



Pixelink Capture

for Windows

POWERFUL MULTI-CAMERA IMAGE CAPTURE SOFTWARE

Pixelink Capture is a real-time, interactive, multi-camera software application compatible with all Pixelink PL-D cameras. With a built-in autofocus feature, Pixelink Capture offers tremendous flexibility and power allowing the ability to configure and test multi-camera vision applications.

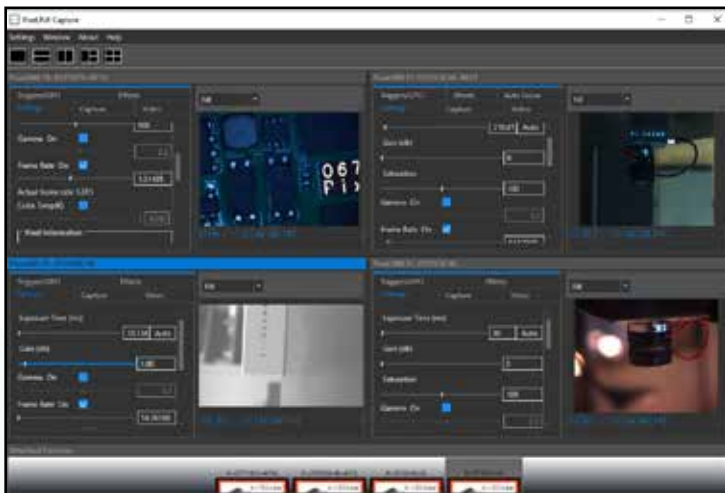
The multi-window environment includes a preview window, a configuration window, and a real-time graphical histogram. Users have the ability to adjust image size, color and exposure interactively through an easy-to-use control interface prior to image or video clip capture. The camera begins streaming at the point the application is launched.

Important Features

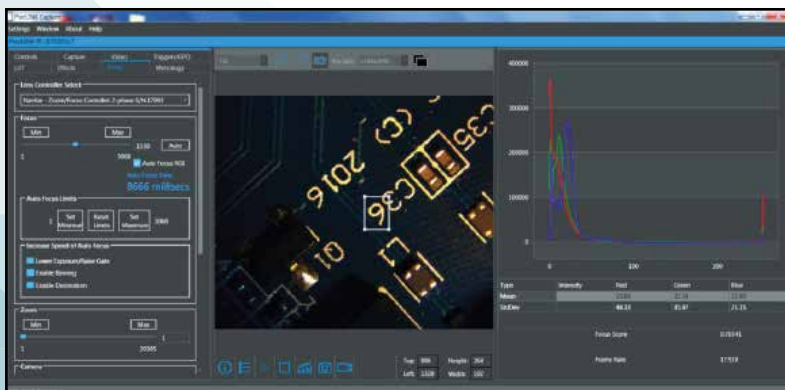
- Real-time video streaming
- Built-in autofocus application
- Resizable region of interest (ROI)
- Customizable multi-camera layout
- Image and video capture
- Trigger and GPO controls
- Supports Windows 7 and above

Enhanced Functionality

- Integrated lens control of zoom and focus for Navitar motorized lenses
- Accurate autofocus option for Navitar fine focus mechanisms
- Advanced metrology tools for on screen measurement of length, area and pixel location



Four Camera Layout



Integrated Lens Control of Focus and Zoom



■ Pixelink Capture

Pixelink Capture is a powerful software tool designed to allow users to stream real-time, high quality video that can be viewed in a preview window. Image size, color and exposure can be adjusted interactively through an easy-to-use control interface prior to image or video clip capture.

For the advanced user, Pixelink Capture offers options of more complex image enhancements for exposure control, filtering and frame-by-frame property changes, all viewable in the preview window prior to capture.

Pixelink Capture is a multi-camera application that can configure “n” number of cameras and the user can view up to four cameras simultaneously. In order to control all four cameras separately, Pixelink Capture offers a unique multi-camera layout view, which can be customized and organized under the same window.

■ Pixelink Capture User interface

Pixelink Capture's user interface has been developed to give it the look and feel of a modern Windows application with drag and drop capabilities or window customization. Being a multi camera application, Pixelink Capture offers a high degree of flexibility with Window organization. Each individual camera has a Settings, Preview and Histogram panel of their own.

