

# How to upgrade from Shot Meister to Shot Meister G2

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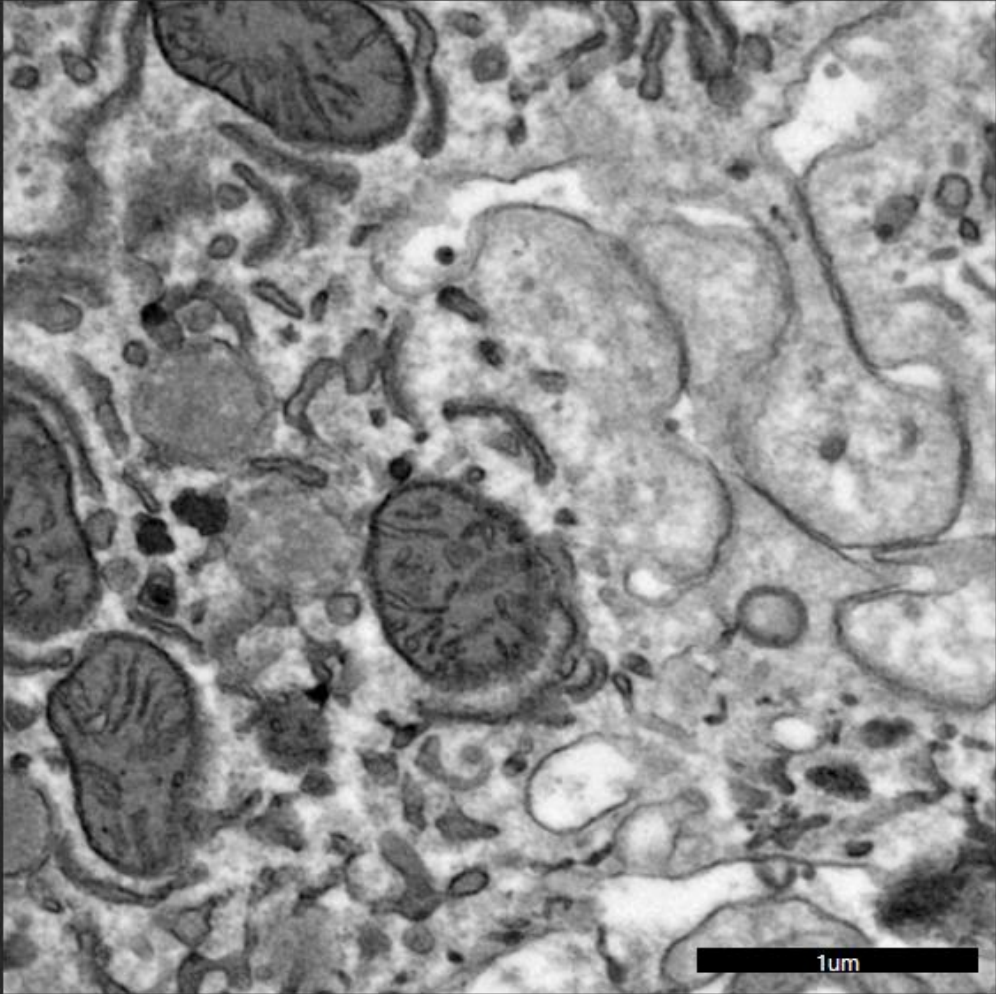
# About Shot Meister G2

Shot Meister

Images LLP MFS Tools Setting About

Image Folder: D:\local\_shot\_data\ShotMeister\2024-06\2024-06-10\_20\_03\_31


**Live image**



Filter OFF

AutoScale avg.  $\pm 3\sigma$

Gamma 1.00



0 16383

Image Size	512 x 512
Type	unsigned int 16 bit
Pixel avg.	6802.418
Pixel min.	4254
Pixel max.	8154
SD	587.8308
MAG	X10k
Binning	4
Date	2024/06/10
Time	20:15:06.80
Exposure	0.062 [s/frame]

Circle  Sight  Scale Bar  
 3x3 Division  TiltX Axis  
 1:1 pix mapping

1um

**Camera**

Flash (JEOL) In Out

**Live**

Exposure [sec] 0.0625

Binning 4

Area 1

Recursive Filter

FFT

**Beam blanking**

Blank Unblank

Auto control

**Auto focus**

Start

target: -500.0 nm

**Screen**

Up Down

**Magnification**

TEM MAG

X10k

Brightness zoom

**Shooting**

Exposure [sec] 1

sync to live

Frame Division 1

Integration site Shot Meister

Binning 1

Area 1

## Features of Shot Meister G2

- Shot Meister G2 is the next generation of Shot Meister, with a sophisticated interface and higher stability.
- Upgrading from the current Shot Meister can be done in just a few steps.
- The dongle(HASP) for Shot Meister is also valid for Shot Meister G2.
- Shot Meister G2 can coexist with the existing Shot Meister. There is no risk in trying it out.

## Installation requirements of Shot Meister G2

The OS must be one of the following.

