

In-Sight® Explorer 6.4.0 Release Notes

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Overview

This document describes the In-Sight Explorer software, including the following topics:

- [System Requirements](#)
- [New Features](#)
- [Changes & Fixes](#)
- [Known Issues](#)

Note: For the latest release notes and documentation, visit: support.cognex.com/documentation/in-sight.

System Requirements

This section describes system requirements for In-Sight Explorer software.

PC Hardware Minimum and Recommended Requirements

Notes:

- The following minimum hardware requirements are for PCs that are connected to a single low-resolution In-Sight vision system running at a slow production speed.
- The following recommended hardware requirements are for PCs that are simultaneously connected to up to four In-Sight vision systems.

Minimum	Recommended
Intel® Celeron® 1000M processor running at 1.8GHz (or equivalent)	Intel Core™ i7 processor running at 2.7GHz (or equivalent)
2GB of available RAM	4GB of available RAM
4GB of available disk space	8GB of available disk space
Video card that can display 1024 x 768 resolution at 24-bit color depth (the DPI Display setting must be set to 96 DPI)	Video card that can display 1920 x 1080 resolution at 32-bit color depth (the DPI Display setting must be set to 96 DPI)
Network interface card (at least 100Mbps) for connecting to an In-Sight vision system	Gigabit network interface card for connecting to multiple In-Sight vision systems

Operating System Requirements

In-Sight software has been tested on the following operating systems:

- Microsoft® Windows® 10 Professional (64-bit)
- Microsoft Windows Server 2016

Although you can install and run In-Sight Explorer on other Windows operating systems, PCs that do not meet the preceding requirements are not officially supported.

Supported Languages

- Chinese (Simplified)
- English
- French
- German
- Japanese
- Korean
- Spanish (European)

Firmware Version Support

In-Sight 6.4.0 software contains three firmware versions:

- In-Sight 6.4.0
- In-Sight 5.9.2
- In-Sight 4.10.5 PR1

In-Sight vision systems that have older firmware versions might work properly. However, some features are unsupported with older firmware versions and are not fully tested. For optimal performance, update vision systems that run older firmware to the most recent, supported firmware versions. For a list of models and supported firmware versions, see the Firmware Versions topic in the *In-Sight[®] Explorer Help* file.

In-Sight Firmware 6.4.0

- In-Sight 7000 Gen2 series vision systems
- In-Sight 8000 series vision systems
- In-Sight 9000 series vision systems
- In-Sight Advantage Engine

In-Sight Firmware 5.9.2

- In-Sight 5705 and 5705C vision systems

In-Sight Firmware 4.10.5 PR1

- In-Sight Micro 1000 series vision systems
- In-Sight 5000 series vision systems (except In-Sight 5705 and 5705C vision systems)
- In-Sight 7000 series vision systems (except In-Sight 7000 Gen2 series vision systems)

Microsoft .NET Framework 4.5.2

In-Sight software requires Microsoft .NET Framework 4.5.2. If the In-Sight software installer fails to detect Microsoft .NET Framework 4.5.2, it attempts to download and install it.

New Features

New Features
<p>Added functionality to support Vision Guided Robotics (VGR) applications. The following spreadsheet functions have been introduced:</p> <ul style="list-style-type: none"> • VGRProcessCommand - takes and executes command strings. • VGRCommandInfo - provides information about processed commands. • VGRDefinePart - defines a part using a single feature. • VGRDefineMultiFeaturePart - defines a part using two features. • VGRHandEyeCalibration - configures hand-eye calibration parameters and stores calibration data. <p>The In-Sight Explorer package now also contains VGR snippets and sample jobs. For more information, see the <i>Function Reference > Robotics Functions</i> and <i>How to... > Work with Robots</i> sections of the <i>In-Sight Explorer Help</i> document.</p>
<p>The following functions are obsolete and no longer supported, even in legacy jobs:</p> <ul style="list-style-type: none"> • ReadIDCode • ReadText • TrainFont • VerifyText

Changes & Fixes

<p>Notes:</p> <ul style="list-style-type: none"> • For changes and fixes in previous releases, see past In-Sight Explorer release notes. Release notes for previous releases are available in the <i>In-Sight Explorer® Help</i> file. • The release notes include issue numbers (where applicable) to better track known issues reported by Cognex Technical Support.

Issue#	Change/Fix	Applicable Firmware Version
IS-5366	Fix saving SVG files in IS-9902L to have the correct Width and Height values.	6.4.0
IS-5663	Graphics plot not seen when using WriteImageFTP with default font size.	6.4.0
IS-5255	SNTP does not always choose the preferred or alternate SNTP server correctly.	6.4.0
IS-5622	Enhancement allowing webHMI to access specific cell results without needing to subscribe to all of them.	6.4.0
IS-5608	Increase default result buffer size for In-Sight vision systems with larger imagers to improve filmstrip performance.	6.4.0
IS-5657	Setting a job timeout can occasionally cause a fatal camera error.	6.4.0
IS-1915	Allow saving job with a "." in its name via native mode for the IS2000 and 8000 series cameras.	6.4.0
IS-5242	9902L was incorrectly reporting the encoder and line counts.	6.4.0
IS-5599	Fix the CalibrateGrid audit message so it is sent properly.	6.4.0
IS-5599	Added audit messages containing the checksum of the trained model for TrainMatchColor, TrainExtract Color, and TrainFlawModel.	6.4.0

Issue#	Change/Fix	Applicable Firmware Version
IS-5599	Added an audit message containing the checksum of the Script tool.	6.4.0
IS-5952	EditCompositeRegion now sends detailed audit messages for each changed subregion.	6.4.0
IS-5732	Freezing filmstrip caused delay in In-Sight processing.	6.4.0
IS-5395	DetectBlobs can return an image that can be used by other tools.	6.4.0
IS-5825	The ExtractBlobs and DetectBlobs functions could occasionally find blobs outside of the specified Annulus region.	6.4.0
IS-5401	Fix for HistMean to compute HSI distance correctly.	6.4.0
IS-6027	ISDK Display: Camera image was incorrectly cropped in certain cases.	N/A

Known Issues

Note: The release notes include issue numbers (where applicable) to better track known issues reported by Cognex Technical Support.

