NC(2312)

Quick Installing Guide for PLCTSScope

2024.8

Version V2.03

Contents

Chapter 1: Introduction

1.1 Applicable Products

This manual applies to the Windows-based laser beam analysis software, PLCTSScope.

Chapter 2: Overview of PLCTSScope

2.1 Features and Capabilities

PLCTSScope is a versatile and user-friendly software designed sp ecifically for the comprehensive analysis of laser beam profiles. This so ftware is compatible with GigE, USB3.0, and 10GigE interface spot a nalyzers, providing a robust solution for a wide range of applications.

Key features and functions include:

➢High-Speed, High-Resolution Display: Offers 2D and 3D pseudo-color displays of laser beam profiles with exceptional speed and resolution.

➢Compatibility: Supports Windows 10 and later operating systems, ensuring compatibility with modern computing environments.

➢Camera Control: Enables users to adjust camera settings such as exposure, gain, and resolution directly from the software interface.

➢Real-Time Analysis: Provides real-time pseudo-color 2D display of the laser spot, along with Gaussian curve displays for both major and minor axes.

➢Continuous Zoom: Offers continuous zoom functionality in 2D mode for detailed examination of the laser spot.

➢Measurement Tools: Measures critical parameters including the major and minor axes, ellipticity, and rotation angle of the laser spot.

➢Statistical Analysis: Supports statistical analysis of measured parameters, enabling users to evaluate the consistency and quality of their laser beams.

➢Data Management: Allows users to record and export measured parameters or generate reports for documentation and further analysis.

➢Image Processing: Can read and measure parameters from laser spot images, providing flexibility for post-processing and analysis.

➢Image Saving: Offers multiple options for saving processed images, facilitating documentation and sharing of results.

➢Connectivity: Supports USB 3.0 and Ethernet interfaces for seamless integration with hardware devices.

➢Customizable Extensions: Can be extended with custom features and functionalities.

2.2 System Requirements

Recommended Configuration

➢Operating System: Windows 10/11, 64-bit, with Microsoft Office or WPS pre-installed.

➢Hardware Configuration: At least 8 GB of RAM, CPU clock speed of at least 2.5 GHz, and at least 4 cores; Intel i5 or equivalent processors are recommended.

➢Display Resolution: Optimal resolution of 1920×1080.

➢USB Interface: USB 3.0 port.

➢Network Card: Gigabit Ethernet card.

Chapter 3: Preparations

3.1 Confirming the Product

➢PLCTSScope Software: The core software component that enables high-speed, high-resolution display of 2D and 3D pseudo-colored beam profiles. It supports real-time analysis, measurement of various beam characteristics, statistical analysis, and data management capabilities.

➢Analyzer Configuration Files: Verify that you have the necessary configuration files for your specific analyzer model.

➢Camera Module (with laser attenuator): A high-quality camera designed to capture precise and detailed images of laser beams. It offers adjustable settings such as exposure, gain, and resolution to optimize the imaging process.

➢Connection Cables: Necessary cables for establishing a stable connection between the camera module and the computer, ensuring seamless data transfer. The system supports USB 3.0 and GigE interfaces for reliable connectivity.

3.2 Preparation of the installation package

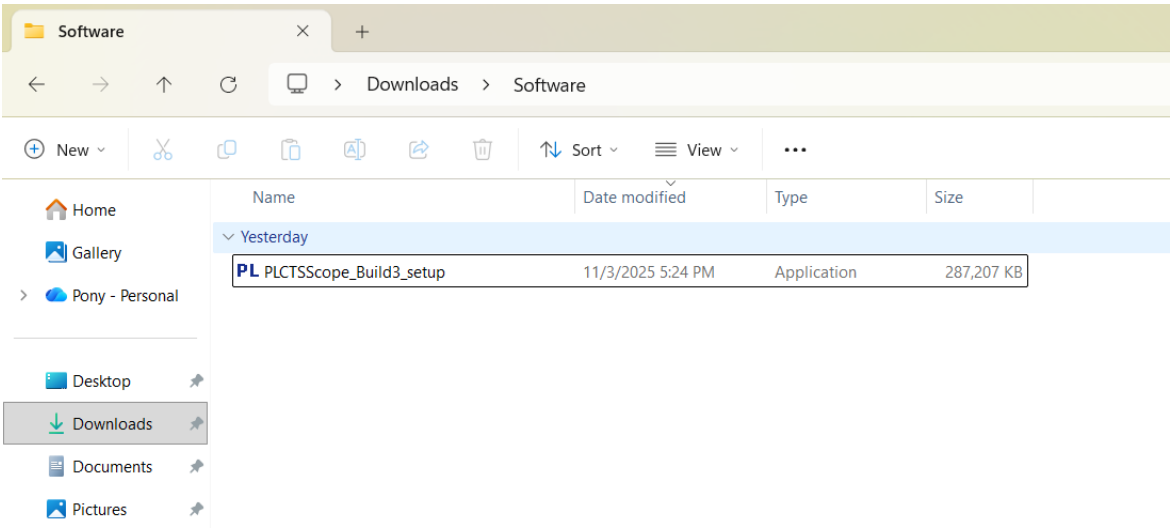
➢Confirm USB Drive: Ensure you have received the USB drive included with the product and check that it is intact.

