ZOTAC®

ZOTAC AI EXPRESS

User Manual

V1.0.16

About this Manual

This Document describe how user install and set up the software application. The whole structure develop by the following chapter

- Production introduction
- Getting started
- User Interface
- Features
- Customized
- Support

Revision Sheet

Release No.	Date	Revision Description	Author
v1.0.1	2024/1/4	Initial design	Lingo Jang
v1.0.2	2024/1/9	Fix chapter1 and layout	Mike Shen
v1.0.3	2024/1/10	Add 2.3.5 uninstall	Mike Shen
v1.0.4	2024/1/10	Modify Ch. 2.3.4	Joey Yang
v1.0.5	2024/1/12	Modify Ch. 2.3.4	Joey Yang
v1.0.6	2024/1/12	Modify Ch. 2.3.5	Mike Shen
v1.0.7	2024/1/16	Modify Ch. 2.3.4	Joey Yang
v1.0.8	2024/1/16	Fix the layout	Mike Shen
V1.0.9	2024/1/17	Fix chap 2.3.2	Mike Shen
V1.0.10	2024/1/18	Modify Ch. 2.3.4, Ch. 3.2, Ch. 6 CH2.3.1,Ch2.3.5	Joey Yang Lingo Jang
V1.0.11	2024/1/22	Modify the step in Ch2.3.1	Mike Shen
V1.0.12	2024/1/24	Modify Ch. 2.3.4, Ch3.3	Joey Yang Lingo Jang
V1.0.13	2024/1/24	Modify Ch. 2.3.4, Ch2.3.1, Ch3.3	Joey Yang
V1.0.14	2024/1/26	Remove LLM	Mike Shen
V1.0.15	2024/1/29	Add Ch. 3 how to run AI applications	Lingo Jang
V1.0.16	2014/2/19	Revise pcp to zotac	Mike Shen

TABLE OF CONTENT

Chapter 1 Introduction

1.1 Overview

This is the user manual for quickly setting up an AI developing environment as well as AI samples in order to demonstrate the performance of executing AI models on ZOTAC AI EXPRESS.

1.2 Purpose

Here are the features that ZOTAC AI EXPRESS are performed:

- Install Conda and set up related python virtual environments.
- Install required packages for each AI Demonstrating Apps.
- Create shortcut for each AI Demonstration Apps for easy access.

1.3 Scope

This user manual that help user to install AI models to support AI PC

- One click to install AI PC related software, include Stable Diffusion web UI and Stable Diffusion ONNX
- Installation and uninstallation

1.4 Objectives

This user manual aim to solve the complex installation in one click, approaching AI software and install into PC by one click.

- Stable Diffusion Web UI: text to image and image to image
- Stable Diffusion ONNX: text to image and image to image

1.5 Assumptions and limitations

Any assumptions made during the development process, such as assumptions about the users or the system environment, and any limitations of the software.

Please confirm in advance that the following drivers have been installed

The total required storage for all AI samples is approximately 40 GB

Intel chipset Driver

Intel Graphics Driver

Chapter 2 Getting Started

This section provides instructions on how to install, set up, and start using the software. It may also include system requirements, hardware and software compatibility information, and troubleshooting tips.

2.1 Hardware and software compatibility

Prepare the following hardware minimal requirement

No	Hardware	Specification
1	CPU	Intel(R) Core(TM) Ultra 7 155H Intel(R) Core(TM) Ultra 5 125H
2	Storage	During installation, it needs approximately 40G free space. After installation, Stable-Diffusion: 12G Stable-Diffusion-ONNX: 12G
3	Internet	Internet connection is required for installation and use.

2.2 System Requirement

Operating System	Microsoft Windows 11 22H2 64-bit and later update**
Driver	The latest driver for B480, B481

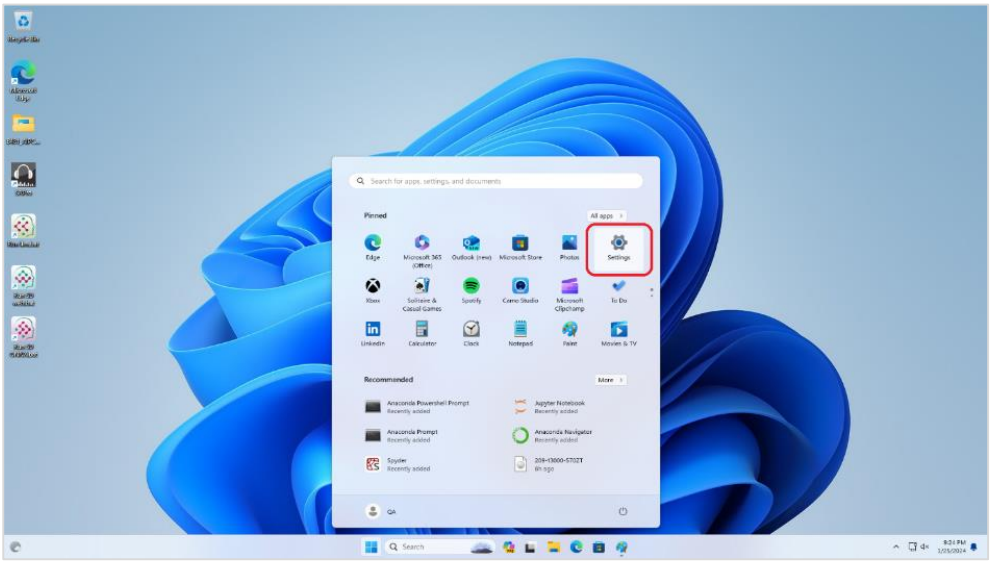
2.3 Software Installation Steps

2.3.1 Install ZOTAC AI EXPRESS

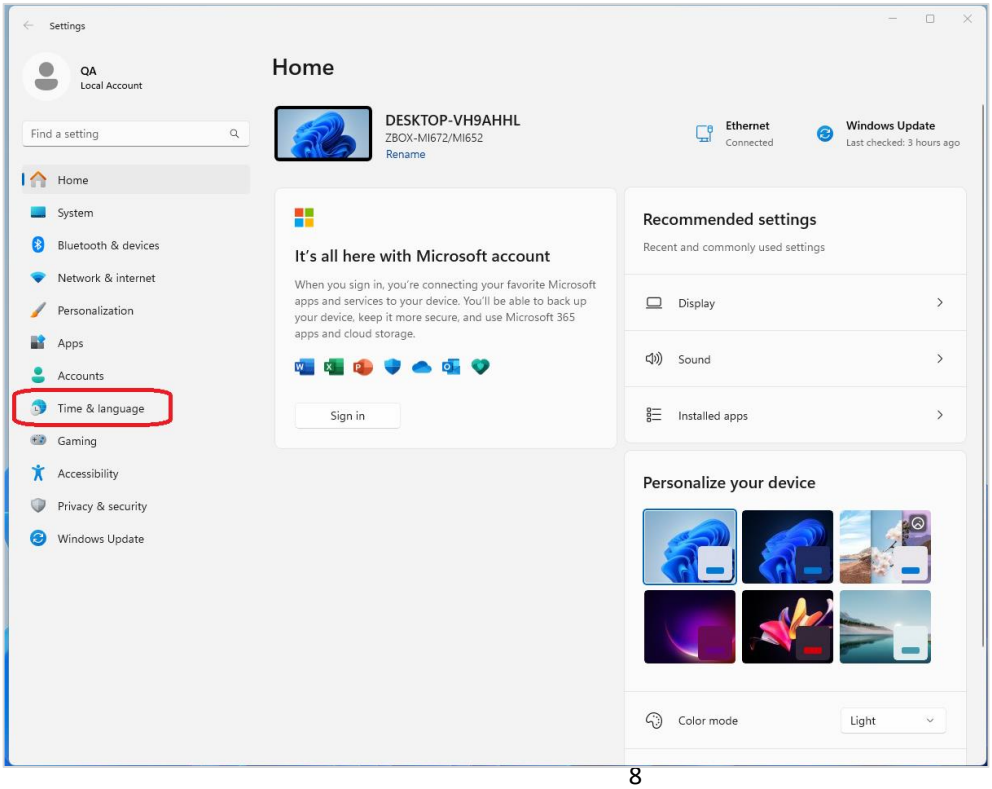
Note: Your device needs to:

- connect to the internet before you install the software.
- Keep on the correct date/time. Please check via the steps below.

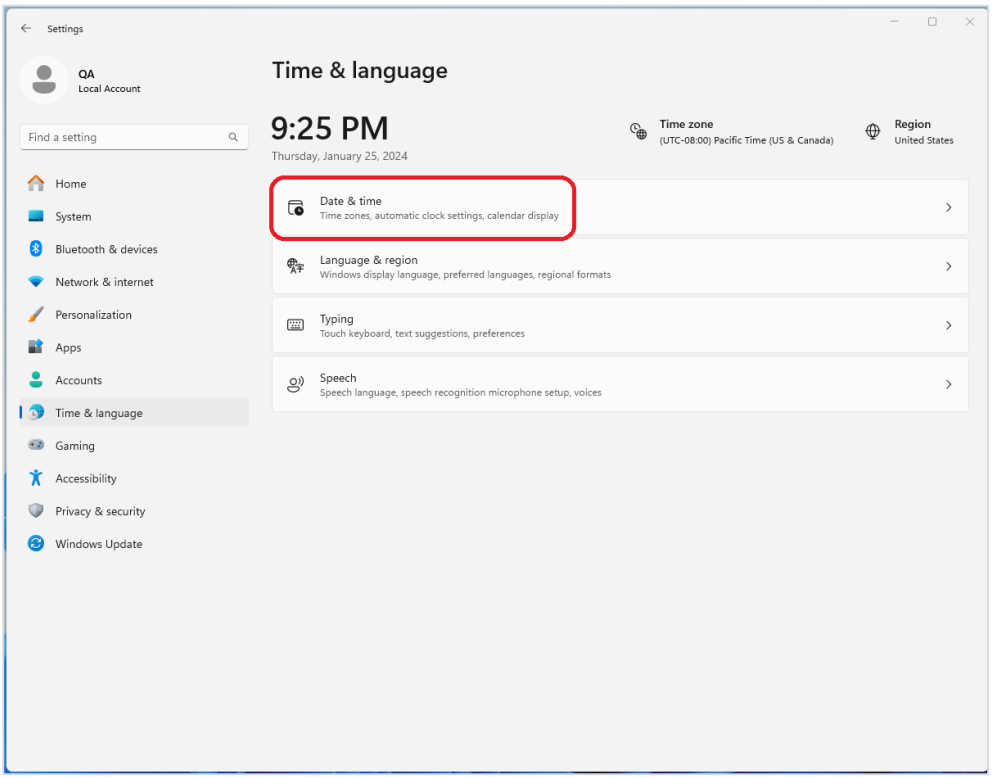
a. Open "Setting"



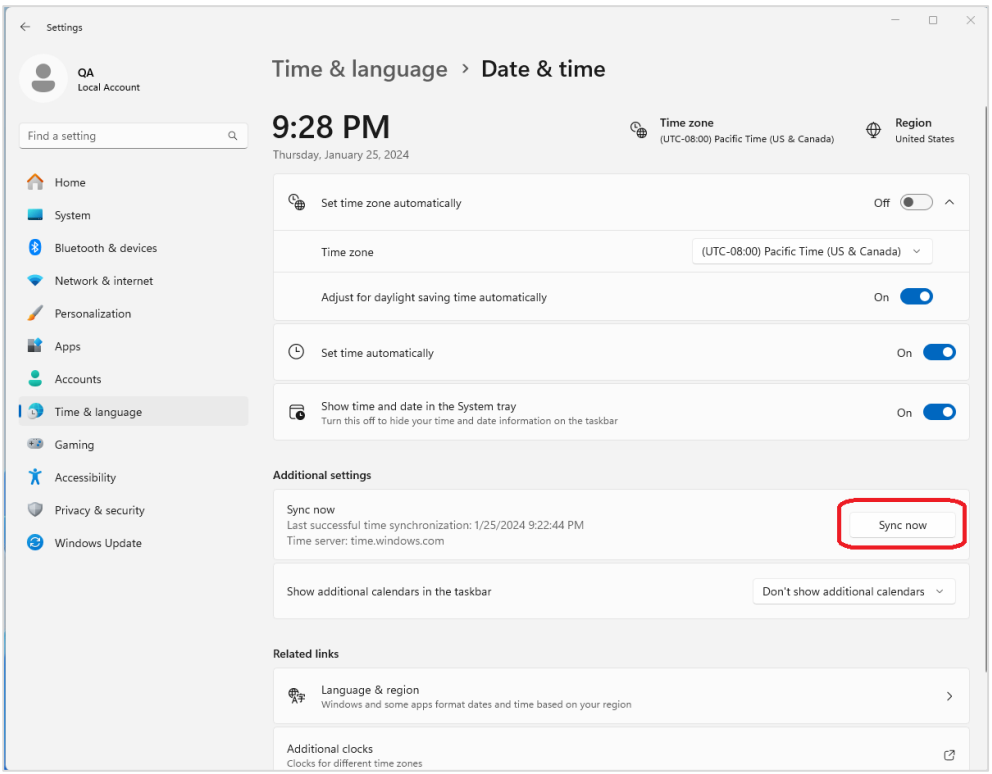
b. "Time & language"



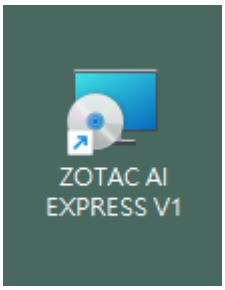
c. "Date & time"



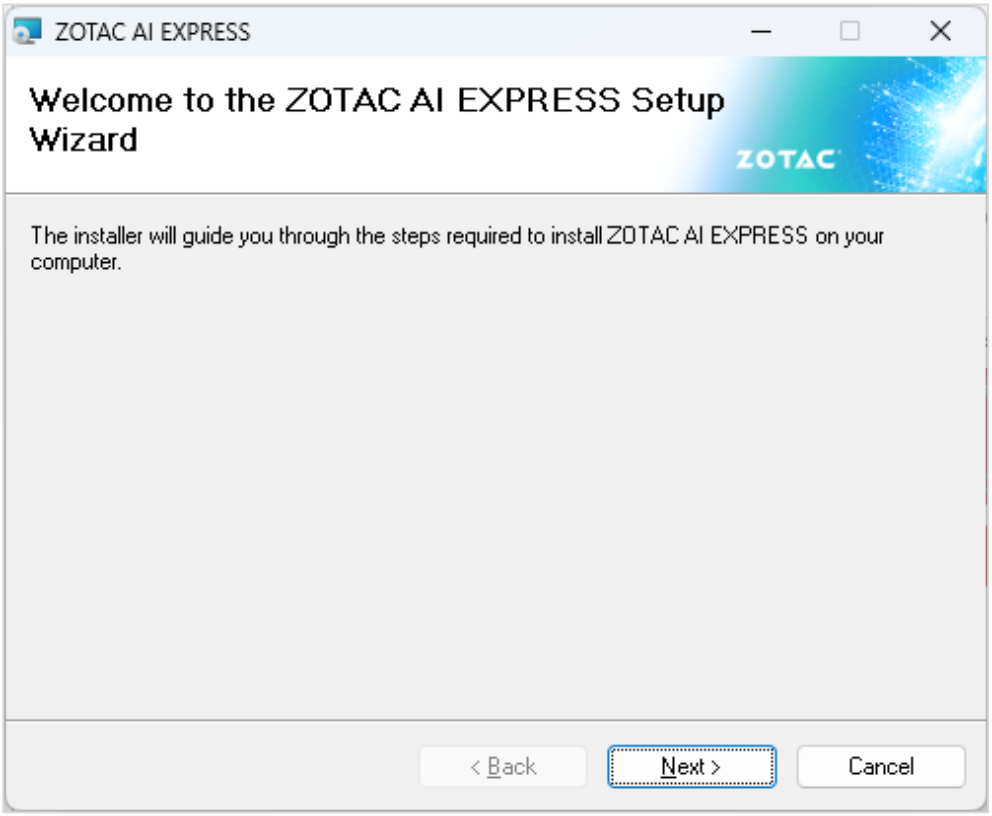
d. "Sync now"



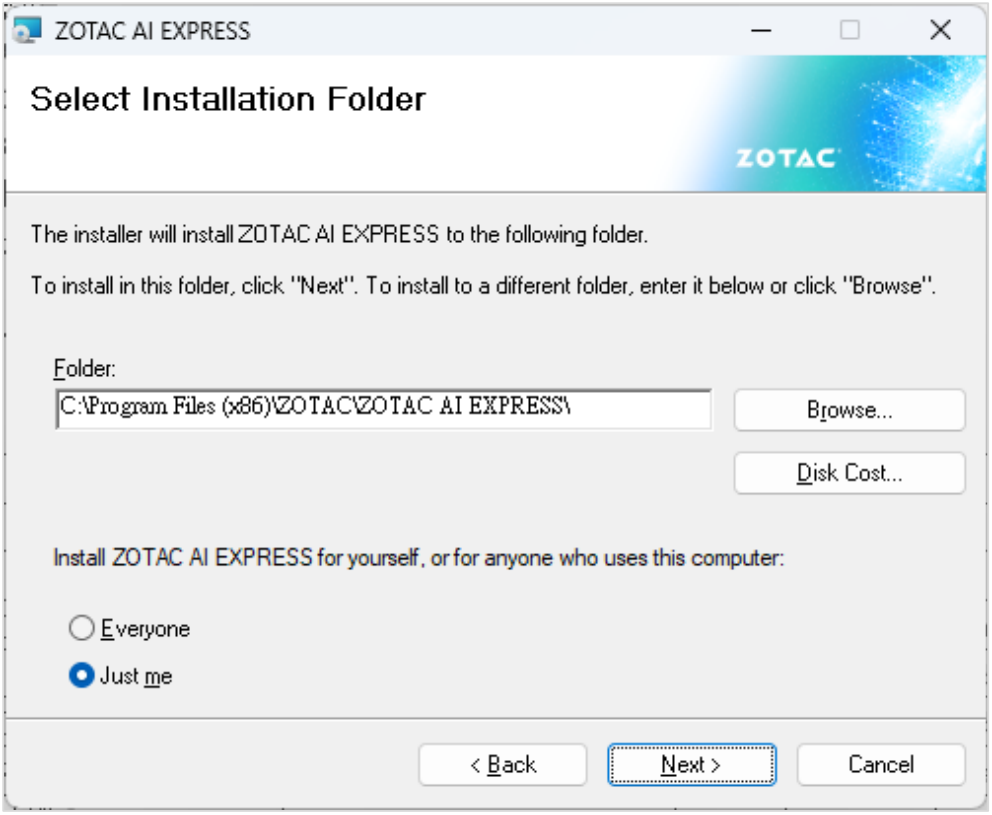
(1) double click the icon and start the process.



