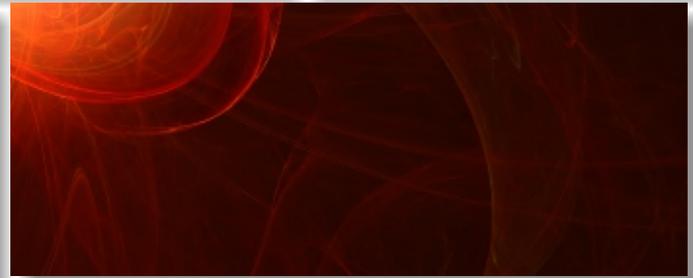
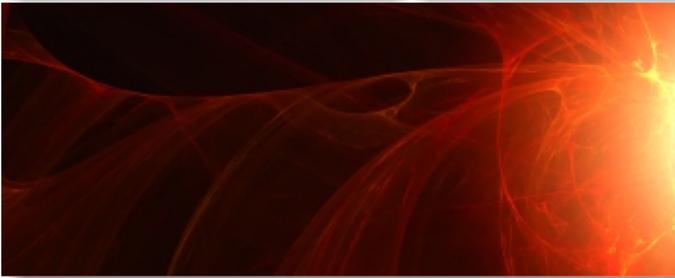
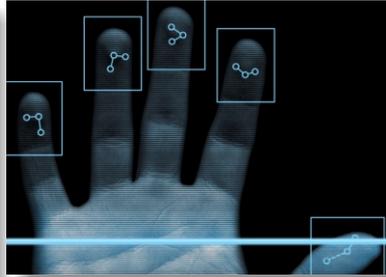




PixelINK® Digital Machine Vision Camera Solutions



**GETTING THE RIGHT CAMERA JUST GOT EASIER**

# PixeLINK® Cameras for Machine Vision Applications

PixeLINK®'s experience in the machine vision industry will assist you with **selecting and integrating** the optimal industrial camera best suited to your application. The industry leading PixeLINK® Software Developers Kit (SDK) streamlines and simplifies the integration of cameras into your machine vision project with one API for all cameras.

Along with our wide range of standard CMOS and CCD cameras, PixeLINK® provides **custom design services** to alter one of our existing cameras, or creating one for your unique requirements. One of the many advantages of choosing PixeLINK to supply you and your business is the flexibility to opportunities in an ever-changing global market. With all the choices that are available to you, we ensure you get that you're getting the camera that will perform, with a **quality** that has been designed to last. We at PixeLINK® pride ourselves on the **quality of our digital cameras**, including the after sales support that you receive with your purchase. The opportunity to provide you with an industry leading camera and software solution for your application would be our pleasure.

## The Choice Is Yours

### Choose Your Sensor

PixeLINK® offers a variety of **CCD** and **CMOS** sensors differing in resolution, size, frame rate with both color and monochrome options.

### Get The Right Interface



- **FireWire** (IEEE 1394A) is a great choice for applications requiring multiple cameras
- **Gigabit Ethernet** provides large file transfer over long distances at faster data rates
- **USB 2.0** is a widely accepted, cost effective, simple interface

### Select Your Configuration

**Straight** or **right-angled** case designs offer you greater flexibility with standard case configurations. Designed for large-volume OEM customers, the PixeLINK® **board level cameras** provide an increased degree of mounting flexibility while maintaining the same feature set and image quality of our enclosed cameras. Processing and interface boards are connected to the sensor board via a 4" (other lengths are available) flat circuit ribbon cable .



PL-E Series



PL-B Series

## Cost Effective CMOS Cameras

PixeLINK® PL-E400 CMOS cameras have been designed to provide quality and versatility at a competitive price point. The PL-E400 cameras are available in 1, 3, and 5 MP resolutions with software triggering. Some suitable MV applications include;

- Biometrics
- Parts Inspection
- Metrology
- Electronics manufacturing and factory automation
- Security & Monitoring

Model	Resolution	Frame Rate (fps)	Pixel Pitch	Sensor	Dynamic Range (dB)
PL-E535 (color)	2592 x 1944	7	2.2 µm	Aptina (Rolling)	60.0 dB
PL-B533 (color)	2048 x 1536	12	3.2 µm	Aptina (Rolling)	60.0 dB
PL-B531(color)	1280 x 1024	60	5.2 µm	Aptina (Rolling)	60.0 dB

## CMOS Machine Vision Cameras

PixeLINK® PL-B700 CMOS cameras offer high speed, low power consumption, superior results in bright light environments and a flexible region of interest. Varying resolutions ranging from XGA to 6.6MP, provide the versatility required for a broad range of machine vision applications. Some suitable MV applications include;

- Automated inspection
- PCB inspection
- Factory automation
- Manufacturing quality control
- Welding Inspection

