

# Tutorial 1 – Environment Installation



# Install VirtualBox



# VirtualBox Installation

- [https://www.virtualbox.org/wiki/Downloads?fbclid=IwAR12O6-1e\\_Dg00CFt4xuChqjJSuGKQwgVZDZa3MI-I2QojYsEq9ILe3bWLQ](https://www.virtualbox.org/wiki/Downloads?fbclid=IwAR12O6-1e_Dg00CFt4xuChqjJSuGKQwgVZDZa3MI-I2QojYsEq9ILe3bWLQ)



The screenshot shows the VirtualBox website's download page. On the left is a sidebar with navigation links: About, Screenshots, Downloads, Documentation (with sub-links for End-user docs and Technical docs), Contribute, and Community. The main content area features the VirtualBox logo and the heading 'Download VirtualBox'. Below this, it states that links to binaries and source code are provided. A section for 'VirtualBox binaries' includes a disclaimer about the license and links to the latest 6.0 and 5.2 builds. Under 'VirtualBox 6.1.18 platform packages', the 'Windows hosts' link is highlighted with a red box. Other links include OS X hosts, Linux distributions, Solaris hosts, and Solaris 11 IPS hosts. Further down, it mentions the GPL version 2 terms, a changelog, and checksums (SHA256 and MD5). A note recommends upgrading guest additions after upgrading VirtualBox. The footer of the page shows the 'VirtualBox 6.1.18 Oracle VM VirtualBox Extension Pack'.

**VirtualBox**  
Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

**VirtualBox binaries**

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see [VirtualBox 6.0 builds](#). Please also use version 6.0 if you need it.

If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#). Please also use version 5.2 if you still need it.

**VirtualBox 6.1.18 platform packages**

- ➞ [Windows hosts](#)
- ➞ [OS X hosts](#)
- [Linux distributions](#)
- ➞ [Solaris hosts](#)
- ➞ [Solaris 11 IPS hosts](#)

The binaries are released under the terms of the GPL version 2.

See the [changelog](#) for what has changed.

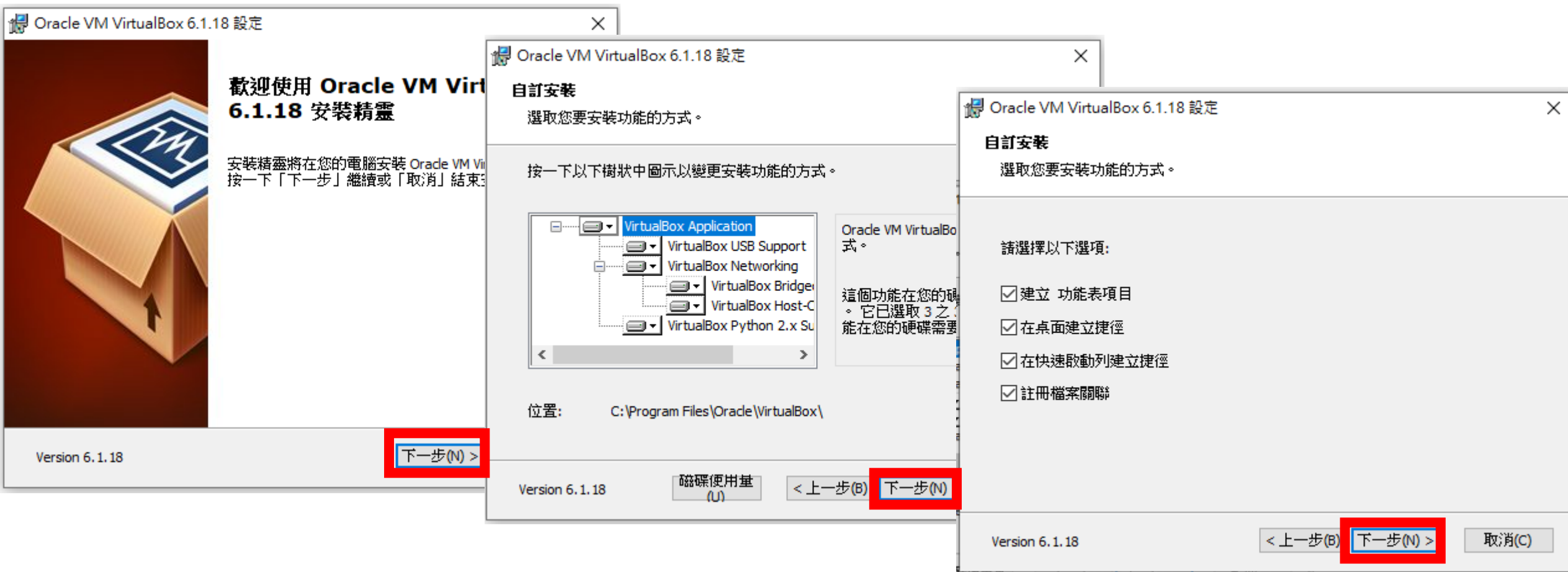
You might want to compare the checksums to verify the integrity of downloaded packages. *The SHA256 checksums should be used.*

- [SHA256 checksums](#), [MD5 checksums](#)

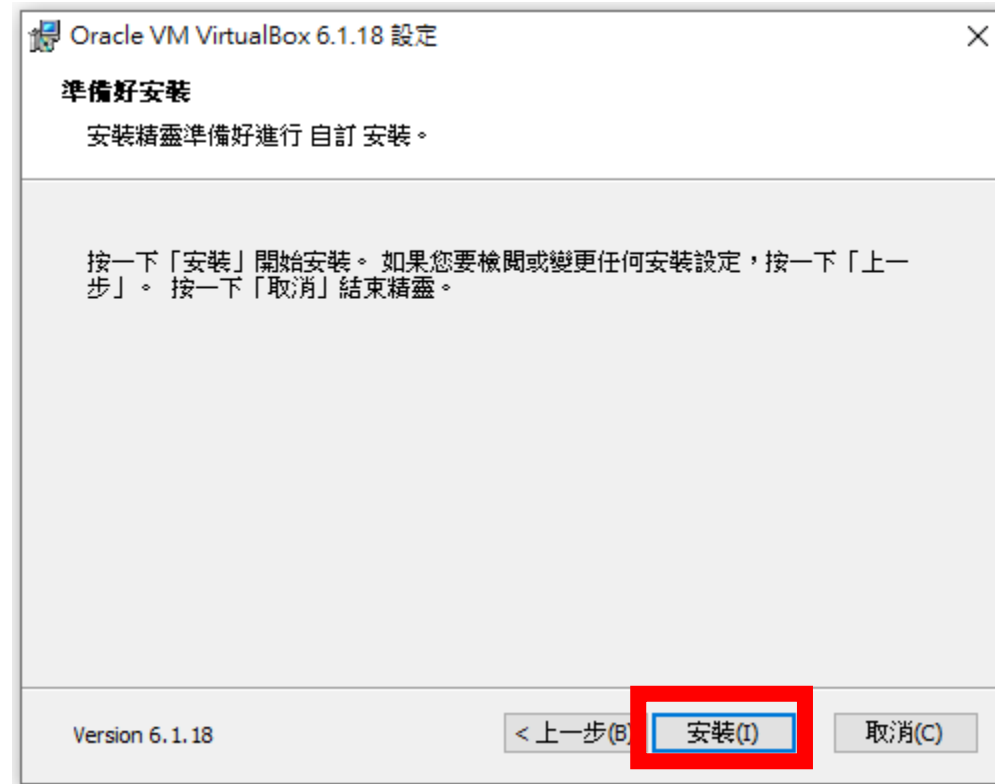
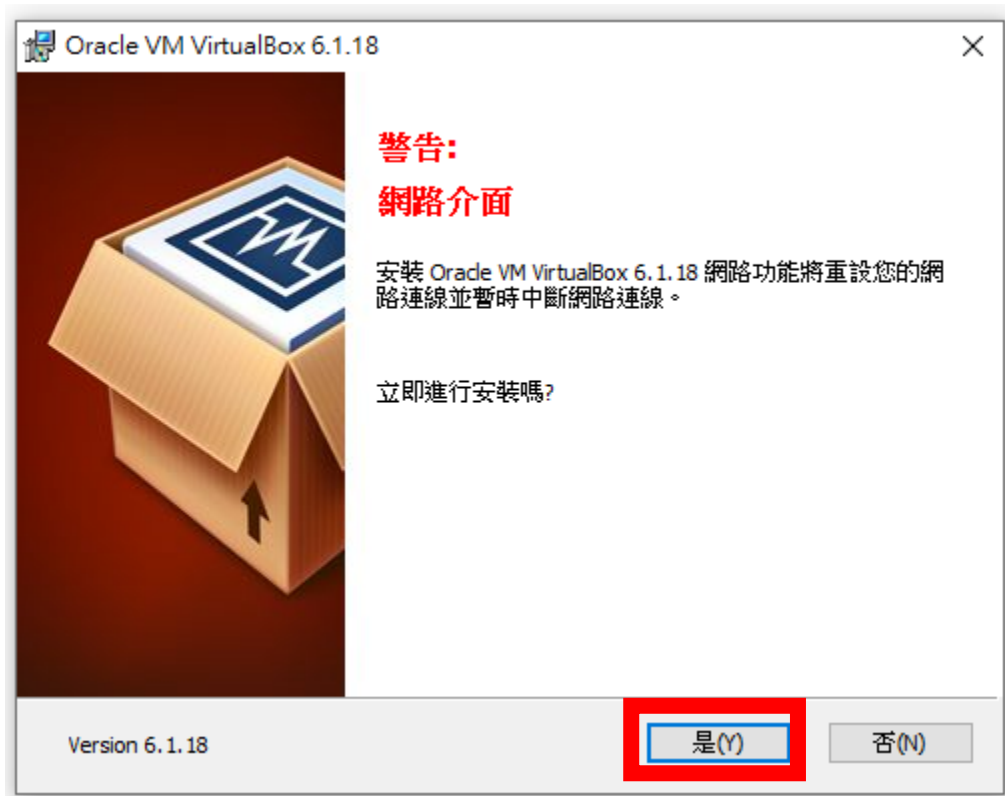
**Note:** After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

**VirtualBox 6.1.18 Oracle VM VirtualBox Extension Pack**

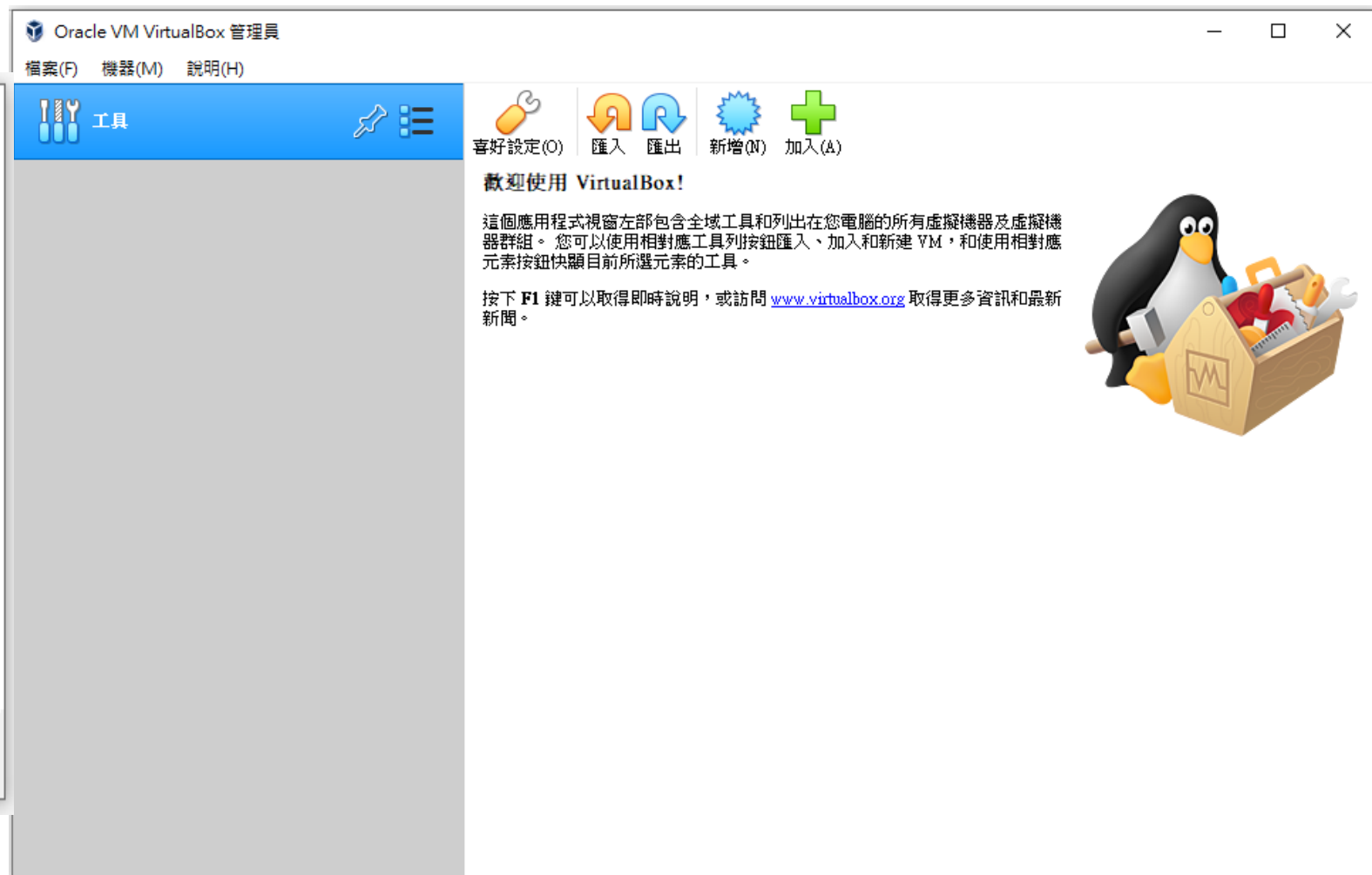
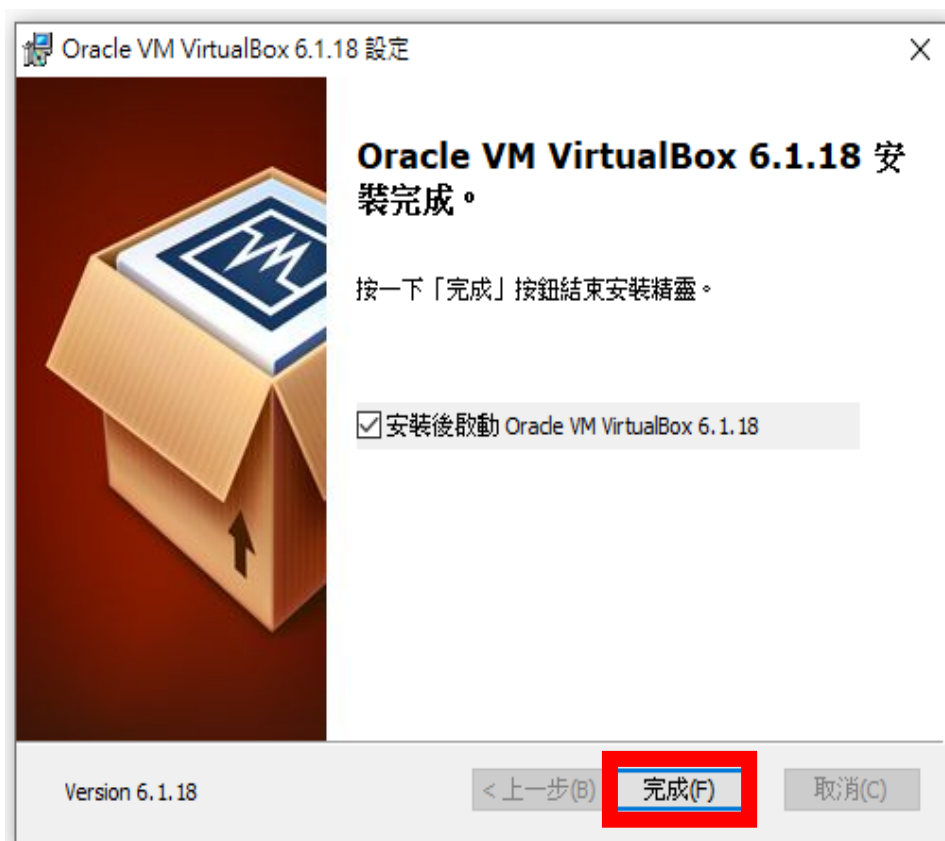
# VirtualBox Installation



