Dear PROGRES GRYPHAX user,

We welcome you to the PROGRES GRYPHAX community! Please read the safety & operating instructions carefully before using your PROGRES GRYPHAX camera. By observing the advice on this page, you can make optimum use of the functions and avoid causing damage or injuries resulting from operating errors. The safety & operating instructions should therefore be applied for all PROGRES GRYPHAX microscopy imaging software.

To take care of your camera, you should only use the USB3.0 cable included with your camera or explicitly recommended by Jenoptik.

**Intended Use**

PROGRES GRYPHAX cameras are intended for the use on a microscope. They can be adapted via c-mount interface to the microscope and via USB3.0 cable to a computer or laptop.

**Power Supply**

For PROGRES GRYPHAX cameras, power supply and data communication are carried out using the USB3.0 / USB3.1 Gen1 interface. Additional power supply connections are not necessary.

**Technical Drawings / Dimensions**

![Image](image_url)

**Instructions for Use**

Our separate user manual and the video tutorials contain all necessary information for the installation and operation of PROGRES GRYPHAX cameras. They help you to capture and process your microscopy images in the easiest way. You will find the manual and video tutorials at [www.jenoptik.com/en-progres-grypax-software](http://www.jenoptik.com/en-progres-grypax-software) as well as on the USB memory card included with your camera.

**Contents**

1. PROGRES GRYPHAX microscope camera
2. PROGRES GRYPHAX software - available:
   - on USB memory card - item 5,
   - to download at [www.jenoptik.com/consen-progres-grypax-download](http://www.jenoptik.com/consen-progres-grypax-download)
   - on request sent by e-mail at progres@jenoptik.com
3. USB3.0 cable
4. Safety and Operating Instructions & Quick Start Guide
5. USB memory card containing manuals, video tutorials & PROGRES GRYPAX software

**System Requirements**

**Operating System**

For Windows PC: OS Microsoft Windows 7 SP1 / 8.1 / 10 - 64 bit
For Apple Macintosh: OS X 10.11 (El Capitan) & 10.12 (Sierra)
For Linux: OS Ubuntu: 16.04 LTS - 64 bit

**Hardware Minimum**

- USB3.0 / PCIe Express from V1.1
- Serial number (comparable), 4 GB RAM
- Monitor resolution 1280x720
- Graphic card equipped with on-board memory

**Recommended PCIe Boards**

For PC:

- PCIe Express Card, item # Jenoptik order number: 57659
- Technical requirement: PCIe Express 2.0 (important: never use PCIe Express 1.0!)
- For Windows 7: no drivers are needed, support is already built into the OS. Just plug in and reboot.

For Notebooks:

- PCIe Express Card, item # Jenoptik order number: 57659

**Trigger Operation**

Some PROGRES GRYPHAX cameras support trigger operation (connection to an external trigger device), which delivers the signal (Trigger Input) to the camera and which will react, e.g. by PROGRES GRYPHAX. After image capture, the camera delivers a signal to the device (Trigger Out) to signal the completion of the function. Trigger Out does not require any additional power supply; for Trigger In, power supply must be set up for the external device. Connect the cable shield to the casing of the external device. Only use shielded cables.

**Conformity to CE / WEEE / ROHS / China RoHS**

PROGRES GRYPHAX microscope cameras comply with:
- CE in accordance with EMC Directive 2014/30/EU
- WEEE - mark for waste electrical and electronic equipment
- ROHS - China RoHS

**Type Label**

Note: Please observe the information on the type label when installing the camera. The following information is printed on the type label (e.g. PROGRES GRYPHAX camera).

1. Camera type
2. Date code
3. Manufacturer address (and in code format)
4. Approval codes
5. Catalog number
6. Made in Germany

**Service & Support**

In the first instance, please have a look into our software manual or watch the video tutorials to find a solution to your issue. [https://www.jenoptik.com/products/cameras-and-imaging-modules/microscope-cameras/see-progres-grypax](https://www.jenoptik.com/products/cameras-and-imaging-modules/microscope-cameras/see-progres-grypax)

Should you need further support please contact your local dealer for questions regarding PROGRES GRYPHAX cameras. Your local dealer can provide you with detailed information about the product, accessories, and packaging. If a solution cannot be found, please contact Jenoptik's technical support team at: [progres@jenoptik.com](mailto:progres@jenoptik.com)

The manufacturer data of each product is encoded into the product's serial number. Contact the support team to obtain the manufacturer date of your specific product.

If you need to return your camera for repair, please send it to the following address:

JENOPTIK Optical Systems GmbH
Attn: Steffen Detrich / HC Service & Repair Centre
Preussingasse 41
07745 Jena, Germany

**Cleaning and Maintenance**

**Cleaning the camera casing:** If the camera casing is only slightly soiled, clean it with a soft, slightly moistened piece of cloth. Make sure that no water enters the camera and risks becoming in contact with any internal components.