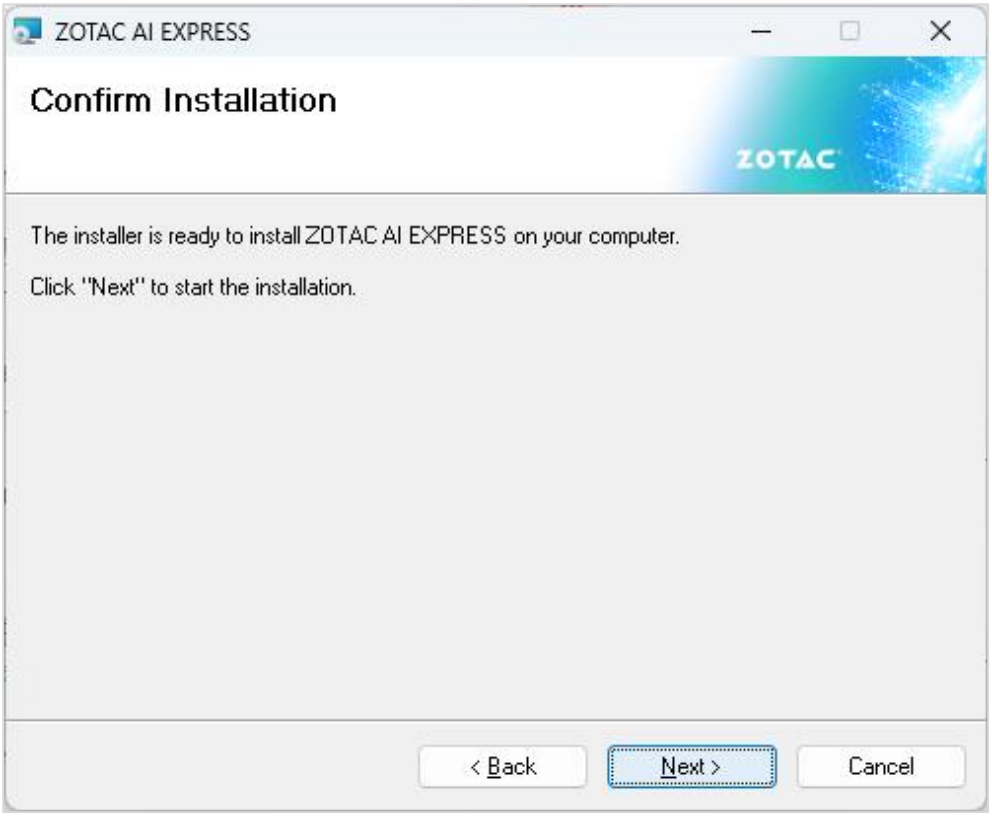
(2) welcome to ZOTAC AI EXPRESS Wizard



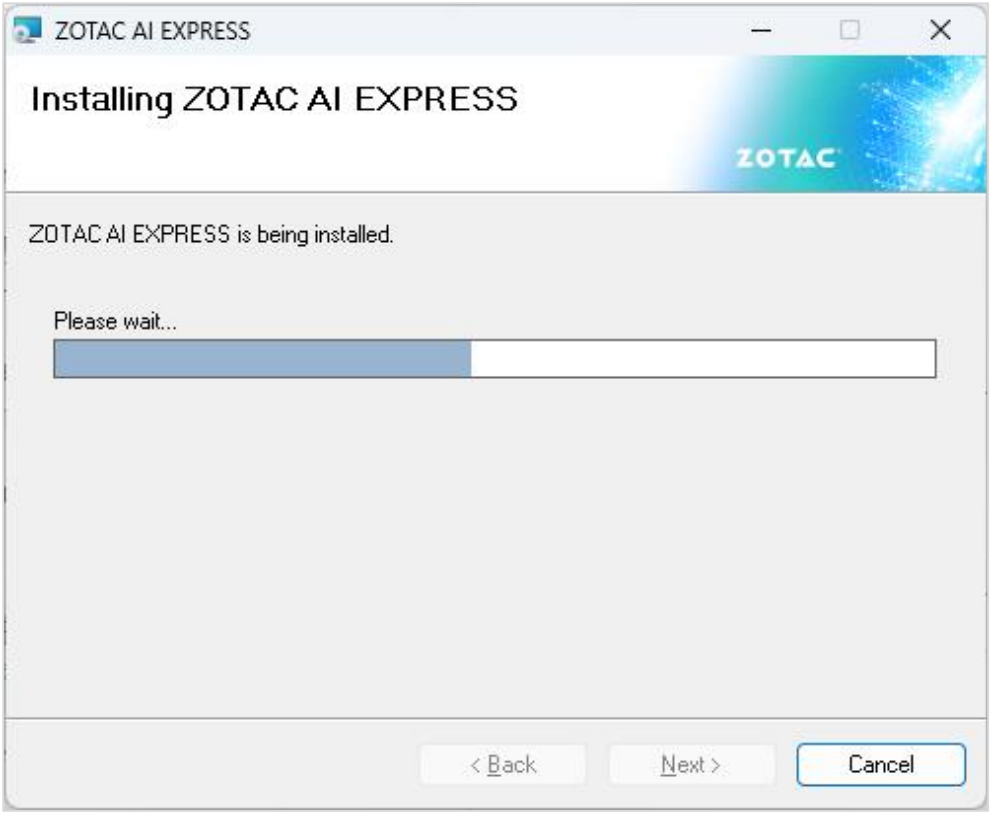
(3) Select Installation Folder



(4) Confirm Installation



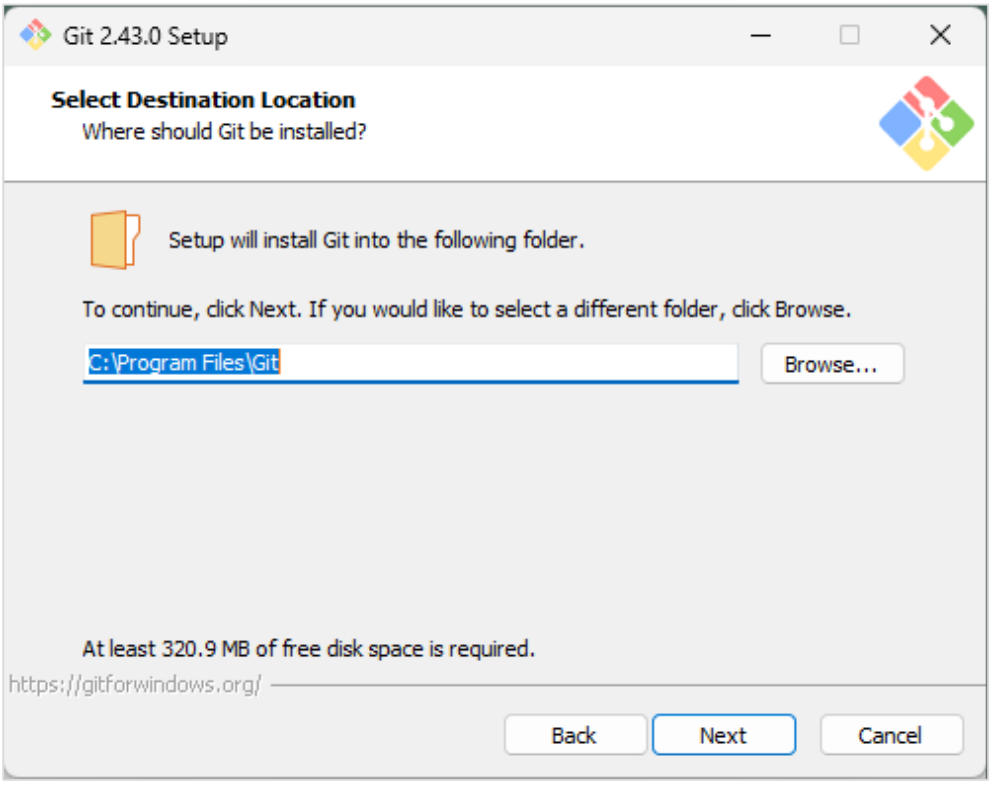
(5) Installing



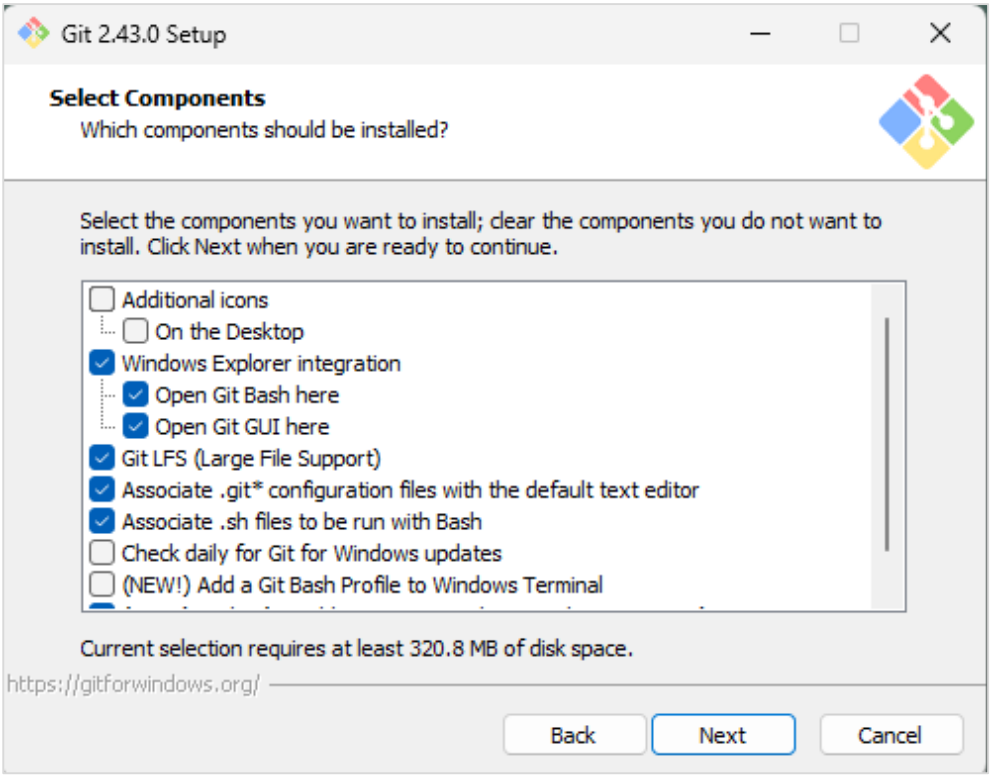
2.3.2 Install Git

(1) Install Git , click “next “ to complete git installation

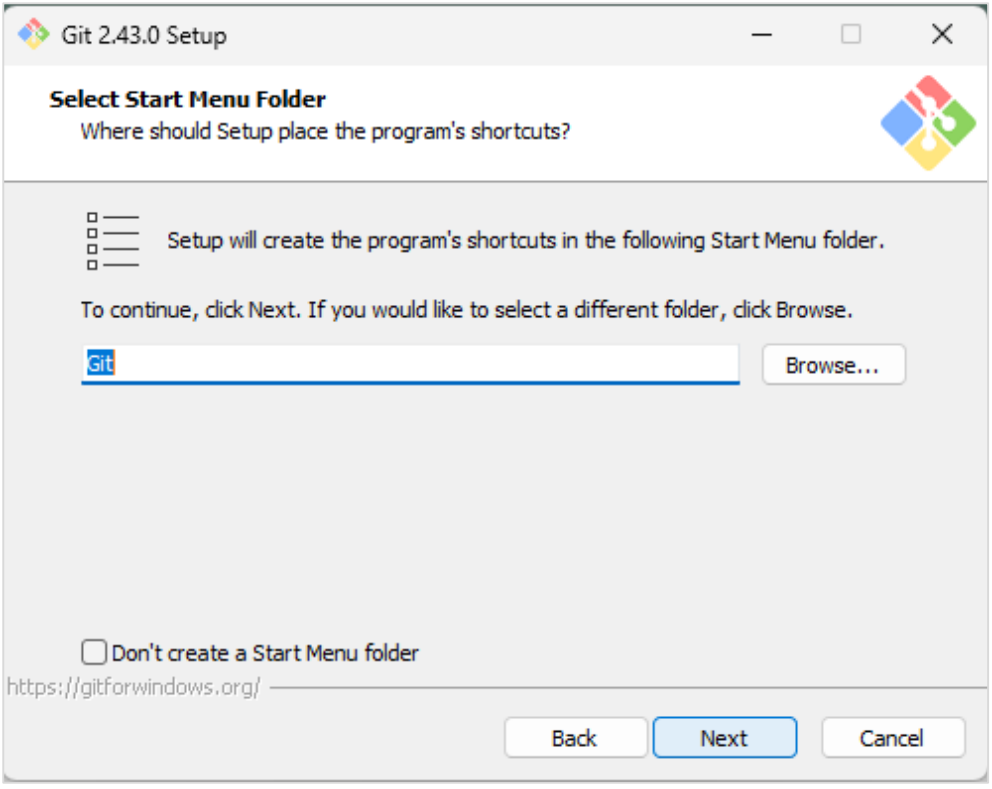
(2) Select Destination location



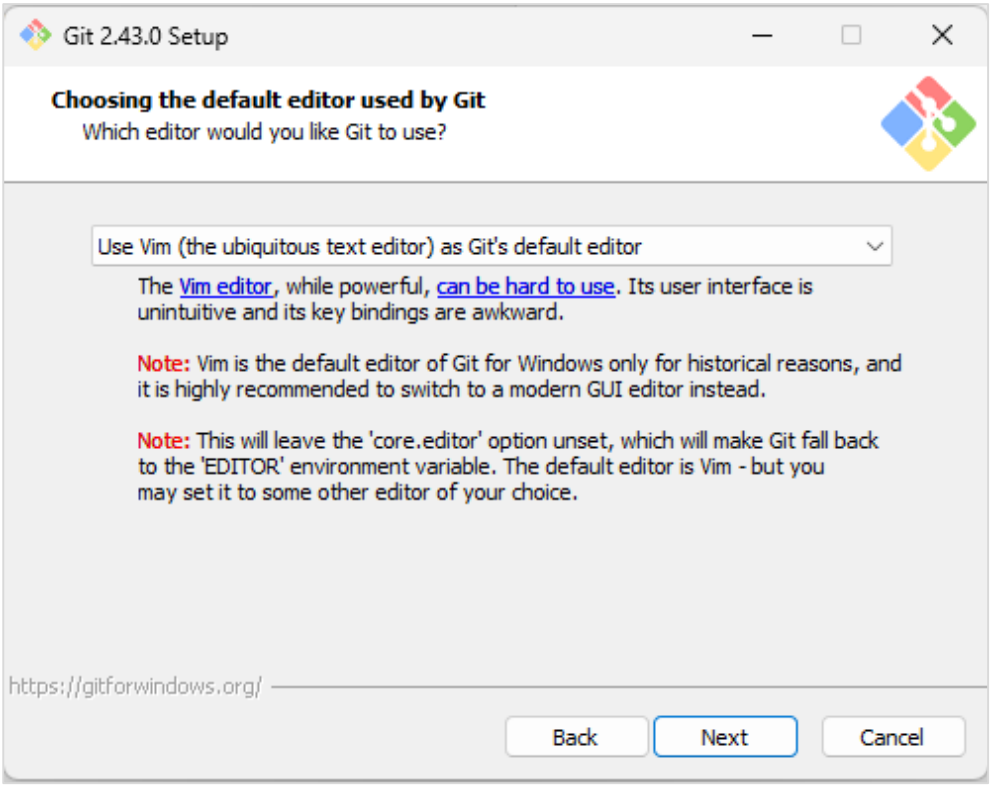
(3) Select Components



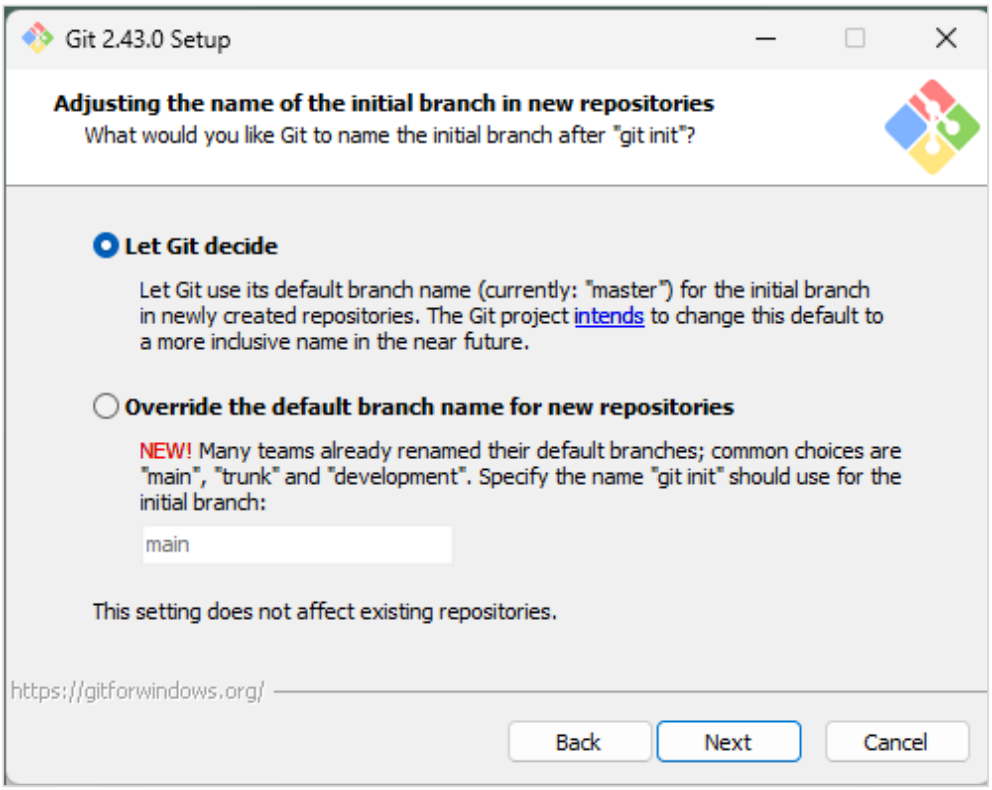
(4) Select Start Menu folder



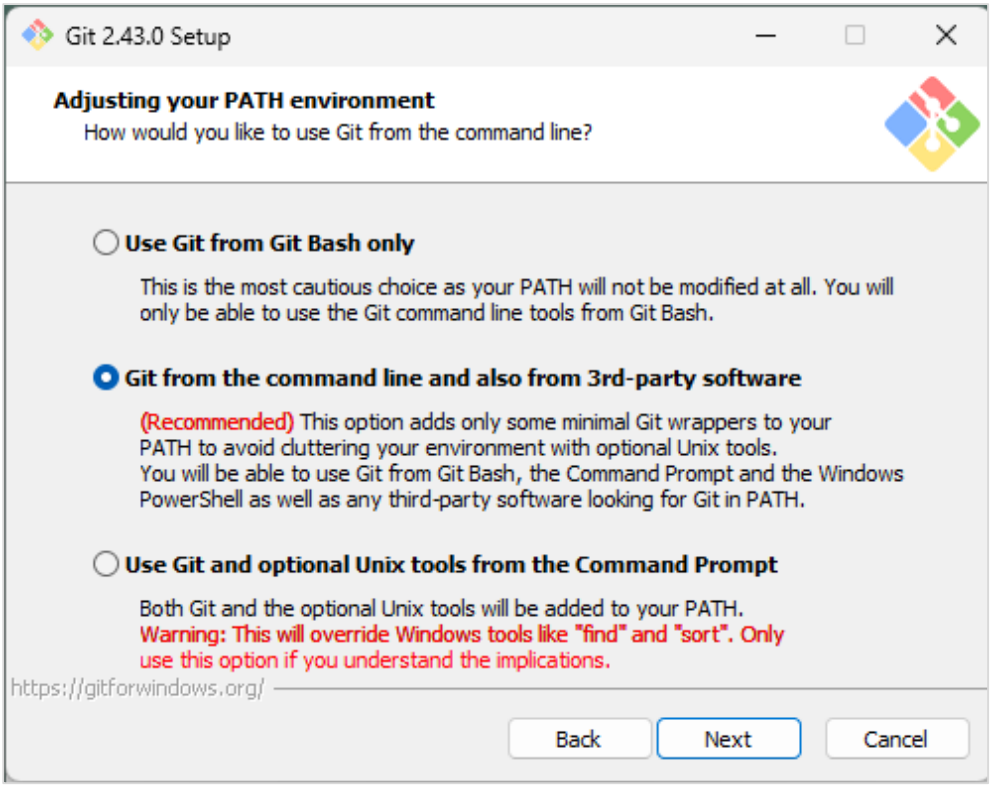
(5) Choosing the default editor used by Git



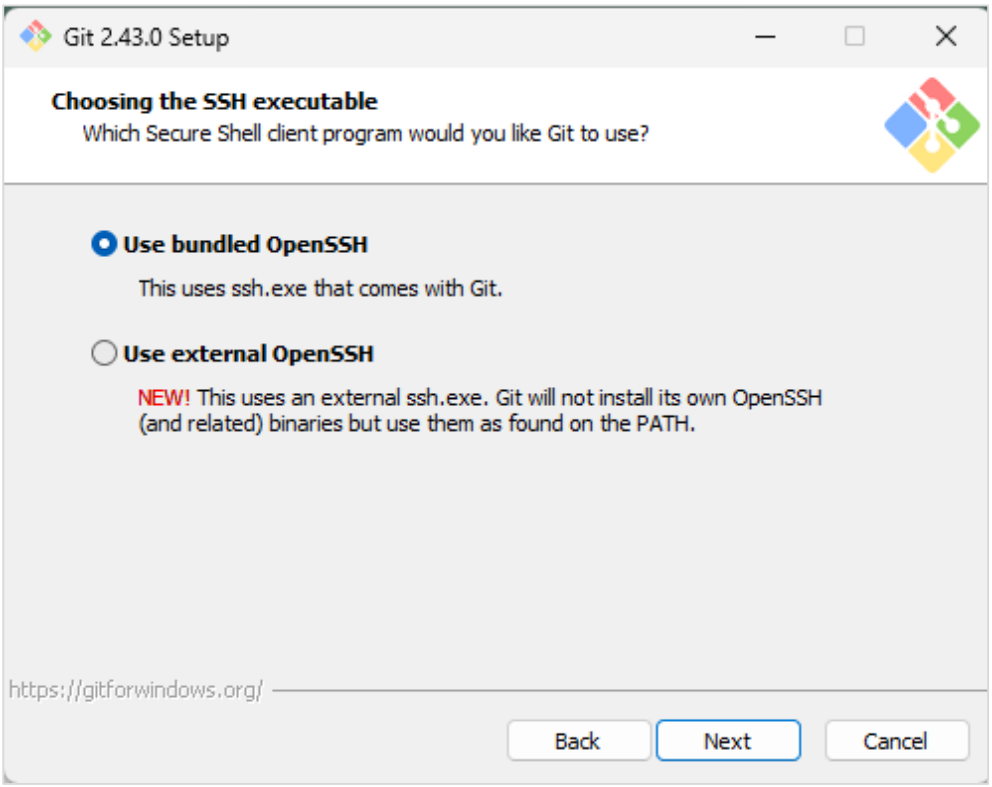
(6) Adjusting the name of the initial branch in new repositories



