



User Guide for Camera server tool “GryphaxServer.exe” of JENOPTIK GRYPHAX® software

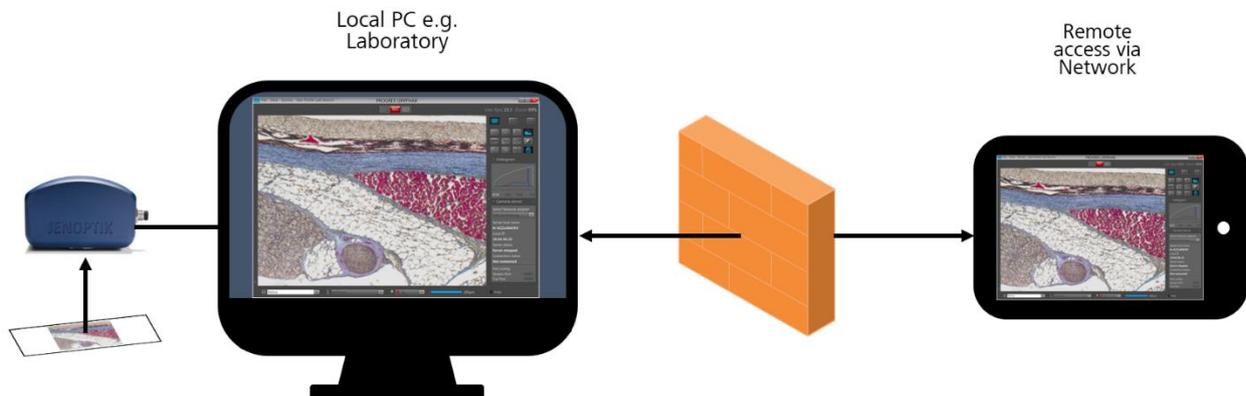
General description:

The **GRYPHAX Server Tool** enables users to share images from locally connected GRYPHAX cameras via network connections into a client PC.

By using the GRYPHAX software* on the same network, users have the ability to **watch streaming live images** from the different networked cameras and have **remote control** of the shared network cameras where users can control the software features and settings on the networked cameras. The GRYPHAX software stores all media files of captured images directly on client PC.

Overview:

Camera server tool running on host PC | remote control at client PC:

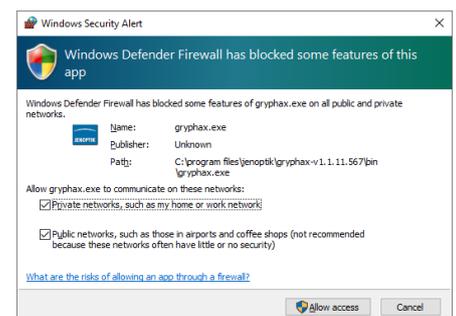


Preparations general:

To use the GRYPHAX-Server tool user must **allow network access** for JENOPTIK GRYPHAX application and the GRYPHAX-Server application to communicate over network without blocking by firewall protection of operation system on both computer (host-PC and client-PC)!

In case of network connection issues, please contact your IT-department for further assistance!

* (Available as of GRYPHAX V.2.3.0 and newer)





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Location:

The GRYPHAX-Server tool is located at the GRYPHAX installation folder* on Hard drive. Default location is: C:\Program Files\Jenoptik\GRYPHAX-V2.3.0.xxx\bin\GryphaxServer.exe. Open the Windows explorer and navigate to the application location. During GRYPHAX software installation, a desktop short cut will be created and placed to the current Windows users desktop.



Preparations:

To operate with the GRYPHAX-Server tool and share the local camera into network, you have to select the network adapter you want to use from your PC (Host-PC). Your server computer may have more than one network interface. So, you will have to tell GRYPHAX-Server tool which one you want to use.

Server computer (host-PC):

1. On a server computer decide which network interface you will be using (WiFi, Ethernet).
2. Open Windows console program by press Windows-logo-key + "c + m + d" keys – a new console window will appear. Run "ipconfig.exe" from the console to find out what is the "IPv4 address" at the chosen interface. As example, if you want use Wi-Fi:

```
Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . : lan
IPv6 Address . . . . . : 2a02:a
Link-local IPv6 Address . . . . . : fe80::ed
IPv4 Address. . . . . : 192.168.0.229
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : fe80::1a
                            192.168.0.1
```

So, you will use in our example IPv4 address: 192.168.0.229 to connect the camera via WiFi.

