

Ubuntu 20.04

Gnome and Mate - Desktop

Waikato Linux Users Group

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Ubuntu 20.04 ~ History

- First released in Oct 2004.
- 33 Releases
- 6 Monthly releases April and October.
- LTS every two years. 16.04, 18.04, 20.04
- Normal Support 5 years
- Extended Security Maintenance 10 years.
- Server edition plus 8 desktop flavours
- Default desktop since Oct 2017 – Gnome3
- Mate desktop flavour since April 2014

Ubuntu 20.04 ~ Flavours

As well as Server and default Gnome desktop

Current flavors

Kubuntu



Kubuntu offers KDE's Plasma Workspace experience on top of the Ubuntu core system. Built using the Qt toolkit it offers a modern, good-looking and stable system for home and office use.

Lubuntu



Lubuntu is a faster, more lightweight and energy saving variant of Ubuntu originally using LXDE, the Lightweight X11 Desktop Environment. Starting with 18.10 "Cosmic Cuttlefish," the desktop environment was switched to LXQt and a set of Qt-based applications. It is targeted at everyday PC and laptop users running on low-spec hardware.

Ubuntu Budgie



Ubuntu Budgie provides the Budgie desktop environment which focuses on simplicity and elegance. It provides a traditional desktop metaphor-based interface, utilizing a customizable, panel-based, menu driven system.

Ubuntu Kylin



The objective of the **Ubuntu Kylin** project is to create a variant of Ubuntu that is specifically suited for Chinese speakers across the globe, especially those without any experience using operating systems other than Microsoft Windows. Development is driven by a commitment to providing a simpler and more enjoyable experience out-of-the-box.

Ubuntu MATE



Ubuntu MATE aims to bring the simplicity and elegance of the Ubuntu operating system through a classic, traditional desktop environment: the MATE desktop. MATE is the continuation of the GNOME 2 desktop environment, which was used as Ubuntu's default desktop until 10.10 "Maverick Meerkat".

Ubuntu Studio



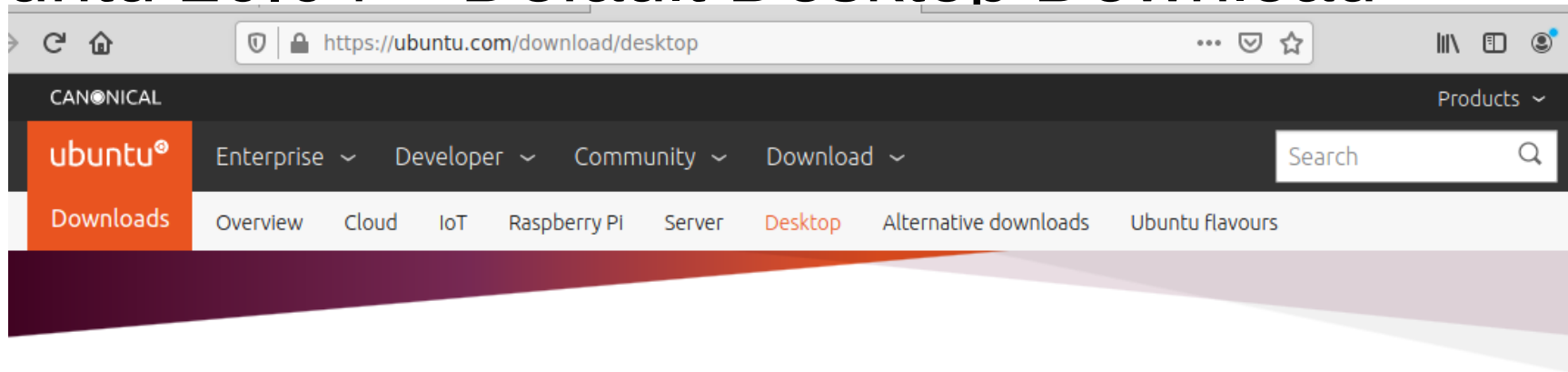
Ubuntu Studio is a community supported multimedia creation flavor of Ubuntu. Ubuntu Studio is aimed at the GNU/Linux audio, video and graphic creators, be they enthusiasts or professionals.

Xubuntu



Xubuntu is an elegant and easy to use operating system. Xubuntu comes with Xfce, which is a stable, light and configurable desktop environment.

