



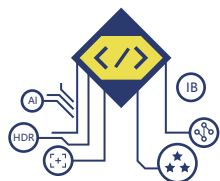
LPV

Leaper Vision Toolkit

Self-developed underlying kernel code for high-level applications

Completely self-developed by LEAPER, LPV is a comprehensive vision toolkit specifically for advanced vision system developers. It helps user build the widest range of machine vision applications with ultimate flexibility, and becoming a powerful "engine" for product R&D and project implementation.

Efficient and High-precision Algorithm Module



The HDR conserve an extensive range of image details; Patterns matching expedite the identification of massive targets.

Learn more at Page 2

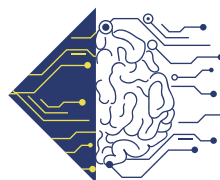
Ultimate Flexibility



LPV is capable to connect to IntelliBlink™(IB) seamlessly, helps you to make use of the easy-built IB tasks.

Learn more at Page 2

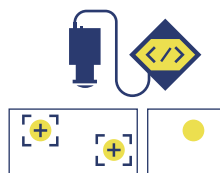
Powerful AI



IntelliBlink™-AI (IB-AI) platform opens up a new world of possibilities to conquer industrial testing difficulties.

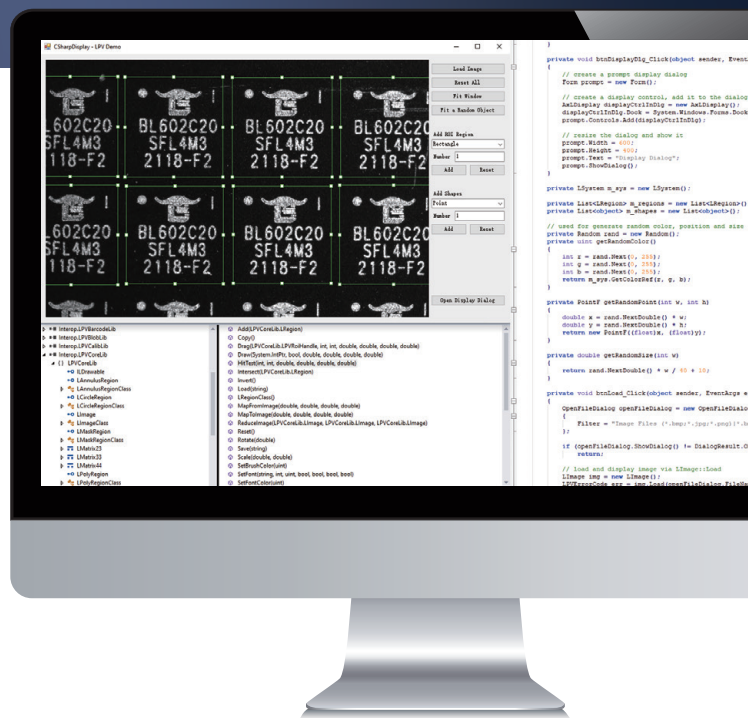
Learn more at Page 2

One-step Calibration



The Combination of the patent-authorized distributed ChArUco board and various versatile calibration methods dramatically extends application scenarios.

Learn more at Page 3

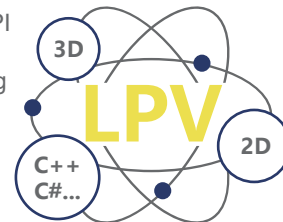


Full-featured tool library for a wide range of applications

High-performance library of Leaper vision toolkit covers over 100+ 2D modules and 3D modules, etc. The interfaces of the tool library are highly flexible and easy-to-use, allowing users to mix and match different interfaces at will, independently select algorithm modules and customize algorithm processes. Currently, LPV SDK has been widely applied in solar, laser processing, semiconductors, film, 3C electronics, automotive and other fields.