➢Backup Important Data: Before starting, make sure there are no unsaved important data on your computer to prevent accidental loss.

➢Connect the USB Drive: Plug the USB drive into your computer’s USB port.

➢Browse Files: After opening the USB drive, you will see a folder named "PLCTSScope". Double-click to open this folder.

➢Find the Installer: In the "PLCTSScope" folder, you will find an executable file named "PLCTSScope_Build3_setup", which is the installation program.



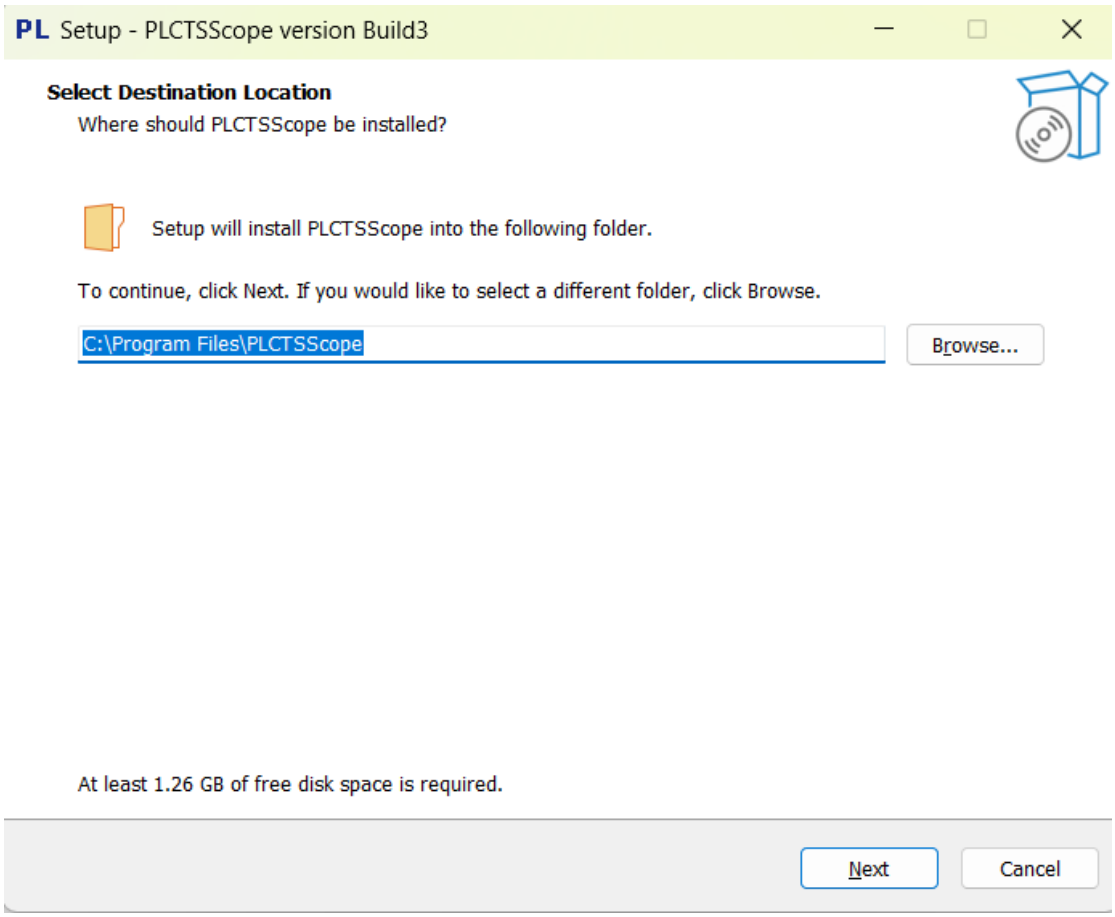
Chapter 4: Software Installation

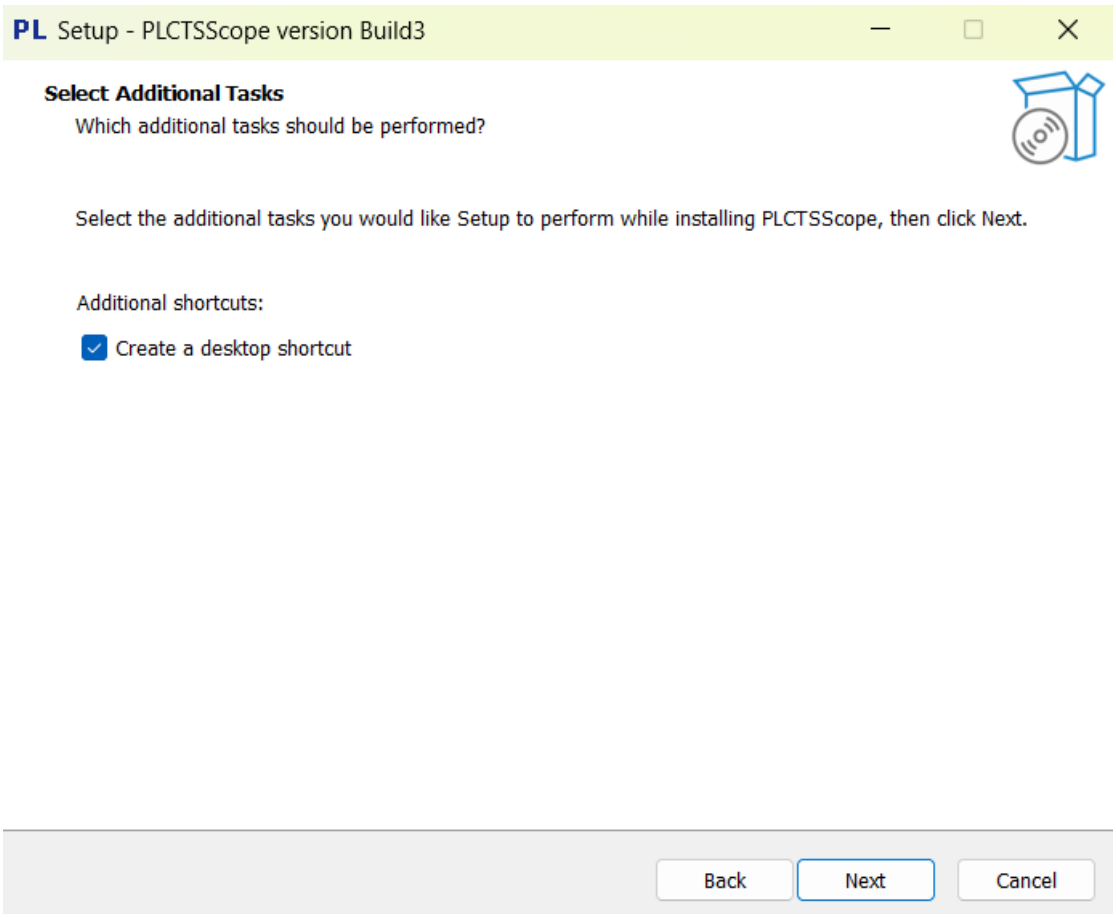
4.1 Installation Process

➢Run the installer: Double-click the "PLCTSScope_Build3_setup" file to s tart the installation wizard.

