



Vitis installation (made by仕庭)

前言:

本來有嘗試使用ubuntu 20.04 安裝 vitis 2022.1 但堅持數天嘗試仍失敗告終

故退而求其次使用2020.1 ...，以下資訊皆為Daxtin於2023/11/21驗證可行，附上虛擬機硬體配置

Device	Summary
Memory	4 GB
Processors	2
Hard Disk (SCSI)	400 GB
CD/DVD 2 (SATA)	Using file C:\Users\timta\Do...
CD/DVD (SATA)	Using file autoinst.iso
Floppy	Using file autoinst.flp
Network Adapter	NAT
USB Controller	Present
Sound Card	Auto detect
Display	Auto detect

如果windows電腦硬碟足夠(200G)，也可以嘗試直接安裝在電腦中(丁慧慈學姊組可順利使用)

正文:

1. 下載VMware workstation

<https://www.vmware.com/products/workstation-pro/workstation-pro-evaluation.html>

workstation 17 pro

金鑰: <https://gist.github.com/PurpleVibe32/30a802c3c8ec902e1487024cdea26251>

2. 下載ubuntu 18.04

[Index of /releases/18.04.5 \(ubuntu.com\)](https://ubuntu.com/releases/18.04.5)

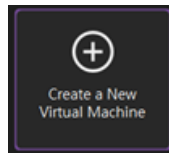
ubuntu18.04.4 版本很重要不要選錯，也可以直接從下方檔案下載

 ubuntu-18.04.3-server-s390x.template	2019-08-05 18:49 134M
 ubuntu-18.04.4-desktop-amd64.iso	2020-02-03 18:40 2.0G
 ubuntu-18.04.4-desktop-amd64.iso.torrent	2020-02-12 13:41 80K

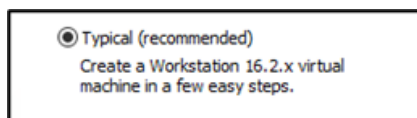
[ubuntu-18.04.4-desktop-amd64.iso](#)

3. 創建虛擬機

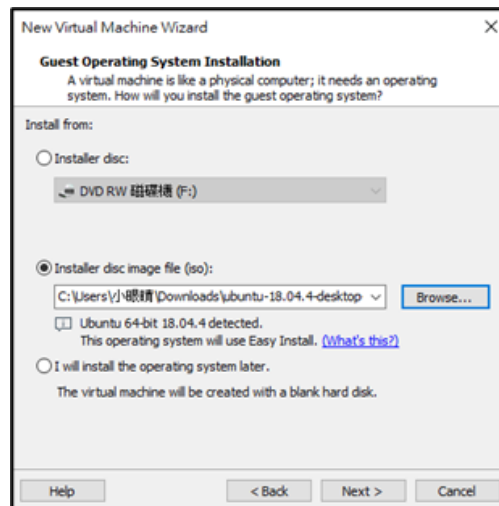
打開VMware介面，點擊



選擇Typical



選擇Install (.iso)，並且指定剛下載好的Ubuntu檔



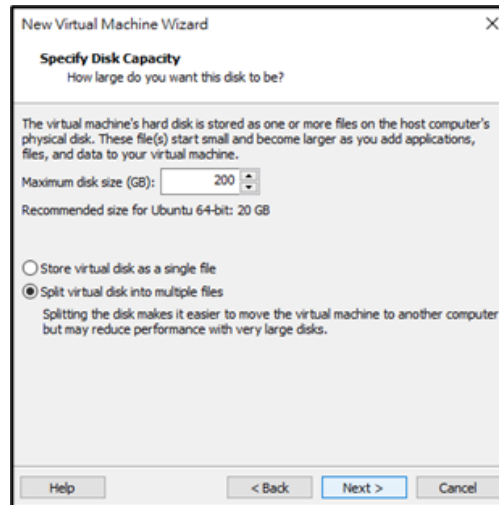
輸入使用者名字以及帳號密碼(自訂，密碼都數字也可以)

The screenshot shows the 'New Virtual Machine Wizard' window with the 'Easy Install Information' tab selected. The subtitle reads 'This is used to install Ubuntu 64-bit.' Under the 'Personalize Linux' section, there are four input fields: 'Full name' with the value 'MyUbuntu', 'User name' with the value 'bb232399', 'Password' with masked characters '*****', and 'Confirm' with masked characters '*****'. At the bottom, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

