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## 10 Reasons To Try Intellect Software

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***Customers currently using DVT® FrameWork software should consider the advantages of the Intellect™ software platform. New enhancements make it easier than ever to handle the most challenging applications. This guide provides information on the ten most important Intellect software advancements you should know about.***

## **1. New Vision Tools**

Intellect offers a range of dedicated vision tools for common industry applications that make setup faster and easier than ever. The new *defect detection* tool uses multiple-image analysis to check for product flaws such as scratches, porosity, flashing and chipped edges – in grayscale or color. Applications that formerly required complex scripting can now be solved with the new *replicator* tool that allows users to duplicate tools at multiple positions.

## **2. More Advanced Vision Tools**

The *object locate* and edge-finding algorithms used in the Intellect measurement and positioning tools have a much higher degree of accuracy than similar tools in Framework. While Framework tools are based on binary image processing, full grayscale Intellect image processing achieves .25 pixel resolution or better on positioning, edge finding, and measurement tools. Advanced Intellect features such as model editing, composite shapes, and noise filters ensure robustness in variable lighting.

### 3. Optimized Vision Tools

Vision Tools within Intellect software now provide automatic image sampling that is optimized for speed. This new feature has increased the *object locate* inspection speed by at least 200%. In addition, Intellect edge tools now run at the same or better speeds than in FrameWork, without compromising accuracy and robustness.

### 4. Reduced Need for Scripting

Intellect software provides application-specific tools — such as *flaw, bead and label inspection* — for complex applications that previously required scripting. Similarly, a new tag-based Intellect communication setup allows users to transfer data out of the system without scripting. Finally, applications that previously required background script functions like image filters in Framework are now integrated into the general vision tool set of Intellect.

### 5. Enhanced User Interface

The Intellect user interface includes many improvements over FrameWork software, including a customizable results table for pass/fail and timing information, enhanced tool shapes and image marking. A new *tool reference diagram* helps a user view the project flow of tools as an inspection is built. A dynamic property window enables users to more easily find and setup common properties without having to search through confusing sub-menus.

### 6. Easier to Deploy and Maintain

Intellect offers a number of setup tools to help both novice vision and experienced users quickly set light levels and achieve image focus. The *automatic exposure* setting adjusts the exposure time and gain controls to achieve optimal light levels during setup and operation. When enabled, *focus help* produces a relative score of contrast and edge sharpness to determine if a vision system is correctly focused. In addition, a *connection wizard* simplifies initial connection of a vision sensor, helping users troubleshoot mis-configured IP addresses and unplugged cables. This feature allows users to quickly find a “lost” vision sensor and re-assign it a proper IP address.

### 7. Simplified Communications

An enhanced communications suite, combined into a single *communications setup manager*, provides a number of benefits for both new and advanced users. New users will appreciate the reduced need for scripting during setup of common communication protocol to devices such as PLCs, HMIs, robots, motion controllers, and other factory floor devices. New tag-based controls provide a common method of setup no matter which protocol is used. Advanced users can easily monitor real-time data flow in various formats including binary, hex, and decimal.

## 8. Designed for Intellect

The latest DVT hardware includes faster processors and more memory to take advantage of the Intellect multi-threaded architecture. Reduced execution time means more complicated and time-sensitive applications can be solved with the entry-level products.

## 9. Support for Multiple Sensor Connections

Intellect now supports connections to multiple vision sensors. Users can communicate between vision sensors to solve multi-camera applications. Intellect also gives users the ability to view images from multiple sensors simultaneously. A thumbnail image of each connection allows a user to quickly view multiple vision sensors and switch between applications on your vision sensor factory floor network.

## 10. Training for Intellect is Free!

New users become experts in machine vision through many Cognex training offerings. Hands-on courses taught by experts in machine vision can be found in Atlanta, Georgia and Detroit, Michigan in the United States, and at training centers throughout Europe, Asia and Latin America. To learn at your own pace, visit [www.training.cognex.com](http://www.training.cognex.com) for detailed, instructional videos on FrameWork, Intellect, and lighting. To apply the video instruction to real world examples, sample application images with solved program files can be downloaded as well.

As the world leader in machine vision, Cognex Corporation is here to help you make sure your next vision project is a success. For additional information about machine vision sensors, please visit [www.cognex.com](http://www.cognex.com) or contact your local Cognex sales office or distributor.

## ABOUT COGNEX

Cognex Corporation designs, develops, manufactures, and markets machine vision sensors and systems, or devices that can “see.” Cognex vision sensors are used in factories around the world to automate the manufacture of a wide range of items and to assure their quality. Cognex is the world’s leader in the machine vision industry, having shipped more than 300,000 machine vision systems, representing over \$2 billion in cumulative revenue, since the company’s founding in 1981. In addition to its corporate headquarters in Natick, Massachusetts, Cognex also has regional offices and distributors located throughout North America, Japan, Europe, Asia, and Latin America. Visit Cognex on-line at [www.cognex.com](http://www.cognex.com).