

Autel Mapper

Installation Guide

2023.04



AUTEL
ROBOTICS



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Recommendations

Autel Robotics provide users with the following materials for best use practices of Autel Mapper:

1. "Autel Mapper Installation Guide"
2. "Autel Mapper Quick Start Guide"
3. "Autel Mapper User Manual"

4. It is recommended that users first use the "Autel Mapper Installation Guide" to understand how to install the software and check hardware compatibility; browse the "Autel Mapper Quick Start Guide" to facilitate users to quickly understand how to use the software and perform 2D and 3D reconstruction tasks, and finally utilize the "Autel Mapper User Manual" for a detailed explanation of both beginner and advanced techniques for using the software, and explanations of technical terms within the software.

Documentation

※The following guide is subject to update without prior notice. It is recommended to visit the official website of Autel Robotics to confirm you are using the latest version of this documentation.



Or



Click Icon To Download

This manual is written based on using the app within a Windows 11 system. Windows 10 users may also refer to the guidelines in this manual for installation. Under normal circumstances, the installation process has nothing to do with the Autel Mapper version and relies on certain care when installing due to anti-virus software and administrative privileges. If some operations are inconsistent with the manual description due to system or software version upgrades, please refer to what you see on-screen when installing your product. This manual is for reference only.

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Installation Preparation

1. Download Autel Mapper

Users can download the [.exe] installation package of Autel Mapper for free by visiting the official website of Autel Mapper.

Website link:

<https://www.autelrobotics.com/download/594.html>.

Tips:

- If you need to copy the [.exe] installation package of AUTEL Mapper, it is recommended to prepare a USB drive with at least 4GB of free space.

2. Operating System Requirements

The computer using Autel Mapper needs to meet certain software and hardware configuration requirements in order to smoothly use the advanced functions in the software.

Important:

- Autel Robotics only provides the Autel Mapper software installation package and related support, and does not provide any computer software or hardware required to run Autel Mapper.

2.1 Operating System

- Windows 10 64-bit or Windows 11 64-bit.

2.2 Hardware Requirements

Specification	2D/3D Reconstruction	
Hardware	Lowest Supported Model	Recommended Model
CPU	Intel Core i5 8 series AMD Ryzen 5 3000 series	Intel Core i7 11 series or newer AMD Ryzen 7 5000 or newer
GPU	NVIDIA GeForce GTX1070	NVIDIA GeForce RTX 2080 Ti or higher
VRAM	6GB	8GB or higher
RAM	16GB	32GB or higher
Storage	200GB of usable hard drive space	256GB SSD+2TB Enterprise HDD
Display	1280×1024	1920×1080 or higher

Notes:

- Please keep your computer operating system up-to-date, including drivers, to get the most out of your hardware.
- It is recommended to use a higher-end desktop processor for the best possible performance.
- The graphics processor must use an NVIDIA graphics card with a computing power of 3.0 or higher, and the graphics card driver version is required to be 471.11 or later.
- Please configure memory and storage reasonably according to the actual data set to be processed. Among them, memory should be about 500 sheets/GB, and storage should be 5 times the size of the data set.
- Lower requirements than the minimum configuration may result in poor experience of the software, crashes, or a failure to boot the program.
- The official recommended configuration of Autel Robotics is for reference only, and large-scale data sets may need to upgrade to a higher configuration.

2.3 Other Instructions

- System hardware configuration requirements may vary depending on specific application scenarios. If you need to process large-scale images or models, or need to perform complex calculations or analysis, you may need to upgrade to a higher hardware configuration.
- During the installation process of Autel Mapper, the system environment components on which the operation depends on will be automatically installed.

2.4 GPU (Graphics Card) Preparation

- Check the performance of your NVIDIA card here:
<https://developer.nvidia.com/cuda-gpus#compute>.
- Download the latest NVIDIA drivers from here:
<https://www.nvidia.com/Download/index.aspx?lang=en-us>.

Installation

1. Installation Steps

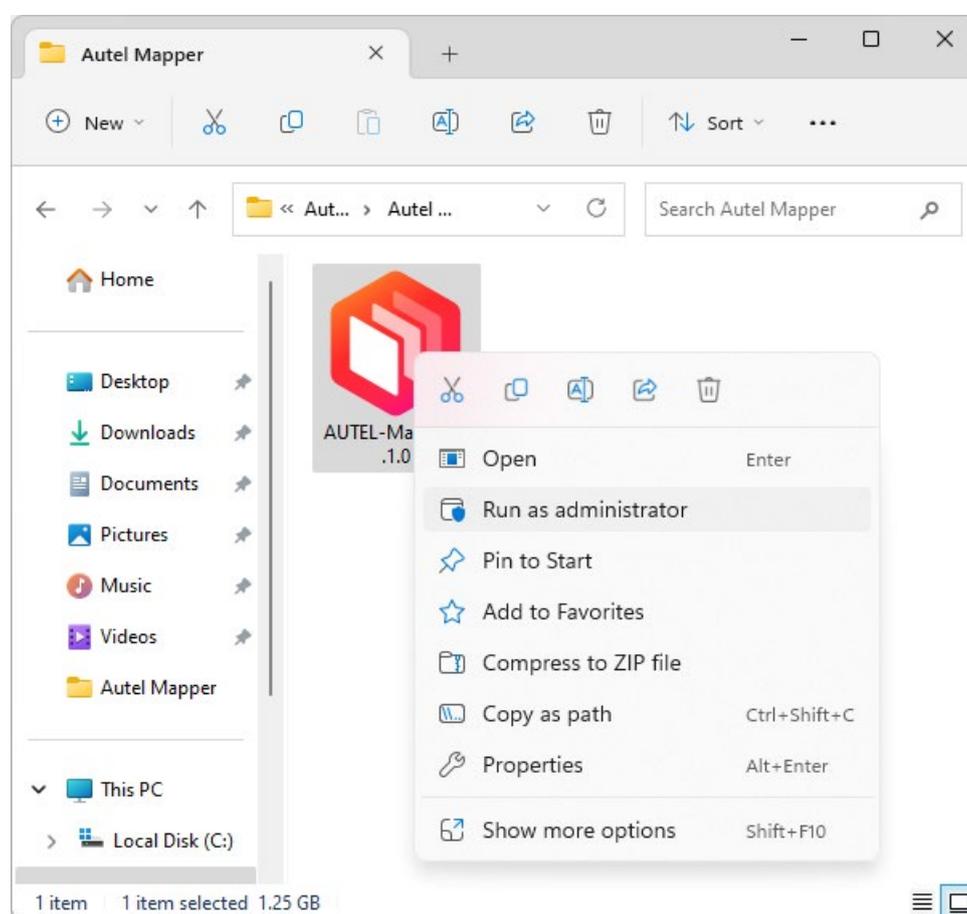
The following is the installation process based on a Windows 11 system. Windows 10 users can also use this process as a reference for installation.

