Scorpion Vision Software®
Scorpion Matrix Code

Scorpion MatrixCode is another application from the Scorpion Vision Software family. Scorpion MatrixCode is Scorpion Lite with an integrated Euresys EasyMatrixCode™ Reader Software module. Scorpion MatrixCode can be upgraded to handle 1D barcodes.

Scorpion MatrixCode has the following features:

- *Standard DirectX interface to Windows cameras*
- *Real time image display*
- *Database connectivity*
- *Python script kernel*

Camera Based Automatic 2D MatrixCode Reader Software supporting Multiple Readers on one PC.

The EasyMatrixCode™ tool will detect and report (presently) a single Data Matrix code within the ROI.

- Robustness to noise, blur and distortion
- Rotation and flipping invariant
- Scaling up to a minimum size (min. cell 3x3 pixels)
- Contrast invariant
- ECC200, ECC000, ECC050, ECC080, ECC100 and ECC140 are supported
- Automatic compensation for illumination changes
- Print quality verification

Data Matrix codes are widely used for parcel tracking and part identification in the semiconductor, pharmaceutical and mechanical industries.

EasyMatrixCode™ is a fully automatic reader of 2D Data Matrix codes. It recognizes a symbol of any size, contrast, location and orientation in a single operation. Error detection and correction algorithms are used to provide a faithful reading.

Robust - EasyMatrixCode™ is to be used in the more demanding enviroments.

It has been designed to be able to answer the more difficult cases such as:

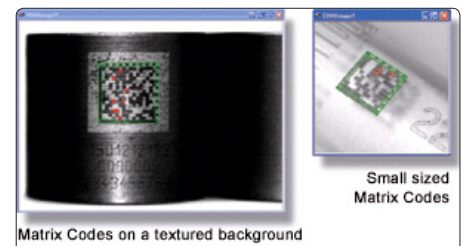### Bad images resulting from printing or optical defects
- Blurred Data Matrix codes
- Anisotropic and non uniform scaling
- Noisy images
- Skewed images

Bad images

Codes hard to detect
- Small sized Matrix Codes
- Matrix Codes on a textured background
- Laser marked
- Nailed
- Rectangular Matrix Codes

Codes hard to detect

EasyMatrixCode inspects the quality of the Matrix Code printed. Indicators of the printing quality are defined and graded by the ANSI/AIM standard (International Symbology Specification – Data Matrix). EasyMatrixCode is fully compatible with the ANSI/AIM BC11-1997 standard.

Non uniform contrast

Over or under exposures

Camera Based Automatic 2D MatrixCode Reader Software supporting Multiple Readers on one PC.

Technical Data 10-012 Scorpion MatrixCode

Operating System
- Windows 2000 / Windows XP
- DirectX 8.1 or higher

Minimum Requirements
- Intel Pentium III 400 MHz
- 128 MB of RAM
- 25 MB free hard drive space

Performance figures
Logical sizes:
- 9x9, 11x11, 13x13, 15x15, 17x17, 19x19, 21x21, 23x23, 25x25, 27x27, 29x29, 31x31, 33x33, 35x35, 37x37, 39x39, 41x41, 43x43, 45x45, 47x47, 49x49,
- 10x10, 12x12, 14x14, 16x16, 18x18, 20x20, 22x22, 24x24, 26x26, 32x32, 36x36, 40x40, 44x44, 48x48, 52x52, 64x64, 72x72, 80x80, 88x88, 96x96, 104x104, 120x120, 132x132,
- 144x144, 8x18, 8x32, 12x26, 12x36, 16x36, 16x48

Minimum quiet zone width: 1 module
Minimum module size: 3 pixels
Minimum contrast: 20%

Camera
Up to 16 cameras can be connected to one PC. Images can be captured with a speed up 30 images per second.

Generic windows, firewire, usb and usb2 cameras through a generic DirectX interface.

Firewire Cameras: All IIDC compliant firewire cameras through Unibrains generic drivers. Firewire cameras from the following vendors are supported:
Unibrain, ADS, Allied Vision, Basler Vision, Hamamatsu, JVC, MicroPix, OrangeMicro, PixeLink, PointGrey, Sony, Teli, Imaging Source, Baumer Optronics and Victor

Note: Image capture speed and camera connections are limited only by the PC configuration.

Language Support
- English and Norwegian

Specifications might change without any notification.