- Windows 10
- Windows 11
- Windows Server 2016
- Windows Server 2019

# STEP 1: Check version of existing TEM External

The screenshot shows a Windows File Explorer window titled "TemExternal64" with the address bar set to "C:\Program Files\JEOL\TemExternal64". The file list includes "interop.TEMEXT64.dll", "LicenceContract\_en.rtf", "LicenceContract\_ja.rtf", "MagChange.exe", "MagChange.exe.config", "Microsoft.VisualBasic.PowerPacks.Vs.dll", "TemExt.h", "TemExt\_i.c", "TemExt\_p.c", "TemExt64.dll", "TemExt64.lib", "TemExt64.tlb", and "TemExtReg64.exe". The "TemExt64.dll" file is selected and highlighted in blue. A red box is drawn around the file name, and a red arrow points from the text "Show property" to the file icon. Another red box is drawn around the "Product version" field in the properties dialog, which shows the value "6.16.0.0". A red arrow points from the text "Check product version" to this field. The properties dialog also shows other details such as "File description: TemExt Module", "Type: Application extension", "File version: 2.8.0.0", "Product name: External interop module", "Copyright: Copyright 2001-2020 JEOL Ltd.", "Size: 546 KB", "Date modified: 5/31/2023 9:59 AM", "Language: Japanese (Japan)", and "Original filename: TemExt64.DLL".

**Show property**

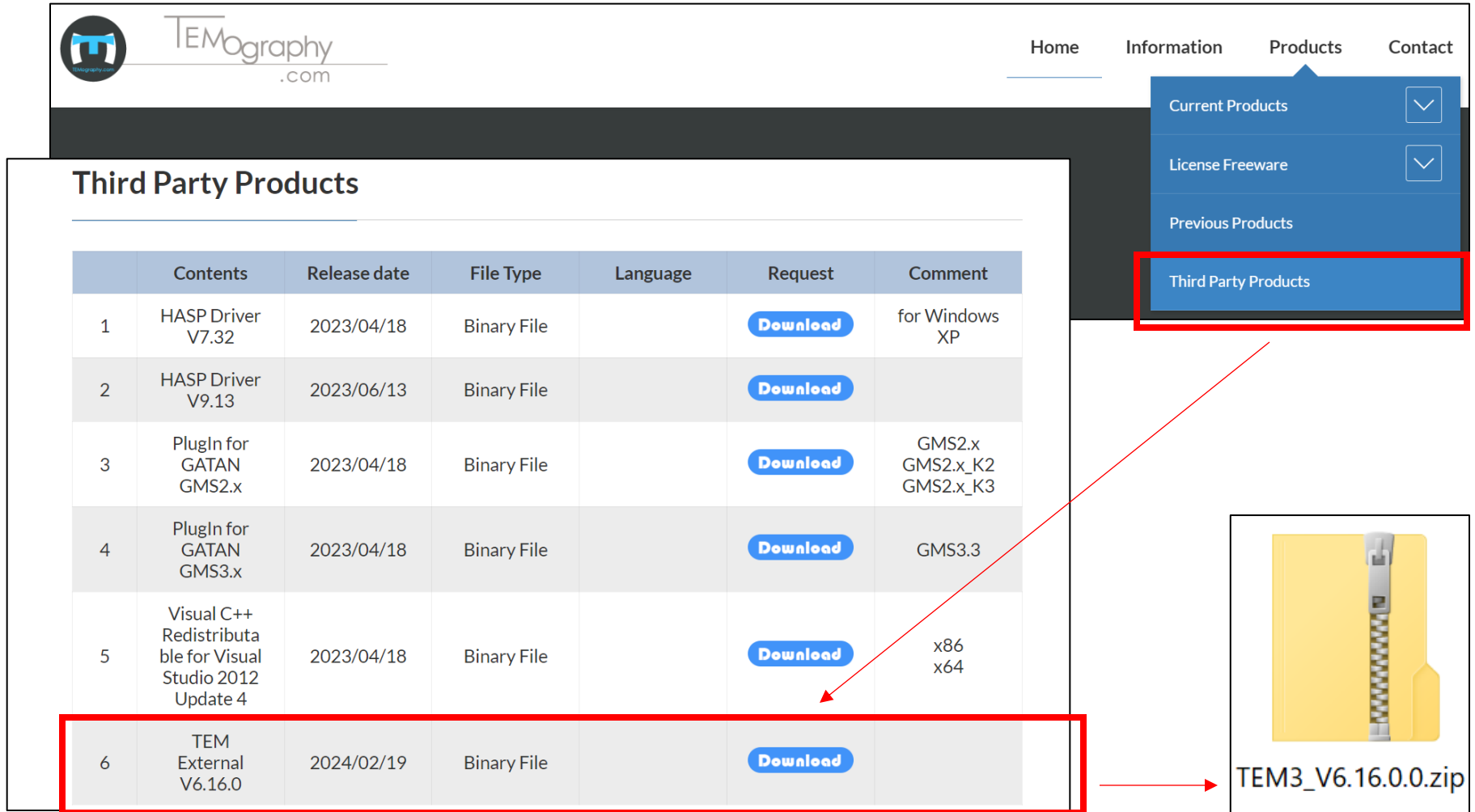
**Check product version**

Property	Value
<b>Description</b>	
File description	TemExt Module
Type	Application extension
File version	2.8.0.0
Product name	External interop module
<b>Product version</b>	<b>6.16.0.0</b>
Copyright	Copyright 2001-2020 JEOL Ltd.
Size	546 KB
Date modified	5/31/2023 9:59 AM
Language	Japanese (Japan)
Original filename	TemExt64.DLL

Check product version of  
C:\Program Files\JEOL\TemExternal\TemExt64.dll  
on the PC in which existing Shot Meister is installed.