- 3.a. Run the Gryphax server providing the IPv4 address via command line like the shown example: "GryphaxServer.exe 192.168.0.229"

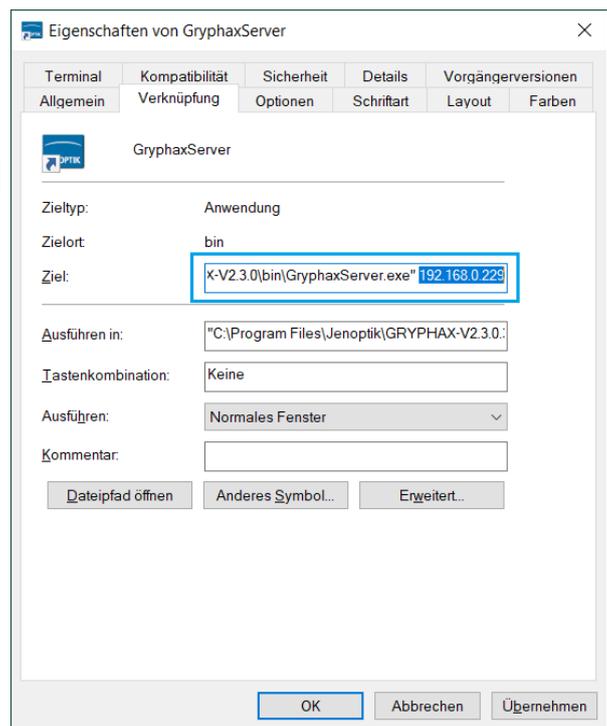
```
\bin>GryphaxServer.exe 192.168.0.229
```

- 3.b. Or alternatively use the shortcut GryphaxServer.exe from "Desktop" with the attribute for IP address.

Open properties of Gryphax-Server shortcut from Desktop.

Go to "target" and add the IPv4 address from your network with a space in between. As example: "...\GryphaxServer.exe" 192.168.0.229

Save the changes and leave dialog by "OK".





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Afterwards, **run** the **shortcut** by double-click via mouse – a console window will appear to show status of GRYPHAX-Server tool and camera.

Note: No additional GUI (Graphical User Interface) will be opened. The GRYPHAX sever tool only provides the GRYPHAX camera as a network shared camera!

Gryphax-Server tool is successfully started and wait for client connection (opened cmd line):

```
C:\Program Files\Jenoptik\GRYPHAX-V2.3.0.█\bin>GryphaxServer.exe 192.168.0.229
11:32:35:548

***** Session started: Di, 5-11-2024 11:32:35 *****
```

Connection to client pc is established and camera is found:

```
----- Client connected -----
Camera KAPELLA found
```

Fallback option:

If the IP address is not specified by users, then the server tool will advertise on the IP address of the first network adapter found at the host PC. In case there are more than one adapter (e.g. Ethernet and WiFi), there is no guaranteed order, so the used network can be a random one.

Important Note: In case of connection issues, take care that the GRYPHAX server tool is running with administrator permissions on host PC.

Status of GRYPHAX server and network camera:

On the console window, the status of camera and connection as well as any logging data will be shown in real time. If the GRYPHAX server tool is running on console window a client pc can connect and disconnect to the shared network camera. After disconnecting – the GRYPHAX server is awaiting a re-connect from a client PC. Any status change will be shown on console.

Client PC disconnect from network camera (from host-pc) GRYPHAX server tool waiting for re-connect:

```
----- Client disconnected -----
----- Client connected -----
```

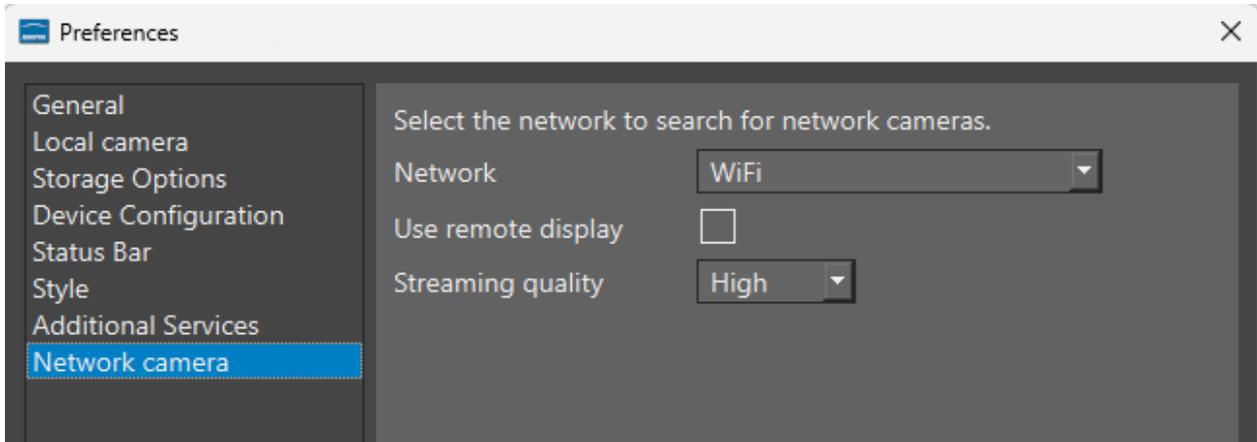
Note: Make sure, that there is only one GRYPHAX camera connected to the host computer and no other application is connected to the camera at the same time! Otherwise, the GRYPHAX server tool will be closed automatically, and no network camera will be provided.