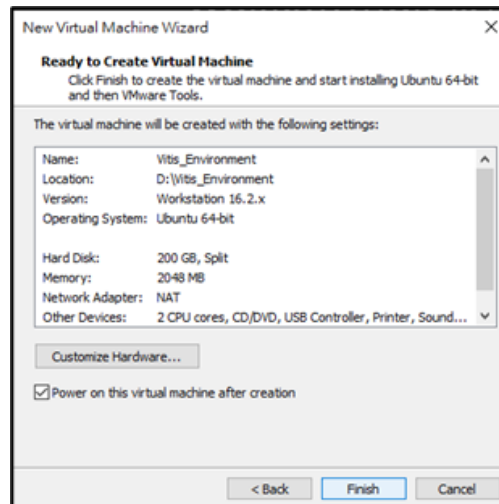
輸入虛擬機名字，並且將虛擬機設置在大的硬碟槽(最好大於200GB)(實際裝完約135GB)

The screenshot shows the 'New Virtual Machine Wizard' window with the 'Name the Virtual Machine' tab selected. The subtitle reads 'What name would you like to use for this virtual machine?'. There are two input fields: 'Virtual machine name' with the value 'Vitis_Environment' and 'Location' with the value 'D:\Vitis_Environment'. A 'Browse...' button is located to the right of the 'Location' field. Below the fields, a note states 'The default location can be changed at Edit > Preferences.' At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a blue border.

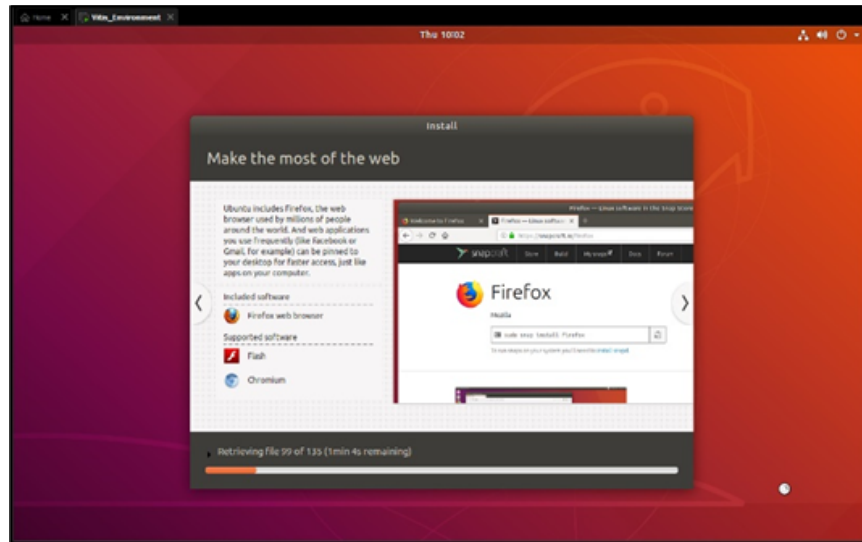
分割空間給此虛擬機(建議200GB，最少150GB)，並分割多文件



完成!



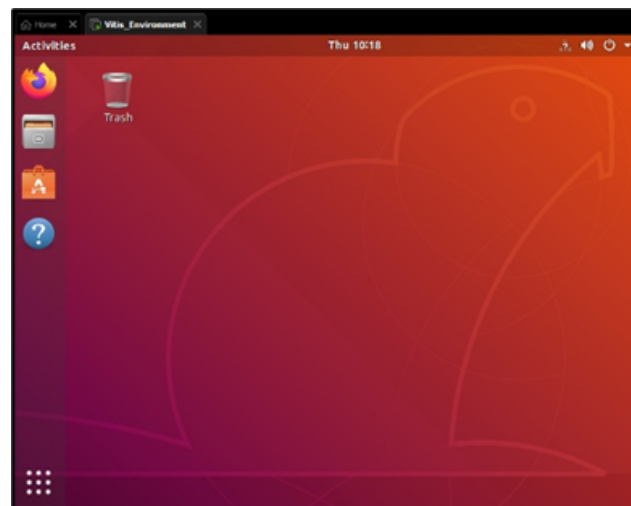
漫長的等待ing...