■ Layout

Pixelink Capture offers 5 different layouts. The Single View, which is the default view of Pixelink Capture, the 2 camera Horizontal View, the 2 camera Vertical View, the 1-2 Stack View for 3 cameras and the 4 camera view.

■ Exposure time (ms)

The Exposure Time slider can be dragged to the desired exposure time setting or the user can enter the setting in the text box provided or choose the auto button and Pixelink Capture will calculate an appropriate exposure time.

■ Gain (dB)

The Gain slider can be dragged to the desired gain setting, or the user can enter the setting in the text box provided.

■ Gamma

The Gamma setting controls the contrast in the image by translating pixel values according to a logarithmic curve.

■ Frame Rate

The Frame Rate setting, in frames per second (fps), allows the user to adjust the frame rate of the image.

■ Saturation (Color cameras only)

The Saturation slider drags to the desired saturation setting or a value can be entered in the text box provided.

■ White Balance (Color cameras only)

The White Balance setting allows the user to control the individual red, green and blue channel gains, so that a nonstandard color balance can be achieved. The user also has the ability to use the auto White Balance feature.

■ Color Temperature (Color cameras only)

The Color Temperature (K) allows the user to select the required temperature setting in correlation to the light source being used.

■ Pixel Format

The user can choose the appropriate pixel format by selecting the desired setting from the Format drop down menu.

■ Pixel Addressing

The Pixel Addressing feature reduces the number of pixels that are read from the ROI (Region of Interest).

■ Trigger and GPO (General Purpose Output)

This allows for the use of a free running software trigger or hardware trigger or a general purpose input. The General Purpose Output (GPO) ON/OFF is used to activate and deactivate the GPO pins.

■ GPO Mode

Represents the type of signal being generated on the General Purpose Output. (Strobe, Normal, Pulse, Busy, Flash, Input)

■ LUT (Lookup Table)

The Lookup Table (LUT) control provides the user a simple way to manipulate the grey scale image data coming from the camera via a lookup table.

■ Temperature Sensor

The read only Temperature Sensor function allows the user to monitor the temperature of the camera (in degrees Celsius).

■ Autofocus

Pixelink has auto focus liquid lens technology to support OEM's and end users who need help with auto focus applications. Pixelink Capture has a built-in Autofocus application that supports both single point and multiple point auto focus. Pixelink Capture also displays the speed of auto focus, in milliseconds, for each focus cycle.

■ Focus

The Focus slider can be manually controlled by dragging it to the desired point where the user will be able to achieve a satisfactory focus for the camera.

■ Speeding up Auto Focus time

The user has the option to improve the time to auto focus on an object by changing the settings to lower exposure time and enabling binning or decimation.

■ Multiple Focus Points

Pixelink Capture allows the user to set up two different focus points and snap between these two points for a pre-determined duration set by the user.

■ Preview Panel

The Preview Panel displays live images from the camera. As soon as Pixelink Capture starts, the camera connected to the system will start streaming. If there are multiple cameras connected to the system, then one camera from the camera tray will start streaming.

■ Zoom In and Zoom Out

The user can use this function to Zoom in and out on a live image from the camera. The user can also use the scroll wheel to control the zoom while the cursor is over the preview window.

■ Play and Pause

By default, the camera will always be streaming and the Play button will be greyed out. The user is able to use the stop button at any point in time to stop the preview.

■ Histogram

The user is able to see a real-time graphical representation of all the pixel values from the camera.

■ Image Capture

The Image Capture allows the user to capture an image, in BMP, JPEG, TIFF, PSD & RAW formats and save it to a user selected folder.

■ Time Lapse Capture

The Time Lapse Capture allows the user to capture a series of images over a user defined period of time.

■ Preview Image after Capture

Preview Image After Capture automatically displays the image immediately after the capture. The image will be displayed in a default windows image viewer.

■ Video Capture

The Video Capture allows the user to capture a video and save it in AVI or MP4 formats to a user selected folder.

■ ROI (Region of Interest)

The Region of Interest (ROI) is the area of the sensor being viewed at any given time. Pixelink Capture offers the ability to choose and resize a preferred ROI from the full live image preview of the camera.

■ Image Manipulation

Pixelink Capture provides users the ability to flip and rotate images to enhance the inspection process.

■ Effects

The Effects tab allows the user to apply a pre-defined callback on real-time or captured images.

■ Full Screen

Pixelink Capture allows the user to select the Full Screen view option when working in any of the multi-camera view options