Ubuntu 20.04 ~ Default Desktop Download



Download Ubuntu Desktop

<https://ubuntu.com/download/desktop>

Ubuntu 20.04 LTS

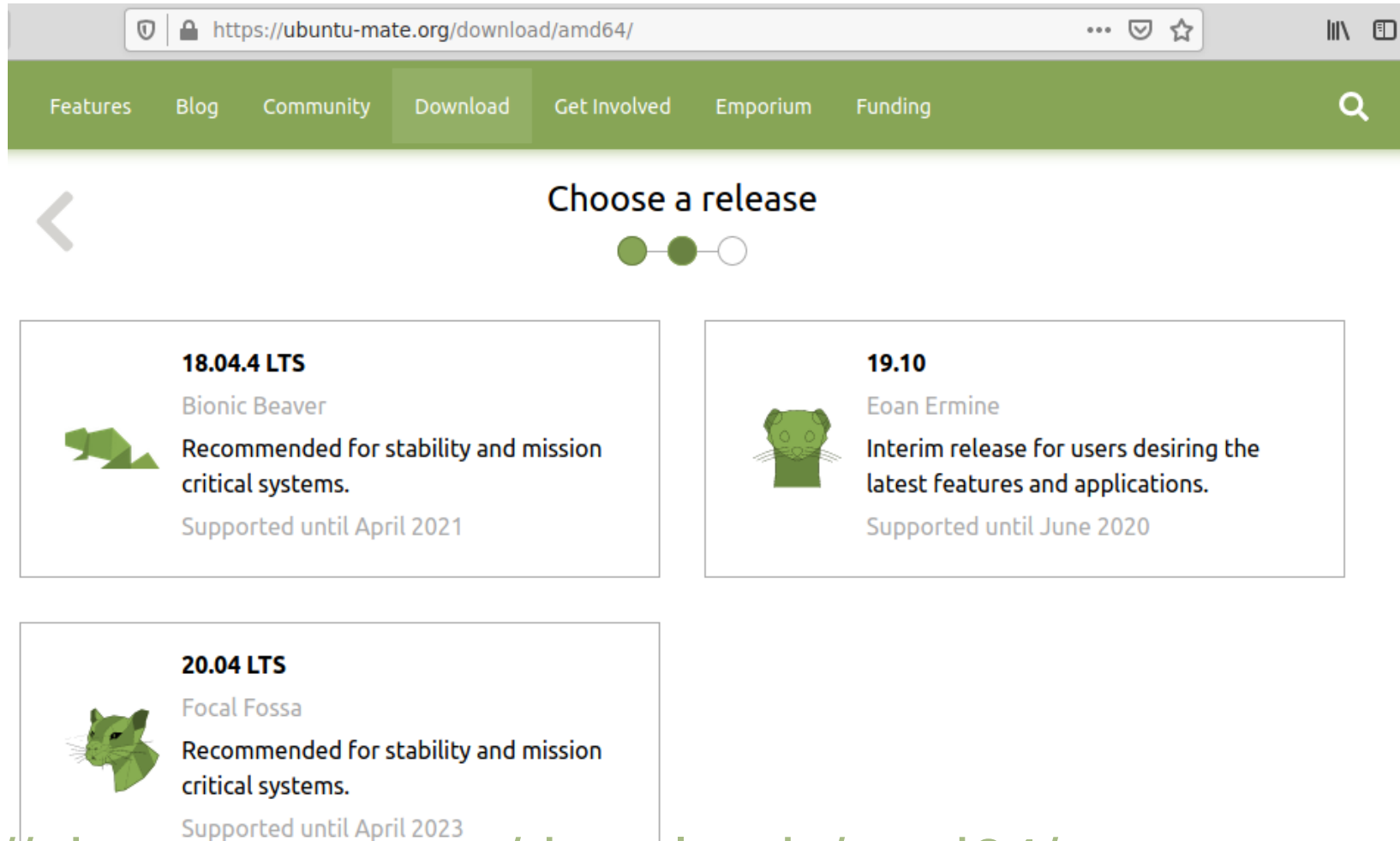
Download the latest LTS version of Ubuntu, for desktop PCs and laptops. LTS stands for long-term support — which means five years, until April 2025, of free security and maintenance updates, guaranteed.

[Ubuntu 20.04 LTS release notes](#)

[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 20.04 ~ Mate download




The screenshot shows a web browser window with the URL <https://ubuntu-mate.org/download/amd64/>. The page has a green navigation bar with links: Features, Blog, Community, Download (highlighted), Get Involved, Emporium, and Funding. A search icon is on the right. Below the navigation bar, the heading "Choose a release" is centered, with a back arrow on the left and a progress indicator (two green circles, one white) below it. Three release cards are displayed:


- 18.04.4 LTS**
Bionic Beaver
Recommended for stability and mission critical systems.
Supported until April 2021
- 19.10**
Eoan Ermine
Interim release for users desiring the latest features and applications.
Supported until June 2020
- 20.04 LTS**
Focal Fossa
Recommended for stability and mission critical systems.
Supported until April 2023


<https://ubuntu-mate.org/downloads/amd64/>


Ubuntu 20.04 ~ Mate. 2.3GB iso file.




Choose a download

**BitTorrent**
Receive the file distributed and verified by multiple computers.

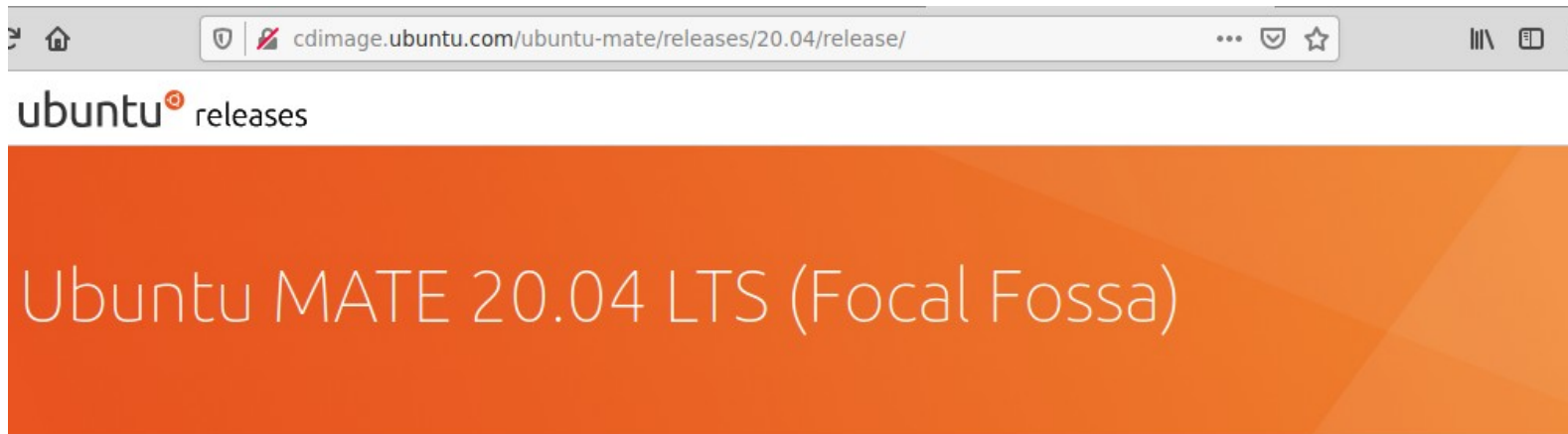
**Magnet Link**
Open my BitTorrent client.

