

MotionGrabber update and news, June 2009

In this issue:

- ◆ **New software release**
- ◆ **Motion detection module**
- ◆ **Computer trigger for Prosilica cameras**
- ◆ **Improved auto-exposure and auto-gain**
- ◆ **Zoom keyboard shortcuts**
- ◆ **Wireless trigger devices.**



New software release

Version 2.7 of the software, released 8 May 2009 has a number of important improvements to the functionality of the Motiongrabber system. Upgrades are free of charge for all registered users of the software. If you have not yet done so, register your copy using the form that came with the original package.

To download the new version, click Help>Check for updates, download and run the file Setup.exe.

If you are using a Prosilica GigE camera, download and install release 1.20 of the Prosilica GigE viewer, which can be found at the Prosilica web page: [Prosilica SDK revision 1.20](http://www.prosilica.com/Products/SDK/revision_1.20)

Motion Detection module

The motion detection module makes it possible to trigger in response to grey level changes in the video images. This feature, which is found in some high-end surveillance cameras, is now available for all the cameras supported by the software, including the high speed and the high resolution cameras.

Motion detection trigger is useful to control recording in situations where it is not possible or not desirable to use an external sensor to generate a trigger signal.

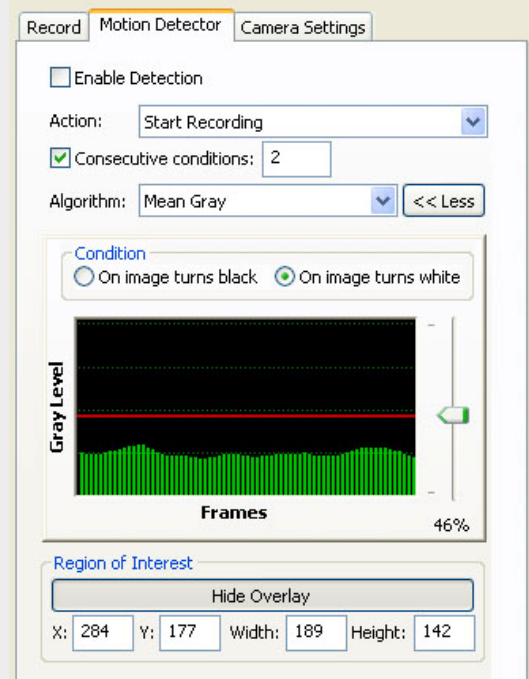
Motion detection triggers can be programmed to start or stop a recording or to mark a specific frame in the video stream so it can easily be found afterwards.

There are two motion detection modes, both operating in a user-defined rectangular region of the image.

The first measures the mean gray value inside the region, and issues a trigger when this value crosses a preset threshold. This algorithm can be used to detect motion of objects into a region where they are not supposed to be, or to detect changes in scene illumination.

The second algorithm detects changes in grey level between each pixel in the current image and corresponding pixels in a reference image. This can be used to detect movements of objects that stay inside the selected region, e.g. rotating objects. By measuring the difference between consecutive images, variations in overall scene illumination can be ignored.

For more information about the Motion Detection module, see the flyer [Motion Detection Module](#). The module is also available as an option for the multi-camera version of software, Streampix4.



Computer trigger for Prosilica GigE cameras

This feature allows using the trigger connector on the back of the Prosilica GigE cameras either as an external frame sync input as in earlier versions, or alternatively as a computer trigger input. Computer trigger is the term for trigger inputs that start or stop video recording or attach a mark to a specific frame.

Computer trigger normally requires a separate USB IO box or a PCI IO card. With this new option, recordings can now be started and stopped without the USB IO box. The camera IO only provides 1 input, while the USB IO box provides 24 inputs or outputs.



Improved auto-exposure and auto-gain

The Prosilica camera has built-in functions for auto-adjust of analogue gain and exposure time to get properly illuminated images. This function is very useful when you make recordings under varying lighting conditions, e.g. outdoor recordings on a partly cloudy day. In previous versions, there was no control over the changes in gain or exposure time, so there was a risk that the frame rate would change or the image show excessive noise under bad lighting conditions.

With the new software, you can define upper and lower limits of gain and exposure time. Whatever the illumination conditions, gain and exposure will stay within these limits, eliminating the risk of unintended side effects.

Zoom keyboard shortcuts

Among the smaller changes in version 2.7 are new zoom shortcuts for laptop users (Ctrl+ for zoom in, Ctrl- for zoom out), not requiring the numeric keyboard.

Wireless trigger devices.

Two new devices are now available for wireless triggering of the Motiongrabber system:

Wireless trigger with 30 m range

This is a remote-control style wireless trigger device with four programmable buttons, which can be used to control recording. The receiver plugs into a USB port and a driver allows you to assign specific keyboard keys to each of the four programmable buttons, for example Recording Toggle, playback start/stop, playback single step or Save file. Wireless control of the software is useful for example in dirty or sterile environments where the PC must be placed outside the room where the camera is placed.



Radio Trigger with 100m range

This is a wireless trigger set consisting of a transmitter and a receiver with a range outdoors of over 100 m. The transmitter is activated either by a manual pushbutton, or by an external switch. The receiver is connected to the PC by an IO device, either the USB IO box or the camera computer trigger input. The radio trigger is a single-channel device, functioning like a long-range wireless extension cable between the PC and the trigger switch.