1.1 Step 1

Find the [.exe] installation package of Autel Mapper in file explorer, left-click to open or right-click [Open] or [Run as administrator] to install.

Note:

- If a security software warning appears during installation, please allow the installation to proceed, unblocking the setup if necessary.

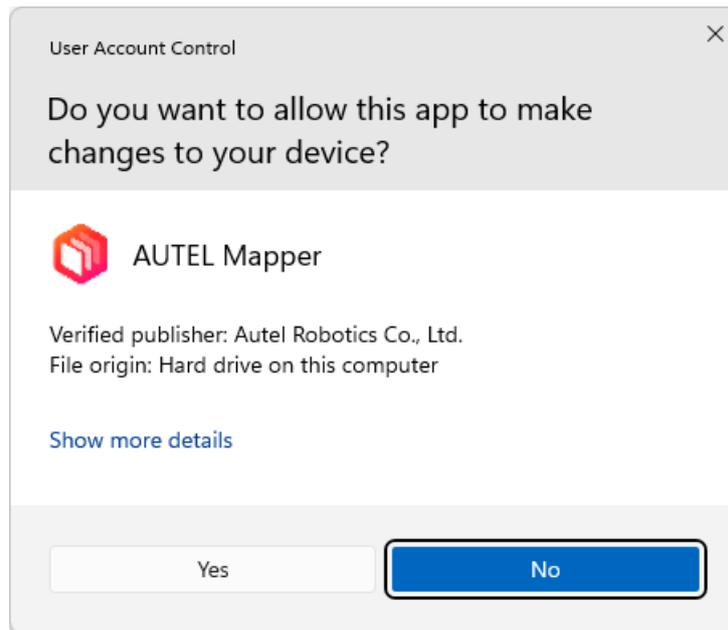


1.2 Step 2

Click the [Yes] button in the [User Account Control] window that pops up.

Tips:

- Clicking [No] will exit the installation.

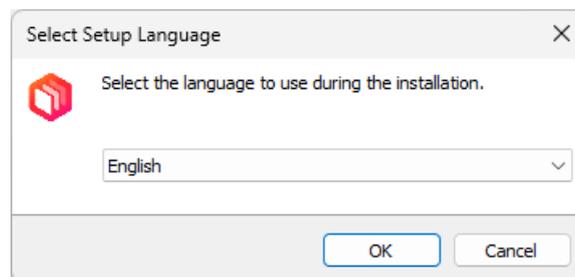


1.3 Step 3

Select the desired display language from the drop-down menu in the [Select Setup Language] window that pops up, and then click the [OK] button.

Tips:

- Setup (and Autel Mapper) is available in [English] and [Simplified Chinese]. After selection, the display language of the subsequent installation guide window and the display language of the Autel Mapper interface will all change to the selected language.
- Users can switch the display language in Autel Mapper, and a shortcut button for switching the display language is provided in the upper right corner of the homepage of Autel Mapper.
- Click the [Cancel] button to exit the installation.



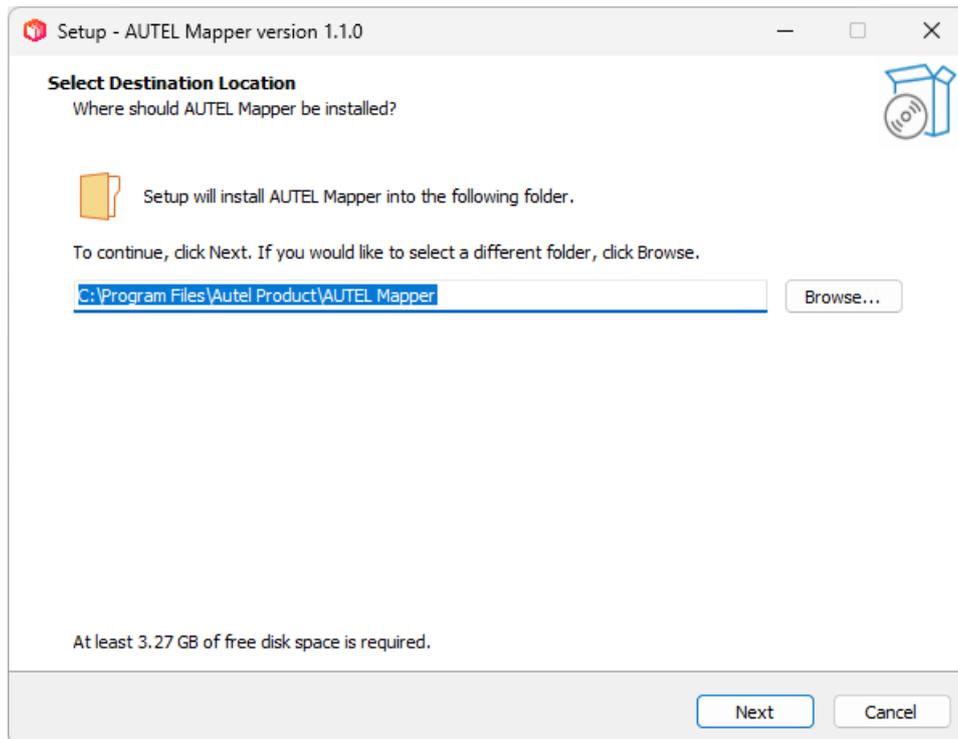
1.4 Step 4

Enter the specified installation path in the application installation path field of the pop-up [Select Destination Location] window, or click the [Browse] button to change the installation path. Click the [Next] button to confirm the installation path.

Tips:

- The default installation path is C:\Program Files\Autel Product\AUTEL Mapper.

- Click the **[Cancel]** button to exit the installation.