# VirtualBox Installation



# VirtualBox Installation



# Install Cygwin



# Cygwin64 installation

- Go to <https://cygwin.com/install.html>

# Cygwin

Get that [Linux](#) feeling - on Windows

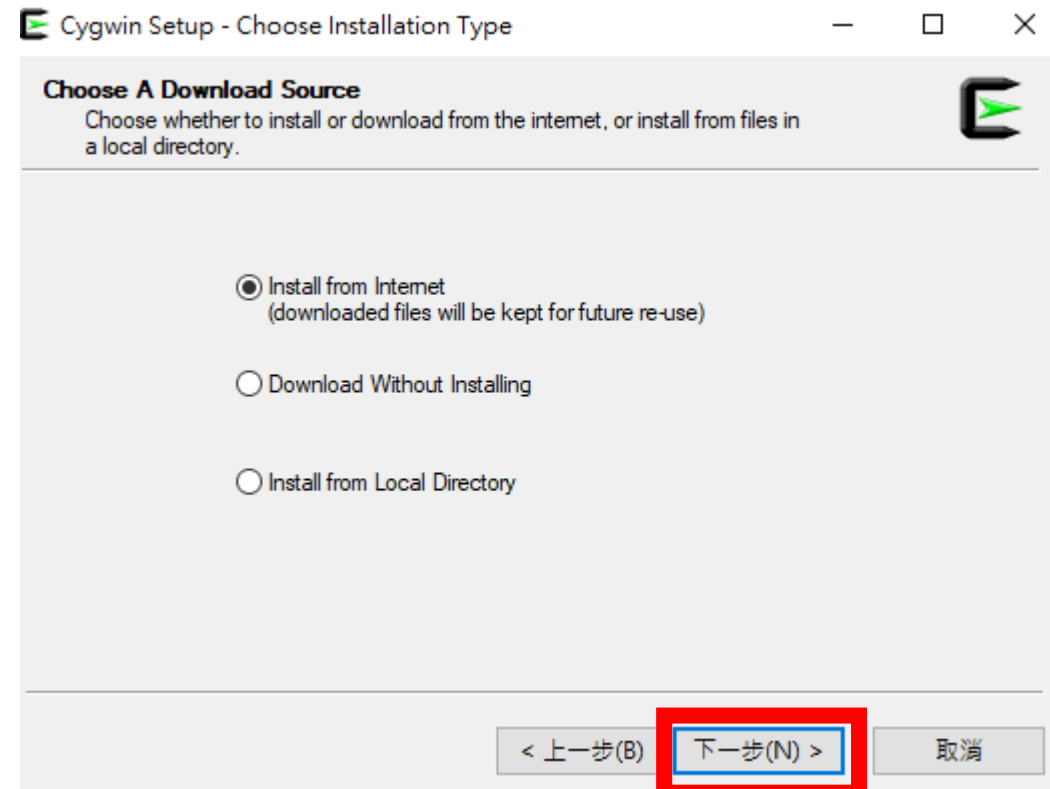
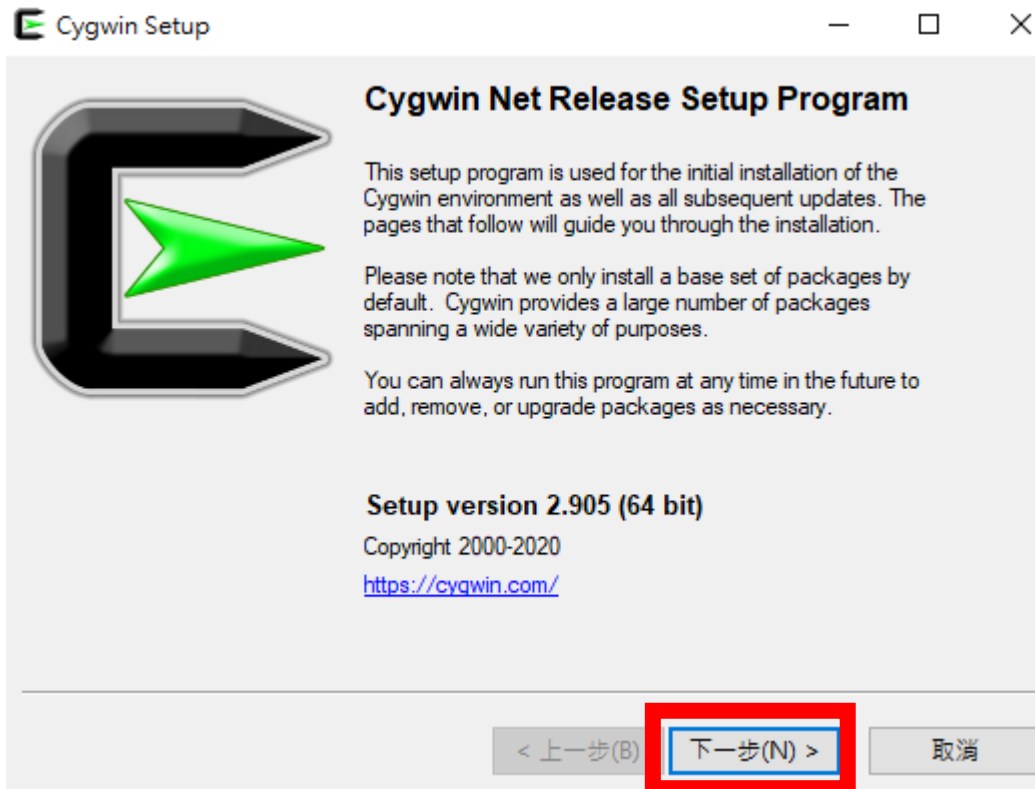
## Installing and Updating Cygwin Packages

### Installing and Updating Cygwin for 64-bit versions of Windows

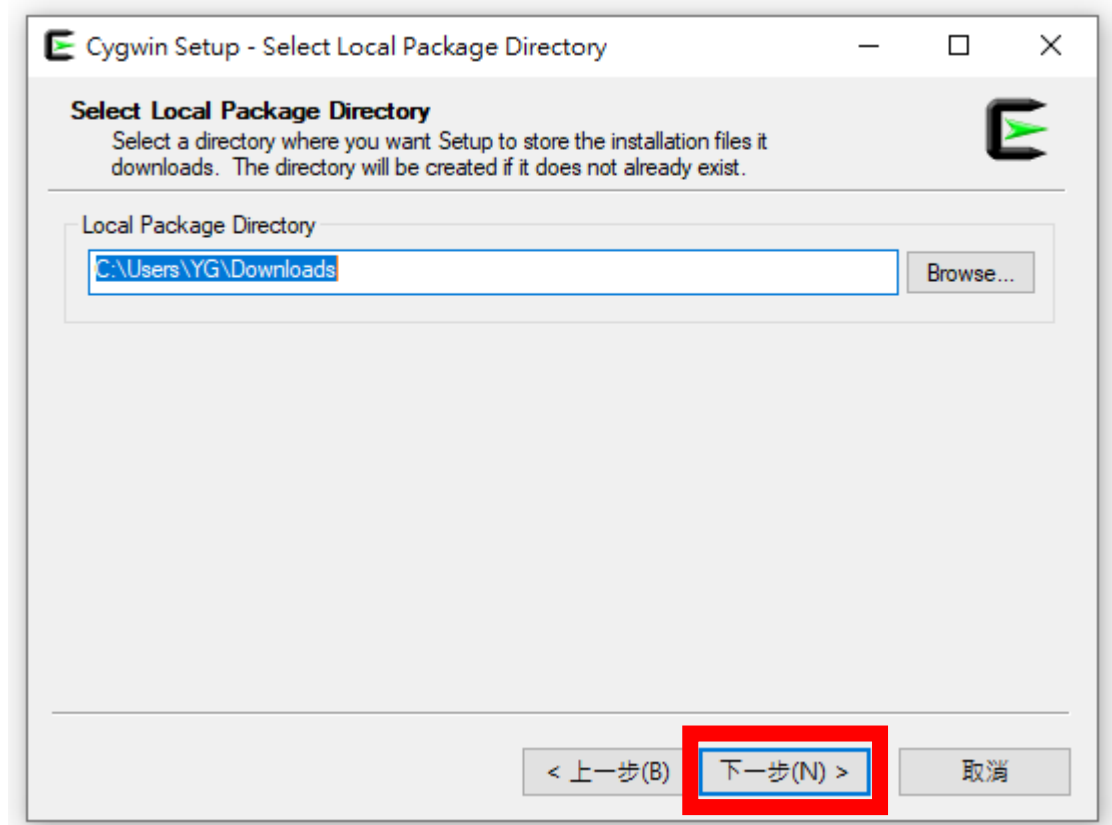
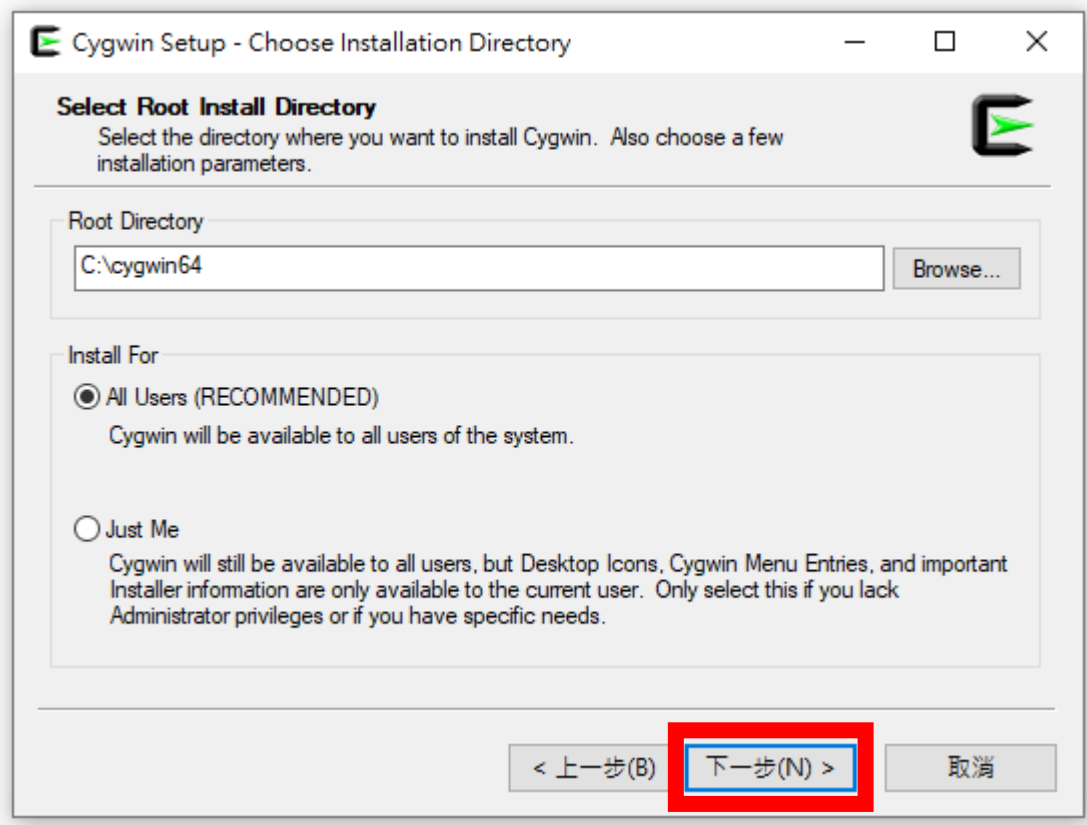
Run [setup-x86\\_64.exe](#) any time you want to update or install a Cygwin package for 64-bit windows. The [signature](#) for [setup-x86\\_64.exe](#) can be used to verify the validity of this binary.



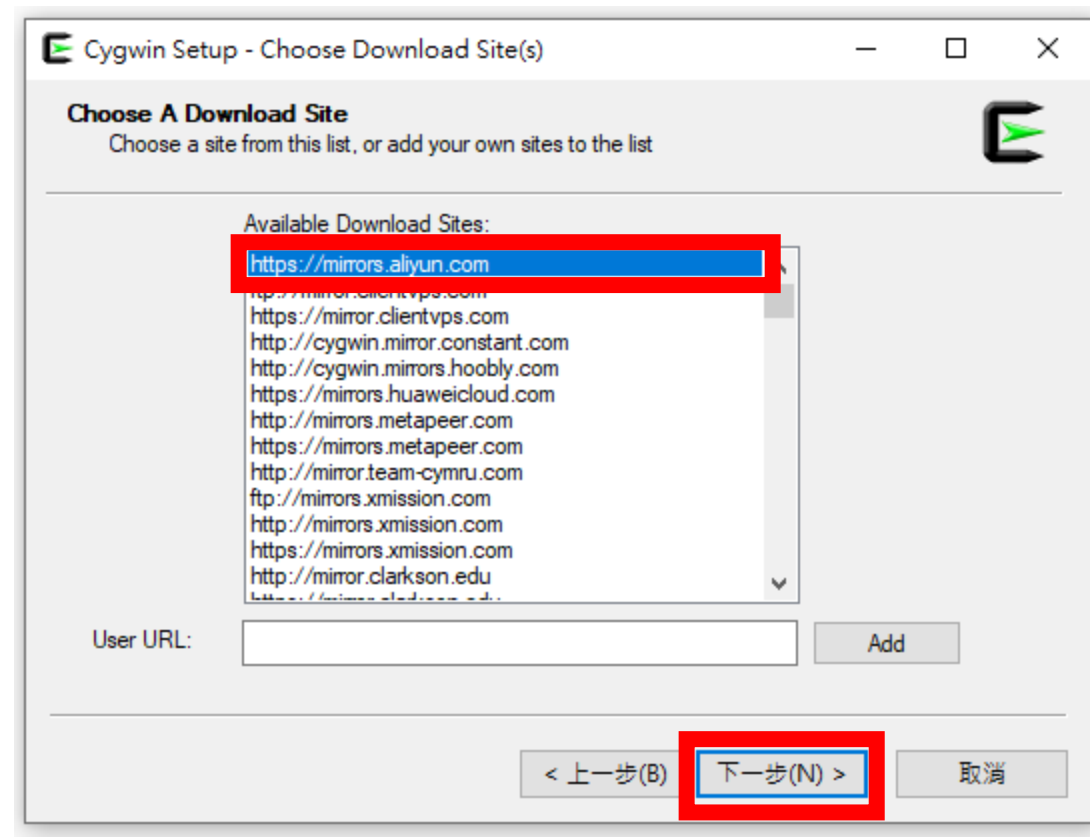
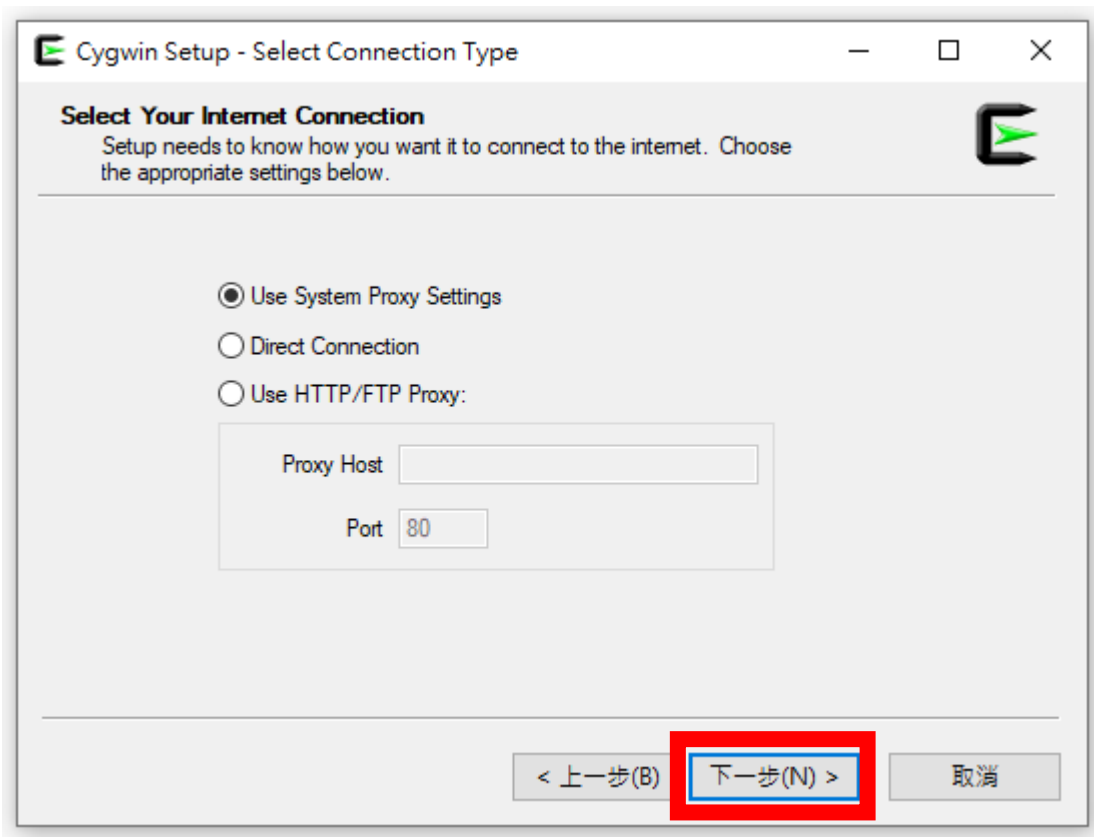
# Cygwin64 installation



