

Jini Intelligent Computing Tools Installation Guide

1. Vivado/Vitis HLS Software Installation

【施作環境為 Windows】

首先至 Xilinx 官方下載頁面。

鏈結網址：<https://www.xilinx.com/support/download.html>

欲下載開發套件前必須先註冊一個使用者帳號，並 email 回覆啟動使用者帳號，之後要登入帳號才能下載。

教學參考鏈結：<https://isite.tw/2015/09/30/13717>

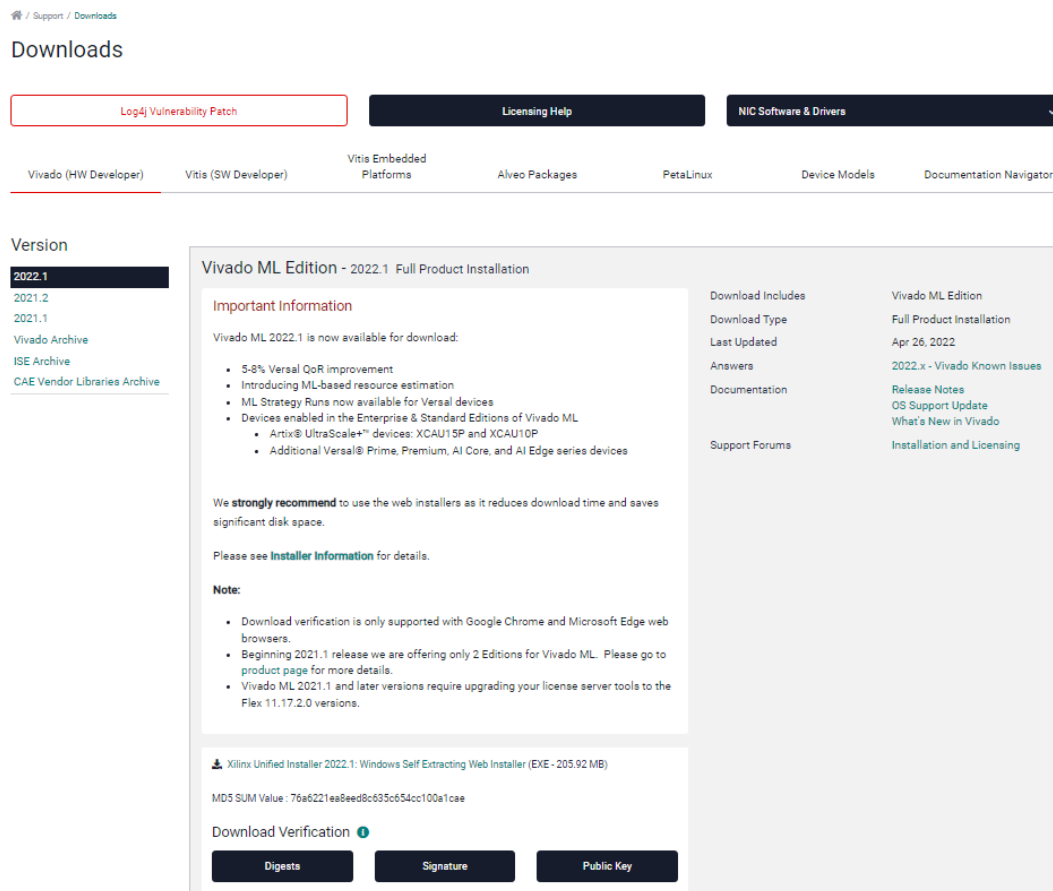


The image shows a login form for AMD. At the top is the AMD logo. Below it is the title "登入 (zh-TW)". The form contains two input fields: "電子郵件地址" (Email Address) and "密碼" (Password). Below these fields is a "登入" (Login) button. Further down is a "創建密碼" (Create Password) button. At the bottom of the form is a link "忘記/重設密碼?" (Forgot/Reset Password?). At the very bottom are three links: "Help", "隱私權" (Privacy Policy), and "Terms of Use".

1.1. Download Xilinx Vivado/Vitis HLS 2022.1

【施作環境為 Windows】

本實驗施作均以 2022.1 版本，請選擇下載對應版本。安裝 Vivado Design Suite 時選擇 Xilinx Unified Installer 2022.1: Windows Self Extracting Web Installer。



The screenshot shows the Xilinx Vivado ML Edition 2022.1 download page. The page is titled "Downloads" and features a navigation bar with links to "Log4j Vulnerability Patch", "Licensing Help", and "NIC Software & Drivers". Below the navigation bar, there are tabs for "Vivado (HW Developer)", "Vitis (SW Developer)", "Vitis Embedded Platforms", "Alveo Packages", "PetaLinux", "Device Models", and "Documentation Navigator". The "Vivado (HW Developer)" tab is selected.