**If version 6.16.0.0 or later has been already installed, skip STEP 2 and STEP 3.**

# STEP 2: Download TEM External V6.16.0.0 Installer



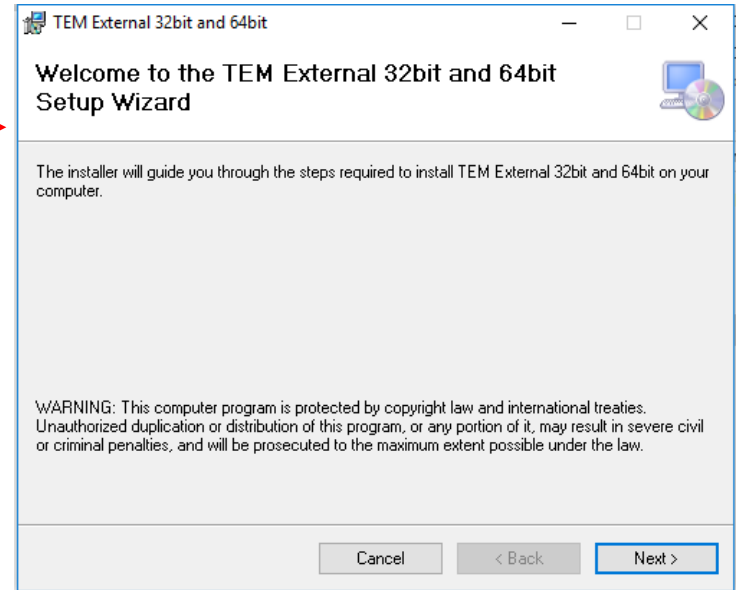
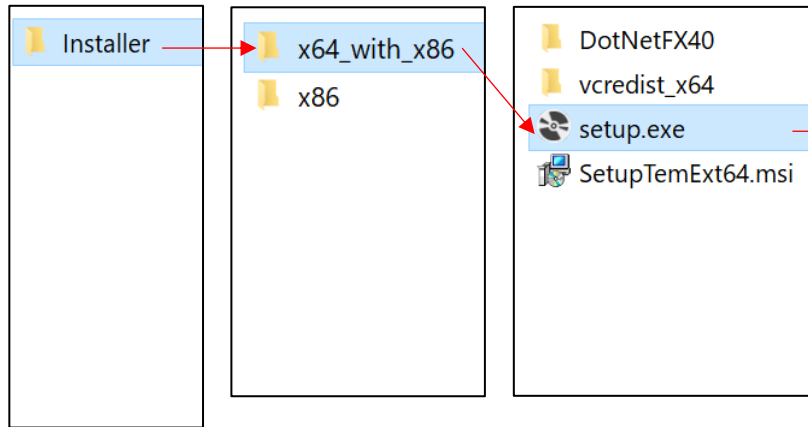
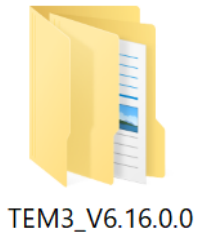
The screenshot shows the TEMography.com website with the 'Third Party Products' section. The table below lists the products, with the 'TEM External V6.16.0' product highlighted in a red box. A red arrow points from the 'Download' button of this product to a separate image of a yellow zip file labeled 'TEM3\_V6.16.0.0.zip'.

	Contents	Release date	File Type	Language	Request	Comment
1	HASP Driver V7.32	2023/04/18	Binary File		<a href="#">Download</a>	for Windows XP
2	HASP Driver V9.13	2023/06/13	Binary File		<a href="#">Download</a>	
3	PlugIn for GATAN GMS2.x	2023/04/18	Binary File		<a href="#">Download</a>	GMS2.x GMS2.x_K2 GMS2.x_K3
4	PlugIn for GATAN GMS3.x	2023/04/18	Binary File		<a href="#">Download</a>	GMS3.3
5	Visual C++ Redistributable for Visual Studio 2012 Update 4	2023/04/18	Binary File		<a href="#">Download</a>	x86 x64
6	TEM External V6.16.0	2024/02/19	Binary File		<a href="#">Download</a>	

TEM3\_V6.16.0.0.zip

Visit TEMography.com web site to download TEM External V6.16.0.0 (TEM3\_V6.16.0.0.zip).

