

C/C++ machine vision tool library for OEMs

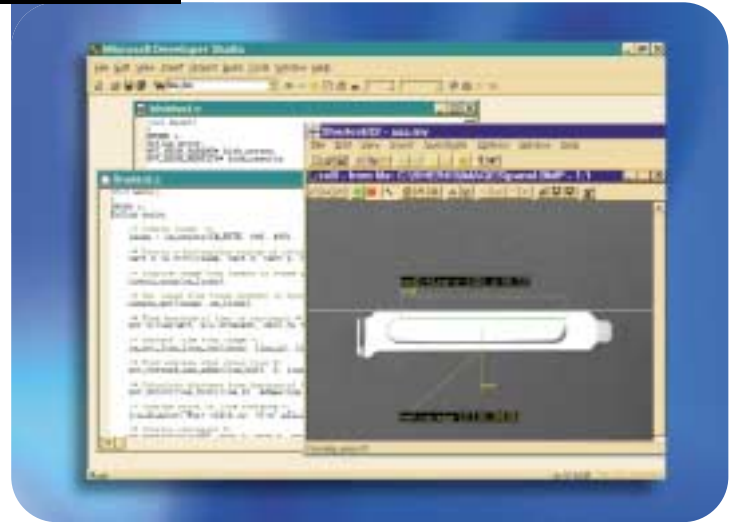
Benefits

- Lets developers focus on their specific competitive issues while providing speed and accuracy
- Designed to fully exploit Intel MMX™ technology and advanced optimization techniques for leading edge performance
- Supports any vendors' frame grabbers that deliver 8- or 16-bit data to memory

Overview

MVTools® software, the core vision algorithm library within Sherlock™, is a complete C/C++ library of highly robust gray-scale machine vision tools. Unique to MVTools is EdgeCrawler, a new geometric pattern-finding tool which extracts and reports contour points in subpixel accuracy. Some additional algorithms available are blob, morphology, point processing, convolution, Fourier transform, non-linear area processing, geometric transformation, color image processing, camera and display abstractions, gray-scale Search, optional SMART Search™, SMART OCR & SMART Matrix, and so much more for automation professionals developing and deploying high-performance machine vision within high-volume OEM products.

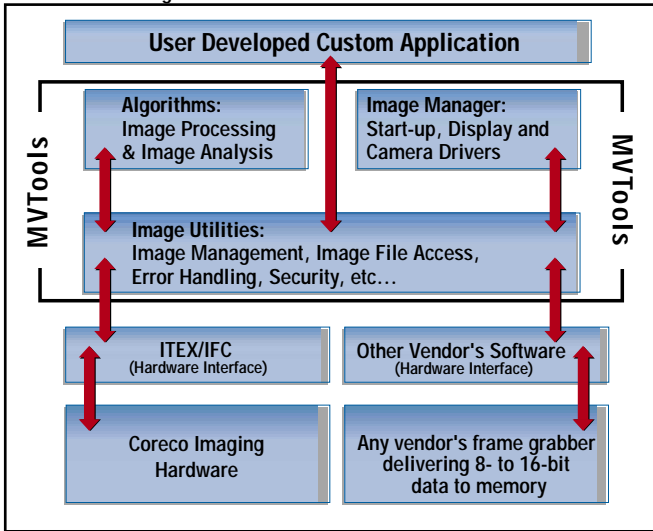
Designed for extreme speed, accuracy, and ease-of-use, MVTools offers the most comprehensive set of robust vision tools that speeds time-to-market for OEMs, system integrators, and automated machine builders. A hardware independent package, MVTools now supports any vendors' frame grabbers that deliver 8 or 16-bit data to memory.



Once you have proven your application's performance from within MVTools' development environment Sherlock, and are prepared to deploy your application, several options are available to the OEM or system integrator. For OEMs, who are commonly concerned with embedding the most reliable and cost-effective solution, MVTools C/C++ library or DLLs allow OEMs to write their own VisualBasic or Visual C++ front ends to access MVTools machine vision algorithms. The economical MVTools run-time license enables OEMs to minimize their total machine vision hardware and software costs and deliver the most cost-effective solution.

Alternatively, for OEMs who would prefer to program vision tasks via OCX, users can choose to run the Sherlock application in server mode and communicate with the vision application using a VisualBasic or Visual C++ front end.





can be separated into two categories; Filter Functions and Measurement Functions.

Filter Functions

- Threshold
- Image Mathematics
- Geometric
- Projection and Moments
- First and Second Differences
- Convolution
- Morphological
- Image Averaging
- Array Manipulation
- Labeling
- Linked list
- Fourier Transform
- Color Processing
- Contour Extraction

MVTools Components

- Library, DLL & Header Files for Algorithms, Image Utilities and Imager for Win95/98 or WinNT 4.0/2000
- MVTools examples in source and executable form: (5) "C", (2) "C++", and (1) Visual Basic examples
- On-line and printed user manual
- Camera Configurator® (hardware set-up utility)
- Hardware driver level functions and API
- Source code for Imager
- Optional Dongle (sold separately) for use with other vendors' frame grabbers

Measurement Functions

- Centroid
- Measurement and Geometry
- Locate Extrema
- Wave Analysis
- Lead Analysis
- Edge Detection and Analysis
- Coordinate Transform
- Thread
- Image Generation
- Blob (connectivity) Analysis
- Protrude
- Point Operations
- Statistical
- Alignment
- Pattern search
- SMART 360
- Optional SMART Search (sold separately)
- Barcodes:
 - 2D Matrix
 - BC-412
 - ECC 200
 - ITF
 - UPC A
 - BC39

Operating Systems and Hardware

MVTools runs on Microsoft Win95/98 or WinNT 4.0/2000. If your computer has MMX technology, MVTools will automatically use it to greatly increase the speed of operations such as image subtraction for "gold-ten template" defect detection.

This section lists all MVTools, Image Utility, and Image Manager functions by groups. Individual function descriptions are found in each section.

MVTools Core Functions

These functions represent the basic MVTools image processing and analysis operations. These functions

To learn more about MVTools, read the complete data sheet on our website at www.imaging.com/mvtools