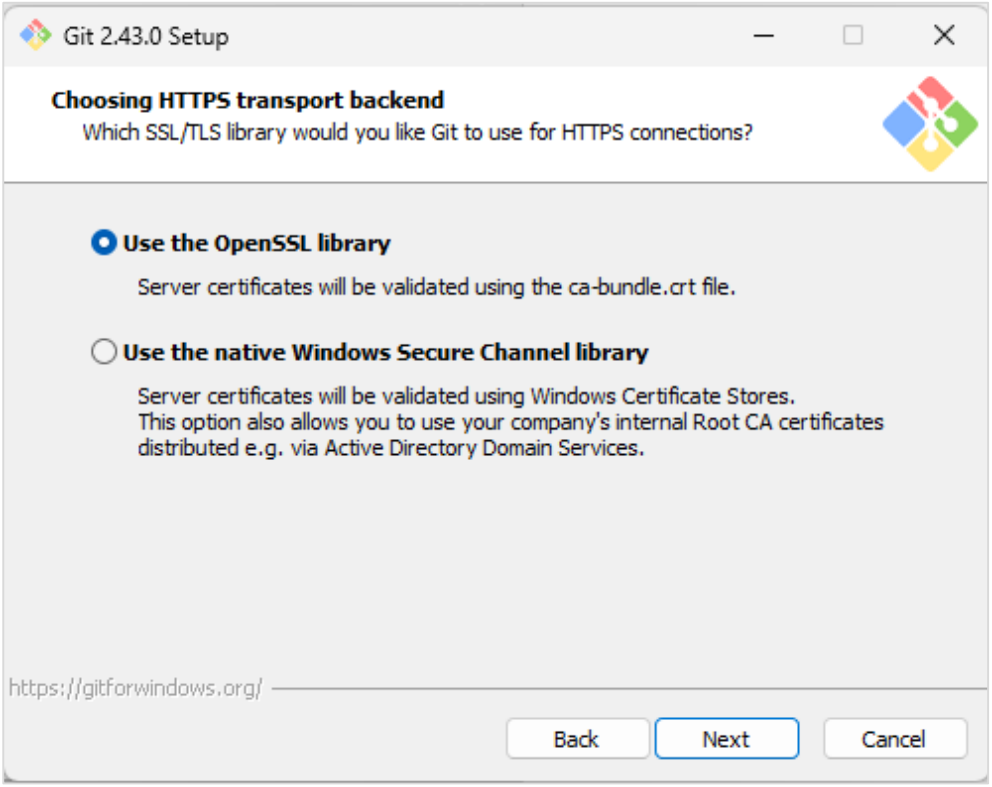
(7) Adjusting your path environment



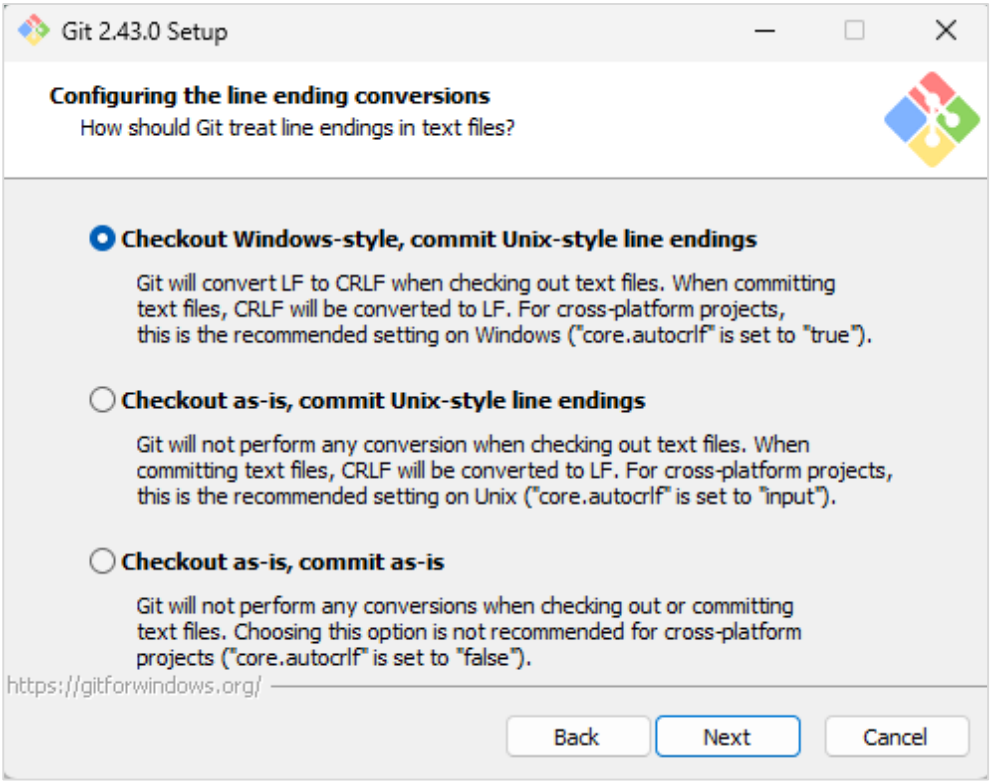
(8) Choosing the SSH executable



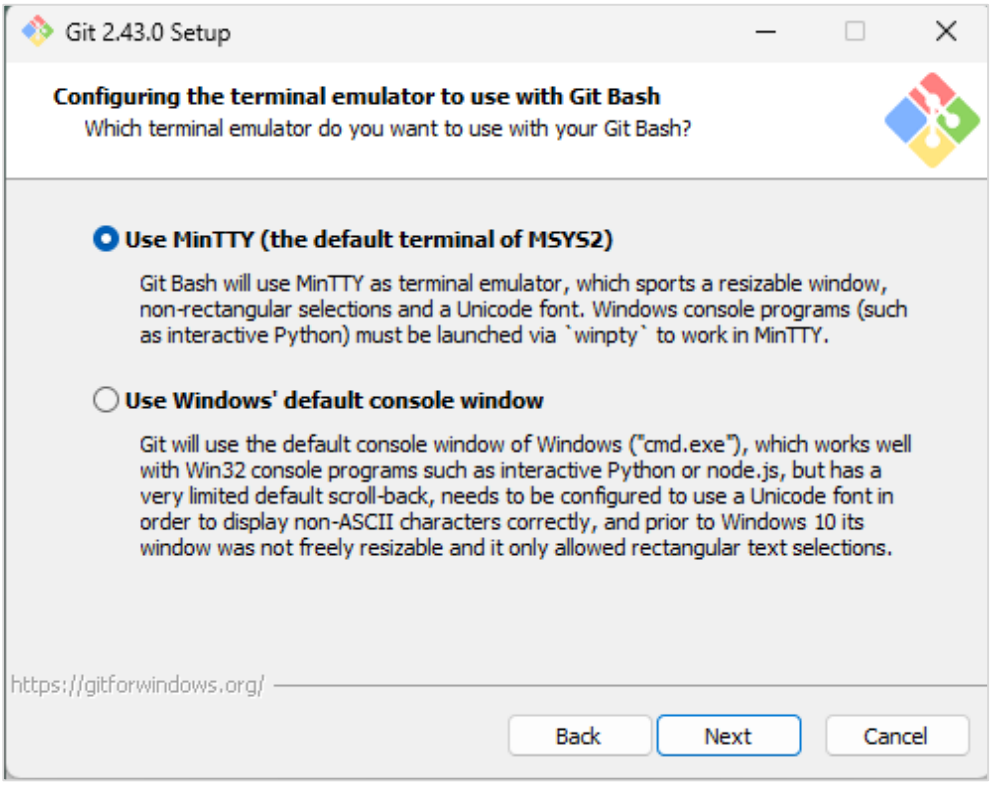
(9) Choosing HTTPS transport backend



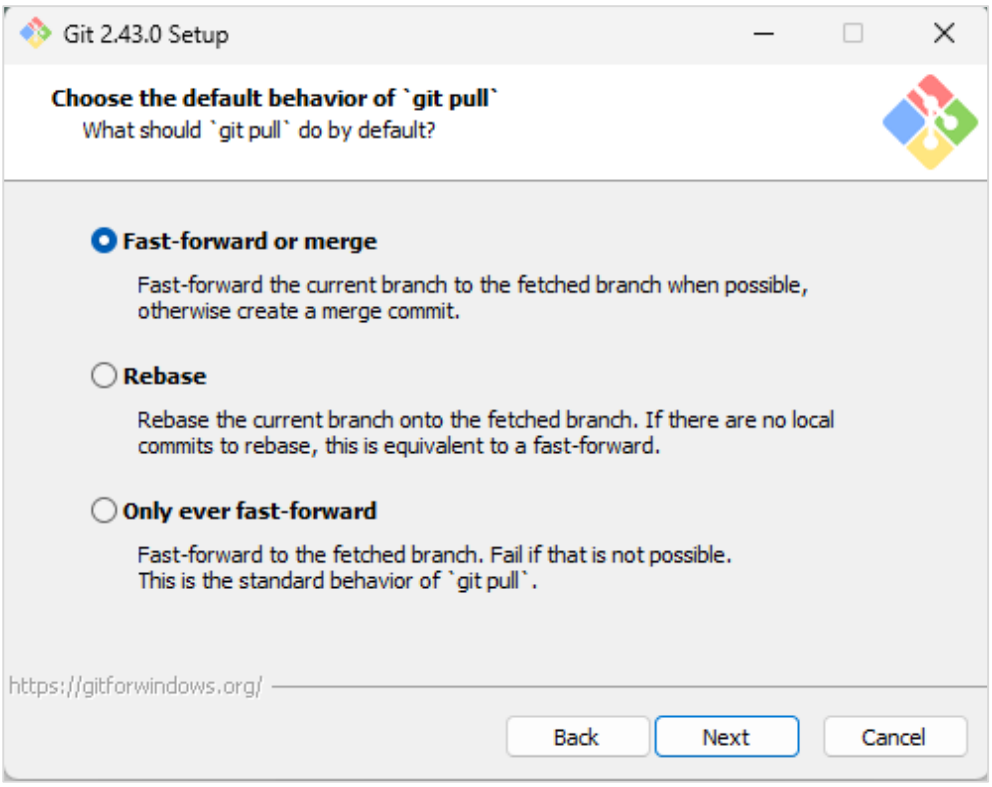
(10)Configuring the line ending conversions



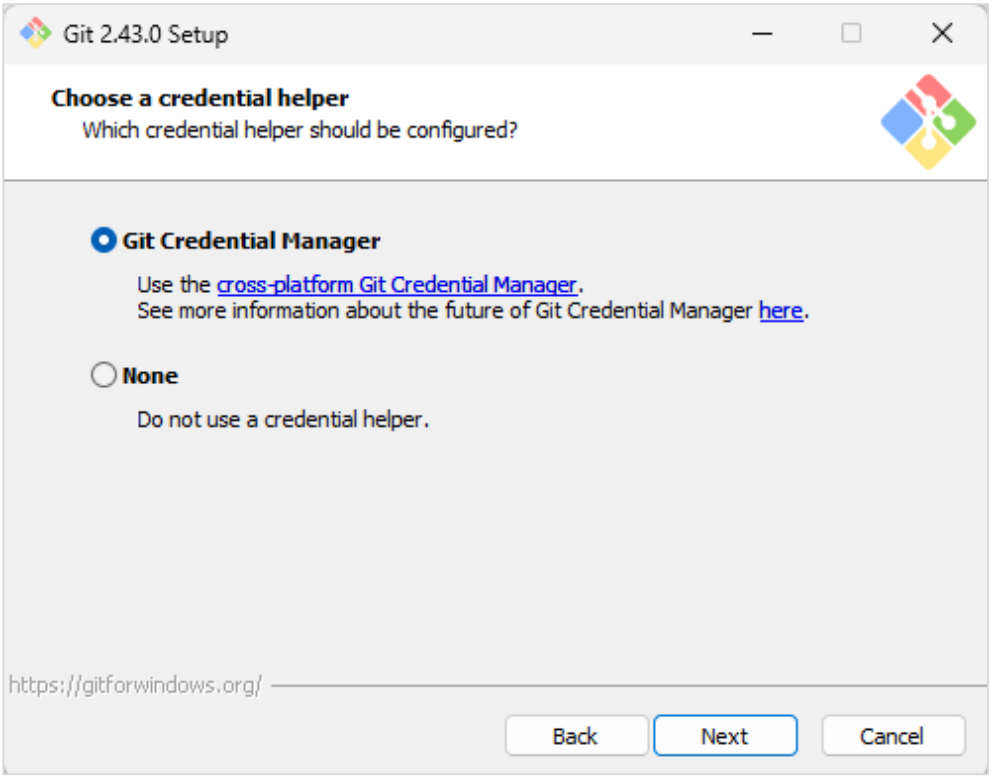
(11) Configuring the terminal emulator to use with Git Bash



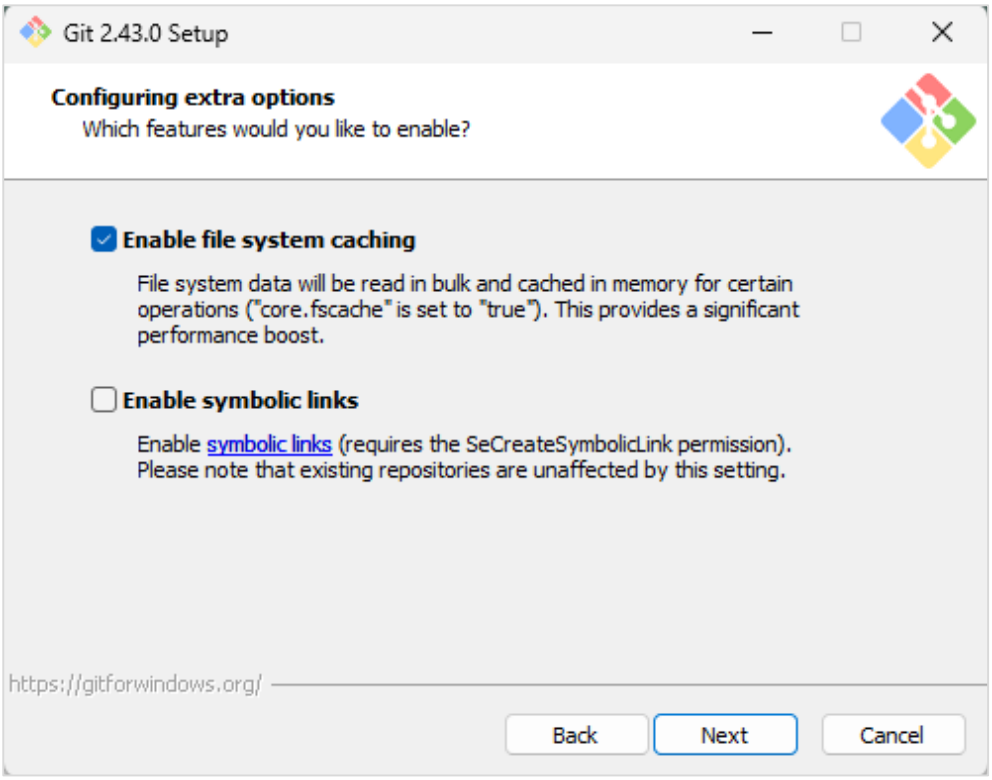
(12)Choose the default behavior of ”git pull”