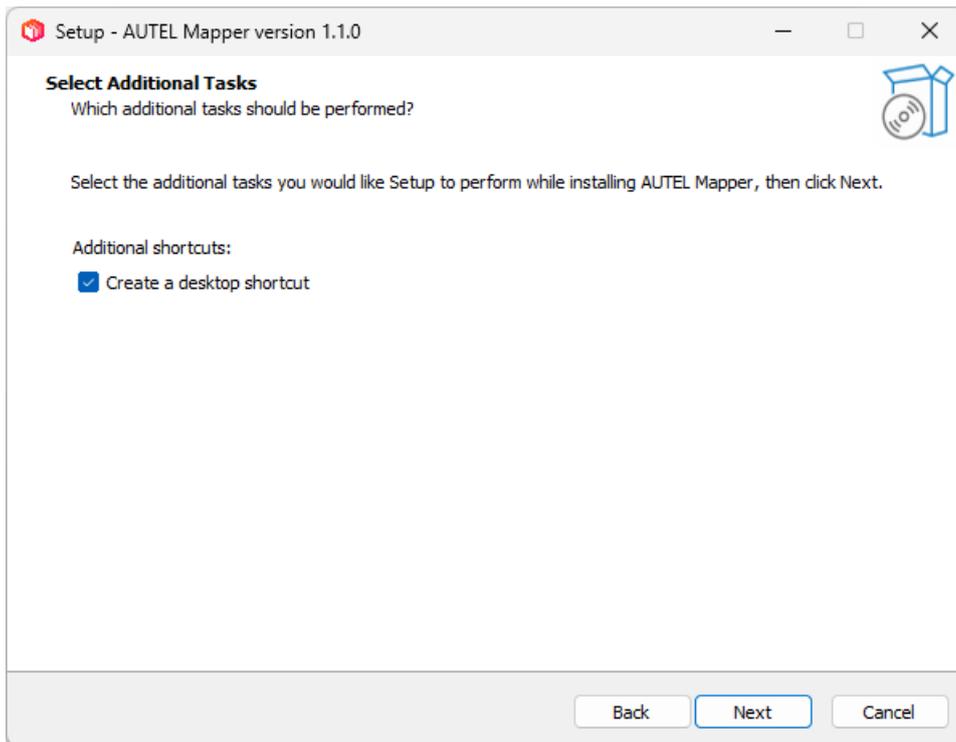


1.5 Step 5

In the pop-up **[Select Additional Tasks]** window, check **[Create a desktop shortcut]**, and click the **[Next]** button to install.

Tips:

- You can access Autel Mapper through the start menu without ticking **[Create a desktop shortcut]**.
- Click the **[Back]** button to return to the **[Select Destination Location]** window.
- Click the **[Cancel]** button to exit the installation.

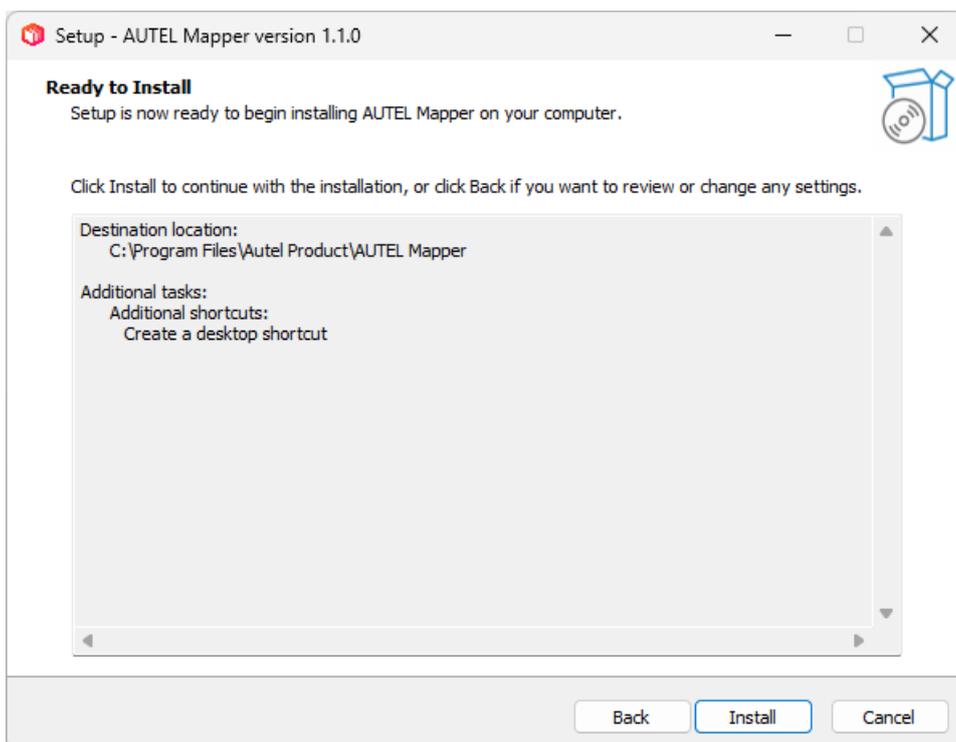


1.6 Step 6

In the pop-up [Ready to Install] window, click the [Install] button to install Autel Mapper.

Tips:

- Click the [Back] button to return to the [Select Additional Task] window.
- Click the [Cancel] button to exit the installation.

