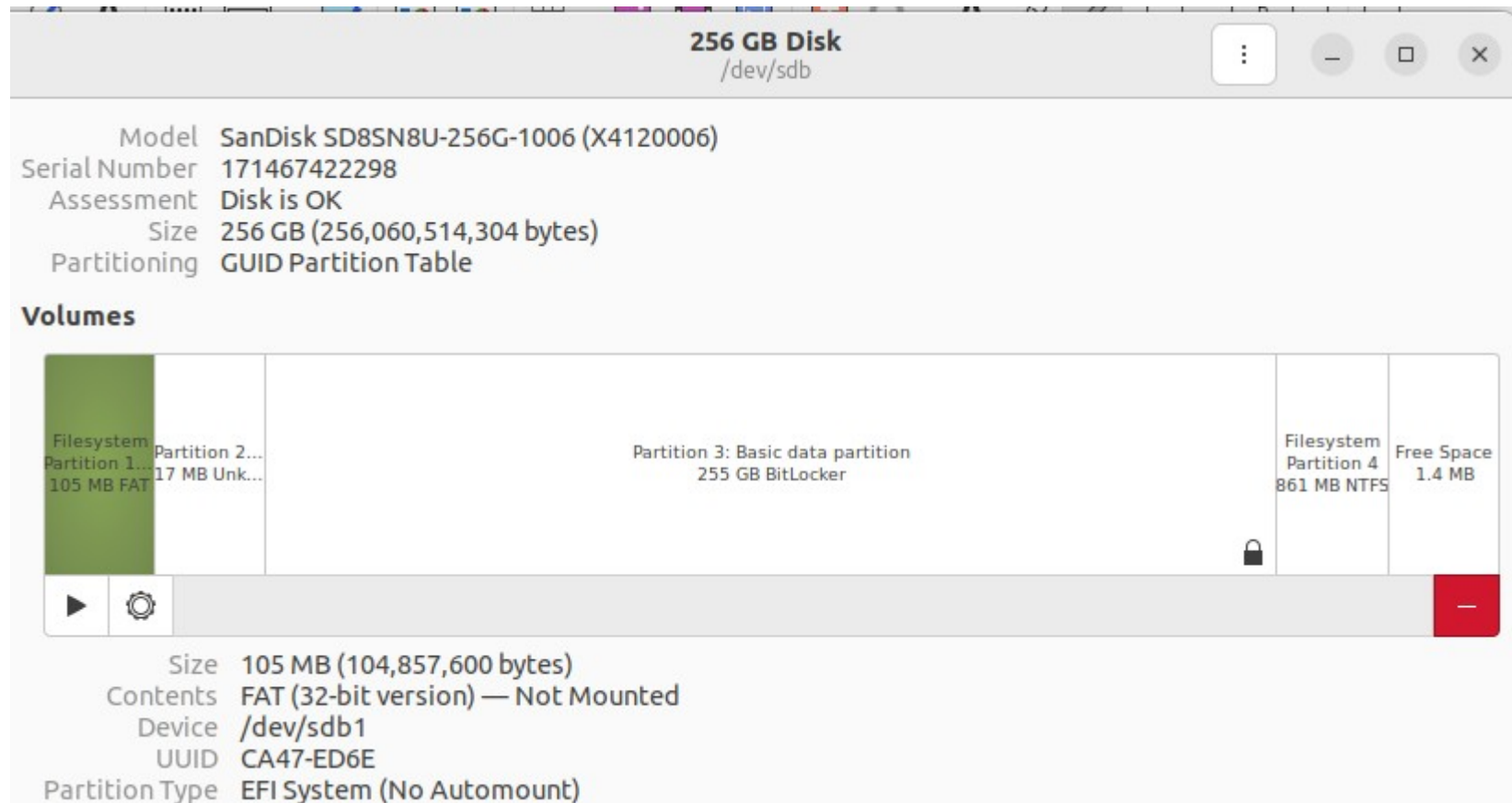
Display Grub menu.

```
ian@laptop:/etc/default$ cat grub
# If you change this file, run 'update-grub' afterwards to update
# /boot/grub/grub.cfg.
# For full documentation of the options in this file, see:
#   info -f grub -n 'Simple configuration'
```

```
GRUB_DEFAULT=0
# Changes by Ian 2022-06-21
#GRUB_TIMEOUT_STYLE=hidden
GRUB_TIMEOUT_STYLE=menu
#GRUB_TIMEOUT=0
GRUB_TIMEOUT=3
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""
```

UEFI Install

Shipped Drive. 256GB M2. Windows SSD. GUID Partition Table
Partitions: EFI, Reserved, Basic Data, Recovery.