# STEP 3: Install TEM External V6.16.0.0



Unzip the zip file downloaded from TEMography.com. Then find setup.exe and execute it on the PC in which existing Shot Meister is installed.



If higher version has been already installed, the installer should NOT be run.

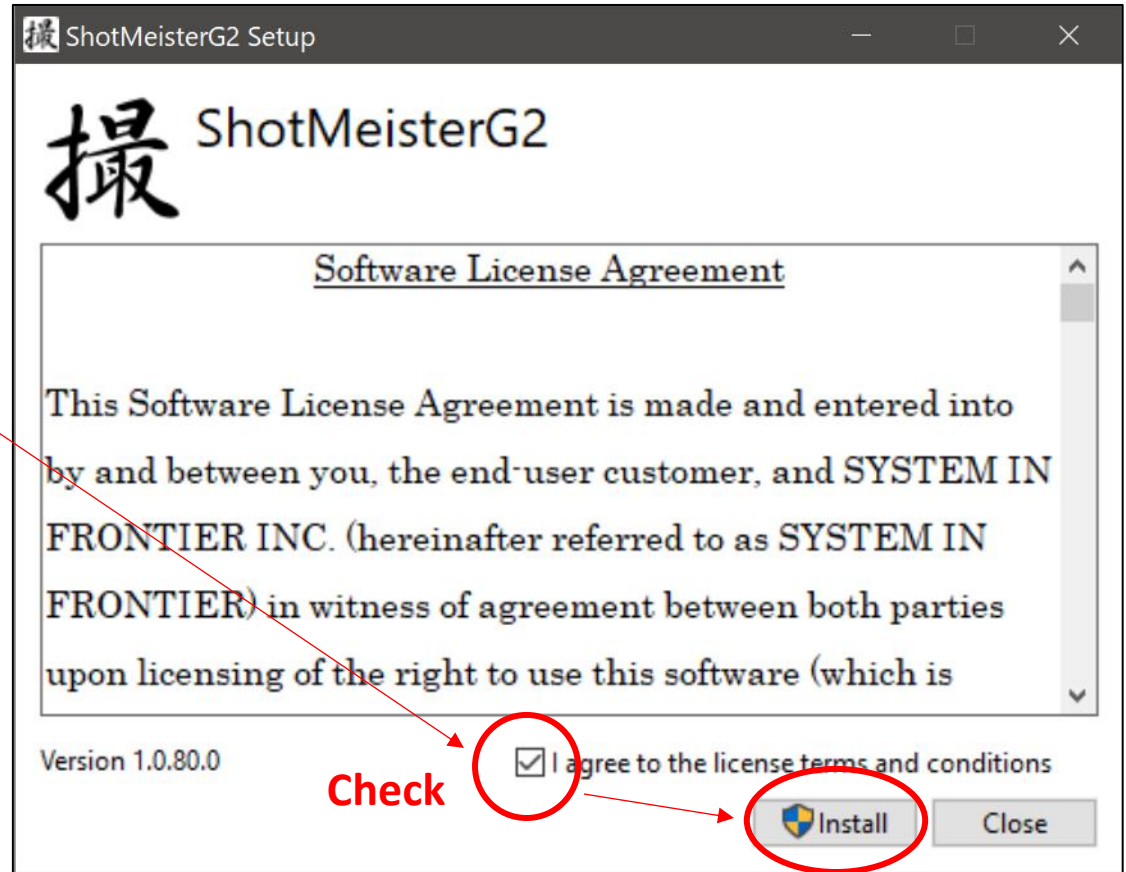
If the input fields for IP Address, Normal Port, and Notify Port appear during the installation process, set them as shown in the table on the right.

IP Address	IP Address of the PC in which TEM Center is installed.
Normal Port	2001
Notify Port	2010

# STEP 4: Install Shot Meister G2



Execute



Check

Click

Execute Setup\_ShotMeisterG2.exe to install Shot Meister G2.