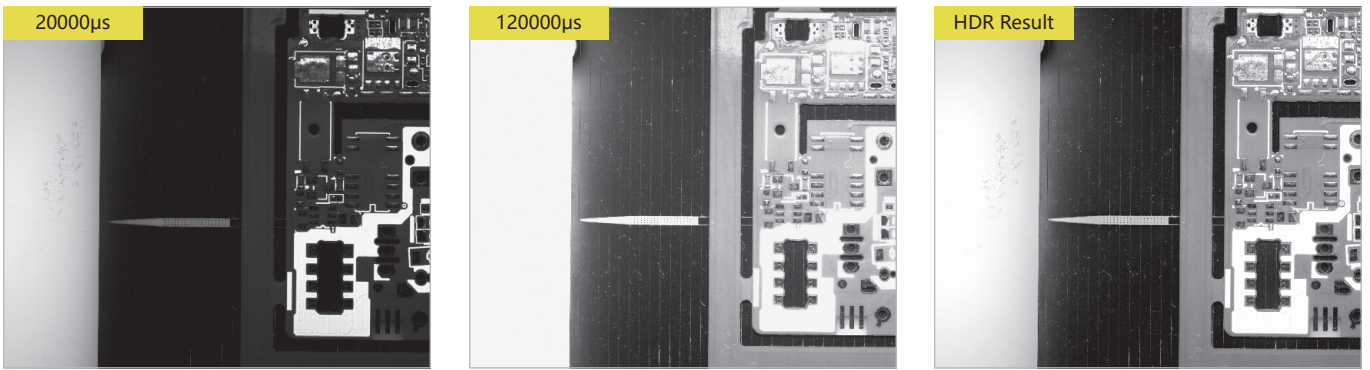
Performance Optimization

Efficient and simplified C # API (supporting .NET programming) and C++API (supporting MFC and Qt), enabling multilingual and multi-compiler shared unified algorithm library based on COM technology. Cutting-edge design fully stretches the performance of multi-core processors and accelerates instruction set for Intel CPUs.



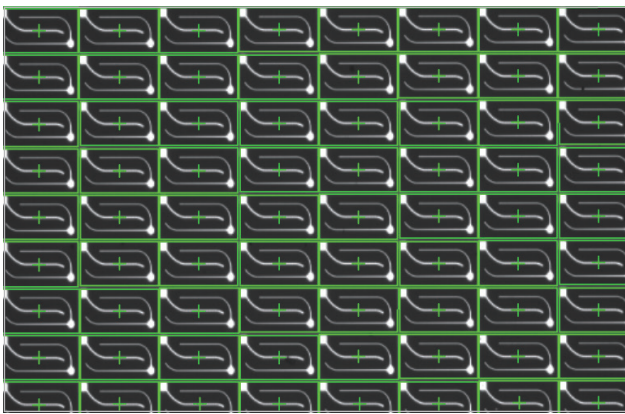
Basics IpvCore	Geometry IpvGeom	Geometry (Advanced) IpvGeomX	Image Process IpvImgProc
Feature Locating IpvLocate	Feature Locating (Advanced) IpvLocateX	Pattern Matching IpvPat	Blob Analysis IpvBlob
Gauging IpvGauge	Camera Calibration IpvCalib	Barcode Inspection IpvBarcode	Math & Data Analysis IpvMath
Machine Learning IpvML	Display Control IpvDisplay	Connect to IntelliBlink IpvIB	...

HDR



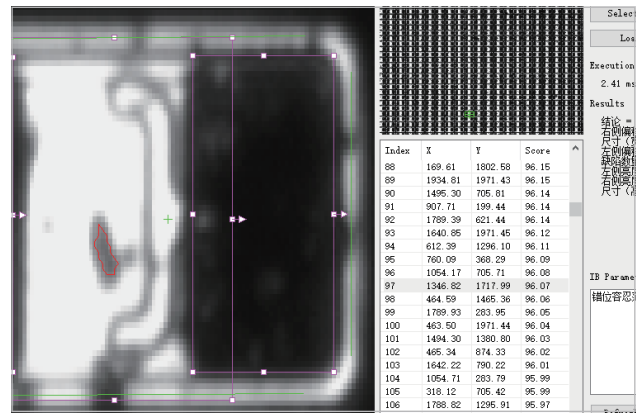
Integrate multi-frame images under different exposures into one frame while retaining all details of regions with varied brightness.

Patterns



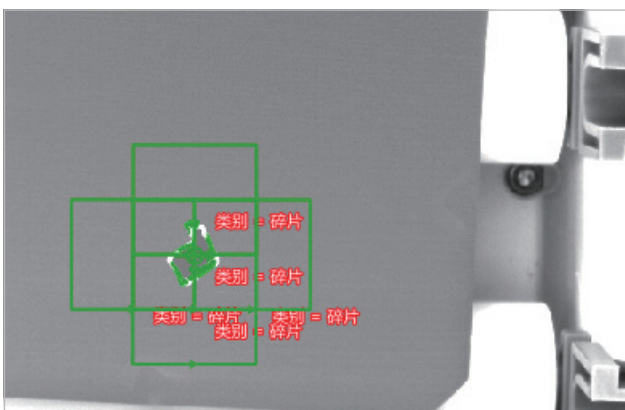
High-speed and high-precision recognition & positioning of thousands of targets in a single field of vision, with a repetition accuracy of up to 0.1 pixels.

IB Service



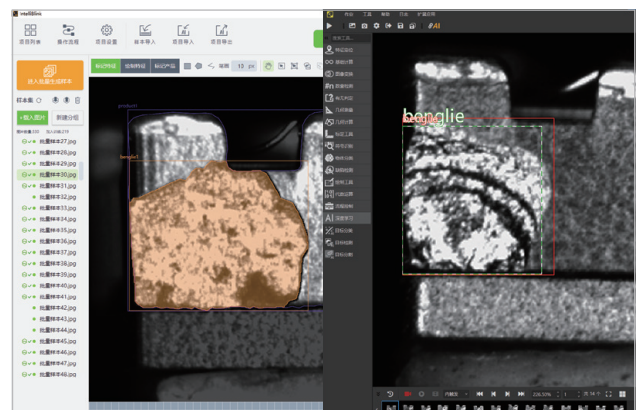
LPV seamlessly connects to low code visual development platform - IntelliBlink™(IB), empowering users to directly invoke machine vision solutions developed on IB, significantly reducing the amount of code.

