

## QualityWorX® Cognex® Gateway

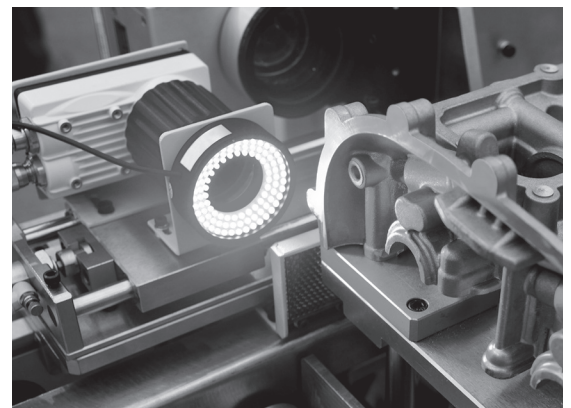
### Store, retrieve, analyze images and data from Cognex® In-Sight® Cameras

QualityWorX Vision for Cognex allows manufacturers to organize and manage images and data from In-Sight cameras into a single, accessible database. Stored by part serial number, the data captured in QualityWorX includes not only images but also all the scalars from the test process. The solution enables the aggregation of vision data with that of other processes on the production line to provide a more complete part history.



#### Features and Benefits

- ✓ Each gateway is capable of storing images from up to 12\* Cognex In-Sight cameras
- ✓ Eliminate individual image and data silos
- ✓ Centralize the collection and storage of scalar data and images – including image overlay information – from multiple cameras, traceable to a part serial number
- ✓ Stratified architecture minimizes network demand by sending compressed images across the network; users can access high resolution files on demand
- ✓ No need to go to the plant floor; access data directly from your desk
- ✓ Use QualityWorX analytics to quickly review and analyze image and scalar data, in production real-time
- ✓ Consolidate Cognex In-Sight camera data with that of other tests and processes along the production line



Store

Retrieve

Analyze

Improve

Trace

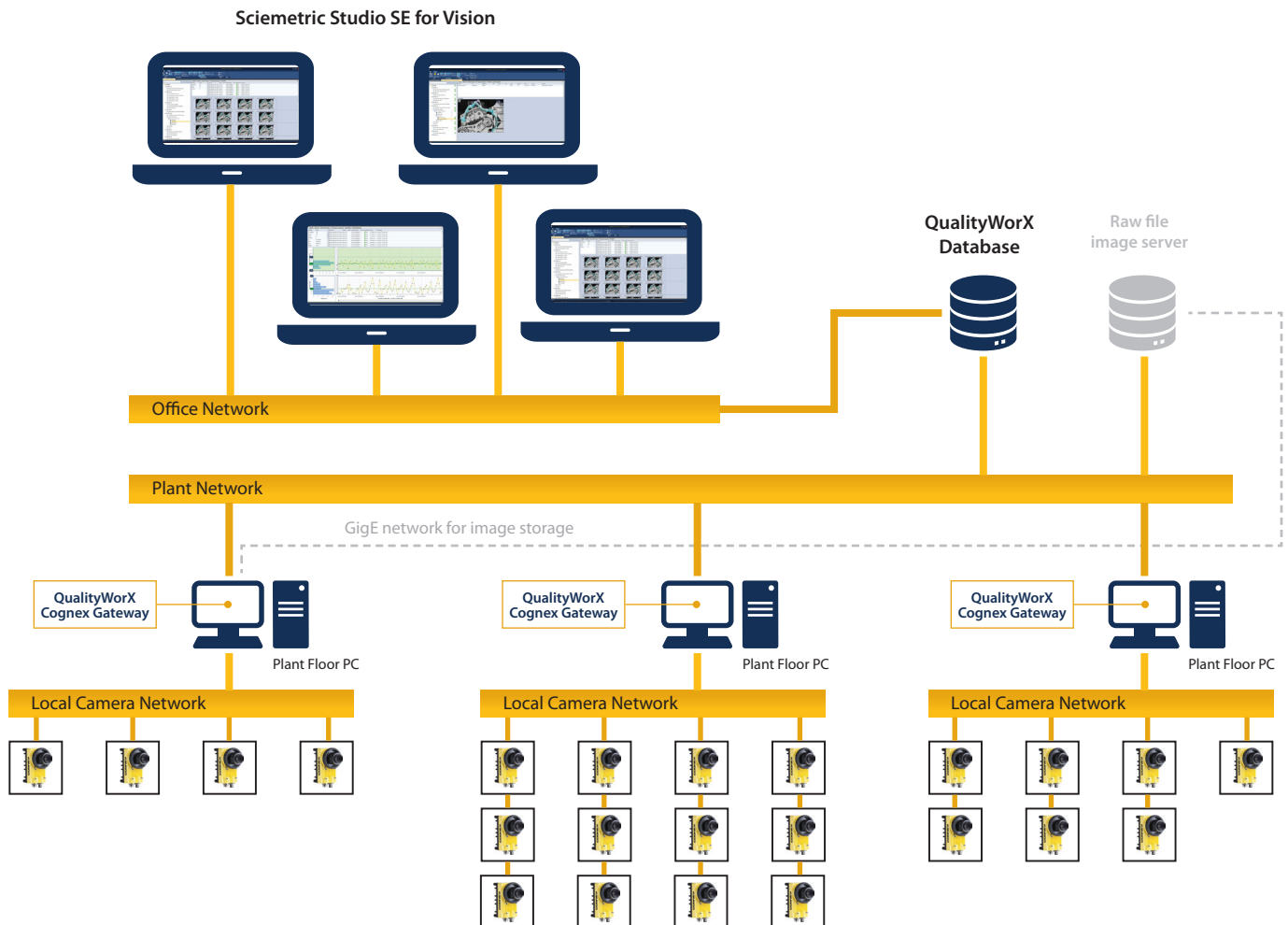
# Overview

QualityWorX Vision for Cognex In-Sight cameras is a solution that is comprised of the Cognex Gateway, QualityWorX database and Sciometric Studio reporting and analysis tools. For information and specifications on the database and analytics tools, please go to [www.qualityworx.com](http://www.qualityworx.com).