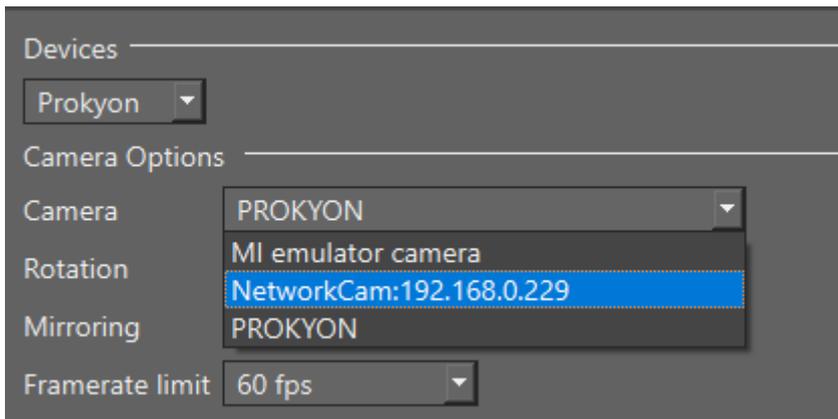
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To connect with server camera on client computer:

4. Open GRYPHAX application V2.3.0 (on client computer) select the same network adapter as the one for the host computer at Preferences. e.g.: WiFi under Preferences | Network camera section:



5. At Preferences | Device Configuration section you see the network camera if available:



On the Camera drop-down list under Devices, you will find all cameras whether available locally or remotely. Multiple cameras from different host computer will be listed on drop down menu.

The remotely connected cameras are shown as: “**NetworkCam:xxx.xxx.x.xxx**” with attached IPv4 address for clear identification.

Troubleshooting:

In case no network camera is listed on device list – double check the settings for network adapter to search for network cameras at Preferences | Network camera section. Also check your network status of operating system.

In case of network connection issues, please contact your IT-department for further assistance!

Important Note: Take care that the GRYPHAX server tool is running with administrator permissions on host PC.

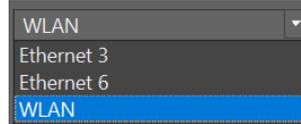


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Parameters in detail:

- **Choose Network** to search for network cameras:

All available network adapters are displayed to search for GRXPHAX server cameras.

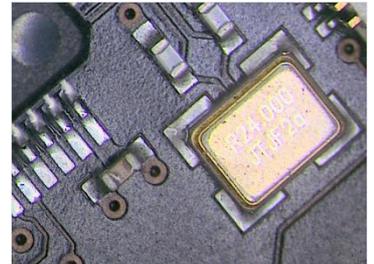
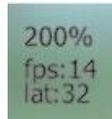


- **Activate** checkmark to **use remote display** (monitor) on host-PC.

To display the camera live preview on monitor of host-PC for setup camera or review the camera stream.

The preview shows some additional parameter from camera as follows:

- Zoom factor on monitor – it can be changed by mouse wheel
- Frame rate as fps
- Image latency as numbers



Active remote display (on host-pc)

- **Choose Streaming quality** for live preview compression in 3 steps:

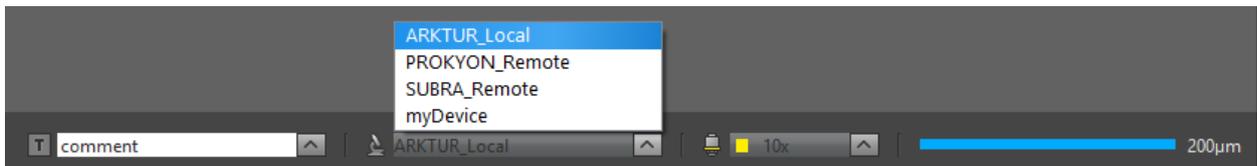
- Low
- Medium
- High



Note: Depending on the network connection quality and preview frame rate, select the streaming quality option from list.

