

pixelfly plug-in for ImageJ

Version 1.06

User's Guide

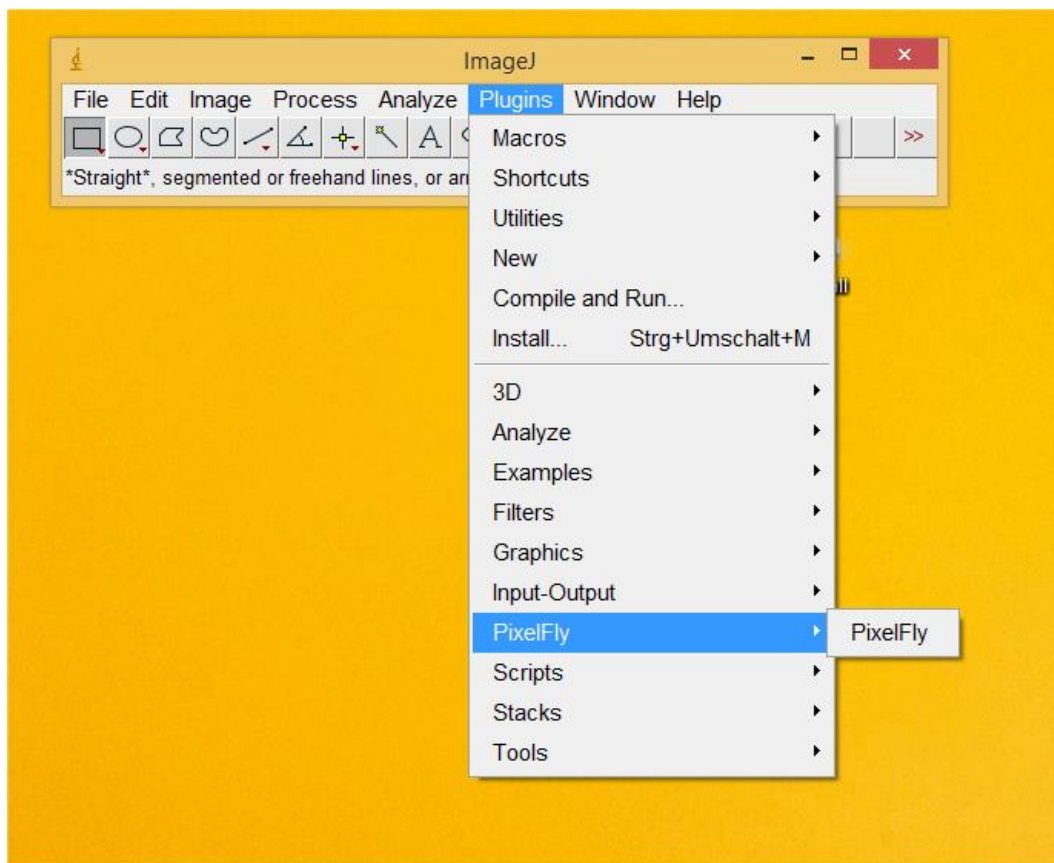
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Installation

This plug-in requires the installation of PixelFly device driver version 1.10 or later. Earlier versions are not supported. Assuming you have PixelFly driver and ImageJ successfully installed on your computer. To install PixelFly plugin, you need to go through the following steps:

- 1) Place PixelFlyNative.dll and pcocnv.dll under \ImageJ\ directory
- 2) Put folder of PixelFly under \ImageJ \plugins\