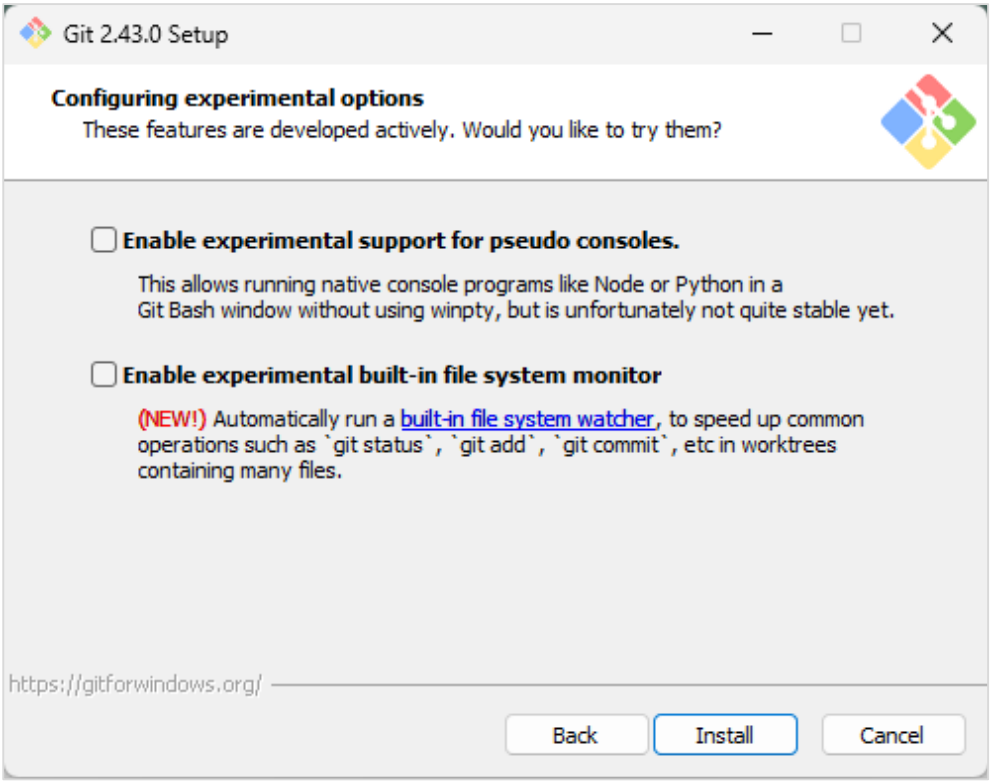
(13) Choose a credential helper



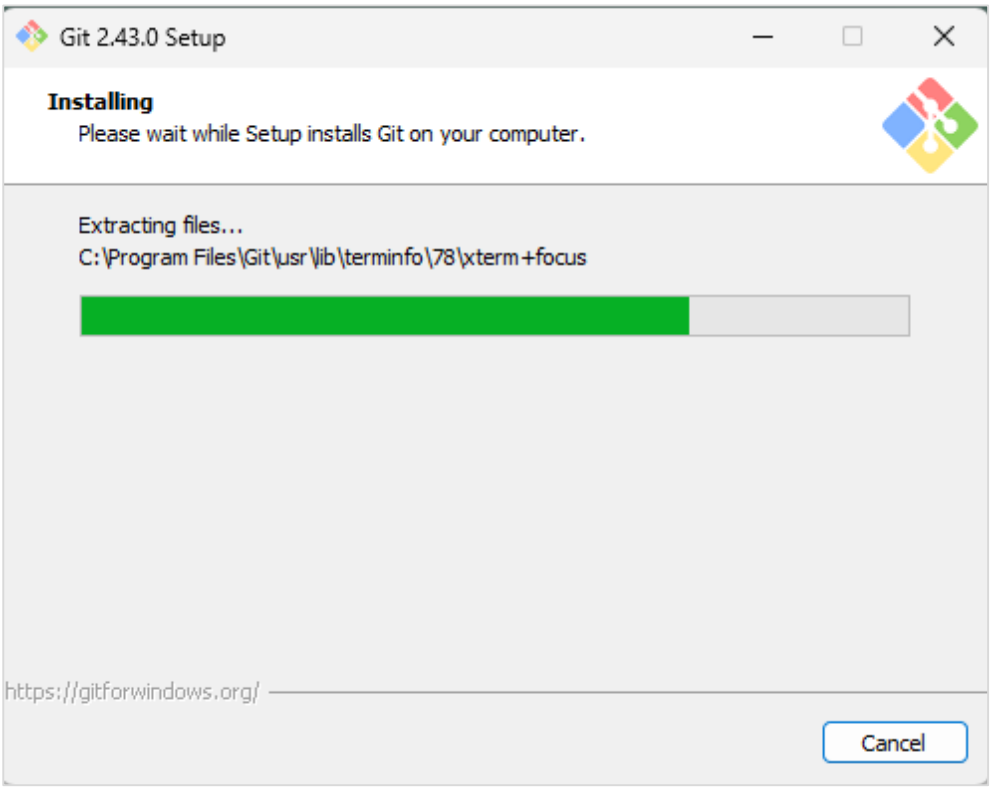
(14)Configuring extra options



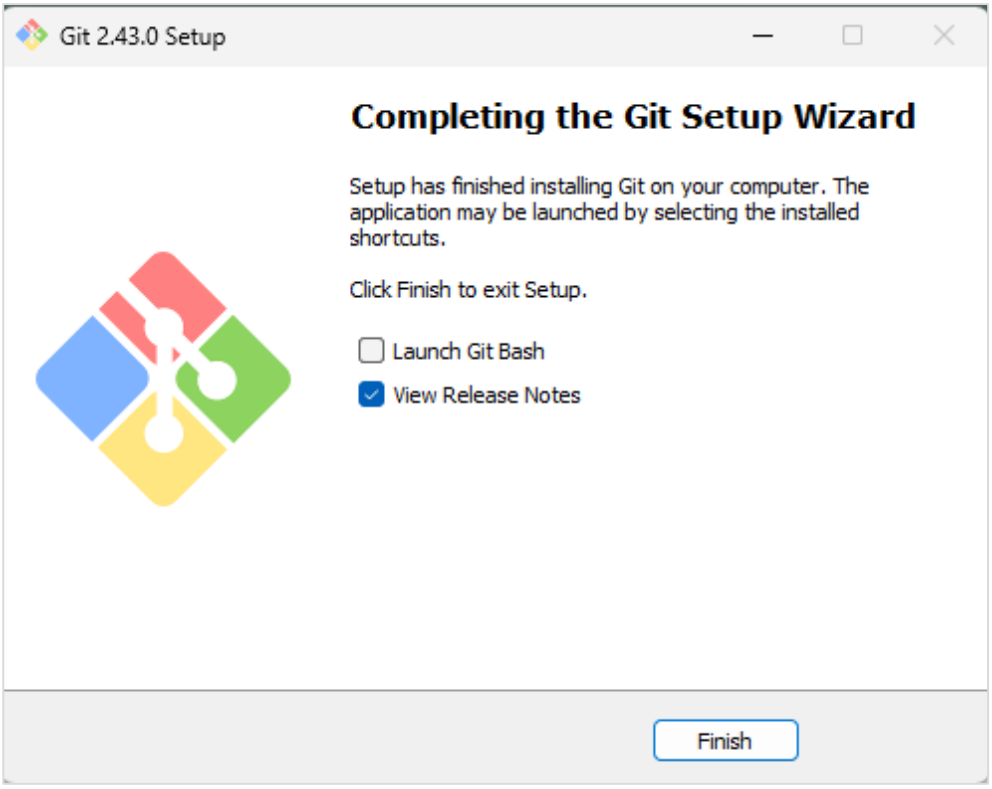
(15)Configuring experimental options



(16)Installing

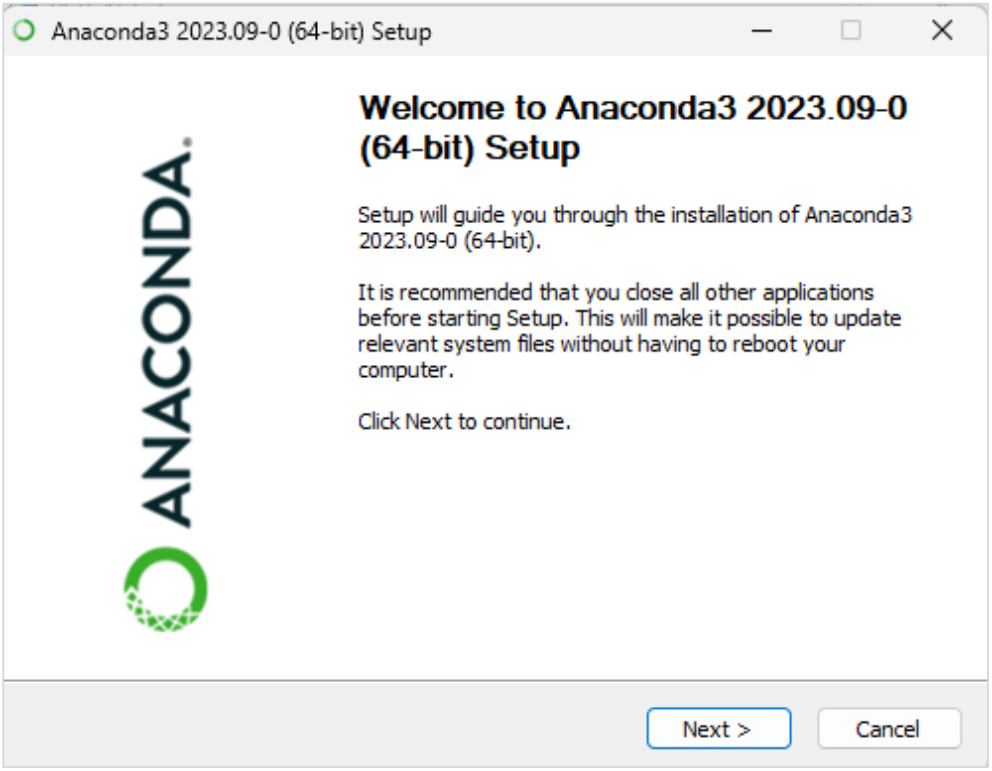


(17) Complete the Git setup wizard

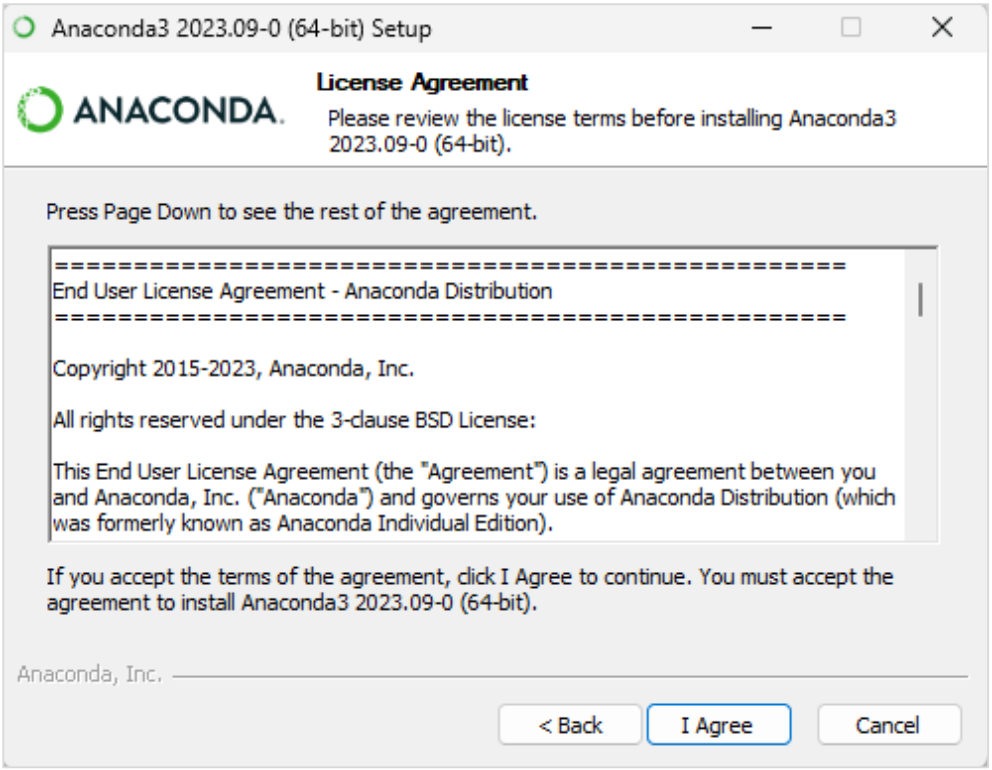


2.3.3 Install Anaconda

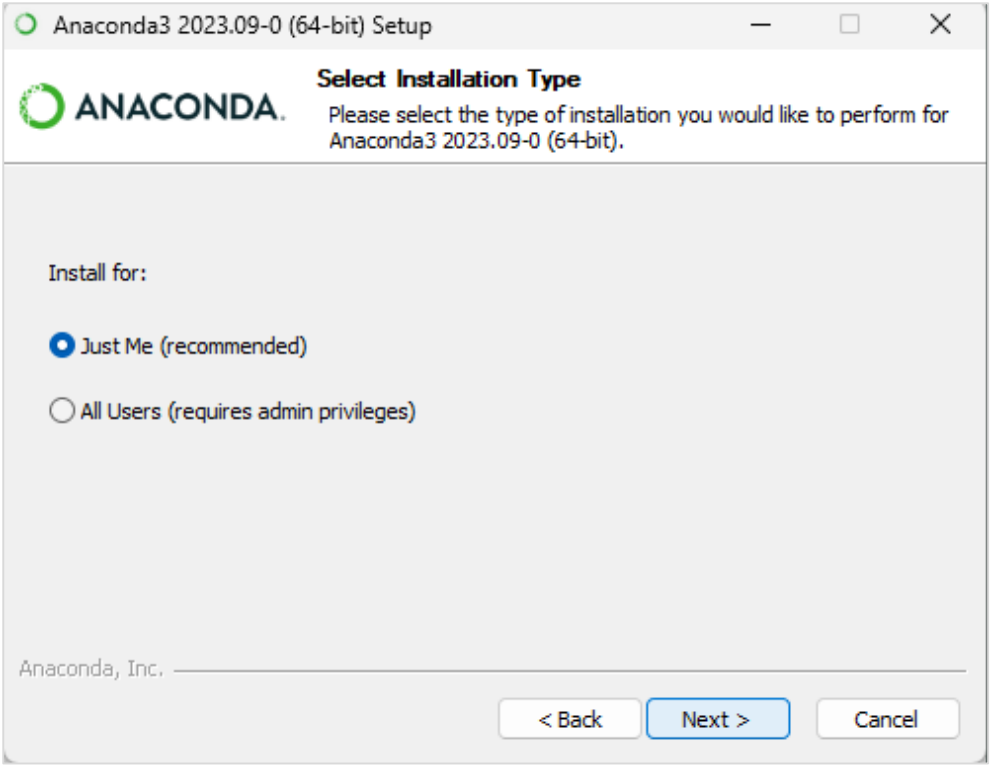
(1) Install ANACONDA, click “next “ to complete ANACONDA installation.