On the left side, there is a "Version" section with a list of versions: "2022.1", "2021.2", "2021.1", "Vivado Archive", "ISE Archive", and "CAE Vendor Libraries Archive". The "2022.1" version is highlighted.

The main content area is titled "Vivado ML Edition - 2022.1 Full Product Installation". It contains an "Important Information" section with the following text:

Vivado ML 2022.1 is now available for download:

- 5-8% Versal QoR improvement
- Introducing ML-based resource estimation
- ML Strategy Runs now available for Versal devices
- Devices enabled in the Enterprise & Standard Editions of Vivado ML
 - Artix® UltraScale+™ devices: XCAU15P and XCAU10P
 - Additional Versal® Prime, Premium, AI Core, and AI Edge series devices

We **strongly recommend** to use the web installers as it reduces download time and saves significant disk space.

Please see [Installer Information](#) for details.

Note:

- Download verification is only supported with Google Chrome and Microsoft Edge web browsers.
- Beginning 2021.1 release we are offering only 2 Editions for Vivado ML. Please go to product page for more details.
- Vivado ML 2021.1 and later versions require upgrading your license server tools to the Flex 11.17.2.0 versions.

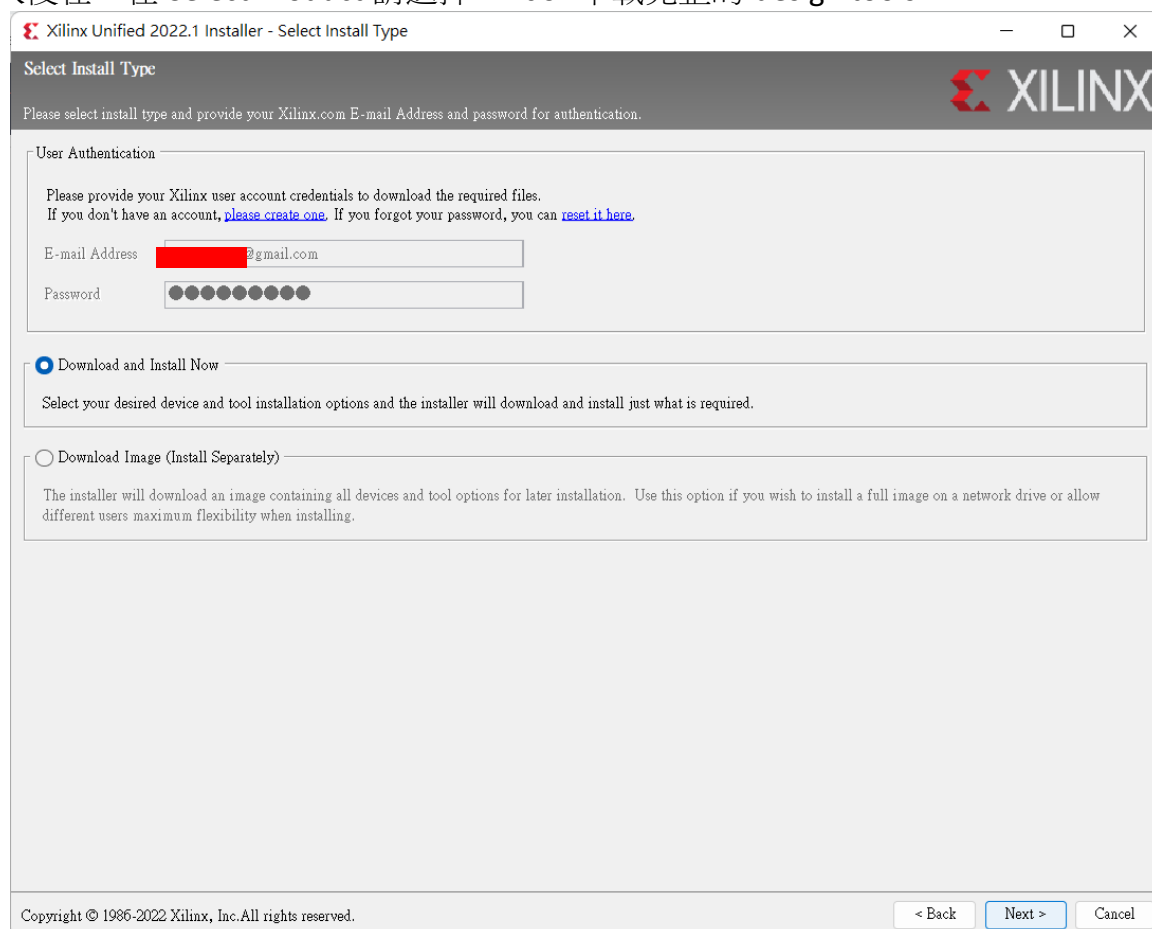
Below the information section, there is a download link for "Xilinx Unified Installer 2022.1: Windows Self Extracting Web Installer (EXE - 205.92 MB)". The MD5 SUM Value is provided: 70a6221ea8eed8c635c54cc100a1cae.