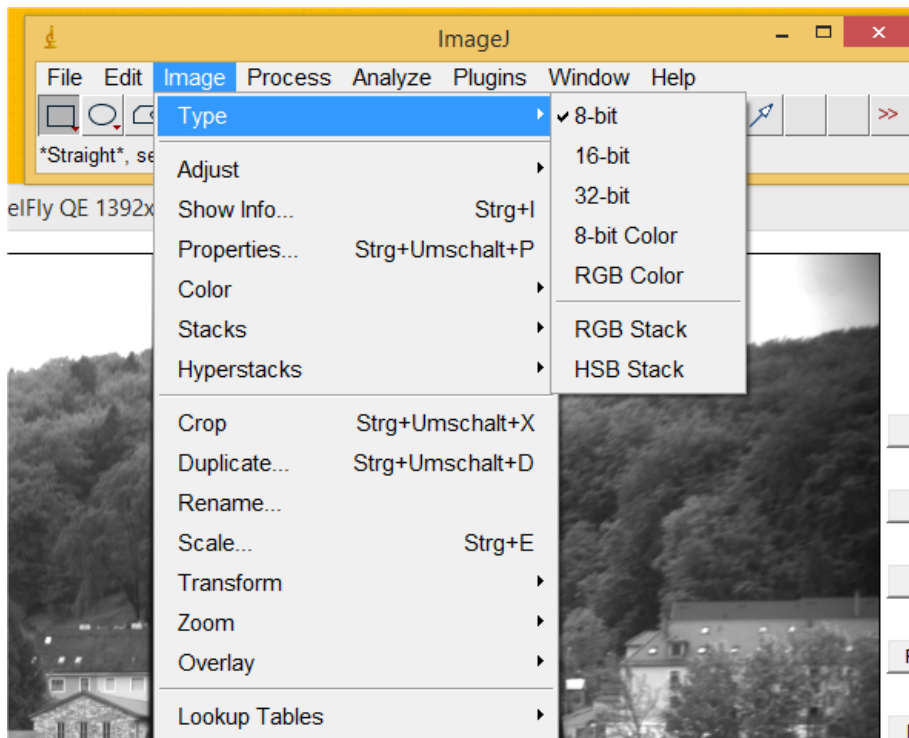
You are ready to load the plug-in from ImageJ. PixelFly is listed under “Plugins”.



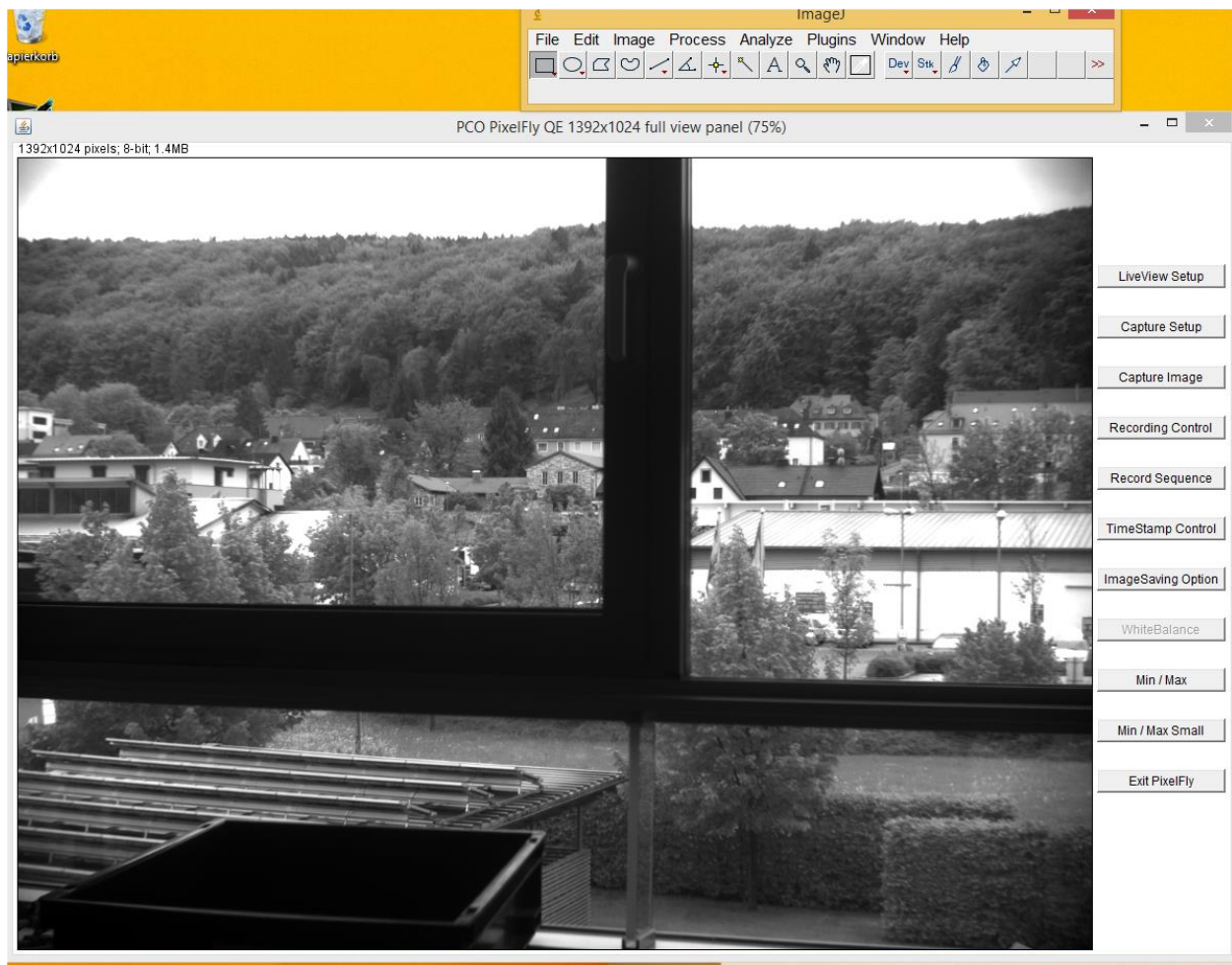
Features:

- 1) Video and Async operating modes
- 2) 8bit, 12 bit or 24 bit color (in 4 channels of RGB0)
- 3) External trigger
- 4) Stopwatch timer or calendar time stamping
- 5) Electronic gain
- 6) Support all PixelFly cameras

Image types can be switched live. Select a different type in the ImageJ menu.



Different image types bring up different setup interfaces, the following displays are different examples of a colored and b/w camera. For those mono-chrome cameras, the setup interfaces are even simpler to use. When started, PixelFly runs live view with default exposure 30 ms. The brightness and contrast of display is automatically adjusted according to the minimum and maximum pixel values of the current image.

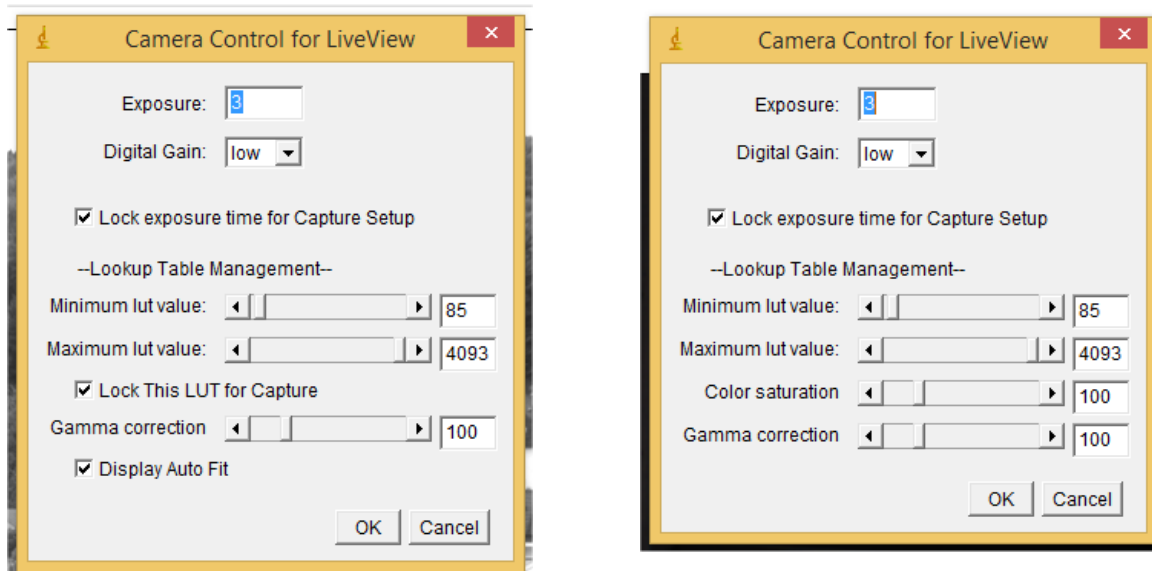


Controls:

