



Driver Installation Guide for BeamGage

(With commentary for ModeCheck, Pyrocam III and M²-200s)

1.0 Introduction

This document will assist you in installing BeamGage and help you install any specially needed camera driver(s). Additional information is provided for driver installation when using a ModeCheck or M²-200s product.

2.0 Scope

Spiricon's BeamGage products are supplied on a DVD medium. The jacket of the CD explains how to install BeamGage but does not cover how to insure that the proper camera driver is installed. Since BeamGage is a very versatile application and supports cameras that employ various interface technologies a special driver utility has been added to the installation process. This utility will automatically run when doing an initial installation of BeamGage. However this utility can also be run as a separate program allowing the user to reconfigure FireWire 1394A and 1394B interfaces as the need arises. The utility can also be used to add drivers for newly acquired cameras.

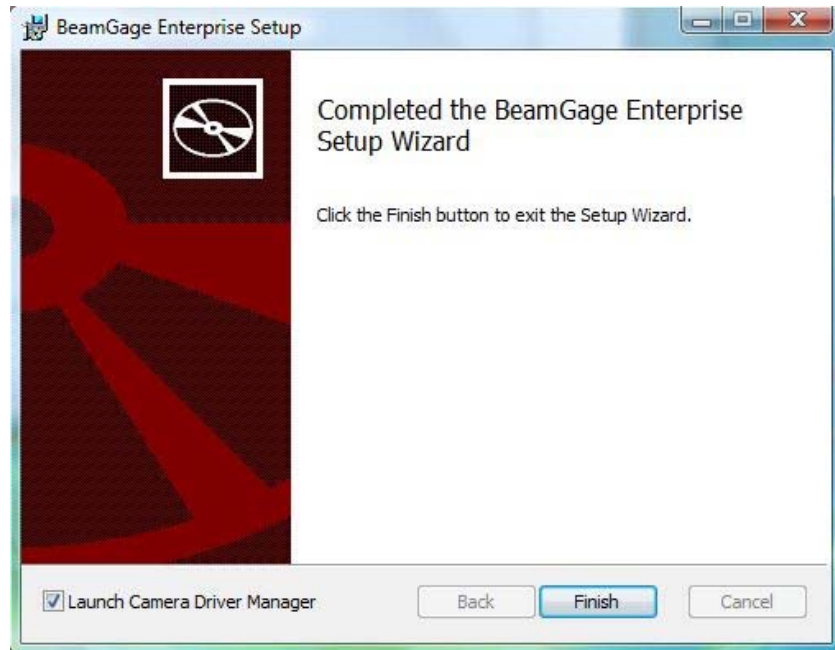
For most users the need to rerun the driver utility will never come up. For users that will need to change between various FireWire cameras this utility will make the task much easier.

3.0 Installing BeamGage

Follow the instruction on the BeamGage DVD jacket, where the **Install Software** button will begin the installation process.

During the installation a number of prompts will appear asking permission to proceed with specific software installations. Answer all such queries in the affirmative.

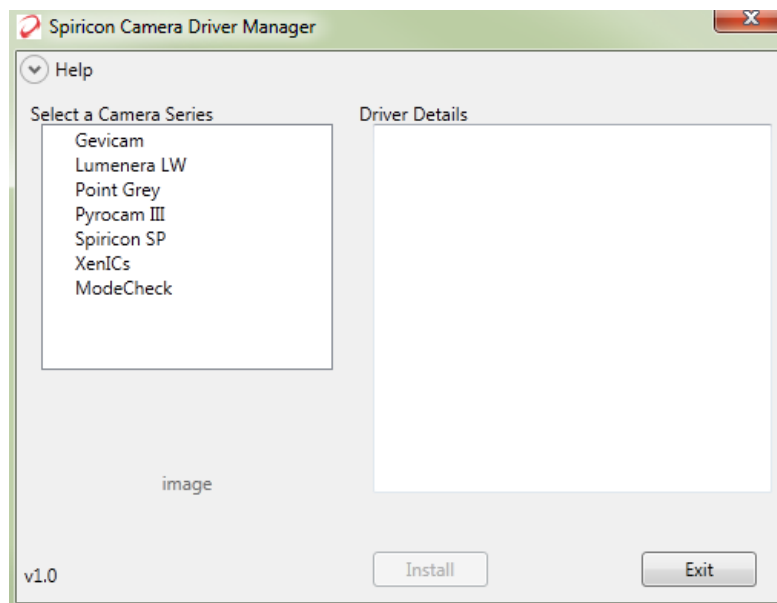
When the BeamGage installation completes the following window will be displayed.