Do not use any aggressive solvents or substances to clean your camera.

**Cleaning the filter glass:** Cleaning the filter glass by yourself is not recommended. If the filter glass is severely soiled, please contact your expert dealer or the manufacturer for assistance.

**Safety & Operating Instructions**

PROGRES GRYPHAX cameras are intended for the use on a microscope and for operation and control with PROGRES GRYPHAX microscopic imaging software. The PROGRES GRYPHAX microscope camera is an optical and fine mechanical device. Please handle it with due care.

**Safety & Operating Instructions**

PROGRES GRYPHAX cameras should be used in clean and dry locations.

For your own safety and to keep the camera in good operating condition, please follow all safety and operating instructions in this document and observe all advice and labels on the unit and on any accessory.

**Expansions and alterations:** The camera must be operated in compliance with these safety instructions. Do not attempt to carry out any expansions, adjustments, alterations, or repairs by yourself. Repairs and maintenance work may be carried out only by authorized service personnel.

**Electric Installation:** The electric installations of the room where the system is set up must be in compliance with the IEC requirements.

**Validity:**

- 5 V USB / Consumption: Variable according to camera type. Please refer to your camera's technical data sheet.
- Unplug the USB cable to disconnect the camera from the power supply. Use only cables included with your camera or explicitly recommended by Jenoptik.
- Make sure that the cables are installed so that they do not obstruct persons and do not cause a tripping risk.
- Protect cables against mechanical impact or damage.

**Note:**
Observe the information on the type label when installing the camera.

**Caution, fire hazard:** To prevent a risk of fire, do not store or operate the camera nearby easily inflammable materials or gases.

**Caution, risk of injury:** Operating the camera under the following circumstances risks injury.

- The camera is visibly damaged
- The camera has been stored under adverse conditions over a long period of time
- The camera has been transported under adverse conditions.

If any of these circumstances apply, switch off the camera and ensure that it cannot be operated unintentionally. Please contact your expert dealer or the manufacturer's technical support team for assistance.

**Caution, risk of damage by unsuitable environment conditions:** Do not expose the camera to extreme environment conditions. Avoid extremely high or low temperatures, and keep the camera away from high humidity, liquids, chemical gases, dust or high electro-magnetic fields.

**Caution, risk of injury or damage by water:**
If water (or other liquids) enters the camera, there is a risk of electrostatic shock. Your camera can also be damaged or no longer usable if water has entered the camera, switch it off and contact your expert dealer or the manufacturer for assistance.

**Caution, risk of damage by static charge:**
Static charge can damage or destroy the electronic components of your camera. Before connecting the camera to a computer or a microscope, make sure that it is free of electrostatic charge. Ground yourself by touching the metallic housing of the reverse side of your computer or microscope, which both have to be grounded via a power socket.

**Caution, risk of malfunction by insufficient ventilation:**
Some PROGRES GRYPHAX cameras are equipped with fans on the rear side. Ensure that the cameras are sufficiently ventilated and that the fans are not covered.

**Caution, risk of damage and malfunction by overheating:** Avoid leaving your camera in direct sunlight and do not operate the camera near heat sources (e.g., radiators or stoves). Overheating can affect the image quality.

**Advice for handling the IR filter glass:**
Protect the integrated IR filter glass against mechanical impact such as scratching or shocks and against soiling. Avoid fingerprints on the glass and do not touch the C-mount cover of the camera.

**Caution, risk of damage and image errors by mechanical impact:**
Protect the camera against impact, especially during operation. Mechanical impact can affect image quality.

**Operating temperature:** +10 °C ... +35 °C
**Relative humidity:** 5 % ... 80 %, non-condensing
**Storage temperature and transportation:** -20 °C ... +70 °C

**Advice for transportation and storage:**
Protect the camera against impact. Store and transport the camera in a dry and cool place, e.g., in its case or the packaging in which it was delivered. Please use the supplied C-mount cover during transportation and storage.

**Disposal**

The camera must be disposed of in compliance with the environmental protection guidelines in force. Contact your expert dealer in case of any questions.

**Manufacturer Information**

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07745 Jena, Germany

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Website: [www.jenoptik.com/progres-grypax](http://www.jenoptik.com/progres-grypax)

**Editorial Information**

Editorial deadline: September 2017
Documentation number: 014102
Revision status: 007-21-1501
Revision 07, Release 001

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Quick Start Guide for PROGRES GRYPHAX Microscope Cameras

Getting Started

Congratulations on purchasing your PROGRES GRYPHAX microscope camera! This Quick Start Guide will help you to quickly install your PROGRES GRYPHAX microscopic imaging and software, and will give you an overview of your main functions.