## QualityWorX Cognex Gateway

The QualityWorX Cognex Gateway is a software application that typically runs on a plant floor computer. It collects images and data from the cameras, parses and stores this information into a QualityWorX database. The maximum number of cameras that can be handled by a gateway is 12. (See technical specifications for details.) An unlimited number of gateways can be fed into a QualityWorX database at a single site.

Images are compressed and stored in the QualityWorX database. Raw image files can be stored either at the plant floor PC or on a dedicated image server, depending upon the plant's retention policy.



# Technical Specifications

## Sciometric QualityWorX Vision Gateway Software

- Requires QualityWorX database v3.42 or higher (sold separately)
- Manages:
  - Ethernet connections to the camera(s)
  - Merging of images, image overlays and image data
  - Handles connection to QualityWorX database
  - Local backlogging of data (using a FIFO buffer) when the database is unreachable
  - Compression of images for longer-term storage in QualityWorX
  - Local raw image storage for last 1000 data cycles, retrievable on demand from the Sciometric Studio reporting and analytics software
  - Local historic data and application logs
- Sciometric Studio SE for Vision required for data analysis (not included)

## Camera Configuration

- A snippet is added to the In-Sight job on the camera
- Cognex's In-Sight Explorer is used to configure the station information on the camera
  - FTP information sending images
  - TCP port information for sending data
  - Data elements to send to QualityWorX

## Images & Data

- Collection, storage and review of images, image overlays and image data by part serial number

- Image storage:
  - Compressed images are stored in the QualityWorX database for long-term traceability without affecting network performance
  - Raw images are stored on local system (image processor or vision system) on the plant floor or optionally transferred to raw image server. Links to the images are provided in the database record for fast retrieval
- Any data or result generated by the camera system can be tracked and trended using the QualityWorX reporting tools to provide better insight into the performance of the cameras and the part assembly processing, including but not limited to:
  - Part serial number
  - Model variant
  - Station ID
  - Cycle identification (camera information, cycle ID, operation count, part identification)
  - Any scalar information that can be extracted from an image (unlimited number of individual measurements for gauging, part geometry, size, shape, position, etc.)
  - Pass or fail statuses (for inspection/presence/orientation checks) and upper/lower specification limits
  - Barcode and Optical Character Recognition (OCR) data
  - Camera performance metrics (including image quality, lighting information, etc.)
- The system monitors data and if there is a gap, it uses the data channel interface to recover data from the cameras (up to 10 cycles of data are backlogged).

## Capacity

- Connection of up to 12 Cognex In-Sight cameras to one gateway, dependent upon the following factors:
  - Image resolution
  - Image depth: greyscale or color
  - Number of images per camera per cycle
  - Cycle time
  - Image retention policy
- An unlimited number of gateways can be connected to a single QualityWorX database on a line

## Compatibility

- Compatible with most Cognex In-Sight cameras. Contact Sciometric for complete list.
- Discrete triggering is supported, continuous mode triggering is not supported by the gateway

## Vision Hardware Computer

- An industrial PC meeting the following specifications is required to run a QualityWorX Cognex Gateway (available as an option):
  - Operating system: Windows 7 or 10 (64 bit)
  - Processor: Intel® Core™ i5 or i7 processor or equivalent
  - Memory: 16 GB RAM minimum
  - Storage: 128 GB SSD or greater
- The vision computer can also be used to run Cognex software and QualityWorX reporting tools to deliver a standalone, one-stop location for camera configuration, data collection and reporting right at the station.

Contact Sciometric for a solution built to your needs.

## About Sciometric

Sciometric has partnered with manufacturers for over 25 years to solve their biggest productivity and quality issues, and optimize their production lines quickly, through in-process monitoring/testing and practical data analysis. In November 2017, Sciometric became partners with Cincinnati Test Systems (CTS) and CTS-Schreiner in the Product Integrity Division of the TASI Group of Companies to provide the global manufacturing automation marketplace with the broadest portfolio of leak testers in the industry and the right tools to make immediate, practical use of data generated by tests across the plant. Together, we work in nearly every market, helping manufacturers bring Manufacturing 4.0 to their production line, from leak test to any test. The data management and manufacturing analytics of QualityWorX and Sciometric Studio empower manufacturers to start using their data today for visibility and fast issue resolution. Our sales and support capabilities span the globe..

© 2018 Sciometric. sigPOD, QualityWorX and any related marks are trademarks or registered trademarks of Sciometric Instruments ULC. Cognex® and In-Sight are registered trademarks of Cognex Corporation. All other trademarks are the property of their respective companies. All rights reserved. No part of this publication may be reproduced without the prior written permission of Sciometric Instruments ULC. While every precaution has been taken in the preparation of this document, Sciometric Instruments ULC. assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Specifications subject to change without notice.



1.877.931.9200  
inquiries@sciometric.com

AUGUST 2018 – PRINTED IN CANADA