**Direct Download**
Via your web browser.

File Name	ubuntu-mate-20.04-desktop-amd64.iso
File Size	2.3 GB
Checksum (SHA256) 	a298764d9d2615c6fc5e99c7dddd9d7687f885821e6915c57daf9747b9c33445

Ubuntu 20.04 ~ cdimage repository

<http://cdimage.ubuntu.com/ubuntu-mate/releases/20.04/release/>



Select an image

Desktop image

The desktop image allows you to try Ubuntu-MATE without changing your computer at all, and at your option to install it permanently later. This type of image is what most people will want to use. You will need at least 1024MiB of RAM to install from this image.

64-bit PC (AMD64) desktop image

Choose this if you have a computer based on the AMD64 or EM64T architecture (e.g., Athlon64, Opteron, EM64T Xeon, Core 2). Choose this if you are at all unsure.

Ubuntu 20.04 ~ cdimage repository

<http://cdimage.ubuntu.com/ubuntu-mate/releases/20.04/release/>

ubuntu-mate-20.04-desktop-amd64.iso	2020-04-23 08:00	2.2G
ubuntu-mate-20.04-desktop-amd64.iso.torrent	2020-04-23 13:35	44K
ubuntu-mate-20.04-desktop-amd64.iso.zsync	2020-04-23 13:35	4.3M
ubuntu-mate-20.04-desktop-amd64.list	2020-04-23 08:00	16K
ubuntu-mate-20.04-desktop-amd64.manifest	2020-04-23 07:56	59K
ubuntu-mate-20.04-desktop-amd64.metalink	2020-04-23 13:35	1.0K

Ubuntu 20.04 ~ Online upgrade from 18.04 or 19.10

System

Processes

Resources

File Systems



X300

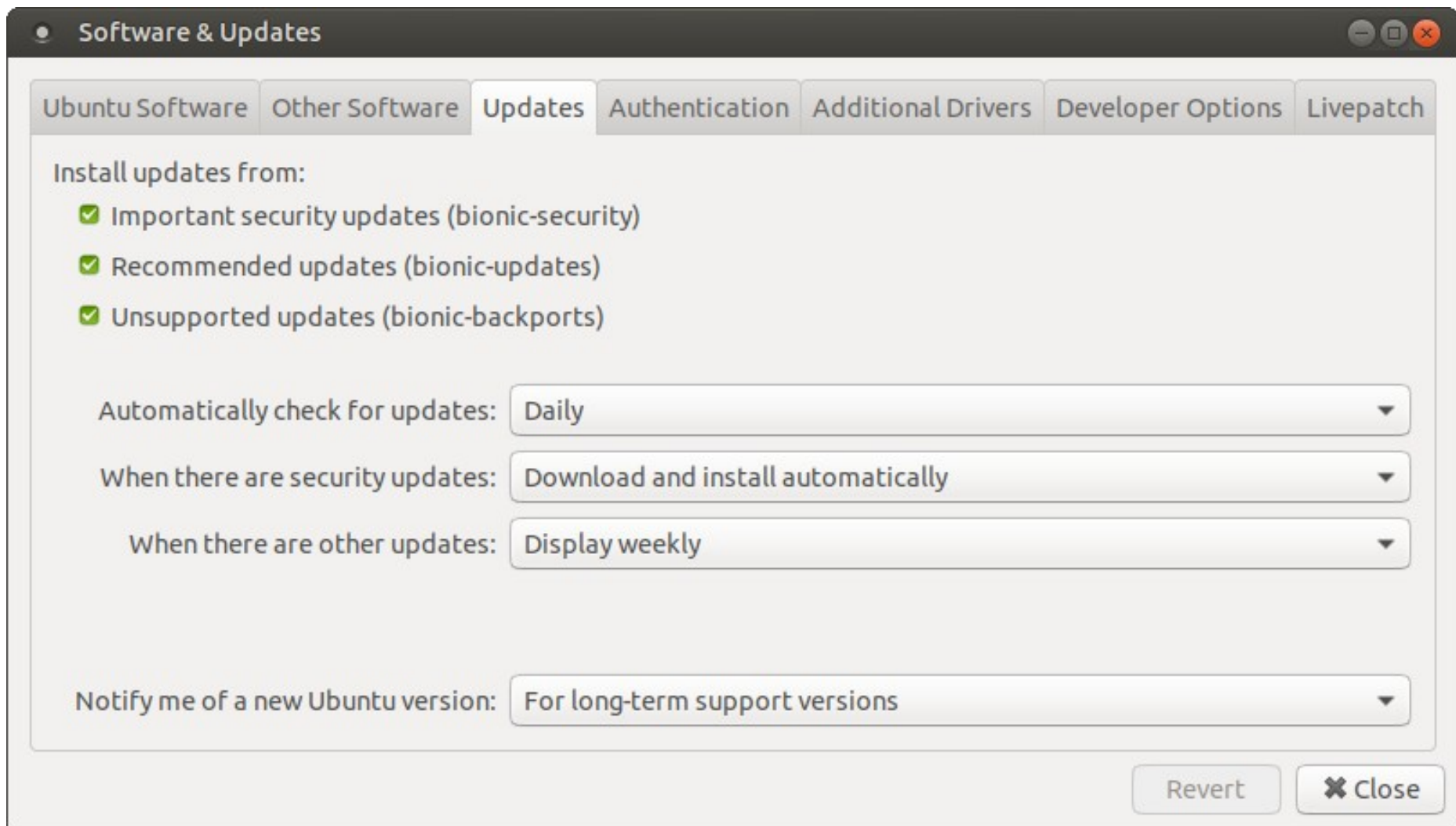
"Ubuntu"