For more information and user training, please see our detailed software manual and use our video tutorials:


You can find these video tutorials and software manual on the USB memory card included with your camera.

For the safe operation of your PROGRES GRYPHAX microscope camera, please observe the safety and operating instructions as well as the handling instructions described in this manual.

Important note: Only use accessories which are included with your camera or are explicitly recommended by Jenoptik.

Easy Installation

• Mount your PROGRES GRYPHAX camera to the microscope using the C-Mount adapter
• Open Windows Explorer and run the installation application, by following the USB path (USB memory card included with your camera) and follow the wizard to install the PROGRES GRYPHAX software. (Administrator permissions are necessary for successful installation)
• Connect the PROGRES GRYPHAX microscope camera to your computer using the USB 3.0 cable.

Please supply this cable, we do not need to connect to further equipment.

Ensure that the illumination of your microscope is switched on and the light path is opened.

Starting the Software

Click on the Jenoptik application icon on your desktop to launch the PROGRES GRYPHAX software. If necessary, you can immediately start working with the application software.

Panorama / Image Stitching (in live mode)

• captures multiple images and stitches these together automatically into a high resolution image.
• You can activate it by pressing the "Rec" button.
• Then press "REC" to record a stitching image. "Rec" mode you can manually adjust the focus of your specimen in the axis of your microscope.
• The single image and the image result previews are composed and viewed side by side. If you are satisfied with the result, just press "Stop", to save the final stitched image, which will then appear in the Gallery.

For more details see our software manual.

2-stacking / Multifocus / EDF (in live mode)

• records a series of single images automatically, each in a different depth of focus, and stitches these together to one final image that is clearly focused in all areas.
• You can activate it by pressing the "Rec" button.
• Then press "REC" to record a stacking image. During "Rec" mode you can
• adjust the focus of your specimen in the axis of your microscope.
• The single image and the image result previews are composed and viewed side by side. If you are satisfied with the result, just press "Stop", to save the final stitched image, which will then appear in the Gallery.

For more details see our software manual.

Time-lapse / Image Series (in live mode)

• records an image series (a fixed number of images during a specified time period) or within a given time frame.
• You can activate it by pressing the "Rec" button.
• Then press "REC" to start recording the time-lapse image series. Recording mode automatically stops after all images of the image series that were previously defined become available.
• The image series will be stored in a separate sub-folder under the used image destination folder.

For more details see our software manual.

Video (in live mode)

• records a video sequence of images.
• You can activate it by pressing the "Rec" button.
• Then press "REC" to start recording the video sequence.

Clicking "Stop" will end the recording.

(The video is saved to the user-defined storage location).

Video playback, to observe the recorded images, is possible from the Gallery.

For more details see our software manual.

Multi-Fluorescence

• captures single or multi-coloured fluorescent images (through capturing and automatic merging of monochromatic brightness-field images)

You can activate it by pressing the

You can activate it by pressing the "Rec" button.

If you have selected "Multi-Fluorescence" with "Filter List" activated, you can define the different filter to be used for acquiring the fluorescent images.

Filter List

Please double click on the Preview button to open the Filter List.

For more details see our software manual.

Effects / filter (in live mode)

• allows you to select specific filter to be used for acquiring the fluorescent images.

You can activate it by pressing the "Rec" button.

If you have selected "Effects / filter" with "Filter List" activated, you can define the specific filter to be used for acquiring the fluorescent images.

You can activate it by pressing the "Rec" button.

If you have selected "Effects / filter" with "Filter List" activated, you can define the specific filter to be used for acquiring the fluorescent images.

User Profiles

• users can save your individually created calibrations and settings in order to make your microscopic imaging reproducible / trackable. To do this, just choose "User Profile" in the menu bar and press "Save as" to select your profile by password. For more details see our software manual.

Preferences

Your software settings preferences can be adjusted according to your individual needs. (all advanced settings are described in our software manual or at the video tutorial(s))

• Language, Minimum gain during capture, Gain scaling, Magnifier zoom factor
• Set 0: Calculate shading, Auto-calibrating
• Auto sav image, Image format, Image quality, File name, Destination folder
• Image resolution, Color temperature, Calibration Measurement, Calibration White shading
• Settings for the Status bar, Scale bar unit
• Font, Style, Colour, Width, Grid color
• Preferences / General
• Preferences / Camera
• Preferences / Storage options
• Preferences / Device Configuration
• Preferences / Status bar
• Preferences / Style

Capturing a Microscope Image in just One Step (in single capture mode)

You can easily take a single step image capture by pressing "REC". The following image capture parameters are preset using the one-click image capture function:

• Auto exposure: activated by default. Exposure options can be individually adjusted using the "Exposure tool".
• Balance white preset / adjusted to halogen lamp (HAL100-20w).
• Shading options can be created via "Preferences".
• Image resolution: the settings are saved, but can be adjusted under "Preferences" / Device Configuration.
• Target folder / image name / file format / language. These settings are present but can be individually set under "Preferences".