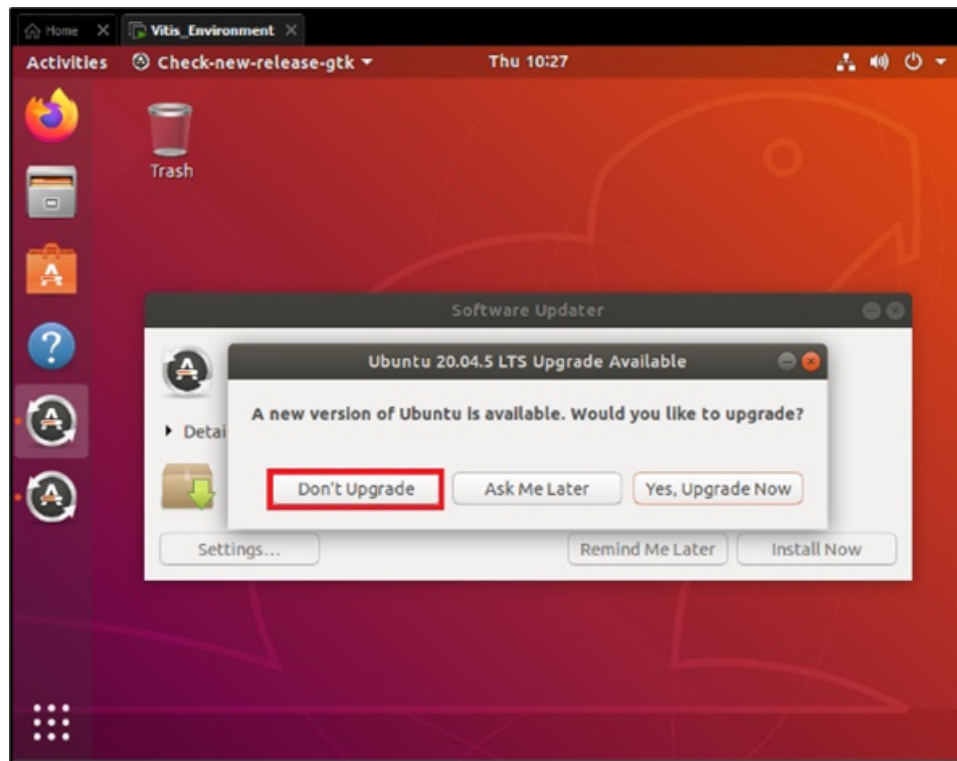
4. 下載Vitis

登入剛剛創好的帳號

登入成功，可以看見桌面了！



如果有遇到要你升級的視窗時，請先點擊不要升級(有可能會讓版本跑掉)



回到windows系統下載vitis 的linux下載檔

<https://www.xilinx.com/support/download/index.html/content/xilinx/en/downloadNav/vitis/archive-vitis.html>

點選2020.1

Support / Downloads

Downloads

Licensing Help NIC Software & Drivers

Vivado (HW Developer) **Vitis (SW Developer)** Vitis Embedded Platforms Alveo Packages PetaLinux Device Models Documentation Navigator

Version

Starting 2019.2, Xilinx SDSoC™ development environments are unified into an all-in-one Vitis™ unified software platform. There will be no 2019.2 or future releases of Xilinx SDSoc Development Environment.