Release 18.04.4 LTS (Bionic Beaver) 64-bit

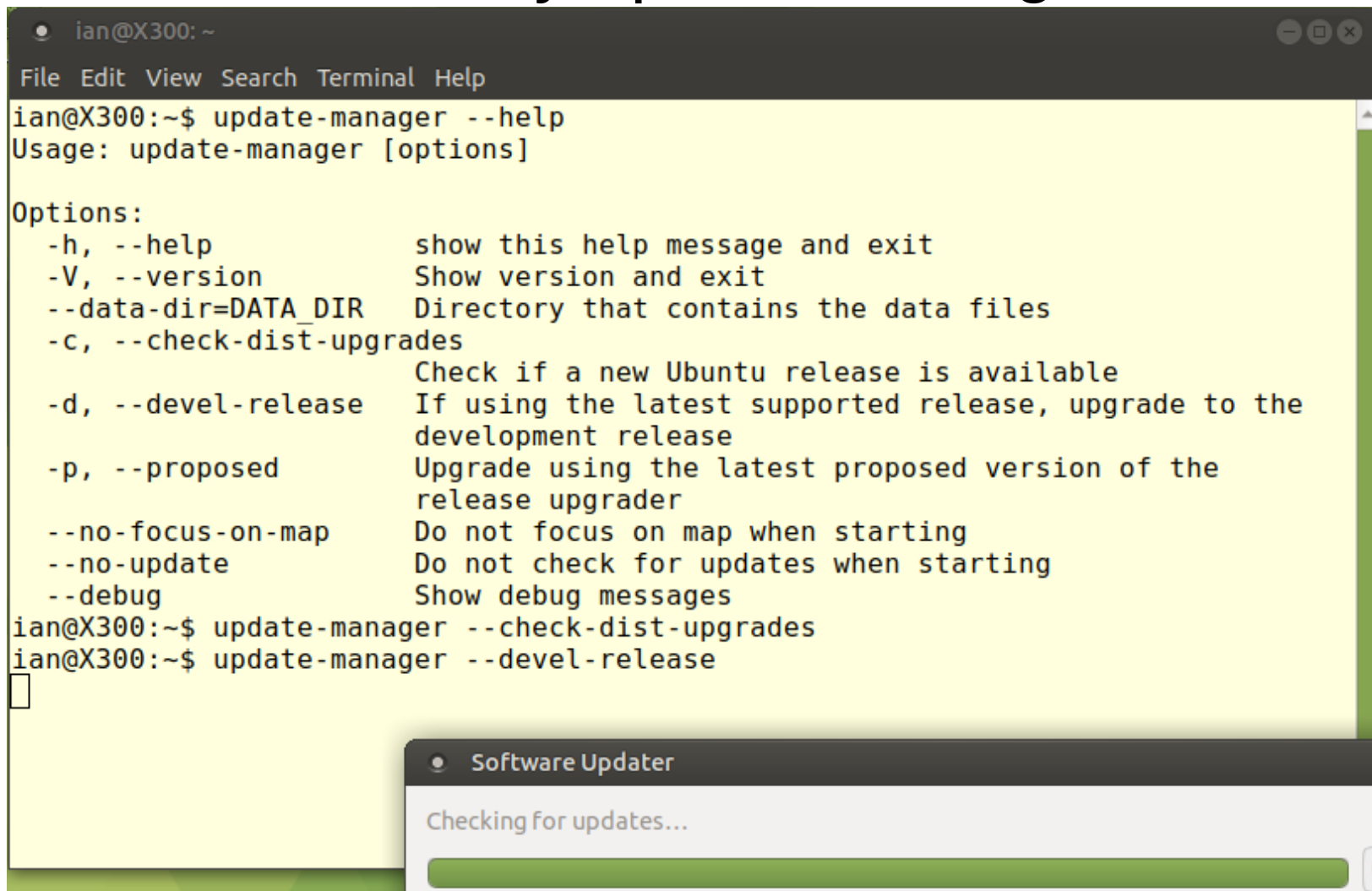
Kernel Linux 4.15.0-96-generic x86_64

MATE 1.20.1

Ubuntu 20.04 ~ Notification once 20.04.1 released



Ubuntu 20.04 ~ Try update-manager



The image shows a terminal window titled 'ian@X300: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal output shows the command 'update-manager --help' and its usage information. Below the help text, two commands are entered: 'update-manager --check-dist-upgrades' and 'update-manager --devel-release'. In the foreground, a 'Software Updater' window is open, displaying 'Checking for updates...' and a green progress bar. A 'Stop' button is visible in the bottom right corner of the Software Updater window.

```
ian@X300:~$ update-manager --help
Usage: update-manager [options]

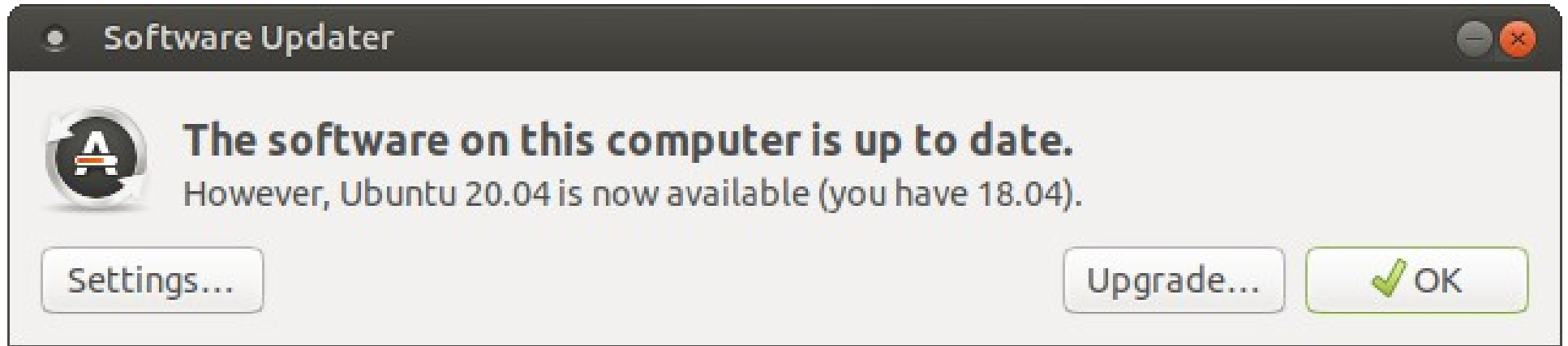
Options:
  -h, --help                show this help message and exit
  -V, --version              Show version and exit
  --data-dir=DATA_DIR       Directory that contains the data files
  -c, --check-dist-upgrades  Check if a new Ubuntu release is available
                             If using the latest supported release, upgrade to the
                             development release
  -d, --devel-release        Upgrade using the latest proposed version of the
                             release upgrader
  -p, --proposed             Do not focus on map when starting
  --no-focus-on-map          Do not check for updates when starting
  --no-update                Show debug messages
  --debug
ian@X300:~$ update-manager --check-dist-upgrades
ian@X300:~$ update-manager --devel-release
```

Software Updater

Checking for updates...

Stop

Ubuntu 20.04 ~ Notification message



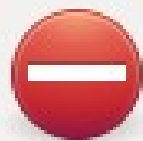
Ubuntu 20.04 ~ Upgrading to 20.04



Ubuntu 20.04 ~ Oops not going to plan



(as superuser)



Could not calculate the upgrade

An unresolvable problem occurred while calculating the upgrade.

This was caused by:

- * Upgrading to a pre-release version of Ubuntu

This is most likely a transient problem,
please try again later.

If none of this applies, then please report this bug using the command 'ubuntu-bug ubuntu' will contain details about the upgrade. Specifically, look at 'main.log' and 'ap'

Ubuntu 20.04 ~ Upgrading the Debian way

• ian@X300: ~

File Edit View Search Terminal Help

```
ian@X300:~$ cat /etc/apt/sources.list
```

```
#deb cdrom:[Ubuntu-MATE 18.04.1 LTS _Bionic Beaver_ - Release amd64 (20180725)]  
deb http://archive.ubuntu.com/ubuntu/ bionic main restricted  
# deb-src http://archive.ubuntu.com/ubuntu/ bionic main restricted  
# See http://help.ubuntu.com/community/UpgradeNotes for how to upgrade to  
# newer versions of the distribution.  
deb http://nz.archive.ubuntu.com/ubuntu/ bionic main restricted  