# Cygwin64 installation

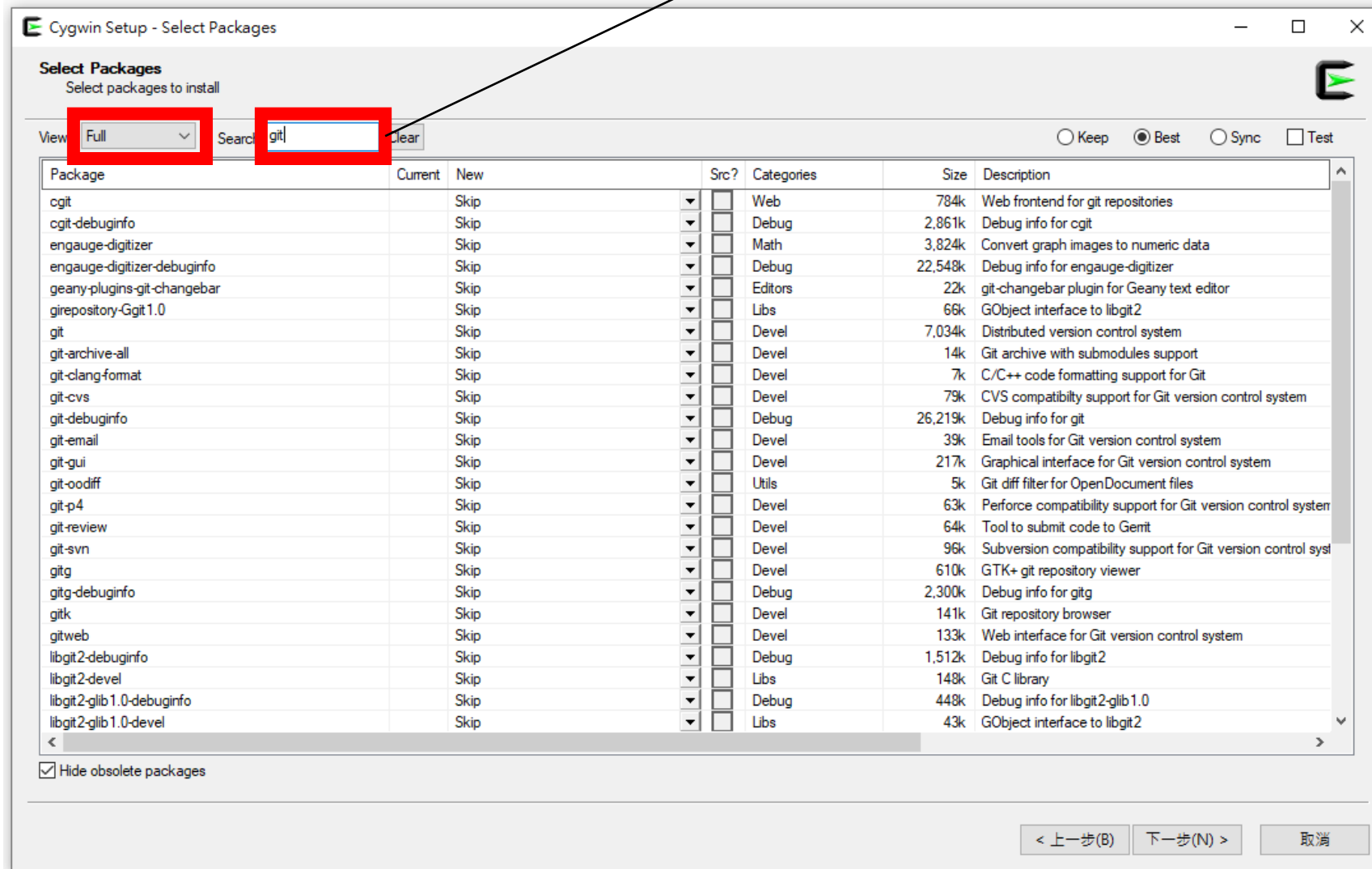


# Cygwin64 installation

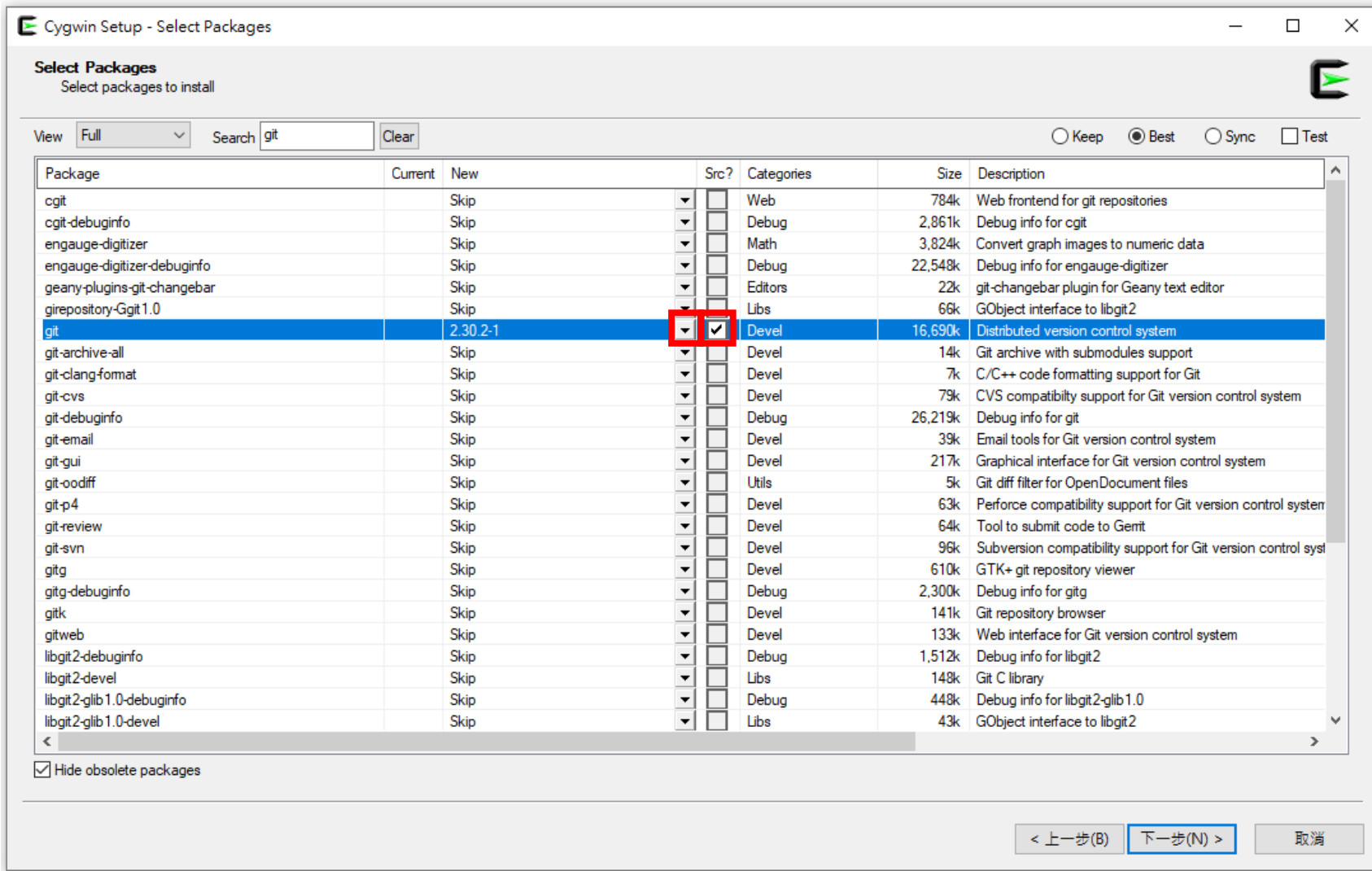


# Cygwin64 installation

Search: git , xxd, make, unzip, curl



# Cygwin64 installation



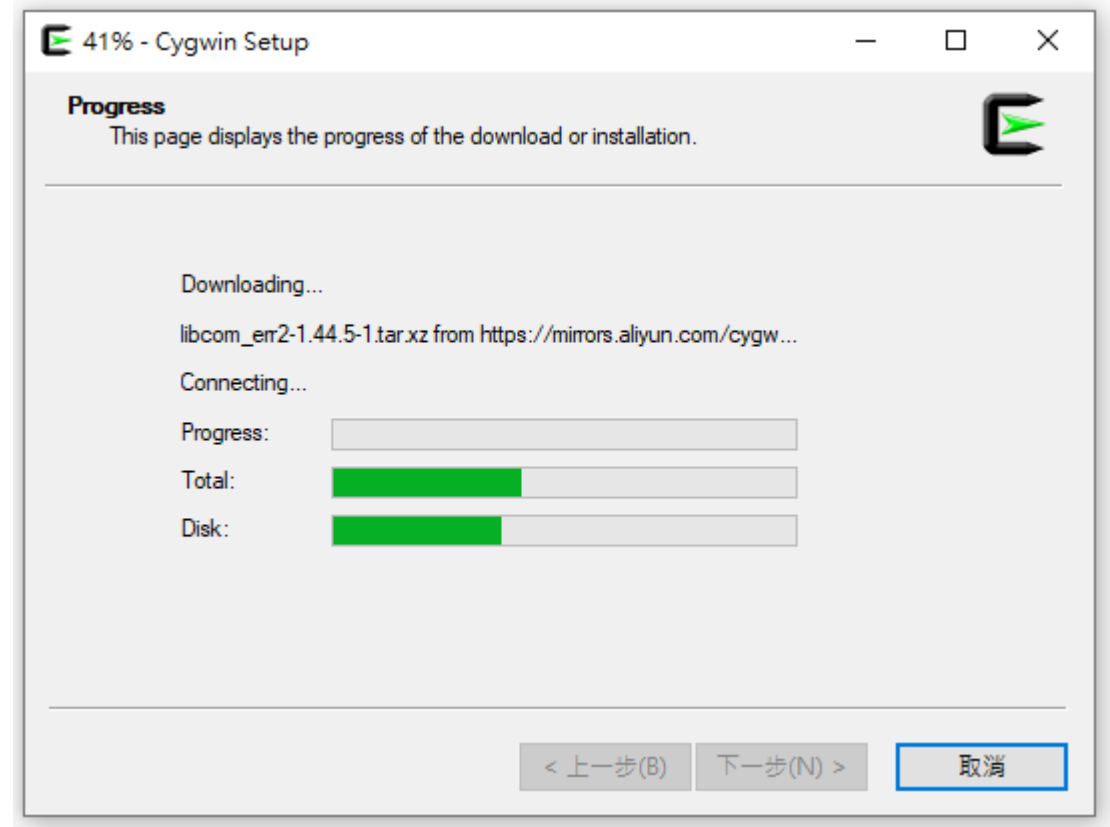
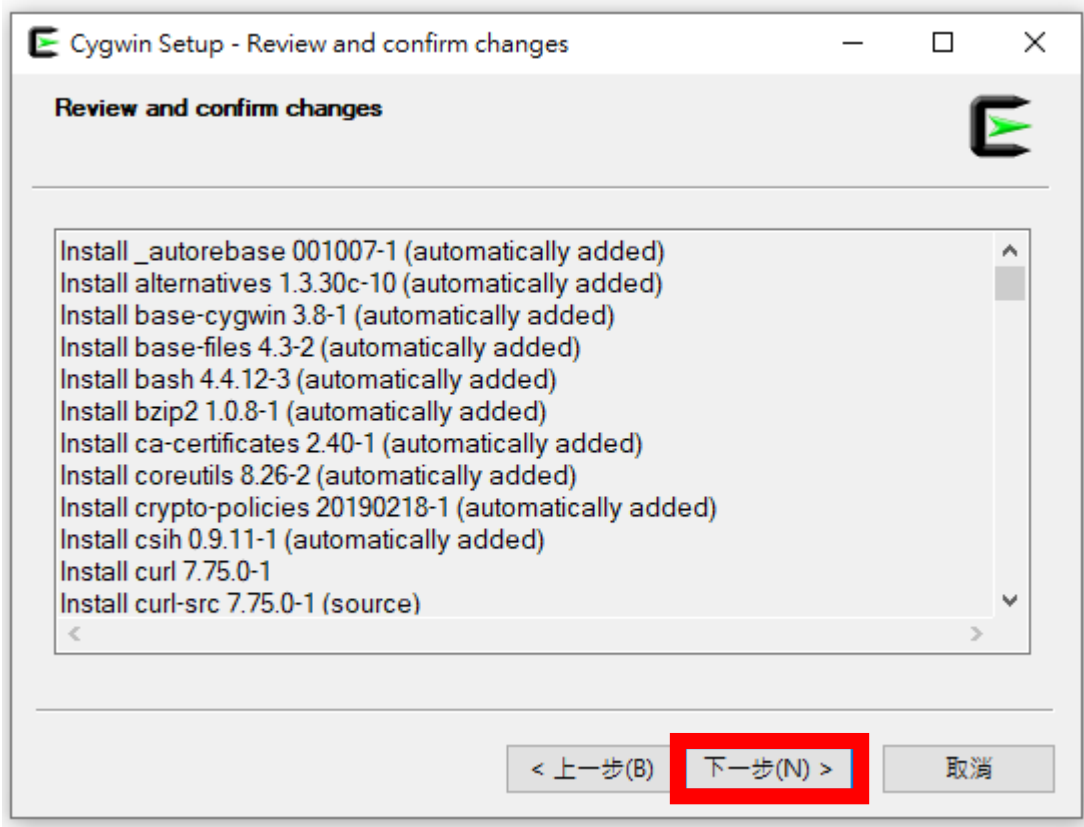
1. 按 選擇最新版本

2. 打勾

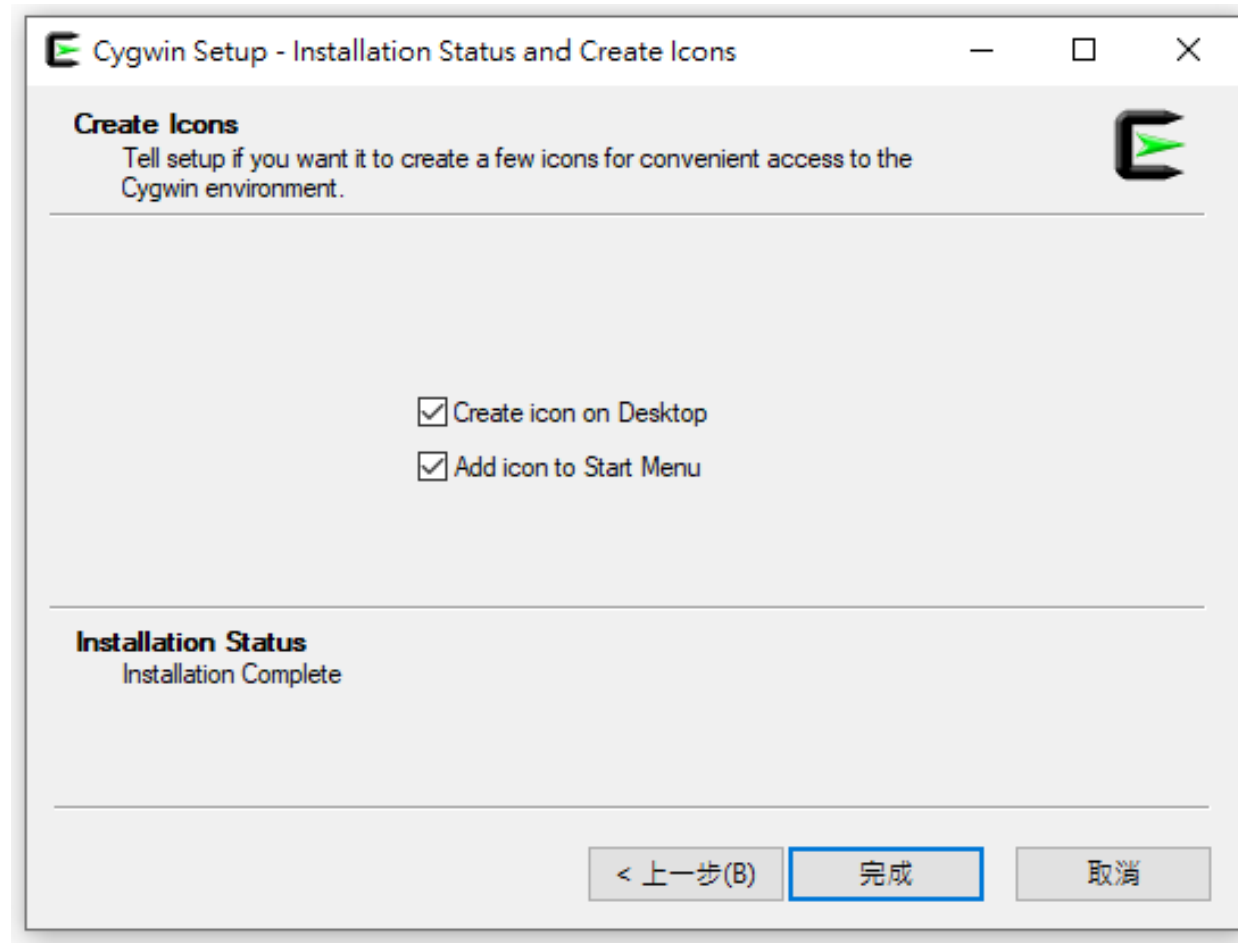
3. 請重複以上步驟在Search的欄位依序搜尋: git, xxd, make, unzip, curl 且選擇版本&打勾

4. 上述完成後再按

# Cygwin64 installation



# Cygwin64 installation



# Install Teraterm





# Teraterm Installation

- Go to <https://ttssh2.osdn.jp/index.html.en>

## Tera Term Home Page

[\[Project page\]](#) [\[License\]](#) [\[Download\]](#) [\[Document\]](#) [\[Snapshot\]](#) [\[SourceCode\]](#) [\[Users ML\]](#) [\[Commit ML\]](#) [\[Development\]](#)

8468346 (Today: 1067 Yesterday: 2515)

## TeraTerm Project

TeraTerm Project would have been developed terminal emulator "Tera Term" and SSH module "TTSSH". This software is open source software in [Project Page](#) on OSDN.