2022.1
2021.2
2021.1

Vitis Archive
SDSoC Archive
SDAccel Archive
SDK/PetaLinux Archive

2020


2020.3
2020.2
2020.1

2019


2019.2

Feedback

下載Linux版本的下載檔

 **Xilinx Unified Installer 2020.1: Linux** Self Extracting Web Installer (BIN - 116.89 MB)

MD5 SUM Value : 1f21c8a5858b947c003f741826b5bce5

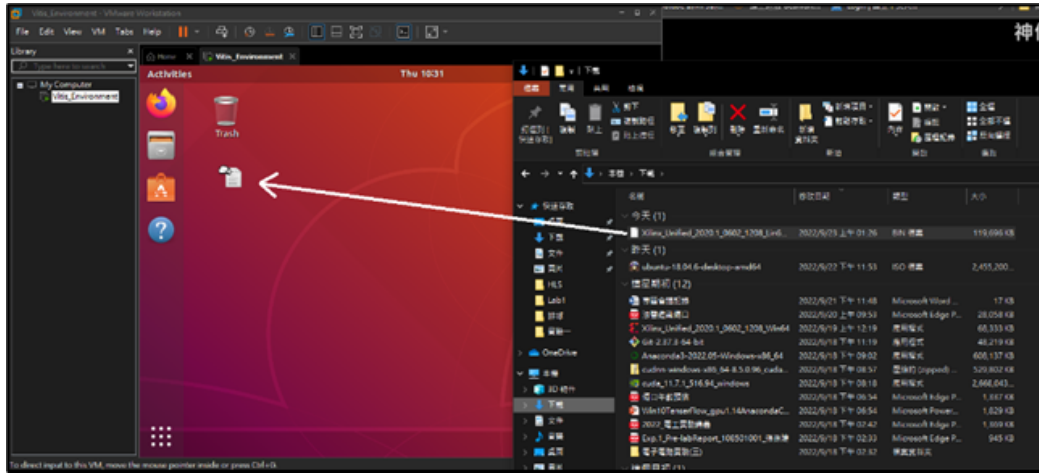
Download Verification 

Digests **Signature** **Public Key**

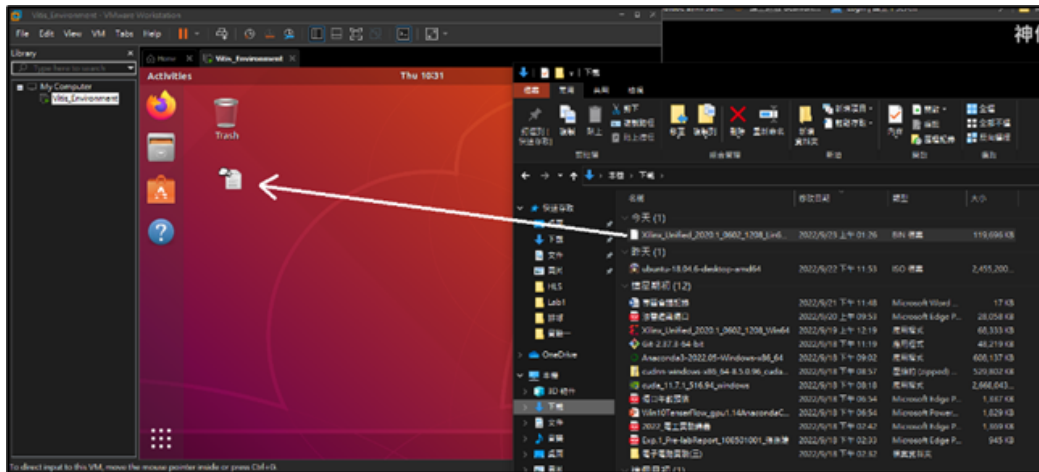
Xilinx_Unified_2020.1_0602_1208_Lin64.bin

接著就輸入你的xilinx帳號資料(詳情見DSD課程的Vivado下載教學)

1_VIVADO_Install_and_Simulation-v2.pdf



將下載檔拖曳至虛擬機的桌面



點擊左下的Show application，再打開Terminal



—先來安裝必要的安裝包，不然可能安裝失敗—

```
sudo add-apt-repository ppa:xorg-edgers/ppa
sudo apt-get update
sudo apt-get install libgl1-mesa-glx
sudo apt-get install libgl1-mesa-dri
sudo apt-get install libgl1-mesa-dev
sudo add-apt-repository --remove ppa:xorg-edgers/ppa
sudo apt install net-tools
sudo apt-get install -y unzip
sudo apt install gcc
sudo apt install g++
sudo apt install python
```