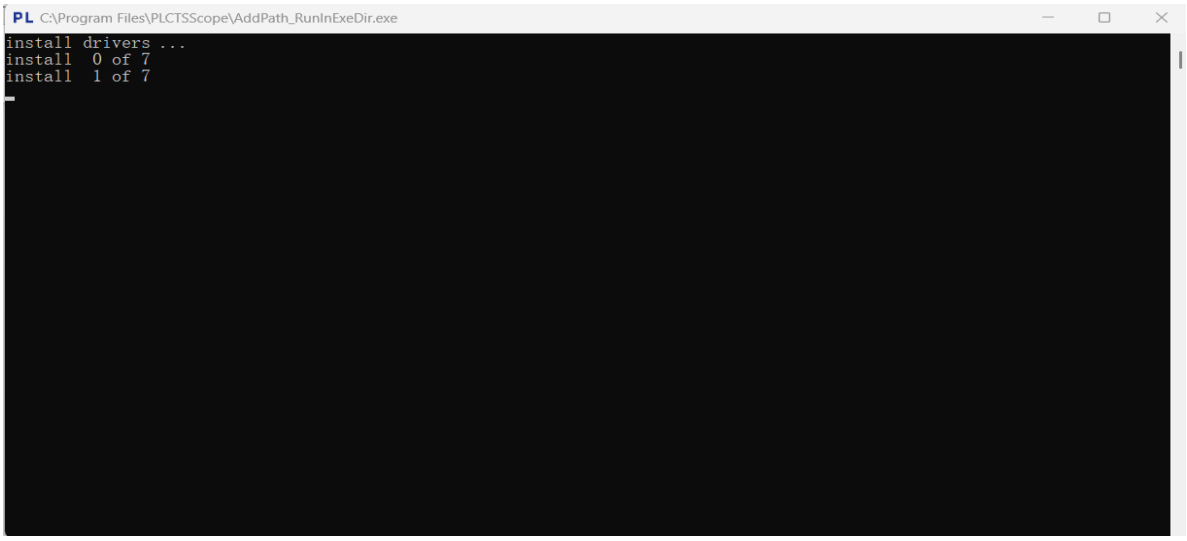
➢Choose Installation Path: You can choose the default installation path or click the "Browse" button to select another location.

➢Configure Installation Options: Click the "Next" button to enter the installation options configuration. Select the appropriate installation options based on your needs, such as creating a desktop shortcut.