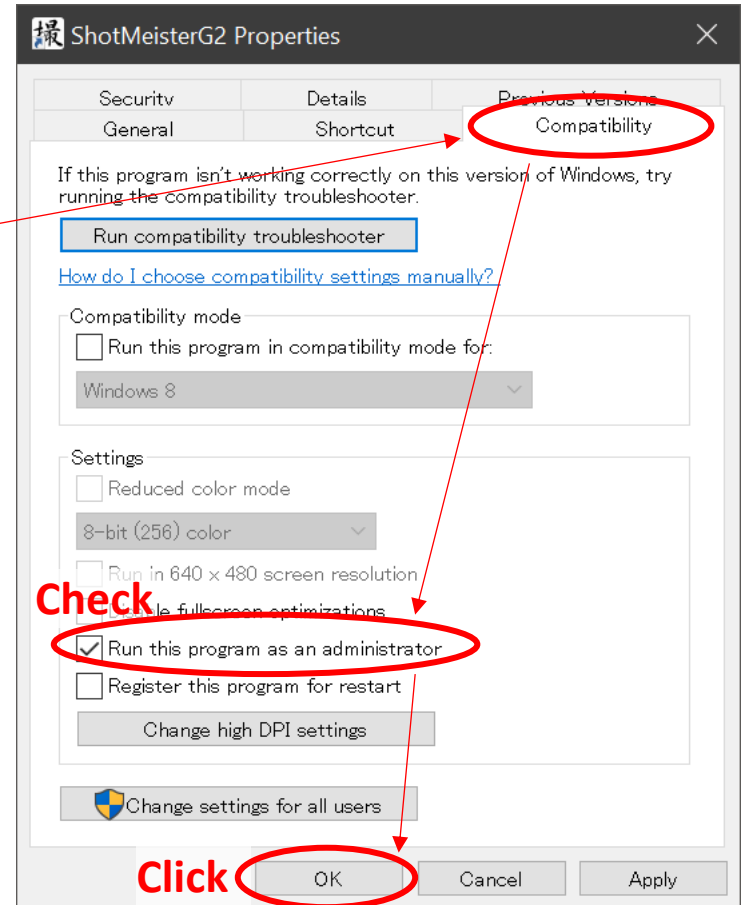
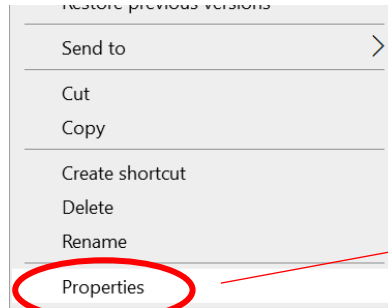
# STEP 5: Configure startup setting from shortcut



This step is only necessary if the camera is provided by Gatan.  
For other cameras such as JEOL, TVIPS, EMSIS, and OSIS camera, skip this step.



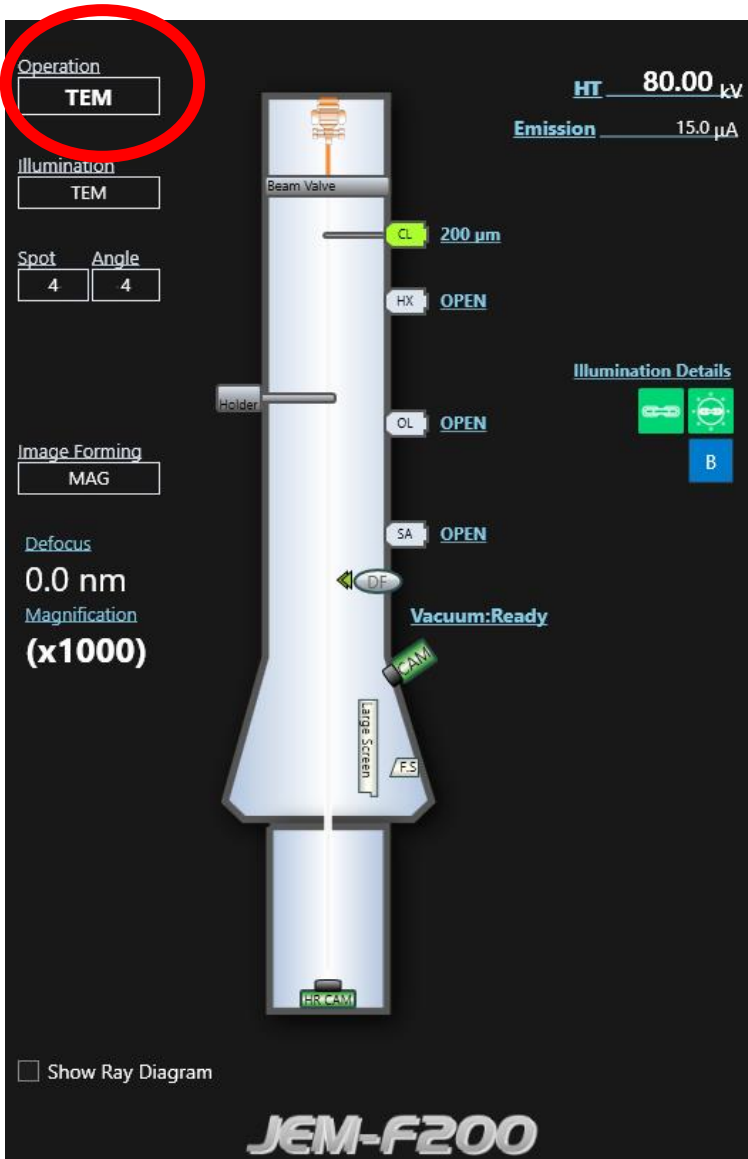
**Right click**



For Gatan cameras only, set Shot Meister G2 to always start with administrator privileges.



# STEP 6: Make sure TEM Center is running in TEM mode



Make sure that TEM Center is running, and the operation mode is TEM mode but not STEM(Scanning) mode.

# STEP 7: Preparation before launching

Prepare for launching Shot Meister G2 according to the type of camera just like when launching the previous version of Shot Meister.