Each setup button is followed by an execution button. A new setting is not applied until the execution is called. The functions of these buttons are described in the following.

LiveView Setup:

Live view is run with 1x1 binning and Video operation mode; user has control over exposure and gain. You can lock the exposure time for capture by checking its box, where the exposure for single capture is automatically set to the same value. “Display Auto Fit” is used to adjust the lookup from pixel to display, so that the image is shown at its best clarity; it only affects display, not the image data.



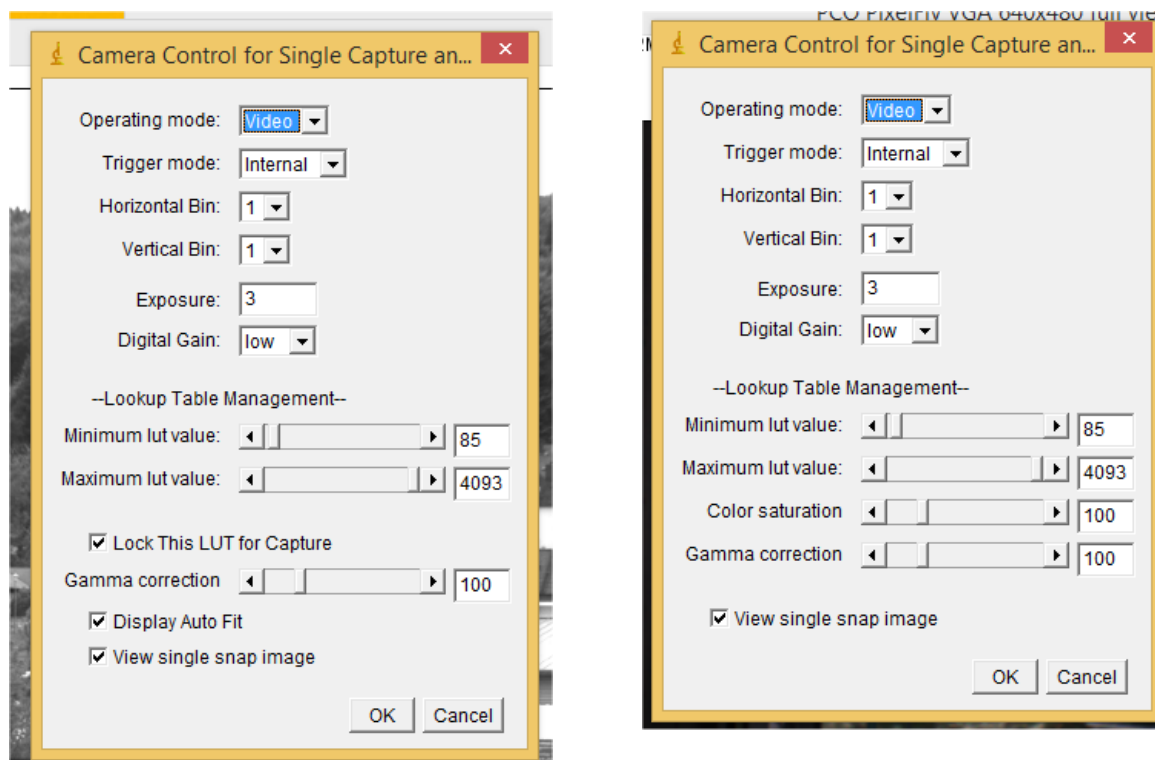
Color balance control gives user the ability to white balance images. If you place mouse pointer to a spot of white reference, the color components of the pixel are displayed on the status bar. Click ‘Whitebalance’ in order to get a white balanced image.