# deb-src http://nz.archive.ubuntu.com/ubuntu/ bionic main restricted  
## Major bug fix updates produced after the final release of the  
## distribution.  
deb http://nz.archive.ubuntu.com/ubuntu/ bionic-updates main restricted  
# deb-src http://nz.archive.ubuntu.com/ubuntu/ bionic-updates main restricted  
## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu  
## team. Also, please note that software in universe WILL NOT receive any  
## review or updates from the Ubuntu security team.
```

Ubuntu 20.04 ~ Change bionic to focal

```
1 #deb cdrom:[Ubuntu-MATE 18.04.1 LTS _focal Beaver_ - Release amd64 (20180725)]
2
3 # See http://help.ubuntu.com/community/UpgradeNotes for how to upgrade to
4 # newer versions of the distribution.
5 deb http://nz.archive.ubuntu.com/ubuntu/ focal main restricted
6 # deb-src http://nz.archive.ubuntu.com/ubuntu/ focal main restricted
7
8 ## Major bug fix updates produced after the final release of the
9 ## distribution.
10 deb http://nz.archive.ubuntu.com/ubuntu/ focal-updates main restricted
11 # deb-src http://nz.archive.ubuntu.com/ubuntu/ focal-updates main restricted
12
13 ## N.B. software from this repository is ENTIRELY UNSUPPORTED by the Ubuntu
14 ## team. Also, please note that software in universe WILL NOT receive any
15 ## review or updates from the Ubuntu security team.
16 deb http://nz.archive.ubuntu.com/ubuntu/ focal universe
17 # deb-src http://nz.archive.ubuntu.com/ubuntu/ focal universe
18 deb http://nz.archive.ubuntu.com/ubuntu/ focal-updates universe
19 # deb-src http://nz.archive.ubuntu.com/ubuntu/ focal-updates universe
```


Ubuntu 20.04 ~ Getting ready to update

```
ian@X300:~$ sudo apt update
Hit:1 http://nz.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://nz.archive.ubuntu.com/ubuntu focal-updates InRelease [106 kB]
Hit:3 http://nz.archive.ubuntu.com/ubuntu focal-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu focal-security InRelease [107 kB]
Fetched 213 kB in 2s (101 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
1545 packages can be upgraded. Run 'apt list --upgradable' to see them.
ian@X300:~$ █
```

Ubuntu 20.04 ~ Almost...

```
ian@X300:~$ sudo apt -y dist-upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Error!
Some packages could not be installed. This may mean that you have
requested an impossible situation or if you are using the unstable
distribution that some required packages have not yet been created
or been moved out of Incoming.
The following information may help to resolve the situation:

The following packages have unmet dependencies:
 libgirepository-1.0-1 : Breaks: python-gi (< 3.34.0-4~) but 3.26.1-2ubuntu1 is to be installed
E: Error, pkgProblemResolver::Resolve generated breaks, this may be caused by held packages.
ian@X300:~$ █
```