Clicking the **Finish** button will close the BeamGage installer and launch the Driver Manager. If the BeamGage installation is for off-line use, and a driver is not needed, uncheck the **Launch Camera Driver Manager** box before clicking **Finish**. This will prevent the Driver Manager from starting.

3.1 Driver Installation

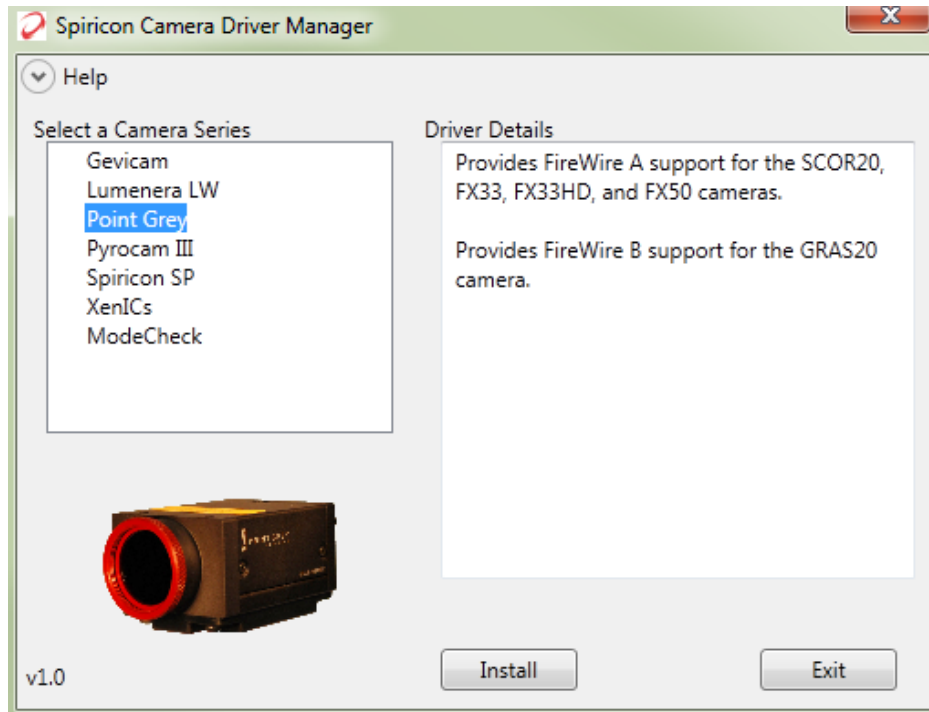
The **Camera Driver Manager** utility is shown below. To properly use this utility the user must know what type of camera has been supplied with their BeamGage system. This is most easily determined by looking at the label supplied on the camera.



To install the correct driver click on the **Camera Series** that most closely matches the manufacturer or model number of the camera.

Note: If you are installing BeamGage on an offline PC and do not intend to connect a camera click **Exit**.

Example: If the camera label indicates a Point Grey GRAS20 1394B type, click on the Point Grey series as shown below. The **Driver Details** window will display the various types of Point Grey cameras supported in BeamGage.



Click the **Install** button to load the drivers needed for the Point Grey cameras.

In the case of FireWire 1394A/B camera products, Spiricon will have also supplied an appropriate PCI-Express interface card and cables. The driver that is being installed above will attach itself to the supplied FireWire card, and most other FireWire interface products already installed in the PC.