Camera Type	Checklist
JEOL Camera	Make sure that TemCenter is running.
Gatan Camera	Make sure that Digital Micrograph is running.
EMSIS Camera	Make sure that RADIUS is NOT running.
TVIPS Camera	It is recommended that EMMENU is NOT running. Make sure that the camera is not locked by other software.
OSIS Camera	Make sure that iTEM is NOT running.

# STEP 8: Inherit existing Shot Meister setting



**Double click**

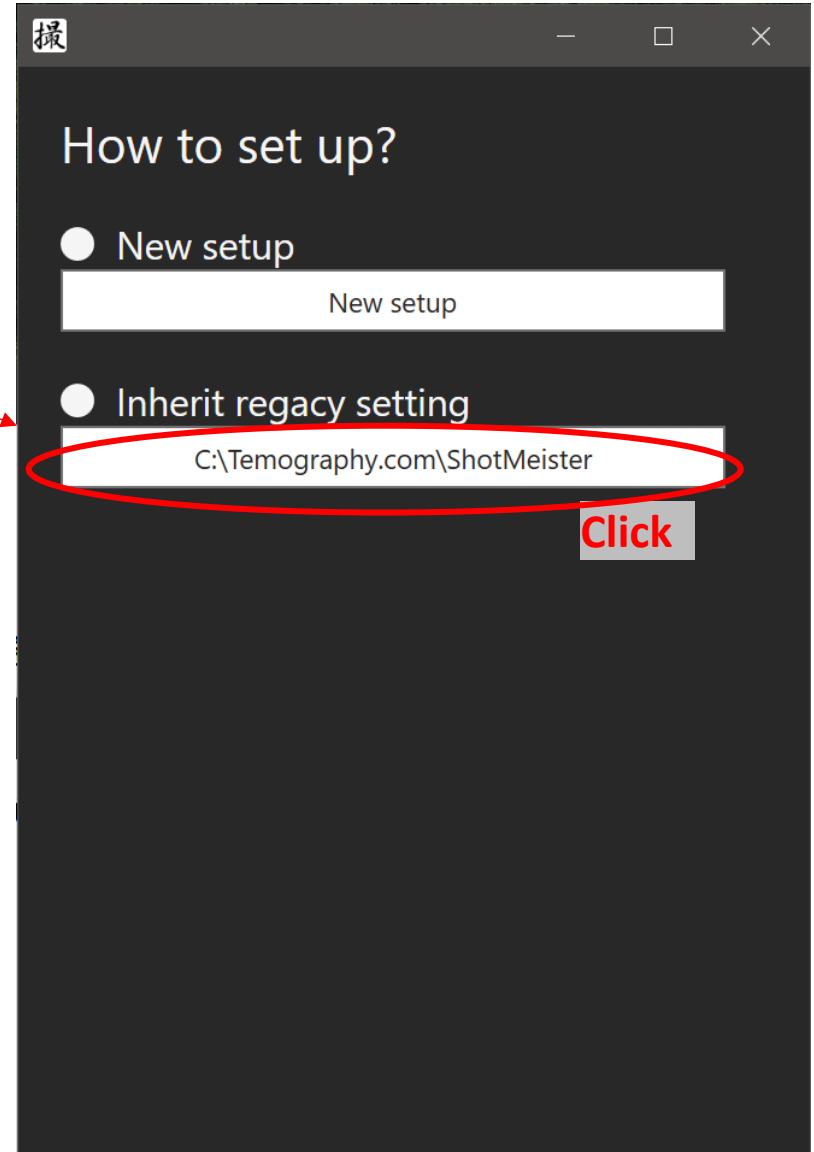
Double click the Shot Meister G2 icon on the desktop to show the window asking how to set up.