At the bottom, there is a "Download Verification" section with three buttons: "Digests", "Signature", and "Public Key".

On the right side, there is a table with the following information:

Download Includes	Vivado ML Edition
Download Type	Full Product Installation
Last Updated	Apr 26, 2022
Answers	2022.x - Vivado Known Issues
Documentation	Release Notes OS Support Update What's New in Vivado
Support Forums	Installation and Licensing

登入後在，在 **Select Product** 請選擇 **"Vitis"** 下載完整的 design tools。



Xilinx Unified 2022.1 Installer - Select Install Type

Select Install Type

Please select install type and provide your Xilinx.com E-mail Address and password for authentication.

User Authentication

Please provide your Xilinx user account credentials to download the required files.
If you don't have an account, [please create one](#). If you forgot your password, you can [reset it here](#).

E-mail Address: [REDACTED]@gmail.com

Password: [REDACTED]

☒ **Download and Install Now**

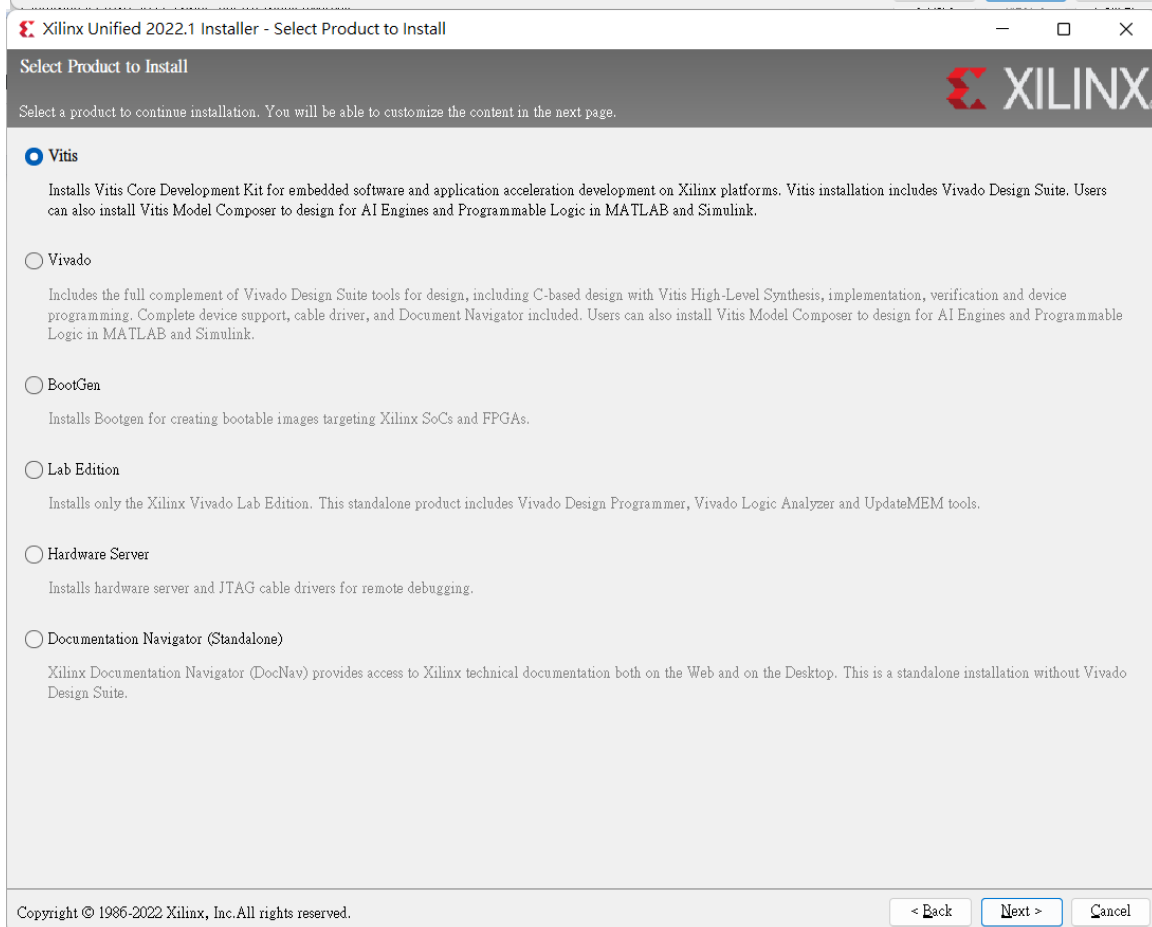
Select your desired device and tool installation options and the installer will download and install just what is required.

