CURIOSIS

Celloger® Stack

Automated multi-layer vessel monitoring system

Quick Manual

The design marks are for the Celloger® Series

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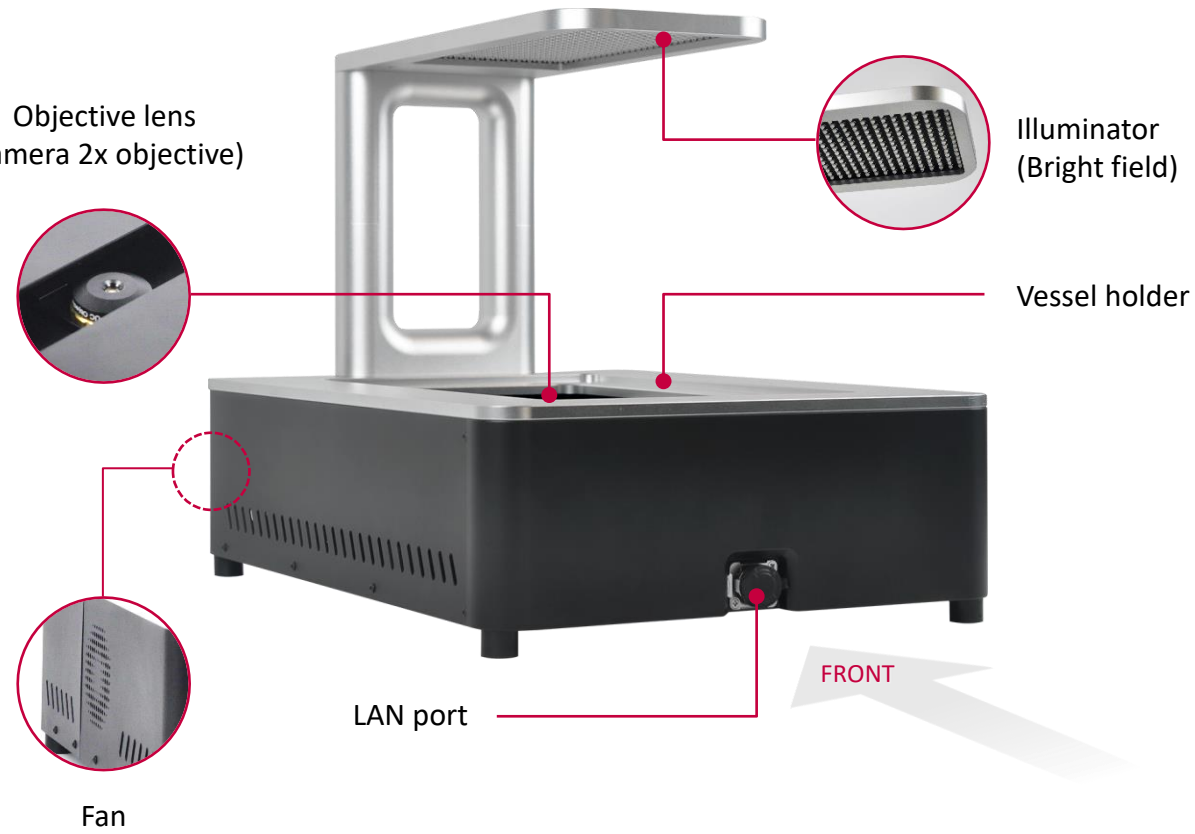
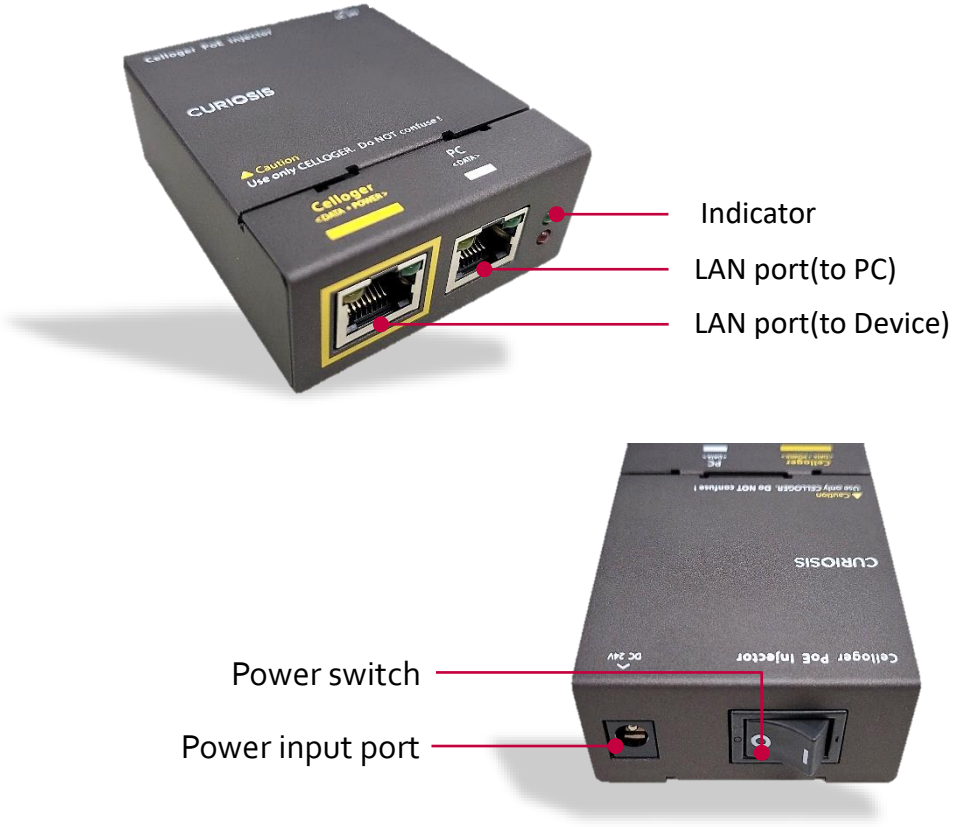
I. Device layout