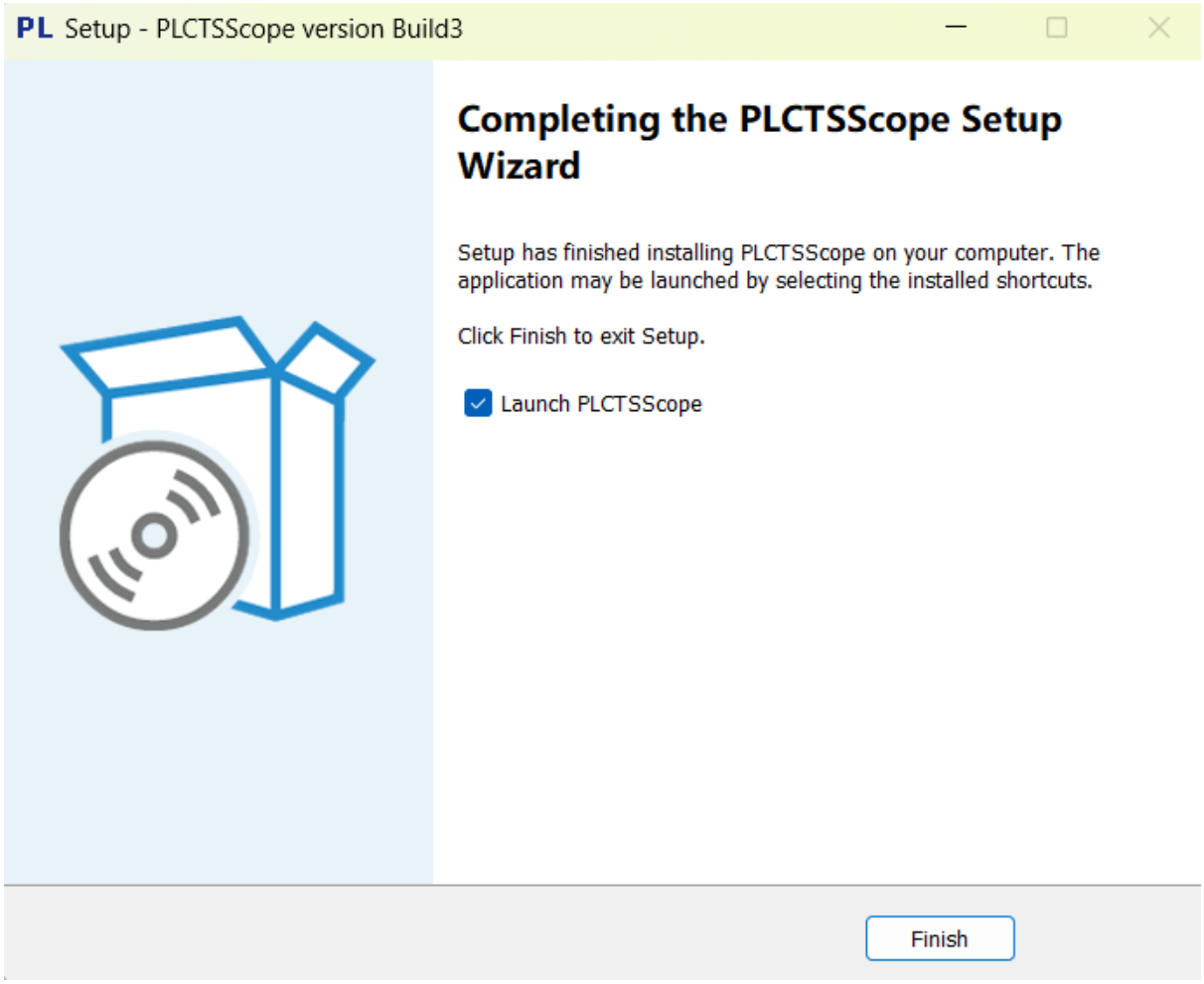

PL Setup - PLCTSScope version Build3
Select Destination Location
Where should PLCTSScope be installed?
Setup will install PLCTSScope into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\PLCTSScope
Browse...
At least 1.26 GB of free disk space is required.
Next
Cancel


PL Setup - PLCTSScope version Build3
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing PLCTSScope, then click Next.
Additional shortcuts:
Create a desktop shortcut
Back
Next
Cancel

➢Begin Installation: Click "Next" and then "Install" to start the installation process. The entire installation time is approximately 1-2 minutes; please wait patiently until the installation is complete.



➢Complete Installation: Upon completion, you can choose to restart your computer immediately or later. During the first installation, the runtime engine will be installed, which may take longer. Once