## Download

Latest version is available from OSDN [download page](#). Current latest release is [4.105](#).

If you can get latest development version, the source code is available from [SVN repository](#). And [snapshot](#) is here. Here is the [Old release](#), however we recommend using the latest release as possible.

## Manual

Following manuals are available.

These manuals are the latest contents. New feature not including the release version will be written.

However, a user can check next version contents. Tera Term developer can preliminarily respond the user request.

# Teraterm Installation

- Download teraterm-4 .105.exe

**Download List**

**Project Description**

Tera Term is [Tera Term Pro 2.3](#) succession version and is being officially recognized by the original author. Tera Term is open source free software terminal emulator.

**System Requirements**

Operating System: Windows 7, Windows 95/98/ME, Windows NT/2000

**Download Package list**

**Tera Term** (37 items) Hide 🔗

4.105 (2 files) Hide 🔗

Name

[teraterm-4.105.exe](#) 🔗

[teraterm-4.105.zip](#) 🔗

4.104 (2 files) Show 🔗

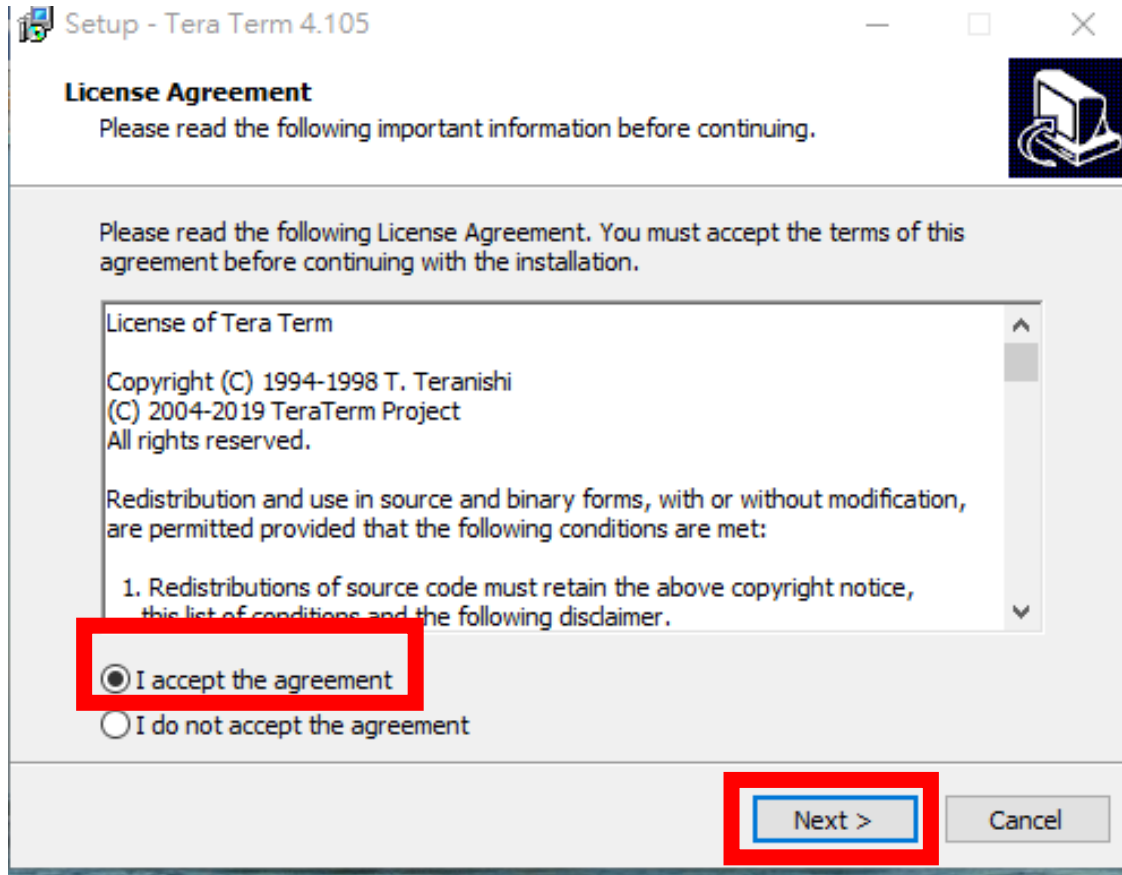
4.103 (2 files) Show 🔗

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[Accept](#) [Privacy policy](#) [Term of Use](#)

# TeraTerm Installation

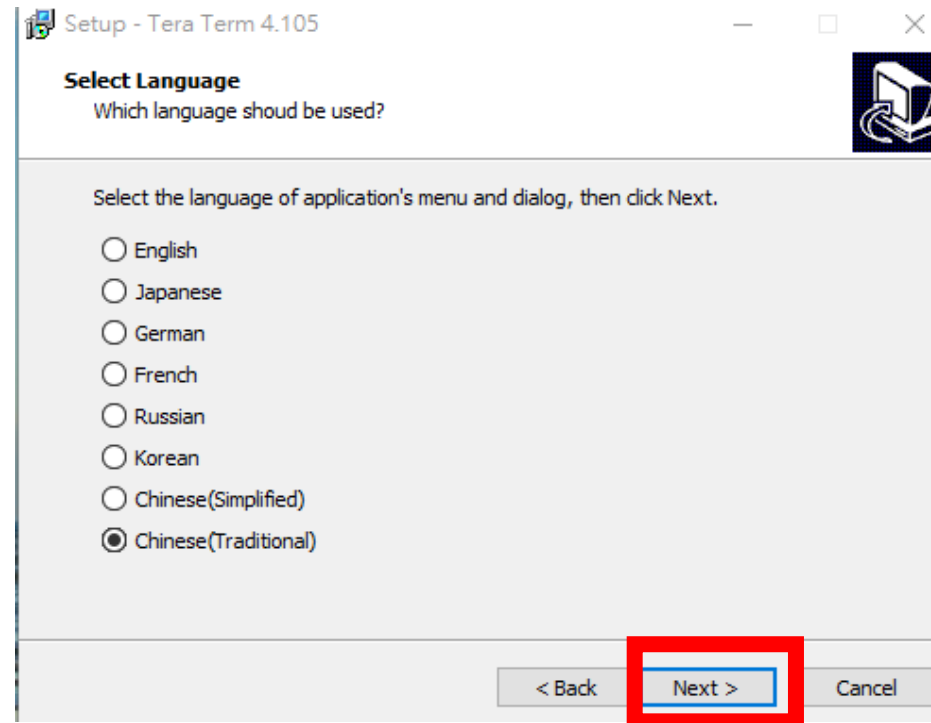
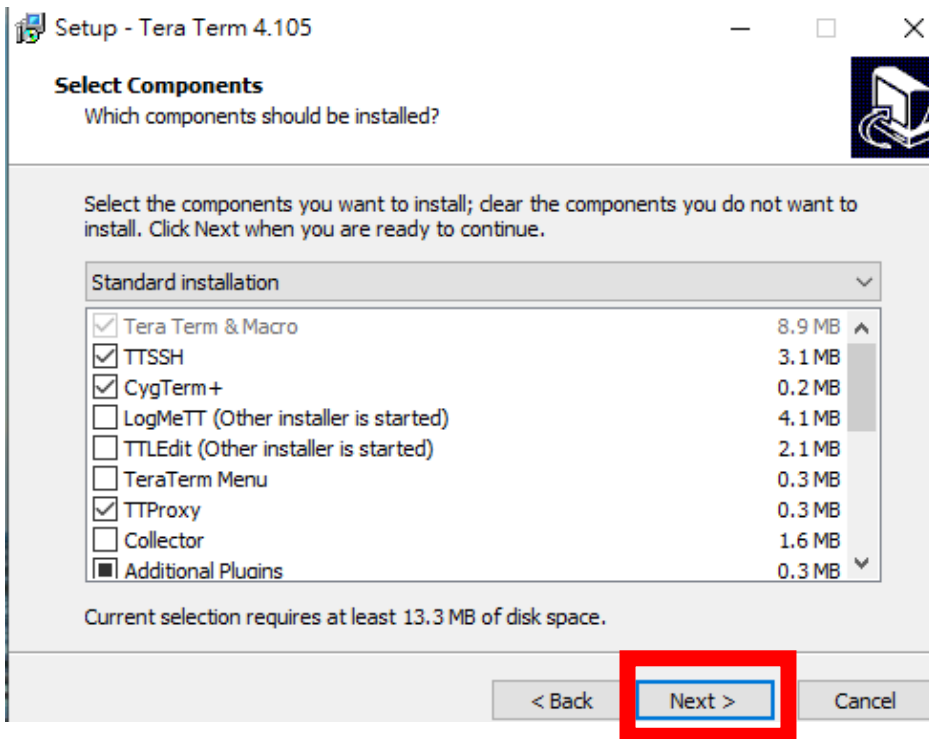
- Accept the agreement after reading it and select next



# Teraterm Installation

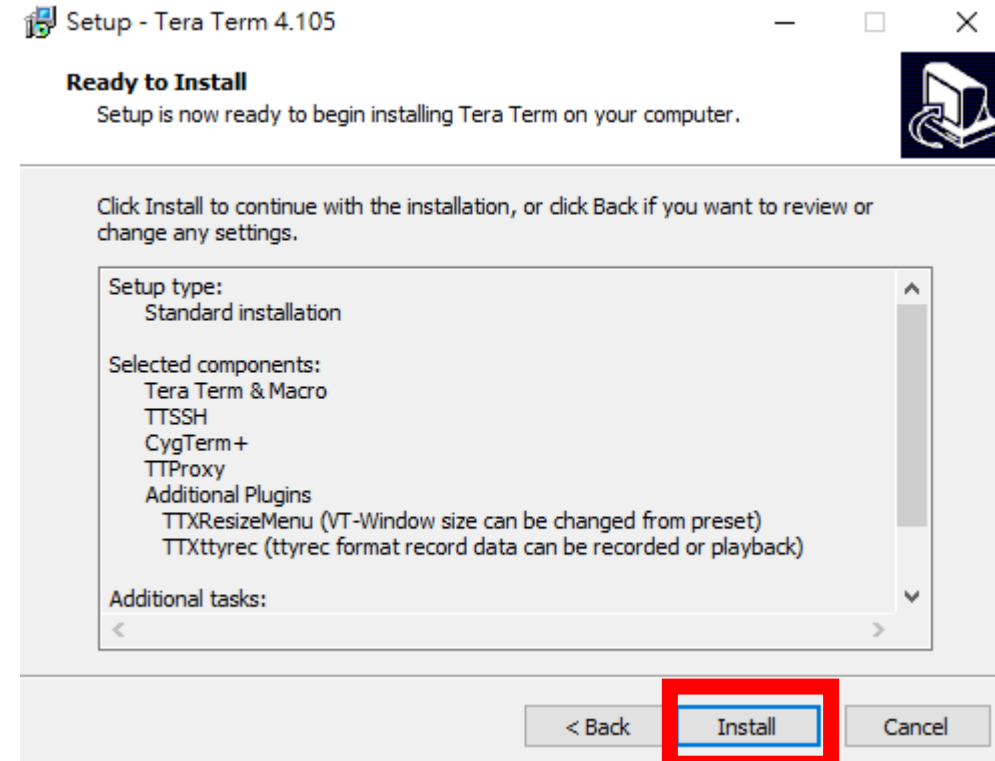
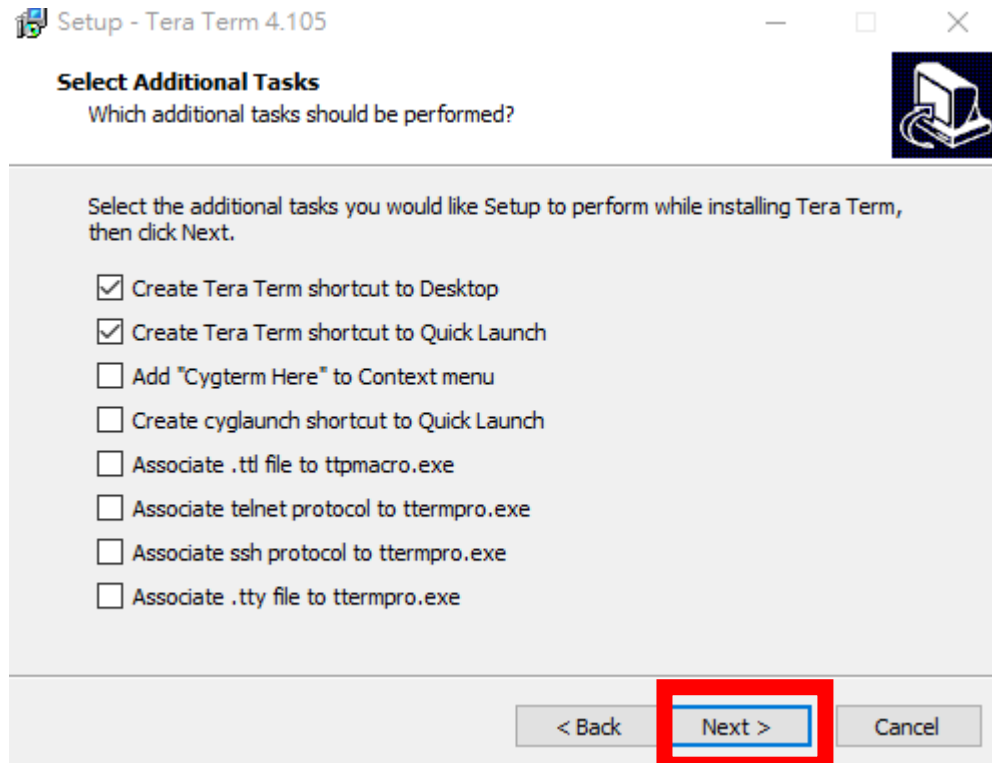
- Keep selecting Next