Issue#	Issue	Affected Firmware Version
IS-5258	Web HMI: 403 error seen in browser after successfully firmware updating certain IS2000 devices. Workaround: performing a 2nd firmware upgrade.	6.4.0
IS-4432	If the ReadIDMax function is configured to read Data Matrix symbols, the Enable Training option is checked, and Train Perspective is selected from the Perspective drop-down, subsequent attempts to read the symbol will fail.	6.4.0
IS-2854	<p>After a power-cycle, if the vision system/sensor receives a new trigger, no new results are added to the Sensor Filmstrip queue. However, the image and spreadsheet continue to update correctly.</p> <p>Conditions:</p> <ul style="list-style-type: none"> • An In-Sight vision system/sensor is configured to use the Sensor Filmstrip. • In the Sensor Filmstrip Settings dialog, the Queue drop-down is configured as Separate Pass and Fail Results. • In the Sensor Filmstrip Settings dialog, the Queue Size is increased or decreased. • The vision system/sensor is power-cycled. • After the power-cycle, the vision system receives a new trigger. <p>Workaround:</p> <ol style="list-style-type: none"> 1. Within In-Sight Explorer, click Sensor menu > Sensor Filmstrip Settings to launch the Sensor Filmstrip Settings dialog. 2. From the Queue drop-down, select an option other than Separate Pass and Fail Results and click OK. 3. Relaunch the Sensor Filmstrip Settings dialog. 4. From the Queue drop-down, select Separate Pass and Fail Results and click OK. When the vision system/sensor is triggered, results are correctly added to the queue. 	6.4.0

Issue#	Issue	Affected Firmware Version
FFP-1646	In-Sight 2000 series vision sensors running In-Sight firmware version 5.9.1 and later are not certified for PROFINET Conformance. To run In-Sight 2000 series vision sensors with PROFINET Conformance, you can downgrade the In-Sight 2000 series vision sensors' firmware version to In-Sight 5.9.0 or 5.8.x.	5.9.1 & 6.4.0
IS-2195	<p>If In-Sight Explorer is installed to a PC with a Microsoft Windows 10 operating system and the Beta: Use Unicode UTF-8 for worldwide language support is checked in the Region dialog, the vision system or emulator may not be able to connect to the In-Sight Explorer Spreadsheet View.</p> <p>Workaround: Uncheck the Beta: Use Unicode UTF-8 for worldwide language support checkbox.</p> <ol style="list-style-type: none"> 1. In the search box on the Windows taskbar, type Control Pane and select the Control Panel App. 2. From the Windows Control Panel search box, type Region and select the Region text. 3. In the Region dialog that opens, click the Administration tab and click the Change system locale... button. 4. In the Region Settings dialog that opens, uncheck Beta: Use Unicode UTF-8 for worldwide language support and click OK to close the Region Settings dialog. 5. Click OK to close the Region dialog. 6. Reboot the PC. 	N/A
FFP-1053	When the vision system is configured to load a job at startup (Sensor menu > Startup) and the EV SetSystemConfig OPCUA.TimeSync Extended Native Mode command is issued, OPC UA Job Tags are missing in the OPC UA client when browsing the address space (Objects > Server > VisionSystem > Results > JobTags node).	6.4.0
FFP-875	Sending the communication settings, such as the IP address, from Mitsubishi iQ Sensor Solution (GX Works) to the In-Sight vision system/sensor is not supported.	6.4.0
IS-334	<p>When you try to connect your vision system/sensor to the Web HMI for the first time, you may receive a permission error and connection is denied.</p> <p>Workaround: Reinstall or update the firmware on the vision system/sensor and then retry the Web HMI connection.</p>	6.4.0
48478	If an In-Sight vision system that runs firmware 5.6.0 or later has a job with many instances of the ReadIDMax function, the job might require more memory than is available on the vision system. Any instances of the ReadIDMax function that exceed the available memory returns #ERR. For example, if an In-Sight 8405 vision system job contains more than 100 instances of the ReadIDMax function, you might encounter this problem.	6.4.0
45581	For In-Sight 7000 Gen2 series and 9000 series vision systems configured for CIP-Sync/PTP, 1588 synchronization accuracy through a transparent clock-switch might increase to more than 10µs offset from master.	6.4.0
35828	If an industrial Ethernet communication protocol triggers the vision system, the JobPass signal is sent only if the job contains a WriteResultsBuffer function. This issue does not occur with EasyBuilder applications once the Communication application step has been configured.	6.4.0
32479	<p>If you update the In-Sight vision system firmware while it is connected to a POWERLINK network, it results in a code 13710, with the vision system needing to be power cycled and the files restored (the firmware will be successfully updated, however).</p> <p>Workaround: Before you update the vision system firmware, complete the following steps:</p> <ol style="list-style-type: none"> 1. Remove the vision system from the POWERLINK network and connect the vision system to a network port on the same subnet as the computer that runs In-Sight Explorer. 2. Power cycle the vision system. 3. Update the firmware while the vision system in Ethernet mode. 4. Place the vision system back onto the POWERLINK network. 5. Power cycle the vision system. 	4.10.5 PR1