Model	Resolution	Frame Rate (fps)	Pixel Pitch	Sensor	Dynamic Range (dB)
PL-B781/2	2208 x 3000	5	3.5 µm	Cypress (Rolling)	60.0 dB
PL-B777/8	2592 x 1944	7	2.2 µm	Aptina (Rolling)	60.0 dB
PL-B776	2048 x 1536	12	3.2 µm	Aptina (Rolling)	60.0 dB
PL-B771	1280 x 1024	30	5.2 µm	Aptina (Rolling)	60.0 dB
PL-B761/2	752 x 480	60	6.0 µm	Aptina (Global)	56.7 dB
PL-B741/E/2	1280 x 1024	27	6.7 µm	Cypress (Global)	54.6 dB

## CCD Machine Vision Cameras

PixeLINK® PL-B900 CCD sensor technology cameras are ideal for industrial applications requiring high performance cameras with excellent image sensitivity and perform well in low-light environments. Some suitable MV applications include;

- Automated inspection
- PCB and semiconductor inspection
- Food, beverage and lumber inspection
- Traffic inspection
- Manufacturing quality control
- Metrology

Model	Resolution	Frame Rate	Pixel Pitch	Sony ICX Sensor (ILT)	Dynamic Range (dB)
PL-B958/9	1600 x 1200 - 2MP	15	4.40 µm	274	C 47.5 / M 48.2
PL-B957/6	1392 x 1040 - 1.4MP	15	6.45 µm	285	C 61.7/ M 61.0
PL-B955/4 H	1392 x 1040 - 1.4MP	15	4.65 µm	205	C 59.4 / M 60.0
PL-B955/4	1392 x 1040 - 1.4MP	10	4.65 µm	267	C 60.9 / M 61.9
PL-B953/2	1024 x 768 - XVGA	20	4.65 µm	204	C 60.2 / M 59.7

## Common Applications

Machine Vision applications have a broad range of uses, and the illustrations above only provide a small sample of the available deployments for cameras in digital vision applications. Our goal is to successfully integrate a PixelINK<sup>®</sup> camera into your project.



### Quality Inspection

Monitor for defects in material

Recommended Camera:  
PL-B776



### Packaging and Print

Monitor for print defects and color consistency

Recommended Camera:  
PL-B776



### Traffic & Surveillance

Traffic surveillance and toll collection

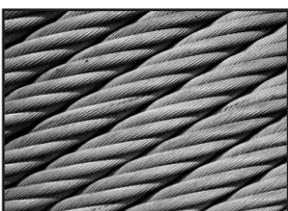
Recommended Camera:  
PL-E530



### PCB and Semicon

Assembly and quality inspection of electronics

Recommended Camera:  
PL-B771



### Strength Testing

Stress testing materials and breaking points

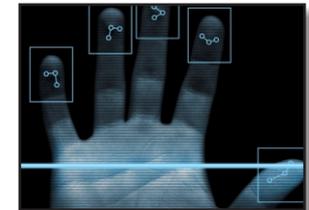
Recommended Camera:  
PL-E530



### Welding Inspection

Ensure consistency in high light level applications

Recommended Camera:  
PL-B741



### Biometrics

Security, access control and identification

Recommended Camera:  
PL-B778



### Pharmaceuticals

Control for packaging and verification of content

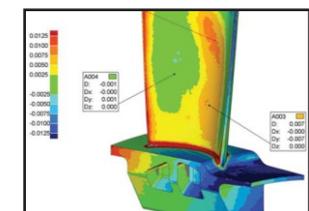
Recommended Camera:  
PL-B950.



### Process Control

Minimize waste and reduce errors

Recommended Camera:  
PL-B781



### Metrology

Measure material and objects for consistency

Recommended Camera:  
PL-B741

# Common API for All Cameras

## Simple Integration

The PixelINK® Software Developers Kit (SDK) is an industry-leading software package designed to streamline and simplify the process of integrating cameras into machine vision applications. Through the use of a single API, users can develop an application that can use any PixelINK® camera – regardless of interface.

The PixelINK® SDK offers:

- A powerful, simple interface
- A common command set for all cameras
- Fast access to streaming video
- Trigger and I/O controls (HW and SW)
- Capture and save images and AVI video clips
- Full source code

## PixelINK® Capture OEM

Built on the PixelINK® API, PixelINK® Capture OEM is included with the SDK. This sample application can control all camera features and functions and can operate as a camera configuration utility. PixelINK® Capture OEM provides integrators with examples of how a PixelINK® camera can be integrated into a complex application. PixelINK® Capture OEM features an API Function Call Log that displays the sequence of API calls and parameters used each time a function within its GUI is accessed. This helps guide developers understand and create their own application.

The PixelINK® SDK has full source code for the PixelINK® Capture OEM application, code samples, LabVIEW wrappers and complete documentation.

The SDK supports:

- Visual C/C++
- .NET
- Visual Basic

The application offers simple camera controls of basic camera features and advanced controls of special features that include:

- Look-up tables
- Region of interest selection
- Flat-field calibration activation
- Advanced image & video file capture

PixelINK® Capture OEM is available as a free download from the PixelINK® web site.