☐ **Download Image (Install Separately)**

The installer will download an image containing all devices and tool options for later installation. Use this option if you wish to install a full image on a network drive or allow different users maximum flexibility when installing.

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< Back Next > Cancel



Xilinx Unified 2022.1 Installer - Select Product to Install

Select Product to Install

Select a product to continue installation. You will be able to customize the content in the next page.

☒ **Vitis**

Installs Vitis Core Development Kit for embedded software and application acceleration development on Xilinx platforms. Vitis installation includes Vivado Design Suite. Users can also install Vitis Model Composer to design for AI Engines and Programmable Logic in MATLAB and Simulink.

☐ **Vivado**

Includes the full complement of Vivado Design Suite tools for design, including C-based design with Vitis High-Level Synthesis, implementation, verification and device programming. Complete device support, cable driver, and Document Navigator included. Users can also install Vitis Model Composer to design for AI Engines and Programmable Logic in MATLAB and Simulink.

☐ **BootGen**

Installs Bootgen for creating bootable images targeting Xilinx SoCs and FPGAs.

☐ **Lab Edition**

Installs only the Xilinx Vivado Lab Edition. This standalone product includes Vivado Design Programmer, Vivado Logic Analyzer and UpdateMEM tools.

☐ **Hardware Server**

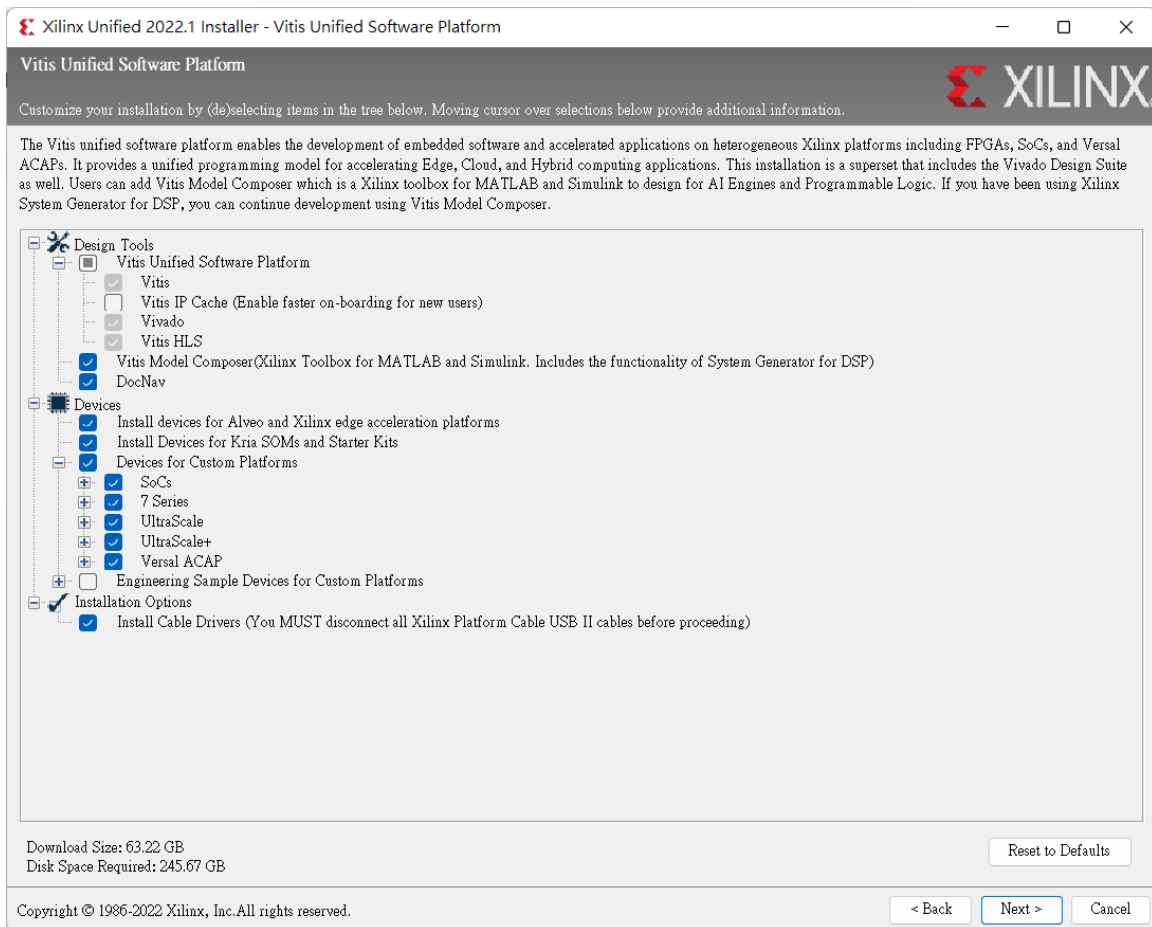
Installs hardware server and JTAG cable drivers for remote debugging.