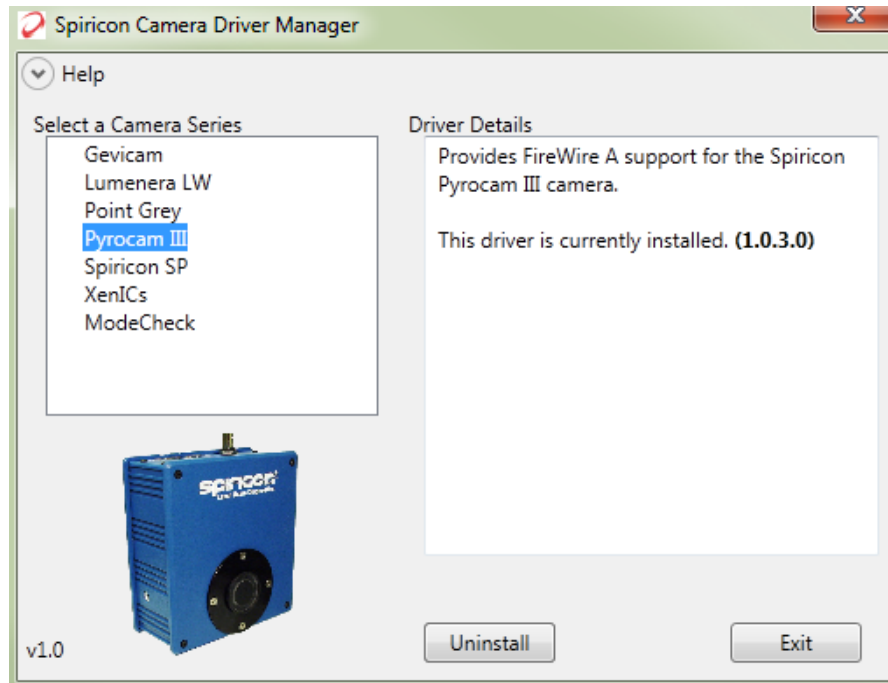
Note: For FireWire interfaces, the selected driver will attach itself to all available FireWire interface hardware installed in the PC. If there is a conflict and other drivers are also needed for other 3rd party interfaces, then the user must use the Windows Device Manager tools to further refine which drive is attached to which interface hardware.

Because of the above "all or nothing" limitation, Spiricon recommends that various FireWire technologies should not be comingled on the same PC platform. While it can be done, the user must be knowledgeable on how to correctly assign drivers to

interface hardware, since the traditional Plug-and-Play feature is poorly supported by Microsoft when it comes to FireWire drivers.

3.2 Driver Uninstall

Once a driver is installed this same utility can be used to uninstall it. Below is what a selection will look like if a Pyrocam III's 1394A driver has already been installed. To remove this driver click on the **Uninstall** button.



3.3 FireWire Driver Conflicts

As indicated above FireWire driver conflicts can pose a problem if changing between cameras that rely on different FireWire drivers. This is a problem for Point Grey vs Pyrocam III driver installations. Spiricon recommends that only one of these two drivers be installed at one time. This utility makes it easy to install and uninstall the appropriate driver as needed.

3.4 Running the Driver Manager Utility

This utility is installed in the **Spiricon | Driver Manager** start folder as the **Camera Driver Manager** application. Before running it you should make sure that any impacted camera hardware is disconnected from the PC and BeamGage is closed.

3.5 USB Camera Drivers

Many USB cameras do not require a special driver and are compatible with the standard Plug-and-Play drivers supplied with Windows. When special USB drivers are required they can often coexist and not interfere with each other. This is the case for the SP, the Lumenera, and the XenICs camera drivers.

The XenICs camera driver is not installed or uninstalled with this utility, but must be installed from a CD supplied with the camera. Special instructions are provided with that camera.

3.5 Gevicam Gig-E Camera Driver

The Gevicam Gig-E driver setup is a special installation that is applied to the Gig-E NIC interface card supplied with the camera. Special instructions are provided with that camera.

4.0 ModeCheck Camera Driver

Spiricon's ModeCheck software is supplied on a DVD medium. The ModeCheck installer will automatically install the appropriate driver and not launch the Driver Manager utility. However the Driver Manager utility is installed as described above, but is needed only to update or reinstall the driver if for some reason it becomes corrupted.

5.0 Installing an M²-200s System

M²-200s systems are bundled with BeamGage. While installing the M² software from the supplied DVD the programs will install in the following order:

1. BeamGage Standard Edition
2. The Driver Manager, which will open for driver selection and installation
3. M² software
4. The M² Utility

An M²-200s system is shipped with an optical train and a GRAS20 camera. However some manual M² systems are sold without an optical train and are intended to operate using a Pyrocam III. For either system the software installation proceeds in the same manner.

When the Driver Manager opens the user must select the Point Grey driver if the M²-200s product was purchased with an optical train and a GRAS20 camera.

If a manual M² system is to be employed with a Pyrocam III, then the Pyrocam III camera driver should be selected and installed.

Operation of the M² software is different for an optical train GRAS20 camera based system, than it is for a manual Pyrocam III based system. Refer to the M²-200s User Guide supplied with the M² software installation; and if applicable, to the Pyrocam III Operators Manual for its operating details.