English or Chinese(Traditional) is recommended in this workshop



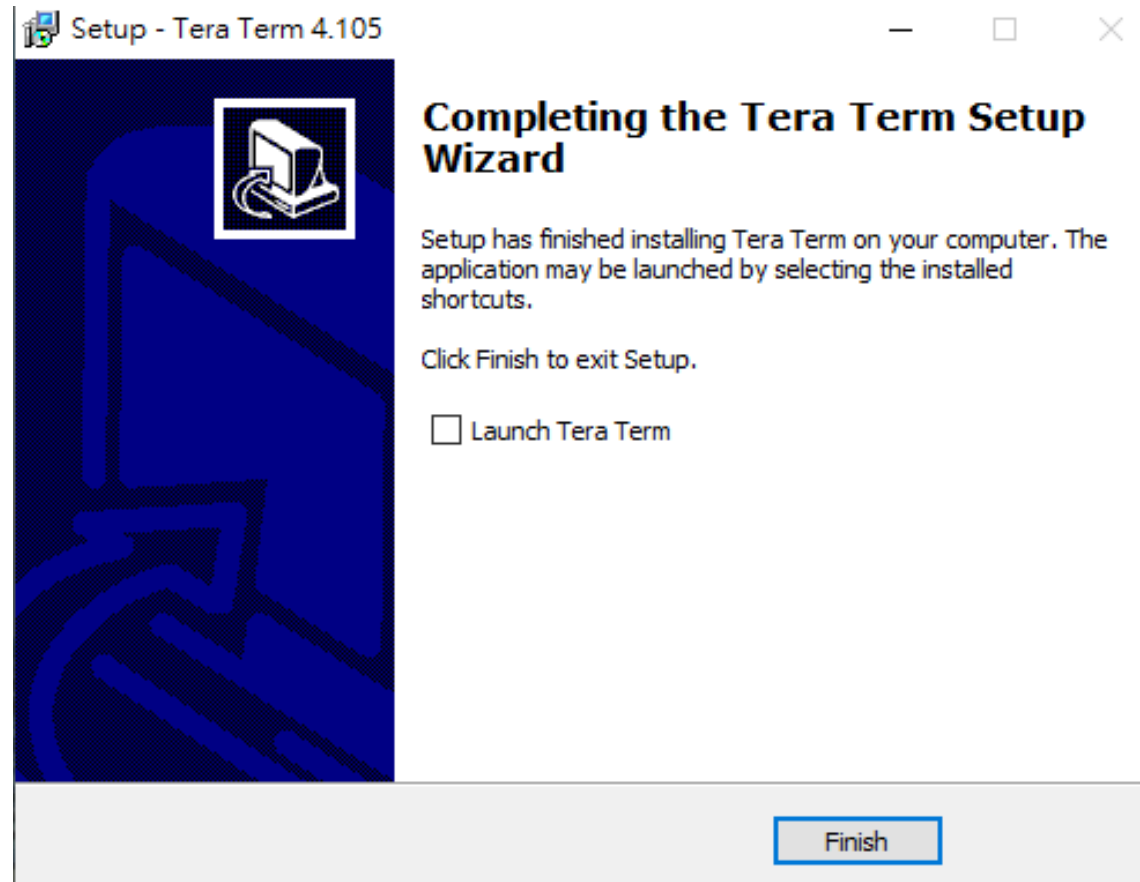
# Teraterm Installation

- Keep selecting Next and install



# TeraTerm Installation

- Done

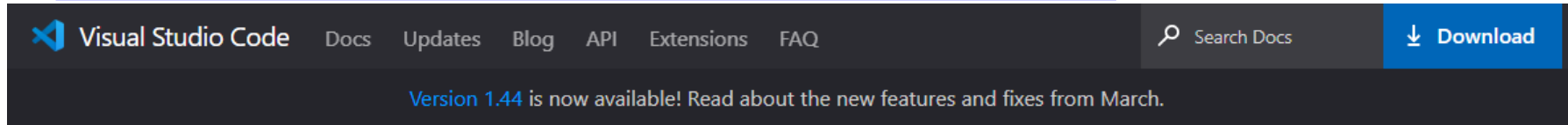


# Install VScode




# Installation of VScode


- Step 1 – Go to download page of VScode :  
<https://code.visualstudio.com/download>




## Download Visual Studio Code


Free and built on open source. Integrated Git, debugging and extensions.




 **Windows**  
Windows 7, 8, 10

User Installer	64 bit	32 bit
System Installer	64 bit	32 bit
.zip	64 bit	32 bit





 **.deb**  
Debian, Ubuntu

 **.rpm**  
Red Hat, Fedora, SUSE

.deb	64 bit
.rpm	64 bit
.tar.gz	64 bit

[Snap Store](#)

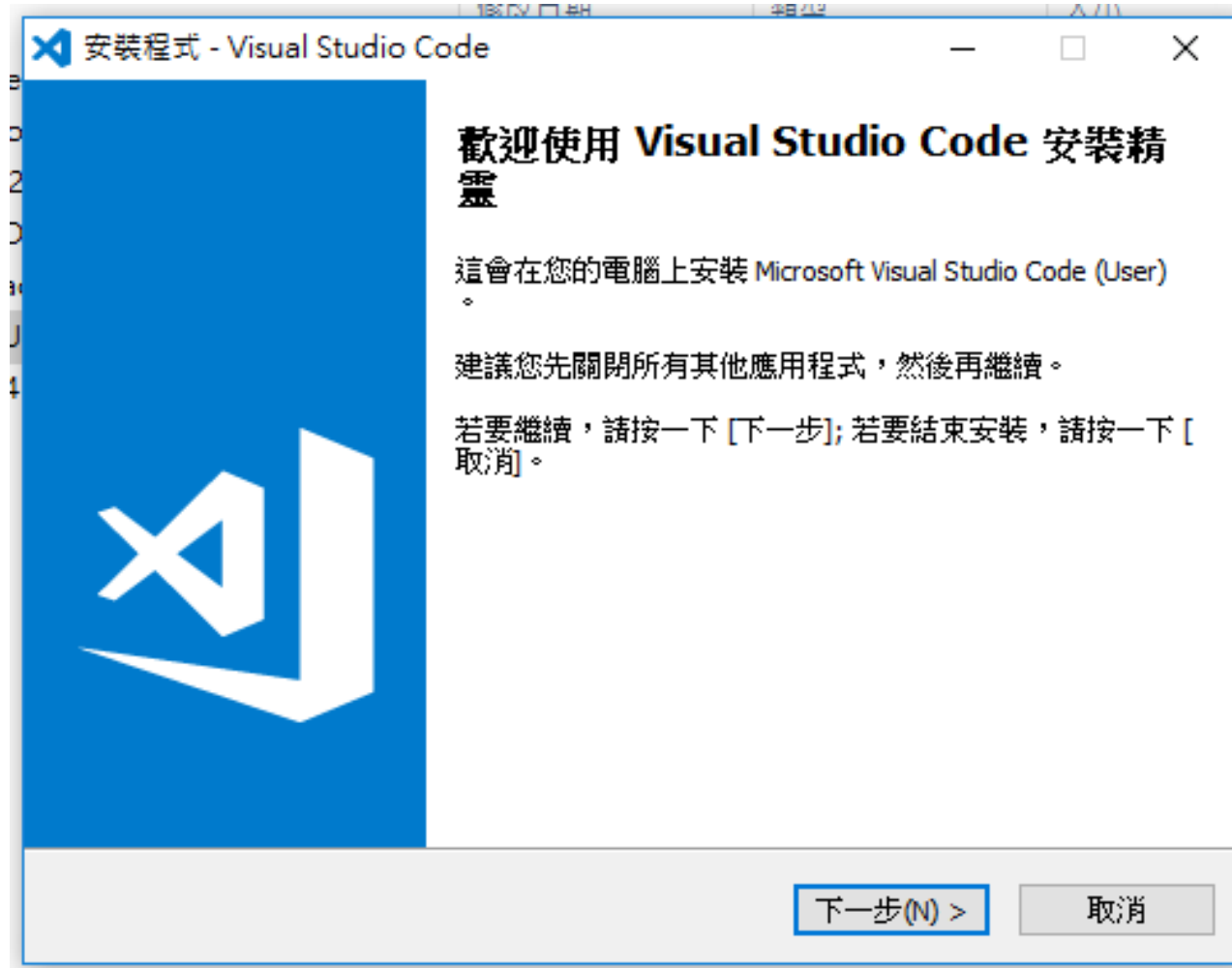


 **Mac**  
macOS 10.10+



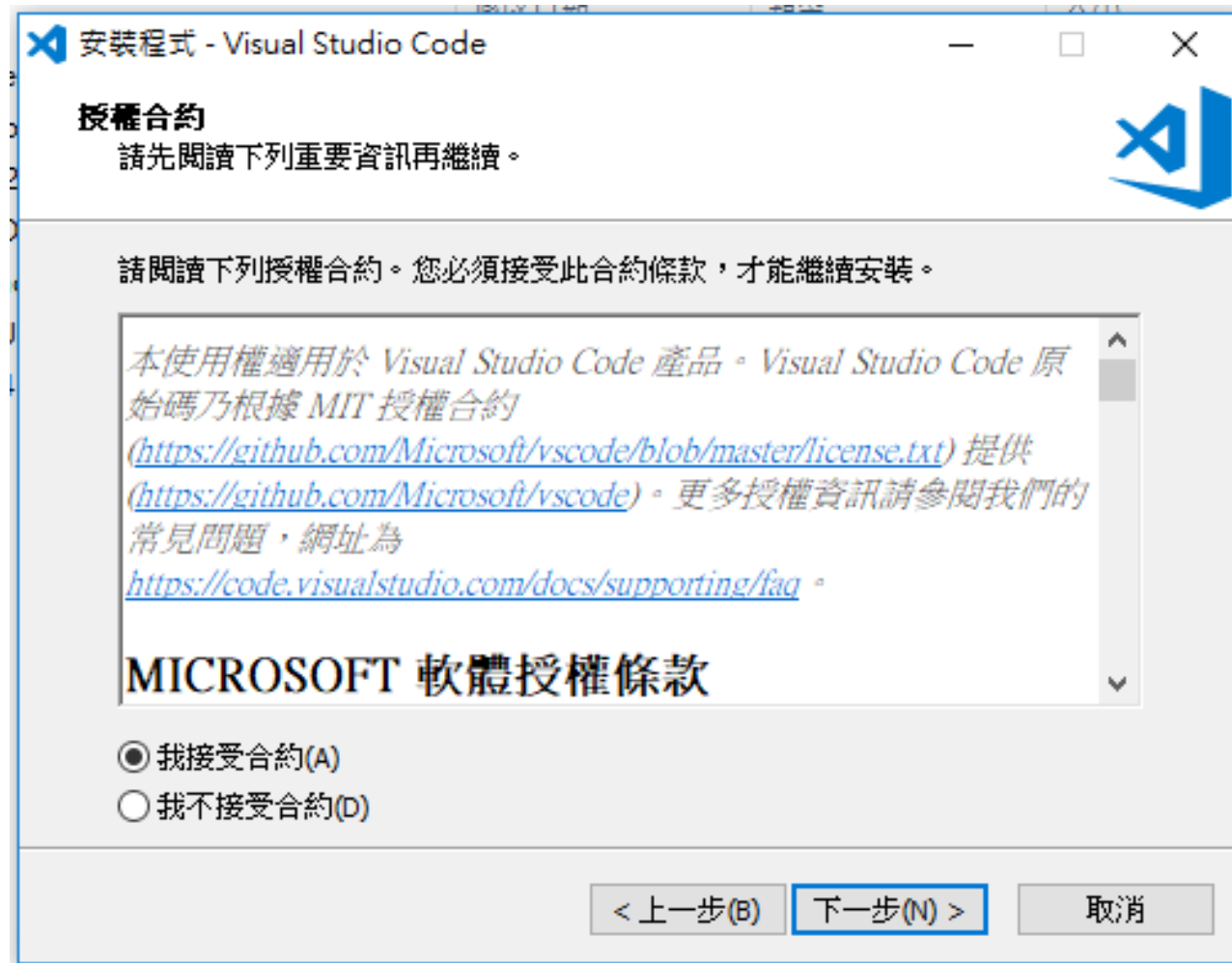
# Installation of VScode

- Step 2 – Double click the installation file and press next



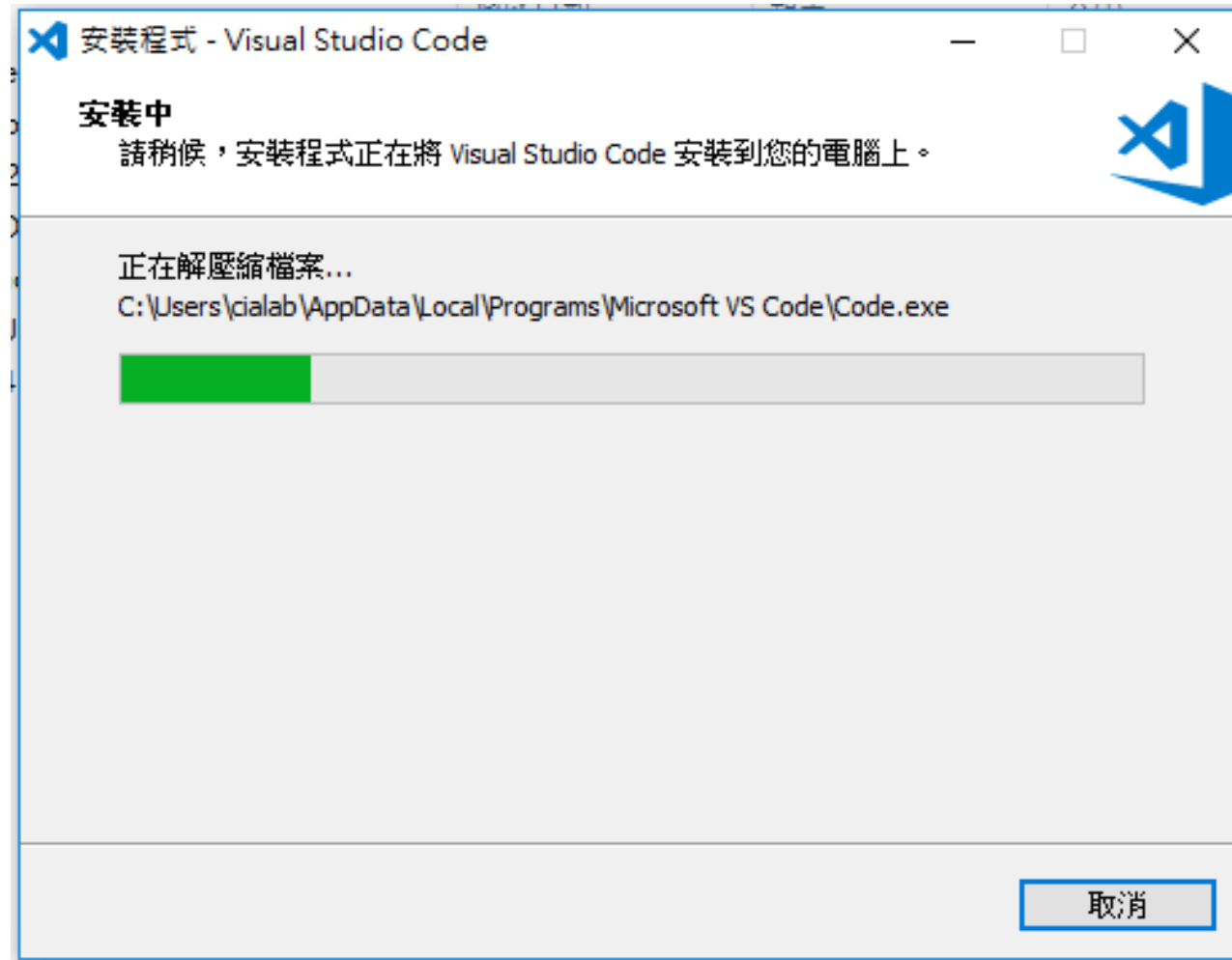
# Installation of VScode

- Step 3 – Accept the contract and press next...



# Installation of VScode

- Step 4 – Start to install...



