Frequently Asked Questions

> **Before proceeding further, check if you have the most recent version for PLxCapture**
> To do so:
> 1. Click on: www.inova-ccd.fr/download/B. PLxCapture/
> 2. Download the file: PlxCapture_Setup-Vxxx.exe
> 3. Start the installation running the setup file.

- **After I have installed the software, I connected the camera to my PC but nothing is displayed in the preview window.**

  To get an image displayed in the preview window, a CS-mount objective lens, a refractor or a telescope needs to be connected to the camera.

- **The camera is mounted on my refractor/telescope and the camera does not focus.**

  Telescopes/Refractor are designed to observe objects at infinity. Therefore, if you try to point the instrument towards a terrestrial object at less than 50 meters (150 ft) distance, the camera will have difficulties to focus. The best solution is to use a focuser extension tube onto the eyepiece holder so that the camera can easily focus on any object that is close-by.

  For refractors, instead of the extension tube, a diagonal mirror can be used for focusing.

- **Which PC operating system does my *I-Nova* camera work on?**
  - Windows XP SP3 (minimum) 32-bit
  - Windows Vista 32/64-bit
  - Windows 7 32/64-bit
  - Windows 8 32/64-bit
  - Windows 8.1 32/64-bit

- **Does my *I-Nova* camera work on Apple platform?**
  - Yes, in emulation mode (Bootcamp)
  - No, in native mode (Macintosh OS)

- **Does my *I-Nova* camera work under Linux?**

  Yes – INDI drivers are available for download on our website http://www.inova-ccd.fr/download/E. Drivers/Linux/

- **How to capture in planetary imaging for the first time?**

  Once the file name has been defined:
  - Focusing: with the Goto controller, slew to a star close to the sky object to capture and adjust to get the smallest possible value for FWHM (see focus FWHM);
  - Then, point the telescope to the sky object to capture;
  - Set gain value at 80% ;
  - Set time exposure value to get the curve close to 80% (on the right hand side of the histogram);
  - Check the captured file format, provide the capture duration or the number of images to capture;
  - Start the capture process.

- **Which format can be used for captured images in planetary imaging?**
  There are 2 available formats: AVI and SER.
  - AVI format is best for cameras with color sensor (debayerized mode) but it is not the most efficient regarding disk space;
  - SER format is suitable for both color and monochrome sensors (non-debayerized mode) and allows to use only 1/3 the equivalent AVI file size.

- **Which image processing software can work with SER format?**
  - Freeware Registax V6
  - Freeware AviStack V2
  - Freeware AutoStakkert! V2 (AS!2)

I-Nova

- **Which software can I use for autoguiding?**
  - All software working with ASCOM protocol V6 or above (*I-Nova* ASCOM plugin is available in the software pack).
  - The simplest software to use is PHDGuiding (see the author's website for tutorial and user manual: http://www.stark-labs.com/phdguiding.html).

- **What do I need to autoguide?**
  To autoguide, we need:
  - an autoguiding camera (monochrome sensors are the most sensible to find a guide star),
  - a refractor used as a guide telescope or an optical divider for telescopes (Newton, Schmidt-Cassegrain, etc.),
  - an equatorial EQ mount with a Goto system and/or a ST4 autoguiding port (RJ12 connector).

- **What is the Visual Enhancement feature?**
  The visual enhancement feature is proposed in our PLxCapture software. It allows to observe deepsky objects with small optical instruments like an ED70.
  The principle is as follows: each captured frame by the camera (short exposure between 1 and 30 seconds) is pre-processed and stacked in real time on the master frame being displayed on the screen.
  This acquisition mode allows to beginners to obtain good quality images, even with no specific knowledge on long exposure time imaging.

- **How to improve the quality of images in long time exposure mode for deepsky imaging?**

  A cooling system kit is available: with a Peltier module and control electronics, the camera sensor temperature is lowered by 20°C (36°F) when operating under ambient temperature conditions. Lowering temperature reduces dramatically thermal noise (especially for CCD sensors), and consequently increases the S/N ratio of the camera (which improves the quality of pictures).

I-Nova

- **How to contact the technical support?**

  You can contact us:
  - by email to: suppport@inova-ccd.com
  - or by phone at: +33 (0)1 47 84 70 27.

  For an effective technical support, tell us as much information as possible about your setup (type of instrument, accessories, computer, operating system, etc..) and if possible send us a screen shot with the error message. Please also explain how to reproduce the problem.

- **How to update the software?**

  Updates are available at the I-Nova website: http://www.inova-ccd.fr/download/

- **Minimum PC requirements to use I-Nova cameras – PLxCam Series:**
  - <u>For planetary imaging</u>:
    - Operating system: Windows XP SP3
    - Intel Core 2 Duo (laptop) or Atom N570 (notebook) processor
    - RAM memory: 2Go
    - Hard disk: 160Go
  - <u>For autoguiding and deepsky imaging</u>:
    - Operating system: Windows XP SP3
    - Intel Core 2 Duo (laptop) or Atom 330 (notebook) processor
    - RAM memory: 1Go
    - Hard disk: 80Go

- **Configuration PC optimale pour l'utilisation des caméras iNova PLxCam ?**
  - Système d'exploitation : Windows 7
  - Processeur Intel i5/i7
  - Mémoire RAM : 8Go
  - Disque dur : 500Go

I-Nova