ATS SmartVision™ Software

Combining ease of use with high performance

ATS SmartVision software represents a significant breakthrough in cost-effectiveness, connectivity, and customization in vision systems. SmartVision software is a highly scalable PC-based vision system that combines a high-performance, platform-independent vision engine with an easy-to-use interface.

SmartVision software can control virtually any industry-standard third-party camera and lighting system to perform high-precision part and defect identification, measurement, sorting, and robotic guidance. Thousands of SmartVision licenses are in use around the world.
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Scalable across application types and levels of complexity

The SmartVision engine can control multiple cameras in a single application to perform numerous independent inspection sequences comprised of ordered lists of steps. Each step contains one SmartVision tool. Sequences can be singlestepped for debugging.

Results can range from a simple pass/fail condition to the more involved precise position of objects for complex applications. These results can then be used by other steps in the sequence. Programmable flow control provides for simple branching within sequences.

Powerful toolkit

A complete set of modern vision tools is provided, including edge finding, blob analysis, measurement, OCR, barcode reading, scripting and image processing tools. Tools are dragged and dropped into an inspection sequence and are easily configured using simple dialog boxes.

In addition, SmartVision software has the capability of integrating 3rd party vision tools for specific applications. Several 3rd party tools are available and more are added as required.

Rapid application development

SmartVision software provides a rapid application development platform for machine vision applications. Many applications can be developed with no traditional programming required.

For highly complex applications, a scripting tool is provided to allow programming logic to be created without the need for a compiler or any other external development environment.

For the most sophisticated users, SmartVision software can be embedded into a traditional program written in VB, C# or C++ to create custom interfaces. SmartVision software also leverages open source software such as Intel OpenCV, Intel Integrated Performance Primitives and ICI scripting language.

Strong communications and infrastructure

SmartVision software takes advantage of advanced communications making integration faster and easier. Standards include: Ethernet/IP, Profinet, Profibus and TCP/IP (For other interfaces, please contact ATS) for standardization across your organization.

Remote configuration and troubleshooting

A TCP/IP link can be used to create and modify inspection sequences. As a result the support and troubleshooting of vision applications can be performed remotely from anywhere around the world.

Features & Benefits

- Extensive and powerful vision toolkit
- Rapid application development
- Highly scalable range of applications
- Remote configuration over TCP/IP
- Strong integrated communications
- Competitively priced
- Proven in a wide range of industrial environments
- Hardware independant
- Easy to learn
- Standard or custom GUI interfaces
- Flexible local and remote image viewing
- Multiple Language Support (English, French, German, Simplified Chinese)

Contact ATS directly for custom or product-specific applications beyond the scope of this document.