Start LiveView

Activate Live View if it is currently stopped by single capture or recording Operation.

Capture Setup

This panel controls the camera setting for Capture Image and Record Sequence. Please refer to PixelFly operation manual or SDK for the definition of exposure time under each operating mode. In video mode, the unit of input is in milliseconds (1 to 10000 ms) while in async mode, the input is in units of microseconds (10 to 10000 μ s).



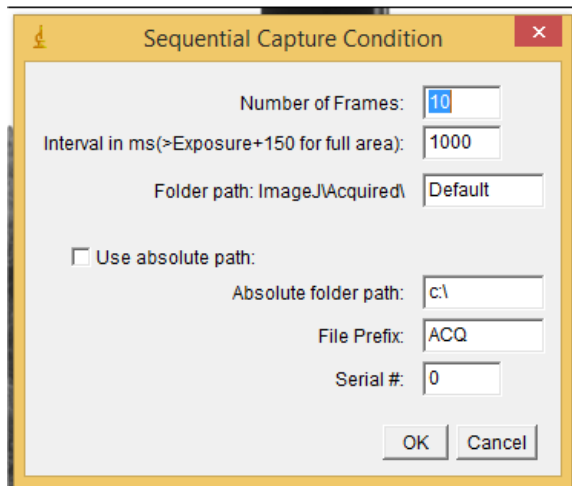
Please note that color interpretation is not defined for images with binning other than 1x1.

Capture Image:

Capture a single image using the Capture Setup, the image is displayed in a separate panel. Calling "Capture image" or "Record sequence" terminates live view if running, and sets up the coc for capture state if necessary. This state remains valid until new setup is required or "live view" is called.

Recording Control

Sets the recording pace and file name serials, refer to ImageSavingOptions for file naming.



Time Stamp Control

To insert a timestamp of your choice in your image.

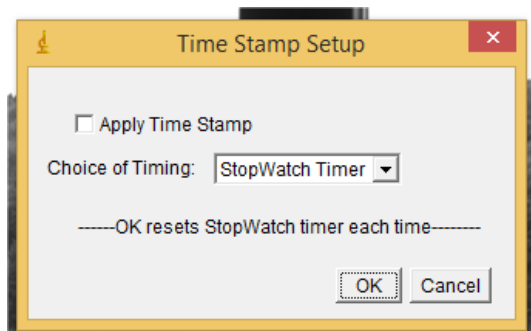
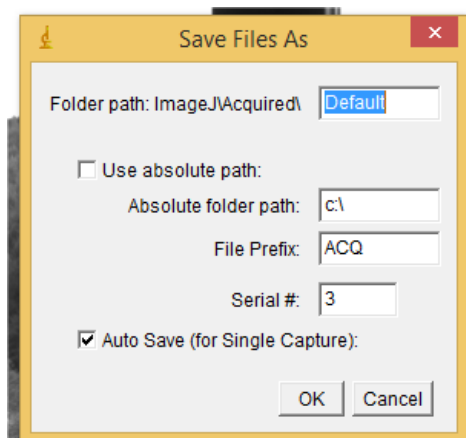


Image SavingOptions

Choose the path and file name for single image saving, a file is such named as ACQ0001.TIF for the example, with a prefix and 4 digits. The Serial # specifies the starting number. The number is incremented with each saved image.





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