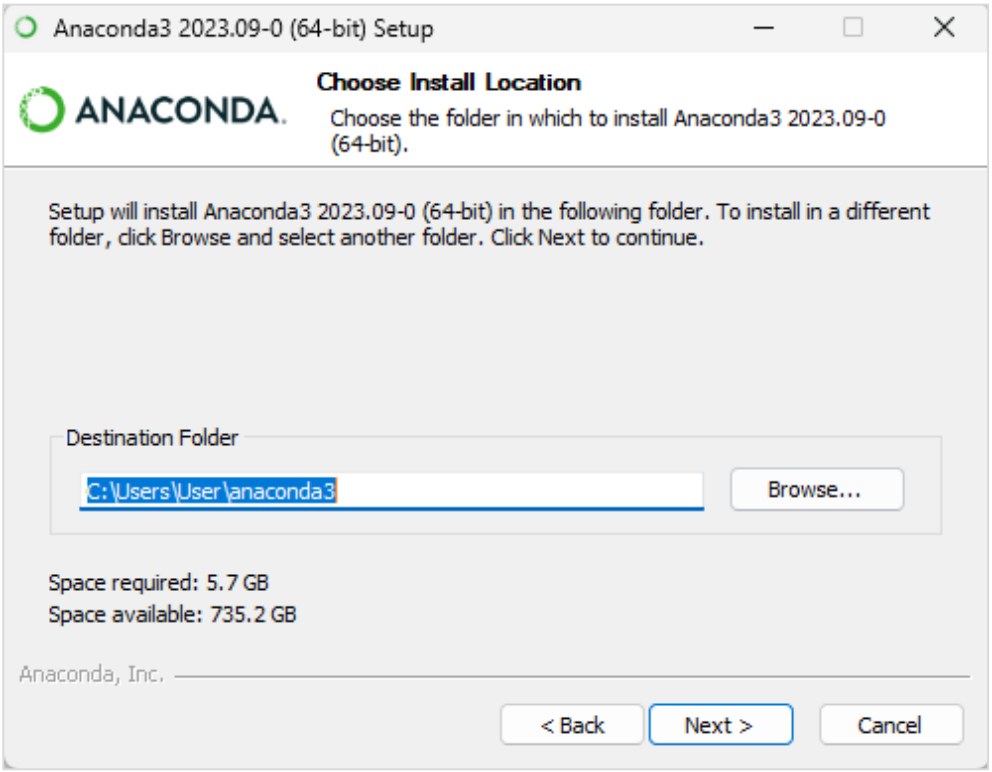
(2) License Agreement



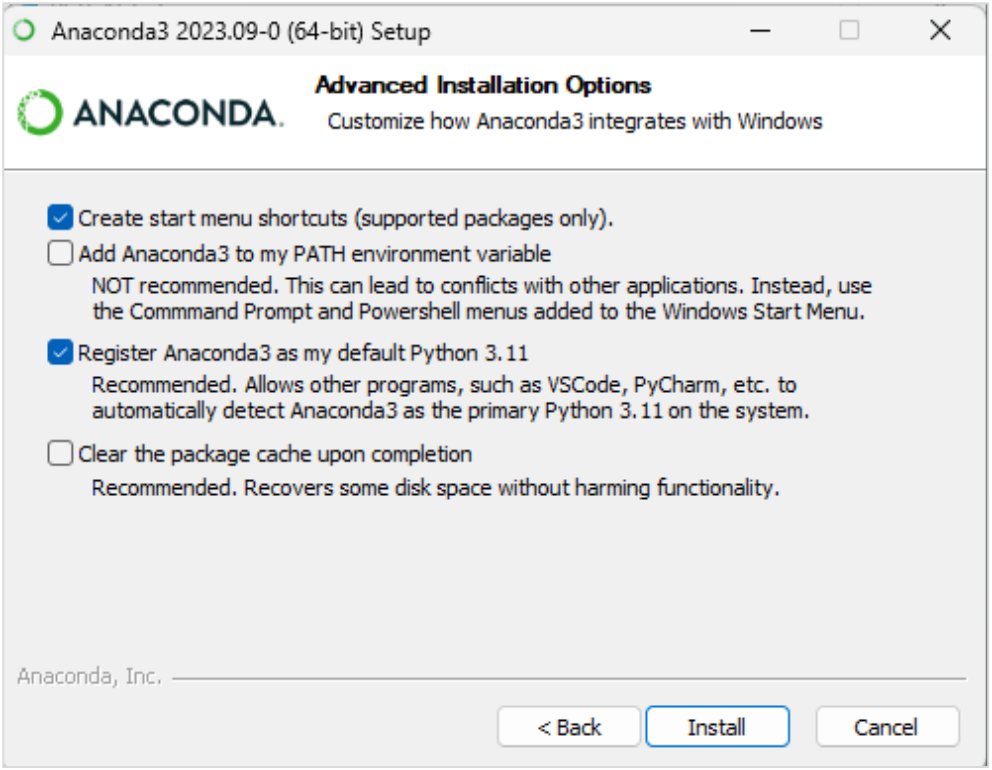
(3) Select Installation type



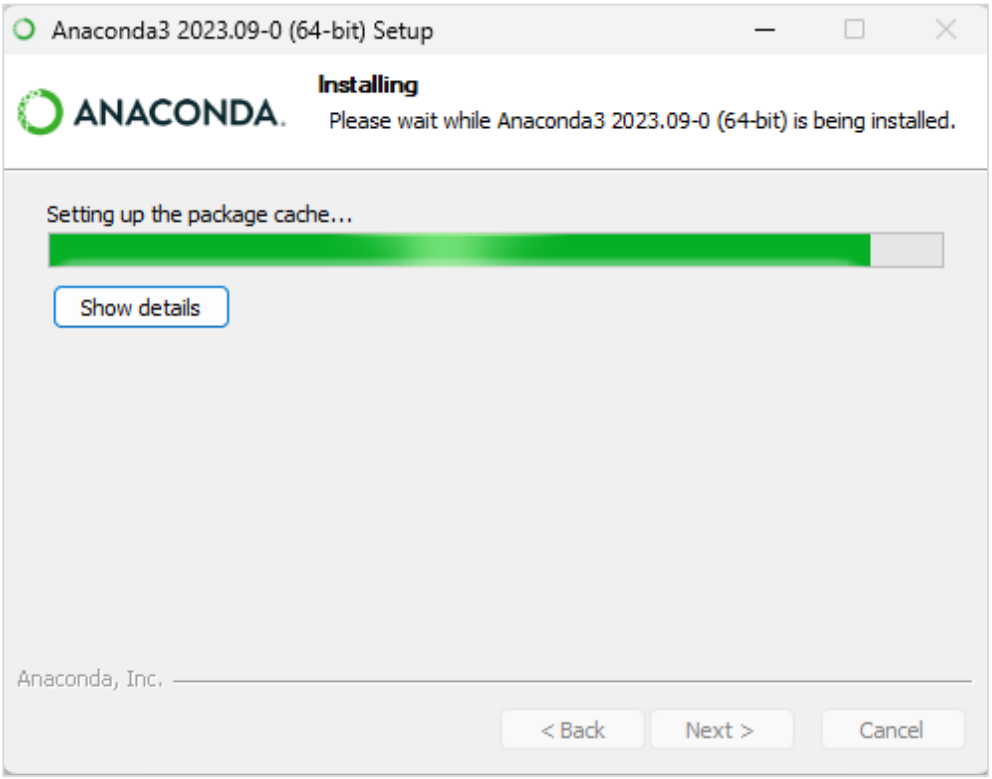
(4) Choose Install location



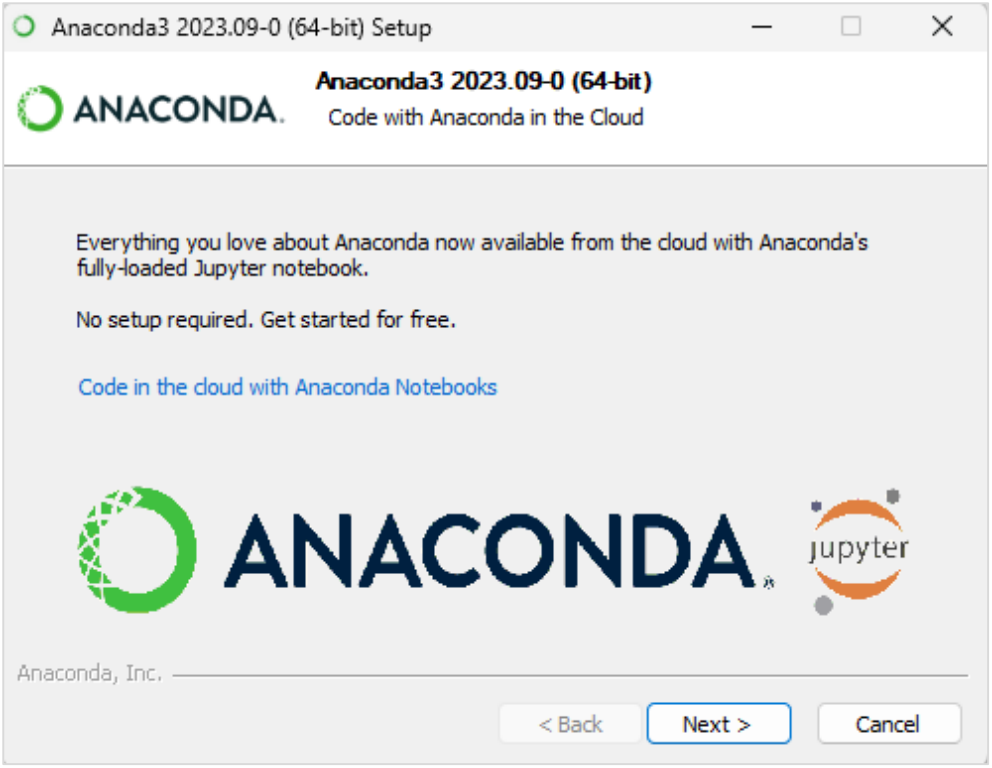
(5) Advanced installation options



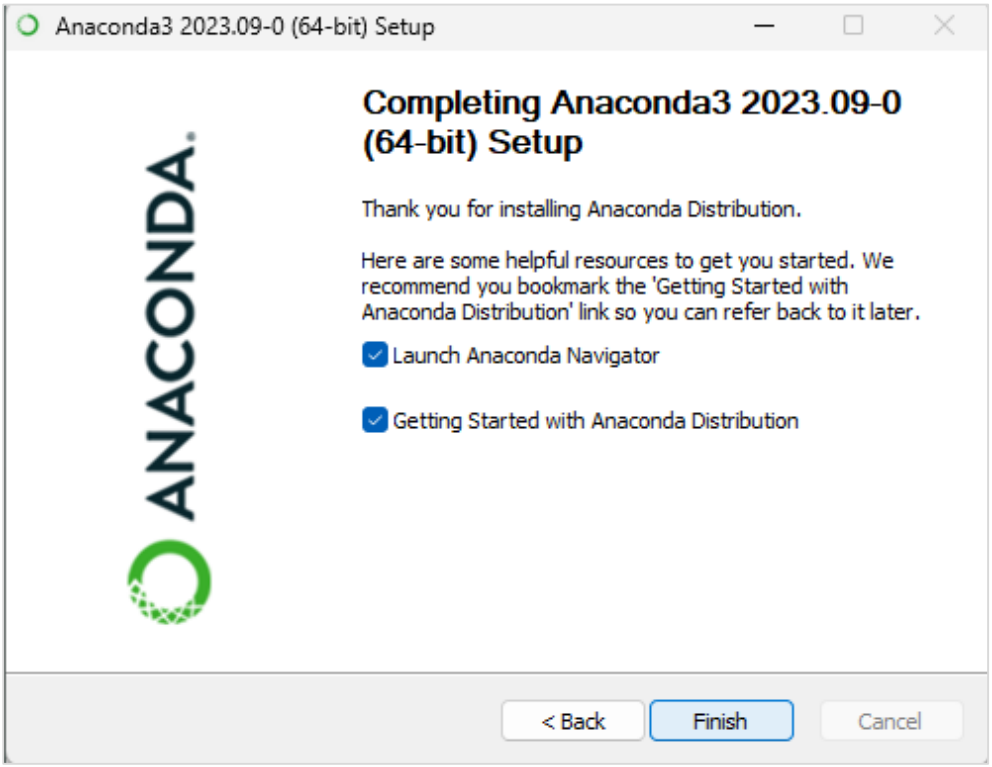
(6) Installing



(7) Click “next”

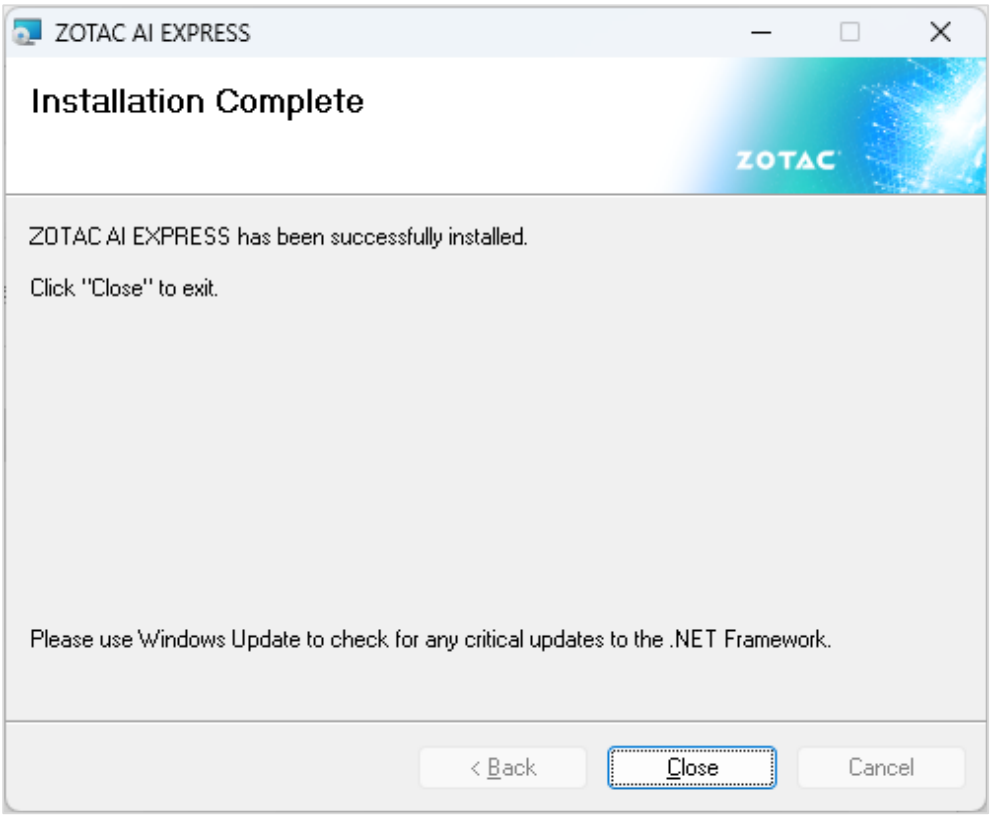


(8) Completing setup

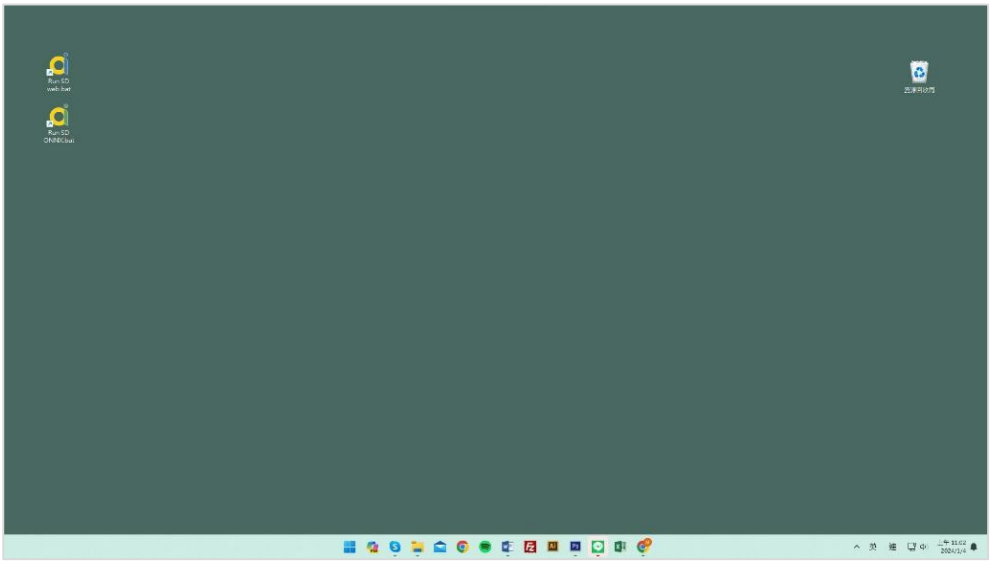