UEFI Install

Adding new SSD for Linux installation.

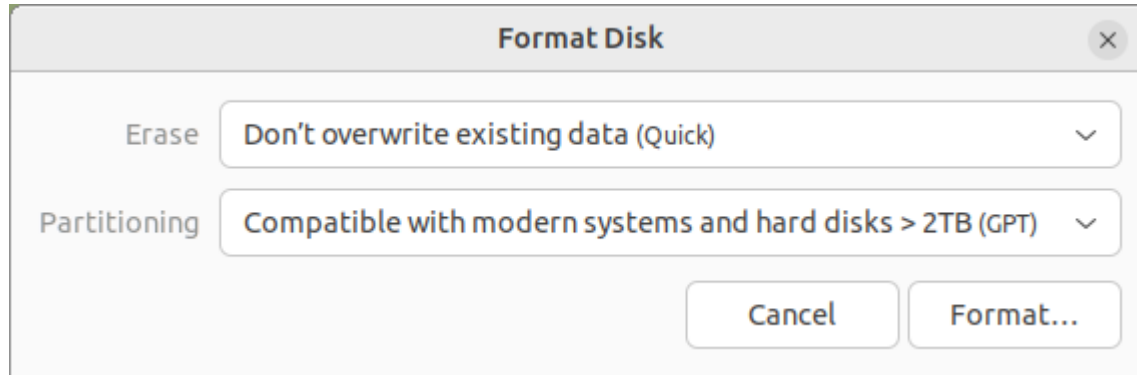
Change blank SSD from:

Master Boot Record (MBR)

to:

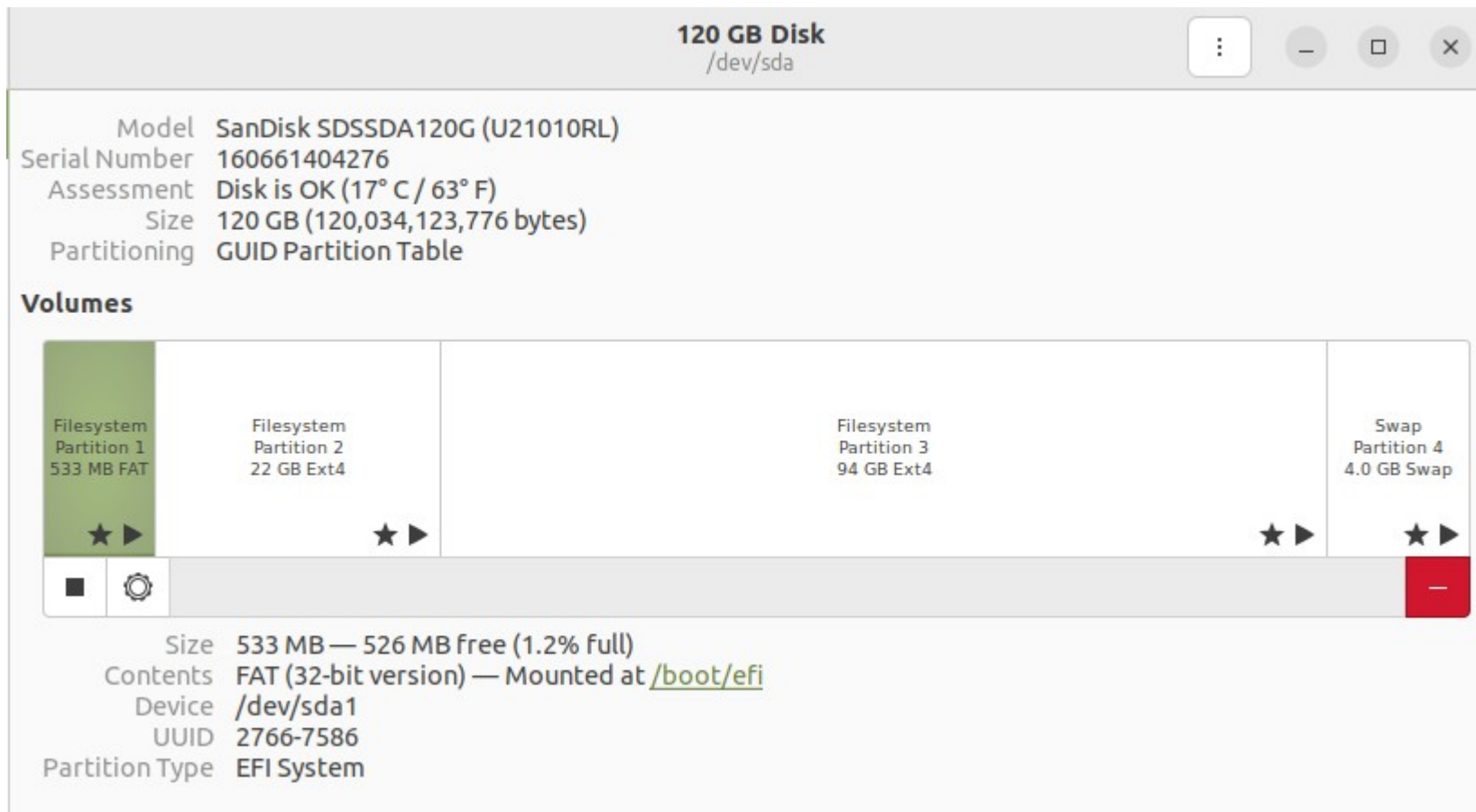
Globally Unique Identifier (GUID) Partition Table (GPT)