Front-left side

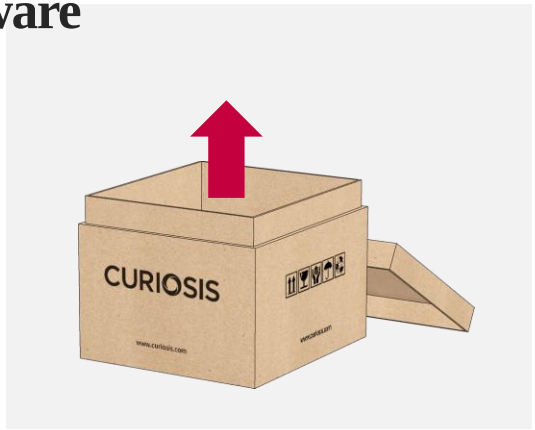


POE

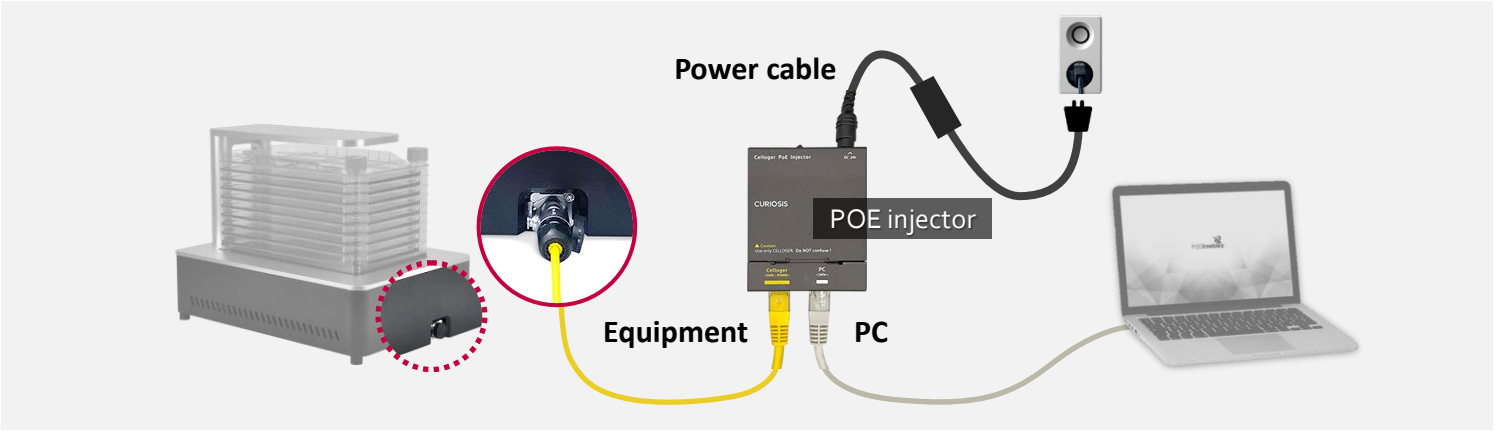


II. Installation

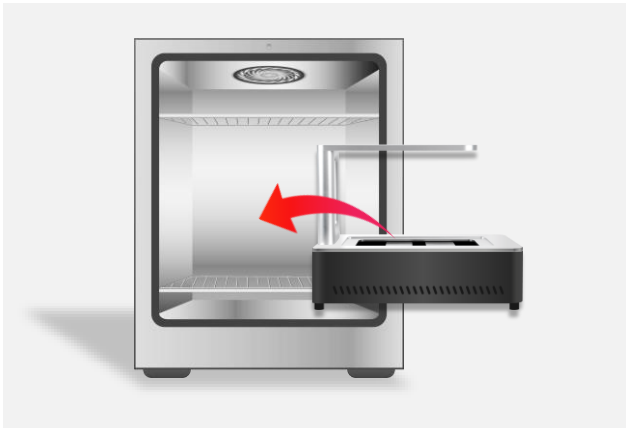
1. Hardware



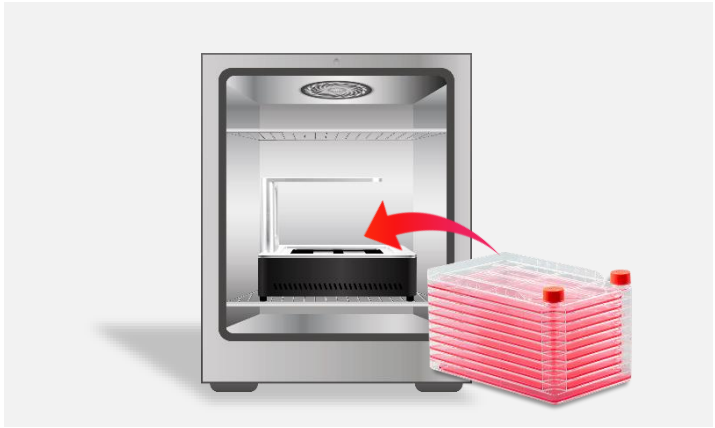
Step 1. Take the equipment out of the package



Step 2. Connect two LAN cables and power cable to the POE injector.
Connect one LAN cable to the equipment(yellow) and another LAN cable to the PC(white).
Connect the power cable to an outlet.



Step 3. Put the device inside the incubator.



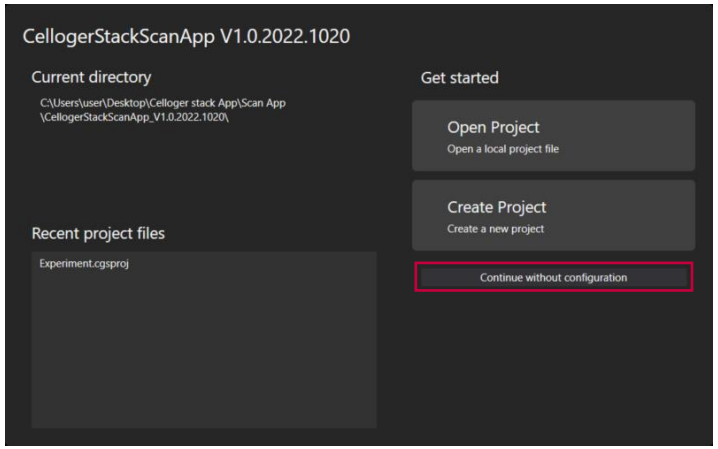
Step 4. Place the sample on the stage.

Step 5. Close the incubator door & check the PC connection.

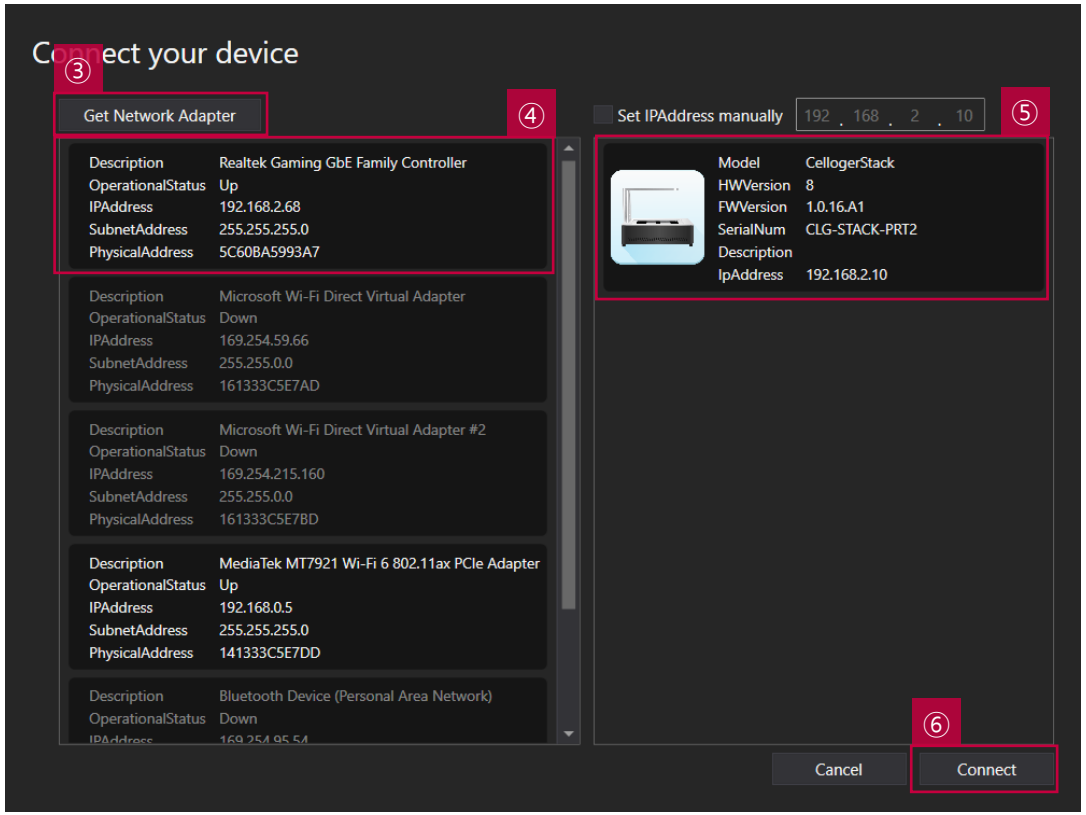
II. Installation

2. Software

Step 1. Open Celloger Stack Scan App.