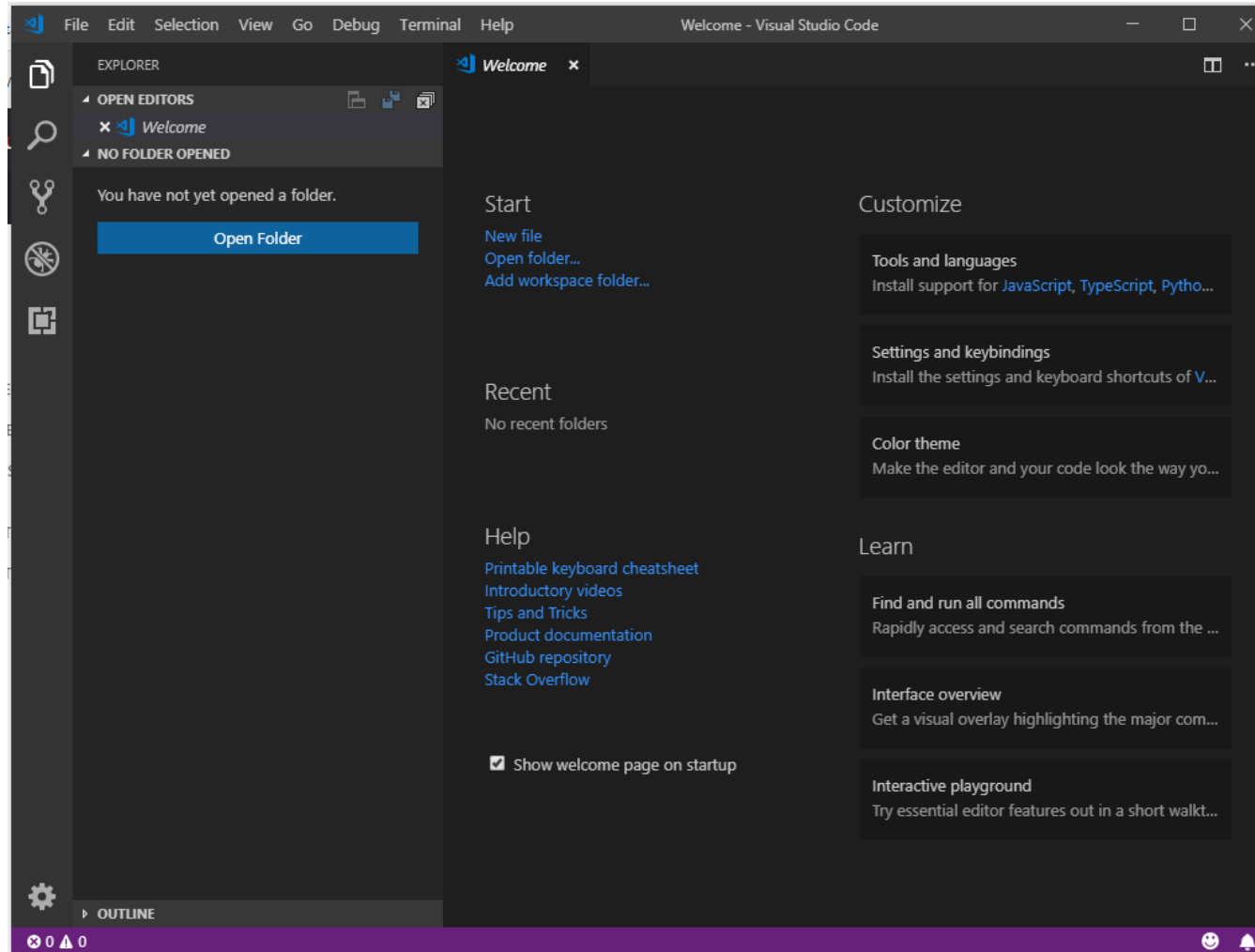
# Installation of VScode

- Step 5 – Press finish



# Installation of VScode

- Step 6 – Try to open the VScode



# Install ARC GNU ToolChain



# Installation of ARC GNU ToolChain

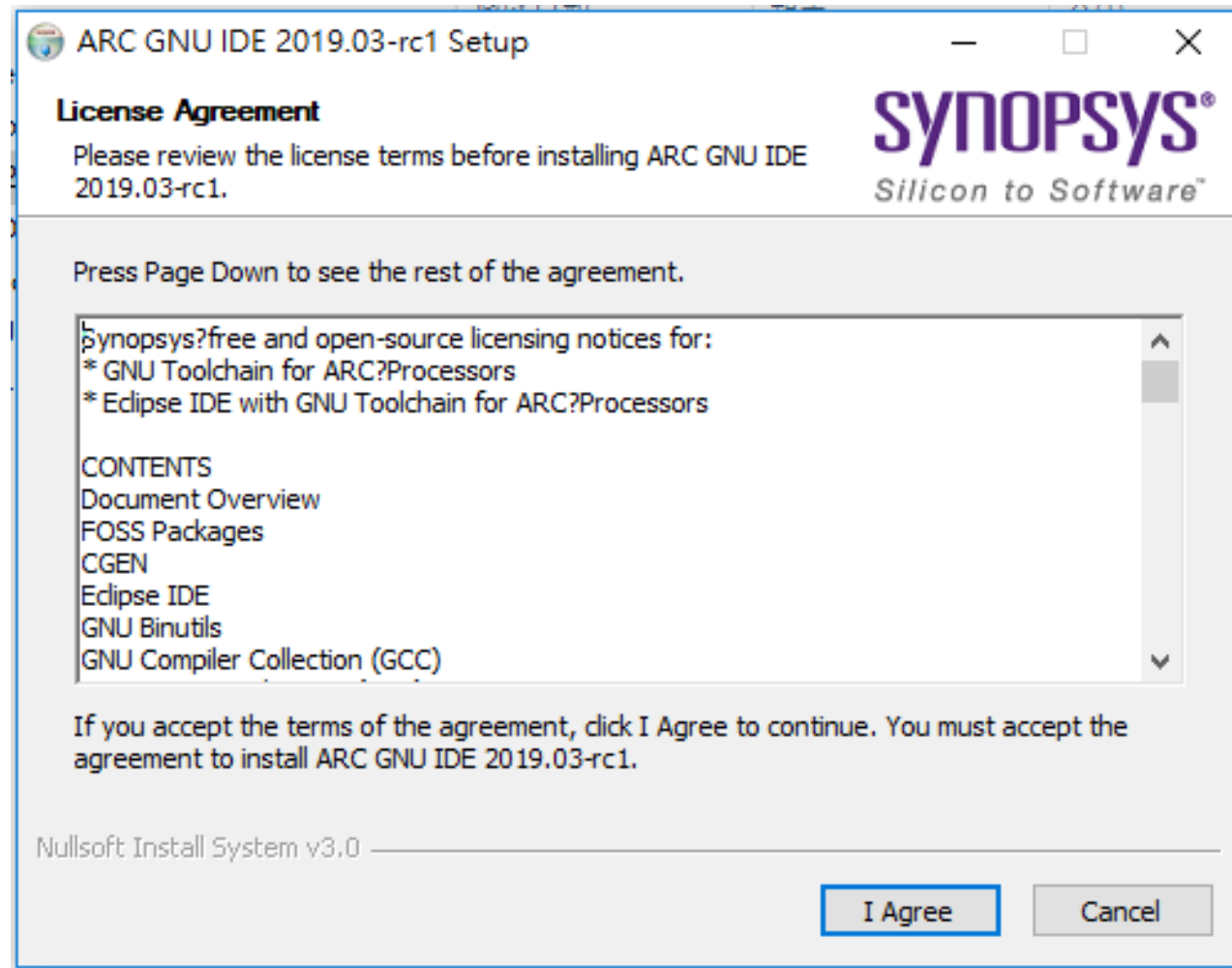
- Step 1 – Go to the download page :

<https://github.com/foss-for-synopsys-dwc-arc-processors/toolchain/releases/>

	Linux x86_64	Windows x86_64	Linux ARC HS	macOS x86_64
Baremetal	Little endian \ Big endian			Little endian \ Big endian
Linux/uClibc ARC700	Little endian \ Big endian			
Linux/uClibc ARC HS	Little endian \ Big endian		Little endian	
Linux/glibc ARC HS	Little endian \ Big endian			
IDE	Download	Download		Download

# Installation of ARC GNU ToolChain

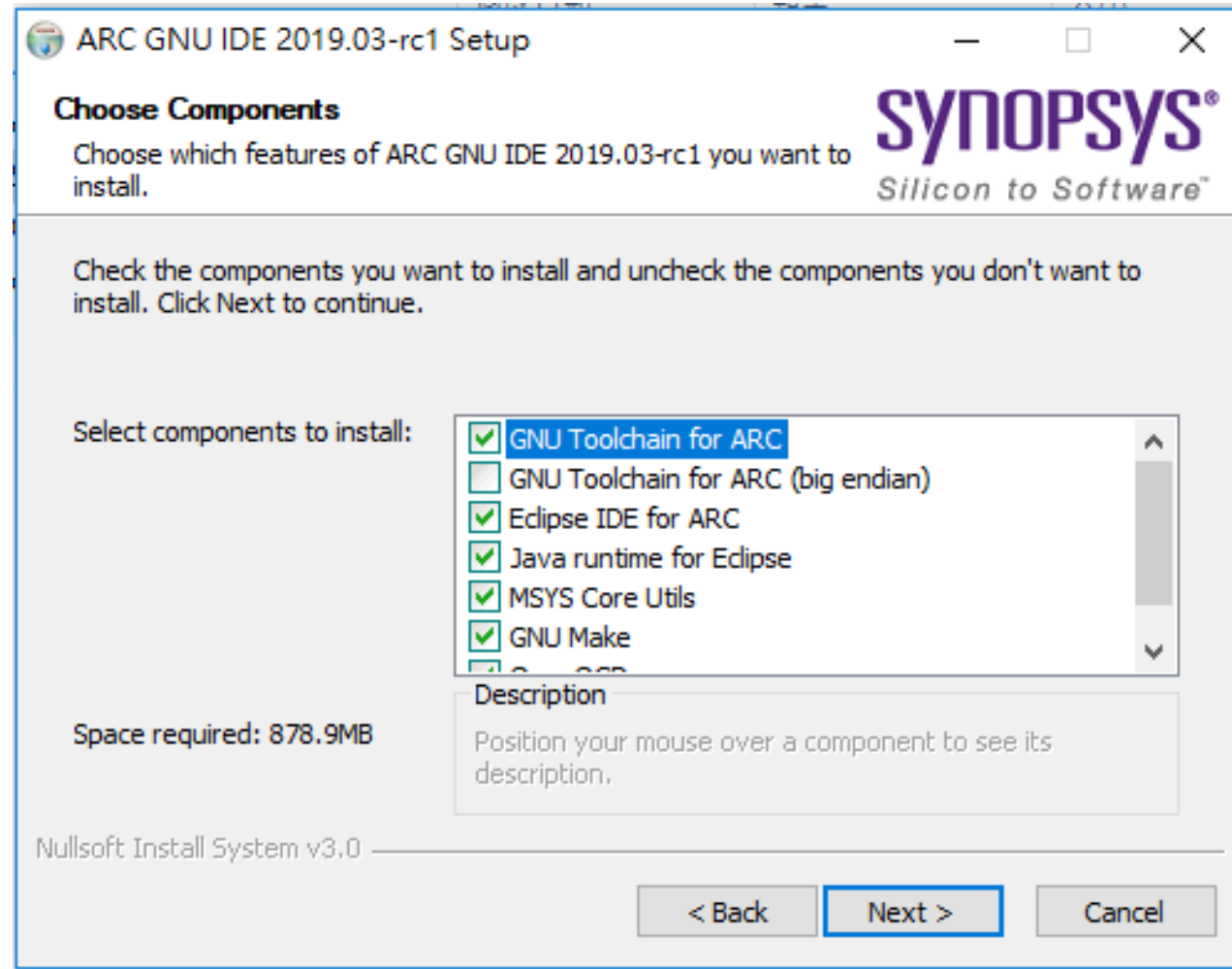
- Step 2 – Double click the installation file and press I Agree