the engine installation is finished, you will be prompted to restart. Only after restarting your computer can you use the software properly, otherwise, function errors may occur. If you have already installed the runtime environment, you do not need to restart when installing only the application. Click the "Finish" button to complete the installation.



❖Important Notes

① Compatibility Check: Confirm that your computer meets the minimum system requirements for the installation program.

② Antivirus Scan: Before running the installation program, we recommend scanning the USB drive with antivirus software to ensure safety.

③ Stable Power Supply: During the installation process, ensure your computer is connected to a stable power source to avoid installation failure due to power interruptions.

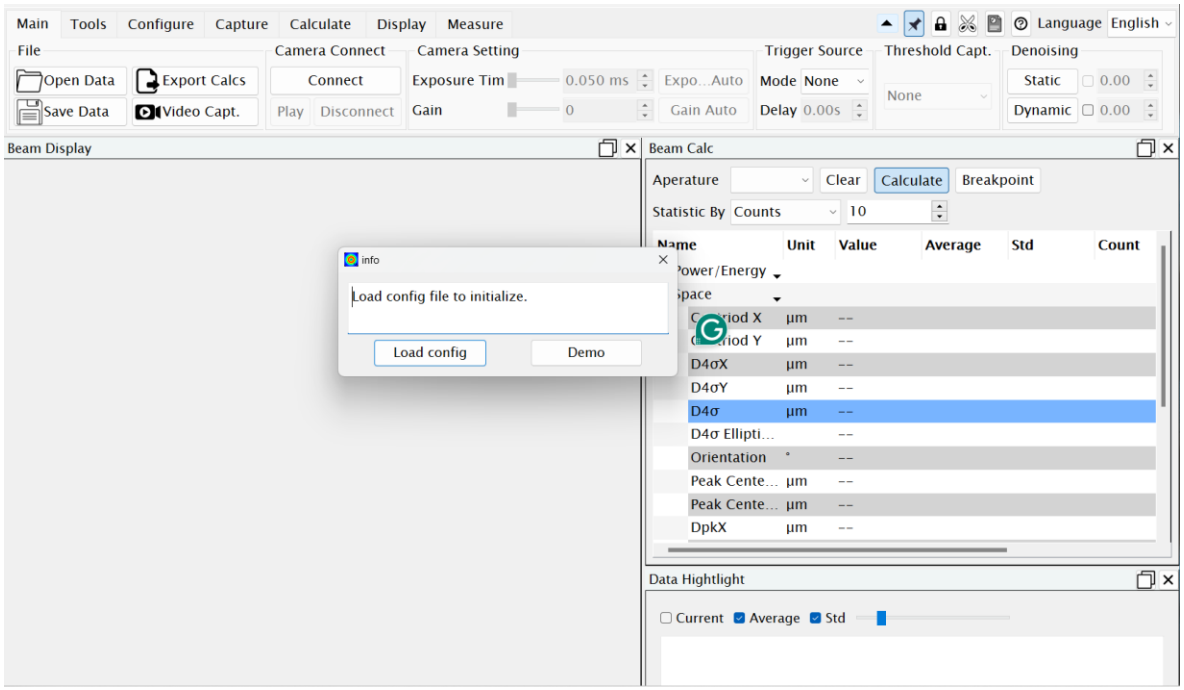
④ Hardware connection is not required during software installation.