Fast camera switching for optimize workflows:

Create device configurations for remote cameras to change quickly between locally connected cameras and network “remote” cameras directly at status bar.



Operation with server camera on client PC:

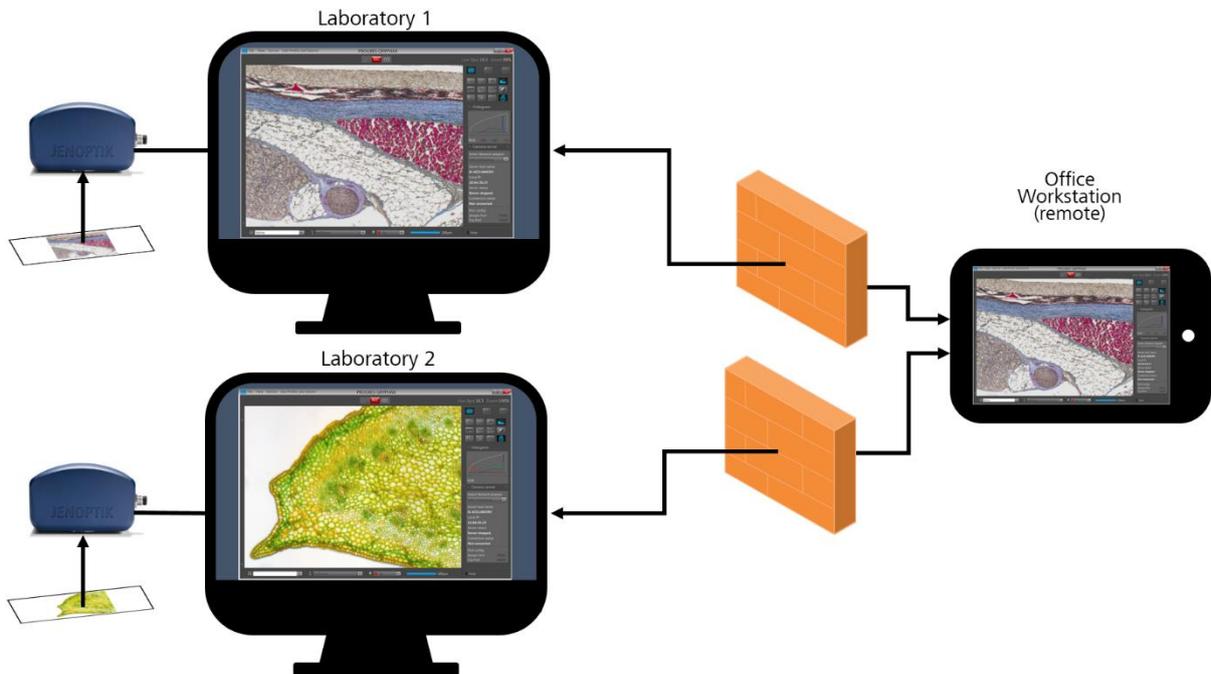
After establishing of server camera connection, most camera settings and enhancements are remote controlled by client PC. User can utilize most functions and tools of local JENOPTIK GRYPHAX software.

The recorded media files (images, videos, etc.) will be always saved on client PC and are displayed on client Gallery as well.

Important Note: To connect with network camera, each computer has to be at the same network environment, otherwise no camera connection would be established!

Example for multi-remote-camera use:

Different laboratory can enable GRYPHAX server tools on their computer to share the locally connected cameras via network environment. Office workstations are able to remote control the camera and observe the experiments. Office workstation (client PC) can change between different network cameras.



Limitations:

- a) The Camera server tool will be inactive at client PC during active GRYPHAX-Server camera connection.
- b) Only one client-PC can connect to a server camera from host PC at same time!
- c) Slow-Motion video record is not possible with network cameras.
- d) Multi-Fluorescence tool not available.

Learn more about JENOPTIK GRYPHAX® software and the easy workflows and tools.

Watch our video tutorials.

HELPFUL? We appreciate your feedback.

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We are looking forward to hearing from you and remain sincerely,

Your JENOPTIK GRYPHAX® Team