After install git and anaconda , the installation almost compete.

(9) Complete installation

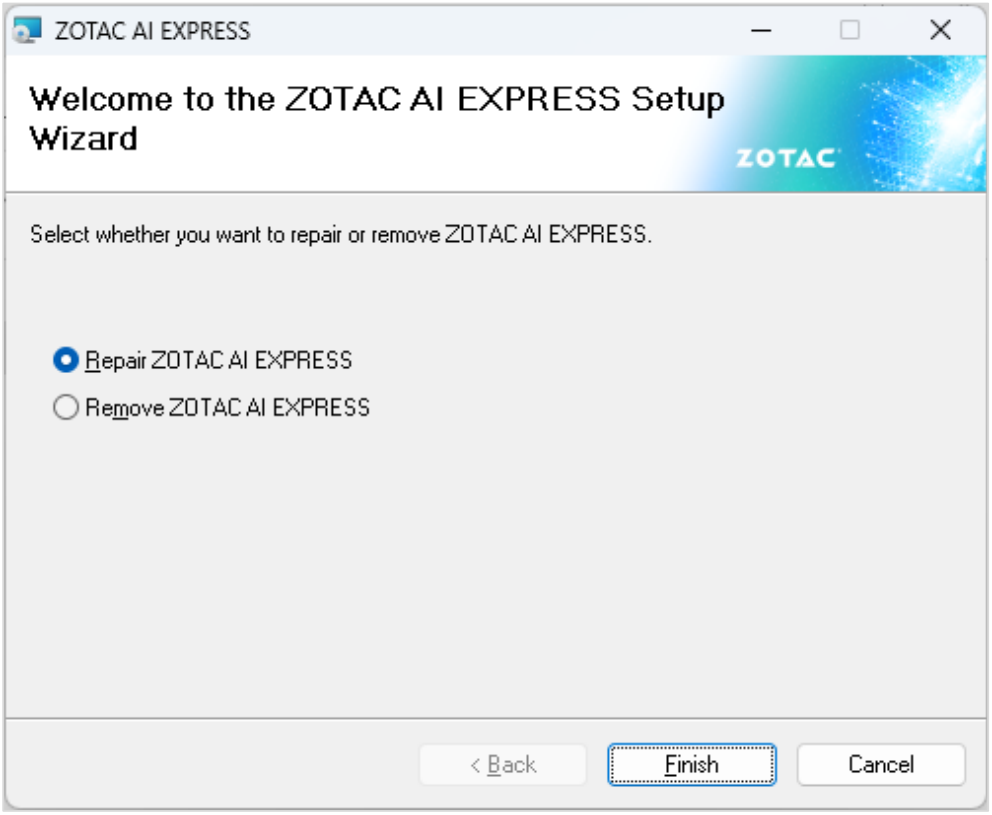


(10) AI shortcut (Run SD web / Run SD ONNX) will generate automatically as below

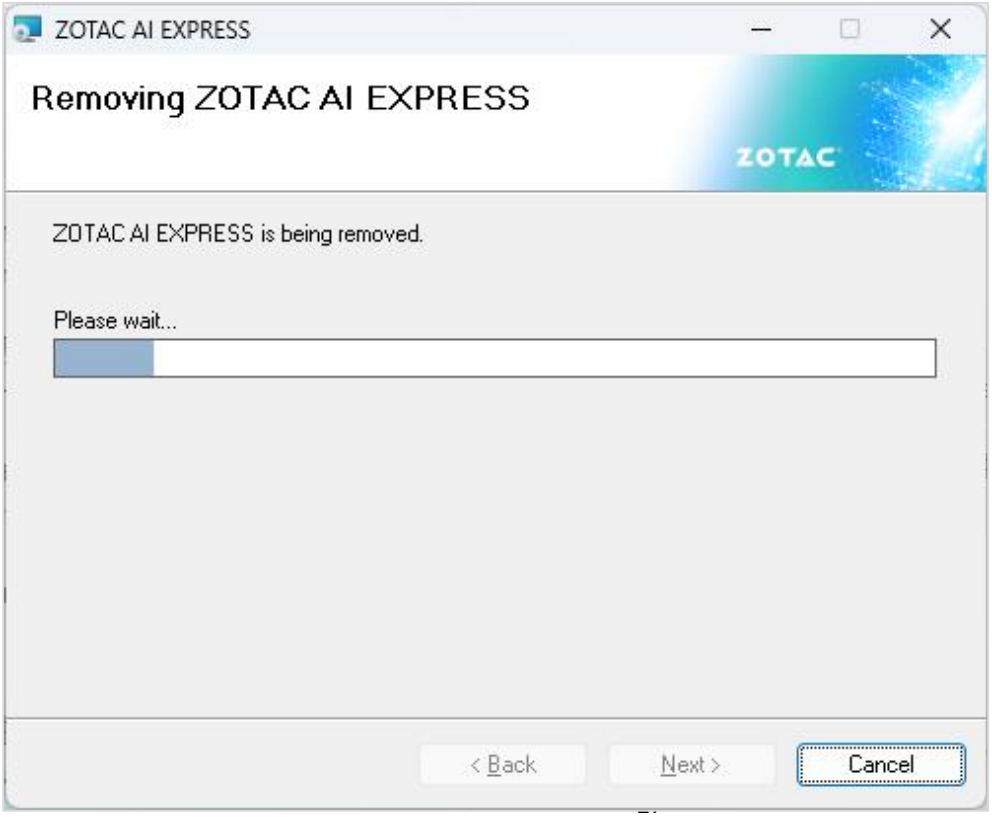


2.3.4 Uninstall

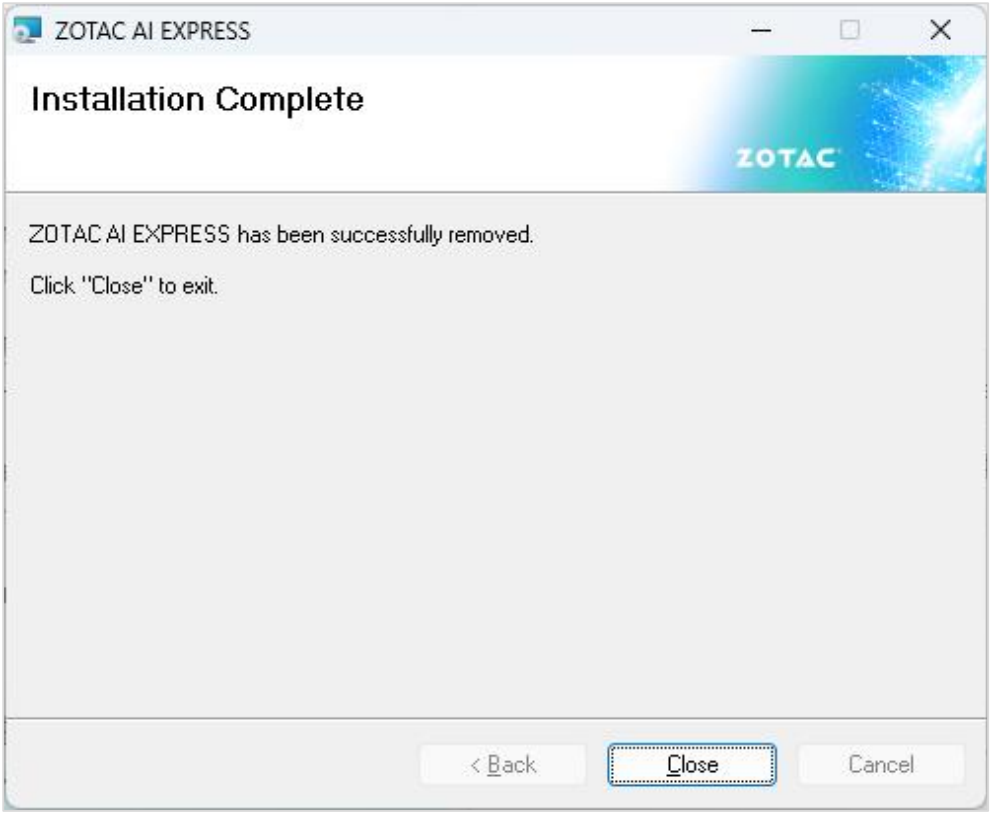
(1) Select remove ZOTAC AI EXPRESS



(2) Removing



(3) complete


ZOTAC AI EXPRESS
Installation Complete
ZOTAC
ZOTAC AI EXPRESS has been successfully removed.
Click "Close" to exit.
< Back
Close
Cancel