☐ **Documentation Navigator (Standalone)**

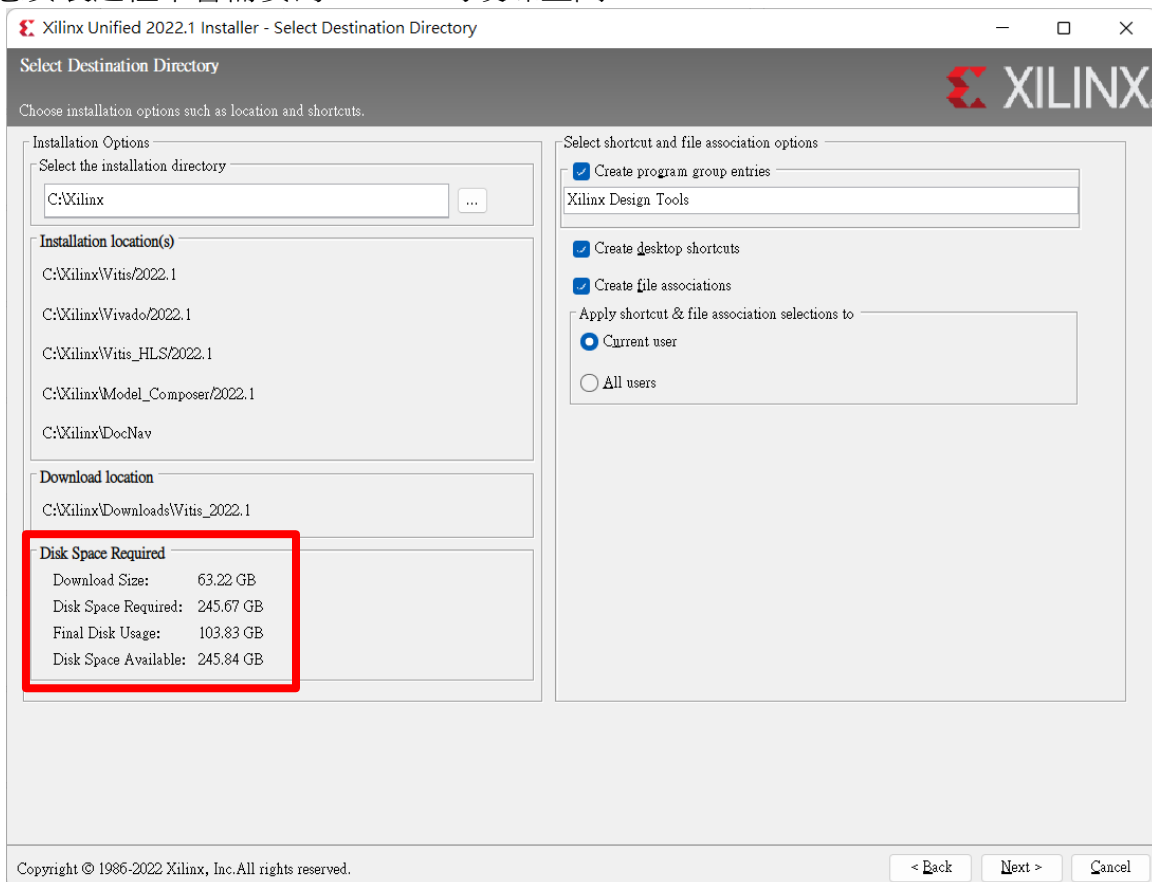
Xilinx Documentation Navigator (DocNav) provides access to Xilinx technical documentation both on the Web and on the Desktop. This is a standalone installation without Vivado Design Suite.

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< Back Next > Cancel

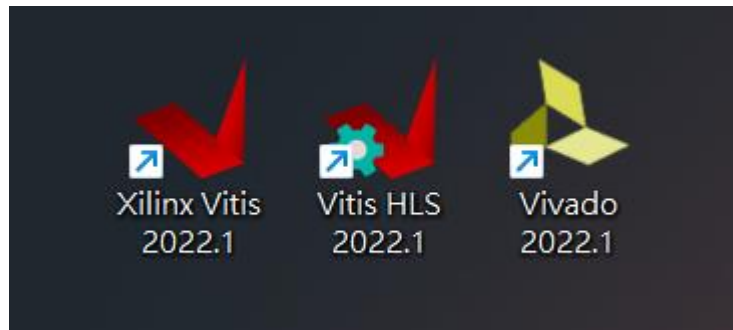


注意安裝過程中會需要約 240 GB 的硬碟空間。



(通常會需安裝數小時，需在網路穩定的地方下載)