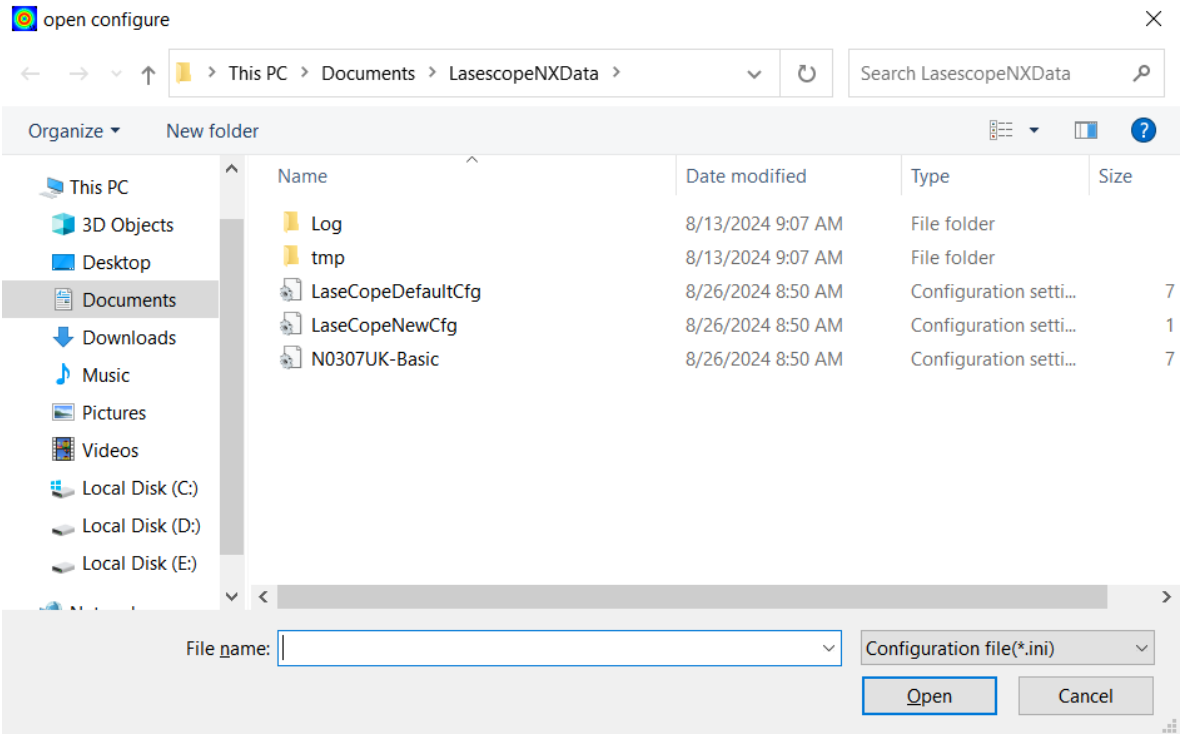
4.2 Connecting the Camera

After installing the software, connect the camera to the computer using the data cable provided with the product.

4.3 Configuration initialization

➢Software Initialization: On the first use, the software needs to be initialized. Double-click the software icon to run the program. A prompt dialog box will appear. Click the "Load config" button in the prompt dialog box, and a configuration file folder will open. For example, select "N0307UK-Basic" and click the "Open" button to load the configuration file.