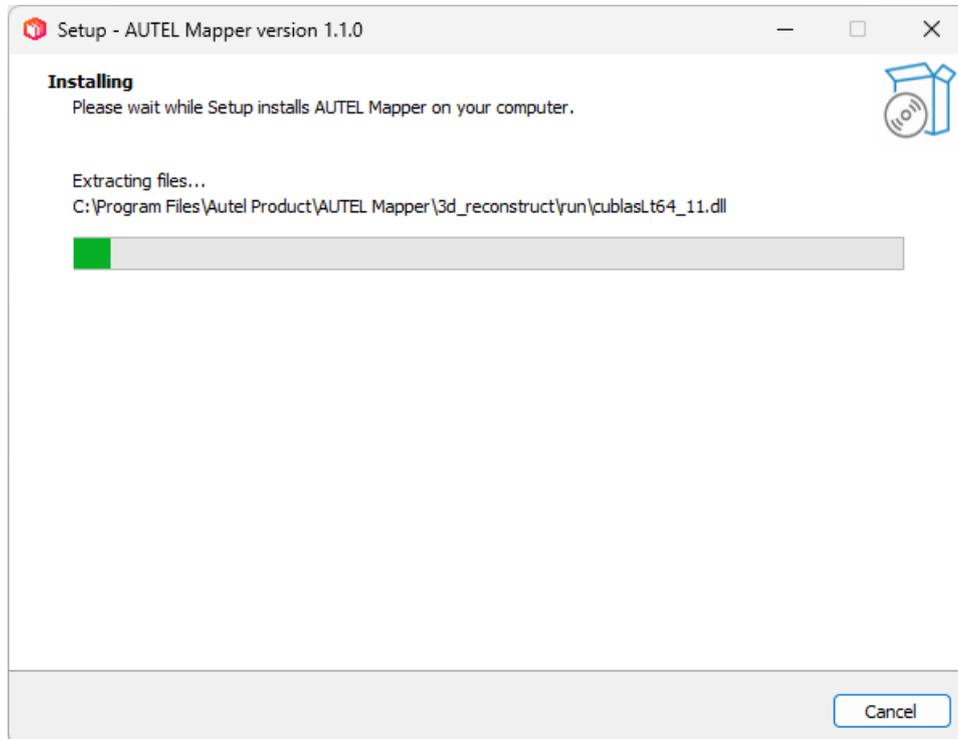


1.7 Step 7

Wait for the installation progress bar to reach 100% in the pop-up [Installing] window, and the installation will conclude.

Tips:

- Click the [Cancel] button to exit the installation.

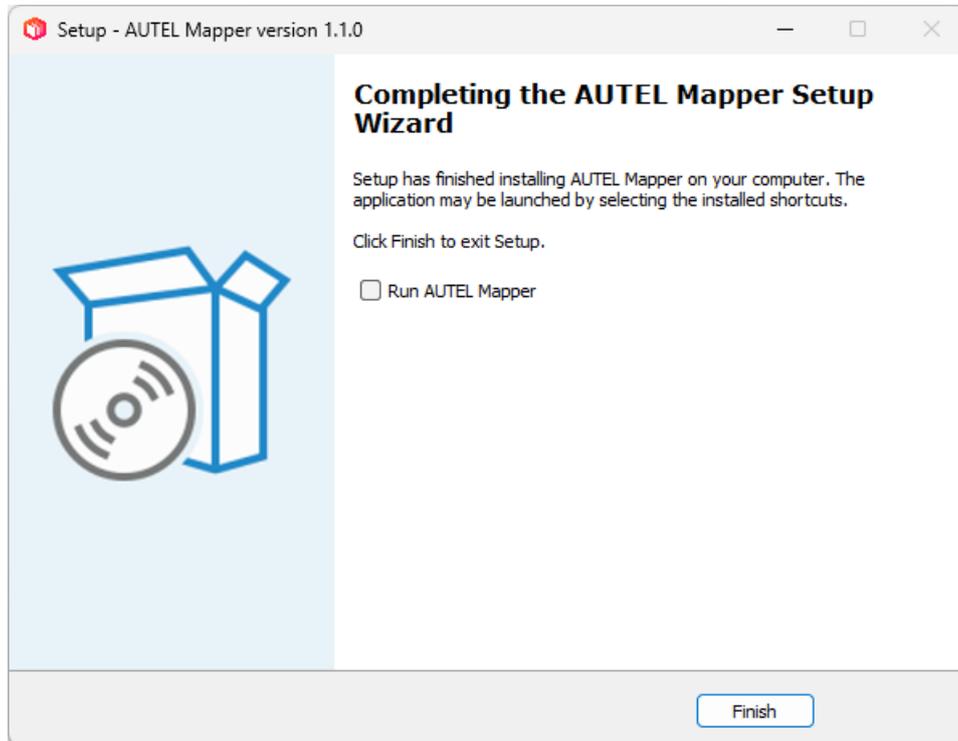


1.8 Step 8

In the pop-up [Completing the AUTEL Mapper Setup Wizard] window, check [Run AUTEL Mapper] and click the [Finish] button to experience Autel Mapper immediately.

Tips:

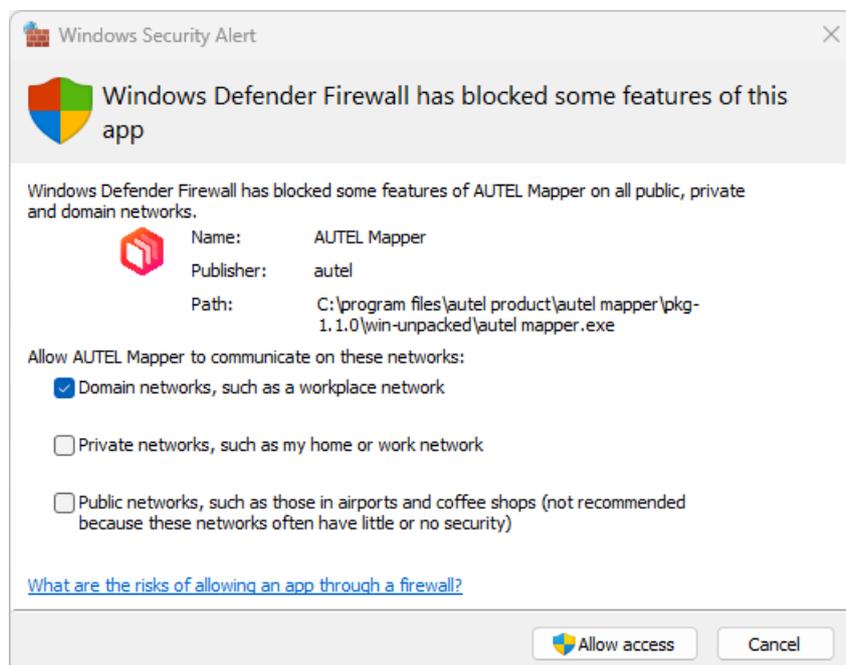
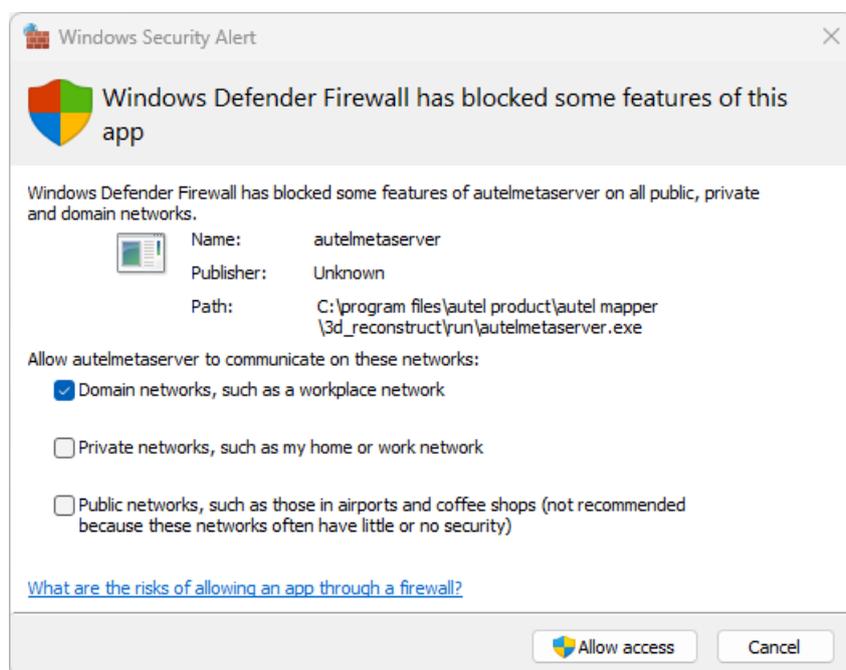
- If you do not check [Run AUTEL Mapper], Autel Mapper will not be automatically run after the installation is completed.