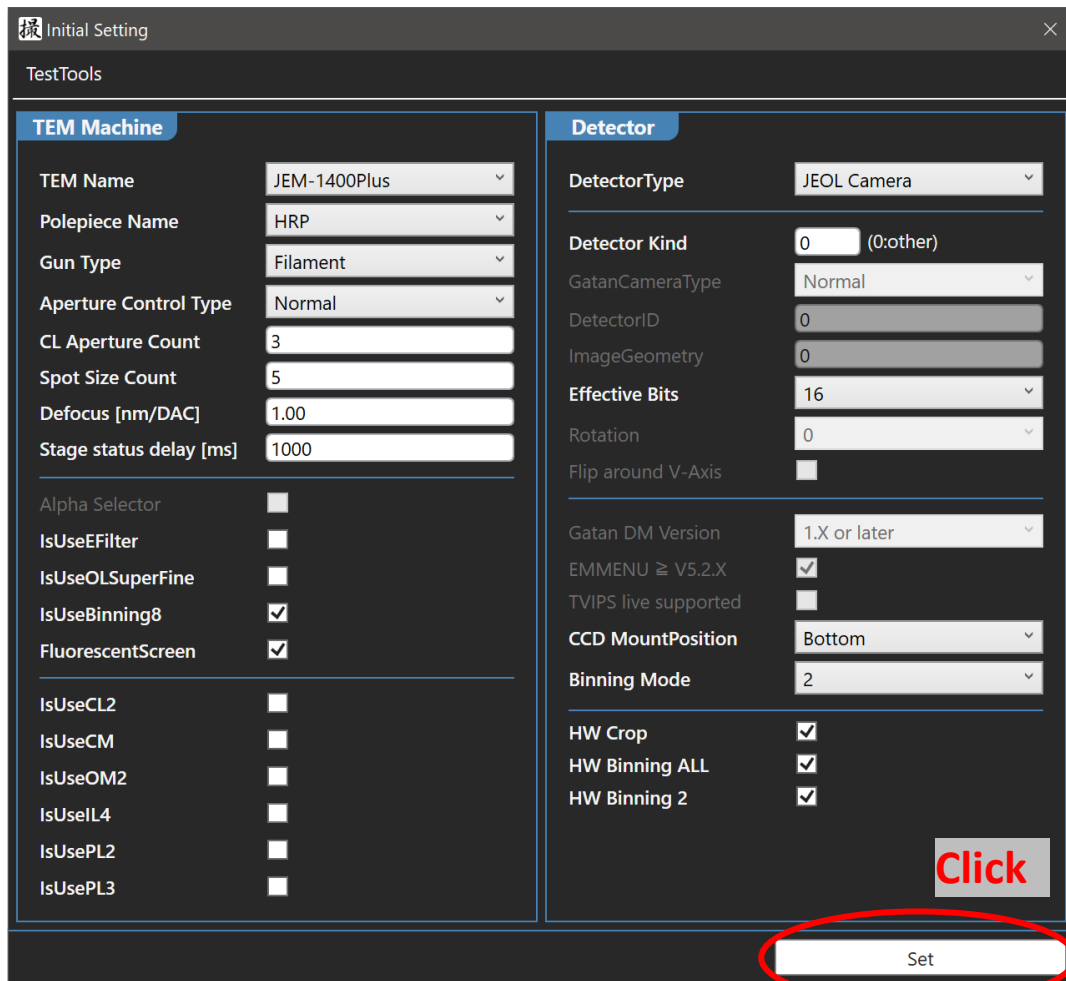
Click the button indicating the location of existing Shot Meister to inherit the settings.

Then the Initial Settings window is displayed as shown on the next page.



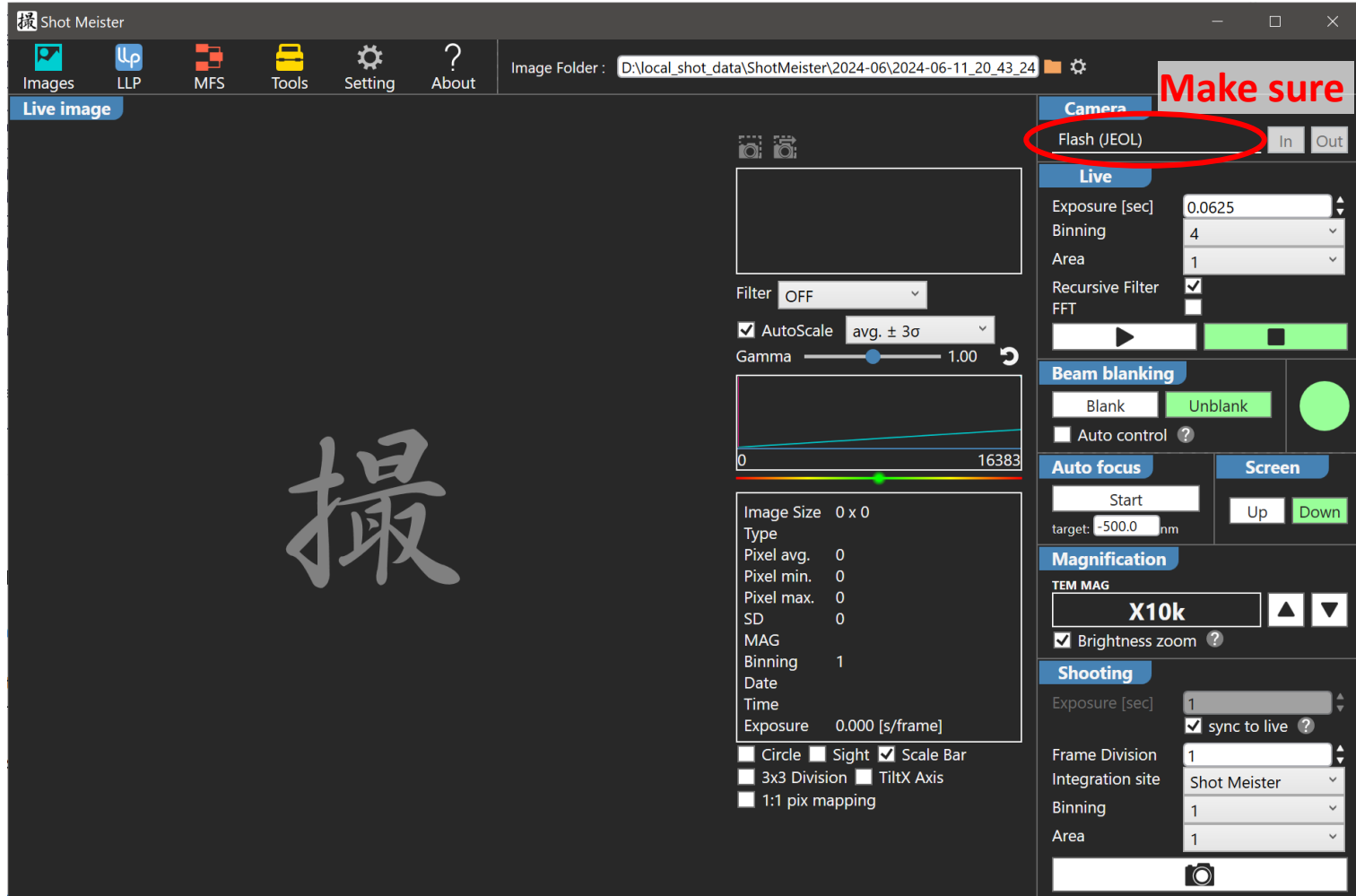
In rare cases, there may be multiple candidates for inheriting setting. If not sure which one to choose, please contact us via contact form of TEMography.com.