Step 2. Select **Continue without configuration.**



Step 3. Click **Get Network Adapter** to load the network adapters connected to PC.

Step 4. Select PC network from **Network list** then the device icon will appear on the right.

Step 5. Click the device icon

Step 6. Click **Connect** to connect the device.

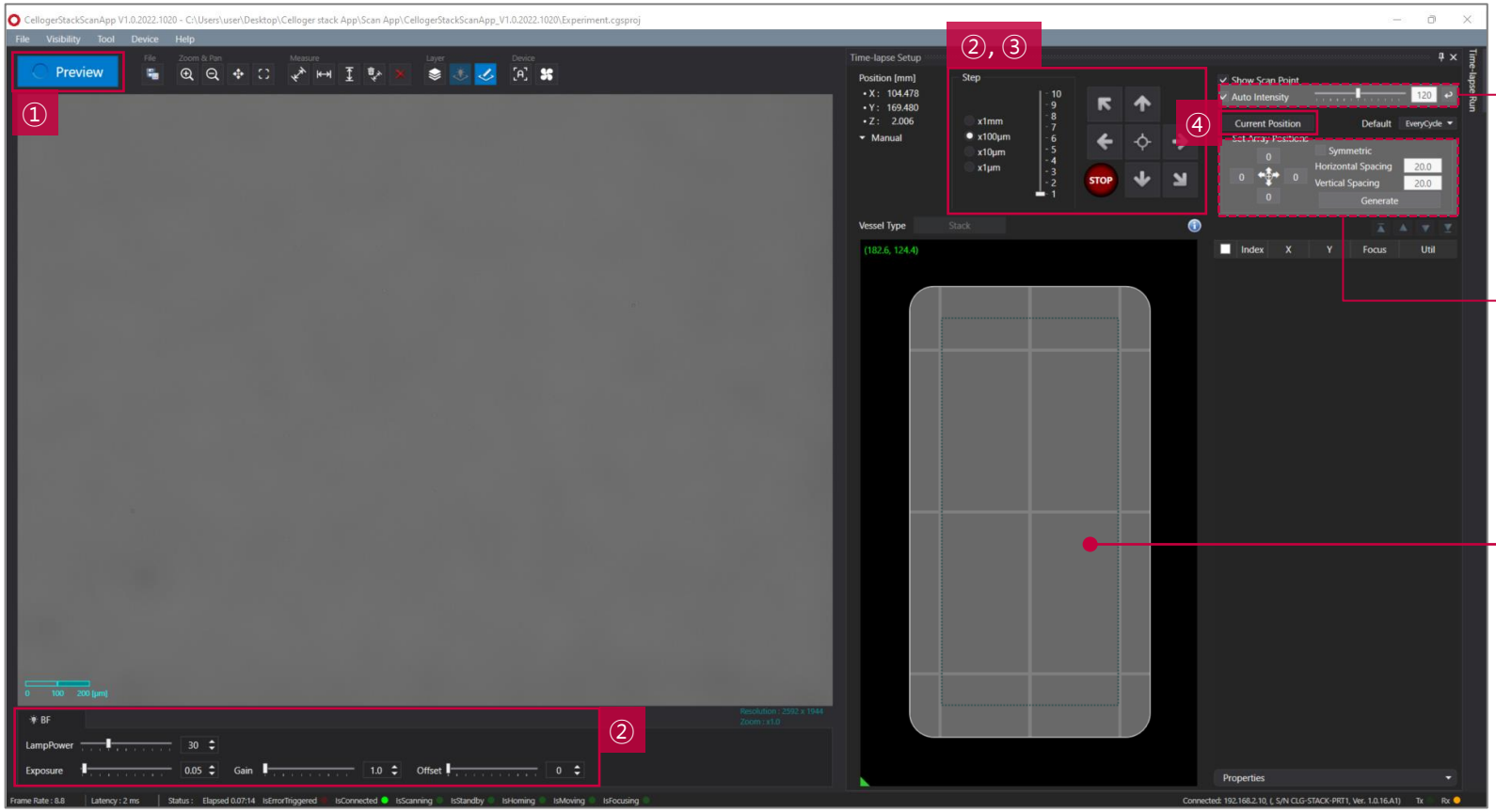
*** Note.** If the device icon is not shown, please refer to the **PC network setting** (Appendix p.12)

III. Operation

1. Preparation

Before starting the experiment, prewarm the Celloger® Stack in an incubator for at least 30 minutes. Once prewarmed, place the sample (vessel) on the Celloger® Stack.

2. Positioning & Focusing [in Scan app]



Auto intensity
This function automatically adjusts the display intensity to the set value during scanning.

Set Array Positions
It is the function to designate the top, bottom, left, and right positions based on the current position at set intervals.

Note.
The green dotted line indicates the actual scanning area.

Step 1. Press **Preview** for streaming.

Step 2. Move to the desired position using **Jog button** and adjust the brightness using **Light source panel**.

Step 3. Set the focus using **Jog button**(,).