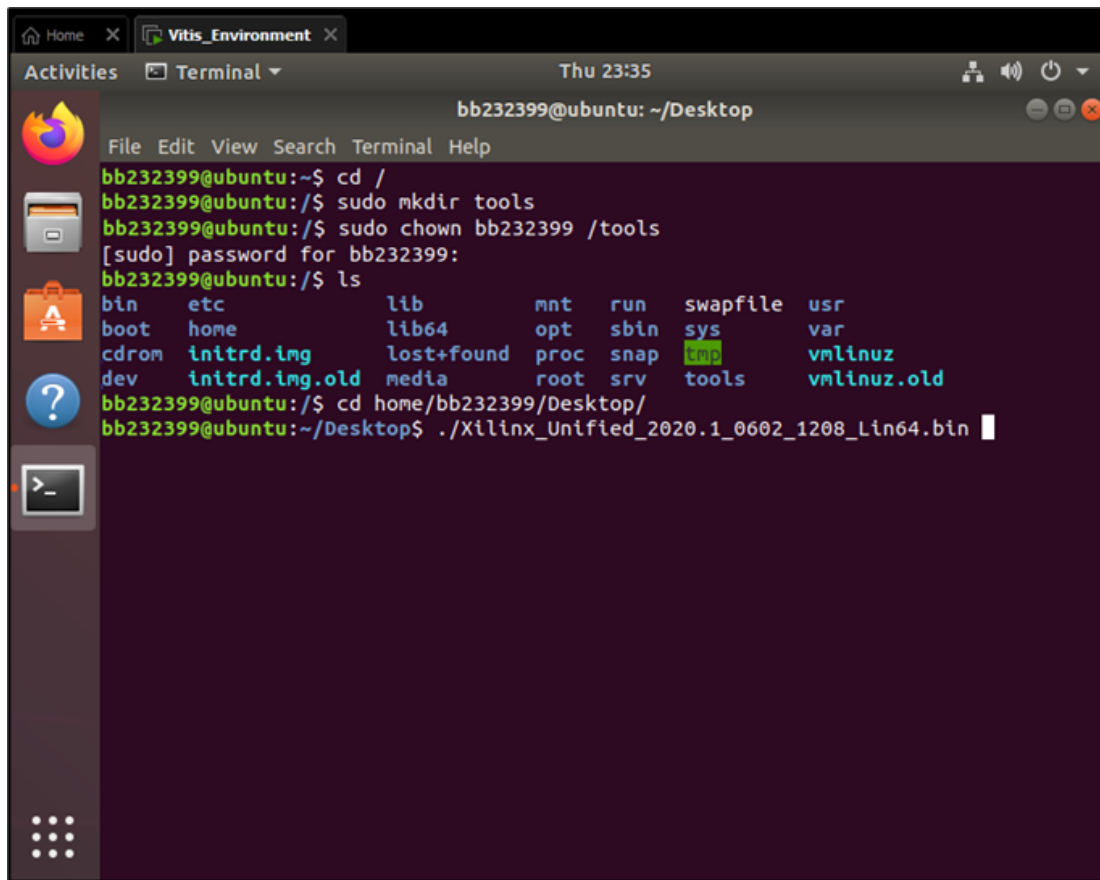
—上述安裝完成後，重啟虛擬機—

如果安裝失敗，可能會是網路連線DNS的問題

可參考: <https://itslinuxfoss.com/fix-temporary-failure-resolving-archive-ubuntu-com-error/>

—接下來開始安裝—

- 輸入以下指令：
- `cd /` (移動到根目錄)
- `sudo mkdir tools` (以管理員身分創建tools資料夾於當前目錄)
- `sudo chown 帳號 /tools` (以管理員身分將tools的權限改成自己)
- `ls` (顯示當前目錄內容，請確認是否有tools)
- `cd home/帳號/Desktop/` (移動到桌面)
- `./Xilinx_Unified_2020.1_0602_1208_Lin64.bin` (開啟下載檔)



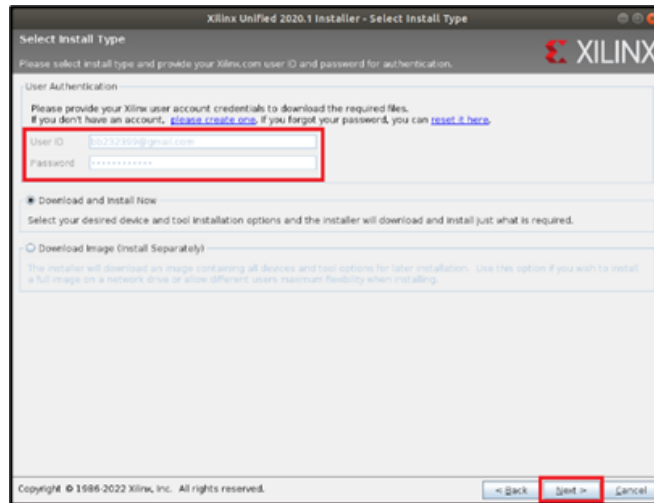
A terminal window titled 'Vitis_Environment' showing the installation of Vitis. The user 'bb232399' is at the prompt. The commands executed are: `cd /`, `sudo mkdir tools`, `sudo chown bb232399 /tools`, `ls` (showing directory contents), `cd home/bb232399/Desktop/`, and `./Xilinx_Unified_2020.1_0602_1208_Lin64.bin`.

```
bb232399@ubuntu:~$ cd /
bb232399@ubuntu:/$ sudo mkdir tools
bb232399@ubuntu:/$ sudo chown bb232399 /tools
[sudo] password for bb232399:
bb232399@ubuntu:/$ ls
bin      etc      lib      mnt      run      swapfile  usr
boot    home    lib64    opt      sbin     sys       var
cdrom   initrd.img  lost+found  proc  snap  tmp       vmlinuz
dev     initrd.img.old  media      root  srv   tools    vmlinuz.old
bb232399@ubuntu:/$ cd home/bb232399/Desktop/
bb232399@ubuntu:~/Desktop$ ./Xilinx_Unified_2020.1_0602_1208_Lin64.bin
```