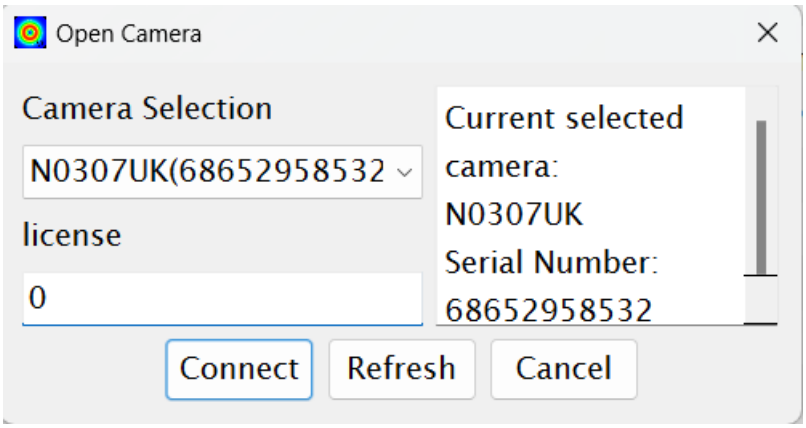


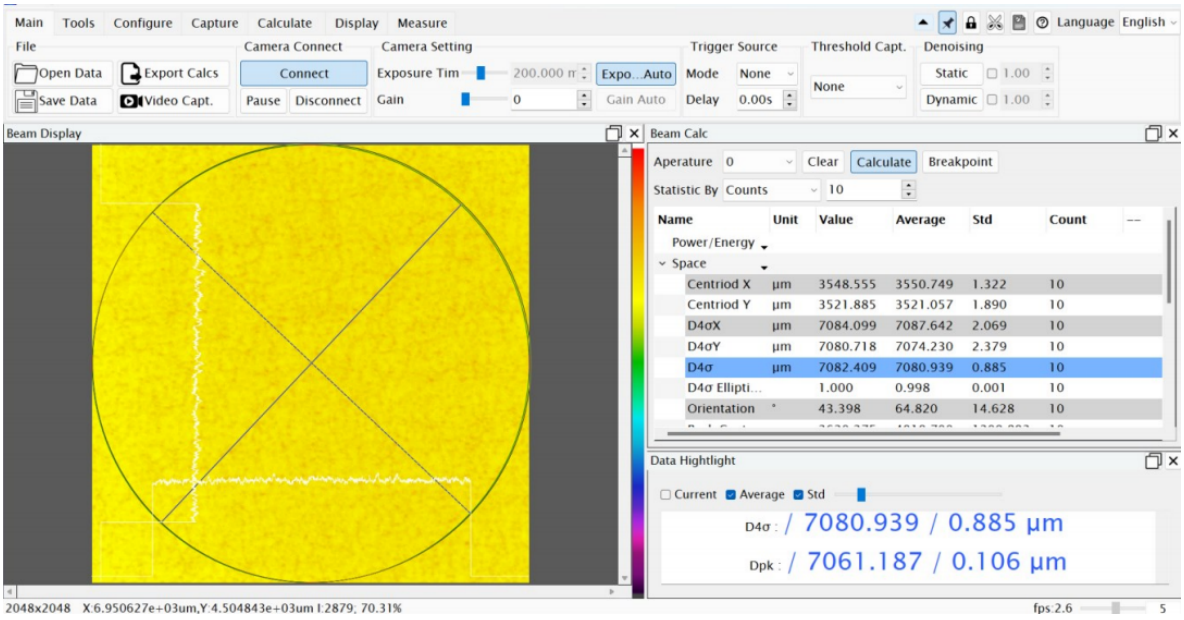
❖**Note: Configuration Storage Location**

Users can place the configuration files in a suitable location based on their actual usage needs. Users can also save their own configuration files for subsequent use, tailored to their testing requirements.

4.4 Camera Connection

After loading the configuration, the software will automatically recognize the camera model and serial number. Enter the password to complete the software startup. If you need to connect additional cameras, simply repeat the steps in 4.2 and 4.3.