Chapter 3 User Interface

3.1 Launch Stable-Diffusion-ONNX Demo Program.dat

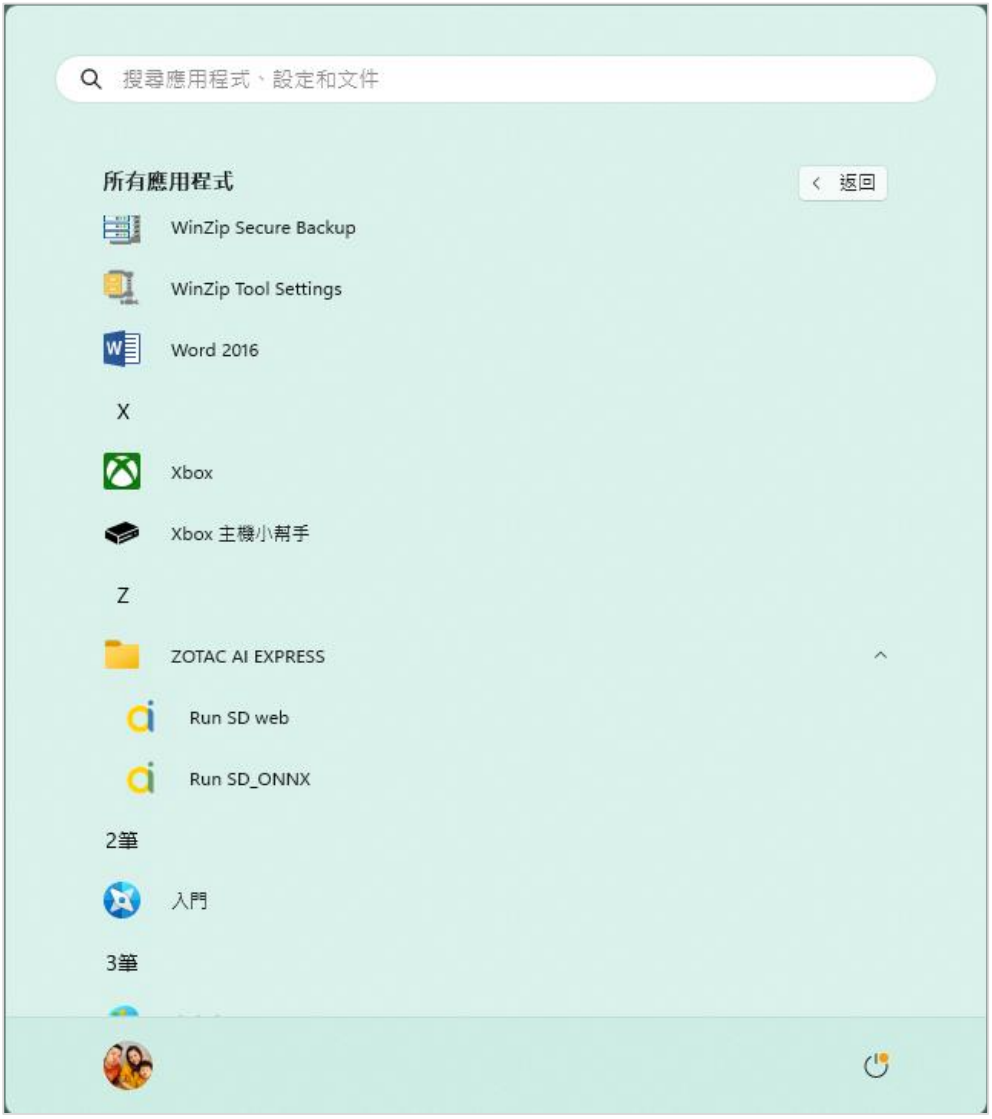
The used AI model is

- Stable-Diffusion-V1-5
  License: https://huggingface.co/spaces/CompVis/stable-diffusion-license
- ONNXDiffusersUI
  https://github.com/azuritecoin/OnnxDiffusersUI
  License: https://github.com/azuritecoin/OnnxDiffusersUI/blob/main/LICENCE.txt

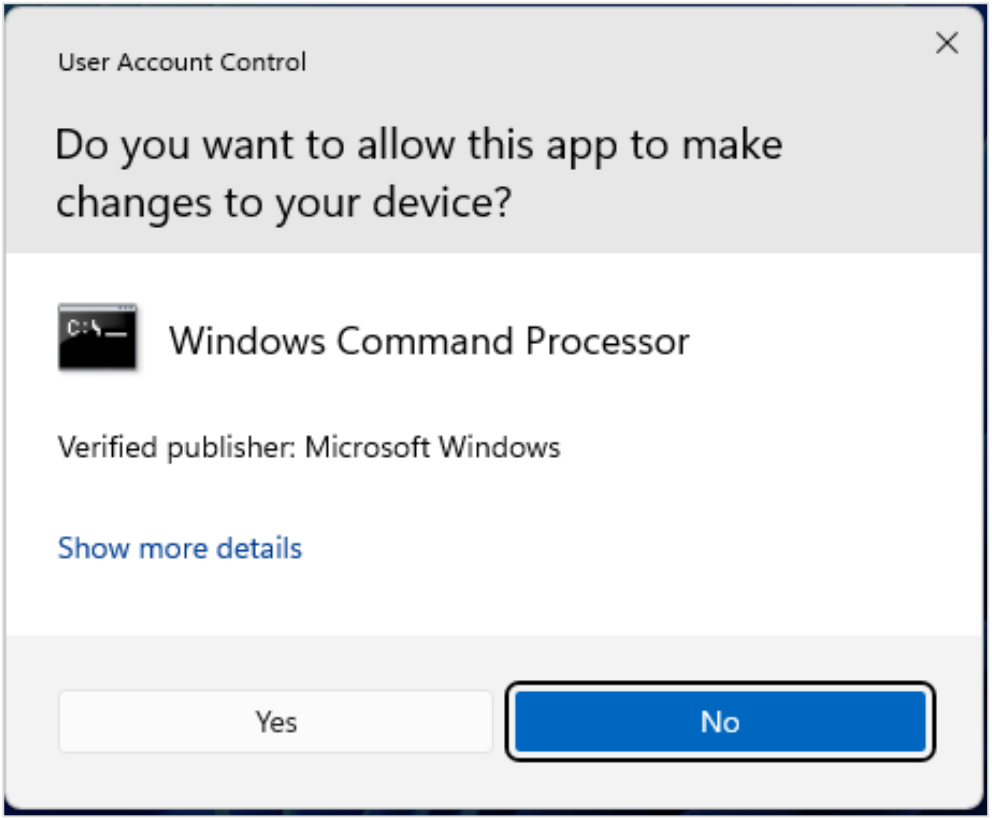
This Sample App includes AI mode is occupied the storage approximately **12** GB.

3.1.1 How to run Stable-Diffusion-ONNX

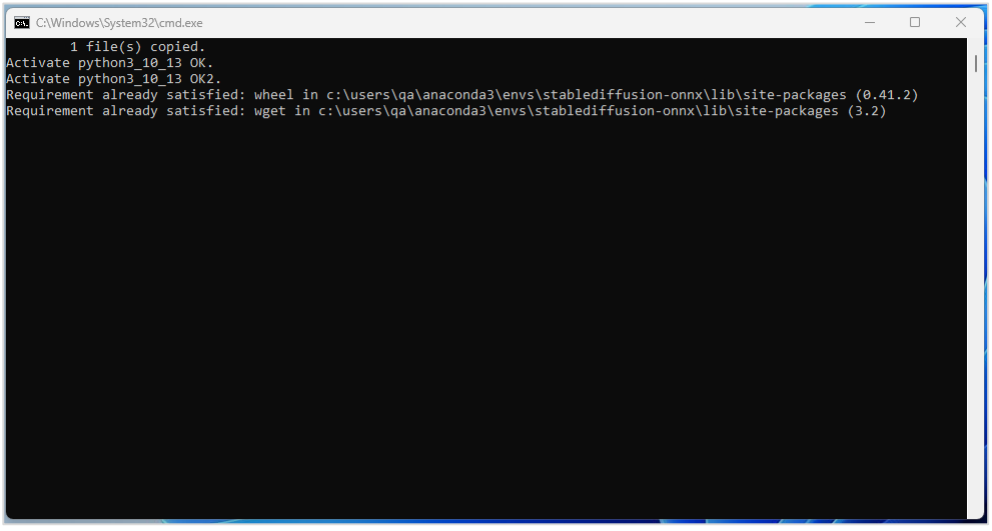
(1) Click Run “SD_ONNX”



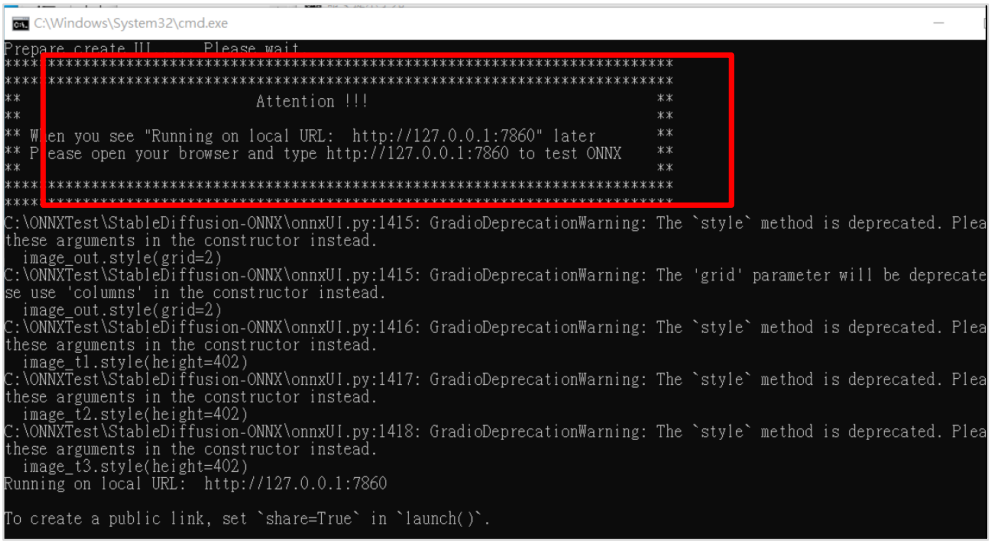
(2) Click “Allow” to continue,

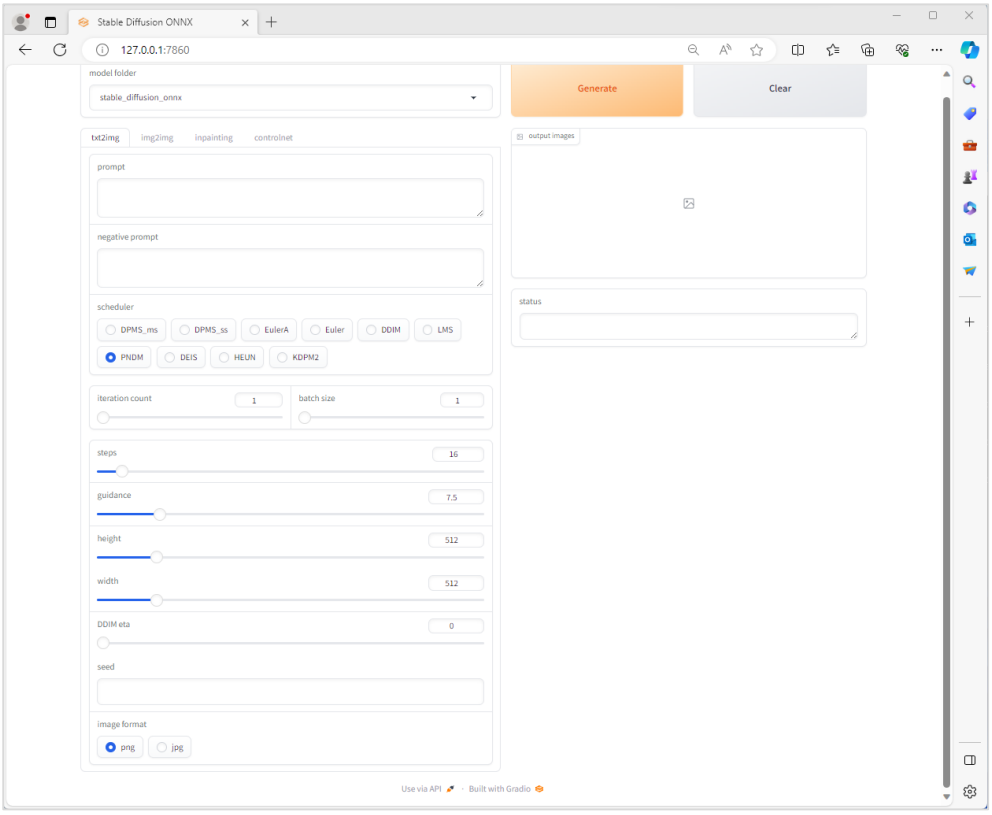


(3) When you launch it first time, please wait for the initialization and the downloading of the necessary files. These processes may take a few minutes.

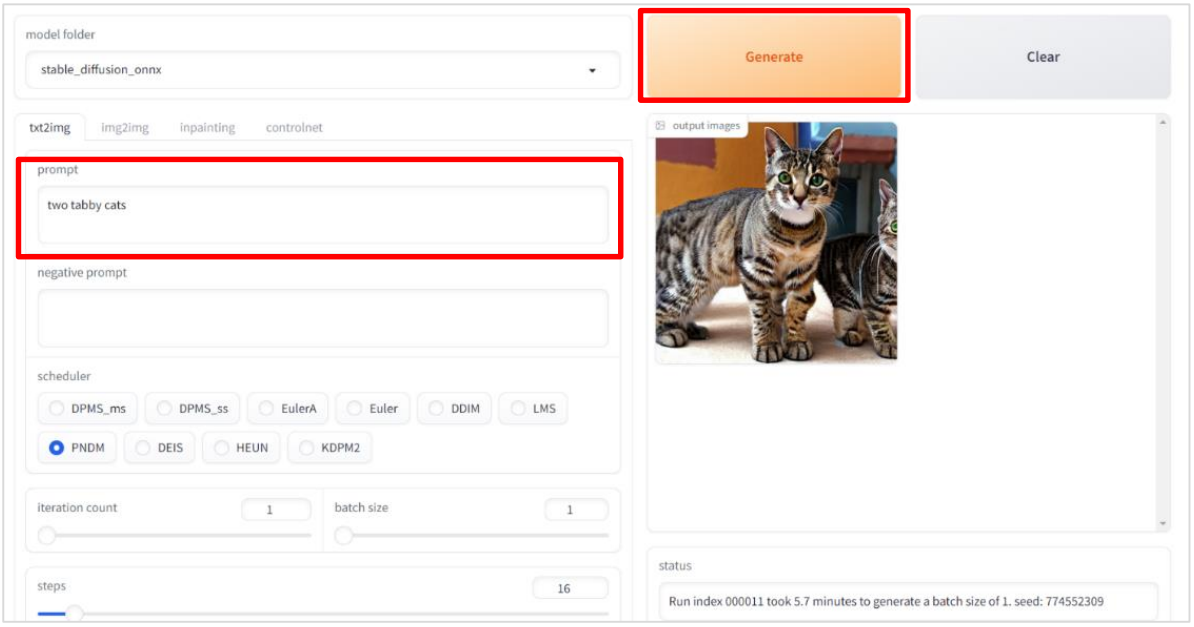


(4) When (3) is done, please open your browser and type "http://127.0.0.1:7860" to test ONNX. (Original code doesn't support auto open browser function.)





(5) Now you can create images by the following steps: Key in the prompt you prefer in “txt2img” column, and then click the “Generate” button.