1.9 Step 9

After the installation is complete, the first run of Autel Mapper will apply for network access.

In the pop-up [Windows Security Alert] window, check the network type that the current device is connected to, and click the [Allow Access] button.

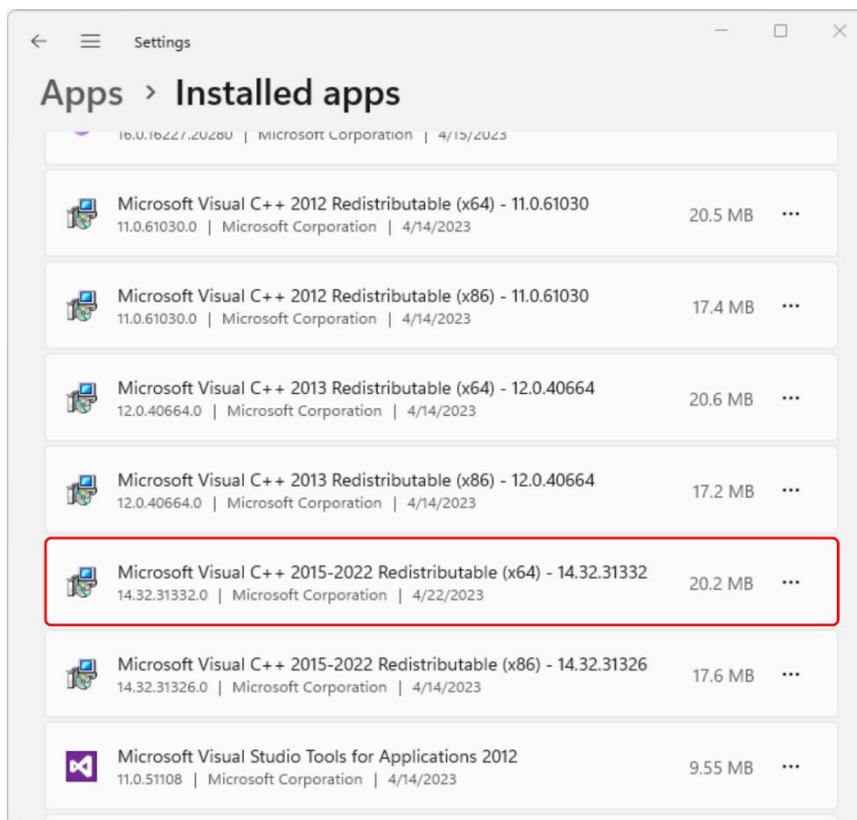


2. Installation Precautions

In order to ensure the stable performance of Mapper and its related services, the program will install the following system environment components during the installation process, which will not affect system security. Some security software may block or warn you with pop-up windows for this installation behavior, please ignore the warning and allow the installation to continue.

Tips:

- The [Microsoft Visual C++ 2015-2022 Redistributable (x64) - 14.32.31332] system environment component will be automatically installed during the installation process.
- At present, it is known that 360 security software has interception and warning behaviors. If other security or antivirus software conducts such interception or warnings, please allow the installation to continue.



Using a NVIDIA

Autel Mapper needs to process a large number of data sets, and has mandatory requirements for the computing power of the graphics card. It must run on an NVIDIA graphics card with a computing power of 3.0 or higher, and the graphics card driver version must meet version 471.11 or higher.

Note:

- When the graphics card driver version is lower than 471.11, Autel Mapper will not work properly.

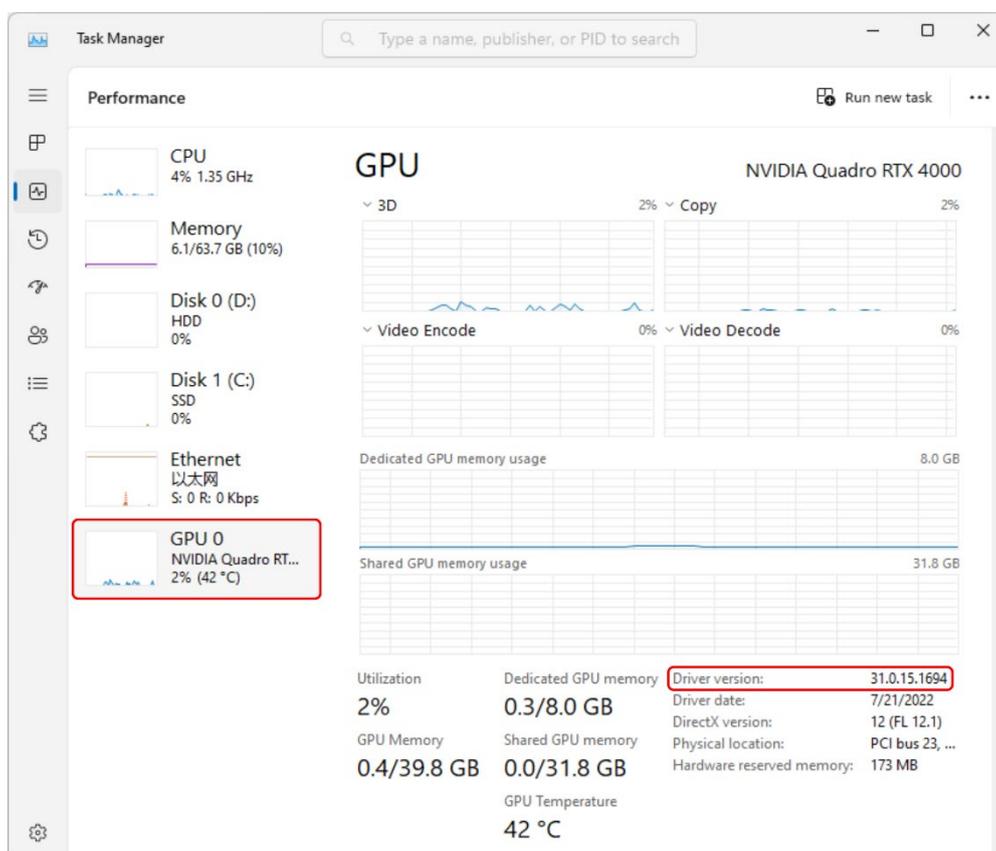
1. Check the NVIDIA Graphics Card Driver Version