Ubuntu 20.04 ~

```
Setting up mate-menu (20.04.3-0ubuntu1) ...  
Processing triggers for libc-bin (2.31-0ubuntu9) ...  
Errors were encountered while processing:  
 cups-daemon  
 cups-core-drivers  
 cups  
  
E: Sub-process /usr/bin/dpkg returned an error code (1)  
ian@X300:~$
```

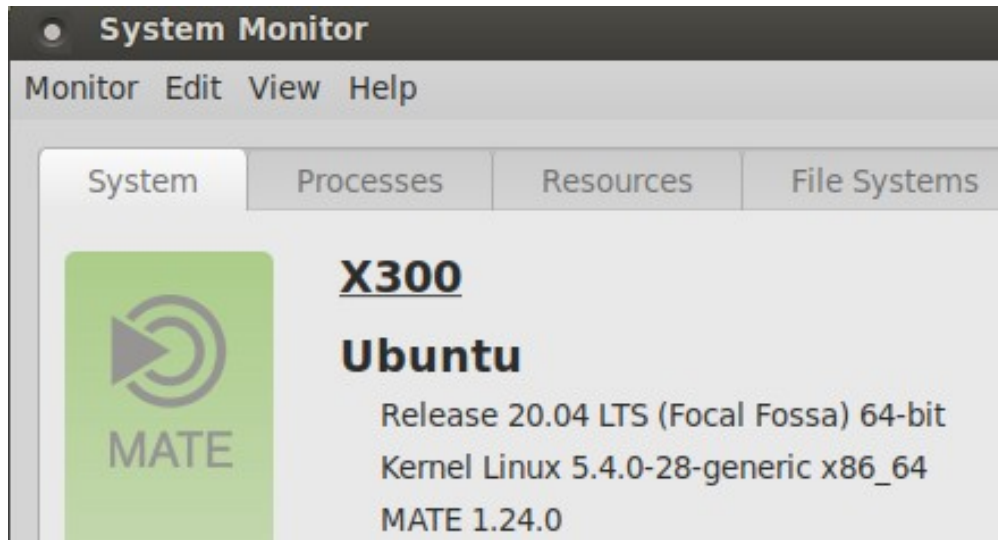
Ubuntu 20.04 ~

```
ian@X300:~$ sudo apt -y -f full-upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
```

```
1355 upgraded, 231 newly installed, 29 to remove and 0 not upgraded.
3 not fully installed or removed.
Need to get 1,103 MB of archives.
After this operation, 1,679 MB of additional disk space will be used.
```

Ubuntu 20.04 ~ Complete upgrade and reboot.

```
Get:1586 http://nz.archive.ubuntu.com/ubuntu focal/main amd64 usb-modeswitch
Fetched 1,103 MB in 4min 2s (4,550 kB/s)
Extracting templates from packages: 100%
Processing triggers for ureadahead (0.100.0-21) ...
Processing triggers for sgml-base (1.29.1) ...
W: APT had planned for dpkg to do more than it reported back (8055 vs 8059).
   Affected packages: cups-daemon:amd64
ian@X300:~$
```



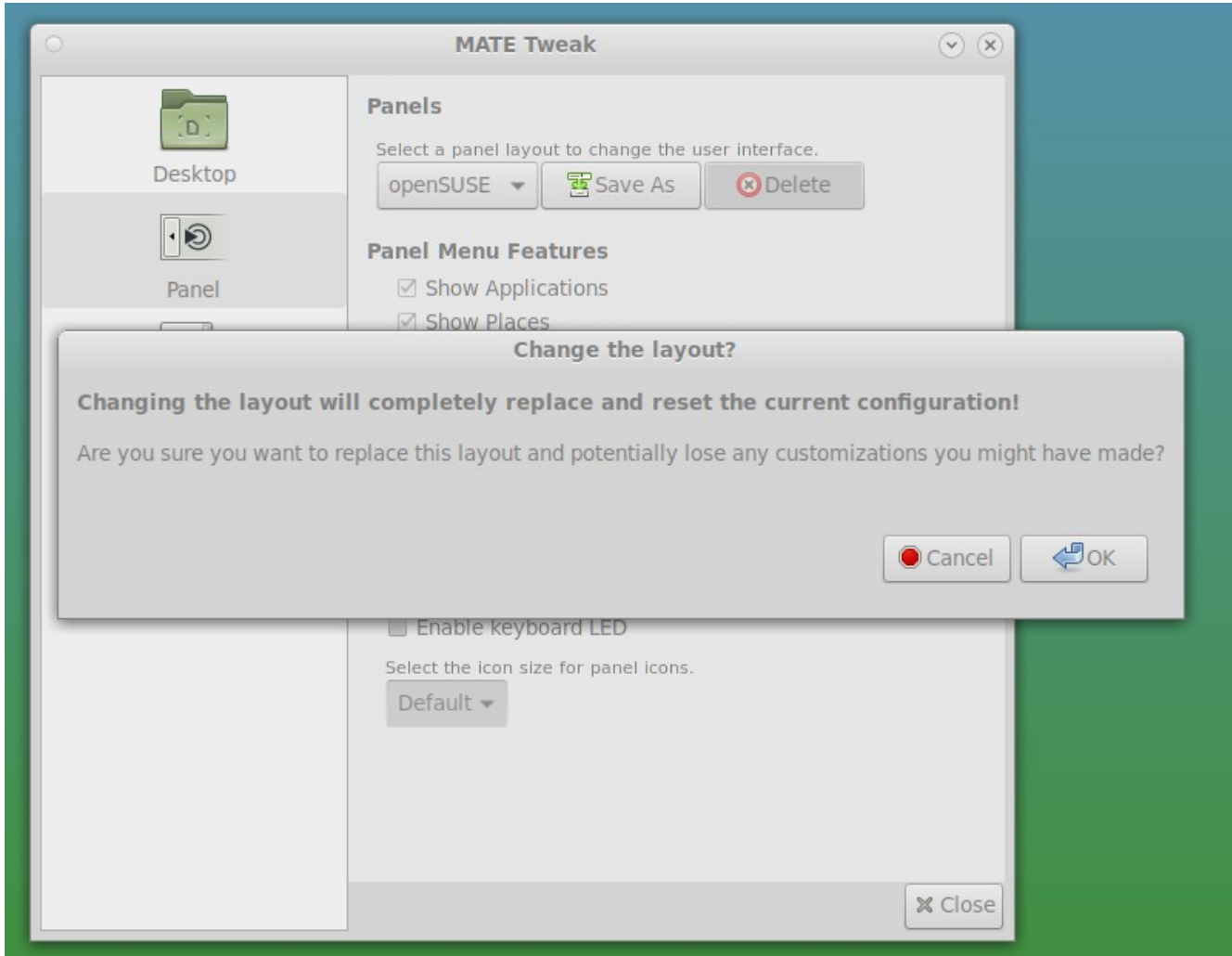
Ubuntu 20.04 ~ Looking around

```
ian@X300:~$ uname -a
Linux X300 5.4.0-28-generic #32-Ubuntu SMP Wed Apr 22 17:40:10 UTC 2020
nux
ian@X300:~$ █
```