So BIOS doesn't use "legacy" mode.



UEFI Install

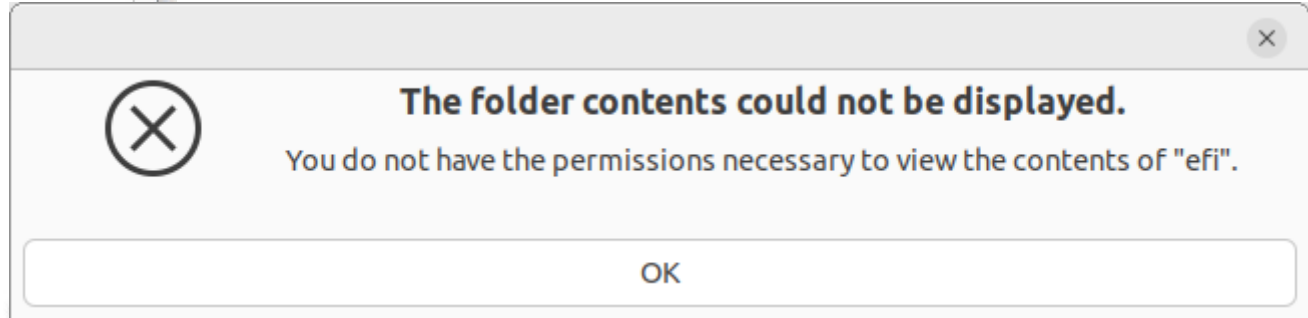
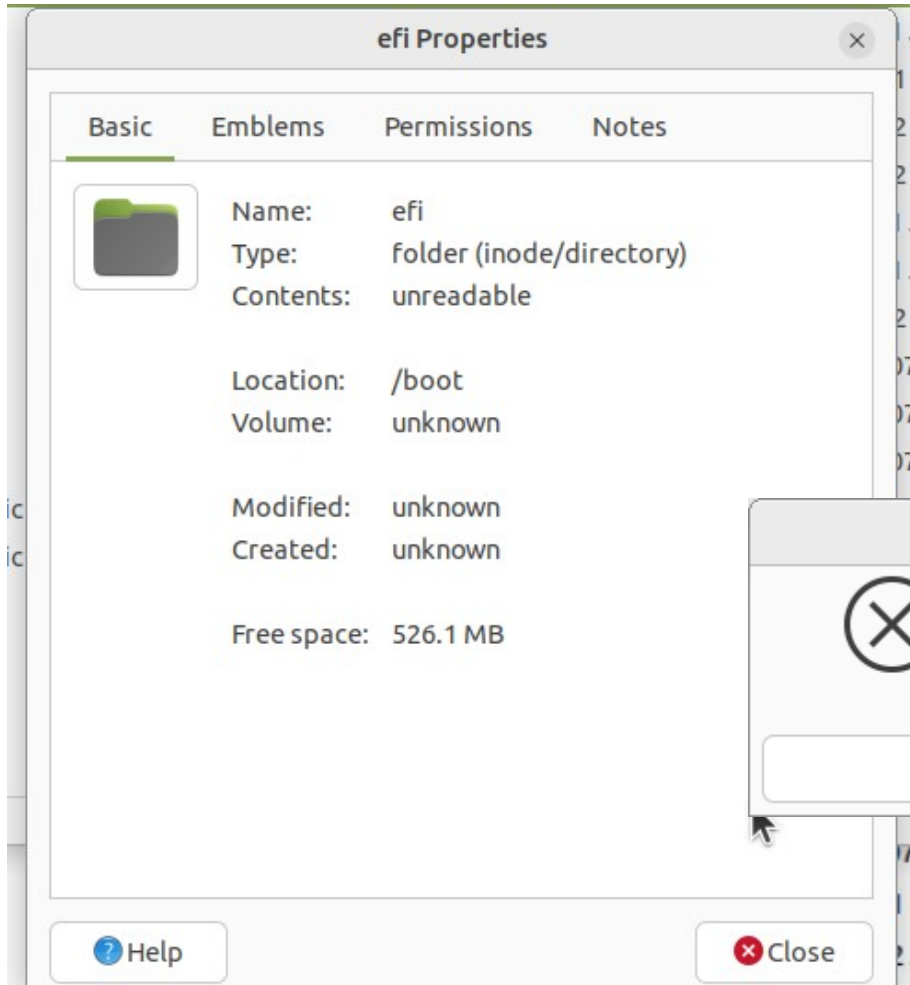
Added Drive. 120GB Sata 3 Linux SSD. GUID Partition Table
Partitions: EFI, Ext4 /, Ext4 /home, Swap



• UEFI Install Partition 1 Mounted at /boot/efi

boot				
Name	Size	Type	Date Modified	
> efi	? items	folder	unknown	
> grub	7 items	folder	Sat 11 Jun 2022 23:20:12	
config-5.15.0-25-generic	260.5 kB	plain text document	Thu 31 Mar 2022 04:28:11	
config-5.15.0-37-generic	261.2 kB	plain text document	Thu 02 Jun 2022 05:49:43	
initrd.img	105.6 MB	Link to Raw disk image	Sun 12 Jun 2022 17:56:50	
initrd.img.old	105.3 MB	Link to backup file	Sat 11 Jun 2022 22:27:57	
initrd.img-5.15.0-25-generic	105.3 MB	CPIO archive	Sat 11 Jun 2022 22:27:57	
initrd.img-5.15.0-37-generic	105.6 MB	CPIO archive	Sun 12 Jun 2022 17:56:50	
memtest86+.bin	182.8 kB	unknown	Mon 07 Feb 2022 09:35:43	
memtest86+.elf	184.5 kB	executable	Mon 07 Feb 2022 09:35:43	
memtest86+_multiboot.bin	185.0 kB	executable	Mon 07 Feb 2022 09:35:43	
System.map-5.15.0-25-generic	6.2 MB	unknown	Thu 31 Mar 2022 04:28:11	
System.map-5.15.0-37-generic	6.2 MB	unknown	Thu 02 Jun 2022 05:49:43	
vmlinuz	11.1 MB	Link to unknown	Thu 02 Jun 2022 06:11:24	
vmlinuz.old	11.1 MB	Link to backup file	Tue 19 Apr 2022 22:17:55	
vmlinuz-5.15.0-25-generic	11.1 MB	DOS/Windows executable	Tue 19 Apr 2022 22:17:55	
vmlinuz-5.15.0-37-generic	11.1 MB	unknown	Thu 02 Jun 2022 06:11:24	