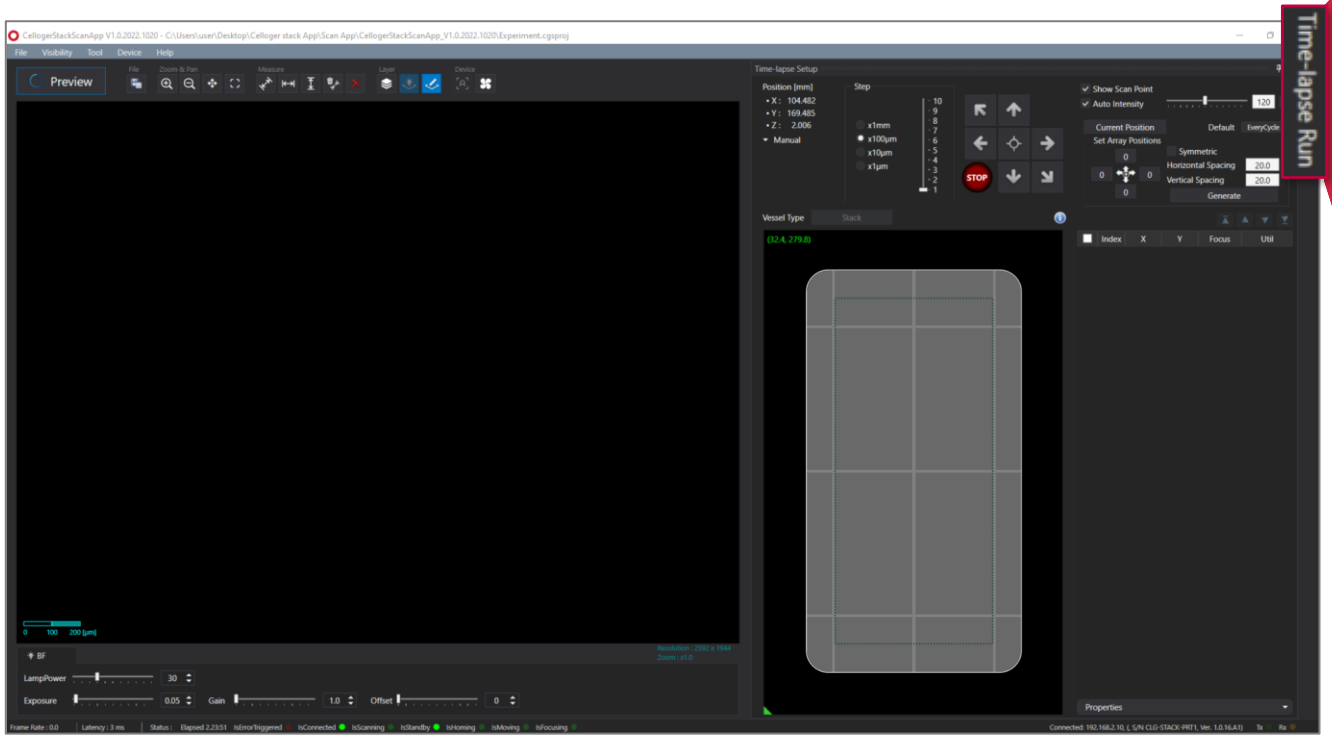
Step 4. Designate the position to scan by pressing **Current Position**.

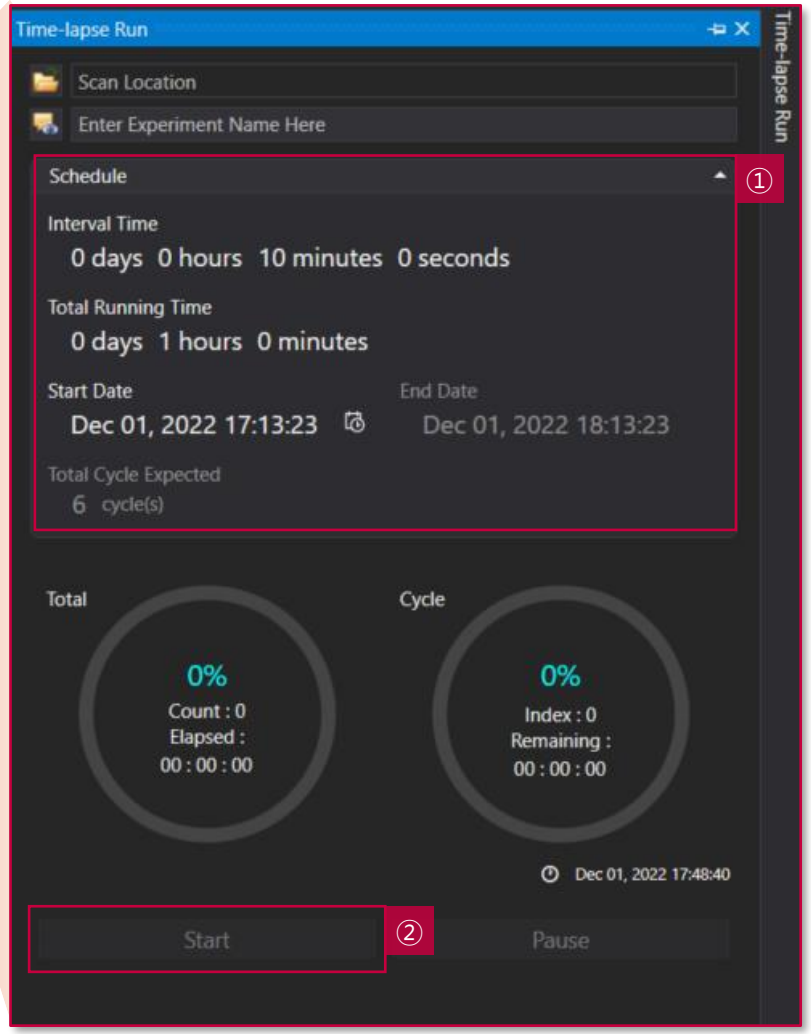
III. Operation

3. Time-lapse image setting [in Scan app]

Step 1. Enter **Interval Time** and **Total Running Time** in the schedule, the total cycle is entered automatically.

Step 2. Click **Start** to begin time-lapse imaging.

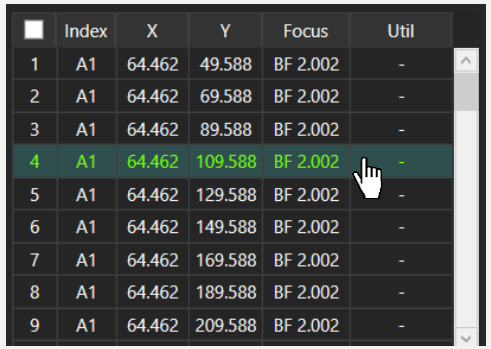




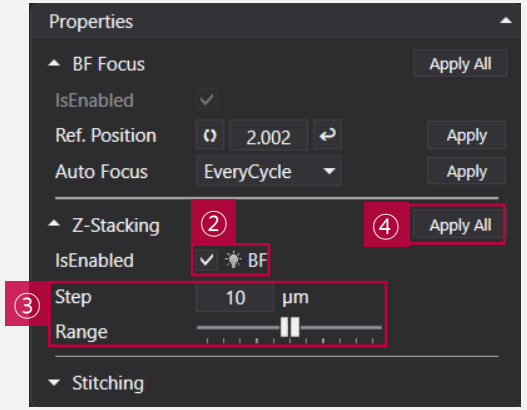
III. Operation

4. Z stacking [in Scan app]

Using this function, images are captured in different focal planes and then stack them together into a clearly focused composite image (You may skip this step if Z-stacking function is not needed).



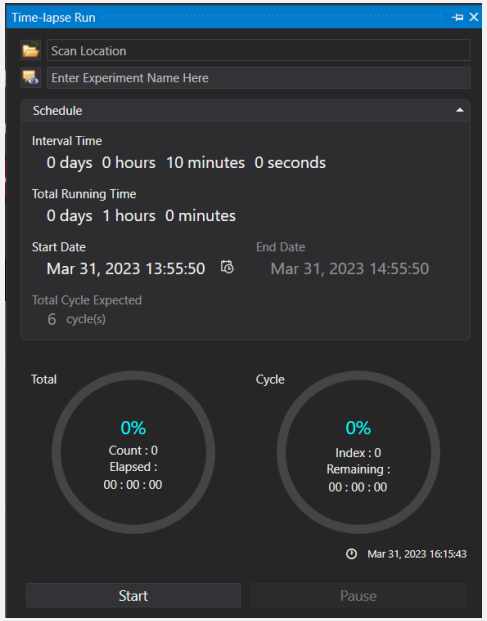
Step 1. Select the position in the **Scan table** where the z stacking function will be applied.