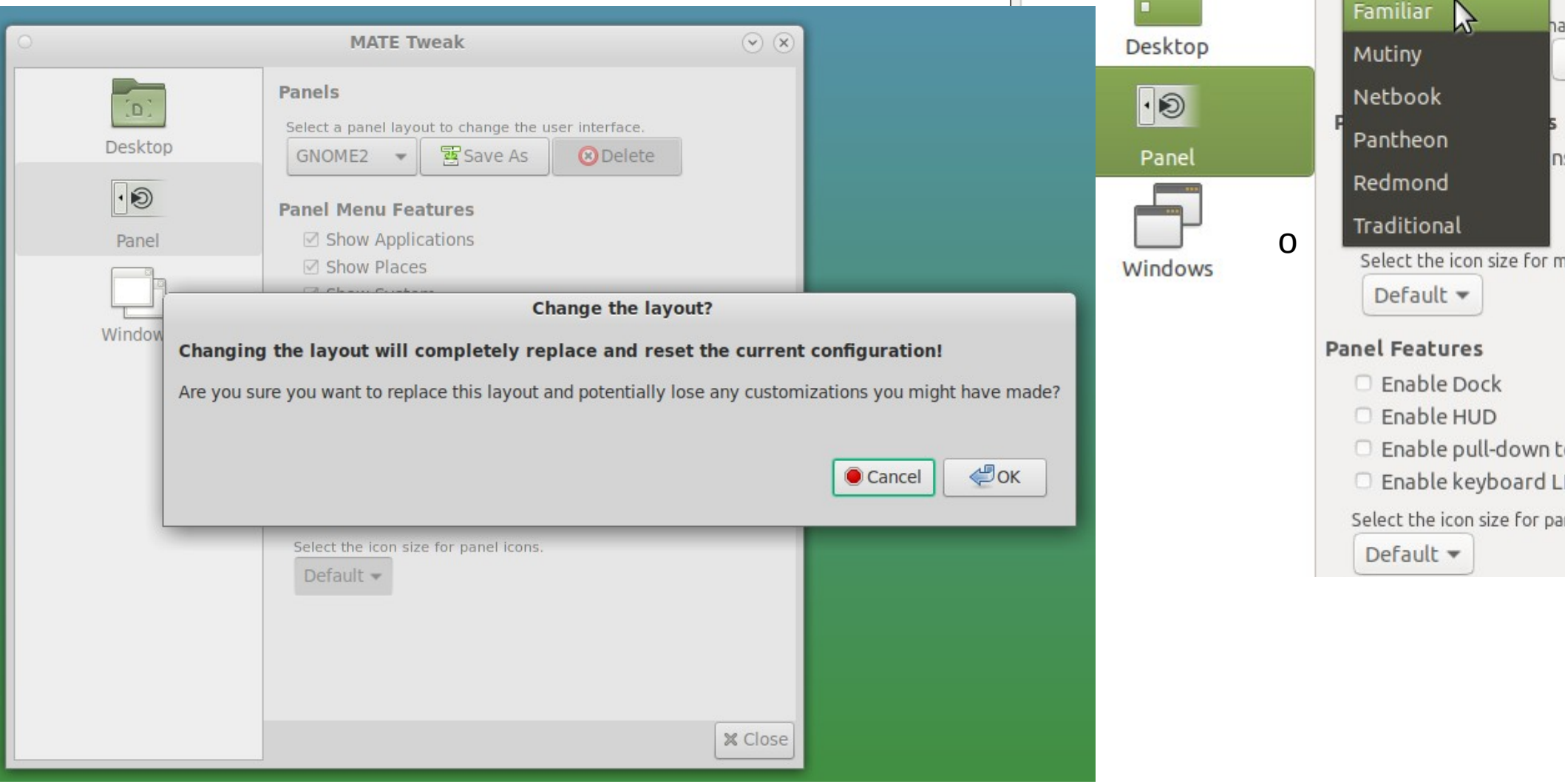
```
ian@X300:~$ cat /etc/debian_version
bullseye/sid
ian@X300:~$ █
```

```
ian@X300:~$ python3
Python 3.8.2 (default, Apr 27 2020, 15:53:34)
[GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information
>>> █
```

