

# In-Sight® Explorer 5.6.0 Release Notes

© Copyright 1999-2018 Cognex Corporation. All rights reserved.

Revision: 5.6.0.6, 05/25/2018

## Overview

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

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

**Note:** Visit the [In-Sight Online Support Center](#) to download the latest release notes and documentation, including localized editions. To access the updated documentation from the In-Sight Explorer user interface and Windows® Start menu, complete the following steps:

1. Log on to the PC with administrative privileges.
2. Copy the downloaded documentation to the appropriate location within the installation directory; the default location is: C:\Program Files (x86)\Cognex\In-Sight\In-Sight Explorer 5.x.x\Documentation.

## System Requirements

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

### PC Hardware Requirements

#### Minimum

**Note:** The minimum hardware requirements are for PCs that you connect to a single low-resolution In-Sight vision system running at a slow production speed.

- Intel® Celeron® 1000M processor running at 1.8GHz (or equivalent)
- 2GB of available RAM
- 4GB of available hard-disk space
- Video card capable of displaying 1024 x 768 resolution at 24-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

#### Recommended

**Note:** The recommended hardware requirements are for PCs that you simultaneously connect to up to four In-Sight vision systems.

- Intel Core™ i7 processor running at 2.7GHz (or equivalent)
- 4GB of available RAM
- 8GB of available hard-disk space

- Video card capable of displaying 1920 x 1080 resolution at 32-bit color depth (the DPI Display setting must be set to 96 DPI)
- Gigabit network interface card for connecting to 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 7 Professional, Service Pack 1 (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

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

## Supported In-Sight Vision Systems/Sensors

### Firmware Version Support

In-Sight 5.6.0 software contains three firmware versions:

- In-Sight 5.6.0
- In-Sight 5.2.2
- In-Sight 4.10.5

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 running older firmware to the most recent, supported firmware versions.

**Note:** For a complete list of models and supported firmware versions, see the Firmware Versions topic in the *In-Sight® Explorer Help* file.

### In-Sight Firmware 5.6.0

- 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 Firmware 5.2.2

- In-Sight Advantage Engine

## In-Sight Firmware 4.10.5

- 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

In-Sight software requires Microsoft .NET Framework 4.5. If the In-Sight software installer fails to detect Microsoft .NET Framework 4.5, it will attempt to download and install it.

## New Features

New Feature	Affected Firmware Version
Supports the following new vision sensor models: In-Sight 2000-110, 2000-120, 2000-120C, 2000-130 and 2000-130C, featuring liquid lens with auto-focus capability.	5.5.0
Supports the following new vision systems: In-Sight 7900 and 7902.	5.5.0
Supports the following new vision systems: In-Sight 7900, 7900C, 7901, 7901C, 7902, 7902C, 7905 and 7905C.	5.6.0
Introduces the new Web HMI feature, which allows users to access job data (images, graphics controls, pass/fail data, etc.) and interact with the vision system or sensor through a web-based human-machine interface (HMI).	5.6.0
Added the following abilities to the EasyBuilder Communication Application step: <ul style="list-style-type: none"><li>• Exports a data file to an FTP server or to the SD card installed to the In-Sight 7000 Gen2 vision system while Online.</li><li>• Appends a data string to a file on an FTP server or on the SD card installed to the In-Sight 7000 Gen2 vision system while Online.</li></ul>	5.6.0
Several improvements have been made to the In-Sight Network pane: <ul style="list-style-type: none"><li>• Display or hide the Model, IP address, MAC address and firmware version of the In-Sight devices (vision systems, vision sensors, emulators and host tables).</li><li>• Group the In-Sight devices.</li><li>• Filter the In-Sight devices that use multiple tokens by using the new Filter textbox and the Apply button.</li></ul>	5.6.0 and 4.10.5
<b>Note:</b> Due to these changes, the SD Card and RAM Disk folders no longer display in the In-Sight Network pane. To display these folders, use the In-Sight Files pane.	
Added PatMax RedLine™ Color, a new color pattern matching tool that can locate trained features in the 24-bit color image without converting to greyscale. PatMax RedLine Color consists of two functions: TrainPatMaxRedlineColor and FindPatMaxRedLineColor (Vision Tools > Pattern Match). The TrainPatMaxRedLineColor function trains a pattern, and the FindPatMaxRedLineColor function is used to locate one or more instances of that pattern in an image.	5.6.0
For the In-Sight 2000-130 and 2000-130C vision sensors, the Pattern Location tool and Pattern Absence/Presence tool now return the Pattern score, in addition to the pass/fail status.	5.6.0
The Explorer Host Table Setup dialog now includes the Sensor Type control, which allows you to select the In-Sight model to display in the In-Sight Network pane.	5.6.0 and 4.10.5

# Changes & Fixes

**Notes:**

- 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 Change Request numbers (CR#) (where applicable) to improve tracking of Known Issues reported from Cognex Technical Support.