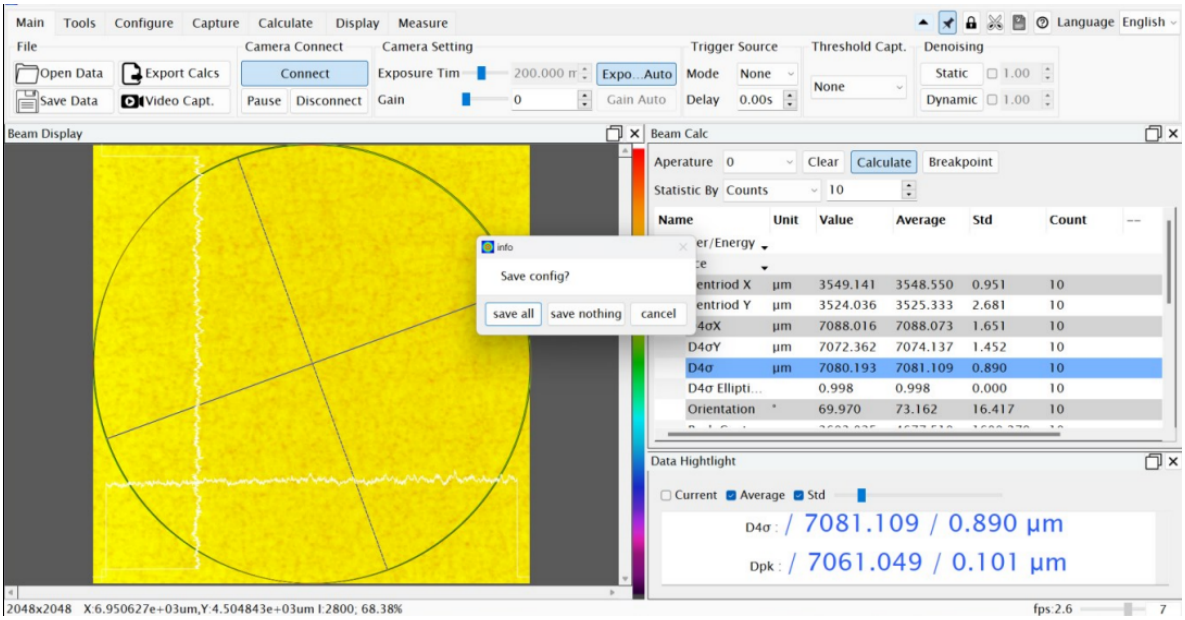
❖Cautions

After connecting the camera, please check the camera indicator light, bright blue light is normal; if red light, it means the connection failure, you can replace the USB connection port or computer to try.

4.5 Exit the software

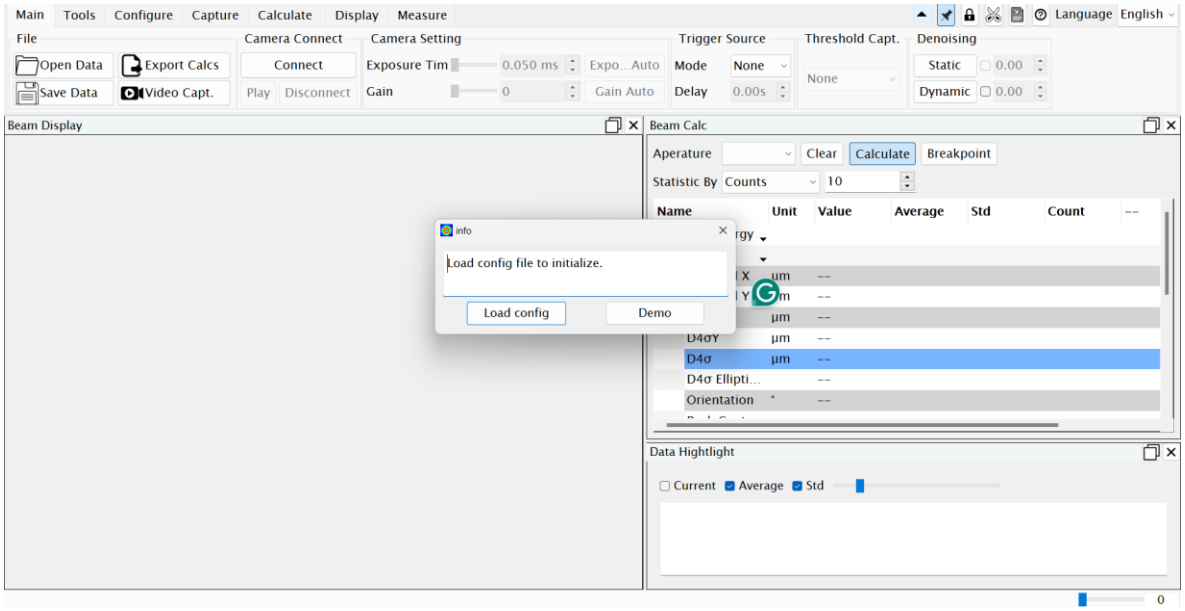
After testing, you can directly close the software. There is no absolute order between closing the software and disconnecting the camera. After clicking the close button, the software will display a prompt dialog box about saving configurations. If you want to save the configuration information for

future use, click the "Save All" button, and the software will close. If you do not need to save the configuration information, you can also click the "Do Not Save All" button, and the software will close.



4.6 Reopening the Camera

➢If "Save Nothing" was selected when exiting: When reopening the software, you will need to repeat the process outlined in step 4.3.



➢If "Save All" was selected when exiting: When reopening the software, it will directly proceed to step 4.4.