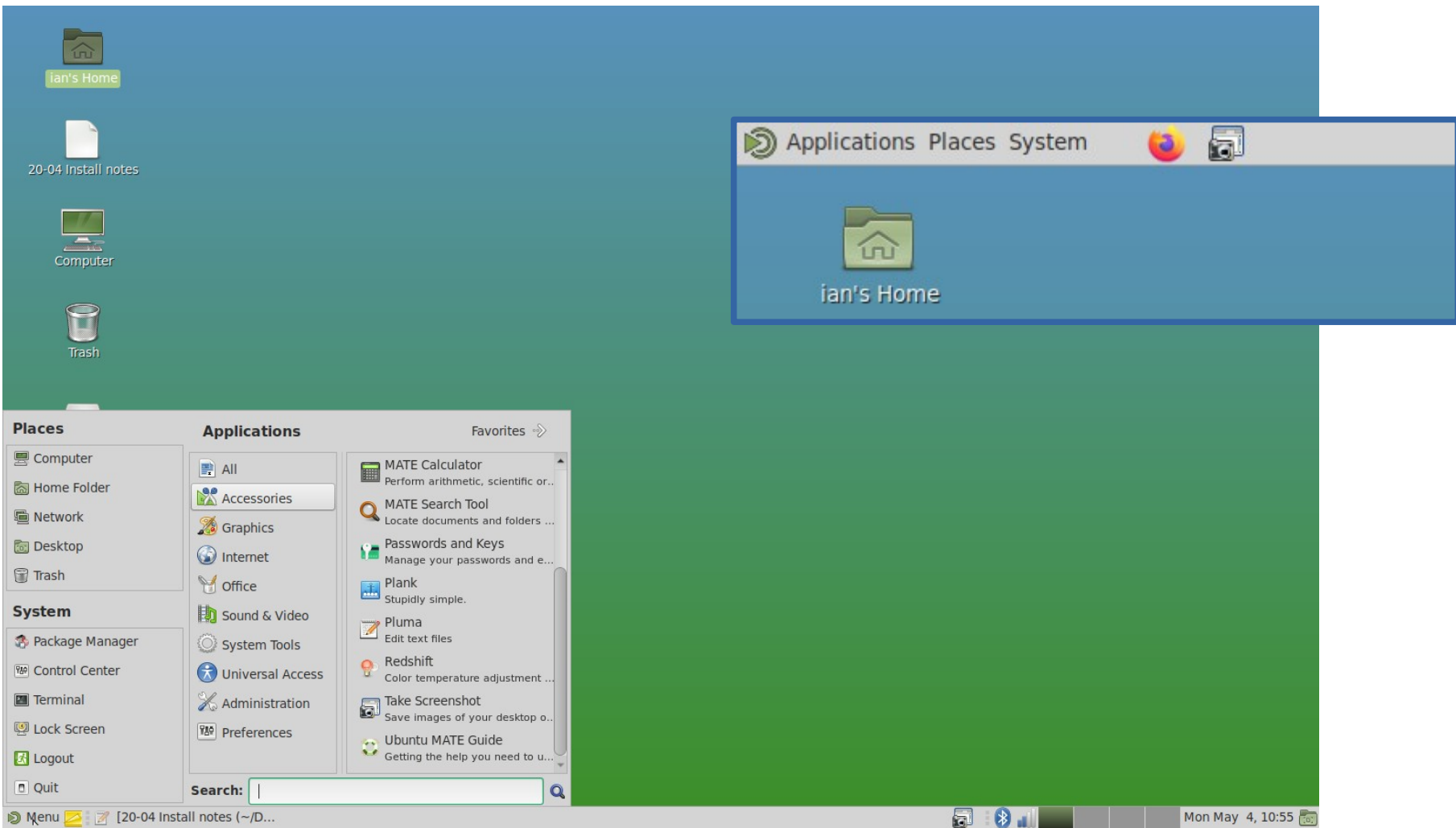
Ubuntu 20.04 ~ Weird Stuff



Ubuntu 20.04 ~ Weird Stuff



Ubuntu 20.04 ~ Weird Stuff



Ubuntu 20.04 ~ USB install observations

Download iso, copy to USB Stick, boot USB stick

Checks data integrity on the USB stick on booting stick

After finishes needs 30 ~ 40 patch kits. Include cups

Linux from 5.4.0.26 to 5.4.0.28

Mate defaults to one “Menu” icon on system menu tray

Has Control centre with Mate tweak Familiar/Traditional

Python 3.8.2

Ubuntu 20.04 ~ Mate – New Features - Highlights

<https://ubuntu-mate.org/blog/ubuntu-mate-focal-fossa-release-notes/>

- Control Centre – Welcome – Colour Selection
- Mate 1.24.0 (previously 1.20)
- Python2 not installed. Python-is-python3 app
- Firmware updater - a GTK front end for fwupd
- Invisible window corners - windows easily resized
- Mate Tweak – Panel Switching bug fixed
- Two network status icons being displayed is fixed.
- MATE Window Applets received a number of bug fixes
- Indicator that provides a “notification center”
- Evolution replaces Thunderbird
- Date/Time integrates with Evolution. No seconds?
- Celluloid GTK front-end for MPV

Ubuntu 20.04 ~ Mate – New Features - Highlights

<https://wiki.ubuntu.com/FocalFossa/ReleaseNotes>

- Linux 5.4 Built in support for the WireGuard VPN.
- glibc 2.31 OpenJDK 11 rustc 1.41 GCC 9.3 Python 3.8.2
- Mesa 20.0 OpenGL stack
- BlueZ 5.53
- Thunderbird 68.7.0
- LibreOffice 6.4
- Dock. Can disable it completely.

Ubuntu 20.04 ~ Questions and Demos

```
ian@X300:~$ cat /etc/lsb-release
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=20.04
DISTRIB_CODENAME=focal
DISTRIB_DESCRIPTION="Ubuntu 20.04 LTS"
ian@X300:~$ █
```