On Initial Setting window, do not change any settings and just click Set button. Then Shot Meister G2 main window is displayed as shown on the next page.

# STEP 9: Check the camera name on main window



Make sure Shot Meister G2 is communicating with the correct camera, especially in a multi-camera environment. **If Shot Meister G2 is communicating with wrong camera, stop using immediately and contact us via contact form of TEMography.com.**

# STEP 10: Check Live image acquisition

The screenshot displays the Shot Meister software interface. The main window shows a large live TEM image of a biological sample, with a 1µm scale bar at the bottom right. A red box highlights the live image area. To the right of the image is a control panel with several sections:

- Camera:** Flash (JEOL) with In and Out buttons.
- Live:** Exposure [sec] set to 0.0625, Binning set to 4, Area set to 1. A play button is circled in red, with a red arrow pointing to it from the text "Click".
- Beam blanking:** Blank and Unblank buttons, with a green indicator light.
- Auto focus:** Start button, target: -500.0 nm.
- Screen:** Up and Down buttons.
- Magnification:** TEM MAG set to X10k, with Brightness zoom checked.
- Shooting:** Exposure [sec] set to 1, sync to live checked, Frame Division set to 1, Integration site set to Shot Meister, Binning set to 1, Area set to 1.

Below the image, a technical data panel shows the following information:

Image Size	512 x 512
Type	unsigned int 16 bit
Fxel avg.	6802.418
Fxel min.	4254
Fxel max.	8154
S.D.	587.8308
MAG	X10k
Binning	4
Date	2024/06/10
Time	20:15:06.80
Exposure	0.062 [s/frame]

Additional controls include a histogram, Gamma slider (set to 1.00), and checkboxes for Circle, Sight, Scale Bar, 3x3 Division, TiltX Axis, and 1:1 pix mapping.

Make sure that the Live image acquisition works fine.

# STEP 11: Check shooting image

The screenshot displays a microscopy software interface with two main windows. The left window, titled 'Image-00001.tif', shows a large grayscale image of a biological specimen with a 1µm scale bar. A red box highlights this window, and a red arrow points from a 'Click' label to the shooting button in the bottom right. The right window shows acquisition settings for a JEOL camera. The 'Camera' section includes 'Flash (JEOL)' with 'In' and 'Out' buttons. The 'Live' section shows 'Exposure [sec]' set to 0.0625, 'Binning' at 4, and 'Area' at 1. The 'Beam blanking' section has 'Blank' and 'Unblank' buttons. The 'Auto focus' section has a 'Start' button and a 'target' of -500.0 nm. The 'Magnification' section shows 'TEM MAG' at X10k. The 'Shooting' section shows 'Exposure [sec]' at 1, 'Frame Division' at 1, and 'Integration site' set to 'Shot Meister'. A red circle highlights the shooting button in the bottom right corner of the right window, with a red arrow pointing to it from the 'Click' label.

**Make sure**

**Click**

Make sure that the shooting button works fine.

# TROUBLE SHOOTING

## ● If Shot Meister G2 startup fails on JEOL camera environment

If Shot Meister G2 does not start properly at JEOL camera environment, starting Shot Meister G2 once with administrator privileges may solve the problem.

After that, make sure that it works fine without any problems with normal privileges.

## ● If an error about reference images is occurred at shooting or live image acquisition

Dark reference images and Flat reference images from previous Shot Meister models will not be carried over to Shot Meister G2.

If an error message about the reference image appears when acquiring an image with Shot Meister G2, open Settings from the menu at the top of the main window and re-acquire the reference images.

## ● Any other trouble

Feel easy to contact us via contact form of [TEMography.com](http://TEMography.com).