Step 2. Check the **Z-stacking** under **Properties**.

Step 3. After specifying the interval (= **Step**) to execute the z stacking function, adjust the scroll bar in **Range** to specify the range.

Step 4. Click **Apply All**.



Step 5. Set the **Interval Time** and **Total Running Time** in the schedule and start scanning.

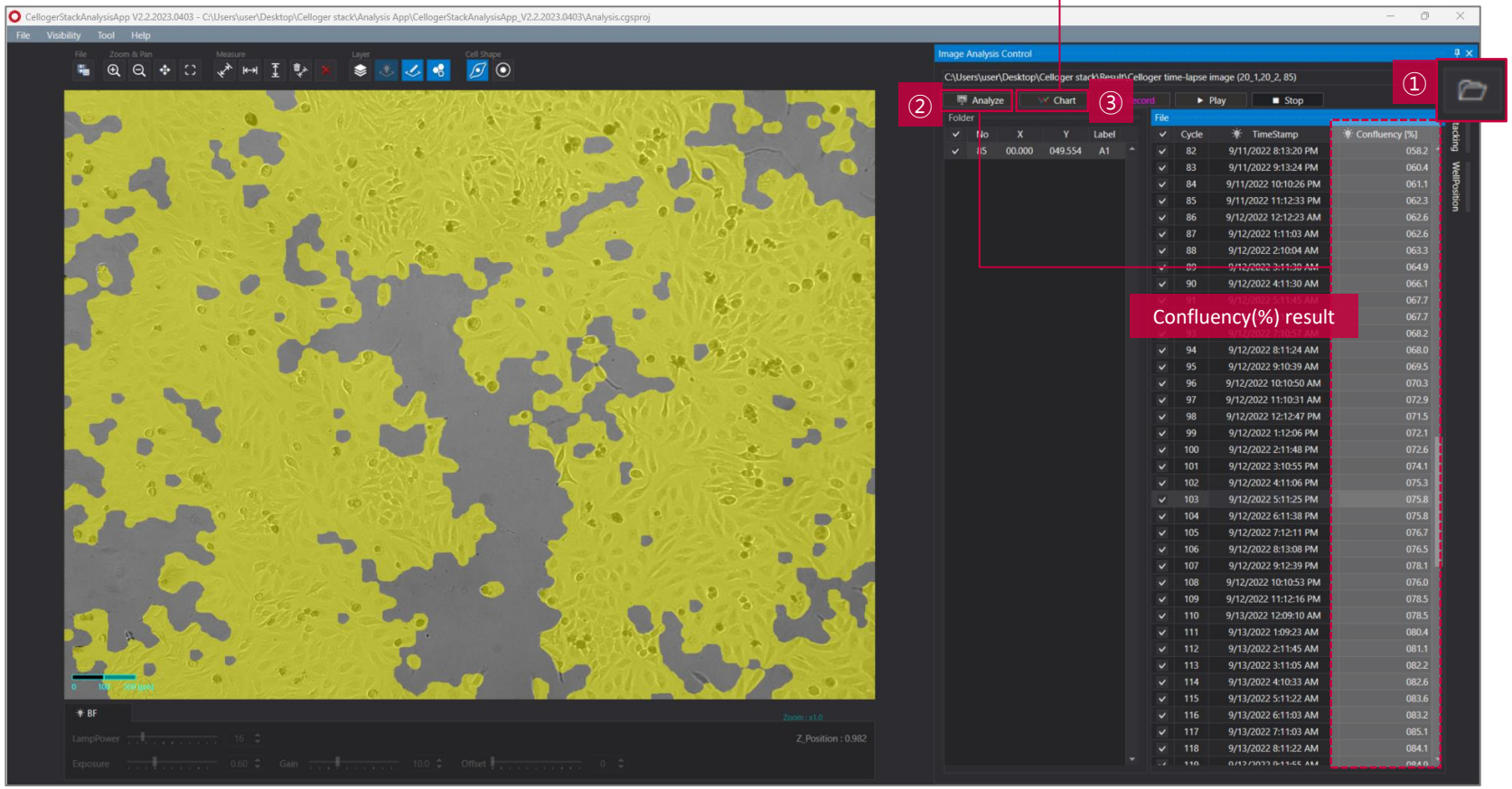
III. Operation

5. Confluency & Graph [in Analysis app]

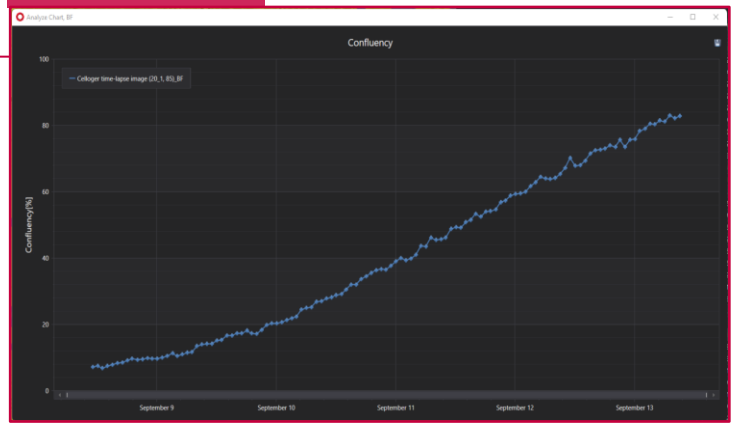
Step 1. Import the time-lapse folder or image file by pressing  button.

Step 2. Click **Analyze** to estimate confluency.

Step 3. Click **Chart** to create the confluency graph.