• UEFI Install Partition 1 Mounted at /boot/efi



• UEFI Install Partition 1 Mounted at /boot/efi

```
root@ProBook:/boot/efi# ls
```

```
EFI 'System Volume  
Information'
```

```
root@ProBook:/boot/efi# tree *
```

```
EFI
```

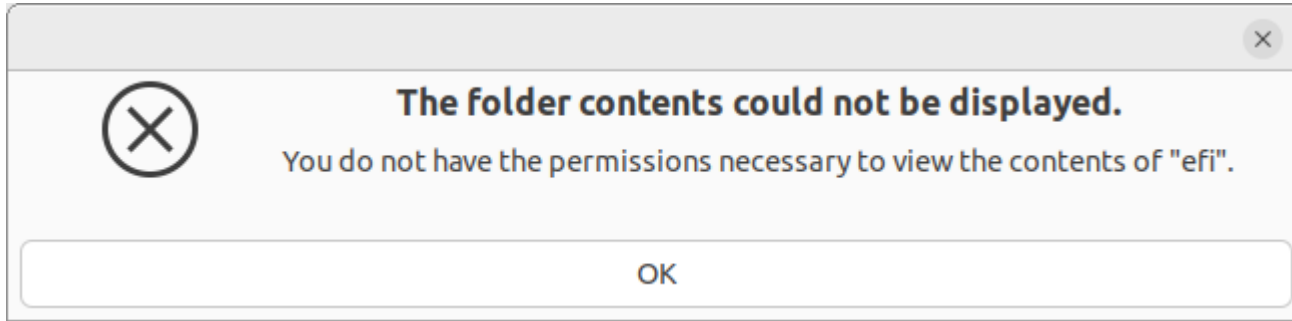
```
├── BOOT                                ./EFI/BOOT:
│   ├── BOOTX64.EFI                -rwx----- 1 root root 955656 Jun 11 21:41 BOOTX64.EFI
│   ├── fbx64.efi                  -rwx----- 1 root root  85672 Jun 11 21:41 fbx64.efi
│   └── mmx64.efi                  -rwx----- 1 root root 856232 Jun 11 21:41 mmx64.efi
└── ubuntu                          ./EFI/ubuntu:
    ├── BOOTX64.CSV                -rwx----- 1 root root    108 Jun 11 21:41 BOOTX64.CSV
    ├── grub.cfg                   -rwx----- 1 root root    126 Jun 11 21:41 grub.cfg
    ├── grubx64.efi                -rwx----- 1 root root 1742728 Jun 11 21:41 grubx64.efi
    ├── mmx64.efi                  -rwx----- 1 root root  856232 Jun 11 21:41 mmx64.efi
    └── shimx64.efi                -rwx----- 1 root root  955656 Jun 11 21:41 shimx64.efi
```

```
System Volume Information
```

- UEFI Install Partition 1 Mounted at /boot/efi

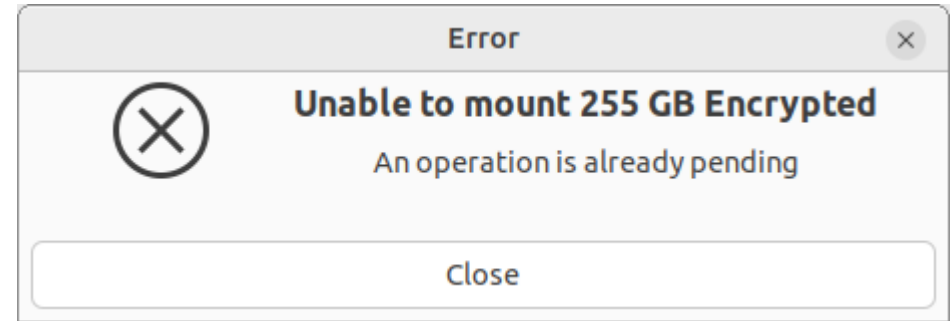
```
root@ProBook:/boot/efi# tree -h
[4.0K] .
├── [4.0K] EFI
│   ├── [4.0K] BOOT
│   │   ├── [933K] BOOTX64.EFI
│   │   ├── [ 84K] fbx64.efi
│   │   └── [836K] mmx64.efi
│   └── [4.0K] ubuntu
│       ├── [ 108] BOOTX64.CSV
│       ├── [ 126] grub.cfg
│       ├── [1.7M] grubx64.efi
│       ├── [836K] mmx64.efi
│       └── [933K] shimx64.efi
└── [4.0K] System Volume Information
```