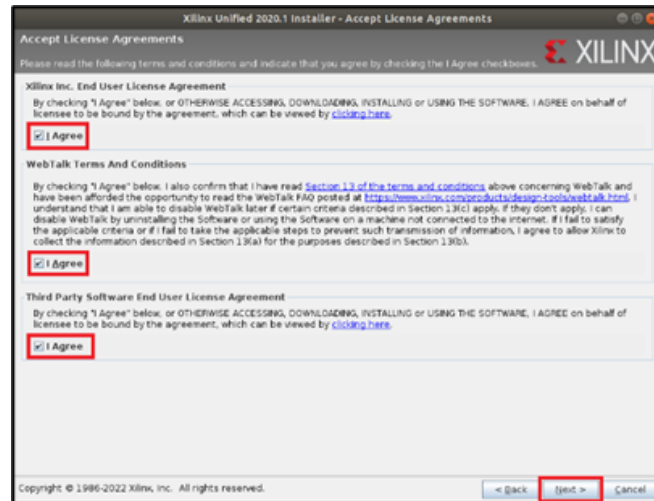
開啟安裝介面，遇到這個更新請按Continue



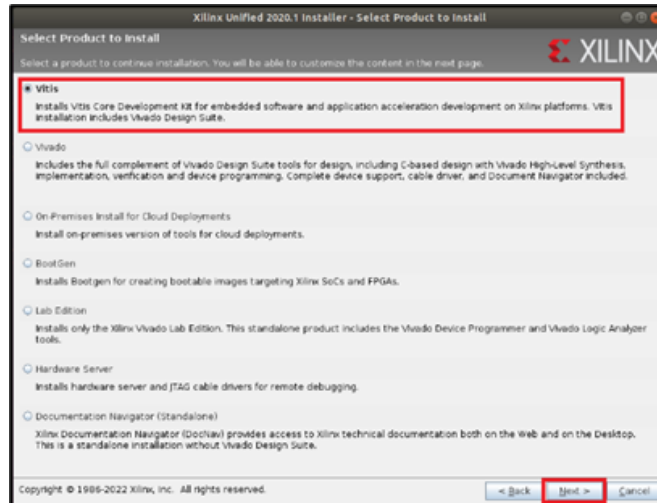
輸入Xilinx的帳號密碼後按下一步



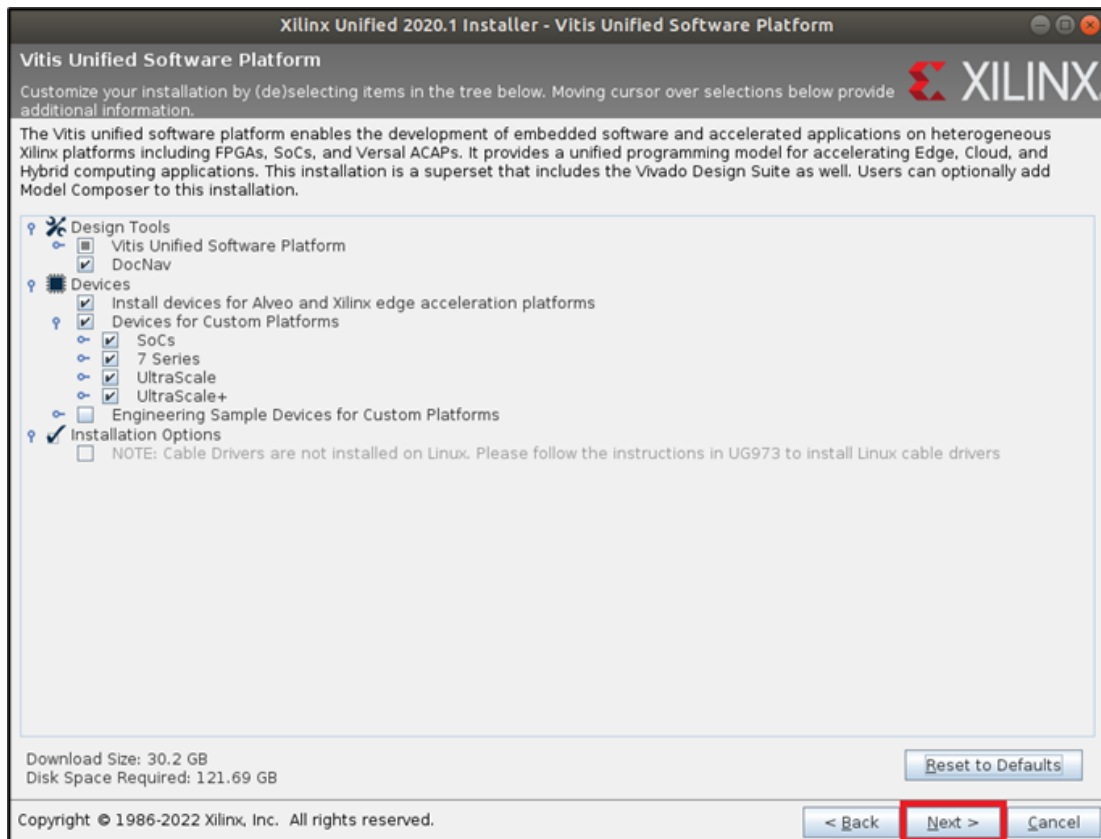
全都同意之後下一步



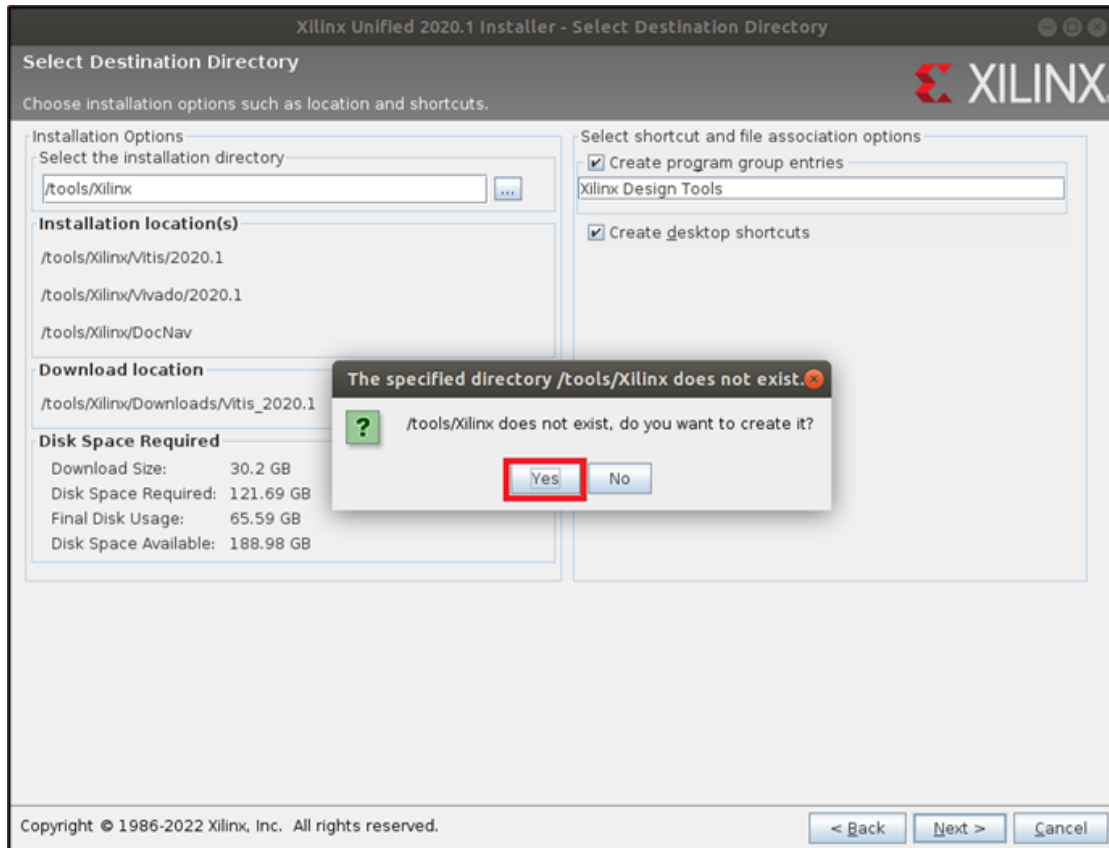
選擇Vitis之後下一步



使用默認的設置，只需按下一步



確認之後按下一步，會跳出創建Xilinx資料夾的視窗，按Yes

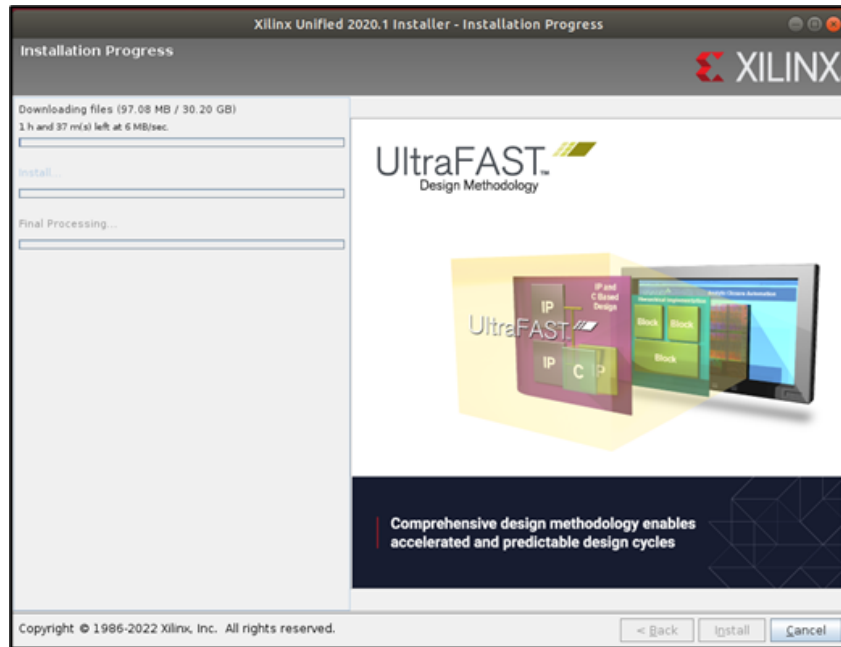


如果到這一步遇到權限問題，可以參考這一篇

https://support.xilinx.com/s/question/0D52E00006hpSHaSAM/cannot-write-to-toolsxilinx-20202-installer-on-ubuntu-2004?language=en_US

ps: 如果想要速度快一些可以再preference處調整效能分配(正常模式大概一個晚上就能安裝完成)