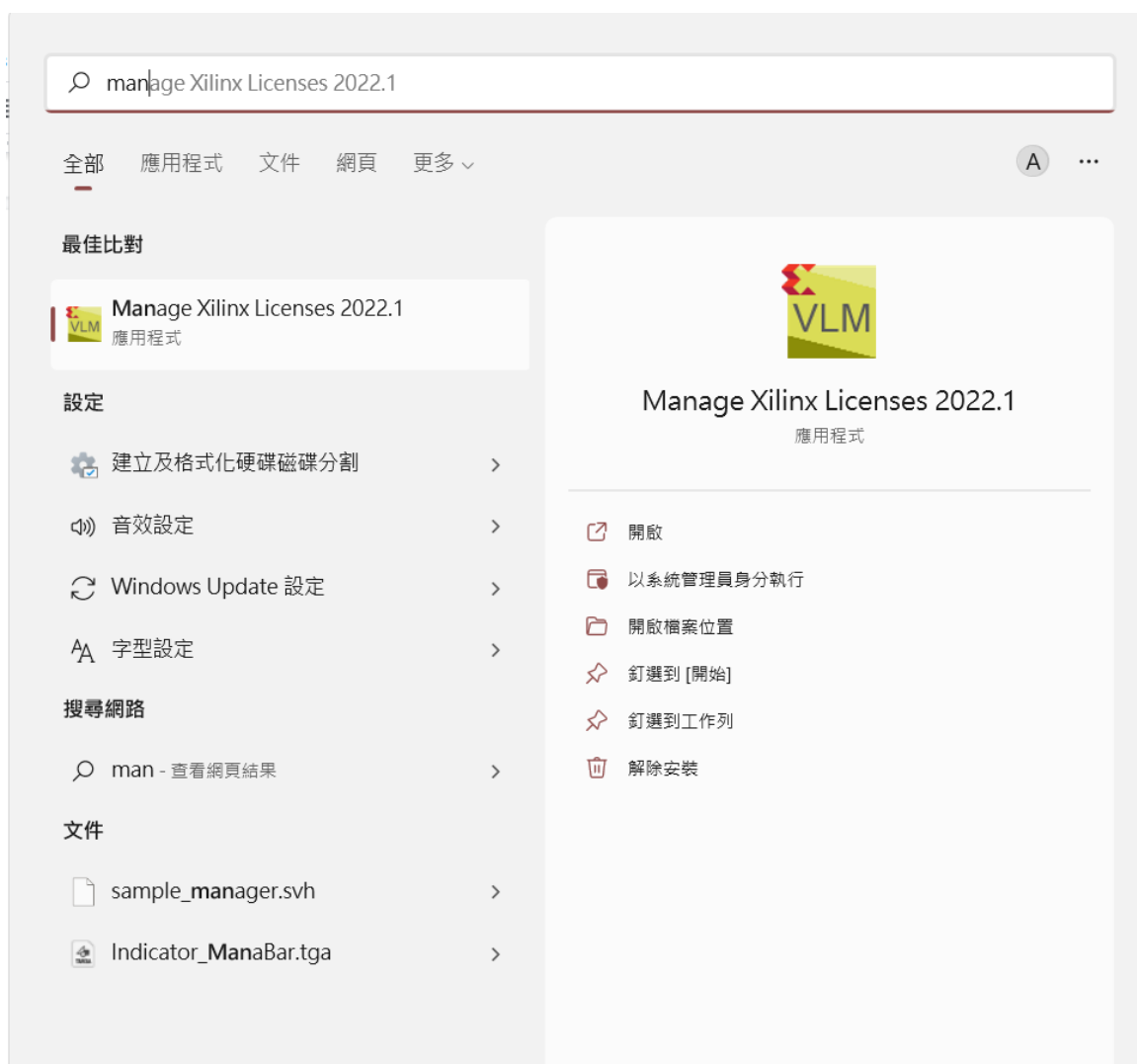
安裝完成後會在桌面看到 Vivado/Vitis HLS 的圖示。



1.2. Apply WebPack License

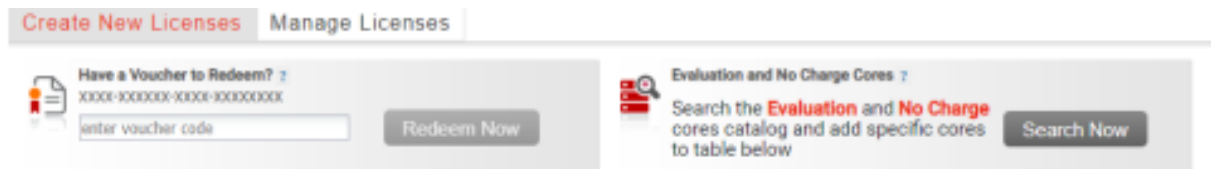
【施作環境為 Windows】

在開始運行 Vivado/Vitis HLS 必須先取得 license 授權，WebPack License 可免費取得授權。在 Windows 系統“開始”啟動 Xilinx Design Tools 中的 Manage Xilinx Licenses 2022.1。





按下 **Connect Now** 鍵後會跳到產生 license 的網頁，選擇 WebPack License 並開始產生。



Create a New License File

Create a new license file by making your product selections from the table below.