- UEFI Install Try to examine M2 Windows drive



Try to examine M2 Windows drive.

Use sudo, but drive not visible



- UEFI Install Try to examine M2 Windows drive

```
root@ProBook:/boot/efi/EFI/ubuntu# lsblk -f
```

NAME	FSTYPE	FSVER	LABEL	UUID	FSAVAIL	FSUSE%	MOUNTPOINTS
loop0	squashfs	4.0			0	100%	/snap/bare/5
loop1	squashfs	4.0			0	100%	/snap/core18/2409
loop2	squashfs	4.0			0	100%	/snap/core20/1405
loop3	squashfs	4.0			0	100%	/snap/core20/1518
loop4	squashfs	4.0			0	100%	/snap/firefox/1232
loop5	squashfs	4.0			0	100%	/snap/firefox/1443
loop6	squashfs	4.0			0	100%	/snap/gnome-3-38-2004/106
loop7	squashfs	4.0			0	100%	/snap/gnome-3-38-2004/99
loop8	squashfs	4.0			0	100%	/snap/gtk-common-themes/1534
loop9	squashfs	4.0			0	100%	/snap/snapd/15177
loop10	squashfs	4.0			0	100%	/snap/snapd/16010
loop11	squashfs	4.0			0	100%	/snap/snapd-desktop-integration/10
loop12	squashfs	4.0			0	100%	/snap/snapd-desktop-integration/14
loop13	squashfs	4.0			0	100%	/snap/software-boutique/57
loop14	squashfs	4.0			0	100%	/snap/ubuntu-mate-welcome/709
loop15	squashfs	4.0			0	100%	/snap/zoom-client/170
sda							
sda1	vfat	FAT32		2766-7586	501.7M	1%	/boot/efi
sda2	ext4	1.0		34ab40ce-9234-471e-8422-92123215df93	9.9G	44%	/
sda3	ext4	1.0		44015b24-2a93-4813-b89c-06879d692ff6	25.8G	65%	/home
sda4	swap	1		ed765d00-1815-427b-a075-f95e2d4e6e0f			[SWAP]
sdb							
sdb1	vfat	FAT32		CA47-ED6E			
sdb2							
sdb3	BitLocker	2					
sdb4	ntfs			CA44B44A44B43AD1			
sr0							

• UEFI Install /etc/default/grub

```
ian@ProBook:/etc/default$ cat grub
# If you change this file, run 'update-grub' afterwards to update
# /boot/grub/grub.cfg.
# For full documentation of the options in this file, see:
#   info -f grub -n 'Simple configuration'
```

```
GRUB_DEFAULT=0
# Set by Ian to menu
#GRUB_TIMEOUT_STYLE=hidden
GRUB_TIMEOUT_STYLE=menu
# Changed by Ian to 3 was 0
GRUB_TIMEOUT=3
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="quiet splash"
GRUB_CMDLINE_LINUX=""
```

```
# Add by Ian to see if it finds Windows disk
GRUB_DISABLE_OS_PROBER=false
```

- **UEFI Install** Grub menu at boot time

Grub menu will appear if you press “shift” during loading grub if you boot with BIOS.

When your system boots using UEFI press “Esc”.

- **UEFI Install** Which boot, UEFI or MBR?

Bash “test” command checks file types and compares values.
“-d” for file exists and is a directory

```
test -d /sys/firmware/efi && echo efi || echo bios
```

Returns either: efi or bios

Questions...