Machine Learning



The classifier based on a small-sample dataset takes only one minute to train, no need of GPU acceleration.

Deep Learning

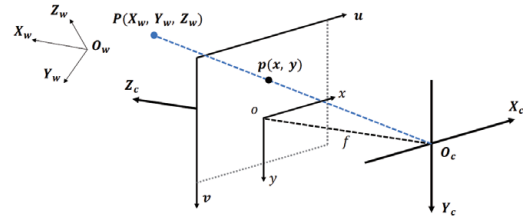


LEAPER's patented deep learning module makes it possible to generate realistic, massive random samples with only one sample, significantly reducing the cost of collecting rare samples, and breaking through the industry's challenge in small sample training.

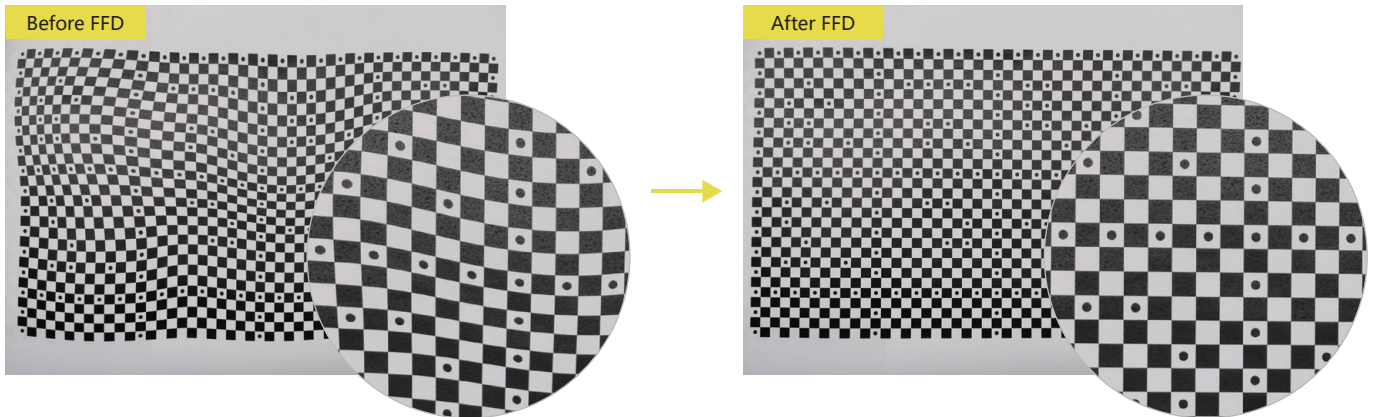
Calibration

The LPV SDK has diverse high-precision calibration methods for different scenarios, laying foundation for solving various complex visual application challenges.

LEAPER's patented distributed Charuco board offers a evidently simpler method of realizing multi-camera one-step calibration.

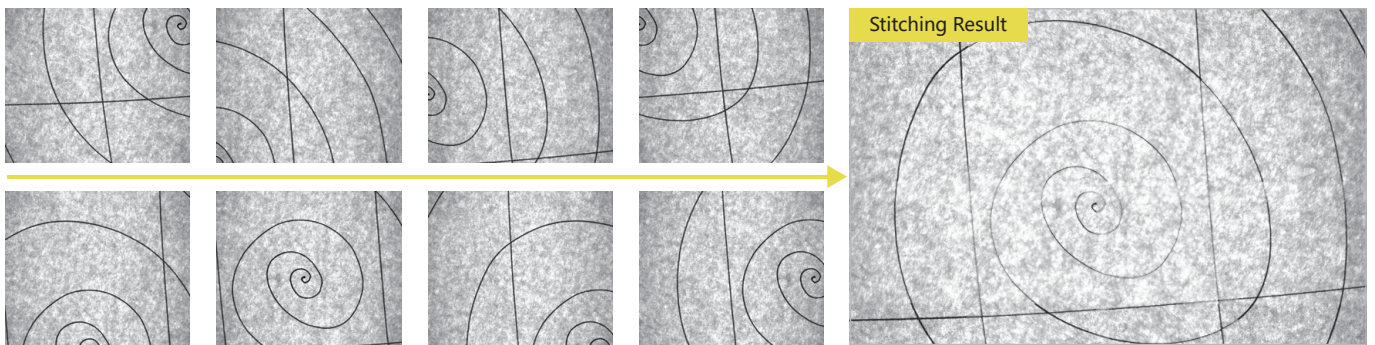


FFD Camera Model



The new FFD calibration algorithm perfectly against all distorted correction scenarios in intricate multi-mirror optical system.

Image Stitching



Through joint calibration, several images can be accurately spliced into one, addressing the challenges in high-precision positioning and measurement for large field of view in a cost-effective manner.



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LPV Website



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