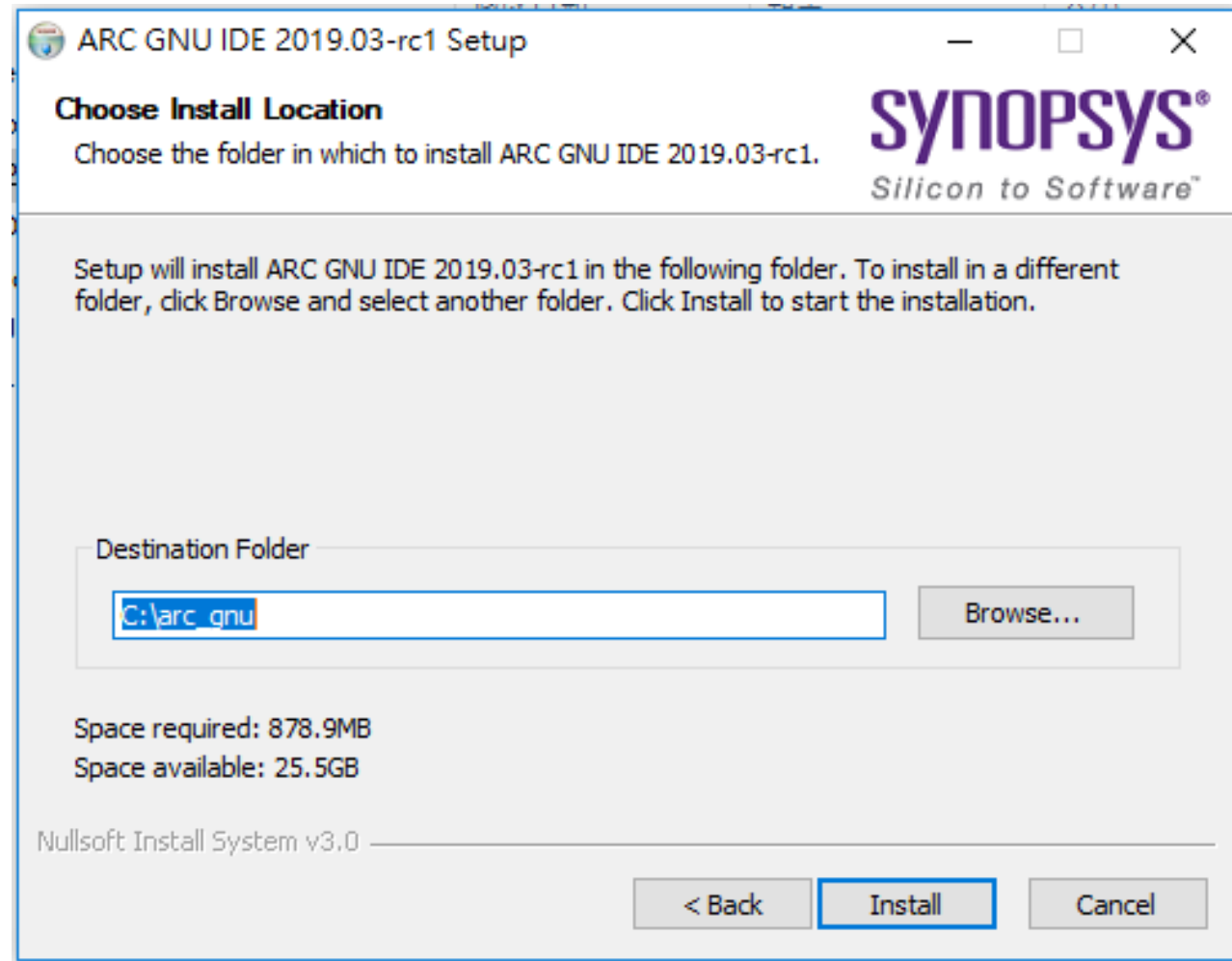
# Installation of ARC GNU ToolChain

- Step 3 – Press Next



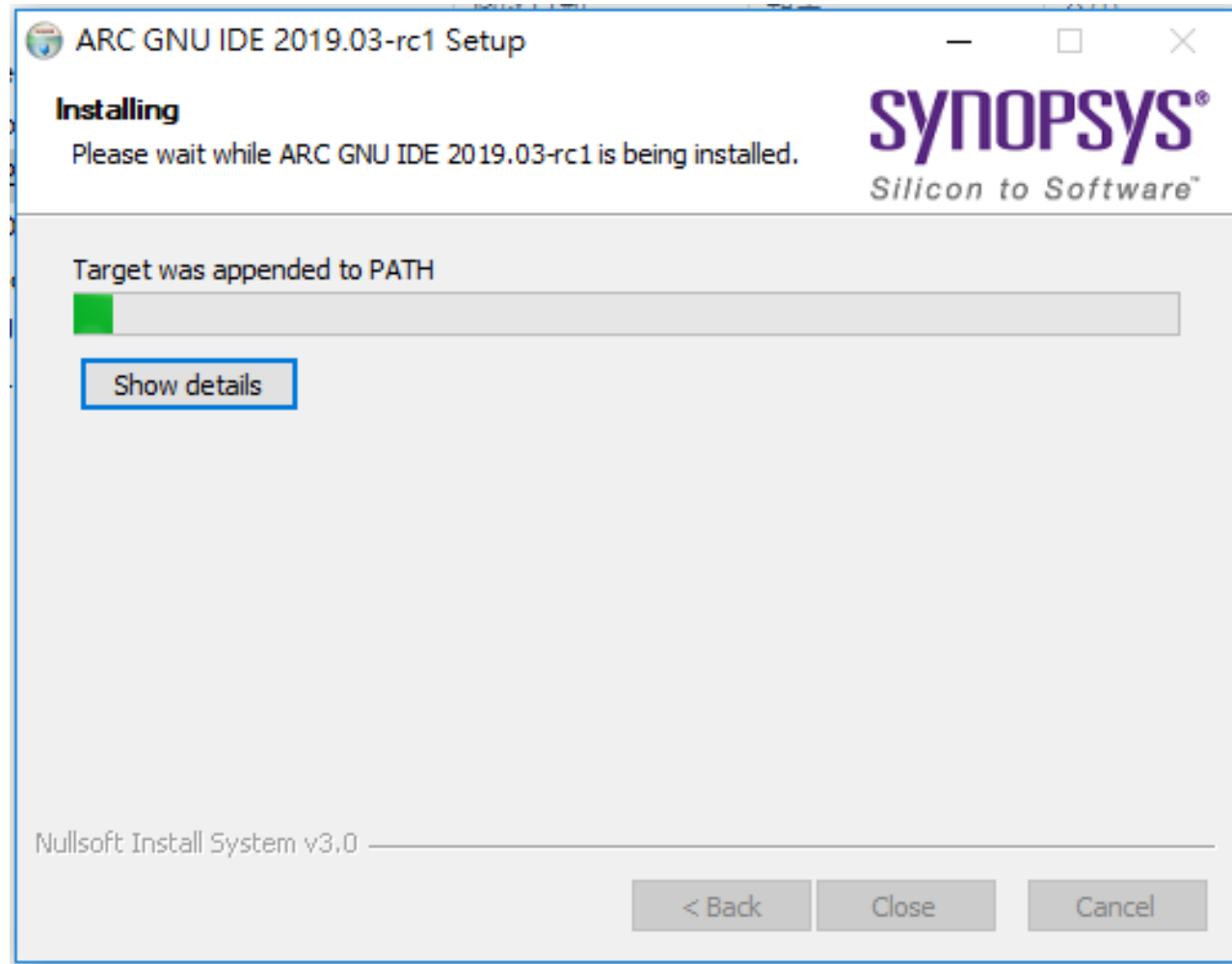
# Installation of ARC GNU ToolChain

- Step 4 – Press Install



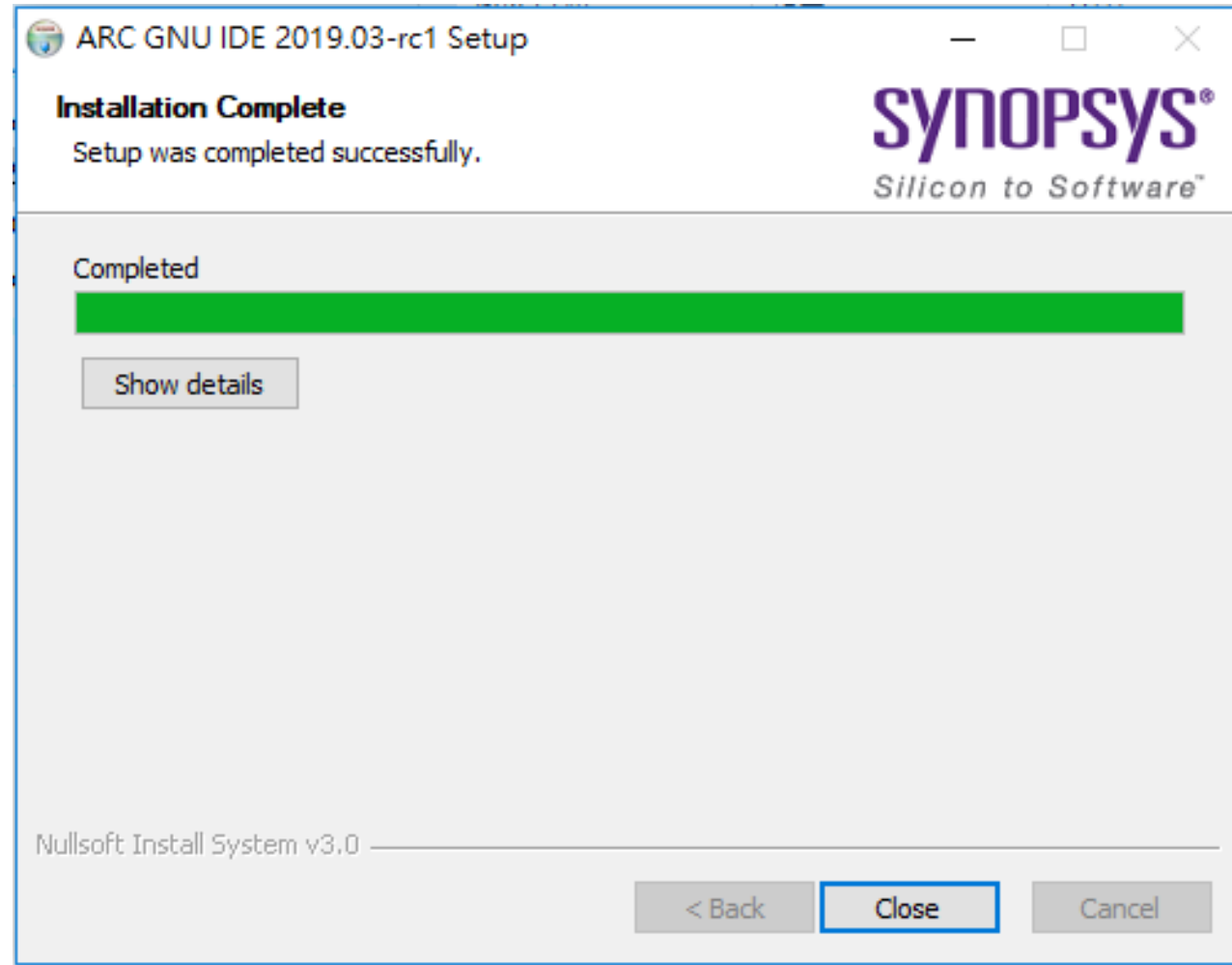
# Installation of ARC GNU ToolChain

- Step 5 – Start to install...



# Installation of ARC GNU ToolChain

- Step 6 - Press close and complete the installation



# Appendix-1: Metaware Install



# MetaWare Download

- 台灣學界人員可向TSRI申請MetaWare使用權限，申請流程可至TSRI網站，設計服務 > 軟體申請須知 進行查詢。

<https://www.tsri.org.tw/main.jsp>

- 請指導教授先完成申請TSRI會員，接著即可申請要使用之軟體，並且登錄欲要用該軟體之實驗室電腦IP。
- 指導教授為TSRI會員後，學生可點選登入會員，接著選擇註冊帳號，填寫完相關資訊，並等待相關程序處理完畢。



# MetaWare Download

- 進入TSRI 官網 <https://www.tsri.org.tw/main.jsp>
- 點選設計服務->軟體資訊/下載



# MetaWare Download

- 點選軟體申請，跳至會員登入頁面，並完成登入動作

軟體簡介

## 軟體簡介

名稱: MetaWare Development Toolkit

簡介: 軟體功能:  
為因應國內學術界對ARC嵌入式軟體開發工具的需求，TSRI引進新思(Synopsys)公司的DesignWare MetaWare Toolkit軟體開發工具，開放給學術界免費申請使用。



### 功能權限錯誤

您需要先 [登入](#) 才能使用此功能。

其他問題可以先參考 [申請須知](#)。

[聯絡我們](#)

新竹辦公室: 30078 新竹市科學園區展業一路26號  
台南-成大奇美樓: 70101台南市大學路1號成功大學自強校區奇美樓7樓  
最佳瀏覽解析度為1366\*768以上

軟體資訊

軟體申請

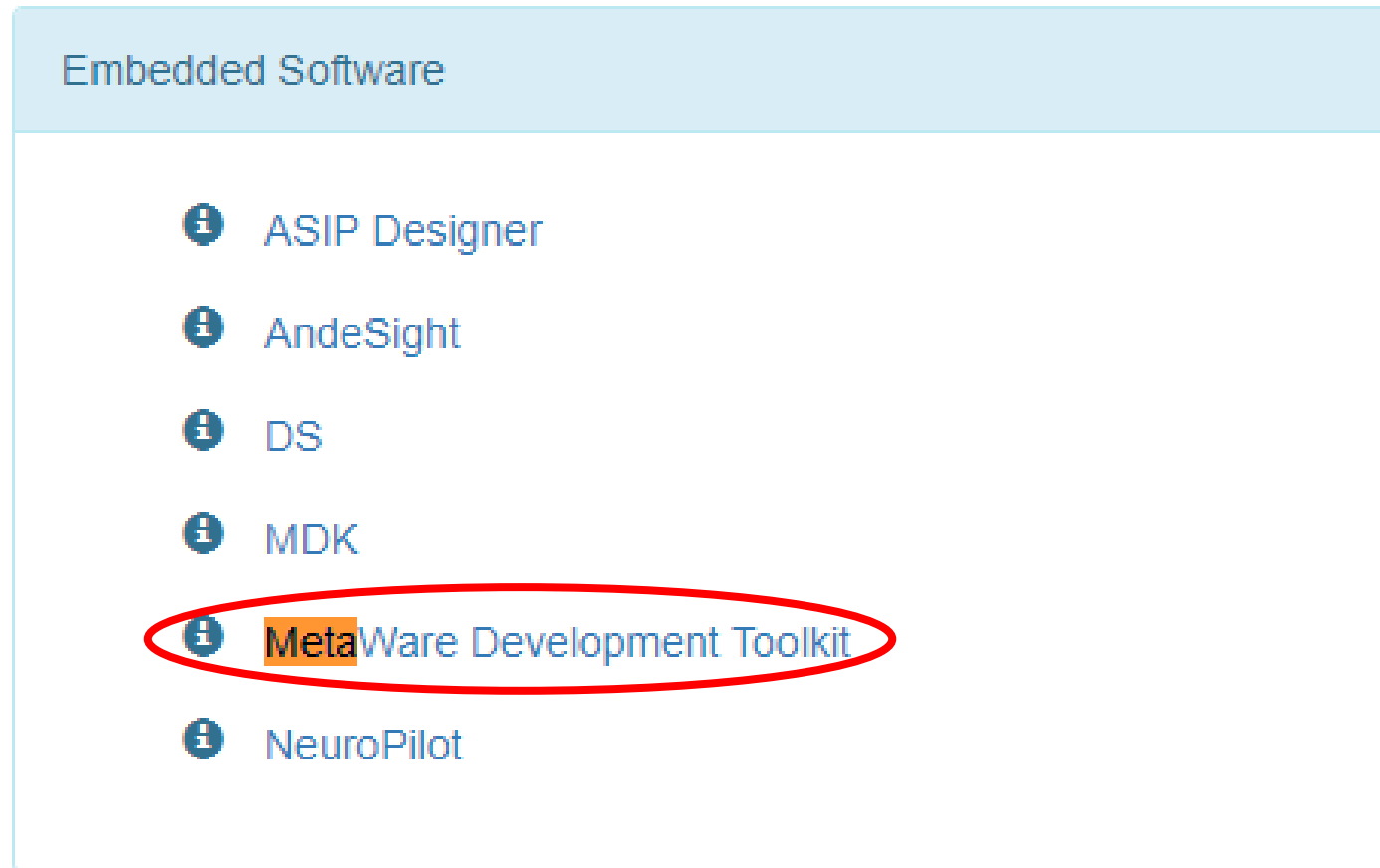
IP登錄

聯絡窗口



# MetaWare Download

- Ctrl+f 搜尋Meta
- 點選MetaWare Development Toolkit



# MetaWare Download

- 點選軟體取得

軟體簡介 軟體取得 實作範例

## 軟體簡介

名稱： MetaWare Development Toolkit

簡介：

軟體功能：

為因應國內學術界對ARC嵌入式軟體開發工具的需求，TSRI引進新思(Synopsys)公司的DesignWare MetaWare Toolkit軟體開發工具，開放給學術界免費申請使用。

DesignWare MetaWare Toolkit可以針對ARC HS及ARC EM 平台進行相關的軟體開發、分析及除錯。

軟體內容：

1. 單一工具鏈支援所有ARC處理器(ARC 600, ARC 700, ARC EM and ARC HS)
2. 支援進階C++語法,包含Standard Template Library for ARC
3. OS Aware Debugger 可針對 MQX RTOS for ARC
4. 支援多核心除錯
5. Eclipse-based IDE

系統需求：

Windows 7/10, 64-bit

RHEL 6.6/6.7/6.8/7.1/7.3, 64-bit

1 GB of RAM

# MetaWare Download

- 下載 mwev\_... 以及 synopsys\_caffe\_...

軟體簡介 軟體取得 實作範例

## MetaWare Development Toolkit 軟體取得

2020.09

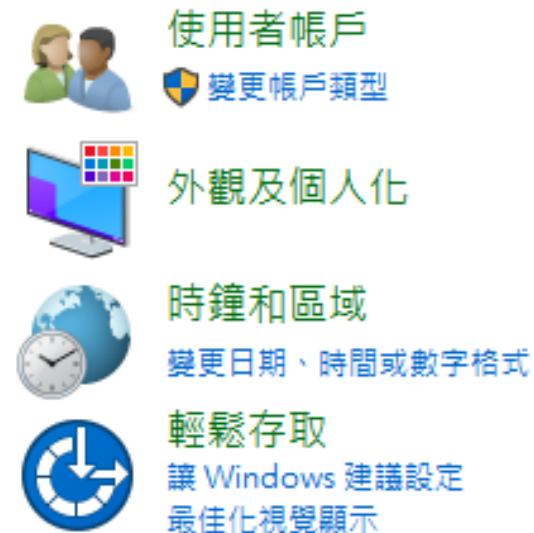
檔案名稱	檔案說明	檔案大小	下載連結
mwev_R-2020_09_win_install.exe	MetaWare Development Toolkit for Windows 64位元版安裝檔	3,382,128,416 bytes	<a href="#">下載</a>
synopsys_caffe_v2020_09.exe	Synopsys caffe 安裝檔 for Windows, install with mwev_R-2020_09_win_install.exe	2,317,838,362 bytes	<a href="#">下載</a>
MWDT_2020.09_linux_1of3.tgz	MetaWare Development Toolkit for Linux Disk 1/3	866,315,860 bytes	<a href="#">下載</a>
MWDT_2020.09_linux_2of3.tgz	MetaWare Development Toolkit for Linux Disk 2/3	1,419,168,522 bytes	<a href="#">下載</a>
MWDT_2020.09_linux_3of3.tgz	MetaWare Development Toolkit for Linux Disk 3/3	2,100,589,978 bytes	<a href="#">下載</a>
mwev_R-2020_09_build_info.txt	MetaWare Development Toolkit 軟體版本說明檔	359 bytes	<a href="#">下載</a>

# License Setting

- 進入控制台->系統及安全性->系統->進階系統設定->->環境變數->系統變數新增

調整電腦設定

檢視:



# License Setting



# License Setting



系統

← → ↕ ↑ 控制台 > 系統及安全性 > 系統

控制台首頁

裝置管理員

遠端設定

系統保護

**進階系統設定**

### 檢視電腦的基本資訊

Windows 版本

Windows 10 專業版

© 2019 Microsoft Corporation. 著作權所有，並保留一切權利。



系統

處理器: Intel(R) Core(TM) i7-4790 CPU @ 3.60GHz 3.60 GHz

已安裝記憶體 (RAM) 16.0 GB (15.9 GB 可用)

系統類型: 64 位元作業系統, x64 型處理器

手寫筆與觸控: 此顯示器不提供手寫筆或觸控式輸入功能。

電腦名稱、網域及工作群組設定

電腦名稱: DESKTOP-398I3S8

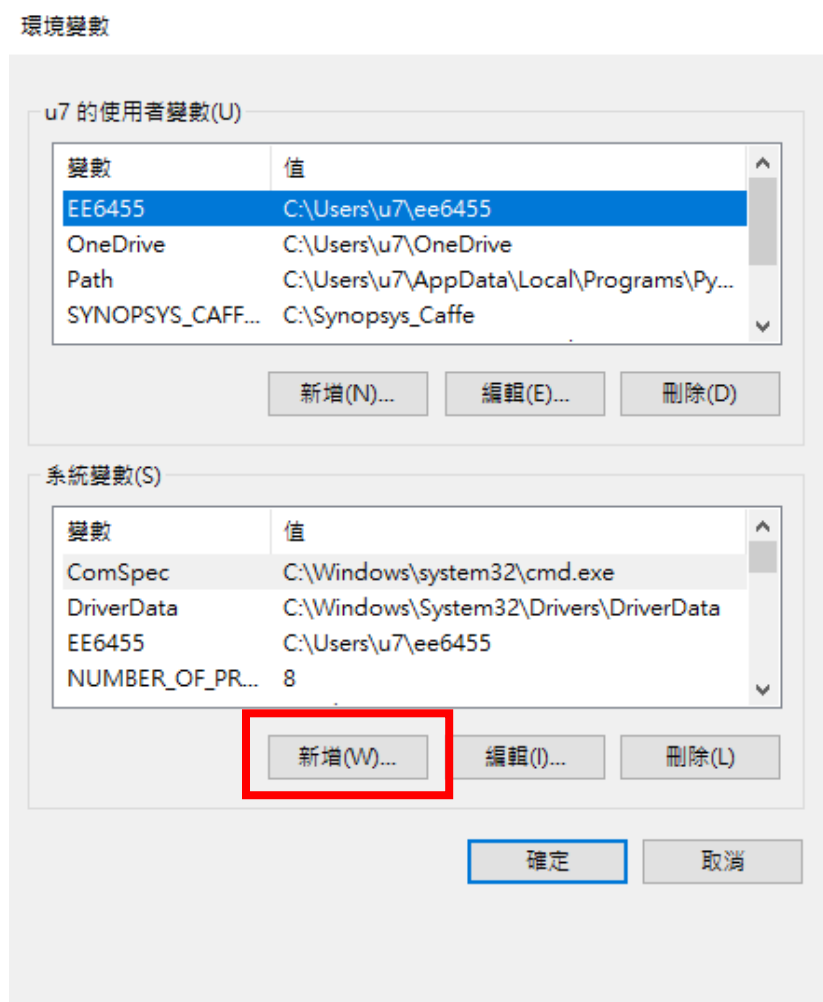
完整電腦名稱: DESKTOP-398I3S8

電腦描述:

工作群組: WORKGROUP

Windows 啟用

# License Setting



# License Setting

- 變數名稱:SNPSLMD\_LICENSE\_FILE
- 變數值:26585@lscic.cic.org.tw
- 輸入完成後按下確定

新增系統變數



變數名稱(N):

SNPSLMD\_LICENSE\_FILE

變數值(V):

26585@lscic.cic.org.tw

瀏覽目錄(D)...

