

# In-Sight® Explorer 5.8.1 Release Notes

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Revision: 5.8.0.3, 2020 March 30

## 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](http://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 7 Professional, Service Pack 1 (64-bit)
- 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 5.8.1 software contains two firmware versions:

- In-Sight 5.8.1
- In-Sight 4.10.5 PR2

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 5.8.1

- In-Sight 2000 series vision sensors
- In-Sight 5705 and 5705C vision systems
- 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 4.10.5 PR2

- 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. Optionally, Microsoft .NET Framework 3.5 SP1 can be installed. If the In-Sight software installer fails to detect Microsoft .NET Framework 4.5.2, it attempts to download and install it.

**Note:** If you attempt to install In-Sight Explorer on a system with Microsoft .NET Framework 3.5 SP1 disabled while Windows updates are being installed, you may receive the following error message: Error installing Microsoft .NET Framework; Error code 0x800f081f. If this occurs, wait for the Windows updates to complete, reboot if necessary, and then install In-Sight Explorer.

## New Features

New Feature
Supports the new In-Sight 7500C, 7501C, 7802P, 8100, 8100C, 8101 and 8101C vision systems.
The Web HMI application now supports the filmstrip, which can be used to monitor the vision system's inspection results and save filmstrip images to a PC or FTP server.
Added the Filmstrip group box to the HMI Settings dialog in In-Sight Explorer, which specifies the filmstrip's controls in the Web HMI application.

## Changes & Fixes

### Note

- For changes and fixes in previous releases, see past In-Sight Explorer release notes. Release notes for previous 5.x.x releases are available in the *In-Sight Explorer*® Help 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-1614	Improved the usability of the Tool Palette. A tooltip is now displayed when you select a function in the Tool Palette.	5.8.1
IS-2276	You can now use the Ctrl + Right Click to zoom in an image and the Ctrl + Left Click to zoom out an image. Previously, both the Ctrl + Right Click and the Ctrl + Left Click were used to zoom in an image.	5.8.1
IS-2332	The Web HMI no longer displays unnecessary blue lines on the Pixel Count Presence/Absence Inspection tool when connected to an In-Sight 2000 series vision sensor.	5.8.1
IS-2332	For the ExtractHistogram and ExtractColorHistogram functions, the "result and chart" option has been added to the Show parameter, which displays the output graphics and histogram chart on top of the image at all times.	5.8.1
IS-2345	For EasyBuilder tools, the maximum value for the following parameters has been increased to 16,777,216 to support jobs on the In-Sight 9000 series vision system. <ul style="list-style-type: none"> <li>Minimum Area and Maximum Area parameters (Settings tab) for: <ul style="list-style-type: none"> <li>Blob, Blobs (1-10), Color Blob and Color Blobs (1-10) Location tools</li> <li>Blob and Color Blob Presence/Absence tools</li> <li>Blobs and Color Blobs Counting tools</li> </ul> </li> <li>Minimum Area Limit and Maximum Area Limit parameters (Settings tab) and Minimum and Maximum parameters (Range Limit tab) for: <ul style="list-style-type: none"> <li>Blob Area, Blob Areas (1-10), Color Blob Area and Color Blob Areas (1-10) Measurement tools</li> </ul> </li> </ul>	5.8.1
IS-2358	COM/ActiveX development environments (including VB6 and HMI) are no longer supported with In-Sight Software. COM/ActiveX controls, type libraries and sample projects have been removed from the In-Sight software installers.	N/A
IS-2406	The In-Sight Key Generator website can now be accessed directly by clicking the Help button in the Emulation dialog (System > Options > Emulation). Previously, the website was accessed through a link in the <i>In-Sight Explorer</i> ® Help CHM file which might trigger a JavaScript error.	5.8.1