Confluency(%) graph



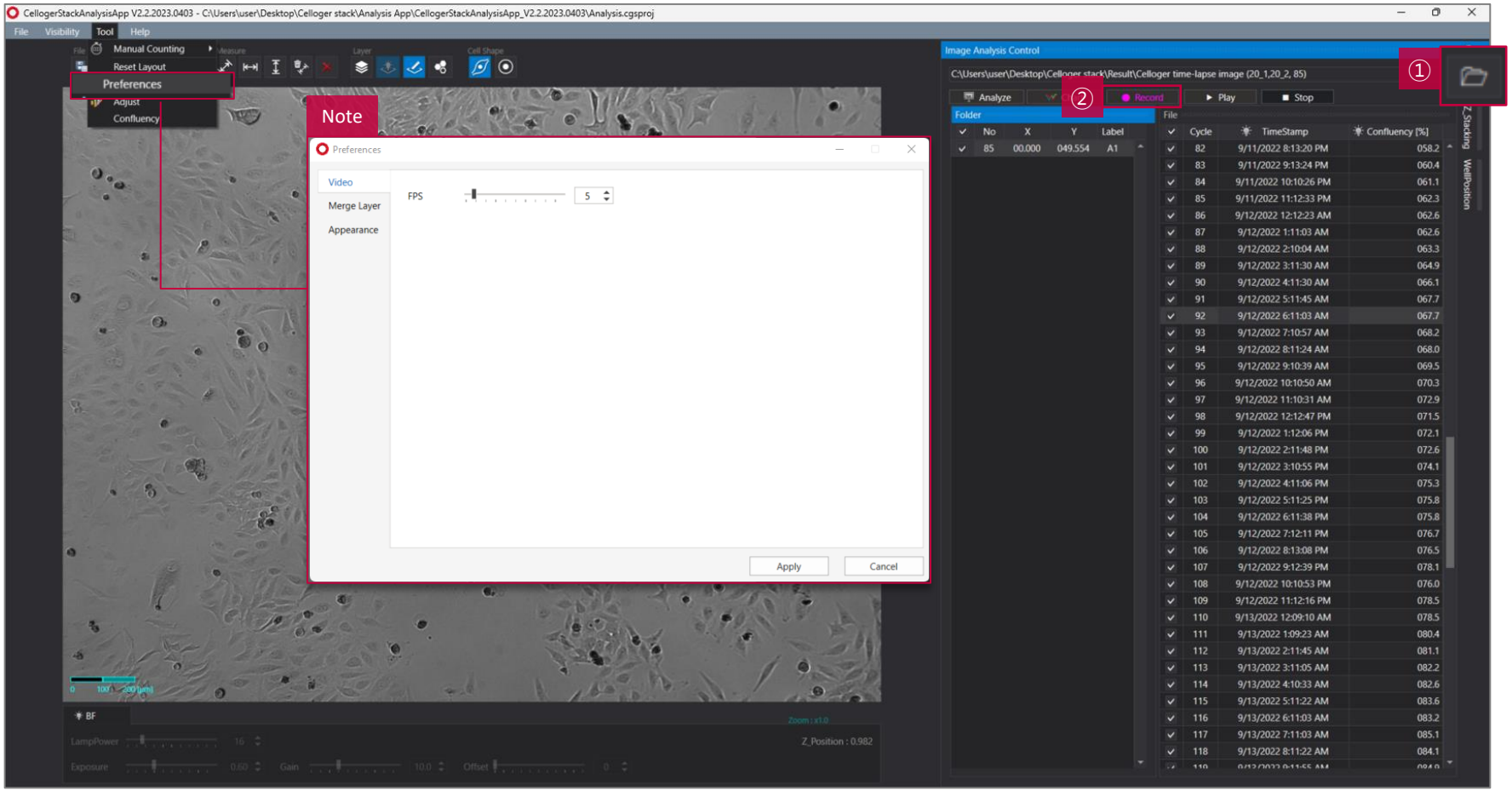
6. Video recording [in Analysis app]

Step 1. Import the time-lapse folder or image file by pressing  button.

Step 2. Click **Record** to create a video.

*** Note.**

In order to change the speed (frame per second), change the parameter in Preferences of Tool menu. (Recommended value: 5 ~ 13)



IV. Specification

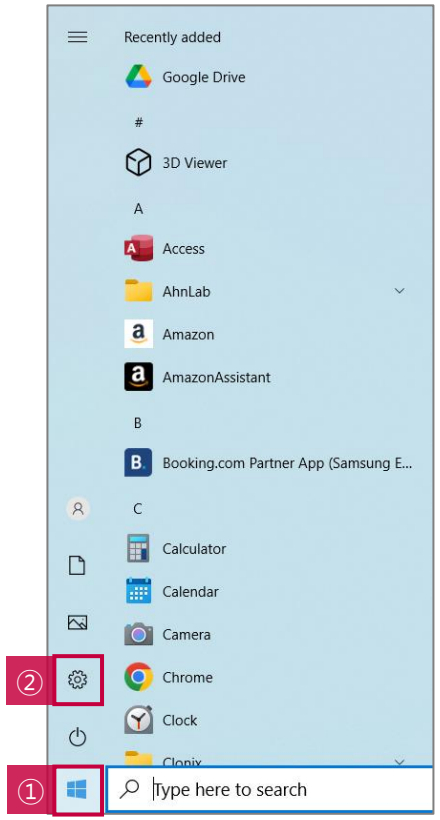
Specification	
Dimensions	350 x 330 x 450 mm
Weight	15 kg
Objective Lens	2X
Imaging mode	Bright-field
Imaging positions	Multiple
Stage	Motorized XYZ (Camera moving)
Camera	5MP CMOS
Field of view	2.53 x 1.9 mm
Resolution	2,592 x 1,944 pixel
File export format	TIFF, AVI
O/S required	Window 10
Storage	1TB (recommended)
Operating environment	10~40℃, 20~95% humidity
Vessel types	Multi-layer chamber up to 10 layers
21 CFR Part 11	Available (optional)
Key functions	Autofocusing, manual focusing, time-lapse imaging, movie maker, confluency, growth curve, Z-stacking

Ordering information

Catalog No.	Product Name	Description
CRCLG-SB02	Celloger® Stack	Multi-layer vessel monitoring system (Bright Field, 2X)

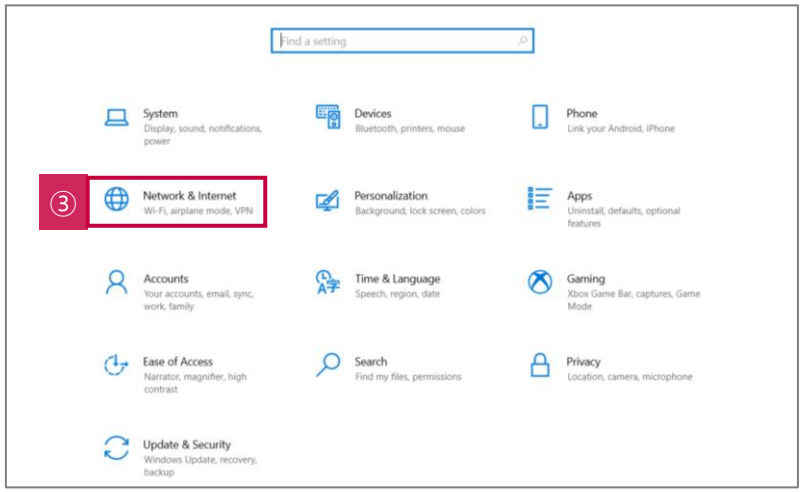
V. Appendix

PC network setting **Window 10**

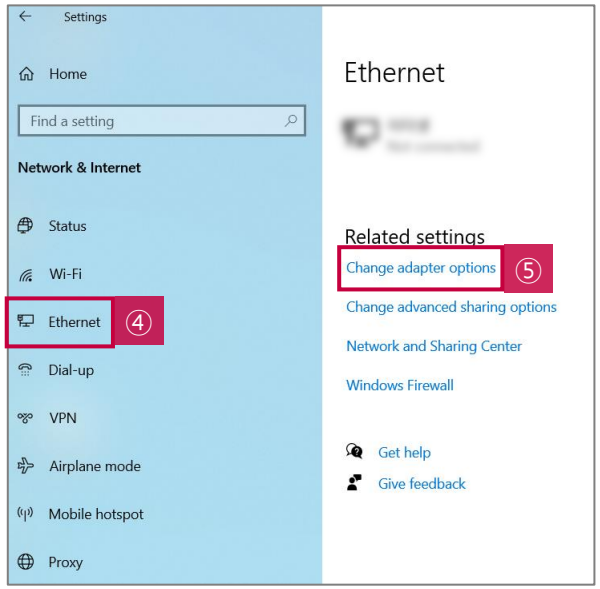


Step 1. Click the **Window** icon.