Certificate Based Licenses

Product	Type	License	Available Seats	Status	Subscription End Date
<input type="checkbox"/> ISE Embedded Edition License	Certificate - No Charge	Node	1/1	Current	None
<input type="checkbox"/> Model Composer : 90-day Evaluation License	Certificate - Evaluation	Node	1/1	Current	90 days
<input type="checkbox"/> Vivado Design Suite: 30-Day Evaluation License	Certificate - Evaluation	Node	1/1	Current	30 days
<input type="checkbox"/> SDSoC Environment, 60 Day Evaluation License	Certificate - Evaluation	Node	1/1	Current	60 days
<input type="checkbox"/> SDAccel OpenCL Development Environment: 30 Day Node Locked Evaluati...	Certificate - Evaluation	Node	1/1	Current	30 days
<input type="checkbox"/> Vivado Design Suite: HL WebPACK 2015 and Earlier License	Certificate - No Charge	Node	1/1	Current	None
<input type="checkbox"/> Xilinx MicroBlaze/All Programmable SoC Software Development Kit - Stand...	Certificate - No Charge	Node	1/1	Current	None
<input type="checkbox"/> PetaLinux Tools License	Certificate - Evaluation	Node	1/1	Current	365 days
<input type="checkbox"/> Vivado HLS Evaluation License	Certificate - Evaluation	Node	1/1	Current	30 days

Generate Node-Locked License

Generate Node License

Fields marked with an asterisk * are required.

1 PRODUCT SELECTION

Product Selections *	Product	Type	Available Seats	Subscription End Date	Requested Seats	Borrowed Seats
<input checked="" type="checkbox"/>	Vivado Design Suite...	No Charge	1/1	None	1	

2 SYSTEM INFORMATION

License	Node
Host ID *	Any

3 COMMENTS

Comments ?

Next Cancel

Generate Node License

4 REVIEW LICENSE REQUEST

Product Selections

Product	Subscription End Date	Available Seats	Requested Seats
Vivado Design Suite: HL WebPACK 2015 and Ear...	1/1	1	

System Information

License	Node
Host ID	ANY

Note: WebTalk is always enabled for WebPACK users. WebTalk ignores user and install preference when a bitstream is generated using the WebPACK license. If a design is using a device contained in WebPACK and a WebPACK license is available, the WebPACK license will always be used. To get additional information on WebTalk, go to www.xilinx.com/webtalk.

Previous Next Cancel

產生完成後，可選擇將 license 下載到電腦或者郵寄到電子郵件信箱，如下圖左下角圖示。

Create New Licenses Manage Licenses

Host Name	Host Type	Host ID	License Type	OS	Created By	Created Date
*	*	*	Node	*	DOUGLAS SHAW	05 AUG 2020
*	*	*	Node	*	DOUGLAS SHAW	06 JUL 2020

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Comments

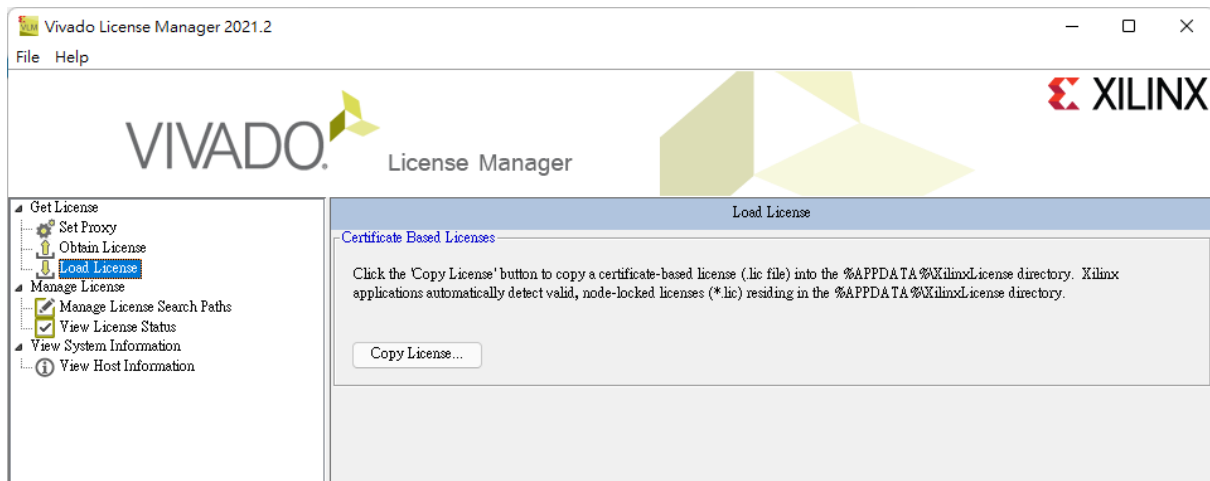
Product	Type	Status	Subscription End Date	Activated Seats
Vivado Design Suite: HL WebPACK 2015 and Earlier Lic...	Certificate - No Charge	Current	None	1

