

# VISION EDITION

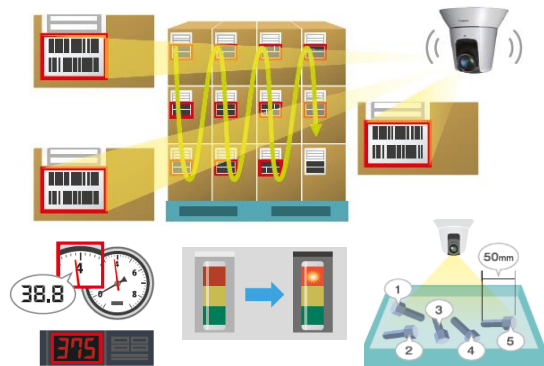
## Image processing & robot control software

Single piece of software providing extensive image processing and simple robot control.



### Image processing application

- Automatically capture various codes and values in production or logistics environments using PTZ network cameras.
  - 1D and 2D barcodes.
  - Analogue and digital meters.
  - Signal tower warning lights.
  - Detect multiple barcodes from a stack of boxes and zoom to scan individual codes.
- QA inspection e.g. missing screws, parts measurement.



### Pick and Place solution (controlling collaborative robot COBOTTA\*)

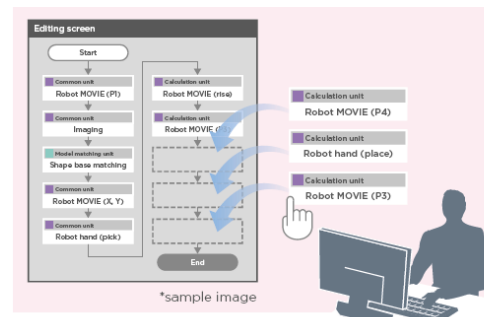
- Automate simple repetitive tasks and reduce human error.
- An extensive image processing function can be used to sort parts by weight, label, shape, or colour.
- Complete routine tasks in factory, retail, pharmaceutical, office or other environments.
- Operate as a stand alone solution or as part of a factory field network.
- Captured images can be kept as log files for auditing purposes.



### Intuitive set up and programming

- Drag and drop image processing or robot control operation units onto the flowchart to build a program.
- Various simulation modes.
- No prior image processing or robot programming knowledge required.

\* COBOTTA is a product of Denso

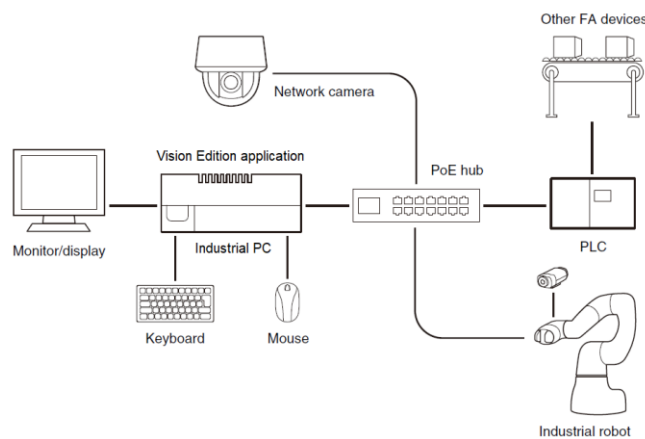


# TECHNICAL SPECIFICATIONS

<b>SOFTWARE FUNCTIONS</b>		<b>Data output to PLC</b>	Detected value (coordinate, edge position etc), number/analog meter/color detection RGB value, 1D & 2D code output as dictionary ID number
<b>Camera operation functions</b>	Imaging, network camera position, network camera movement correction, grid PTZ	<b>Data output (as CSV log data file) to FTP server</b>	Detected value (coordinate, edge position etc), 1D code/2D code/number/character/analog meter/color detection RGB value
<b>Branch processing functions</b>	Branch processing, multiple branching conditions	<b>FTP transfer</b>	Log images, log data, screenshots
<b>Image processing functions</b>	Density inspection, area, edge position, edge width, arc edge, approximate straight line edge, angle detection, circle detection, ellipse detection, blob detection, 1D code reader, 2D code reader, number recognition, character recognition, analog meter reading, color detection	<b>Simulation mode data</b>	Log images, log data or from external USB memory device
<b>Model matching functions</b>	NCC matching, Shape matching	<b>Log records</b>	Log images, log data, archive images, screenshots
<b>Robot control functions</b>	Robot movement, robot movement correction, robot palletizing, robot hand, robot I/O	<b>SUPPORTED DEVICES</b>	
<b>Calculation functions</b>	Four basic calculations, angle calculations, multiple branching conditions calculation, maximum value/minimum value, numerical formula calculations, output value statistical, two straight line intersection, two point calculation	<b>Canon network camera</b>	VB-H45, VB-R13, VB-R13VE, VB-S30D Mk II, VB-S30VE, VB-S910F
<b>Image enhancement filters</b>	Grayscale binarization, contract -> expand, expand -> contract, Sobel filter, image subtraction	<b>AXIS network camera</b>	P1214, P1224-E, M1065-LW, M5065, V5915, P3905-R Mk II, P3915-R Mk II
<b>SYSTEM OPERATION</b>		<b>Robot on-hand camera</b>	Canon industrial camera N10-W02 (DENSO COBOTTA on-hand camera)
<b>Simultaneous camera connections</b>	Maximum 4 cameras per program including COBOTTA robot on-hand camera	<b>Robot</b>	DENSO COBOTTA (compliant with b-CAP communication over Ethernet)
<b>Number of robot connection</b>	1 robot (DENSO COBOTTA)	<b>PLC</b>	PLC that supports SLMP transmissions (QnA compatible 3E frame) (Mitsubishi Electric, etc.) PLC that supports Open User Communication transmissions (Siemens)
<b>JOB trigger input</b>	Robot, PLC, Internal timer trigger (Trigger count & Trigger interval)	<b>PC</b>	Siemens IPC Simatic IPC427E

IPC427E is a product of Siemens.

## Vision Edition system diagram



Canon Europe  
[canon-europe.com](http://canon-europe.com)  
[cijp@canon-europe.com](mailto:cijp@canon-europe.com)  
 English edition  
 Canon Europa NV 2019