3.2 Launch Stable-Diffusion WebUI Demo Program

The used sample and AI model are:

- Stable-Diffusion-V1-5

  Refers to : v1-5-pruned-emaonly.safetensors · runwayml/stable-diffusion-v1-5 at main (huggingface.co)

  License: The CreativeML OpenRAIL M license

- Demo UI

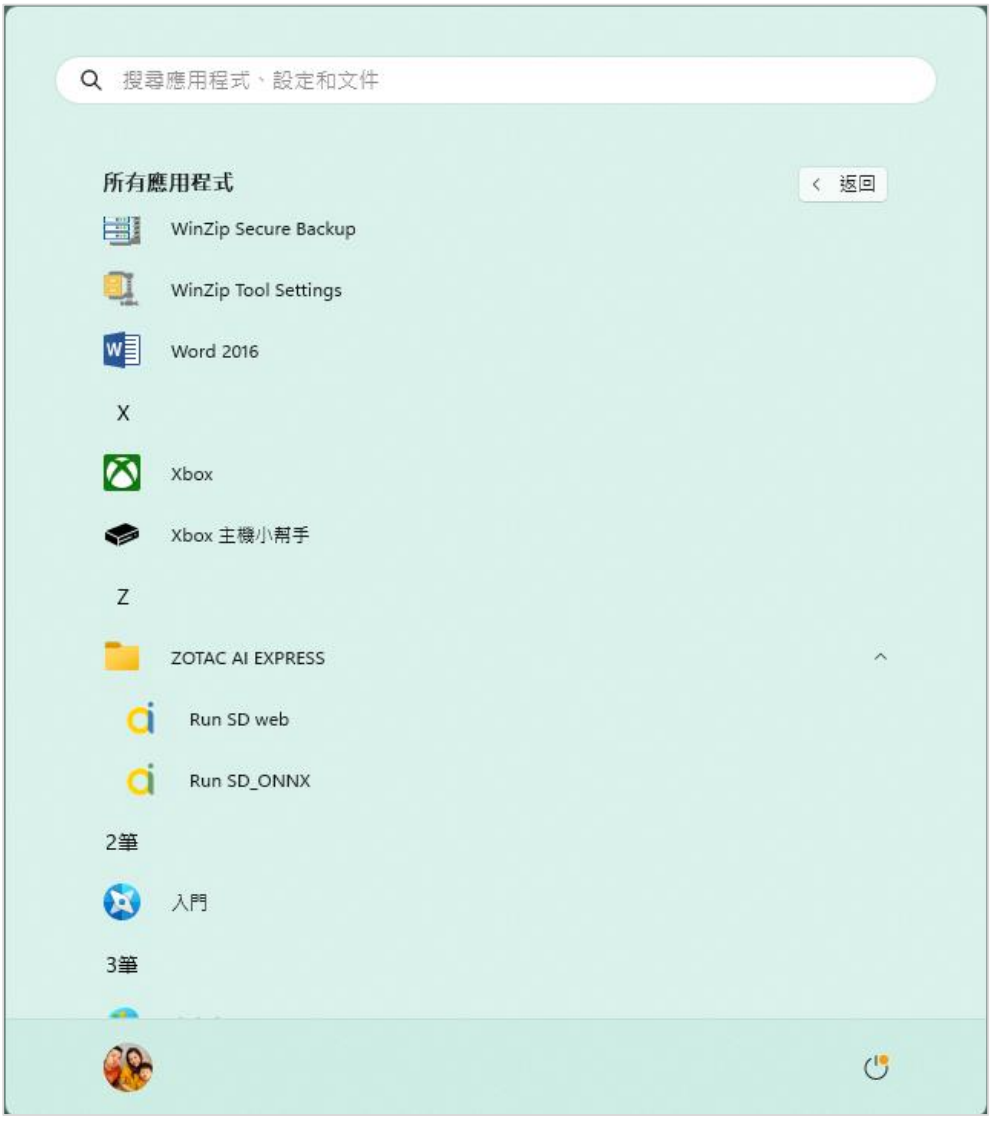
  Refers to: https://github.com/CompVis/stable-diffusion

  License: https://github.com/CompVis/stable-diffusion/blob/main/LICENSE

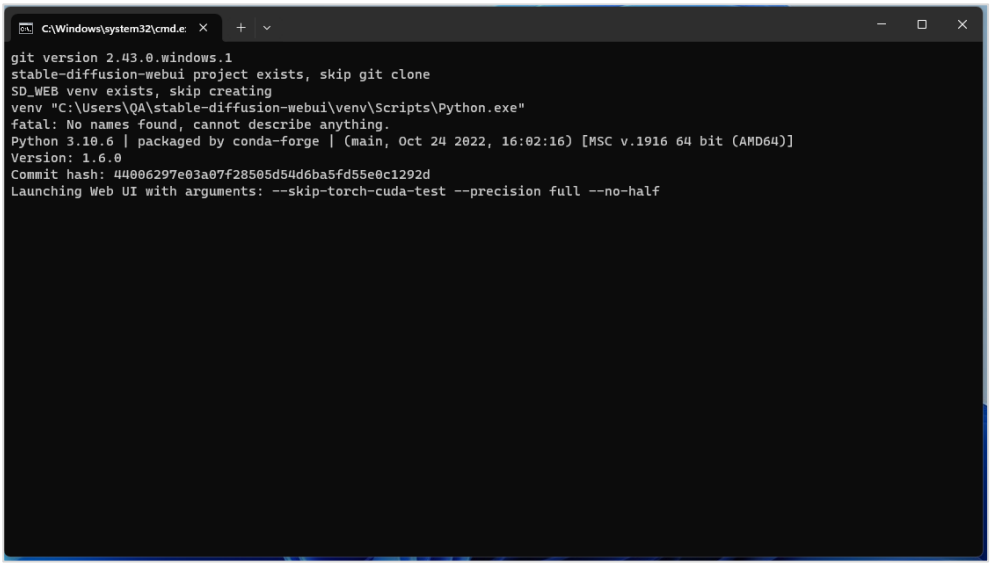
This Sample App includes AI mode is occupied the storage approximately **12** GB.

3.2.1 How to run Stable-Diffusion WebUI

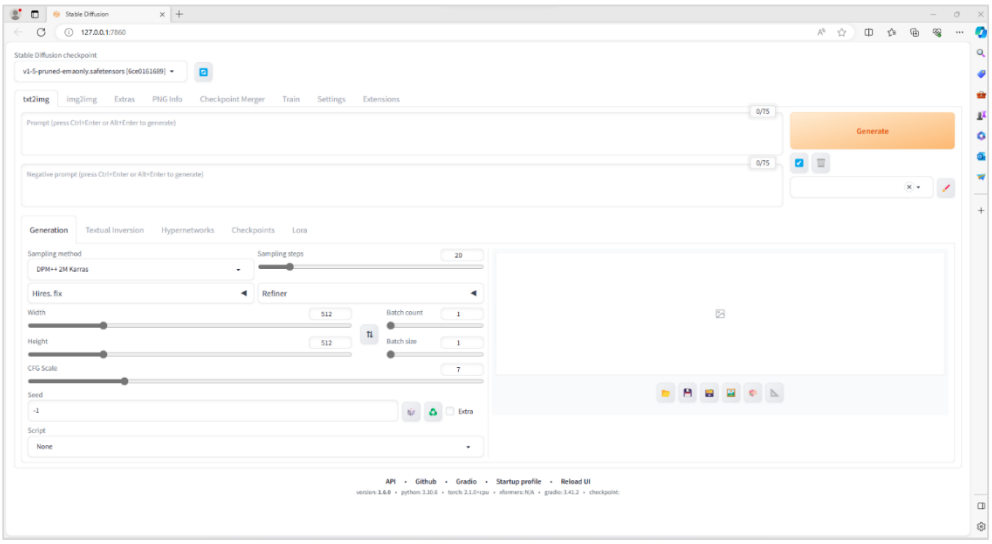
(1) Click “Run SD web”.



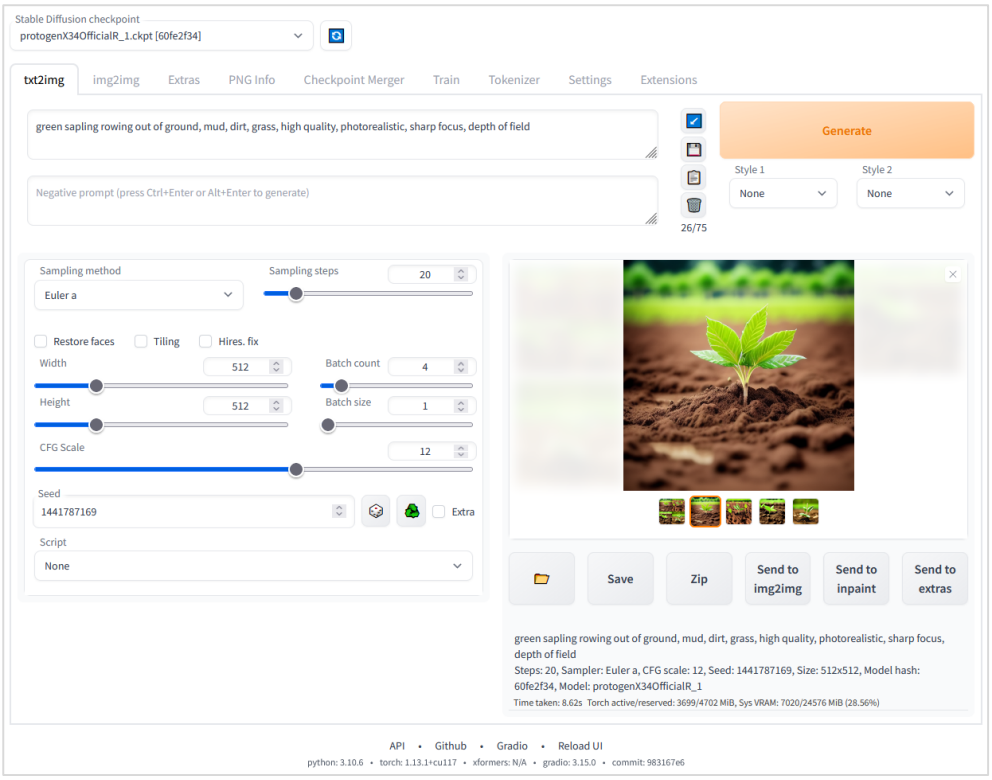
(2) Wait for the installation and download of the necessary files. These processes may take a few more minutes at first time.



(3) When (2) is done, the Stable Diffusion web UI will pop up automatically. As it is the first time to run this application, please select the “v1-5-pruned-emaonly.safetensors” model in “Stable Diffusion checkpoint” column.

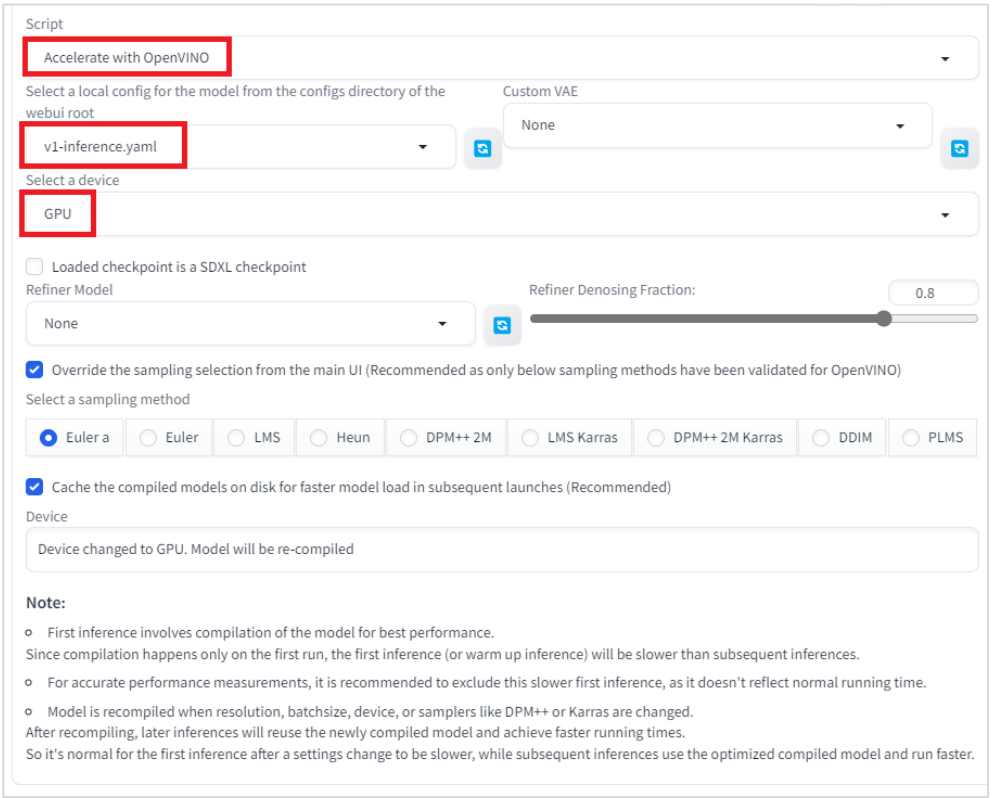


(4) Now you can do the following steps to create images: Key in the prompt you prefer in “txt2img” column, and then click the “Generate” button.



Note:

It is recommended to use the following configuration to generate images faster.



Chapter 4 Features

This section describes the software's features and how to use them. It may include step-by-step instructions, screenshots, and examples.

4.1 Software Instruction

Using the installer will generate executable files (Stable Diffusion Web, Stable Diffusion ONNX). The first click for the executable file will download and install the environment for this AI program. Only the first execution will take more time.

Stable Diffusion Web
Text to image and image to image modes.

Stable Diffusion ONNX
Text to image and image to image modes.

Chapter 5 Customization

This section explains how to customize the software to fit the user's needs. It may include information on how to change settings, configure preferences, and create user profiles.

5.1 Preference setting

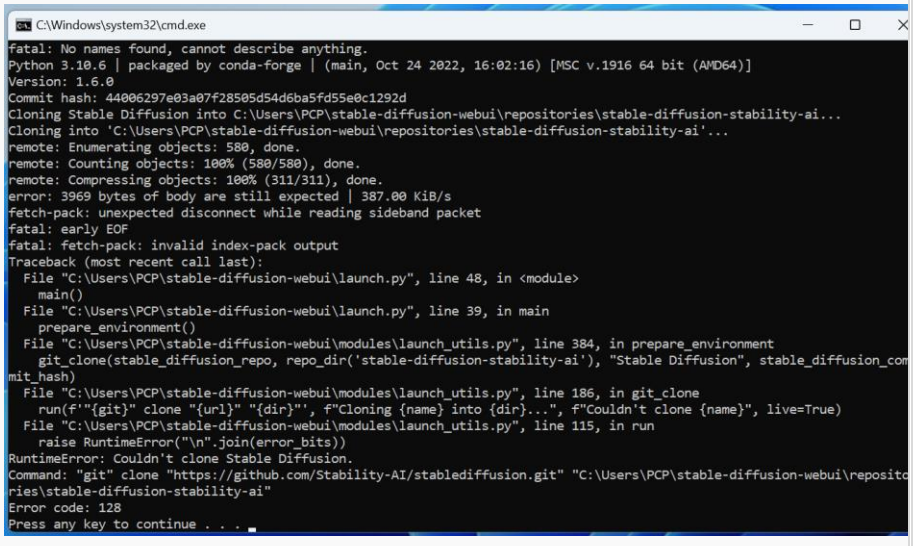
Please indicate the setting step by step as user need it.

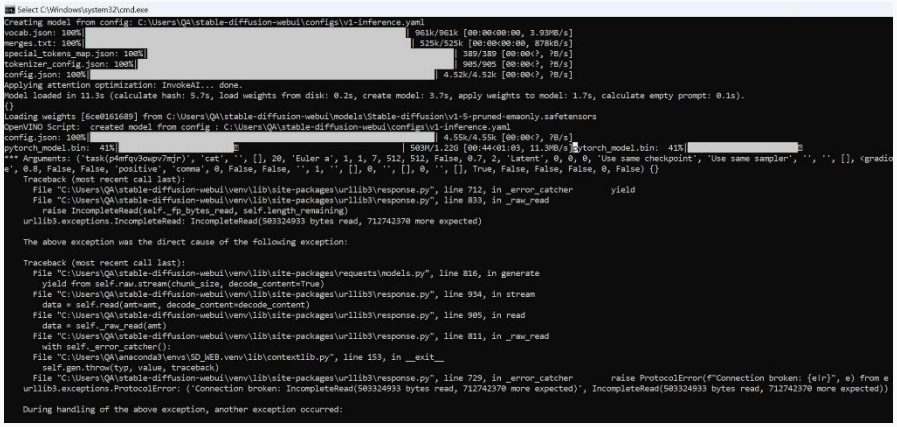
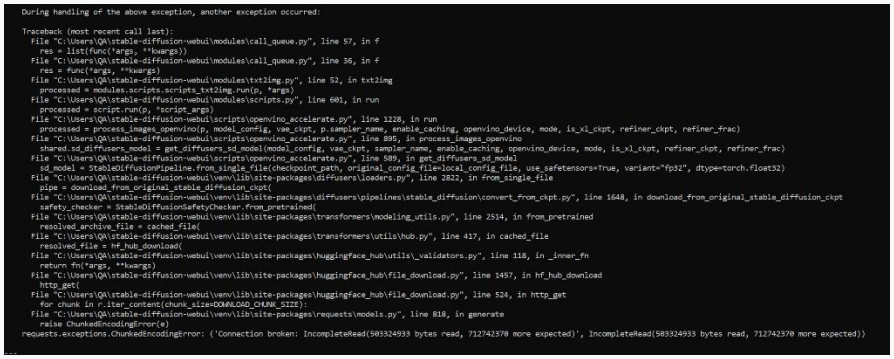
Chapter 6 Support

This section provides information on how to get help if the user encounters problems while using the software. It may include contact information for customer support, frequently asked questions, and troubleshooting tips.

6.1 frequently asked questions and Troubleshooting tips

Troubleshooting refers to the process of identifying and resolving problems or issues with a system or device. It is an essential skill for anyone working with technology, as technical issues are common and can impact productivity, efficiency, and even safety.

	Trouble shooting	Solution
1	Get an error code while executing the download of the AI Model (SD Web). Error code: 128 Unexpected disconnect while reading sideband packet. 	Please confirm the network status before executing stable diffusion web for the first time.

2	Get error with "request.exceptions.ChunkedEncodingError"  	Please confirm the network status before executing stable diffusion web for the first time.