Issue#	Change/Fix	Applicable Firmware Version																																		
IS-2436	The communication between a Universal Robot and an In-Sight vision system no longer throws an error when a location tool fails.	5.8.1																																		
IS-2472	<p>The minimum/maximum parameter ranges for the following In-Sight functions have been increased to -16,777,216/16,777,216. For more information, see the <i>In-Sight Explorer® Help</i> file.</p> <table border="1" data-bbox="266 327 1323 1102"> <thead> <tr> <th data-bbox="266 327 1068 365">Function</th> <th data-bbox="1073 327 1323 365">Parameter/Argument</th> </tr> </thead> <tbody> <tr> <td data-bbox="266 371 1068 485">Accumulate, ACos, ASin, ATan, Atan2, Chart, Choose, ClockedMax, ClockedMin, Cos, Degrees, DelayLine, Exp, Latch, Maximum, Minimum, Mod, Not, Power, Radians, Round, RoundDown, RoundUp, ShiftRegister, Sin, Sqrt, Switch, Tan, Trunc</td> <td data-bbox="1073 371 1323 485">Value</td> </tr> <tr> <td data-bbox="266 491 1068 520">Chart</td> <td data-bbox="1073 491 1323 520">Range: Min</td> </tr> <tr> <td data-bbox="266 527 1068 556">Chart</td> <td data-bbox="1073 527 1323 556">Range: Max</td> </tr> <tr> <td data-bbox="266 562 1068 592">Accumulate, ClockedMax, ClockedMin, Count, Minimum, Maximum</td> <td data-bbox="1073 562 1323 592">Preset</td> </tr> <tr> <td data-bbox="266 598 1068 627">Count</td> <td data-bbox="1073 598 1323 627">Max Value</td> </tr> <tr> <td data-bbox="266 634 1068 663">Calibrate, CalibrateAdvanced</td> <td data-bbox="1073 634 1323 663">World Point</td> </tr> <tr> <td data-bbox="266 669 1068 699">TransWorldToPixel</td> <td data-bbox="1073 669 1323 699">Point</td> </tr> <tr> <td data-bbox="266 705 1068 785">PlotArc, PlotCircle, PlotCross, PlotLine, PlotPoint, PlotRegion, PlotString</td> <td data-bbox="1073 705 1323 785">Region arguments (Row, Column, etc.)</td> </tr> <tr> <td data-bbox="266 791 1068 821">EditFloat, EditInt</td> <td data-bbox="1073 791 1323 821">Min</td> </tr> <tr> <td data-bbox="266 827 1068 856">EditFloat, EditInt</td> <td data-bbox="1073 827 1323 856">Max</td> </tr> <tr> <td data-bbox="266 863 1068 892">Circle</td> <td data-bbox="1073 863 1323 892">Radius</td> </tr> <tr> <td data-bbox="266 898 1068 928">Annulus</td> <td data-bbox="1073 898 1323 928">Inner Radius</td> </tr> <tr> <td data-bbox="266 934 1068 963">Annulus</td> <td data-bbox="1073 934 1323 963">Outer Radius</td> </tr> <tr> <td data-bbox="266 970 1068 999">MessageBox</td> <td data-bbox="1073 970 1323 999">Timeout</td> </tr> <tr> <td data-bbox="266 1005 1068 1035">BitStream</td> <td data-bbox="1073 1005 1323 1035">Bit</td> </tr> <tr> <td data-bbox="266 1041 1068 1071">GetTimeValue</td> <td data-bbox="1073 1041 1323 1071">Time</td> </tr> </tbody> </table>	Function	Parameter/Argument	Accumulate, ACos, ASin, ATan, Atan2, Chart, Choose, ClockedMax, ClockedMin, Cos, Degrees, DelayLine, Exp, Latch, Maximum, Minimum, Mod, Not, Power, Radians, Round, RoundDown, RoundUp, ShiftRegister, Sin, Sqrt, Switch, Tan, Trunc	Value	Chart	Range: Min	Chart	Range: Max	Accumulate, ClockedMax, ClockedMin, Count, Minimum, Maximum	Preset	Count	Max Value	Calibrate, CalibrateAdvanced	World Point	TransWorldToPixel	Point	PlotArc, PlotCircle, PlotCross, PlotLine, PlotPoint, PlotRegion, PlotString	Region arguments (Row, Column, etc.)	EditFloat, EditInt	Min	EditFloat, EditInt	Max	Circle	Radius	Annulus	Inner Radius	Annulus	Outer Radius	MessageBox	Timeout	BitStream	Bit	GetTimeValue	Time	5.8.1
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IS-2513	When clicking the up or down arrow on the edit control to increment/decrement the EditInt or EditFloat parameter in the spreadsheet, the clicks on the up or down arrows are now counted correctly and the number in the edit control will no longer auto-increment/decrement.	5.8.1																																		
IS-2561 IS-1880	Modified the property sheet of the WriteResultsBuffer function. The Byte/Word Order changes for all protocols can now be modified in the WriteResultsBuffer property sheet. Previously, the Byte/Word Order parameter can only be modified if the selected Protocol type is Modbus TCP Server.	5.8.1																																		
IS-2563	<p>Added a preview of the pass and fail status icons that display in the filmstrip to the following locations:</p> <ul style="list-style-type: none"> <li>• The Sensor Settings group box in the EasyBuilder Filmstrip application step</li> <li>• The Sensor Filmstrip Settings dialog</li> <li>• The HMI Settings dialog</li> </ul>	N/A																																		
IS-2579	<p>Modified the Web HMI application's Load Job and Save Job dialogs.</p> <p><b>Load Job:</b></p> <ul style="list-style-type: none"> <li>• Load Type has been renamed to Load Location, and now shows three options: This PC, In-Sight Device, and Remote.</li> <li>• Removed the Upload button.</li> </ul> <p><b>Save Job:</b></p> <ul style="list-style-type: none"> <li>• Save Type has been renamed to Save Location, and now shows three options: This PC, In-Sight Device, and Remote.</li> <li>• Removed the Download button.</li> </ul>	N/A																																		