Step 2. Click **Setting** icon.



Step 3. Click **Network and Internet**.

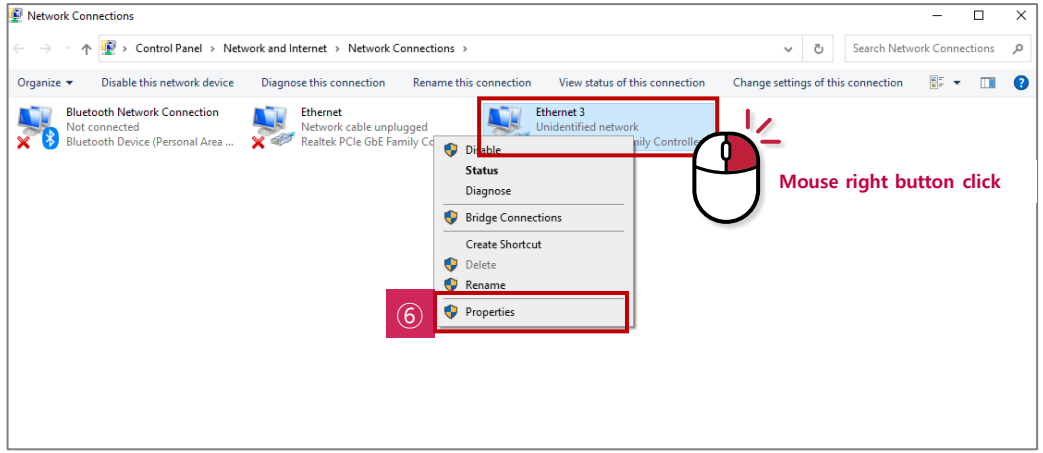


Step 4. Click **Ethernet**.

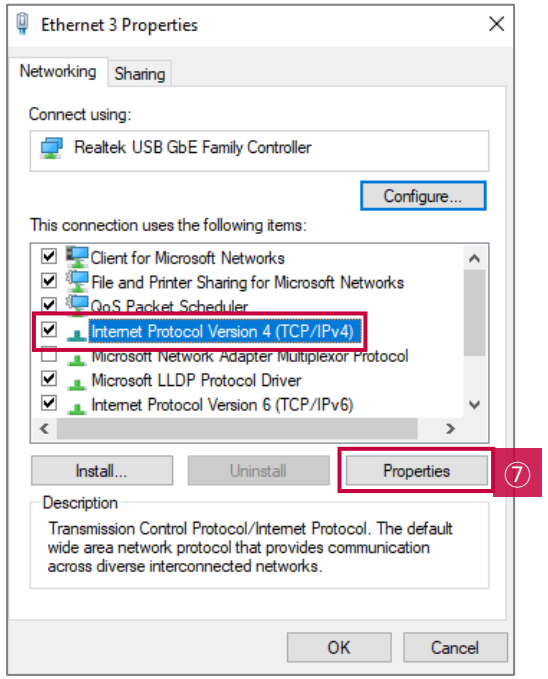
Step 5. Click **Change adapter options**.

V. Appendix

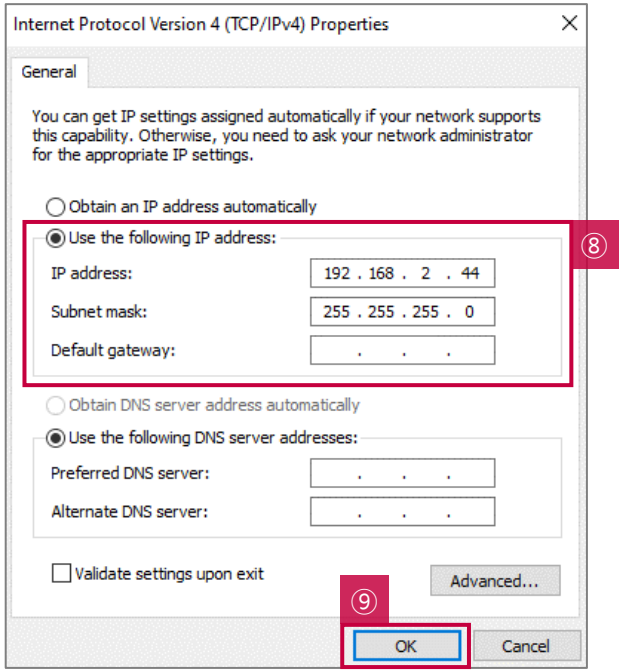
PC network setting **Window 10**



Step 6. Select **Ethernet** and right-click the mouse and click **Properties.**



Step 7. Select **Internet Protocol Version 4(TCP/IPv4)** and click **Properties**.



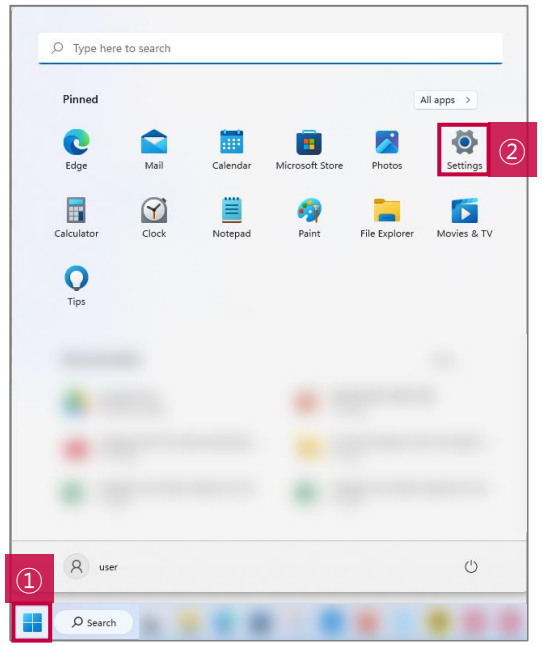
Step 8. Select **Use the following IP address** and enter **IP address (192.168.2.XX)** and **Subnet mask (255.255.255.0)** in the blank fields.

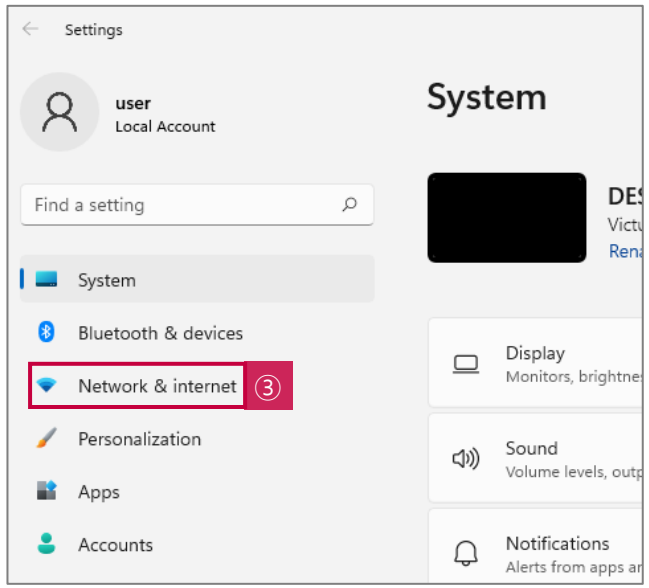
*** Note.** Fill 2 ~ 254 except 10 in XX fields.