CR#	Change/Fix	Affected Firmware Version
N/A	TestRun can now be initiated by an external device, such as a PLC via EtherNet/IP or PROFINET communications. The EtherNet/IP and PROFINET factory communication protocols have also been modified to support the signal-driven TestRun feature on vision systems.	5.6.0
77914	The LatchString function no longer experiences a memory leak if the function is conditionally enabled on In-Sight vision systems running firmware version 4.10.x.	4.10.5
77750	For the In-Sight 2000 series vision sensors, the Auto-Timeout option is no longer part of the Pattern Location and the Pattern Presence/Absence Inspection tools.	5.6.0
46620	The GreysScaleDistance function no longer causes the In-Sight vision system or emulator to become unresponsive when a partially acquired image is loaded.	5.6.0 and 4.10.5

# Known Issues

**Note:** The release notes include Change Request numbers (CR#) (where applicable) to improve tracking of Known Issues reported from Cognex Technical Support.

CR#	Issue	Affected Firmware Version
79668	When an In-Sight 2000 series color vision sensor is connected to a Web HMI and acquiring images as fast as possible, the trigger rate may drop significantly.	5.6.0
79652	For In-Sight 2000 series vision sensors running firmware version 5.6.0, the Maximum View Connections (In-Sight Explorer, VisionView or Web HMI) is limited to 2.	5.6.0
79345	When Web HMI is in use, do not run PROFINET cyclic I/O faster than 8ms.	5.6.0
79073	For In-Sight 2000 series vision sensors with the HMI Server enabled, stability issues have been observed when the sensor is connected to the HMI through a high-traffic network, resulting in unresponsiveness and disconnection from the network. Under these conditions, try moving the vision sensor and HMI to a more isolated network or connect the vision sensor directly to the HMI. <i>Workaround:</i> Power-cycle the vision sensor.	5.6.0
78064	If an In-Sight 8000 series vision system or In-Sight 2000 series vision sensor is running firmware version 5.6.0 and downgraded to 5.5.x firmware or earlier, non-English files may be deleted from the vision system/sensor. Even if the files are manually backed up using the Backup dialog prior to the process, non-English files may not be restored after the downgrade. <i>Workarounds:</i> To restore non-English files, do one of the following workarounds: <ul style="list-style-type: none"> <li>• Use In-Sight Explorer 5.6.0 to downgrade the firmware. You can select a different firmware version using the drop-down menu in the New Version column in the Select Vision System for Firmware Update dialog (System &gt; Update Firmware).</li> <li>• If using In-Sight Explorer 5.5.x or earlier to downgrade the firmware, perform the firmware update process twice. The second firmware update process restores non-English files to the vision system/sensor.</li> </ul>	5.5.x and earlier
48636	If an In-Sight 7600/7800 series vision system is shipped with 5.5.0 or later firmware and then downgraded to 5.4.1 firmware or earlier, it may take approximately four minutes for the vision system to reboot when power-cycled.	5.4.1 and earlier

CR#	Issue	Affected Firmware Version
48478	If an In-Sight vision system running firmware 5.6.0 has a job with many instances of the ReadIDMax function, the job may require more memory than is available on the vision system and any instances of the ReadIDMax function that exceed the available memory will return #ERR. For example, if an In-Sight 8405 vision system job contains more than 100 instances of the ReadIDMax function, this problem may be encountered.	5.6.0
45581	For In-Sight 7600/7800 series vision systems configured for CIP-Sync/PTP, 1588 synchronization accuracy through a transparent clock-switch may increase to greater than 10µs offset from master.	5.6.0
43186	While configuring a Serial Text, Serial Native, TCP/IP or UDP device in the Communication application step on an In-Sight 2000 series vision sensor, the FormatString dialog will show #ERR in the Output String box. To see the Output String, you must click OK to close the dialog, and then the Output String is displayed correctly in the Format Output String tab.	5.6.0
42550	In-Sight Track & Trace job files are not supported on In-Sight models running 5.1.0 and later firmware versions.	5.6.0
35828	If the vision system is triggered via an industrial Ethernet communication protocol, the JobPass signal is only sent if the job contains a WriteResultsBuffer function. This is not an issue for EasyBuilder applications.	5.6.0
32479	<p>Updating the firmware of an In-Sight vision system while connected to a POWERLINK network will result 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 updating the vision system's firmware, follow these 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 running 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