Issue#	Change/Fix	Applicable Firmware Version
IS-2631	Removed the Sensor Type column from the In-Sight Host Table dialog (Sensor > Host Table). The Host's Sensor Type can still be configured in the Add Host and Edit Host dialogs, which open from the In-Sight Host Table dialog.	N/A
IS-2705	When MaxiCode is the selected Symbology Group in the ReadIDMax function: <ul style="list-style-type: none"> <li>The In-Sight vision system no longer locks up in certain situations.</li> <li>If the Maximum Results parameter is set to greater than 1, the vision system no longer goes into a fatal state.</li> </ul>	5.8.1
IS-2979	Fixed an issue where the In-Sight 2000 series vision sensors were not sending data to any OPC UA client applications.	5.8.1
FFP - 1326	Fixed an issue where the tags in OPC UA client were not updated when the vision system was configured to load a job with OPC UA tags at startup (Sensor menu > Startup).	5.8.1
N/A	The LED Style control on the Sensor Filmstrip Settings dialog in In-Sight Explorer has been renamed to Status Icon.	5.8.1

## 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-2200	If using the Web HMI, the PROFINET connection between the PLC and the vision system may disconnect when using a 100 Mbps network. <i>Workaround:</i> Use a 1000 Mbps switch/network or increase the PROFINET Update Time to 16ms or higher within the PLC software.	5.7.x and higher
IS-2195	If In-Sight Explorer is installed to a PC with a Microsoft Windows 10 operating system and the <b>Beta: Use Unicode UTF-8 for worldwide language support</b> is checked in the Region dialog, the vision system or emulator may not be able to connect to the In-Sight Explorer Spreadsheet View. <i>Workaround:</i> Uncheck the <b>Beta: Use Unicode UTF-8 for worldwide language support</b> checkbox. <ol style="list-style-type: none"> <li>In the search box on the Windows taskbar, type <b>Control Pane</b> and select the <b>Control Panel</b> App.</li> <li>From the Windows Control Panel search box, type <b>Region</b> and select the <b>Region</b> text.</li> <li>In the Region dialog that opens, click the <b>Administration</b> tab and click the <b>Change system locale...</b> button.</li> <li>In the Region Settings dialog that opens, uncheck <b>Beta: Use Unicode UTF-8 for worldwide language support</b> and click <b>OK</b> to close the Region Settings dialog.</li> <li>Click <b>OK</b> to close the Region dialog.</li> <li>Reboot the PC.</li> </ol>	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). <i>Workaround:</i> Use the LoadJob method to reload the job file to the vision system/sensor. For more information, see the <i>In-Sight® Explorer Help</i> file.	5.8.1
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.	5.8.1

Issue#	Issue	Affected Firmware Version
IS-334	<p>When you try to connect your vision system/sensor to the Web HMI for the first time, you may receive an error message: Permission error appears and connection is denied.</p> <p><i>Workaround:</i> Reinstall or update the firmware on the vision system/sensor and then retry the Web HMI connection.</p>	5.8.1
48478	<p>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.</p>	5.8.1
45581	<p>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 10<math>\mu</math>s offset from master.</p>	5.8.1
35828	<p>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.</p>	5.8.1
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><i>Workaround:</i> Before you update the vision system firmware, complete the following steps:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Power cycle the vision system.</li> <li>3. Update the firmware while the vision system in Ethernet mode.</li> <li>4. Place the vision system back onto the POWERLINK network.</li> <li>5. Power cycle the vision system.</li> </ol>	4.10.5 PR2