Further image enhancements, settings and tools to be applied before pressing "REC":
• To do this open the "Gallery / Tool bar" by clicking here:

General mode: After clicking "REC", the "REC" button instantly changes to STOP or LIVE to indicate, that the captured image is displayed in the "REC" mode.

More tools like "Treeview", "Image analysis", "Preview" etc. are available on a tool bar that appears by pressing the "REC" button. Furthermore, the PROGRES GRYPHAX software gives you the opportunity to further improve or modify the image before capturing it.

See the following instructions for detailed information on available manual on USB memory card included by camera.

Capturing an Image

1. Open Windows Explorer and run the installation application
2. Select all "Panorama" from the Gallery
3. Click "Open / Close / Grid"

For more details see our software manual.

Arrow Marking (in live mode)

You can activate it by pressing the "Rec" button.

You can activate it by pressing the "Rec" button.

For more details see our software manual.

Text Labeling / Annotations (in live mode)

You can activate it by pressing the "Rec" button.

You can activate it by pressing the "Rec" button.

For more details see our software manual.

E-mail / Print / Cloud (in offline mode, when the recorded Gallery image is selected)

You can activate it by pressing the "Rec" button.

You can activate it by pressing the "Rec" button.

For more details see our software manual.

Grid Scaling and Crosthair (in live mode)

• displays the overlay-frame mask over the current view within the image window. In order to correctly prepare the alignment of the specimen, it can also support your Koester set up. You have a micrometer in the exact center of the image which can be activated by choosing the option under "View".

The grid can be easily adjustable by scrolling in the mouse. A check mark after the item within the menu bar indicates that this mode is activated.

Pressing the "q" button switches back to the previous window layout. Alternatively, you can close this mode via menu. Grid colour can be changed under preferences. For more details see our software manual.

Image Comparison / Side by side mode

• compares two images in a split-screen side-by-side view. During this mode all tools are disabled. This mode is not available when running multi-fluorescence procedure or during any other "Rec" mode (single image, time-lapse). You can use the split-screen mode during the composite image, just press "REC" to save the final multi-fluorochrome image to the Gallery. After the final time-lapse is saved you can start capture new filter images. The predefined filters are available for a new multi-fluorochrome capture.

For more details see our software manual.

Exposure (in live mode)

You can activate it by pressing the "Rec" button.

You can activate it by pressing the "Rec" button.

For more details see our software manual.

Monochrome mode (in live mode)

• allows you to switch the current camera live stream in grey-scale images. If the tool is active all recorded media will be saved in grey-scale. It can change the length of time that the captured image is displayed.

For more details see our software manual.

Keyboard Shortcuts

<table>
<thead>
<tr>
<th>Function</th>
<th>Shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open help</td>
<td>F1</td>
<td>Opens new window with Capture Mode (single image, time-lapse, video)</td>
</tr>
<tr>
<td>Go to Live mode</td>
<td>F2</td>
<td>Opens new window with Capture Mode (single image, time-lapse, video)</td>
</tr>
<tr>
<td>Live image zoom</td>
<td>F3</td>
<td>Opens new window with Capture Mode (single image, time-lapse, video)</td>
</tr>
<tr>
<td>Switch between full screen and standard mode</td>
<td>F4</td>
<td>Selects an image from gallery or the selected (marked) from the selected menu / &quot;Measure&quot;</td>
</tr>
<tr>
<td>Open / Close / Grid</td>
<td>Ctrl + G</td>
<td>Opens new window with Capture Mode (single image, time-lapse, video)</td>
</tr>
</tbody>
</table>

For more details see our software manual.

Further information, enhancements, settings and tools to be applied before pressing "REC":
• To do this open the "Gallery / Tool bar" by clicking here:

General mode: After clicking "REC", the "REC" button instantly changes to STOP or LIVE to indicate, that the captured image is displayed in the "REC" mode.

Measurement calibration in advance is necessary!

The measurement automatically appears after clicking in the relevant calibration. Measurement calibration is advanced via "Preferences / Additional Services" to transfer and further process the selected Gallery items to an external image analysis program. Note: The pre-configured external software will launch with the files as pre-loaded.

For more details see our software manual.

E-mail / Print / Cloud (in offline mode, when the recorded Gallery image is selected)

You can activate it by pressing the "Rec" button.

You can activate it by pressing the "Rec" button.

For more details see our software manual.

Grid Scaling and Crosthair (in live mode)

• allows you to switch the current camera live stream in grey-scale images. If the tool is active all recorded media will be saved in grey-scale. It can change the length of time that the captured image is displayed.

For more details see our software manual.