瀏覽檔案(F)...

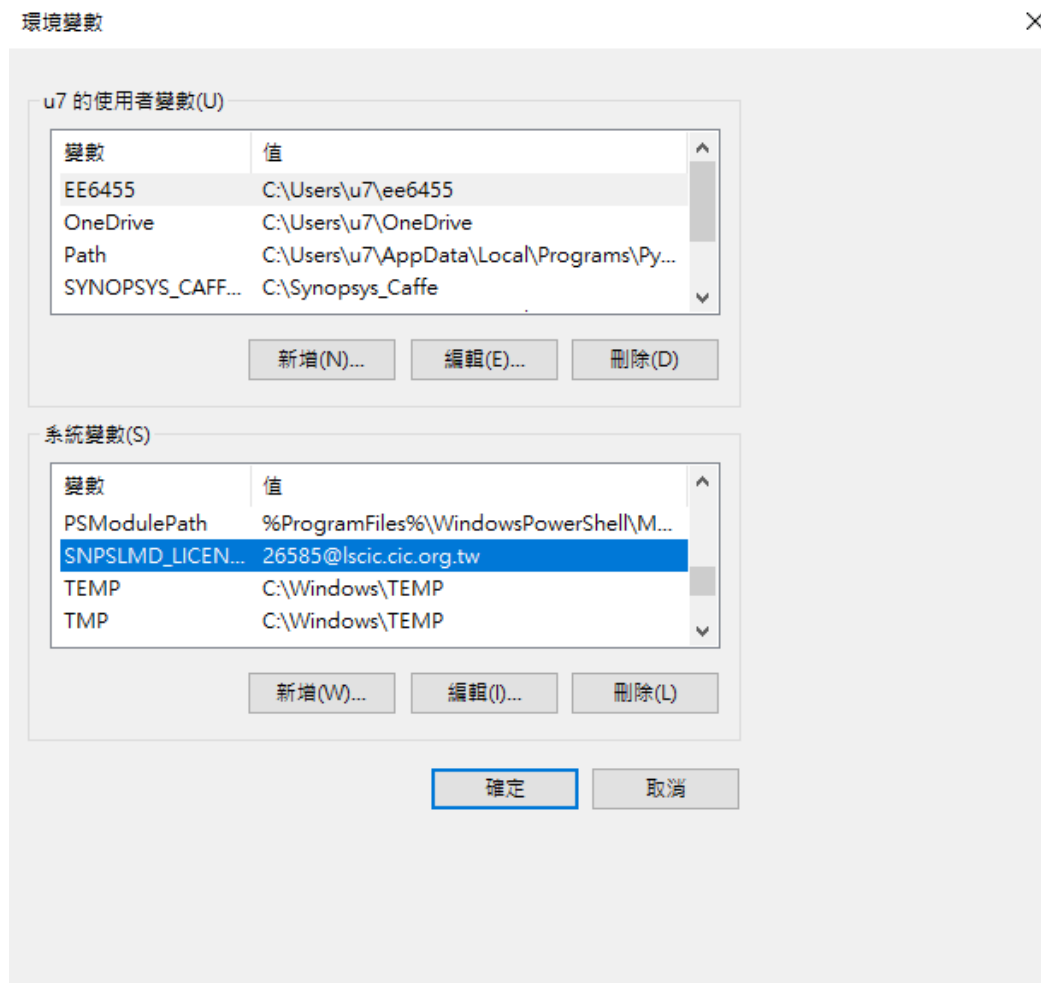
確定

取消



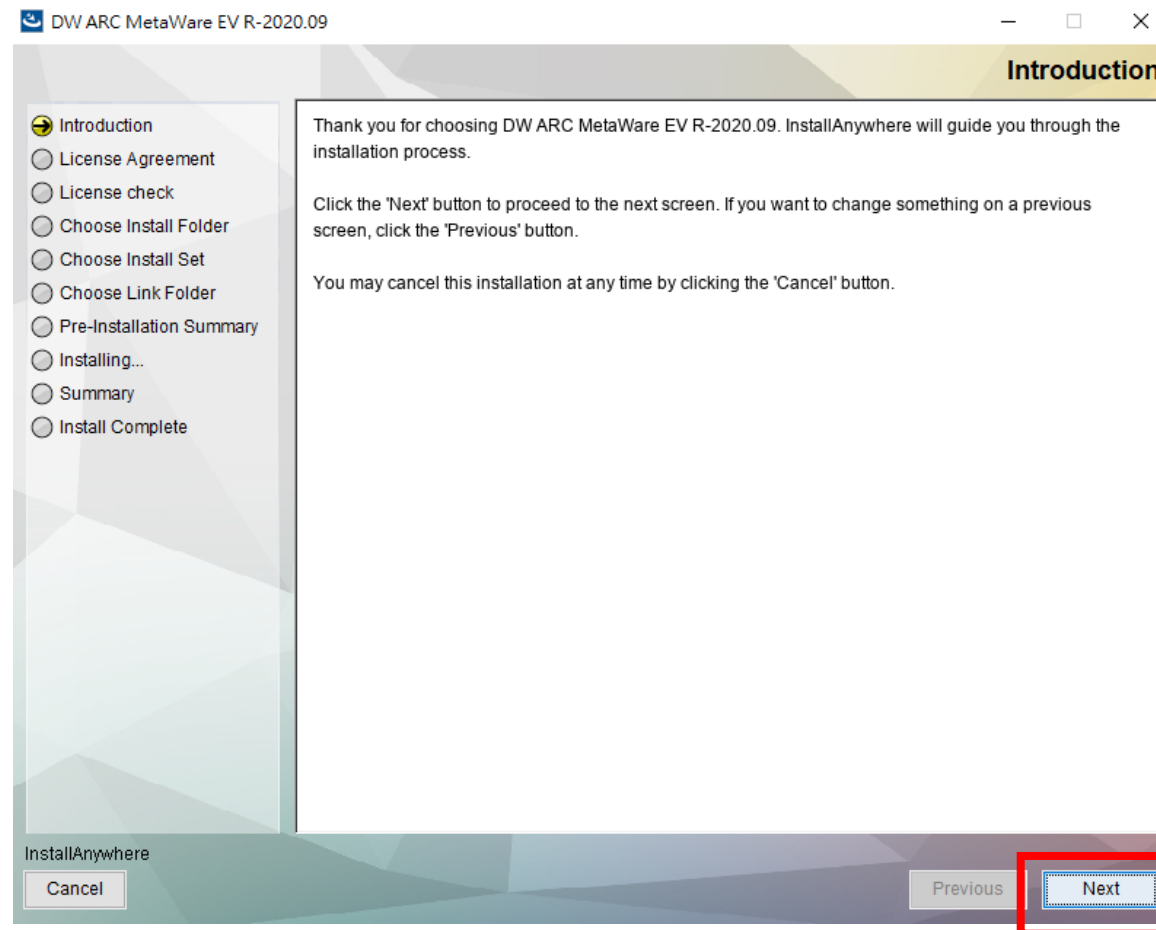
# License Setting

- 確認新增成功，成功後重新啟動電腦



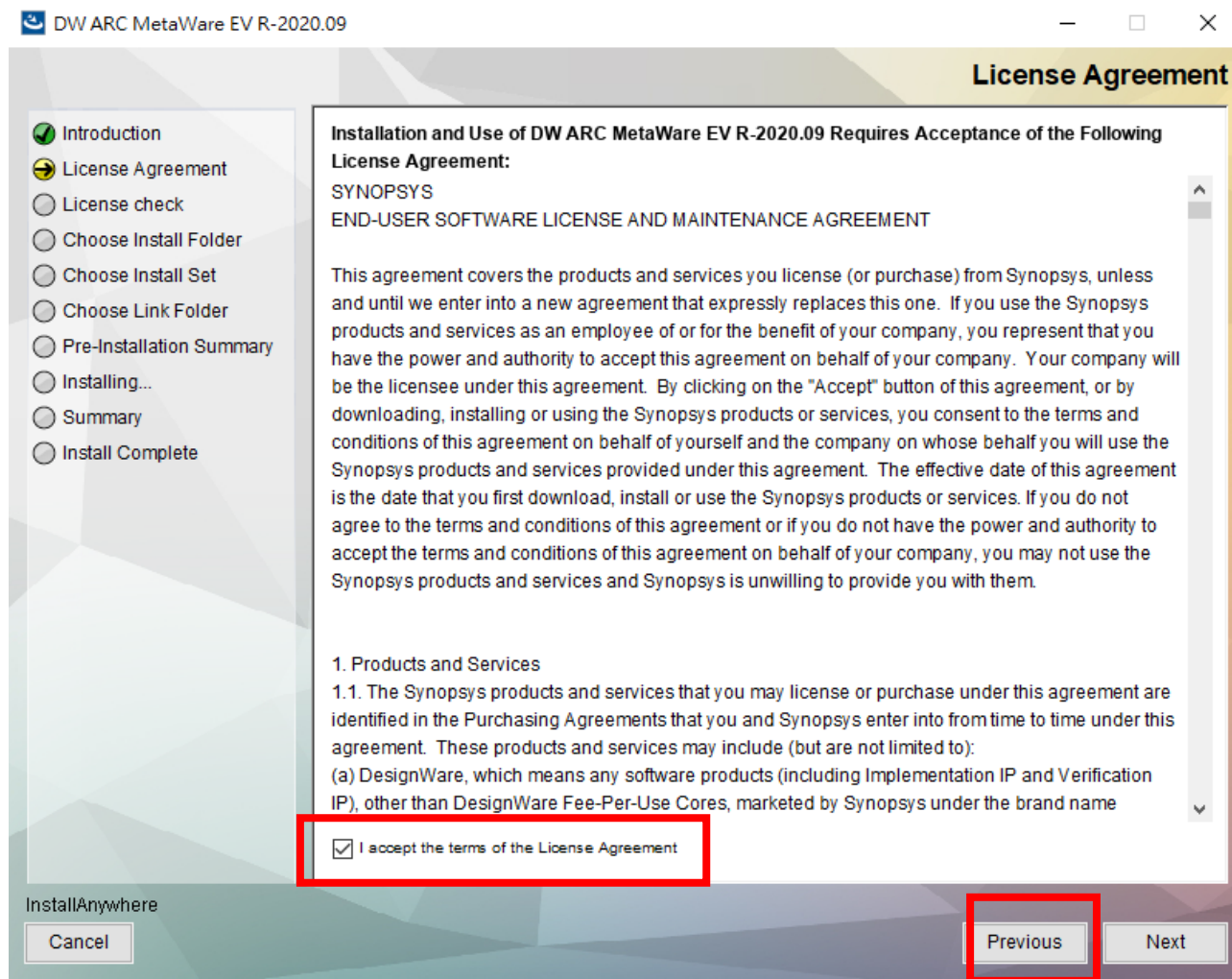
# MetaWare Installation

- 執行mwew\_R\_2020\_09\_win\_install
- 接下來步驟都點選Next



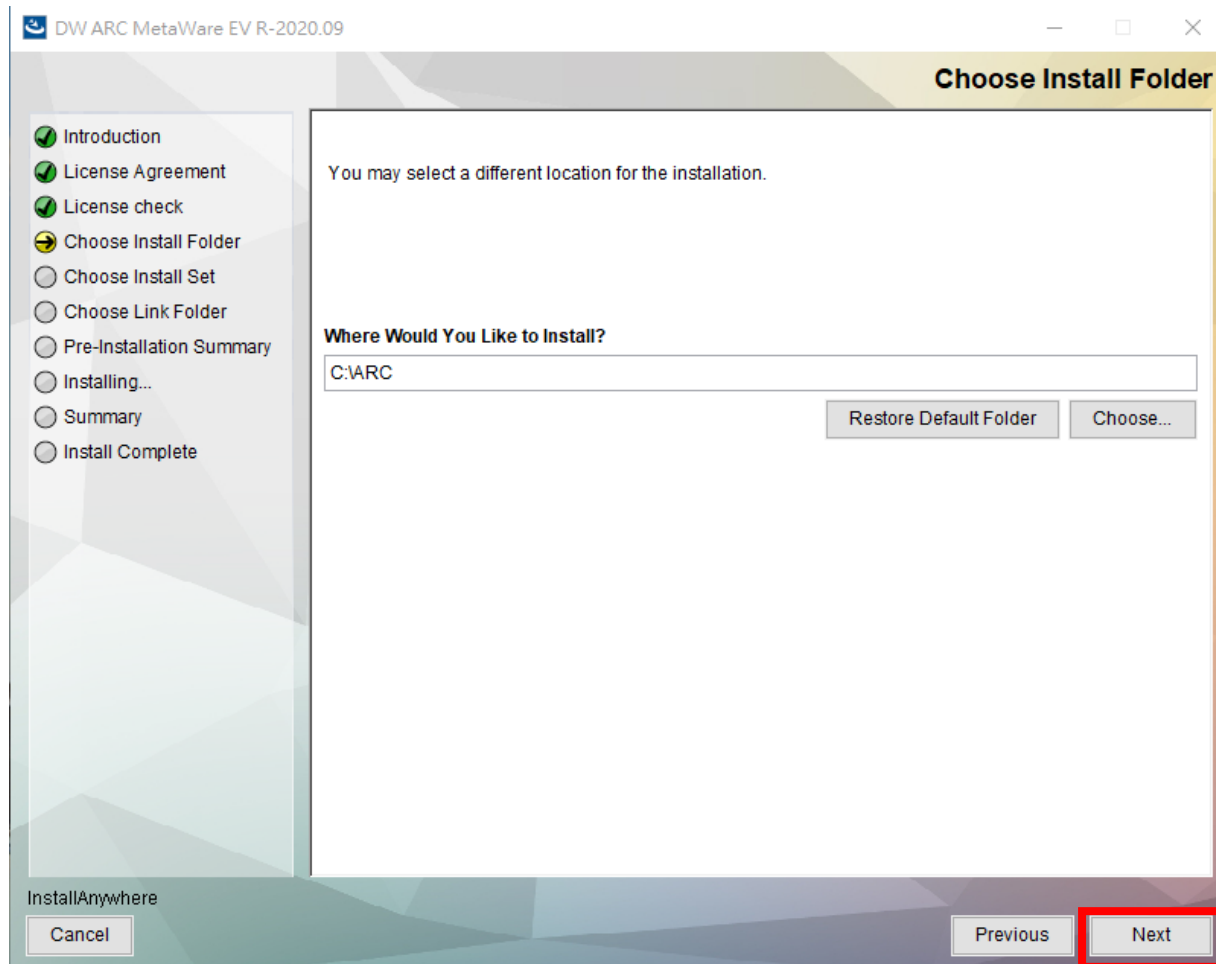
# MetaWare Installation

- 勾选 I accept ...



# MetaWare Installation

- 如果License check失敗，請回到第五頁確認新增環境變數成功



# MetaWare Installation

- 點選Done完成安裝