1.1 View Through Task Manager

Use [Ctrl+Alt+Delete] or [Windows logo + X] key combination, select the [Task Manager] option, and enter the [Performance] interface. Click the NVIDIA GPU item column in the list on the left to view the driver version on the details page on the right.

Tips:

- If the 5th to 9th digits of the displayed NVIDIA driver version number are less than 4.7111, you need to upgrade the graphics card driver.

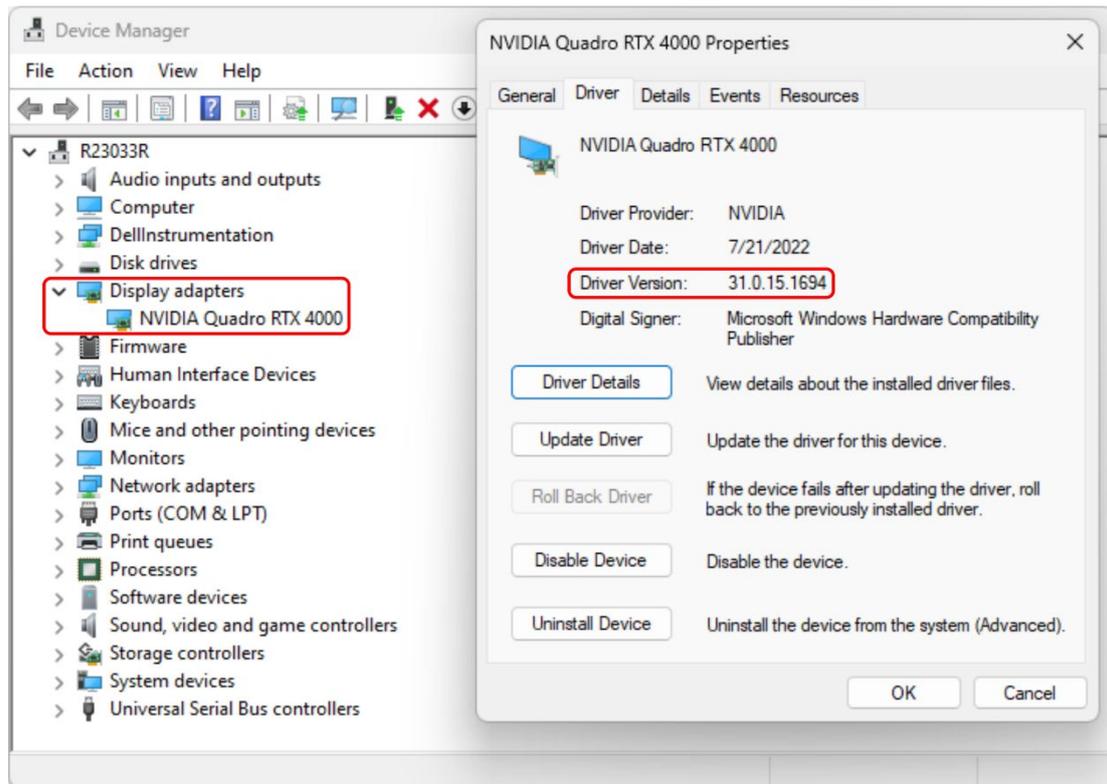


1.2 View in Device Manager

Use the [Windows Logo + X] key combination (right-click [This PC] on the desktop or file explorer, click [Manage]), select the [Device Manager] option, expand [Display adapters]; right-click the NVIDIA graphics card, select [Properties], enter the [Driver] page, there you are able to check the driver version of your card.

Tips:

- If the 5th to 9th digits of the displayed NVIDIA driver version number are less than 4.7111, you need to upgrade the graphics card driver.



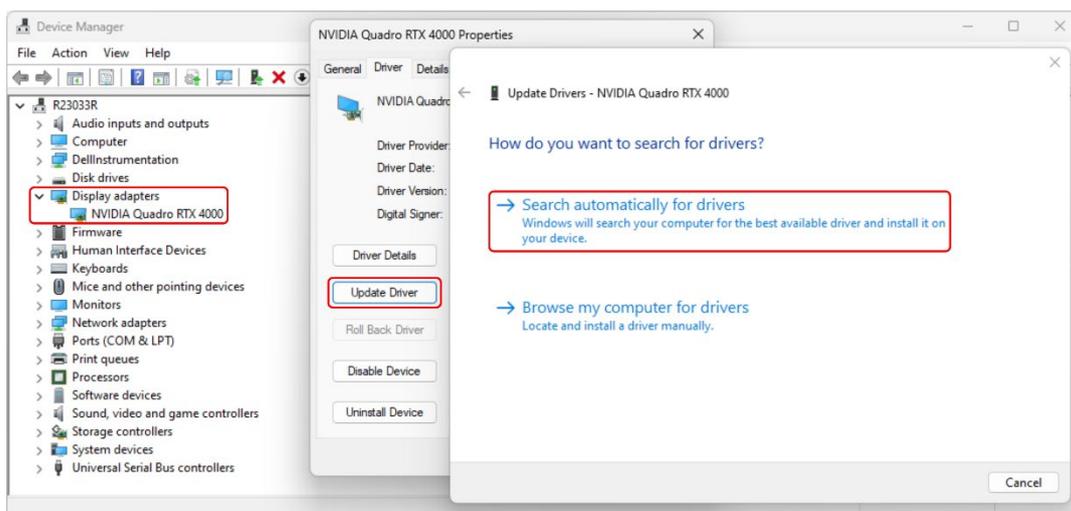
2. Update NVIDIA Drivers

2.1 Update via Windows Update

Follow the process of checking the version of the NVIDIA graphics card driver in 1.2 of this chapter, then enter the [Driver] page of the NVIDIA graphics card, click [Update Driver], select [Search automatically for drivers], and Windows will automatically update the NVIDIA graphics card driver to the latest version.

