SCORPION VISION SOFTWARE®

SCORPION VISIONX
CREATES THE MOST ADVANCED, ACCURATE AND RELIABLE
2D AND 3D VISION SOLUTIONS

Scorpion VisionX is the best OEM solution for Scorpion Vision Software®.

Scorpion VisionX is designed for OEMs and System Integrators who need to provide advanced and robust machine vision features. You can add 2D and 3D machine vision into any Windows application. This is nothing but a component 3D machine vision revolution.

The Scorpion VisionX completely eliminates the need for programming. All functionalities required for an advanced machine vision, surveillance or automation solution are built in. The main application simply has to load the component and invoke it using a simple and well-documented interface.

Scorpion VisionX for 2D and 3D contains the following elements:

- Image capture from a very wide range of cameras
- Unmatched set of 2D and 3D machine vision tools and algorithms
- Camera/Image viewer with zoom, measurement, save and overlay graphics
- Python Scripting Engine
- Support for the standard communication modes like TCP/IP and RS232

Scorpion VisionX Versions
Scorpion VisionX is licensed in the same versions as Scorpion Vision Software:

- CaptureX – image capture and viewer
- LiteX – for simple vision tasks
- BasicX – for basic assembly verification
- PremiumX – for advanced tasks, robot vision and high precision gauging
- OpenCV - low cost OEM solution with access to OpenCV image processing

More information about the toolbox and the 3D options are available in the Scorpion Vision Software Product Data sheet.

2D Application Areas
The following 2D applications are supported:

- Color identification
- Assembly verification
- Barcode reading
- High precision gauging
- Label verification
- Sub-pixel object location
- OCR and OCV

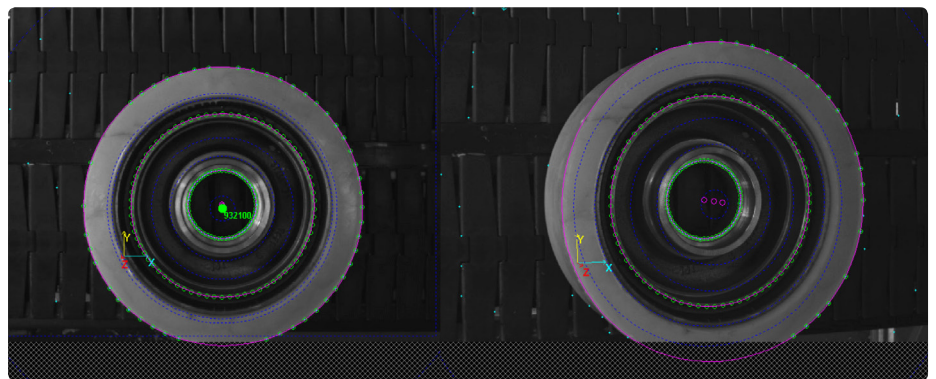## 3D Application Areas
The following 3D applications are supported:

- 3D identification
- 3D Assembly verification
- High precision 3D gauging
- 3D Robot vision
- 3D Laser triangulation
- 3D Stereo vision

Scorpion VisionX 3D measuring wheels

Multiple Camera Support
Multiple cameras are supported by adding instances of the Scorpion VisionX component. The components can be added to one or more applications.

Standard camera interface, supporting multiple IEEE-1394, GigE, USB and CameraLink cameras
Scorpion supports all Sony, Basler, Point Grey, PixeLINK, Imaging Source, Allied Vision and Unibrain's IEEE-1394 cameras. GigE support is provided for Prosilica, Sony and Basler Area and linescan cameras. Scorpion also interfaces Sony's SmartCam.

Linescan cameras are supported through a CameraLink interface based on Matrox Mil 9.0 and their complete range of framegrabbers. 3D imaging and high speed laser triangulation are supported by using SICK 3D cameras.
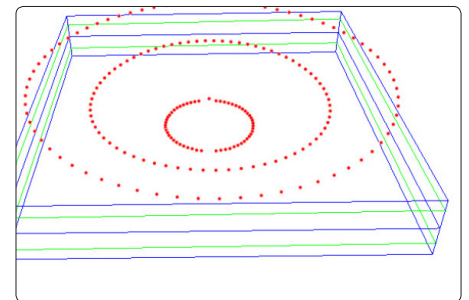
New cameras are continuously added to Scorpion VisionX.