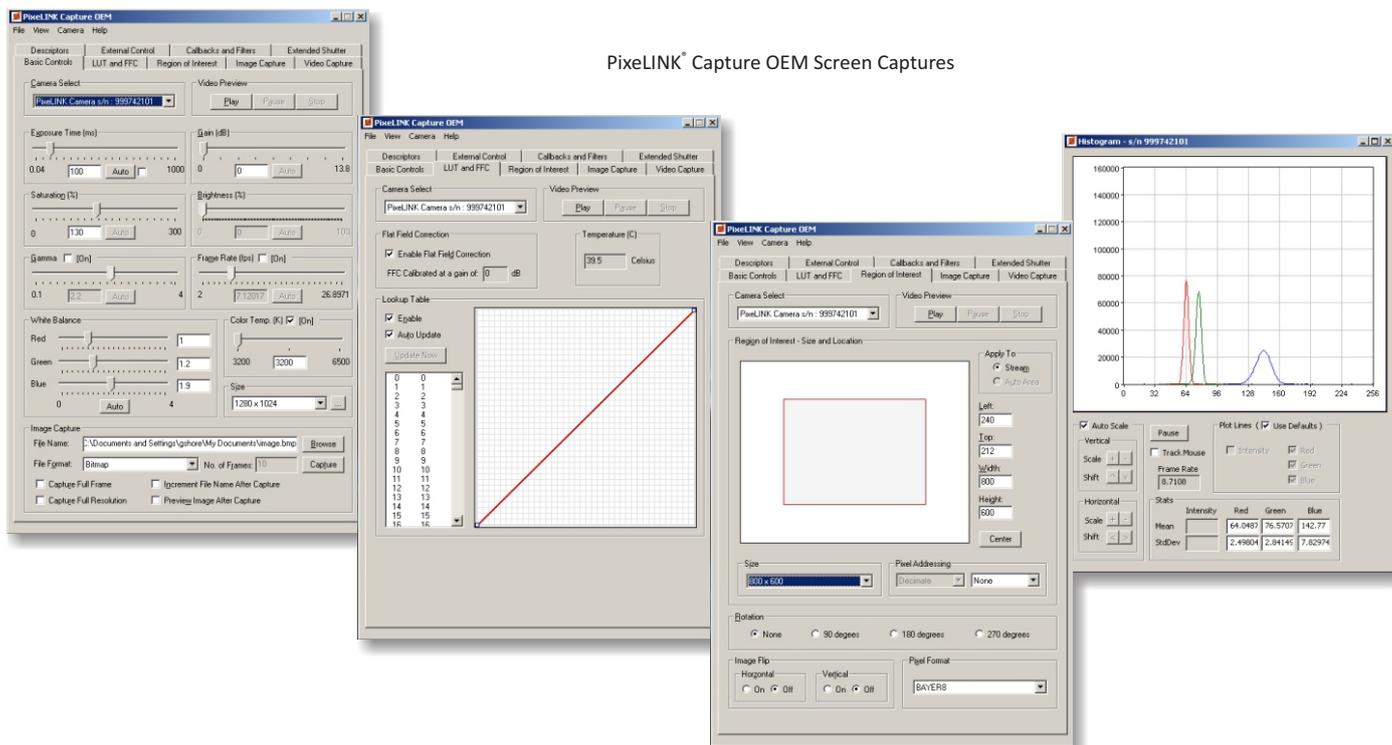
## Technical Support

Technical support is available for all PixelINK® SDK users. These services include access to the advanced support area of the PixelINK® website, free software upgrades and personal assistance.

## Supported Operating Systems:

- Windows XP (32 & 64 bit)
- Windows Vista (32 & 64 bit)
- Windows 7 (32 & 64 bit)
- Macintosh (FireWire Only through DCAM)

PixelINK® Capture OEM Screen Captures





## About PixelINK®

PixelINK® is a global provider of industrial cameras for the machine vision and life sciences markets. Since 1992, PixelINK® has designed, manufactured and supported the hardware and software requirements of machine vision, OEM and microscopy customers around the world. Offering unmatched customer support and service, PixelINK® designs and manufactures reliable industrial cameras for any machine vision or life science project.

Based in Ottawa, Canada, PixelINK® combines reliable camera hardware with industry-leading software to help OEMs and integrators address new and complex machine vision projects.

Our mission is to become the leading provider of digital cameras to the machine vision market. To accomplish these goals, we will offer a range of high-quality, reliable industrial cameras at an affordable price while providing unmatched customer service and support.

## Technical Support

We offer unparalleled technical support and related services to help customers get their industrial imaging projects up and running as quickly as possible.

### PixelINK® - Canada

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Fax: 613.247.1211

e-mail: sales@pixelink.com



Proudly Canadian



For a full detailed line of PixelINK® cameras or to speak to us about your unique requirements please visit us at:

**[WWW.PIXELINK.COM](http://WWW.PIXELINK.COM)**