Note:

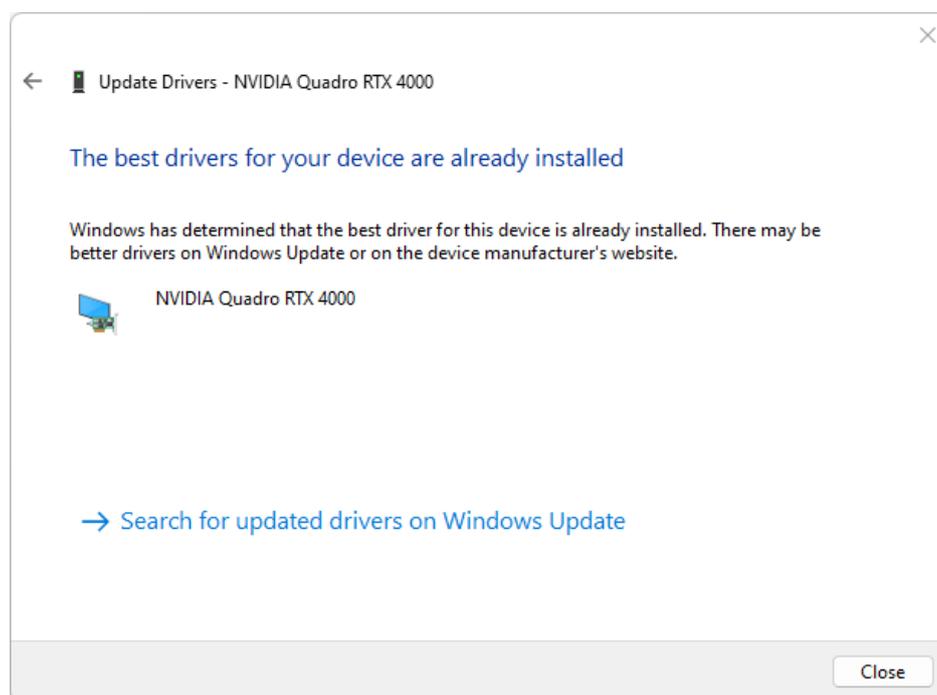
- Before using this method, please ensure that the device is connected to the Internet and Windows Update is turned on.



If Windows prompts [The best drivers for your device are already installed], but the NVIDIA graphics card driver version does not meet the minimum version requirements for running Autel Mapper, please refer to the following method to use the NVIDIA official driver upgrade program.

Tips:

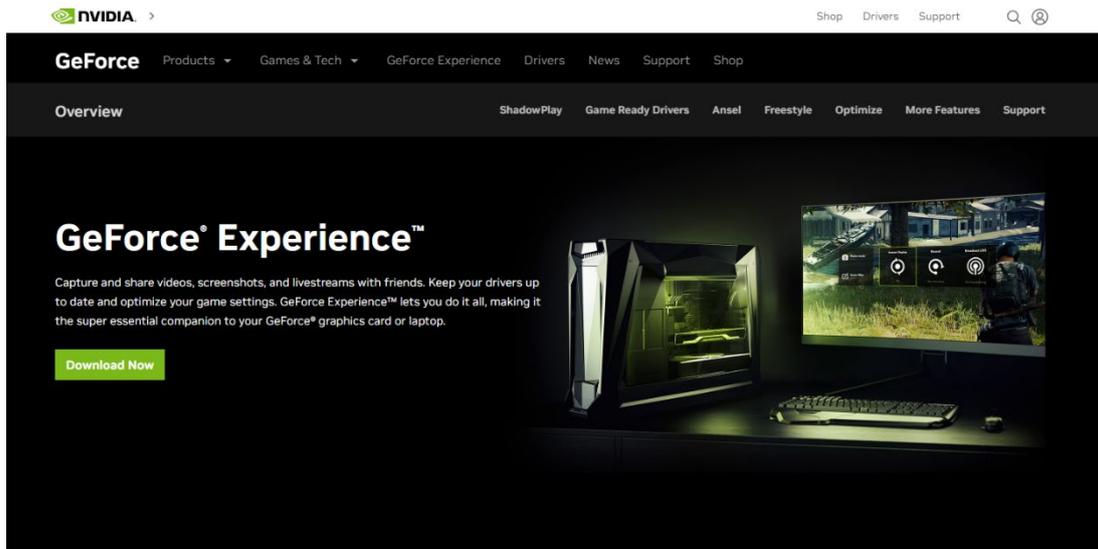
- If the user needs to upgrade the NVIDIA graphics card driver to the latest version, please also refer to the method 2.2 in this chapter.



2.2 GeForce Experience Automatic Update

Visit the official website of NVIDIA and download their GeForce Experience software, follow the guide to complete the installation, register, then login.