3D model of the wheel

Scorpion VisionX is not just a normal machine vision library, but it is an advanced ActiveX component which can be quickly integrated in any Windows application. The Scorpion VisionX is different in a way that it handles all functionalities related to machine vision by itself, and the application only needs to host it. This lowers the learning curve and minimizes the integration effort.

Scorpion VisionX provides advanced integration options to control the machine vision processing more in detail.

Scorpion VisionX internally uses the complete and advanced Scorpion Vision Software toolbox. There is a narrow and generic interface between the host application and Scorpion VisionX.
These features creates a very low total cost of ownership of a VisionX solution from development, to deployment and system maintenance.

Scorpion Vision Software CD
Scorpion VisionX is distributed on the Scorpion Vision Software® CD containing: Scorpion Vision Software setup program, VisionX setup program, demonstration profiles, camera drivers, and documentation and support programs.

Links to more information

Documents
Scorpion Vision Software Product Data
Scorpion Vision Software Overview
Scorpion Vision Software Tools
Scorpion VisionX Tutorial

On the web
www.scorpionvision.com
tordivelblog.wordpress.com
Support web - scorpion.tordivel.no

Developing machine vision solution with Scorpion VisionX
The Scorpion VisionX integration process is very simple yet efficient.

1. The machine vision solution is created, tested, fine-tuned and maintained using the Scorpion Vision Software, using full power of the Scorpion Vision Software.
2. The fine-tuned configuration is exported from the Scorpion Vision Software.
3. The exported configuration is imported in the 'VisionX Test Container' application available with the Scorpion VisionX.
4. The VisionX configuration is tested for integration in the host application.
5. The VisionX configuration file is saved from the VisionX Test Container.
6. The main application hosts the Scorpion Vision ActiveX component and loads the saved VisionX configuration file.

With these simple steps, it is possible to add advanced 2D and 3D machine vision capabilities to any Windows application just in a few hours!

VisionX Test Container
The VisionX Test Container is an application which hosts the Scorpion VisionX ActiveX and provides intuitive user interface for calling all methods exposed from the Scorpion VisionX.
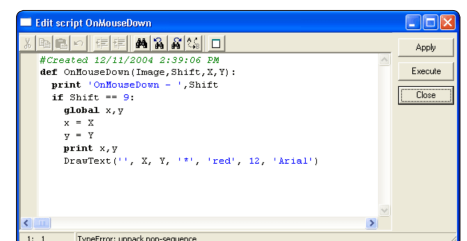
The VisionX Test Container is used to configure, test and verify the VisionX solution before it is used in your own application.
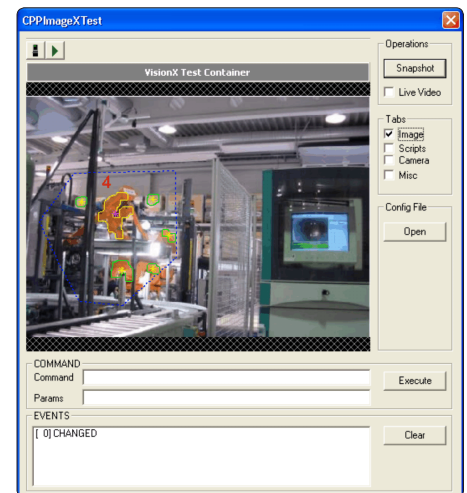
VisionX Test Container

Powerful Python Scripting Engine
The integrated python script engine allows users to interact with the host application and to do various operations like saving images, responding to mouse clicks, calibrating the system to work in physical coordinates and communicating with other computer systems using rs-232 and tcp/ip. All of these are managed from within the Scorpion VisionX and no coding is required in the host application. Python will also provide free access to open-source like OpenCV, NumPy, SciPy and more.

Script handling the OnMouseDown event.

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TORDIVEL

Technical Data

Operating System
• Windows XP / Windows 7
• Windows XPembedded

Minimum Requirements
• Intel Pentium III 400 MHz
• 128 MB of RAM
• 10 MB free hard drive space

Development Platforms
• Borland Delphi and C++
• Any ActiveX compatible dev tool
• MS Visual Basic
• MS Visual Basic .Net
• MS Visual Studio including C++ and .Net

Specifications might change without any notification.