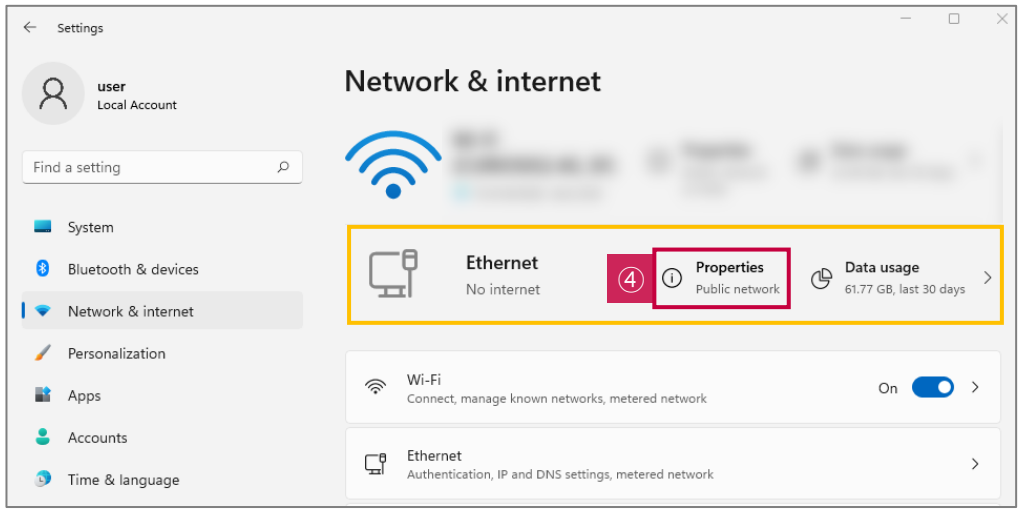
Step 9. Click **OK**.

V. Appendix

PC network setting **Window 11**







Step 1. Click the **Window** icon.

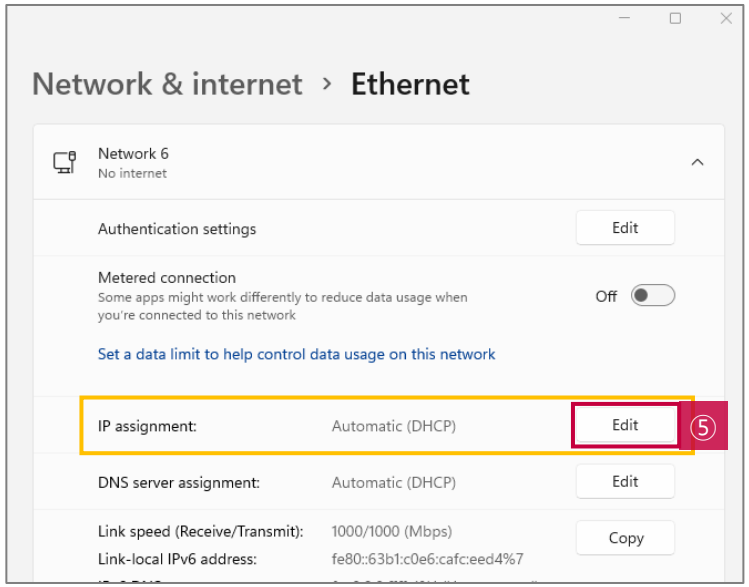
Step 2. Click **Setting** icon.

Step 3. Click **Network and Internet**.

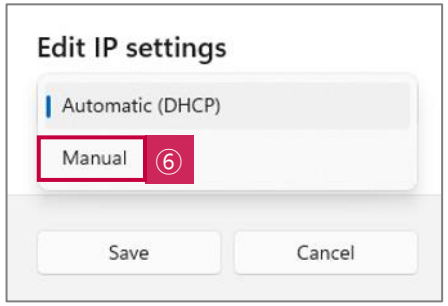
Step 4. Click the **Properties** in **Ethernet**.

V. Appendix

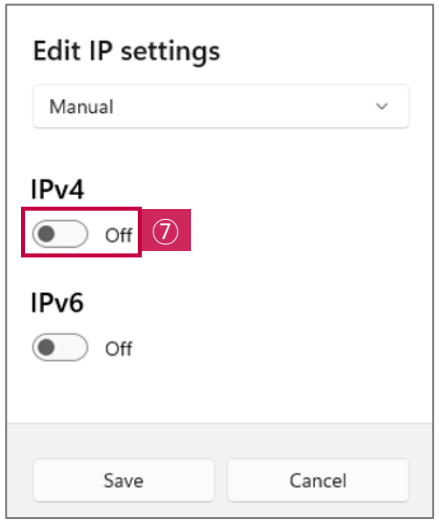
PC network setting **Window 11**



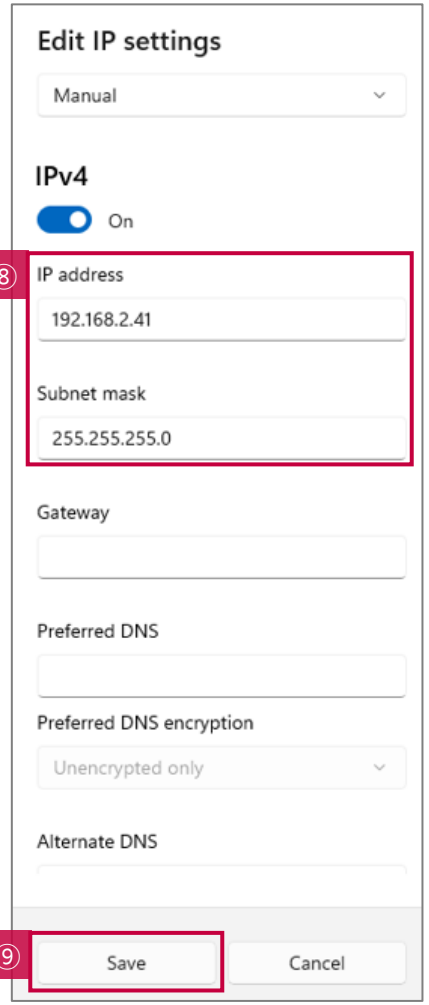
Step 5. Click **Edit** in **IP assignment** to change IP address.



Step 6. Select **Manual**.



Step 7. Change **IPv4** to **On**.



Step 8.

Enter **IP address(192.168.2.XX)** and **Subnet mask(255.255.255.0)** in the blank fields.

*** Note.** Fill in any numbers from 2~254 except 10 in fields.

Step 9.

Click **Save**, then network configuration is completed.

Thank you

End of Document

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