Modify License

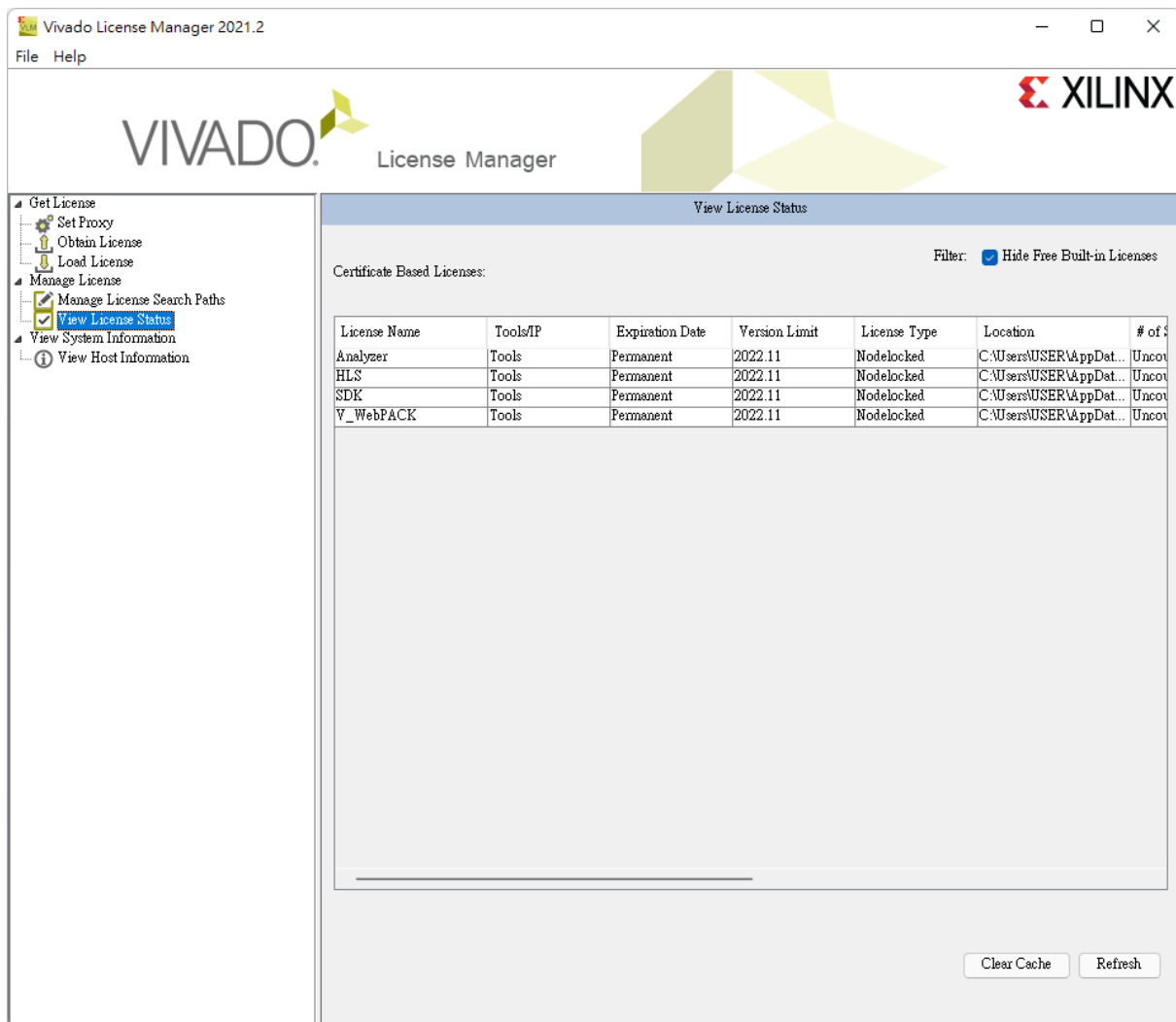
Download Email Print



回到 Manage Xilinx Licenses 2022.1 將獲取到的 xxx.lic 由 load licence 處匯入。



再到 view license status 檢查是否完成授權狀態。



2. SSH Software Installation

【施作環境為 Windows】

下載並安裝 MobaXterm 應用程式。

下載網址：<https://mobaxterm.mobatek.net/download.html>