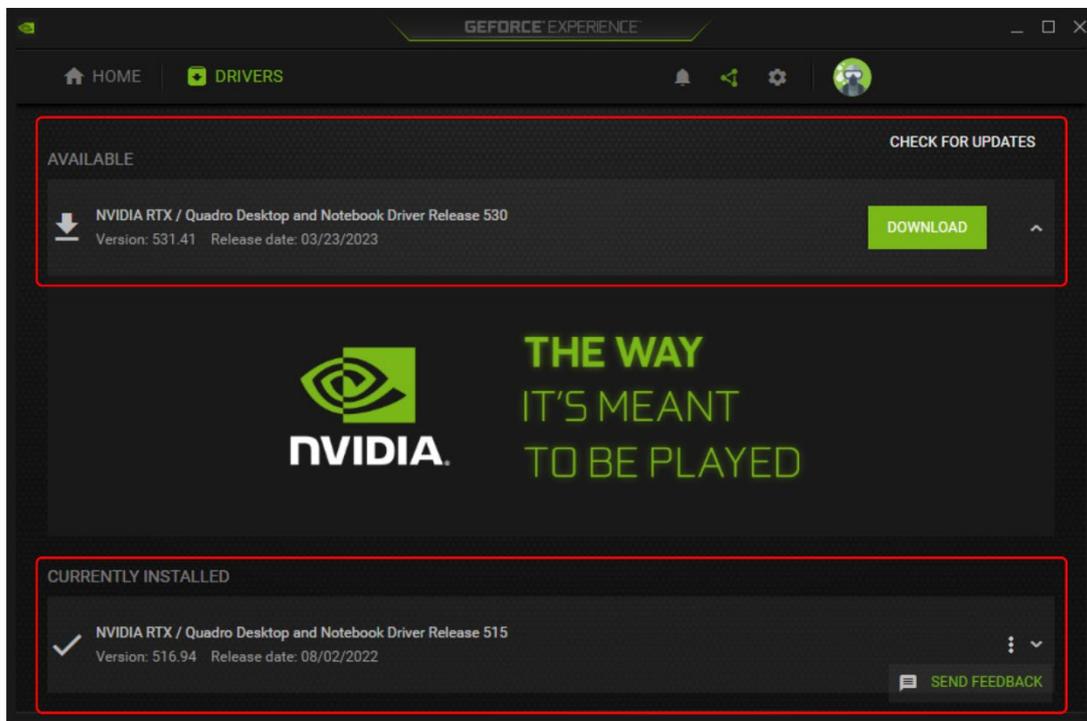
Download link: <https://www.nvidia.com/en-us/geforce/geforce-experience/>.



Open GeForce Experience, click [DRIVERS] in the upper left corner to enter the driver management page. On this page, you can view the currently installed driver version and perform a driver update check and installation.

Tips:

- The driver version number viewed in GeForce Experience must be greater than or equal to 471.11.
- When opening GeForce Experience, it will automatically perform a driver update check each time.



3. Setting Optimal Graphics Performance for Autel Mapper

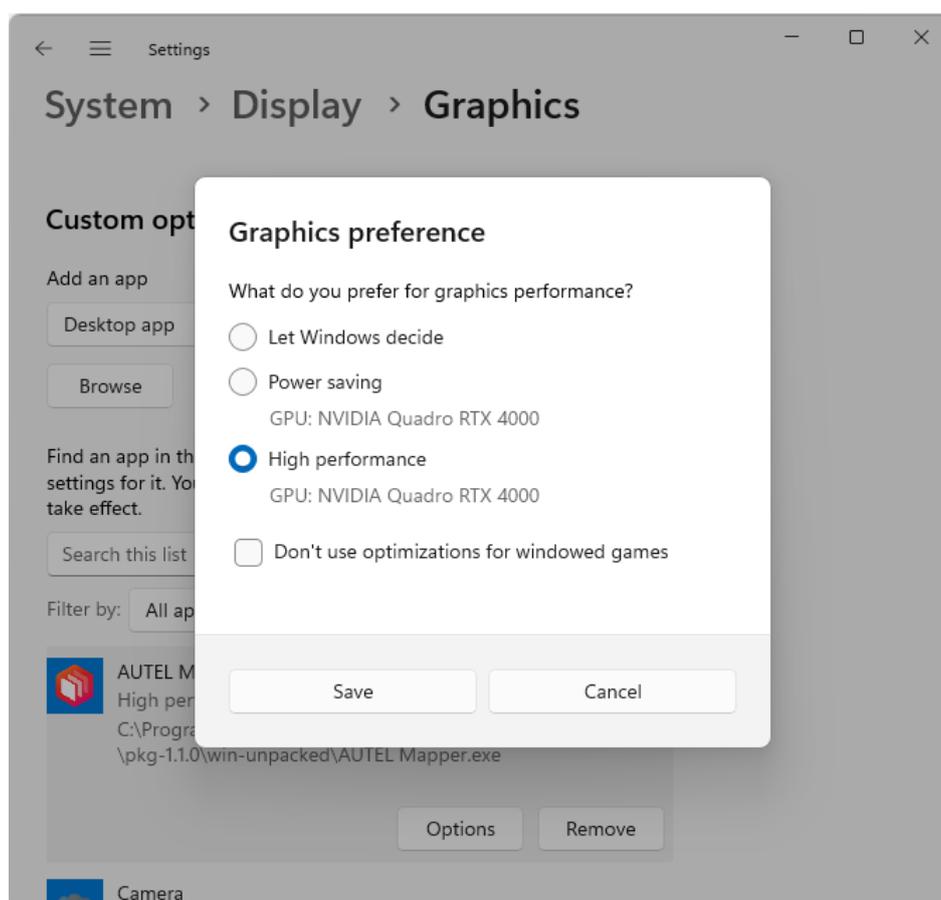
When the user's device has multiple graphics cards (such as: Intel graphics card + NVIDIA graphics card, AMD graphics card + NVIDIA graphics card) or Windows energy saving mode is turned on, you must set Autel Mapper to its optimal performance setting. You can refer to the following two methods to do this.

3.1 Configuring through Windows

Path: **Settings**>—**System**>—**Display**>—**Graphics**>—**Custom options for apps**, select [Desktop app], click the [Browse] button, after adding Autel Mapper, click [Options] in the Autel Mapper column, in the pop-up graphics Select the NVIDIA graphics card [High Performance] mode in the preferences page.

Tips:

- The path in the Windows 10 system environment: **Settings**>—**System**>—**Display**>—**Graphics Settings**>—**Graphics Performance Preferences**.
- When browsing, you need to locate the folder where the AUTEL Mapper.exe file is located.
- Device power consumption will increase in high-performance mode. If it's a mobile workstation, keep an eye on the device battery level.



3.2 Configure via NVIDIA Control Panel

Open [NVIDIA Control Panel] in the start menu or right-click on the desktop to open [NVIDIA Control Panel], click [Manage 3D Settings], enter [Program Settings], click [Add] and select Autel Mapper, configure the preferred Autel Mapper on the page. The graphics processor is a high-performance NVIDIA processor.

Tips:

- When the device is only configured with NVIDIA discrete graphics, the above graphics performance settings do not need to be performed.
- When adding the program, you need to locate the folder where Autel Mapper.exe is located.
- Device power consumption will increase in high-performance mode. If it's a mobile workstation, keep an eye on the device battery level.