點擊Install之後開始安裝



因為安裝時間超長，如果擔心螢幕進入保護程序，可以去更改待機時間

1. 修改屏幕保护程序設定：

1. 打開「設定」應用程式。您可以在左上角的「應用程式」搜索框中輸入「設定」，然後選擇相應的應用程式。
2. 在設定中，選擇「能源」選項。
3. 在「屏幕」選項卡下，您可以看到「屏幕保護程序」的相關設定。調整「啟用屏幕保護程序」的選項以及相應的等待時間。

2. 修改能源設定：

1. 在「設定」中，仍然選擇「能源」選項。
2. 在「節能」選項卡下，您可以找到「待機」選項。調整「待機」的相應時間。

PS 如果安裝過程中發生一些問題，是有延續上次進度裝的

如果虛擬機不當關閉且嘗試打開時出現錯誤可以嘗試下面這篇，重製開機鎖:

<https://blog.goodjack.tw/2015/05/vmware-this-virtual-machine-appears-to-be-in-use.html>

附錄:

【環境搭建】WSL2安裝Vivado、Vitis、Petalinux教程

<https://www.veryxs.com/index.php/archives/104/>

手把手教你在Windows下用WSL运行Vitis/Vivado/Petalinux

<https://xilinx.eetrend.com/content/2022/100557428.html>

Vitis 安裝及環境配置

https://blog.csdn.net/weixin_44304451/article/details/116783387

vivado on external drive

https://www.reddit.com/r/FPGA/comments/11ias4u/vivado_on_an_external_drive/

如果想要在擴充虛擬機的空間可以用gparted圖形化介面調整記憶體配置

sudo apt update

sudo apt install gparted

如果安裝過程中有一些安裝包出現錯誤，可以使用 aptitude 查看安裝包的情況

(在上述步驟中，或許在安裝必要的安裝包時會出現一些error，也未必需要處理仍有機會成功安裝)

sudo apt update

sudo apt install aptitude